



Maryland Department of the Environment

**Annual Report on Financial Assurance Plans and
the Watershed Protection and Restoration
Program
-2016-**

Prepared by:
Maryland Department of the Environment

Prepared for:
Governor Larry Hogan
**The Senate Education, Health, and Environmental Affairs
Committee**
The House Environment and Transportation Committee

October 2016

For further information concerning this document contact:

Sediment, Stormwater, and Dam Safety Program
Water Management Administration
Maryland Department of the Environment
Baltimore, MD 21230
410-537-3543
www.mde.state.md.us

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I. Introduction

In May 2015, revisions to Maryland’s stormwater management program, passed by the General Assembly and signed into law by Governor Larry Hogan, did away with mandatory stormwater remediation fees. These revisions resulted in new fiscal reporting requirements for Maryland’s ten largest urban jurisdictions, which are Baltimore City and Anne Arundel, Baltimore, Carroll, Charles, Frederick, Harford, Howard, Montgomery, and Prince George’s Counties.

One of the new reporting requirements, financial assurance plans (FAPs), needs to demonstrate how stormwater restoration projects are going to be paid for over the next five years. The budget information included in the FAPs provides the financial roadmap for complying with the Environmental Protection Agency’s (EPA) Chesapeake Bay total maximum daily loads (TMDLs), also known as the “pollution diet” for the Bay. These plans, submitted on July 1, 2016, and every two years thereafter, are to be completed by each National Pollutant Discharge Elimination System (NPDES) Phase I municipal separate storm sewer system (MS4) jurisdiction. The plans must include the following:

- All actions required to meet MS4 permit requirements
- Annual and projected five year costs necessary to meet the impervious surface restoration plan (ISRP) requirements
- Annual and projected five year revenues that will be used toward meeting the ISRP requirement
- Any and all sources of funds used toward meeting MS4 permit requirements
- All specific actions and expenditures undertaken in the previous fiscal years to meet the ISRP requirement

In the first submission of the FAPs each jurisdiction must show its financial ability to pay for restoration practices. Specifically, the FAPs shall demonstrate sufficient funding for meeting 75% of the projected ISRP costs for the two year period immediately following the filing of the plan. Local governing bodies were required to hold public hearings and sign the plans for accuracy prior to submitting them to the Maryland Department of the Environment (MDE) for review. The law requires that MDE shall:

- Post FAPs on its website within 14 days of receipt
- Make a decision regarding the adequacy of these plans within 90 days of receipt
- Submit an annual evaluation of these plans to the Governor and the General Assembly by September 1st each year

A second reporting requirement for each MS4 jurisdiction, excluding Montgomery County, is to submit a Watershed Protection and Restoration Program (WPRP) Annual Report by July 1, 2016 and every year thereafter on the anniversary date of its MS4 permit. The Annual Report requires the following items:

- The number of properties, if any, subject to a stormwater remediation fee

- Any funding structure developed by the county or municipality, if any, including the amount of money collected from each classification of property assessed a fee
- The amount of money deposited into the Watershed Protection and Restoration Fund (WPRF) in the previous fiscal year by source
- The percentage and amount of funds in the local WPRF spent on each of the stormwater management purposes defined in the law
- All stormwater management projects implemented by the jurisdiction in the previous fiscal year for the ISRP requirement

This Annual Report on Financial Assurance Plans and the Watershed Protection and Restoration Program, 2016, fulfills the requirement of § 4-202.1(j)(7), Environment Article of the Annotated Code of Maryland. MDE's Executive Summary and Evaluation is included below, followed by individual evaluations of each MS4 jurisdiction's FAP and WPRP Annual Report. Finally, MDE provides a statewide summary of these programs and a conclusion of its analysis. This report is the culmination of numerous local and State employees' hard work and the support of many elected officials. All are commended for their effort in developing and implementing these very important environmental programs for improving local water resources and restoring the Chesapeake Bay.

II. Primary Information

Significant Dates and Approval for Financial Assurance Plans (FAPs) and Watershed Protection and Restoration Program (WPRP) Annual Reports

MS4 Jurisdiction	FAP Submission Date	WPRP Annual Report Submission Date	Date of Public Hearing for FAP	FAP Approved by Local Governing Body (Y/N)	Comments
Anne Arundel County	6/28/2016	6/28/2016	7/5/2016	Y	
Baltimore City	7/1/2016	7/1/2016	6/8/2016	Y	
Baltimore County	7/13/2016	7/1/2016	9/13/2016	Y	
Carroll County	6/30/2016	7/27/2016	6/9/2016	Y	
Charles County	6/29/2016	6/29/2016	6/7/2016	Y	
Frederick County	6/28/2016	6/28/2016	8/15/2016	Y	
Harford County	6/24/2016	6/24/2016	6/14/2016	Y	
Howard County	7/1/2016	7/1/2016	6/20/2016	Y	
Montgomery County	7/1/2016	n/a	6/14/2016	Y	Montgomery County was not required to submit an annual report.
Prince George's County	6/30/2016	6/30/2016	10/11/2016	N	The County Council plans to approve the FAP in November 2016.

Specific Actions Completed Through FY2016 to Meet ISRP Permit Requirements

MS4	Acres Required to be Restored (Impervious Acre Baseline)	Impervious Acre Baseline Accepted by MDE (Y/P/N) ¹	Acres Restored	Cost ²	Average Cost per Acre	Restoration Complete ³
Anne Arundel County	5,862	Y	649	\$6,596,505	\$10,159	11.1%
Baltimore City	4,291	Y	2,372	10,561,649	4,454	55.3%
Baltimore County	6,036	Y	1,203	11,388,763	9,467	19.9%
Carroll County	1,344	P	1,123	12,576,575	11,199	83.6%
Charles County	1,410	P	223	6,592,038	29,508	15.8%
Frederick County	1,013	P	161	10,192,516	63,491	15.8%
Harford County	1,883	P	487	5,793,000	11,887	25.9%
Howard County	2,044	P	157	12,838,020	81,771	7.7%
Montgomery County	3,777	Y	1,780	75,031,122	42,152	47.1%
Prince George's County	6,105	Y	139	3,563,000	25,633	2.3%
Totals:	33,765		8,294	155,133,187	\$18,704	26.4%

1 Y=Yes, P=Pending, N=No

2 Cost from Specific (Spec) Actions worksheet.

3 Percent of untreated impervious surfaces restored toward meeting the impervious surface area requirement.

III. Executive Summary and Evaluation

- This evaluation of the FAPs is comprised of budget and restoration information that have been provided by each MS4 phase I permitted jurisdiction. Each locality has held public hearings and each plan has been signed by the local governing body, except for Prince George's County.
- Anne Arundel, Baltimore, Carroll, Charles, Frederick, Harford, Howard, Montgomery, and Prince George's Counties, and Baltimore City submitted comprehensive information on local projects for meeting ISRP requirements, including:
 - Annual Programs: street sweeping, inlet cleaning, storm drain vacuuming
 - Structural Practices: wet ponds, swales, infiltration, dry wells, rain gardens, green roofs, permeable pavement, rainwater harvesting, submerged gravel wetlands
 - Alternative Practices: tree planting, outfall stabilization, stream restoration
- All MS4s showed that they have the budgets necessary to fund at least 75% of the ISRP requirements over the next two State fiscal years (FY2017 and FY2018).
- Statewide, the specific actions implemented by the MS4s for meeting ISRP requirements through FY2015 are on average 26% complete, with another 62% projected for implementation over the next two fiscal years.
- The average cost per impervious acre restored through the end of FY2015 is \$18,704 and for projected projects over the next two years, \$32,126.
- Several proposed practices for meeting the ISRP requirement have yet to be approved by MDE or the Chesapeake Bay Program (e.g., dry ponds, bridge deck cleaning, and floodplain riparian buffer easements) and may only be options for impervious area credit with additional monitoring data and justification to support the practices' pollutant removal efficiencies.
- Several jurisdictions are implementing restoration practices provided in MDE's guidance document, *Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated, Guidance for National Pollutant Discharge Elimination System Stormwater Permits, August, 2014*, but are not taking credit for these practices. Some of these include street sweeping, inlet cleaning, tree planting, and septic system upgrades. MDE encourages jurisdictions to examine the local implementation of these practices more fully to see how they can be used for additional impervious area restoration credit.
- Anne Arundel, Baltimore, Charles, Frederick, and Harford Counties proposed improving the performance of publicly owned treatment works (POTW) in an amount equivalent to the impervious area pollutant reductions for up to 50% of the ISRP requirements. MDE is considering how the overachievement in nutrient reduction in the wastewater sector can be utilized by MS4 permittees in characterizing progress toward meeting TMDL goals. As a matter of policy, MDE supports this option as a cost-effective means for achieving pollutant

reductions and is committed to addressing how regulatory process requirements, including permit language and public participation, can be satisfied under this scenario. Until formal processes are in place, MS4s should explore all currently approved BMP options for meeting the ISRP requirements.

- MDE shall provide further detailed assessments of these plans to each jurisdiction in compliance with the revised stormwater management law requiring FAPs.

Projected ISRP Implementation for the Next Two Fiscal Years to Meet ISRP Requirements

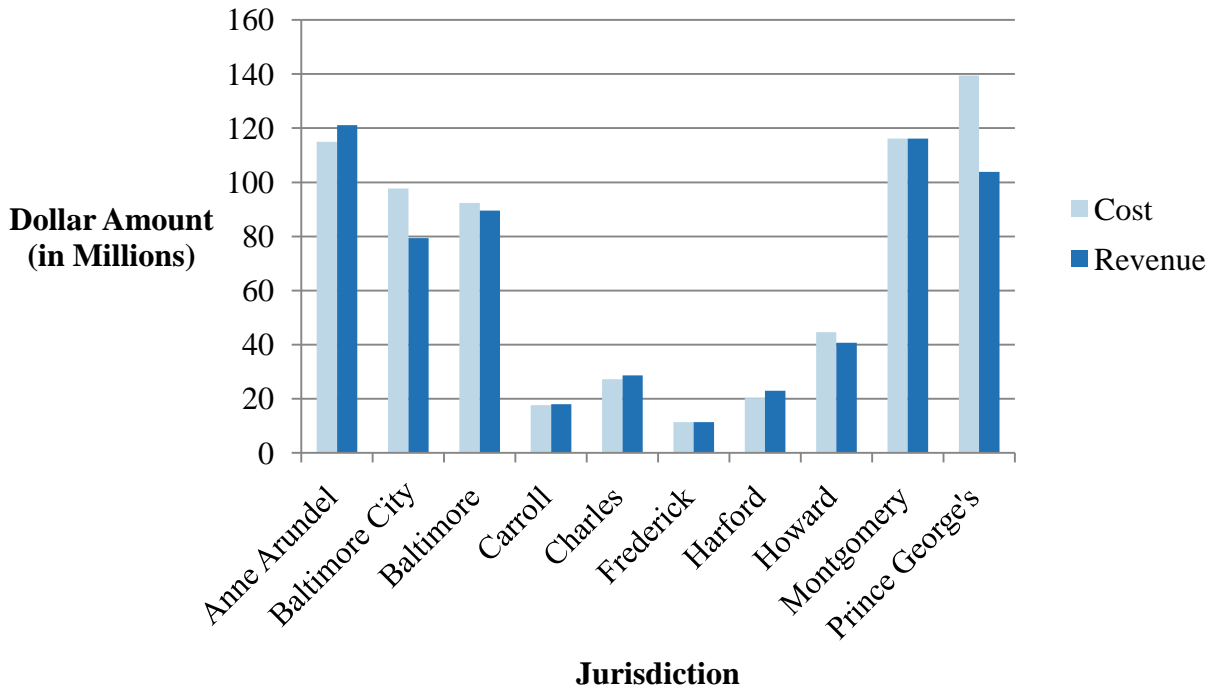
MS4	Impervious Acre (IA) Baseline	IA Accepted by MDE (Y/P/N) ¹	Acres Projected to be Restored	Cost ²	Average Cost per Acre	Restoration Projected ³
Anne Arundel County	5,862	Y	4,201	\$77,301,728	\$18,403	71.7%
Baltimore City	4,291	Y	3,758	28,916,682	7,694	87.6%
Baltimore County	6,036	Y	5,128	111,198,575	21,686	85.0%
Carroll County	1,344	P	458	12,090,000	26,411	34.1%
Charles County	1,410	P	1,238	25,921,551	20,937	87.8%
Frederick County	1,013	P	320	17,622,629	55,140	31.5%
Harford County	1,883	P	1,586	18,040,000	11,375	84.2%
Howard County	2,044	P	750	44,661,270	59,509	36.7%
Montgomery County	3,777	Y	1,571	116,102,260	73,894	41.6%
Prince George's County	6,105	Y	3,854	101,007,378	26,210	63.1%
Totals:	33,765		23,964	\$552,862,073	\$31,744	64%

1 Y=Yes, P=Pending, N=No

2 Cost from All Actions worksheet.

3 Percent of untreated impervious surfaces restored toward meeting the impervious surface area requirement.

Fulfillment of 75% Revenue Requirement for Two-Year Costs



MS4	Cost ¹	Revenue ¹	Percent of Cost Covered	Meets 75% Requirement (Y/N)
Anne Arundel County	\$115.0M	\$121.1M	105%	Y
Baltimore City	97.7M	79.4M	81%	Y
Baltimore County	92.4M	89.5M	97%	Y
Carroll County	17.7M	18.1M	102%	Y
Charles County	27.3M	28.7M	105%	Y
Frederick County	11.4M	11.4M	100%	Y
Harford County	20.3M	23.0M	113%	Y
Howard County	44.7M	40.8M	91%	Y
Montgomery County	116.1M	116.1M	100%	Y
Prince George's County	139.4M	103.9M	75%	Y
Totals:	\$681,889,942	\$631,982,429		

¹ Cost and Revenue from ISRP Revenue worksheet.

IV. Financial Assurance Plans

Anne Arundel County

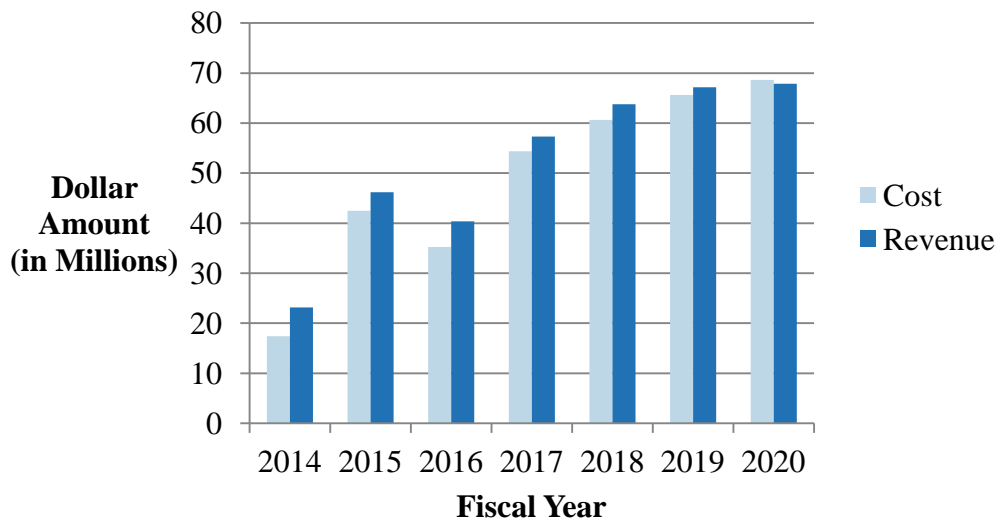
Impervious acre baseline: 5,862

Restored acres: 649

Projected restored acres: 4,682

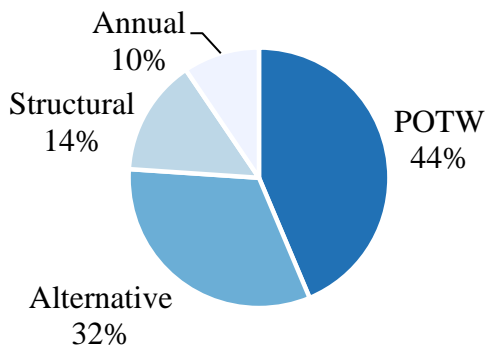
- Cost/acre for completed projects: \$10,159
- Percentage of revenue budgeted to cover next two-year costs: 105%
- Costs for funding the next two-years of the ISRP requirement: \$114,986,205
- Cost/acre for completed and projected projects during the entire permit term: \$20,102

Impervious Surface Restoration Plan Cost and Revenue

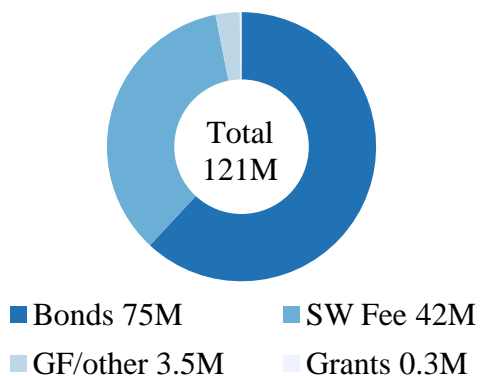


- The County erroneously included an unapproved BMP, “Base” in the “All Actions” worksheet to achieve 1,200 acres of treatment, or 20% of the ISRP requirement. MDE has adjusted the County’s FAP where appropriate to only include BMPs directly related to the implementation of the ISRP requirement during this permit term.
- The County proposes 2,044 acres of treatment, or 35% of its ISRP requirement, by improving the performance of locally-owned POTWs in an amount equivalent to the impervious area pollutant reductions. Until there is a formal, comprehensive cross-sector nutrient trading program in Maryland, the County should continue to explore all currently approved stormwater BMP options for meeting the ISRP requirement.
- The County should investigate a process for taking advantage of volunteer efforts regarding BMP implementation that are proliferating throughout the County for restoration credit and cost savings.

BMP Types Implemented During Permit Term (FY2014-2018)



Sources of Funds (FY2017-2018)



Baltimore City

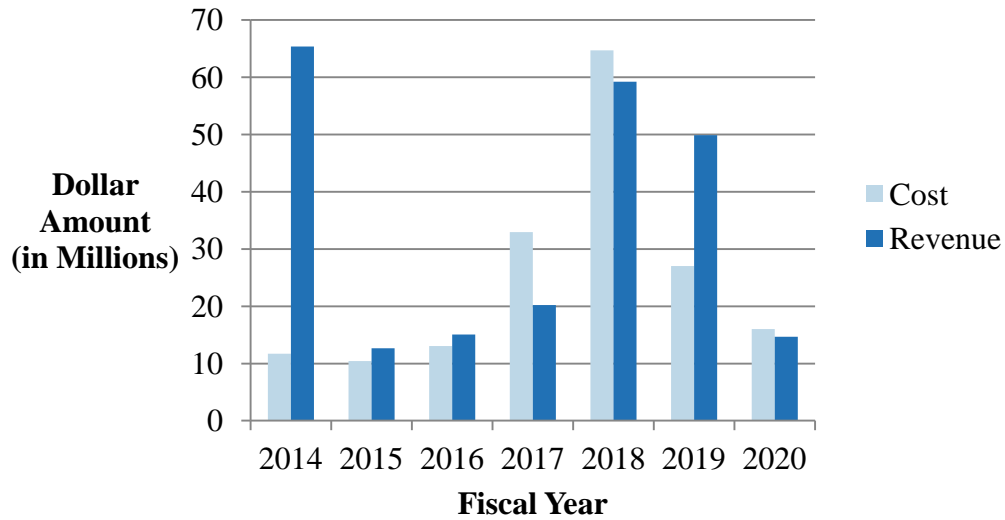
Impervious acre baseline: 4,291

Restored acres: 2,372

Projected restored acres: 4,588

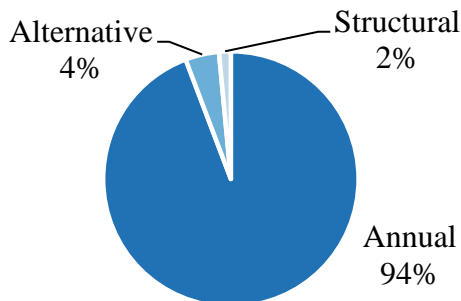
- Cost/acre for completed projects: \$4,454
- Percentage of revenue budgeted to cover next two-year costs: 81%
- Costs for funding the next two-years of the ISRP requirement: \$97,655,049
- Cost/acre for completed and projected projects during the entire permit term: \$24,420

Impervious Surface Restoration Plan Cost and Revenue

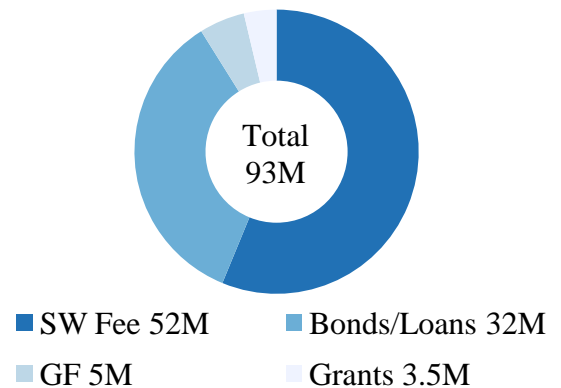


- In FY2018, the City projected that it will attain 3,175 impervious acres of credit from street sweeping, or 74% of its ISRP requirement. The City is also relying heavily upon stream restoration projects to meet its stormwater restoration goals.
- The implementation of annual BMPs (e.g., street sweeping, storm drain vacuuming) can fluctuate significantly from year to year, and stream restoration projects can take several years to go from planning to implementation. If the implementation of any of these projected BMPs falls short, additional BMPs will need to be implemented.
- In FY2019, the City projected numerous opportunities to restore impervious areas at little or no additional cost to the City, including redevelopment (150 acres) and volunteer activities (129 acres). These affordable BMP options should be maximized.

BMP Types Implemented During Permit Term (FY2014-2018)



Sources of Funds (FY2017-2018)



Baltimore County

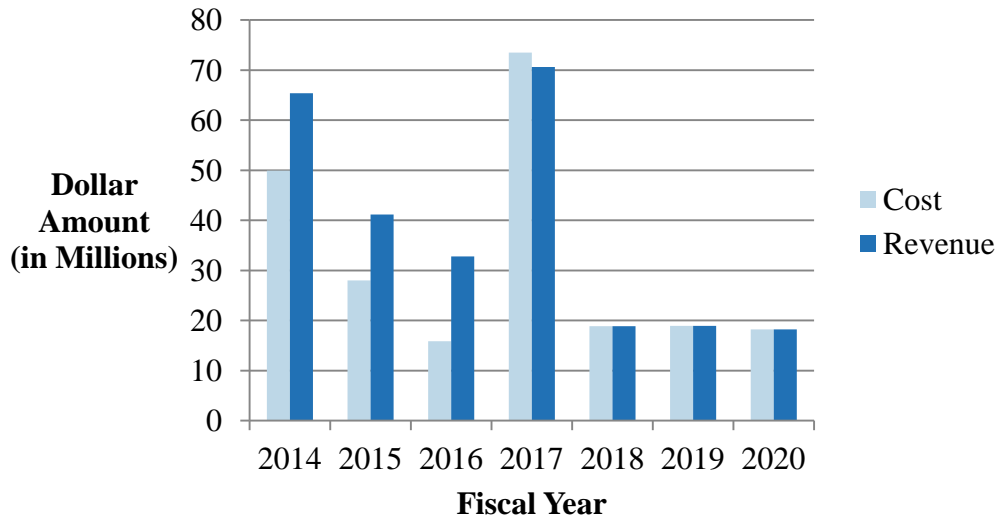
Impervious acre baseline: 6,036

Restored acres: 1,203

Projected restored acres: 6,061

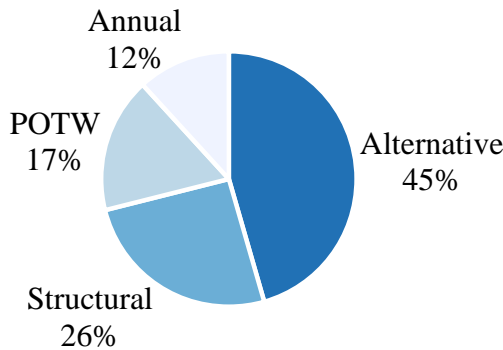
- Cost/acre for completed projects: \$9,467
- Percentage of revenue budgeted to cover next two-year costs: 97%
- Costs for funding the next two-years of the ISRP requirement: \$92,370,484
- Cost/acre for completed and projected projects during the entire permit term: \$24,519

Impervious Surface Restoration Plan Cost and Revenue

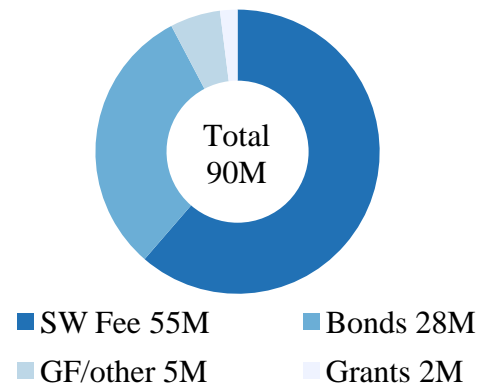


- A public hearing was held on September 13, 2016 and the Baltimore County Council approved the County’s FAP on September 19, 2016.
- The County proposed 1,000 acres of treatment, or 17% of its ISRP requirement, by improving the performance of locally-owned POTWs in an amount equivalent to the impervious area pollutant reductions. Until there is a formal, comprehensive cross-sector nutrient trading program in Maryland, the County should continue to explore all currently approved stormwater BMP options for meeting its ISRP requirement.
- The County indicated that a number of practices will be implemented by volunteers (e.g., rain barrels, tree planting, and septic pumping). Because these practices are implemented at little or no additional cost to the County for restoration credit, these affordable options should be maximized.

BMP Types Implemented During Permit Term (FY2014-2018)



Sources of Funds (FY2017-2018)



Carroll County

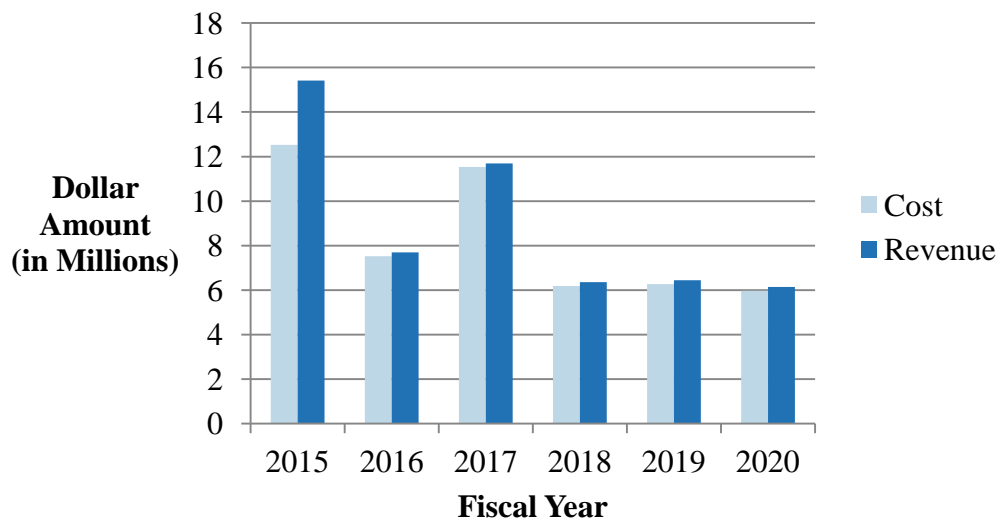
Impervious acre baseline: 1,344

Restored acres: 1,123

Projected restored acres: 1,964

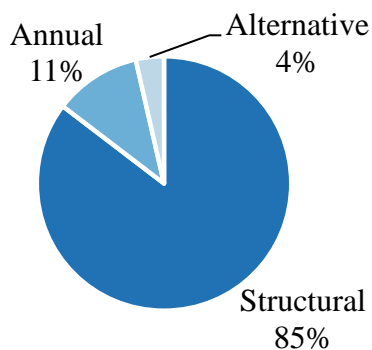
- Cost/acre for completed projects: \$11,199
- Percentage of revenue budgeted to cover next two-year costs: 102%
- Costs for funding the next two-years of the ISRP requirement: \$17,726,028
- Cost/acre for completed and projected projects during the entire permit term: \$15,468

Impervious Surface Restoration Plan Cost and Revenue

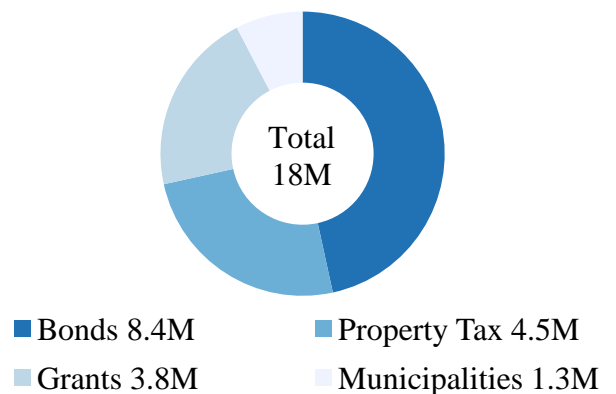


- The County indicated that 79% of its ISRP revenue for the next two years comes from bonds, property taxes, and municipalities, while 21% comes from external grant sources. The County will need to be prepared to increase its local budget and bonds should external grant sources decrease in future years.
- The County listed “Flood Management Area” and “Sheetflow to Conservation Areas” as best management practices (BMP) for achieving 26% of its ISRP requirement that are not currently approved by MDE for restoration credit. Until more monitoring data or clarification can be provided for the use of these BMPs, the County should explore all currently approved stormwater BMP options for meeting the ISRP requirement.
- The County should encourage more low cost homeowner BMPs including rain barrels, rain gardens, and tree planting. These affordable BMP options provide great opportunities for citizen outreach and ISRP implementation.

BMP Types Implemented During Permit Term (FY2015-2019)



Sources of Funds (FY2017-2018)



Charles County

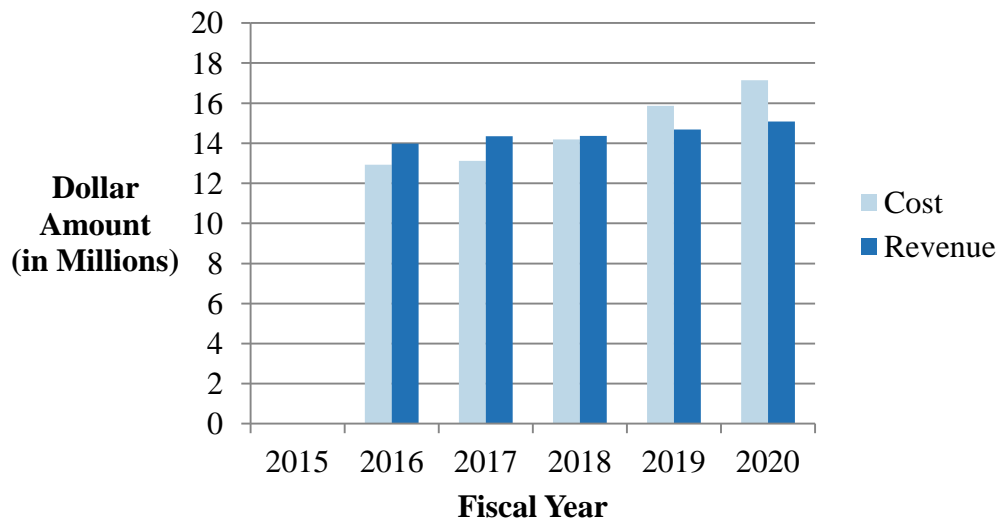
Impervious acre baseline: 1,410

Restored acres: 223

Projected restored acres: 1,500

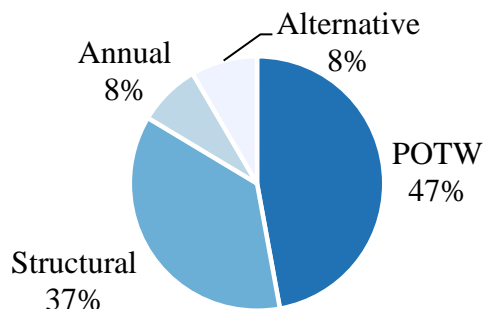
- Cost/acre for completed projects: \$29,508
- Percentage of revenue budgeted to cover next two-year costs: 105%
- Costs for funding the next two-years of the ISRP requirement: \$27,304,800
- Cost/acre for completed and projected projects during the entire permit term: \$23,261

Impervious Surface Restoration Plan Cost and Revenue

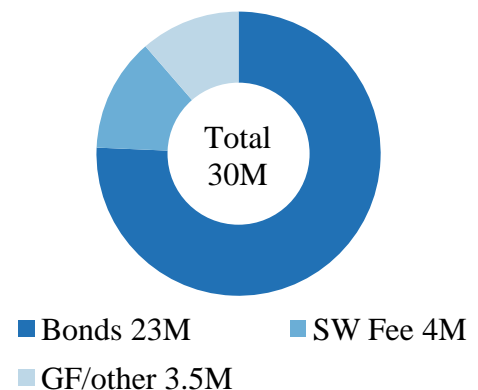


- The County proposed to implement a diverse mix of stormwater management projects for meeting ISRP requirements, ranging from traditional structural practices to newer environmental site design (ESD) techniques.
- Because stream restoration projects can take several years to complete, the County should be prepared to implement back-up BMPs to ensure that restoration targets can be met should there be any delays in the projects currently under design and projected to be completed during the permit term.
- The County proposed 705 acres of treatment, or 47% of the total impervious acres restored, by improving the performance of locally-owned POTWs in an amount equivalent to the impervious area pollutant reductions. Until there is a formal, comprehensive cross-sector nutrient trading program in Maryland, the County should continue to explore all currently approved stormwater BMP options for meeting the ISRP requirement.

BMP Types Implemented During Permit Term (FY2015-2020)



Sources of Funds (FY2017-2018)



Frederick County

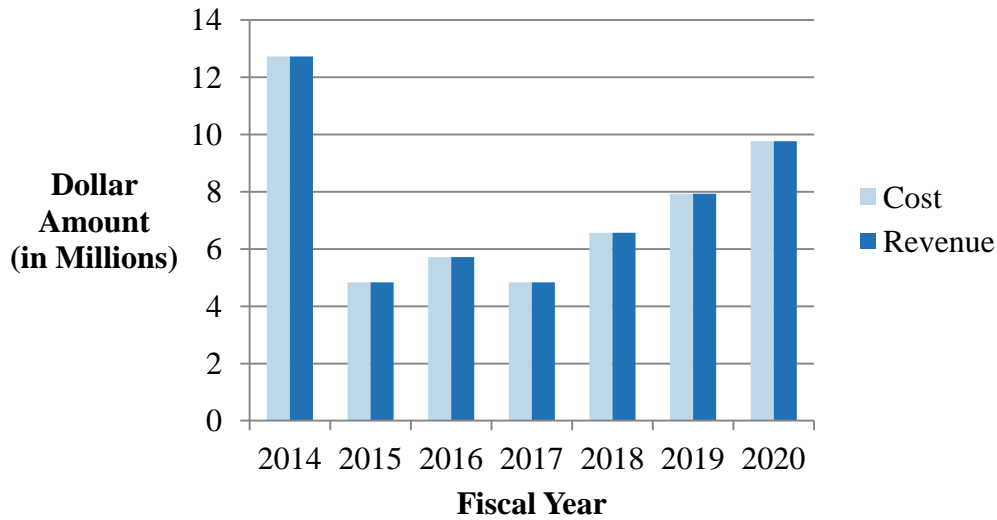
Impervious acre baseline: 1,013

Restored acres: 161

Projected restored acres: 746

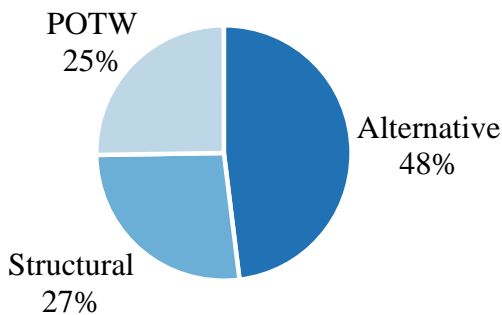
- Cost/acre for completed projects: \$63,491
- Percentage of revenue budgeted to cover next two-year costs: 100%
- Costs for funding the next two-years of the ISRP requirement: \$11,408,093
- Cost/acre for completed and projected projects during the entire permit term: \$38,680

Impervious Surface Restoration Plan Cost and Revenue

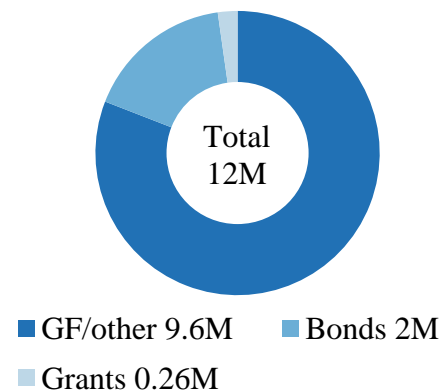


- A public hearing was held on August 15, 2016 and the County’s FAP has been approved by the local governing body.
- The County proposed 256 acres of treatment, or 25% of its ISRP requirement, by improving the performance of locally-owned POTWs in an amount equivalent to the impervious area pollutant reductions. Until there is a formal, comprehensive cross-sector nutrient trading program in Maryland, the County should continue to explore all currently approved stormwater BMP options for meeting the ISRP requirement.
- The County’s FAP included multiple approved restoration practices that are not being claimed for impervious area credit (i.e., street sweeping, storm drain vacuuming, and catch basin cleaning). These practices can help the County meet its restoration goals, reduce program cost, and should be proposed for credit. The County should encourage more low cost homeowner BMPs including rain barrels, rain gardens, and tree planting. These affordable BMP options provide great opportunities for citizen outreach and ISRP implementation.

BMP Types Implemented During Permit Term (FY2015-2020)



Sources of Funds (FY2017-2018)



Harford County

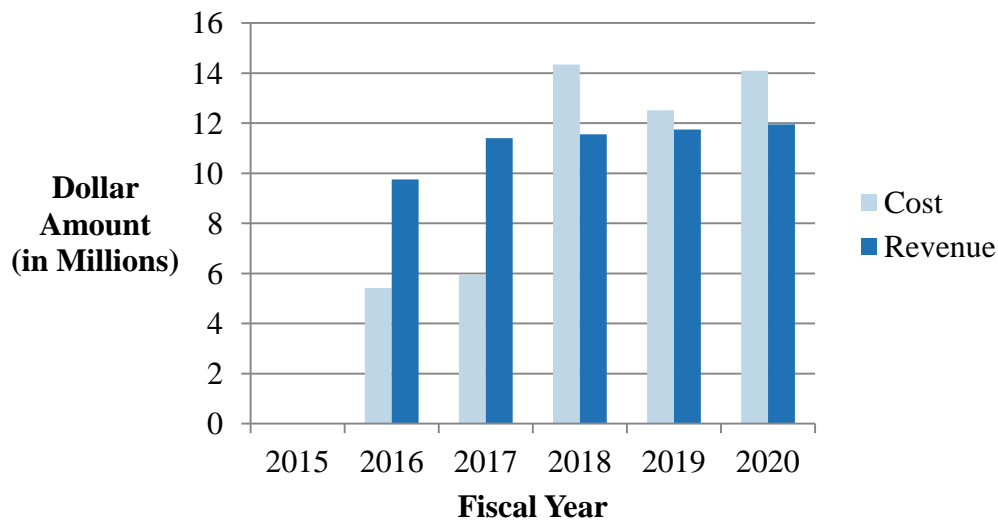
Impervious acre baseline: 1,883

Restored acres: 487

Projected restored acres: 2,279

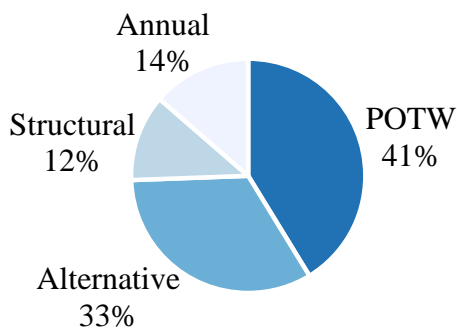
- Cost/acre for completed projects: \$11,887
- Percentage of revenue budgeted to cover next two-year costs: 88%
- Costs for funding the next two-years of the ISRP requirement: \$20,271,000
- Cost/acre for completed and projected projects during the entire permit term: \$20,354

Impervious Surface Restoration Plan Cost and Revenue

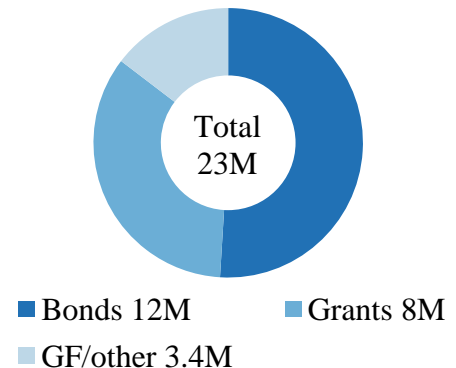


- The County indicated that 66% of its ISRP revenue for the next two years comes from its local budget and bonds, while 34% comes from external grant sources. The County will need to be prepared to increase its local budget and bonds should external grant sources decrease in future years.
- The County proposed numerous restoration options that incur little or no additional cost to its budget, including septic pumping, septic upgrades, and septic connections to POTWs. The County should also encourage other low cost homeowner BMPs including rain barrels, rain gardens, and tree planting. These affordable BMP options should be maximized.
- The County proposed 940 acres of treatment, or 41% of the total impervious acres restored, by improving the performance of locally-owned POTWs in an amount equivalent to the impervious area pollutant reductions. Because the County’s FAP showed that it can exceed the ISRP requirement through numerous BMP options, the full use of the POTW credits may not be needed. Additionally, until there is a formal, comprehensive cross-sector nutrient trading program in Maryland, the County should continue to explore all currently approved stormwater BMP options for meeting the ISRP requirement.

BMP Types Implemented During Permit Term (FY2015-2020)



Sources of Funds (FY2017-2018)



Howard County

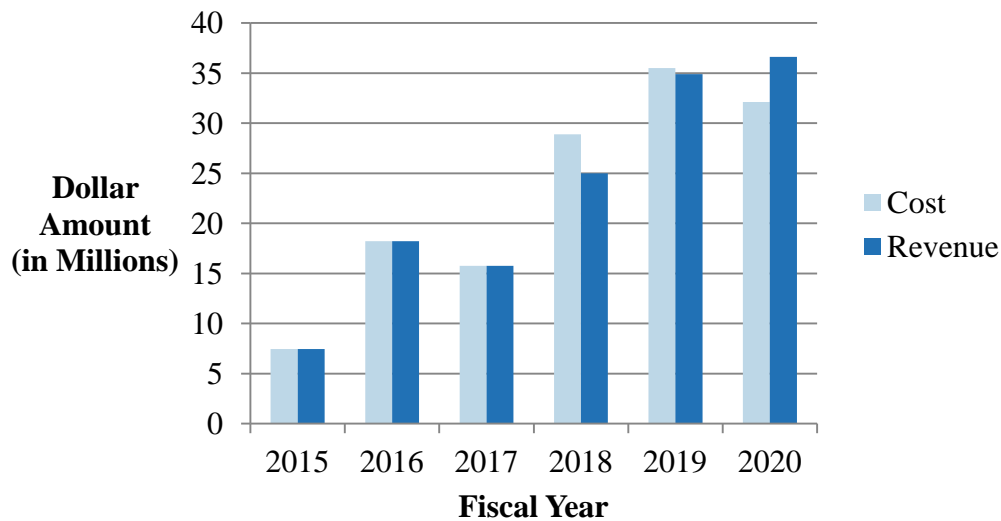
Impervious acre baseline: 2,044

Restored acres: 157

Projected restored acres: 1,745

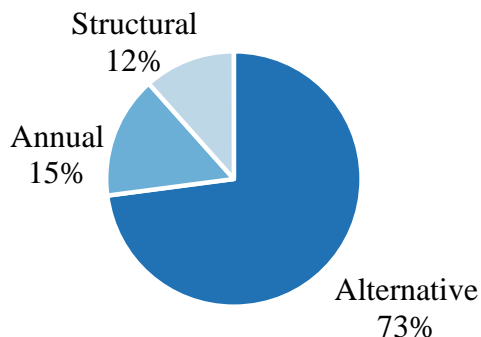
- Cost/acre for completed projects: \$81,771
- Percentage of revenue budgeted to cover next two-year costs: 91%
- Costs for funding the next two-years of the ISRP requirement: \$44,661,270
- Cost/acre for completed and projected projects during the entire permit term: \$60,661

Impervious Surface Restoration Plan Cost and Revenue

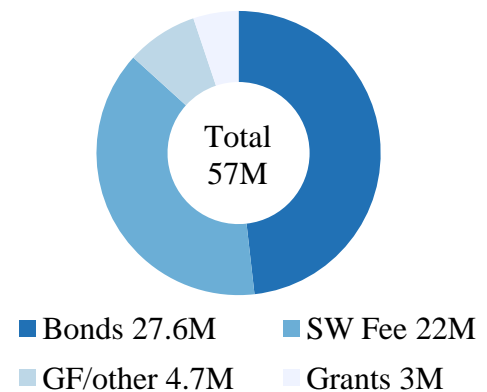


- There are a number of proposed projects that the County reported as “BMP Conversions”, “Pond Conversions”, “BMP Maintenance” or “New BMPs” for 6% of ISRP requirement. The County needs to provide greater specificity regarding these proposed projects so that they can be validated.
- The County’s FAP included two approved restoration practices that are not being claimed for impervious area credit (i.e., street sweeping and inlet cleaning). These practices can help the County meet its restoration goals, reduce program cost, and should be proposed for credit.
- The County is relying heavily upon volunteer activities including homeowner implementation of rain barrels, rain gardens, and tree planting. These affordable BMP options provide great opportunities for citizen outreach and ISRP implementation, and should be maximized.

BMP Types Implemented During Permit Term (FY2015-2019)



Sources of Funds (FY2017-2018)



Montgomery County

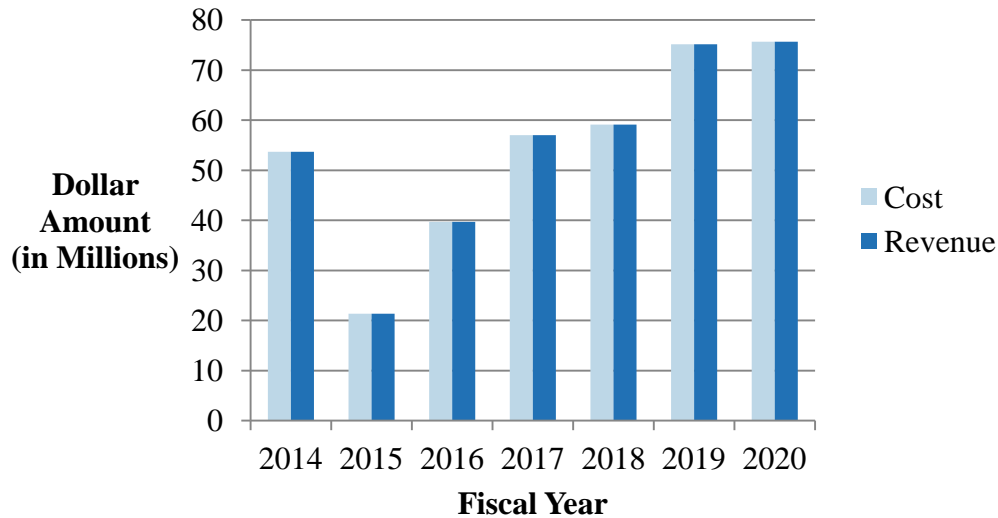
Impervious acre baseline: 3,777

Restored acres: 1,780

Projected restored acres: 3,629

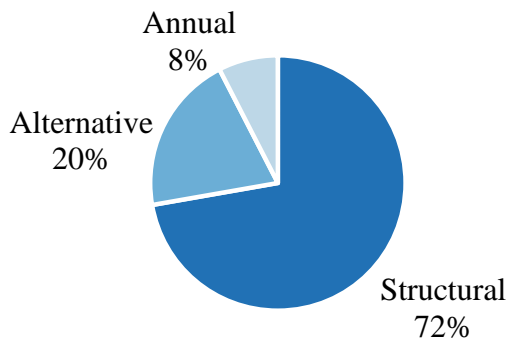
- Cost/acre for completed projects: \$42,152
- Percentage of revenue budgeted to cover next two-year costs: 100%
- Costs for funding the next two-years of the ISRP requirement: \$116,102,260
- Cost/acre for completed and projected projects during the entire permit term: \$63,604

Impervious Surface Restoration Plan Cost and Revenue

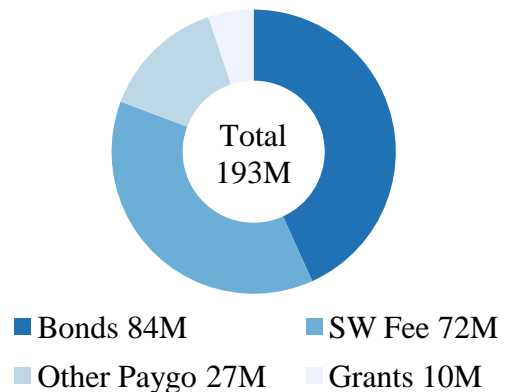


- The County’s FAP included multiple approved restoration practices that are not being claimed for impervious area credit (i.e., street sweeping, catch basin cleaning, and RainScapes). These practices can help the County meet its restoration goals, reduce program cost, and should be proposed for credit.
- The County has proposed dry ponds for 216 impervious acres of credit, or 6% of its ISRP requirement, yet this practice is not an approved water quality BMP by MDE or the Bay Program. Unless additional water quality design features can be provided for these BMPs, the County should continue to explore all currently approved stormwater BMP options for meeting the ISRP requirement.
- There are a number of completed projects that the County reported as “other”, which treat a total of approximately 128 impervious acres, or 3% of its ISRP requirement. The County needs to provide greater specificity regarding these completed projects so that they can be validated.

BMP Types Implemented During Permit Term (FY2014-2018)



Sources of Funds (FY2017-2018)



Prince George's County

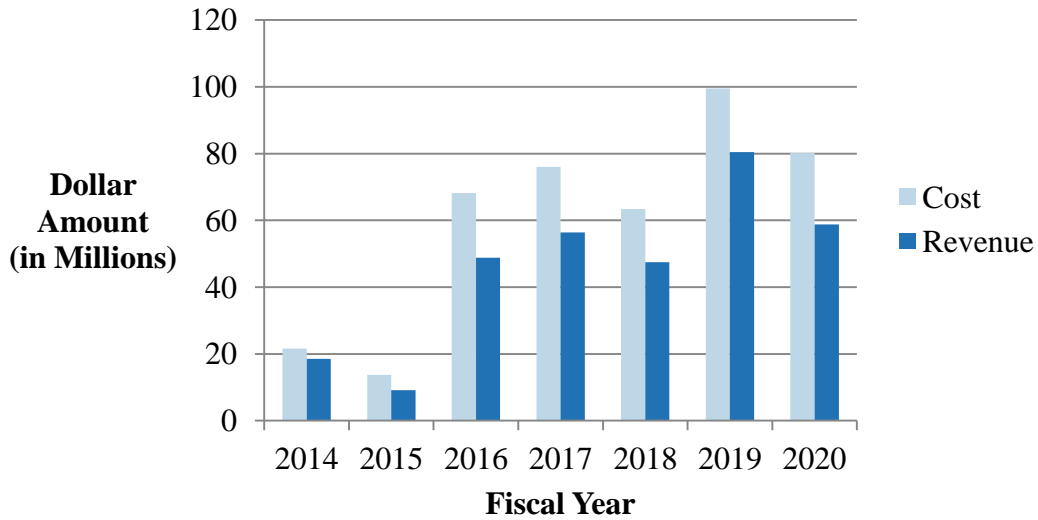
Impervious acre baseline: 6,105

Restored acres: 139

Projected restored acres: 6,211

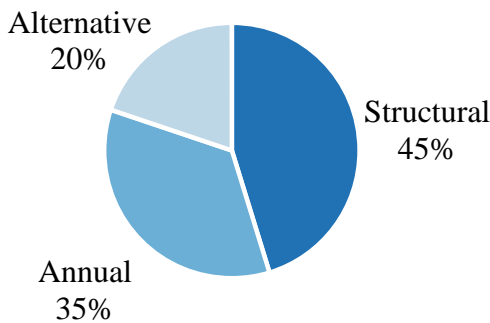
- Cost/acre for completed projects: \$25,633
- Percentage of revenue budgeted to cover next two-year costs: 75%
- Costs for funding the next two-years of the ISRP requirement: \$139,404,753
- Cost/acre for completed and projected projects during the entire permit term: \$46,309

Impervious Surface Restoration Plan Cost and Revenue

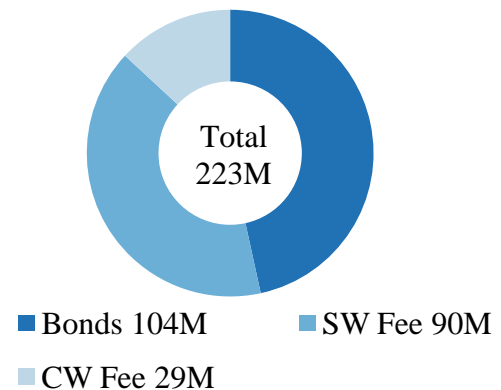


- The County's FAP has not been approved by the local governing body, which is required by the law.
- Within three years, the County proposed to obtain 911 acres of credit through 91,100 linear feet of stream restoration. Because stream restoration projects can take several years to complete, the County may need to implement back-up BMPs to ensure that restoration targets can be met should stream restoration projections fall short.
- The County has over-estimated the amount of credit achieved through their street sweeping program. As a result, the County may need to adjust implementation strategies to ensure that restoration targets can be met.
- The County proposed several BMPs, including septic upgrades and redevelopment credits that can be implemented through the normal development process or independently by homeowners. These affordable BMP options provide great opportunities for citizen outreach and ISRP implementation, and should be maximized.

BMP Types Implemented During Permit Term (FY2014-2019)



Sources of Funds Before Debt Service Installment (FY2017-2018)



V. Watershed Protection and Restoration Program Annual Reports

- Stormwater remediation fees are now optional for MS4 jurisdictions.
- Eight MS4 jurisdictions have fees; two jurisdictions obtain funds through taxes.
- Residential fees range from \$0.01 to \$170.
- For the jurisdictions that have a fee, the number of properties subject to fees range from 49,394 to 260,553.

Sources of Funds for the WPRF

Jurisdiction	Number of Properties Subject to a Stormwater Remediation Fee	Total Stormwater Remediation Fees	Total Additional Sources of Funds	Total
Anne Arundel County	171,046	\$16,168,584	\$1,308,209	\$17,476,794
Baltimore City	223,623	28,302,000	86,130	28,388,130
Baltimore County ¹	256,060	24,444,149	10,032,061	34,476,210
Carroll County	0	0	1,066,890	1,066,890
Charles County	49,742	2,124,017	68,509	2,192,526
Frederick County	49,394	494	0	494
Harford County	0	0	0	0
Howard County	93,163	11,105,687	0	11,105,687
Montgomery County ²	n/a	n/a	n/a	
Prince George's County	260,553	14,669,145	0	14,669,145
Total	1,103,581	\$96,814,076	\$12,561,799	\$109,375,876

*For further details on the WPRP, refer to the WPRP Annual Reports in the appendices.

1. Baltimore County provided estimates of fees collected.
2. Montgomery County was not required to report this data.

VI. Summary and Conclusions

1. All Phase I MS4s in Maryland, including Anne Arundel, Baltimore, Carroll, Charles, Frederick, Harford, Howard, Montgomery, and Prince George's Counties, and Baltimore City, submitted comprehensive lists of projects for meeting ISRP requirements. Typical practices included:
 - a. Annual Programs: street sweeping, inlet cleaning, storm drain vacuuming
 - b. Structural Practices: wet ponds, swales, infiltration, dry wells, rain gardens, green roofs, permeable pavement, rainwater harvesting, submerged gravel wetlands
 - c. Alternative Practices: tree planting, outfall stabilization, stream restoration
2. All MS4s showed that they have the budgets necessary to fund at least 75% of the ISRP requirements over the next two State fiscal years (FY2017 and FY2018).
3. Statewide, projects completed and projected for ISRP implementation over the course of the five year permit term achieve 102% of the restoration requirement at the cost of \$33,738 per acre.
4. Several proposed practices for meeting the ISRP requirement have not been approved by MDE or the Chesapeake Bay Program (e.g., dry ponds, bridge deck cleaning, and floodplain riparian buffer easements) and may only be options for impervious area credit with additional monitoring data and justification to support the practice's pollutant removal efficiencies.
5. Several jurisdictions are implementing restoration practices provided in MDE's guidance document, *Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated, Guidance for National Pollutant Discharge Elimination System Stormwater Permits, August, 2014*, but are not taking credit for these practices. Some of these include street sweeping, inlet cleaning, tree planting, and septic system upgrades. MDE encourages jurisdictions to examine the local implementation of these practices more fully to see how they can be used for additional impervious area restoration credit.
6. MDE's 90 day review of the FAPs will provide further technical details on each MS4 submission. In instances where BMP implementation or budgetary information is unclear, MDE will assist each MS4 in providing the clarification in subsequent submittals.
7. Anne Arundel, Baltimore, Charles, Frederick, and Harford Counties proposed improving the performance of publicly owned treatment works (POTW) in an amount equivalent to the impervious area pollutant reductions for up to 50% of the ISRP requirements. MDE is considering how the overachievement in nutrient reduction in the wastewater sector can be utilized by MS4 permittees in characterizing progress toward meeting TMDL goals. As a matter of policy, MDE supports this option as a cost-effective means for achieving pollutant reductions and is committed to addressing how regulatory process requirements, including permit language and public participation, can be satisfied under this scenario. Until formal processes are in place, MS4s should explore all currently approved BMP options for meeting the ISRP requirements.

Completed and Projected Projects to Meet the ISRP Five Year Permit Term Requirements

MS4	Impervious Acre (IA) Baseline	IA Accepted by MDE (Y/P/N) ¹	Acres Completed and Projected to be Restored	Restoration Cost ²	Average Cost per Acre	Restoration Completed and Projected ³
Anne Arundel County	5,862	Y	4,682	\$94,117,808	\$20,102	79.9%
Baltimore City	4,291	Y	4,588	112,040,918	24,420	106.9%
Baltimore County	6,036	Y	6,061	148,596,014	24,519	100.4%
Carroll County	1,344	P	1,964	30,386,235	15,468	146.2%
Charles County	1,410	P	1,500	34,902,646	23,261	106.4%
Frederick County	1,013	P	746	28,837,574	38,680	73.6%
Harford County	1,883	P	2,279	46,388,000	20,354	121.0%
Howard County	2,044	P	1,745	105,838,122	60,661	85.4%
Montgomery County	3,777	Y	3,629	230,814,187	63,604	96.1%
Prince George's County	6,105	Y	6,211	287,603,535	46,309	101.7%
Totals:	33,765		34,604	\$1,119,525,039	\$33,738	102%

1 Y=Yes, P=Pending, N=No

2 Cost from All Actions worksheet.

3 Percent of untreated impervious surfaces restored toward meeting the impervious surface area requirement.

8. Several jurisdictions have proposed implementation plans that fall short of meeting their ISRP requirements during the five year permit term. For example, Anne Arundel County's projected implementation plan can meet 79.9% of its ISRP requirement, Frederick County's projected implementation plan can meet 73.6% of its ISRP requirement and Howard County's projected implementation plan can meet 85.4% of its ISRP requirement. MDE will meet with these jurisdictions and assist them in developing adaptive management strategies for achieving permit requirements during the current permit term.

9. During its five year permit term that ended February 16, 2015, Montgomery County was able to meet 47% of its ISRP requirement. When FAP and ISRP requirements are not met within the five year permit term, MDE will pursue enforcement action according to § 9-334(a)(3), § 9-335(a), § 9-338, § 9-342, Environment Article, Annotated Code of Maryland, to bring a jurisdiction into compliance.

10. MDE will require the submittal of future FAPs and WPRP Annual Reports to be synchronized with the existing MS4 annual report schedules for easing reporting burdens on local governments and thereby increasing restoration implementation.

VII. Definitions

Annual escalation: The practice of adjusting current values to account for future increases.

Annual escalation can account for increases in value of labor and materials.

Appropriation: Authorization from the legislation to spend money from a specific funding source for the purposes allowed by law. Appropriations specify both the amount and funding source. Appropriations must be approved before a contract mechanism can be approved.

BMP: Best Management Practice, these include structural (ponds), ESD, and alternative practices.

Budget: Plan or authorization for revenues and expenditures within a fixed period of time.

CIP: Capital improvement plan. A project must cost more than \$250,000 and be associated with a specific asset which will depreciate over time.

Debt service: Portion of capital expenditures which is paid using mechanisms to extend the payment over a specified period of time. Debt service mechanisms include bonds and loans, which include costs for administration and interest.

Encumbrance: Commitment of money to meet an obligation for goods and services. Once a contract or agreements is approved, the money is encumbered into the budget to secure those funds.

EPA: United States Environmental Protection Agency

ESD: Environmental Site Design (aka Low Impact Development / LID), comprehensive strategy for maintaining predevelopment runoff characteristics by integrating site design, natural hydrology, and smaller controls to capture and treat runoff at the source, like micro-bioretenion.

Expenditure: The amount of money that is actually spent.

FAP: Financial Assurance Plan; state required 5-year projection of funding and expenses related to the MS4 permit.

Fiscal year: July 1 to June 30

Grant: an amount of money given by an entity for a specific purpose, with no obligation of repayment. Grants can also be known as a gift. Grant agreements include matching commitments, either by cash or by in-kind services.

Impervious surface: a surface that does not allow stormwater to infiltrate into the ground. "Impervious surface" includes rooftops, driveways, sidewalks, or pavement.

ISRP: Impervious Surface Restoration Plan; can also mean MS4 WIP or implementation plan for qualitative controls. For the current MS4 permit, the impervious surface restoration requirement is 20% of the City's total impervious area that has not already been treated or restored to the MEP.

Loan: A debt service mechanism in which the City receives money from an exterior source with a commitment to repay both the principal and interest within a specific time frame.

MDE: Maryland Department of Environment

MEP: Maximum Extent Practicable

MS4: Municipal Separate Storm Sewer System

NPDES: National Pollutant Discharge Elimination System

Nutrients: Total phosphorus and total nitrogen

Paygo: Portion of capital expenditures which is paid directly when the expenditure is incurred.

Qualitative Control: A system of practices that reduces or eliminates pollutants that might otherwise be carried by surface runoff. Design parameters include water quality volume and recharge volume. Water quality volume can be converted into equivalent acreage of ISR.

Quantitative Control: A system of practices that controls the increased volume and rate of surface runoff caused by man-made changes to the land. Design parameters include channel protection volume and flood protection volumes.

Reserve: Amount of revenue held to demonstrate ability to repay a debt service mechanism or to hedge against an unforeseen economic downturn.

Revenue: Cash received from exterior sources to supply specific funds.

Revenue bond: An official document authorized by the City to complete CIP projects using an debt service, with a specific enterprise fund used as collateral.

Runoff: The portion of water during a storm that runs over the land instead of evaporating or being soaked through the ground surface.

SRLF: State revolving loan fund

TMDL: Total Maximum Daily Load, the maximum amount of a pollutant a water body can receive and still meet water quality standards; “pollution diet”. Developed when a substance exceeds water quality standards.

Watershed: An area of land that drains down slope to the lowest point, discharging to a river or other body of water

WIP: Watershed Implementation Plan; document that sets the way an agency will meet the regulatory requirements.

WPRP Fund: Watershed Protection and Restoration Program Fund; also known as the Stormwater Utility in the City.

WQA: Water Quality Analysis, developed when supplemental data indicates the water body is meeting water quality standards for that substance

*Definitions obtained from Baltimore City Department of Public Works Glossary of Terms:

http://dpwapps.baltimorecity.gov/cleanwaterbaltimore/wp-content/uploads/2016/06/Glossary_Regulatory-and-Fiscal.pdf

VIII. Abbreviations of BMPs

BMP Class

Code	Code Description
A	Alternative BMP
E	ESD
S	Structural BMP

Alternative BMPs

Code	Code Description
CBC	Catch Basin Cleaning
DID	Disconnection of Illicit Discharges *
EDU	Education *
FPRES	Floodplain Restoration *
FPU	Planting Trees or Forestation on Previous Urban
IMPF	Impervious Surface Elimination (to forest)
IMPP	Impervious Surface Elimination (to pervious)
MSS	Mechanical Street Sweeping
OUT	Outfall Stabilization
PET	Pet Waste Management *
RBS	River Bank Stabilization *
SDV	Storm Drain Vacuuming
SEPC	Septic Connections to WWTP
SEPD	Septic Denitrification
SEPP	Septic Pumping
SHST	Shoreline Stabilization
SPSC	Step Pool Storm Conveyance
STRE	Stream Restoration
SUB	Sub-Soiling *
TRA	Trash Removal *
VSS	Regenerative/Vacuum Street Sweeping

*These BMPs have not received official approval and/or do not have an assigned impervious acre credit.

Environmental Site Design (ESD)

Code	Code Description
AGRE	Green Roof – Extensive
AGRI	Green Roof – Intensive
APRP	Permeable Pavements
ARTF	Reinforced Turf
FBIO	Bioretention
FORG	Organic Filter (Peat Filter)
FPER	Perimeter (Sand) Filter
FSND	Sand Filter
FUND	Underground Filter
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

Structural BMPs

Code	Code Description
BRCT	Bio-Reactor Carbon Filter *
FBIO	Bioretention
FORG	Organic Filter (Peat Filter)
FPER	Perimeter (Sand) Filter
FSND	Sand Filter
FUND	Underground Filter
IBAS	Infiltration Basin
ITRN	Infiltration Trench
ODSW	Dry Swale
PMED	Micropool Extended Detention Pond
PMPS	Multiple Pond System
PPKT	Pocket Pond
PWED	Extended Detention Structure, Wet
PWET	Retention Pond (Wet Pond)
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

*These BMPs have not received official approval and/or do not have an assigned impervious acre credit.

IX. Appendices

Calculations

Impervious Acre Baseline = (total impervious acres not treated to the MEP jurisdiction-wide) *
(20% MS4 permit restoration requirement)

Specific Actions Cost per Acre = Total Implementation Cost of Completed Projects/Total
Impervious Acres of Restoration Completed

Projected Cost per Acre = Total Projected Implementation Cost/Total Project Impervious Acres
Restored Next Two Years

Total Completed and Projected Cost per Acre = Total Completed and Projected Implementation
Cost/Total Completed and Projected Impervious Acres Restored

Harford County's revenue to cost ratio was corrected for a formula error.

Howard County included MS4 Program implementation data costs not associated with the ISRP.
This amount was subtracted from the County ISRP costs to bring it into alignment with the other
jurisdictions and formulas used.

Pie charts of the types of BMPs implemented were created using the total impervious acres
restored during the reported permit term. If necessary, the impervious acres used factored in
corrections for formula errors and/or improperly placed BMPs.

Md. ENVIRONMENT Code Ann. § 4-202.1

Annotated Code of Maryland
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*** Statutes current through July 1, 2016 ***

ENVIRONMENT
TITLE 4. WATER MANAGEMENT
SUBTITLE 2. STORMWATER MANAGEMENT

Md. ENVIRONMENT Code Ann. § 4-202.1 (2016)

§ 4-202.1. Watershed protection and restoration programs.

(a) Scope. --

(1) Except as provided in paragraphs (2) and (3) of this subsection, this section applies to a county or municipality that is subject to a national pollutant discharge elimination system Phase I municipal separate storm sewer system permit.

(2) This section does not apply to a county or municipality that, on or before July 1, 2012, has enacted and implemented a system of charges under § 4-204 of this subtitle for the purpose of funding a watershed protection and restoration program, or similar program, in a manner consistent with the requirements of this section.

(3) Except as provided in subsection (j) of this section, this section does not apply in Montgomery County.

(b) Establishment. -- A county or municipality shall adopt and implement local laws or ordinances necessary to establish a watershed protection and restoration program.

(c) Fees; local watershed protection and restoration funds. --

(1) A watershed protection and restoration program established under this section:

(i) May include a stormwater remediation fee; and

(ii) Shall include a local watershed protection and restoration fund.

(2) (i) If a county or municipality established a stormwater remediation fee under this section on or before July 1, 2013, the county or municipality may repeal or reduce the fee before July 1, 2016, if:

1. The county or municipality identifies dedicated revenues, funds, or other sources of funds that will be:

A. Deposited into its local watershed protection and restoration fund; and

B. 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;

2. Subject to subparagraph (iii) of this paragraph, the county or municipality has filed with the Department a financial assurance plan in accordance with subsection (j) of this section; and

3. The Department determines the financial assurance plan demonstrates good faith toward achieving sufficient funding in accordance with subsection (j)(4)(ii) of this subsection.

(ii) This paragraph may not be construed as prohibiting a county or municipality from repealing or reducing a fee on or after July 1, 2016.

(d) In general. --

(1) A county or municipality shall maintain or administer a local watershed protection and restoration fund in accordance with this section.

(2) The purpose of a local watershed protection and restoration fund is to provide financial assistance for the implementation of local stormwater management plans through stormwater management practices and stream and wetland restoration activities.

(e) Stormwater remediation fees; funding; exemptions. --

(1) (i) Except as provided in paragraph (2) of this subsection and subsection (f) of this section, a county or municipality may establish and annually collect a stormwater remediation fee from owners of property

located within the county or municipality in accordance with this section.

(ii) Beginning fiscal year 2017, if a county funds the cost of stormwater remediation by using general revenues or through the issuance of bonds, the county shall meet with each municipality within its jurisdiction to mutually agree that the county will:

1. Assume responsibility for the municipality's stormwater remediation obligations;

2. For a municipality that has established a stormwater remediation fee under this section or § 4-204 of this subtitle, adjust the county property tax rate within the municipality to offset the stormwater remediation fee charged by the municipality; or

3. Negotiate a memorandum of understanding with the municipality to mutually agree upon any other action.

(2) (i) Except as provided in subparagraphs (ii) and (iii) of this paragraph, property owned by the State, a unit of State government, a county, a municipality, a veterans' organization that is exempt from taxation under § 501(c)(4) or (19) of the Internal Revenue Code, or a regularly organized volunteer fire department that is used for public purposes may not be charged a stormwater remediation fee under this section.

(ii) 1. Except as provided in subsubparagraph 2 of this subparagraph, property owned by the State or a unit of State government may be charged a stormwater remediation fee by a county under this section if:

A. The State or a unit of State government and a county agree to the collection of an annual stormwater remediation fee from the State or a unit of State government that is based on the share of stormwater management services related to property of the State or a unit of State government located within the county;

B. The county agrees to appropriate into its own local watershed protection and restoration fund, on an annual basis, an amount of money that is based on the share of stormwater management services related to county property on an annual basis; and

C. The county demonstrates to the satisfaction of the State or a unit of State government that the fees collected under item A of this subparagraph and the money appropriated under item B of this subparagraph were deposited into the county's local watershed protection

and restoration fund.

2. A county or municipality may not charge a stormwater remediation fee to property specifically covered by a current national pollutant discharge elimination system Phase I municipal separate storm sewer system permit or industrial stormwater permit held by the State or a unit of State government.

(iii) A county or municipality may charge a stormwater remediation fee to property owned by a veterans' organization that is exempt from taxation under § 501(c)(4) or (19) of the Internal Revenue Code or a regularly organized volunteer fire department if:

1. The county or municipality determines that the creation of a nondiscriminatory program for applying the stormwater remediation fee to federal properties under the federal facilities pollution control section of the Clean Water Act is necessary in order for the county or municipality to receive federal funding for stormwater remediation; and

2. A veterans' organization that is exempt from taxation under § 501(c)(4) or (19) of the Internal Revenue Code and a regularly organized volunteer fire department that is used for public purposes are provided with the opportunity to apply for an alternate compliance plan established under subsection (k)(3) of this section instead of paying a stormwater remediation fee charged by a county or municipality under item 1 of this subparagraph.

(3) (i) If a county or municipality establishes a stormwater remediation fee under this section, a county or municipality shall set a stormwater remediation fee for property in an amount that is based on the share of stormwater management services related to the property and provided by the county or municipality.

(ii) A county or municipality may set a stormwater remediation fee under this paragraph based on:

1. A flat rate;

2. An amount that is graduated, based on the amount of impervious surface on each property; or

3. Another method of calculation selected by the county or municipality.

(4) If a county or municipality establishes a stormwater remediation fee

under this section, the stormwater remediation fee established under this section is separate from any charges that a county or municipality establishes related to stormwater management for new developments under § 4-204 of this subtitle, including fees for permitting, review of stormwater management plans, inspections, or monitoring.

(f) Stormwater remediation fees -- Policies and procedures; inspections. --

(1) If a county or municipality establishes a stormwater remediation fee under this section, the county or municipality shall establish policies and procedures, approved by the Department, to reduce any portion of a stormwater remediation fee established under subsection (e) of this section to account for on-site and off-site systems, facilities, services, or activities that reduce the quantity or improve the quality of stormwater discharged from the property.

(2) The policies and procedures established by a county or municipality under paragraph (1) of this subsection shall include:

(i) Guidelines for determining which on-site systems, facilities, services, or activities may be the basis for a fee reduction, including guidelines:

1. Relating to properties with existing advanced stormwater best management practices;

2. Relating to agricultural activities or facilities that are otherwise exempted from stormwater management requirements by the county or municipality; and

3. That account for the costs of, and the level of treatment provided by, stormwater management facilities that are funded and maintained by a property owner;

(ii) The method for calculating the amount of a fee reduction; and

(iii) Procedures for monitoring and verifying the effectiveness of the on-site systems, facilities, services, or activities in reducing the quantity or improving the quality of stormwater discharged from the property.

(3) For the purpose of monitoring and verifying the effectiveness of on-site systems, facilities, services, or activities under paragraph (2)(iii) of this subsection, a county or municipality may:

(i) Conduct on-site inspections;

(ii) Authorize a third party, certified by the Department, to conduct on-site inspections on behalf of the county or municipality; or

(iii) Require a property owner to hire a third party, certified by the Department, to conduct an on-site inspection and provide to the county or municipality the results of the inspection and any other information required by the county or municipality.

(g) Stormwater remediation fees -- Imposition by counties and municipalities. --

(1) A property may not be assessed a stormwater remediation fee by both a county and a municipality.

(2) (i) Before a county may impose a stormwater remediation fee on a property located within a municipality, the county shall:

1. Notify the municipality of the county's intent to impose a stormwater remediation fee on property located within the municipality; and

2. Provide the municipality reasonable time to pass an ordinance authorizing the imposition of a municipal stormwater remediation fee instead of a county stormwater remediation fee.

(ii) If a county currently imposes a stormwater remediation fee on property located within a municipality and the municipality decides to implement its own stormwater remediation fee under this section or § 4-204 of this subtitle, the municipality shall:

1. Notify the county of the municipality's intent to impose its own stormwater remediation fee; and

2. Provide the county reasonable time to discontinue the collection of the county stormwater remediation fee within the municipality before the municipality's stormwater remediation fee becomes effective.

(3) A county or municipality shall establish a procedure for a property owner to appeal a stormwater remediation fee imposed under this section.

(h) Collection of fees; administration of fund. --

(1) (i) If a county or municipality establishes a stormwater remediation fee under this section, the county or municipality shall determine the method,

frequency, and enforcement of the collection of the stormwater remediation fee.

(ii) A county or municipality shall include the following statement on a bill or on an insert to a bill to collect a stormwater remediation fee: "This is a local government fee established in response to federal stormwater management requirements. The federal requirements are designed to prevent local sources of pollution from reaching local waterways."

(2) A county or municipality shall deposit any stormwater remediation fees it collects into its local watershed protection and restoration fund.

(3) There shall be deposited in a local watershed protection and restoration fund:

(i) Any funds received from the stormwater remediation fee;

(ii) Funds received under subsections (c)(2) and (e)(2) of this section;

(iii) Interest or other income earned on the investment of money in the local watershed protection and restoration fund; and

(iv) Any additional money made available from any sources for the purposes for which the local watershed protection and restoration fund has been established.

(4) Subject to paragraph (5) of this subsection, a county or municipality shall use the money in its local watershed protection and restoration fund for the following purposes only:

(i) Capital improvements for stormwater management, including stream and wetland restoration projects;

(ii) Operation and maintenance of stormwater management systems and facilities;

(iii) Public education and outreach relating to stormwater management or stream and wetland restoration;

(iv) Stormwater management planning, including:

1. Mapping and assessment of impervious surfaces; and

2. Monitoring, inspection, and enforcement activities to carry out the

purposes of the watershed protection and restoration fund;

(v) To the extent that fees imposed under § 4-204 of this subtitle are deposited into the local watershed protection and restoration fund, review of stormwater management plans and permit applications for new development;

(vi) Grants to nonprofit organizations for up to 100% of a project's costs for watershed restoration and rehabilitation projects relating to:

1. Planning, design, and construction of stormwater management practices;

2. Stream and wetland restoration; and

3. Public education and outreach related to stormwater management or stream and wetland restoration; and

(vii) Reasonable costs necessary to administer the local watershed protection and restoration fund.

(5) A county or municipality may use its local watershed protection and restoration fund as an environmental fund, and may deposit to and expend from the fund additional money made available from other sources and dedicated to environmental uses, provided that the funds received from the stormwater remediation fee, if any, are expended only for the purposes authorized under paragraph (4) of this subsection.

(6) Money in a local watershed protection and restoration fund may not revert or be transferred to the general fund of any county or municipality.

(i) Reports. -- A county or municipality shall report annually, in a manner determined by the Department, on:

(1) The number of properties subject to a stormwater remediation fee, if any;

(2) Any funding structure developed by the county or municipality, including the amount of money collected from each classification of property assessed a fee, if any;

(3) The amount of money deposited into the watershed protection and restoration fund in the previous fiscal year by source;

(4) The percentage and amount of funds in the local watershed protection and restoration fund spent on each of the purposes provided in subsection (h)(4) of this section;

(5) All stormwater management projects implemented in the previous fiscal year; and

(6) Any other information that the Department determines is necessary.

(j) Annual filing of financial assurance plan for national pollutant discharge elimination system Phase I municipal separate storm sewer system permit. -

-

(1) (i) On or before July 1, 2016, and every 2 years thereafter on the anniversary of the date of issuance of its national pollutant discharge elimination system Phase I municipal separate storm sewer system permit, a county, including Montgomery County, or municipality shall file with the Department a financial assurance plan that clearly identifies:

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;

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;

3. Projected annual and 5-year revenues or other funds that will be used to meet the 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;

4. Any sources of funds that will be utilized by the county or municipality to meet the requirements of its national pollutant elimination system Phase I municipal separate storm sewer system permit; and

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.

(ii) A county or municipality that files a financial assurance plan under subsection (c)(2) of this section shall file on or before July 1, 2016, a

financial assurance plan that meets the requirements of paragraph (4) of this subsection.

(2) A financial assurance plan shall demonstrate that the county or municipality has sufficient funding in the current fiscal year and subsequent fiscal year budgets to meet its estimated costs for the 2-year period immediately following the filing date of the financial assurance plan.

(3) A county or municipality may not file a financial assurance plan under this subsection until the local governing body of the county or municipality:

(i) Holds a public hearing on the financial assurance plan; and

(ii) Approves the financial assurance plan.

(4) (i) Subject to subparagraphs (ii) and (iii) of this paragraph, the Department shall make a decision whether the financial assurance plan demonstrates sufficient funding within 90 days after the county or municipality filed the financial assurance plan with the Department.

(ii) For a financial assurance plan that is filed on or before July 1, 2016, funding in the financial assurance plan is sufficient if the financial assurance plan demonstrates that the county or municipality has dedicated revenues, funds, or sources of funds to meet, for the 2-year period immediately following the filing date of the financial assurance plan, 75% of the projected costs of compliance with the impervious surface restoration plan requirements of the county or municipality under its national pollutant discharge elimination system Phase I municipal separate storm sewer system permit over that 2-year period.

(iii) For the filing of a second and subsequent financial assurance plan, funding in the financial assurance plan is sufficient if the financial assurance plan demonstrates that the county or municipality has dedicated revenues, funds, or sources of funds to meet, for the 2-year period immediately following the filing date of the financial assurance plan, 100% of the projected costs of compliance with the impervious surface restoration plan requirements of the county or municipality under its national pollutant discharge elimination system Phase I municipal separate storm sewer system permit over the 2-year period.

(5) (i) If the Department determines that the funding in the financial assurance plan filed on or before July 1, 2016, is insufficient to meet, for the 2-year period immediately following the filing date of the financial assurance plan, 75% of the projected costs of compliance with the impervious surface

restoration plan requirements of the county or municipality under its national pollutant discharge elimination system Phase I municipal separate storm sewer system permit, the Department shall issue a warning to the county or municipality and engage with the county or municipality on the development of a plan for meeting the projected costs of compliance.

(ii) 1. If the Department determines that the funding in the second or subsequent financial assurance plan is insufficient to meet, for the 2-year period immediately following the filing date of the financial assurance plan, 100% of the projected costs of compliance with the impervious surface restoration plan requirements of the county or municipality under its national pollutant discharge elimination system Phase I municipal separate storm sewer system permit, in addition to any other remedy available at law or in equity the Department shall impose an administrative penalty of:

A. For a first offense, up to \$ 5,000 for each day until the funding in the financial assurance plan is determined to be sufficient in accordance with subsection (j)(4)(iii) of this subsection; and

B. For a second and subsequent offense, up to \$ 10,000 for each day until the funding in the financial assurance plan is determined to be sufficient in accordance with subsection (j)(4)(iii) of this subsection.

2. Any penalty collected by the Department from a county or municipality under this subparagraph shall be paid into an escrow account to be used by the county or municipality for stormwater management projects pending a determination by the Department that funding in the financial assurance plan is sufficient.

(6) A financial assurance plan required under this subsection shall be made publicly available on the Department's Web site within 14 days after the county or municipality filed the financial assurance plan with the Department.

(7) Beginning September 1, 2016, and every year thereafter, the Department shall submit a report evaluating the compliance of counties and municipalities with the requirements of this section to the Governor and, in accordance with § 2-1246 of the State Government Article, the Senate Education, Health, and Environmental Affairs Committee and the House Environment and Transportation Committee.

(k) Financial hardship exemptions. --

(1) If a county or municipality establishes a stormwater remediation fee

under this section, the county or municipality shall establish a program to exempt from the requirements of this section any property able to demonstrate substantial financial hardship as a result of the stormwater remediation fee.

(2) A county or municipality may establish a separate hardship exemption program or include a hardship exemption as part of a system of offsets established under subsection (f)(1) of this section.

(3) (i) A county or municipality shall authorize a charitable nonprofit group or organization that is exempt from taxation under § 501(c)(3) or (d) of the Internal Revenue Code and can demonstrate substantial financial hardship to implement an alternate compliance plan in lieu of paying a stormwater remediation fee for property owned by the group or organization.

(ii) 1. Subject to subparagraph 2 of this subparagraph, the Department may adopt regulations to establish the alternate compliance plan authorized under subparagraph (i) of this paragraph.

2. The regulations adopted by the Department under subparagraph 1 of this subparagraph do not apply in a county that has implemented an alternate compliance program before July 1, 2015.

(l) Regulations. -- The Department may adopt regulations to implement and enforce this section.

HISTORY: 2012, ch. 151; 2015, ch. 124; 2016, chs. 8, 9.

[Md. ENVIRONMENT Code Ann. § 4-202.1](#)

**Maryland Department of the Environment
Water Management Administration**

**Guidance for Municipal Separate Storm Sewer System Permittees for Filing
Financial Assurance Plans and Watershed Protection and Restoration
Program Annual Reports**

In May 2015, revisions to the Annotated Code of Maryland, Section 4-202, regarding the Watershed Protection and Restoration Program (WPRP) were signed into law. Previously, the law required each National Pollutant Discharge Elimination System (NPDES) Phase I municipal separate storm sewer system (MS4) jurisdiction to establish a stormwater remediation fee. These revisions have since removed that requirement (although jurisdictions still have the option of implementing a stormwater fee). However, jurisdictions will still be responsible for obtaining the necessary funds to ensure that all MS4 permit requirements are satisfied. To ensure that each jurisdiction will have adequate funding, a series of new requirements has been added to the WPRP.

To assist jurisdictions in meeting these new reporting requirements, the Maryland Department of the Environment (MDE) offers the following three Excel workbooks, “FAP FY14 Issuance.xlsx”, “FAP FY15 Issuance.xlsx”, and “WPRP Annual Report.xlsx”, for entry and submittal of this new information. These reporting requirements are summarized below.

DESCRIPTION OF NEW REQUIREMENTS

- Each NPDES Phase I MS4 jurisdiction, including Montgomery County, must submit to MDE a Financial Assurance Plan (FAP) by July 1, 2016, and every 2 years thereafter on the anniversary date of its MS4 permit, that details the following:
 - All actions required to meet MS4 permit requirements
 - Annual and projected 5-year costs necessary to meet the “impervious surface restoration plan” (ISRP) requirement, more commonly known as the 20% restoration requirement in current permits
 - Annual and projected 5-year revenues that will be used toward meeting the 20% restoration requirement
 - Any and all sources of funds used toward meeting MS4 permit requirements
 - All specific actions and expenditures undertaken in the previous fiscal years to meet the 20% restoration requirement

- Each NPDES Phase I MS4 jurisdiction, excluding Montgomery County, shall submit to MDE a WPRP Annual Report by July 1, 2016 and every year thereafter on the anniversary date of its MS4 permit (not to be confused with the NPDES MS4 Annual Report, which is a separate requirement), which covers the following items:
 - The number of properties subject to a stormwater remediation fee (at the time of report submission), if any

- Any funding structure developed by the county or municipality, including the amount of money collected from each classification of property assessed a fee, if any
- The amount of money deposited into the watershed protection and restoration fund (WPRF) in the previous fiscal year by source
- The percentage and amount of funds in the local watershed protection and restoration fund spent on each of the purposes provided in the Annotated Code of Maryland, Section 4-202 (See Figure 12)
- All stormwater management projects implemented by the jurisdiction in the previous fiscal year for the 20% restoration requirement
- Any other information that MDE deems necessary

HOW TO SUBMIT INFORMATION

Below, MDE outlines each WPRP requirement along with the method of reporting requested. Please submit all files electronically via compact disc, email, or ftp and as a hard copy including a Certification page (See Attachment 1). The worksheets have been designed to best represent the requirements of Section 4-202 and have received peer review and consent from the MS4 community. These data need to be submitted to MDE from all jurisdictions in a consistent format. Please refrain from making any changes to column or row headings.

Financial Assurance Plan (submit by July 1, 2016, and every 2 years thereafter)

- Submit an executive summary identifying all permit actions required to meet MS4 permit requirements. This can be similar in format to an executive summary submitted in an MS4 annual report (See Attachment 2).
- For specific FAP data, MDE requests that medium jurisdictions complete and submit the “FAP FY15 Issuance.xlsx” workbook, and large jurisdictions complete and submit the “FAP FY14 Issuance.xlsx” workbook. Each of these workbooks contains six worksheets (in this order):
 - MS4 Information
 - All Actions 4-202.1(j)(1)(i)1
 - ISRP Cost 4-202.1(j)(1)(i)2
 - ISRP Revenue 4-202.1(j)(1)(i)3
 - Fund Sources 4-202.1(j)(1)(i)4
 - Spec Actions 4-202.1(j)(1)(i)5
- Please ensure that the following actions are taken:
 - Complete the “MS4 Information” worksheet (see Figure 1). This information, specifically the impervious area baseline, will help MDE calculate the percentage of impervious area restored during the current FY, and the remaining impervious area that is needed to meet permit conditions.
 - In column A of the “All Actions 4-202.1(j)(1)(i)1” worksheet, please list all categories of BMPs under “Operational Programs” and “Capital Projects” (see Figure 2). Also, please include any projects not considered an Operational

Program or Capital Project under the “Other” category. For projects in the “Other” category, please indicate more information about the project in the “General Comments” column (e.g., redevelopment, volunteer, etc.). Please be sure to use the domains from the MS4 geodatabase. In columns B, C and D, please enter the BMP class, impervious acre coverage, and TOTAL implementation cost for that category of BMP. Column E (% ISRP Complete) is column C (impervious acres) divided by the total impervious area baseline. In column F, please enter the implementation status of the BMP (whether in planning, under construction, or proposed). In column G, please enter the projected year of implementation. Please make sure you enter all BMPs scheduled or proposed to be implemented up to 5 years from date of submission. Please be sure that the all formulas for subtotals and totals have been updated to include the inserted cells (see Figures 2 and 3).

- In the “ISRP Cost 4-202.1(j)(1)(i)2” worksheet, please fill in costs for previous, current, and projected fiscal years for specific operating and capital expenditures necessary for meeting the 20% Impervious Surface Restoration Plan. List any additional costs in the row labeled “Other” (see Figure 4).
- In the “ISRP Revenue 4-202.1(j)(1)(i)3” worksheet, please fill in previous, current, and projected total revenue appropriated to meet the 20% restoration requirement in the first row, and total current and projected cost of BMP implementation to meet the 20% requirement in the second row (see Figure 5).
- Please list all sources of funds in the “Fund Sources 4-202.1(j)(1)(i)4” worksheet, along with fund totals. Enter this information for the previous and current fiscal year and for 5 years projecting forward. List any additional funding sources in the rows labeled “Other Funds” (see Figure 6). Please provide the percent of funds directed toward the ISRP for the previous, current, and projected fiscal years.
- Specific expenditures by project should be listed in the “Spec Actions 4-202.1(j)(1)(i)5” worksheet. Please make sure you enter all BMPs implemented in the current or previous fiscal years. Please be sure that the formulas for subtotals and totals have been updated to include the inserted cells (see Figure 7).

Watershed Protection and Restoration Program Annual Report (submit by July 1, 2016, and annually thereafter)

- Complete and submit to MDE the following worksheets in the “WPRP Annual Report” Excel workbook:
 - The “WPRP Report Table”, including the number of properties subject to a fee as well as the percentage and amount of funds from the local Watershed Protection and Restoration Fund spent on the specific purposes identified in the table (see Figure 8).
 - The “Funding Structure” worksheet (see Figure 9).
 - The “Sources of Funds for WPRF” worksheet (see Figure 10).
 - The “ISRP BMPs Implemented in FY15” worksheet (see Figure 11). Be sure that all BMPs related to the 20% restoration requirement that were implemented in the previous fiscal year are recorded here. These data can be added through the same methods used for the FAP.

The following pages detail each of the Excel workbooks for reference purposes. *Please see the associated email attachments for the complete worksheets.*

	A	B
1	MS4 Information	
2	Jurisdiction	Keebler County
3	Contact Name	Joe Smith
4	Phone	301-555-1234
5	Address	1234 Main Street
6	City	Elfville
7	State	MD
8	Zip	22222
9	Email	jsmith@keebler.co.md.gov
10	Baseline Acres	1200.00
11	Permit Num	14-DP-1234
12	Reporting Year	2016
13		

Figure 1: MS4 Information worksheet

	A	B	C	D	E	F	G
1	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.						
2							
3	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.						
4							
5							
6	Baseline:	1,200				Requirement:	20%
7							
8	REST BMP TYPE*	BMP CLASS	IMP ACRES	IMPL COST	% ISRP COMPLETE	IMPL STATUS**	PROJECTED IMPL YR
9	Operation Programs						
10	VSS	A	5	\$3,000,000	0.4%	Proposed	2016
11	CBC	A	14	\$1,500,000	1.2%	Proposed	2016
12	VSS	A	5	\$3,000,000	0.4%	Proposed	2017
13	CBC	A	14	\$1,500,000	1.2%	Proposed	2017
14	VSS	A	5	\$3,000,000	0.4%	Proposed	2018
15	CBC	A	14	\$1,500,000	1.2%	Proposed	2018
16	VSS	A	5	\$3,000,000	0.4%	Proposed	2019
17	CBC	A	14	\$1,500,000	1.2%	Proposed	2019
18	VSS	A	5	\$3,000,000	0.4%	Proposed	2020
19	CBC	A	14	\$1,500,000	1.2%	Proposed	2020
20	Average Operations Next Two Years (FY2017-		9.5	\$9,000,000	0.8%		
21	Average Operations Permit Term (FY2014-FY2018)***		9.5	\$22,500,000	0.8%		
22	Average Operations Permit Term and Projected Years (FY2014-FY2020)***		9.5	\$31,500,000	0.8%		
23	Capital Projects						
24	STRE	A	7	\$3,000,000	0.6%	Under Construction	2016
25	PWET	S	6	\$850,000	0.5%	Under Construction	2016
26	IMPP	A	4	\$600,000	0.3%	Under Construction	2016
27	MILS	E	5	\$400,000	0.4%	Under Construction	2016
28	MRNG	E	3.6	\$70,000	0.3%	Planning	2017
29	STRE	A	3.5	\$1,050,000	0.3%	Planning	2017
30	SHST	A	1	\$150,000	0.1%	Planning	2017
31	SHST	A	2	\$300,000	0.2%	Proposed	2017

Figure 2: All Actions 4-202.1(j)(1)(i)1 worksheet (top portion); highlighted cells contain formulas that must be updated

REST BMP TYPE*	BMP CLASS	IMP ACRES	IMPL COST	% ISRP COMPLETE	IMPL STATUS**	PROJECTED IMPL YR
STRE	A	1	\$1,000,000	0.1%	Proposed	2020
PMED	S	3	\$90,000	0.3%	Proposed	2020
Subtotal Capital Next Two Years (FY2017-FY2018)		14.1	\$1,610,000	1.2%		
Subtotal Capital Permit Term (FY2014-FY2018)		84.4	\$28,420,000	7.0%		
Subtotal Capital Permit Term and Projected Years (FY2014-FY2020)		93.4	\$29,650,000	7.8%		
Other						
Redevelopment		25	\$0	2.1%	Under Construction	2017
Volunteer		10	\$0	0.8%	Planning	2018
Subtotal Other Next Two Years (FY2017-FY2018)		35	\$0	2.92%		
Subtotal Other Permit Term (FY2014-FY2018)		60	\$0	5.0%		
Subtotal Operations Permit Term and Projected Years (FY2014-FY2020)		60	\$0	5.0%		
Total Next Two Years (FY2017-FY2018)		58.6	\$10,610,000	4.9%		
Total Permit Term (FY2014-FY2018)		153.9	\$50,920,000	12.8%		
Total Permit Term and Projected Years (FY2014-FY2020)		162.9	\$61,150,000	13.6%		

Figure 3: All Actions 4-202.1(j)(1)(i)1 worksheet (bottom portion); highlighted cells contain formulas that must be updated

DESCRIPTION	PAST UP THRU 2014	FY 2015	CURRENT/PROJECTED YEAR 1 FY 2016	PROJECTED YEAR 2 FY 2017	PROJECTED YEAR 3 FY 2018	PROJECTED YEAR 4 FY 2019	PROJECTED YEAR 5 FY 2020	TOTAL COSTS
Operating Expenditures (costs)								
Street Sweeping Program	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$21,000,000
Inlet Cleaning	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$10,500,000
Support of Capital Projects	\$18,850,000	\$450,000	\$3,700,000	\$430,000	\$100,000	\$100,000	\$100,000	\$23,730,000
Debt Service Payment	\$150,000	\$150,000	\$150,000	\$180,000	\$180,000	\$180,000	\$180,000	\$1,170,000
Other (please stipulate program expenditure)*	-	-	-	-	-	-	-	\$0
Capital Expenditures (costs)								
General Fund (Paygo)	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$3,500,000
WPR Fund (Paygo)	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$3,500,000
Debt Financing	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,400,000
Grants & Partnerships	\$1,000,000	\$100,000	\$400,000	\$0	\$0	\$0	\$0	\$1,500,000
Other (please stipulate capital expenditure)*	-	-	-	-	-	-	-	\$0
Subtotal operation and paygo:	\$24,500,000	\$6,100,000	\$9,350,000	\$6,110,000	\$5,780,000	\$5,780,000	\$5,780,000	\$63,400,000
Total expenditures:	\$25,700,000	\$6,400,000	\$9,950,000	\$6,310,000	\$5,980,000	\$5,980,000	\$5,980,000	\$66,300,000
							Total ISRP costs except debt service:	\$65,130,000
							Compare ISRP costs (except debt service) / total ISRP proposed actions:	106.51%

Figure 4: ISRP Cost 4-202.1(j)(1)(i)2 worksheet; Subtotals and "Total expenditures" automatically calculated using formulas

	A	B	C	D	E	F	G	H	I	J
2										
3										
4		PAST		CURRENT/PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	TOTAL NEXT	TOTAL
5		UP THRU		YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	2-YEARS	CURRENT +
6	DESCRIPTION	2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 17-18*	PROJECTED
7	Annual Revenue** Appropriated for ISRP	\$26,000,000	\$7,000,000	\$12,500,000	\$8,000,000	\$7,000,000	\$7,000,000	\$7,500,000	\$15,000,000	\$75,000,000
8	Annual Costs towards ISRP***	\$25,700,000	\$6,400,000	\$9,950,000	\$6,310,000	\$5,980,000	\$5,980,000	\$5,980,000	\$12,290,000	\$66,300,000
9									Compare annual costs / revenue appropriated:	122%
10									WPRP 2016 Reporting Criteria	75%
11										
12	ISRP = Impervious Surface Restoration Program, or 20% Restoration Requirement									
13										
14	* 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 2018.									
15	** 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 2016 at the time of FAP reporting.									
16	*** See table of ISRP Cost.									
17										

Figure 5: ISRP Revenue 4-202.1(j)(1)(i)3 worksheet; "Annual Costs towards ISRP" automatically populated from "ISRP Cost" worksheet

	A	B	C	D	E	F	G	H	I	
1	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.									
2										
3										
4		PAST		CURRENT/PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	TOTAL	
5		UP THRU		YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	PERMIT	
6	SOURCE	2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	CYCLE	
7	Paygo Sources									
8	Stormwater Remediation Fees (WPR Fund)	\$ 6,168,000	\$ 6,168,000	\$ 6,400,000	\$ 3,200,000	\$ 3,200,000	\$ 3,200,000	\$ 3,200,000	\$ 25,136,000	
9	Miscellaneous Fees (WPR Fund)	\$ 95,555	\$ 94,564	\$ 93,573	\$ 92,582	\$ 91,591	\$ 90,600	\$ 89,609	\$ 467,865	
10	General Fund	\$ 2,231,220	\$ 2,231,220	\$ 2,231,220	\$ 2,231,220	\$ 2,231,220	\$ 2,231,220	\$ 2,231,220	\$ 11,156,100	
11	Other Funds 1 (please stipulate funding source)	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 50,000	
12	Other Funds 2 (please stipulate funding source)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
13	Other Funds 3 (please stipulate funding source)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
14	Subtotal Paygo Sources	\$ 8,504,775	\$ 8,503,784	\$ 8,734,793	\$ 5,533,802	\$ 5,532,811	\$ 5,531,820	\$ 5,530,829	\$ 36,809,965	
15	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 2014).									
16	County Transportation Bonds	\$ 8,800,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,800,000	
17	General Obligation Bonds	\$ 4,200,000	\$ 2,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,200,000	
18	Revenue (Utility) Bonds	\$ -	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 2,000,000	
19	State Revolving Loan Fund	\$ -	\$ -	\$ -	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 4,000,000	
20	Public-private partnership (debt service)	\$ -	\$ -	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000	
21	Subtotal Debt Service	\$ 13,000,000	\$ 2,000,000	\$ 1,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 22,000,000	
22	Grants and Partnerships (no payment is expected)									
23	State funded grants	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 250,000	
24	Federal funded grants	\$ 5,440,000	\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,480,000	
25	Public-private partnership (matched grant)	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 50,000	
26	Subtotal Grants and Partnerships	\$ 5,500,000	\$ 100,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 5,780,000	
27	Total Annual Sources of Funds	\$ 27,004,775	\$ 10,603,784	\$ 9,794,793	\$ 8,593,802	\$ 8,592,811	\$ 8,591,820	\$ 8,590,829	\$ 64,589,965	
28	Percent of Funds Directed Toward ISRP	96.28%	33.16%	64.01%	46.71%	40.87%	40.88%	43.80%		
29									Compare total permit term paygo ISRP costs / subtotal permit term paygo sources:	141%
30									Compare total permit term ISRP costs / total permit term annual sources of funds:	84%
31	* WPR Fund: Watershed Protection and Restoration Fund.									
32										

Figure 6: Fund Sources 4-202.1(j)(1)(i)4 worksheet; Subtotals and "Total Annual Sources of Funds" automatically calculated using formulas

	A	B	C	D	E	F	G	H	I	J
1	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.									
4	Baseline:	1,200							Requirement:	20%
6	REST BMP ID	REST BMP TYPE	BMP CLASS	NUM BMP	IMP ACRES	BUILT DATE	IMPL COST	% ISRP Complete	IMPL STATUS	GEN COMMENTS
7	Operation Programs									
8	BC15RST000001	VSS	A	25	5	6/15/2014	\$3,000,000	0.4%	Complete	
9	BC15RST000002	CBC	A	1,000	14	6/15/2014	\$1,500,000	1.2%	Complete	
10	BC15RST000003	VSS	A	25	5	6/15/2015	\$3,000,000	0.4%	Complete	
11	BC15RST000004	CBC	A	2,950	14	6/15/2015	\$1,500,000	1.2%	Complete	
12	Average Operations Complete To Date*			1,000	10		\$9,000,000	0.8%		
13	Capital Projects									
14	BC14RST000025	STRE	A	1	20	4/15/2014	\$20,000,000	1.7%	Complete	
15	BC14RST000050	PMED	S	1	1.2	8/15/2015	\$150,000	0.1%	Complete	
16	BC15RST000075	MSS	A	1	11	4/15/2015	\$1,100,000	0.9%	Complete	
17	BC15RST000100	MSGW	E	1	3.1	8/15/2015	\$350,000	0.3%	Complete	
18	Subtotal Capital Complete To Date			4	35.3		\$21,600,000	2.94%		
19	Other									
20	BC16RST000300	MSGW	E	1	20	4/15/2014	\$0	1.7%	Complete	Redevelopment
21	BC17RST000325	FPU	A	20	5	8/15/2015	\$0	0.4%	Complete	Volunteer
22	Subtotal Other Complete To Date			21	25		\$0	2.1%		
23	Total Complete to Date			1,025	69.8		\$30,600,000	5.8%		

Figure 7: Spec Actions 4-202.1(j)(1)(i)5 worksheet; highlighted cells contain formulas that must be updated

	A	B	C
1	Watershed Protection and Restoration Program Annual Report Table		
2	Article 4-202.1(i)(4): "The percentage and amount of funds in the local watershed protection and restoration fund spent on each of the purposes provided in subsection (h)(4) of this section;"		
5	Program Element	Cost	Percent of WPRF
6	Capital Improvements for Stormwater Management	\$77,800,000.00	85.00%
7	O & M of SWM Systems and Facilities	\$6,300,000.00	8.08%
8	Public Education and Outreach	\$100,000.00	0.82%
9	Stormwater Management Planning (see Md. Environment Code Ann. § 4-202.1(h)(4)(iv))	\$380,000.00	2.27%
10	Review of Stormwater Management Plans and Permit Applications for New Development	\$50,000.00	0.30%
11	Grants to Nonprofit Organizations	\$20,000.00	0.15%
12	Adminstration of WPRF	\$200,000.00	1.50%
13	TOTAL	\$84,850,000.00	98.12%
15	Number of Properties Subject to Fee	170,000	
16	Reporting Year	2015	
17	Permit Number	11-DP-1111	
18	Comments:		

Figure 8: WPRP Report Table worksheet

1	Fee Reduction Amount	Rate Structures				
		Annual Single Family Residential Rate	Annual Commercial Rate	Equivalent Residential Unit (ERU) impervious	Commercial Capped Rates	Non-profits, Religious Organizations
2	50% proposed reduction for stormwater controls that meet Maryland's stormwater manual criteria	\$20 - \$102 ²	\$85 ² per ERU	2,940 sf	Capped at 25% of all State and local property taxes	\$1 flat fee for religious organizations
3	Reduction amount(s), if any, with reason for reduction(s)		Use: N/A, amount of flate rate, rate amount per ERU, etc.			
4						
5						

Figure 9: Funding Structure worksheet

	A	B
1	Article 4-202.1(i)(3): "The amount of money deposited into the watershed protection and restoration fund in the previous fiscal year by source;"	
2		
3		
4	Source	Amount
5	Annual Single Family Residential Fees Collected	\$ 10,600,000.00
6	Annual Commercial Fees Collected	\$ 2,550,000.00
7	Non-profits, Religious Orgs Fees Collected	\$ 1,765.00
8	Unnamed Additional Source 1	\$ 16,235.00
9		\$ 13,168,000.00
10		

Figure 10: Sources of Funds for WPRF worksheet

	A	B	C	D	E	F	G	H	I
1	All SWM Projects Implemented in Previous FY for the 20% Restoration Requirement								
2									
3	REST BMP ID	REST BMP TYPE	BMP CLASS	NUM BMP	IMP ACRES	BUILT DATE	IMPL COST	IMPL STATUS	IMPL COMP YR
4	XX15RST000040	SPSC	A	1	0.55	5/15/2015	\$32,000.00	Complete	2015
5									
6									
7				1	0.55		\$32,000.00		
8									

Figure 11: ISRP BMPs Implemented in FY15 worksheet

Attachment 1

CERTIFICATION

WHEREAS, the provisions of § 4-202.1 of the Environment Article of the Annotated Code of Maryland require _____ (County/City) to file a financial assurance plan to the Maryland Department of the Environment that demonstrates that it has sufficient funding to meet the impervious surface restoration plan requirements of the (County's/City's) National Pollutant Discharge Elimination System Phase I Municipal Separate Storm Sewer System Permit; and

WHEREAS, the provisions of this law require that “a county or municipality may not file a financial assurance plan under this subsection until the local governing body of the county or municipality: (i) Holds a public hearing on the financial assurance plan; and (ii) Approves the financial assurance plan.”

NOW, THEREFORE, I certify that:

1. A public hearing was held on the financial assurance plan on _____ (Date);
2. The local governing body approves the aforementioned financial assurance plan; and
3. Under penalty of law, the information in this financial assurance plan is, to the best of my knowledge and belief, true, accurate, and complete.

Signature of County Executive/Municipal Mayor or Chief Financial Officer

Date

Printed Name of County Executive/Municipal Mayor or Chief Financial Officer

Title

**Madison (Example) County– Fiscal Year 2016
Financial Assurance Plan
and
Watershed Protection and Restoration Program Annual Report
as required under the
Watershed Protection and Restoration Program
June 30, 2016**

Executive Summary

The submission of Madison County’s Financial Assurance Plan (FAP) and Watershed Protection and Restoration Program (WPRP) annual report to the Maryland Department of the Environment (MDE) fulfills requirements specified in the Maryland Article – Environment, Section 4-202.1. These plans and reports are being filed to MDE in order to document all actions implemented by Madison County to comply with its National Pollutant Discharge Elimination System (NPDES) municipal separate storm sewer system (MS4) permit and demonstrate the County’s ability to pay for these activities through the Watershed Protection and Restoration Fund.

An MS4 permit was issued to Madison County on December 25, 2013 and annual reports have been submitted to MDE by the County on December 25, 2014 and December 25, 2015. These annual reports are based on the State’s fiscal year (FY) and include updates on the County’s MS4 programs and impervious surface area restoration. Madison County has continued implementing its MS4 program and this Executive Summary documents achievements met since the December 25, 2015 annual report.

In compliance with the Maryland Article Section 4-202.1, the following FAP and WPRP annual report includes all activities that have been completed in compliance with Madison County’s MS4 permit, and five-year projections for the implementation of its stormwater program and best management practices (BMPs) necessary for meeting permit requirements. Specifically, these plans and reports document complete implementation and financial data for FY14 and FY15.

A major tenet of the FAP and WPRP annual report is to demonstrate the financial wherewithal for meeting MS4 permit impervious surface area restoration requirements. In order to document this ability, Madison County is providing MS4 program implementation projections for FY16, FY17, FY18, FY19, and FY20. Future FAPs will be submitted every two years on the anniversary date of the County’s MS4 permit issuance, beginning with December 25, 2018. Future WPRP annual reports will be submitted every year on the anniversary date of the County’s permit, beginning with December 25, 2016. The sections in this Executive Summary follow the order of Madison County’s MS4 permit found in Part IV, Standard Permit Conditions, and highlight the major achievements for each program element.

Financial Assurance Plans

Anne Arundel County



Heritage Complex
2662 Riva Road
Annapolis, MD 21401

Christopher J. Phipps, P.E.
Director, Department of Public Works

June 28, 2016

Mr. Raymond P. Bahr
Program Review Division Chief
Sediment, Stormwater, and Dam Safety Program
1800 Washington Blvd.
Baltimore, MD 21230

Subject: Anne Arundel County, Maryland
MS4 Financial Assurance Plan

Dear Mr. Bahr:

The following constitutes submittal of Anne Arundel County's 2016 Financial Assurance Plan for compliance with the National Pollutant Discharge Elimination Phase 1 Municipal Separate Storm Sewer System Permit under the requirements of the Environment Article, § 4-202.1(j) of the State Code. A resolution, 40-16, to approve the Financial Assurance Plan is currently before the Anne Arundel County Council and will be heard on July 5, 2016. As soon as the plan is approved by the Council, we will notify MDE and send you a copy of the approved resolution.

Included in this submittal are: 1) An Executive Summary describing the highlights of the Financial Assurance Plan; 2) Appendix 1, a response to comments raised in MDE's preliminary review of Anne Arundel County's draft financial assurance plan, dated June 3, 2016; 3) The Financial Assurance Plan itself; and 4) The WPRP FY15 Annual Report.

We look forward to continuing to work closely with the staff at MDE to successfully achieve the terms of our MS4 permit and improve the health of Anne Arundel County's local waterways and the Chesapeake Bay. I would like to thank you and your staff for quickly turning around preliminary guidance so that we could refine our plan prior to Council submittal.

Sincerely,

A handwritten signature in black ink that reads "Erik Michelsen". The signature is written in a cursive style with a long horizontal stroke at the end.

Erik Michelsen
Administrator
Watershed Protection & Restoration Program

Telephone #410-222-7092 Mailstop #7400 FAX #410-222-4374
Website: www.aacounty.org/dpw
Recycled Paper

COUNTY COUNCIL OF ANNE ARUNDEL COUNTY, MARYLAND

Legislative Session 2016, Legislative Day No. 31

Resolution No. 40-16

Introduced by Mr. Fink, Chairman
(by request of the County Executive)

By the County Council, June 20, 2016

1 RESOLUTION approving Anne Arundel County's 2016 Financial Assurance Plan for
2 compliance with the National Pollutant Discharge Elimination Phase I Municipal Separate
3 Storm Sewer System Permit

4
5 WHEREAS, the Environment Article, § 4-202.1(j)(1), of the State Code requires that
6 on or before July 1, 2016, and every two years thereafter, a county shall file a financial
7 assurance plan with the Maryland Department of the Environment ("MDE") regarding
8 compliance with the county's National Pollutant Discharge Elimination Phase I
9 Municipal Separate Storm Sewer System Permit ("NPDES MS4 Permit"); and

10
11 WHEREAS, the Environment Article, § 4-202.1(j)(3), of the State Code provides
12 that a county may not file a financial assurance plan with the MDE until the local
13 governing body of the county holds a public hearing on the financial assurance plan
14 and approves the financial assurance plan; and

15
16 WHEREAS, the Environment Article, § 4-202.1(j)(1), of the State Code requires that
17 a financial assurance plan shall clearly identify: (1) actions that will be required by the
18 county to meet the requirements of the NPDES MS4 Permit; (2) projected annual and
19 five-year costs for the county to meet the impervious surface restoration plan
20 requirements of its NPDES MS4 Permit; (3) projected annual and five-year revenues
21 or other funds that will be used to meet the costs for the county to meet the
22 impervious surface restoration plan requirements of its NPDES MS4 Permit; (4) any
23 sources of funds that will be utilized by the county to meet the requirements of its
24 NPDES MS4 Permit; and (5) specific actions and expenditures that the county
25 implemented in the previous fiscal years to meet its impervious surface restoration
26 plan requirements under its NPDES MS4 Permit; and

27
28 WHEREAS, the Environment Article, § 4-202.1(j)(4)(ii), of the State Code provides
29 that funding in the financial assurance plan is sufficient if it demonstrates that the
30 county has dedicated revenues, funds, or sources of funds to meet, for the two-year
31 period immediately following the filing date of the financial assurance plan, 75% of
32 the projected costs of compliance with the impervious surface restoration plan
33 requirements of the county under its NPDES MS4 Permit over that two-year period;
34 and

EXPLANATION: Underlining indicates amendments to resolution.
~~Strikeover~~ indicates matter stricken from resolution by amendment.

1 WHEREAS, Anne Arundel County's 2016 Financial Assurance Plan, which addresses
2 the requirements of the Environment Article, § 4-202.1 (j)(1), of the State Code, has
3 been prepared and is attached hereto as ~~Exhibit A~~ Exhibit A-1; now, therefore, be it
4

5 *Resolved by the County Council of Anne Arundel County, Maryland*, That Anne Arundel
6 County's 2016 Financial Assurance Plan is hereby approved; and be it further
7

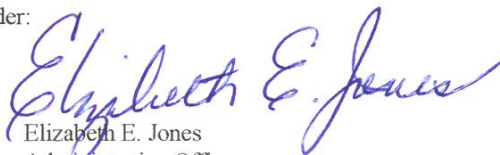
8 *Resolved*, That a copy of this Resolution be sent to County Executive Steven R. Schuh for
9 endorsement indicating his approval of this Resolution; and be it further
10

11 *Resolved*, That a copy of this Resolution be sent to Ray Bahr, Chief, Program Review
12 Division, Sediment, Stormwater, and Dam Safety, Maryland Department of the Environment.

AMENDMENT ADOPTED: July 5, 2016

READ AND PASSED this 5th day of July, 2016

By Order:



Elizabeth E. Jones
Administrative Officer

I HEREBY CERTIFY THAT RESOLUTION NO. 40-16 IS TRUE AND CORRECT AND DULY ADOPTED
BY THE COUNTY COUNCIL OF ANNE ARUNDEL COUNTY.



Derek J. Fink
Chairman

APPROVED this 11th day of July, 2016



Steven R. Schuh
County Executive

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

July 1, 2016

Executive Summary

Introduction

Anne Arundel County's NPDES MS4 permit, issued February 12, 2014, requires that the County complete restoration efforts to achieve the equivalent of treating 20% of the impervious surfaces not previously restored to the maximum extent practicable. The County's baseline, which has been previously approved by MDE, identifies 29,311 acres with either no or partial management, requiring the equivalent of 5,862 acres to be restored to meet the 20% criteria by the end of the permit term in February 2019.

The submission of Anne Arundel County's Financial Assurance Plan (FAP), as well as the submission of the Watershed Protection and Restoration Program (WPRP) annual report, is required for compliance with Maryland Environment Article §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 WPRP for FY14 and FY15, and the planned and programmed activities from FY16 through FY20.

The completion and submission of the FAP is required every two years with this first submittal due on July 1, 2016. The next FAP submittal will address activities through the end of FY18, including revenues and expenditures associated with the County's WPRP restoration activities. This FAP will be submitted on or before the anniversary date of the County's NPDES MS4 Permit (February 12, 2019).

According to the requirements for completing the attached FAP, all restoration activities completed by June 30, 2015 are classified as completed activities and their actual costs are reported. These activities include a variety of projects with a variety of funding sources as described below.

- CIP projects from Stormwater Runoff Controls and Water Quality Improvement classes that were completed in FY14 and FY15:
 - Several of these projects incurred costs prior to WPRP implementation, with construction completed in FY14 or FY15. These restoration projects were included in the NPDES MS4 reports for FY14 and FY15, and were funded by grants, general fund County bonds, and WPRF bonds, or a combination of these sources.
- CIP projects from the Watershed Protection and Restoration Program class that were completed in FY14 and FY15:
 - Several of these projects had design contracts that were initiated from within the Stormwater Runoff Controls and Water Quality Improvement classes, but were

completed through the County's WPRP class of CIP projects. All restoration project contracts completed out of the WPRP class were funded by WPRF bonds, but any prior work associated with other CIP classes may also include grants and general fund County bonds as funding sources.

- Operating budget funded restoration projects include ongoing street sweeping, inlet cleaning, and septic pumping:
 - Street sweeping and inlet cleaning are funded out of the WPRP 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 upgrades to denitrification systems are funded through Bay Restoration Fund grants. Costs for septic system connections to the sanitary sewer system are managed through the County's Bureau of Utilities; WPRF funds are not expended for this activity. Funding for restoration projects completed by NGOs include both County WPRF funds made available through the outgoing WPRP grant program, and grant funding to the NGOs from other entities resulting in no cost to the County.

Projections are also made for programmed projects that will be completed by June 30, 2020 (end of FY20). Programmed projects not completed by June 30, 2015 are classified as either under construction, planned, or proposed. Projects considered "under construction" were in the construction phase as of the end of FY15, and are anticipated to be complete at the end of FY16. "Planned projects" are those activities where a design contract has been issued by June 30, 2015. "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 WPRP, debt service on WPRF bonds, and the County's WPRP grant program to fund restoration projects completed by non-governmental agencies for which the County takes equivalent impervious treatment credits. Actual costs are reported for FY14 and FY15, and budgeted costs are included for FY16-FY20. These budgeted costs were obtained from the County Budget Office's WPRF Affordability Model and FY17 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 fee revenue amounts for FY14 and FY15, and projected revenues for FY16-FY20. These revenue projections assume no stormwater fee increases over this time frame and include an adjustment for a 1% increase in ERU due to development. General fund adjustments, included in the FY17 proposed budget, are recognized in the revenue projections for FY17-FY20 based on the Budget Office's WPRF Affordability Model. Bond authority for general obligation bonds and WPRF bonds are also included. The general obligation bonds included in this FAP are those associated with the Stormwater Runoff Controls and Water Quality Improvements CIP class projects funded through FY16. These project classes will be converted to WPRP classes in the FY17 CIP budget.

Grant sources include State funded grants for CIP restoration projects as well as BRF grants. The County's WPRP program is actively pursuing additional grant opportunities for future projects, and it is anticipated that the use of grant funds will allow additional CIP restoration projects, not currently included as part of this FAP, to occur.

The attached FAP indicates that approximately 3,800 acres, or 13.1%, of restoration will be completed by the end of FY18, which is 7 months prior to the end of the current NPDES MS4 permit term. This FAP took a conservative approach based on restoration project permitting requirements and the expectation that the over-performance experienced by the County's WRF upgrades would be allowed to accommodate a temporary trading-in-time scenario. Such a scenario would involve allowing temporary equivalent impervious area credit for the load reductions achieved by the upgraded WRFs, and subsequent replacement of those temporary WRF associated credits with the impervious area credits realized from restoration project implementation; the end result being full compliance with the required 20% impervious area equivalent restoration by the end of FY20.

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

The restoration costs through FY18 and FY20 are \$94 million and \$239 million respectively. These numbers show that substantial CIP project implementation costs will be realized during the period of the temporary trading-in-time scenario.

Total program projected restoration activity costs through FY20 are \$344 million, and \$365.8 million in revenue is expected, which demonstrates that the funding sources enumerated in the FAP are adequate to meet the permit requirements, treating approximately 5,979 impervious acres with the trading-in-time mechanism.

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	pwmich20@aacounty.org
Baseline Acres	29311.00
Permit Num	11-DP-3316 MD0068306
Reporting Year	2016

Check with MDE Geodatabase:

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

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: 29,311 **Requirement:** 20%

REST BMP TYPE*	BMP CLASS	IMP ACRES	IMPL COST	% ISRP COMPLETE	IMPL STATUS**	PROJECTED IMPL YR
Operation Programs						
VSS	A	23	\$41,808	0.1%	Complete	FY14
VSS	A	246	\$167,914	0.8%	Complete	FY15
VSS	A	550	\$305,000	1.9%	Planning	FY16
VSS	A	550	\$378,000	1.9%	Proposed	FY17
VSS	A	550	\$378,000	1.9%	Proposed	FY18
VSS	A	550	\$378,000	1.9%	Proposed	FY19
VSS	A	550	\$378,000	1.9%	Proposed	FY20
SEPP	A	100	\$0	0.3%	Planning	FY16
SEPP	A	100	\$0	0.3%	Proposed	FY17
SEPP	A	100	\$0	0.3%	Proposed	FY18
SEPP	A	100	\$0	0.3%	Proposed	FY19
SEPP	A	100	\$0	0.3%	Proposed	FY20
Average Operations Next Two Years (FY2017-FY2018)***		650.0	\$756,000	2.2%		
Average Operations Permit Term (FY2014-FY2018)***		443.8	\$1,270,722	1.5%		

Average Operations Permit Term and Projected Years (FY2014-FY2020)***		502.7	\$2,026,722	1.7%		
Capital Projects						
PWET	S	0	\$425,189	0.0%	Complete	FY14
PWET	S	61.38	\$1,716,770	0.2%	Complete	FY15
SPSC	A	5.58	\$837,454	0.02%	Complete	FY14
SPSC	A	21.68	\$3,445,478	0.07%	Complete	FY15
STRE	A	5	\$313,744	0.02%	Complete	FY15
IMPP	A	0.09	\$0	0.0003%	Complete	FY14
IBAS	S	4.92	\$203,713	0.02%	Under Construction	FY16
PWED	S	18.33	\$361,943	0.1%	Under Construction	FY16
PWET	S	48.65	\$2,465,288	0.2%	Under Construction	FY16
STRE	A	5	\$398,419	0.02%	Under Construction	FY16
FBIO	S	0	\$363,700	0.0%	Planning	FY16
PWED	S	30.3	\$1,556,000	0.1%	Planning	FY17
PWET	S	19.75	\$3,753,100	0.1%	Planning	FY17
PWET	S	51.33	\$5,691,700	0.2%	Planning	FY17
PWET	S	45.79	\$5,227,100	0.2%	Planning	FY18
SPSC	A	31.85	\$2,070,000	0.11%	Planning	FY16
SPSC	A	159.94	\$10,396,000	0.55%	Planning	FY17
STRE	A	8.71	\$641,100	0.03%	Planning	FY16
STRE	A	28.09	\$2,106,800	0.10%	Planning	FY17
WPWS	S	9	\$613,400	0.03%	Planning	FY17
FBIO	S	0	\$157,400	0.00%	Proposed	FY16
FBIO	S	8.15	\$178,200	0.03%	Proposed	FY19
ITRN	S	1.05	\$23,000	0.00%	Proposed	FY19
MMBR	E	1.59	\$34,800	0.01%	Proposed	FY19
PWET	S	23.75	\$1,774,400	0.08%	Proposed	FY16
PWET	S	68.3	\$6,831,000	0.23%	Proposed	FY17

PWET	S	97.2	\$9,722,600	0.33%	Proposed	FY18
PWET	S	64.86	\$4,183,800	0.22%	Proposed	FY19
PWET	S	13.92	\$696,600	0.05%	Proposed	FY20
SPSC	A	20.69	\$1,345,000	0.07%	Proposed	FY17
SPSC	A	119.36	\$7,758,400	0.41%	Proposed	FY18
SPSC	A	329.4	\$21,410,800	1.12%	Proposed	FY19
SPSC	A	272.71	\$17,726,400	0.93%	Proposed	FY20
STRE	A	0	\$155,900	0.00%	Proposed	FY16
STRE	A	10	\$427,100	0.03%	Proposed	FY17
STRE	A	43.7	\$3,278,100	0.15%	Proposed	FY18
STRE	A	903.86	\$67,789,200	3.08%	Proposed	FY19
STRE	A	428.03	\$32,102,300	1.46%	Proposed	FY20
WPWS	S	7.67	\$1,443,900	0.03%	Proposed	FY18
WSHW	S	122.7	\$2,683,400	0.4%	Proposed	FY17
Subtotal Capital Next Two Years (FY2017-FY2018)		833.82	\$62,833,600	2.8%		
Subtotal Capital Permit Term (FY2014-FY2018)		1068.76	\$78,164,098	3.65%		
Subtotal Capital Permit Term and Projected Years (FY2014-FY2020)		3092.33	\$222,309,198	10.6%		
Other						
FBIO	S	10.44	\$268,384	0.04%	Planning	FY17
FBIO	S	7.52	\$238,382	0.026%	Planning	FY16
SPSC	A	17.85	\$517,413	0.061%	Planning	FY17
PWET	S	14.45	\$168,930	0.049%	Planning	FY17
FBIO	S	35	\$1,000,000	0.119%	Proposed	FY18
SPSC	A	7.99	\$114,074	0.027%	Planning	FY16
IMPP	A	0.63	\$46,350	0.002%	Planning	FY16
STRE	A	15.5	\$103,000	0.1%	Planning	FY16

SPSC	A	100	\$5,000,000	0.341%	Proposed	FY17
SPSC	A	100	\$5,000,000	0.341%	Proposed	FY18
SHST	A	335.92	\$0	1.146%	Proposed	FY17
SEPC	A	9	\$0	0.0%	Complete	FY15
SEPD	A	49	\$227,766	0.2%	Complete	FY15
SEPC	A	16	\$0	0.1%	Complete	FY14
SEPD	A	4	\$19,488	0.0%	Complete	FY14
SEPC	A	3.51	\$0	0.0%	Complete	FY16
SEPD	A	26	\$121,800	0.1%	Complete	FY16
SEPC	A	3.5	\$0	0.0%	Proposed	FY17
SEPD	A	26	\$128,700	0.1%	Proposed	FY17
SEPC	A	3.5	\$0	0.0%	Proposed	FY18
SEPD	A	26	\$128,700	0.1%	Proposed	FY18
SEPC	A	3.5	\$0	0.0%	Proposed	FY19
SEPD	A	26	\$128,700	0.1%	Proposed	FY19
SEPC	A	3.5	\$0	0.0%	Proposed	FY20
SEPD	A	26	\$128,700	0.1%	Proposed	FY20
BASE	S	100	\$100,000	0.341%	Planning	FY16
BASE	S	1100	\$1,500,000	3.753%	Planning	FY17
TRADE	A	2044.0	\$0	6.973%	Proposed	FY18
TRADE	A	-2044	\$0	-6.973%	Proposed	FY20
SHST	A	203.96	\$0	0.696%	Complete	FY16
SHST	A	109.6	\$0	0.374%	Complete	FY15
Subtotal Other Next Two Years (FY2017-FY2018)		3817	\$13,712,128	13.02%		
Subtotal Other Permit Term (FY2014-FY2018)		4369	\$14,682,988	14.9%		
Subtotal Operations Permit Term and Projected Years (FY2014-FY2020)		2384	\$14,940,388	8.1%		

Total Next Two Years (FY2017-FY2018)		5300.5	\$77,301,728	18.1%		
Total Permit Term (FY2014-FY2018)		5881.9	\$94,117,808	20.1%		
Total Permit Term and Projected Years (FY2014-FY2020)		5979.4	\$239,276,308	20.4%		

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 2014	FY 2015	CURRENT/PROJECTED YEAR 1 FY 2016	PROJECTED YEAR 2 FY 2017	PROJECTED YEAR 3 FY 2018	PROJECTED YEAR 4 FY 2019	PROJECTED YEAR 5 FY 2020	TOTAL COSTS
Operating Expenditures (costs)								
Street Sweeping Program	\$36,808	\$167,914	\$296,125	\$305,009	\$314,159	\$323,584	\$333,291	\$1,776,890
Inlet Cleaning	\$489,621	\$537,571	\$541,909	\$558,166	\$574,911	\$592,158	\$609,923	\$3,904,259
Support of Capital Projects-WPRF Funded	\$7,058,135	\$12,339,537	\$13,855,066	\$13,621,025	\$11,728,112	\$11,310,387	\$11,498,110	\$81,410,372
Debt Service Payment	\$0	\$685,408	\$2,002,375	\$4,508,300	\$6,442,423	\$8,679,143	\$10,994,247	\$33,311,896
Support of Capital Projects-General Fund	-	-	-	\$350,000	\$1,584,100	\$2,694,915	\$3,206,054	\$7,835,069
Capital Expenditures (costs)								
General Fund bonds	\$1,737,946	\$1,261,969	\$4,215,785	\$0	\$0	\$0	\$0	\$7,215,699
WPR Fund (Paygo)								\$0
Debt Service (est. WPRF bond issuance)	\$7,300,000	\$26,880,000	\$12,232,000	\$29,000,000	\$35,000,000	\$42,000,000	\$42,000,000	\$194,412,000
Grants & Partnerships	\$754,737	\$580,901	\$2,110,000	\$6,000,000	\$5,000,000	\$0	\$0	\$14,445,638
Other (please stipulate capital expenditure)*	-	-	-	-	-	-	-	\$0
Subtotal operation and paygo:	\$7,584,564	\$13,730,430	\$16,695,475	\$19,342,500	\$20,643,705	\$23,600,187	\$26,641,625	\$128,238,486
Total expenditures:	\$17,377,246	\$42,453,299	\$35,253,260	\$54,342,500	\$60,643,705	\$65,600,187	\$68,641,625	\$344,311,823

Total ISRP costs except debt service (7): \$310,999,927

Compare ISRP costs (except debt service) / total ISRP proposed actions: 129.98%

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 2014	FY 2015	CURRENT/PROJECTED YEAR 1 FY 2016	PROJECTED YEAR 2 FY 2017	PROJECTED YEAR 3 FY 2018	PROJECTED YEAR 4 FY 2019	PROJECTED YEAR 5 FY 2020	TOTAL NEXT 2-YEARS FY 17-18*	TOTAL CURRENT + PROJECTED
Annual Revenue** Appropriated for ISRP	\$23,141,063	\$46,178,098	\$40,387,985	\$57,339,100	\$63,790,851	\$67,132,170	\$67,870,367	\$121,129,951	\$365,839,635
Annual Costs towards ISRP***	\$17,377,246	\$42,453,299	\$35,253,260	\$54,342,500	\$60,643,705	\$65,600,187	\$68,641,625	\$114,986,205	\$344,311,823

Compare annual costs / revenue appropriated: **105%**
WPRP 2016 Reporting Criteria **75%**

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 2018.

** 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 2016 at the time of FAP reporting.

*** 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 THRU 2014	FY 2015	CURRENT/PROJECTED YEAR 1 FY 2016	PROJECTED YEAR 2 FY 2017	PROJECTED YEAR 3 FY 2018	PROJECTED YEAR 4 FY 2019	PROJECTED YEAR 5 FY 2020	TOTAL PERMIT CYCLE
Paygo Sources								
Stormwater Remediation Fees (WPR Fund)	\$ 13,168,354	\$ 16,925,138	\$ 21,080,400	\$ 21,080,400	\$ 21,291,204	\$ 21,504,116	\$ 21,719,157	\$ 93,545,496
Miscellaneous Fees (WPR Fund)	\$ 21,993	\$ 152,534	\$ 80,000	\$ 80,000	\$ 86,847	\$ 104,439	\$ 116,456	\$ 421,374
General Fund	\$ -	\$ -	\$ -	\$ 350,000	\$ 1,584,100	\$ 2,694,915	\$ 3,206,054	\$ 1,934,100
Other Funds 1-CIP recoveries	\$ 158,034	\$ 377,557	\$ 548,000	\$ 700,000	\$ 700,000	\$ 700,000	\$ 700,000	\$ 2,483,591
Other Funds 2 (please stipulate funding source)								\$ -
Other Funds 3 (please stipulate funding source)								\$ -
Subtotal Paygo Sources	\$ 13,348,381	\$ 17,455,229	\$ 21,708,400	\$ 22,210,400	\$ 23,662,151	\$ 25,003,470	\$ 25,741,667	\$ 98,384,561
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 2014).								
County Transportation Bonds								\$ -
General Obligation Bonds	\$ 1,737,946	\$ 1,261,969	\$ 4,215,785					\$ 7,215,699
Revenue (WPRF) Bonds	\$ 7,300,000	\$ 26,880,000	\$ 13,232,000	\$ 35,000,000	\$ 40,000,000	\$ 42,000,000	\$ 42,000,000	\$ 122,412,000
State Revolving Loan Fund								\$ -
Public-private partnership (debt service)								\$ -
Subtotal Debt Service	\$ 9,037,946	\$ 28,141,969	\$ 17,447,785	\$ 35,000,000	\$ 40,000,000	\$ 42,000,000	\$ 42,000,000	\$ 129,627,699
Grants and Partnerships (no payment is expected)								
State funded grants	\$ 754,737	\$ 580,901	\$ 1,231,800	\$ 128,700	\$ 128,700	\$ 128,700	\$ 128,700	\$ 2,824,838
Federal funded grants								\$ -
Public-private partnership (matched grant)								\$ -
Subtotal Grants and Partnerships	\$ 754,737	\$ 580,901	\$ 1,231,800	\$ 128,700	\$ 128,700	\$ 128,700	\$ 128,700	\$ 2,824,838
Total Annual Sources of Funds	\$ 23,141,063	\$ 46,178,098	\$ 40,387,985	\$ 57,339,100	\$ 63,790,851	\$ 67,132,170	\$ 67,870,367	\$ 230,837,098
Percent of Funds Directed Toward ISRP	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	

Compare total permit term paygo ISRP costs / subtotal permit term paygo sources: 79%
 Compare total permit term ISRP costs / total permit term annual sources of funds: 91%

* WPR Fund: Watershed Protection and Restoration Fund.

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: 29,311

Requirement: 20%

REST BMP ID	REST BMP TYPE	BMP CLASS	NUM BMP	IMP ACRES	BUILT DATE	IMPL COST	% ISRP Complete	IMPL STATUS	GEN COMMENTS
Operation Programs									
	VSS	A	275	23	6/30/2014	\$41,808	0.1%	Complete	
	VSS	A	2,895	246	6/30/2015	\$167,914	0.8%	Complete	
Average Operations Complete To Date*			1,585	135		\$209,722	0.5%		
Capital Projects									
AA000013	PWET	S	1	3.26	10/15/2015	\$50,722	0.01%	Complete	
AA000045	PWET	S	1	2.24	10/15/2015	\$82,707	0.01%	Complete	
AA002478	PWET	S	1	1.86	10/15/2015	\$140,329	0.01%	Complete	
AA005084	PWET	S	1	2.1	10/15/2015	\$107,902	0.01%	Complete	
AA000652	PWET	S	1	2.37	10/15/2015	\$168,408	0.01%	Complete	
AA000887	PWET	S	1	2.56	10/15/2015	\$119,195	0.01%	Complete	
AA000819	PWET	S	1	3.18	10/15/2015	\$162,884	0.01%	Complete	
AA000024	PWET	S	1	1.16	10/15/2015	\$127,599	0.004%	Complete	
AA000839	PWET	S	1	12.82	10/15/2015	\$74,811	0.044%	Complete	
AA000647	PWET	S	1	2.85	10/15/2015	\$49,770	0.010%	Complete	
AA007188	PWET	S	1	3.11	10/15/2015	\$101,345	0.011%	Complete	
AA004181	PWET	S	1	0.49	10/15/2015	\$27,493	0.002%	Complete	

AA000496	PWET	S	1	2.03	10/15/2015	\$76,239	0.007%	Complete	
AA000022	PWET	S	1	2.04	10/15/2015	\$30,149	0.007%	Complete	
AA000831	PWET	S	1	14.69	8/24/2014	\$89,690	0.050%	Complete	
S17H5000001	STRE	A	1	5	2/13/2015	\$313,744	0.017%	Complete	Leeds Rd
Q12B50000001	SPSC	A	1	3.5	12/22/2014	\$321,210	0.012%	Complete	Denington Lane
AA005099	PWET	S	1	0.81	6/15/2015	\$103,722	0.003%	Complete	
AA004096	PWET	S	1	2.48	2/18/2015	\$112,648	0.008%	Complete	
AA001526	PWET	S	1	1.33	2/18/2015	\$91,155	0.005%	Complete	
	SPSC	A	1	2.2	5/5/2015	\$856,571	0.008%	Complete	Old Bay Ridge RR
	SPSC	A	1	0.58	3/4/2014	\$40,388	0.002%	Complete	Cape St. Claire FS
Q13A60000002	SPSC	A	1	3	12/30/2014	\$331,159	0.010%	Complete	Olde Severna Park
AA000039	SPSC	A	1	5	3/31/2014	\$501,350	0.017%	Complete	
	SPSC	A	1	2.39	3/31/2014	\$169,426	0.008%	Complete	Knollwood Rd
	SPSC	A	1	3.34	2/10/2015	\$1,061,644	0.011%	Complete	Southdown Shores
	SPSC	A	1	2.25	12/3/2014	\$333,894	0.008%	Complete	Buena Vista ph 2
	SPSC	A	1	5	11/11/2014	\$371,573	0.017%	Complete	Haskell Drive
	IMPP	A	1	0.09		\$0	0.0%	Complete	Pekin Rd.
Subtotal Capital Complete To Date			29	93.73		\$6,017,729	0.32%		
Other									
	SHST	A	6	109.6	FY15	\$0	0.4%	Complete	
	SHST	A	9	203.96	FY16	\$0	0.7%	Complete	
	SEPC	A	23	9	FY15	\$0	0.0%	Complete	
	SEPD	A	187	49	FY15	\$227,766	0.2%	Complete	
	SEPC	A	40	16	FY14	\$0	0.1%	Complete	
	SEPD	A	16	4	FY14	\$19,488	0.0%	Complete	
	SEPC	A	9	3.51	FY16	\$0	0.0%	Complete	

	SEPD	A	88	26	FY16	\$121,800	0.1%	Complete	
Subtotal Other Complete To Date			378	421		\$369,054	1.4%		
Total Complete to Date			1,992	649.3		\$6,596,505	2.2%		

Baltimore City

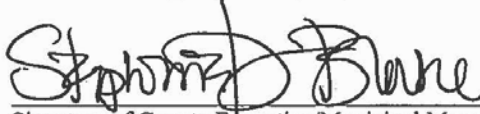
CERTIFICATION

WHEREAS, the provisions of § 4-202.1 of the Environment Article of the Annotated Code of Maryland require Baltimore City (County/City) to file a financial assurance plan to the Maryland Department of the Environment that demonstrates that it has sufficient funding to meet the impervious surface restoration plan requirements of the (County's/City's) National Pollutant Discharge Elimination System Phase I Municipal Separate Storm Sewer System Permit; and

WHEREAS, the provisions of this law require that "a county or municipality may not file a financial assurance plan under this subsection until the local governing body of the county or municipality: (i) Holds a public hearing on the financial assurance plan; and (ii) Approves the financial assurance plan."

NOW, THEREFORE, I certify that:

1. A public hearing was held on the financial assurance plan on June 8, 2016 (Date);
2. The local governing body approves the aforementioned financial assurance plan; and
3. Under penalty of law, the information in this financial assurance plan is, to the best of my knowledge and belief, true, accurate, and complete.



Signature of County Executive/Municipal Mayor or Chief Financial Officer

6-28-16

Date

Stephanie Rawlings-Blake

Printed Name of County Executive/Municipal Mayor or Chief Financial Officer

Mayor

Title

**Baltimore City– Fiscal Year 2016
Financial Assurance Plan and
Watershed Protection and Restoration Program Annual Report
as required under the
Watershed Protection and Restoration Program
June 30, 2016**

Executive Summary

The submission of Baltimore City’s Financial Assurance Plan (FAP) and Watershed Protection and Restoration Program (WPRP) annual report to the Maryland Department of the Environment (MDE) fulfills requirements specified in the Maryland Article – Environment, Section 4-202.1. These plans and reports are being filed to MDE in order to document all actions implemented by Baltimore City to comply with its National Pollutant Discharge Elimination System (NPDES) municipal separate storm sewer system (MS4) permit and demonstrate the City’s ability to pay for these activities through the Watershed Protection and Restoration Fund.

An MS4 permit was issued to Baltimore City on December 27, 2013 and annual reports for Fiscal Years 2014 and 2015 have been submitted to MDE by the City on March 17, 2015 and December 23, 2015, respectively. These annual reports are based on the City’s [CM1] fiscal year (FY) and include updates on the City’s MS4 programs and impervious surface area restoration. Baltimore City has continued implementing its MS4 program and this Executive Summary documents achievements met since the December 24, 2015 annual report.

In compliance with the Maryland Article Section 4-202.1, the following FAP and WPRP annual report includes all activities that have been completed in compliance with Baltimore City’s MS4 permit, and five-year projections for the implementation of its stormwater program and best management practices (BMPs) necessary for meeting permit requirements. Specifically, these plans and reports document complete implementation and financial data for FY14 and FY15.

A major tenet of the FAP and WPRP annual report is to demonstrate the financial wherewithal for meeting MS4 permit impervious surface area restoration requirements. In order to document this ability, Baltimore City is providing MS4 program implementation projections for FY16, FY17, FY18, FY19, and FY20. Future FAPs will be submitted every two years on the anniversary date of the City’s MS4 permit issuance, beginning with December 27, 2018. Future WPRP annual reports will be submitted every year on the anniversary date of the City’s permit, beginning with December 27, 2016. The sections in this Executive Summary follow the order of Baltimore City’s MS4 permit found in Part IV, Standard Permit Conditions, and highlight the major achievements for each program element.

- Part IV.C. Source identification – Existing data is being converted based on MDE’s NPDES MS4 Geodatabase and User’s Guide, dated March 2015. Additional data for development and updates from field verification are also being incorporated. The new database will be included in the FY 2016 MS4 Annual Report.
- Part IV.D.1 and 2. Stormwater Management and Erosion and Sediment Control– four (4) full-time employees (FTE) were added in FY 2015 as part of the plans review consolidation (utility connection permitting). An additional 8 FTE will be added in FY 2017 to fulfill both plan review and inspection obligations. Paperless inspection reporting will be implemented in FY 2017. On-line guidance and training sessions to multiple stakeholder groups will begin in FY 2017. DPW received a grant in FY 2016 to develop design standard details and calculations for ESD practices, which will be submitted to MDE in FY 2017. An alternative as-built certification process is being evaluated for constructed BMPs with no as-built submittals from the developer. As of FY 2015 report, only BMPs with approved as-built submittals and completed inspections were reported. By FY 2018, all approved and constructed BMPs will be reported.
- Part IV.D.3. Illicit Discharge Detection and Elimination – 1 FTE was added in FY 2016 and another 3 FTE will be added in FY 2017. New camera equipment, use of iPad applications, field techniques, and pipeline assessment training were implemented in FY 2015 and 2016. DPW continues to work with private NGOs such as Blue Water Baltimore and Ridges to Reefs for volunteer-based IDDE efforts. US EPA performed an audit of this permit condition in August 2015.
- Part IV.D.4. Trash and Litter – Municipal trash cans were distributed to City residents in FY 2016. The Clean Corps Baltimore partnership was initiated in FY 2016, which included the distribution of the “Clean City Guide”: single source education material. Clean Corps provides education, training, materials and support services to twenty (20) target neighborhoods to assist residents in neighborhood cleaning activities. Additionally, there were 51 community and harbor clean-ups registered through the City’s Stormwater Participation Event.
- Part IV.D.5. Property Management and Maintenance – Street sweeping operations expanded city-wide in FY 2014, but additional parking signage and vehicle maintenance needs will be addressed in FY 2017 to 2019 to improve operation efficiency. Inlet screens and catch basin inserts were installed in five neighborhoods in FY 2016 to improve the efficiency of street sweeping and inlet cleaning, preventing trash and debris from migrating to the storm pipe. Contracted maintenance, equivalent to 6 FTE, was initiated in FY 2016 for preventive inlet cleaning. Additional contracted services, even if migrated to in-house services, should be offset by procedure efficiencies. Street sweeping and inlet cleaning are part of the impervious surface restoration plan (ISRP). US EPA performed an audit of this permit condition in August 2016. One FTE was assigned in FY 2016 to initiate an internal audit program on NPDES permitted facilities.
- Part IV.D.6. Public Education - 2 FTE will be added in FY 2017 for community outreach and grant coordination. Engagement of local universities in outreach and research was initiated in FY 2016. DPW initiated upgrading their website content in FY 2016, creating a “one-stop” page for items IV.D.6.b.i – vii. GROW Center pop-up locations were initiated in FY 2016.

- Part IV.E.1. Watershed Assessment – Community engagement was initiated in FY 2016. Assessments are scheduled to be updated and completed within FY 2018. Assessment will be completed using in-house resources.
- Part IV. E. 2. Restoration Plans—1 FTE was added in FY 2015. Another 7 FTE will be added by FY 2018. Over \$6M in design contracts were initiated in FY 2016. Over \$4M of construction is scheduled for advertisement in the summer of 2016. The majority of construction activities are scheduled for FY 2018, with some of the construction activities extending into FY 2019 until the end of the permit period. These capital projects are part of the ISRP.
- Part IV.E.5. TMDL Compliance – Nutrient and sediment TMDL compliance is aligned with the restoration plan progress. The trash TMDL implementation plan was submitted in FY 2016. Modifications to the bacteria TMDL are anticipated pending the modification of the City’s consent decree for unpermitted discharges from the wastewater collection system. A microbial source tracking study for bacteria, in partnership with local universities, will be initiated in FY 2017.
- Part IV.F. Assessment of Controls – DPW approved agreements with USGS to add monitoring parameters to existing stations in the County (reservoir) and City. Biological assessment of controls continues. Physical assessment of controls was postponed until repair of Stony Run was complete. This permit condition is a function of the same organization unit as IDDE.

MS4 Information

Jurisdiction	Baltimore City
Contact Name	Kimberly Grove
Phone	410-396-0732
Address	3001 Druid Park Drive
City	Baltimore
State	MD
Zip	21215
Email	kimberly.grove@baltimorecity.gov
Baseline Acres	4291.00
Permit Num	11-DP-3315
Reporting Year	2016

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: 4,291 Requirement: 20%

REST BMP TYPE*	BMP CLASS	IMP ACRES	IMPL COST	% ISRP COMPLETE	IMPL STATUS**	PROJECTED IMPL YR
Operation Programs						
VSS	A	3175	\$4,942,590	74.0%		2016
SDV	A	20	\$4,842,042	0.5%		2016
VSS	A	3175	\$4,752,996	74.0%		2017
SDV	A	100	\$4,877,685	2.3%		2017
VSS	A	3175	\$4,895,586	74.0%		2018
SDV	A	215	\$5,024,015	5.0%		2018
VSS	A	3175	\$5,042,453	74.0%		2019
SDV	A	215	\$5,174,736	5.0%		2019
VSS	A	3175	\$5,193,727	74.0%		2020
SDV	A	215	\$5,329,978	5.0%		2020
Average Operations Next Two Years (FY2017-FY2018)***		3332.5	\$19,550,282	77.7%		
Average Operations Permit Term (FY2014-FY2018)***		3,050.1	\$38,585,120	71.1%		

Average Operations Permit Term and Projected Years (FY2014-FY2020)***		3,163.4	\$59,326,014	73.7%		
Capital Projects						
MMBR	E	1.2		0.0%	Under Construction	2017
STRE	A	80		1.9%	Under Construction	2017
PWET	S	191	\$7,771,000	4.5%	Pending	2019
WPWS	S	59	\$1,540,000	1.4%	Pending	2019
WEDW	S	9	\$212,000	0.2%	Pending	2019
FBIO	S	5	\$220,000	0.1%	Pending	2019
MMBR	E	1.5	\$155,400	0.0%	Pending	2017
MMBR	E	34.4	\$6,803,000	0.8%	Pending	2018
MMBR	E	22.9	\$3,113,000	0.5%	Pending	2019
STRE	A	771	\$44,590,355	18.0%	Pending	2019
SPSC	S	9	\$1,168,000	0.2%	Pending	2018
OTH	E	23.2	\$5,331,600	0.5%	Pending	2019
FPU	A	20.8	\$1,240,000	0.5%	Pending	2018
				0.0%		
				0.0%		
				0.0%		
				0.0%		
Subtotal Capital Next Two Years (FY2017-FY2018)		72.8	\$56,261,755	1.7%		
Subtotal Capital Permit Term (FY2014-FY2018)		1238.2	\$72,215,798	28.9%		
Subtotal Capital Permit Term and Projected Years (FY2014-FY2020)		1259	\$73,455,798	29.3%		
Other						
Redevelopment		150	\$0	3.5%	Under Construction	2019

Volunteer		129	\$0	3.0%	Proposed	2019
Subtotal Other Next Two Years (FY2017-FY2018)		279	\$0	6.50%		
Subtotal Other Permit Term (FY2014-FY2018)		279	\$0	6.5%		
Subtotal Operations Permit Term and Projected Years (FY2014-FY2020)		279	\$0	6.5%		
Total Next Two Years (FY2017-FY2018)		3684.3	\$75,812,037	85.9%		
Total Permit Term (FY2014-FY2018)		4567.3	\$110,800,918	106.4%		
Total Permit Term and Projected Years (FY2014-FY2020)		4701.4	\$132,781,812	109.6%		

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 2014	FY 2015	CURRENT/PROJECTED YEAR 1 FY 2016	PROJECTED YEAR 2 FY 2017	PROJECTED YEAR 3 FY 2018	PROJECTED YEAR 4 FY 2019	PROJECTED YEAR 5 FY 2020	TOTAL COSTS
Operating Expenditures (costs)								
Street Sweeping Program	\$4,201,342	\$5,048,864	\$4,942,590	\$4,752,996	\$4,895,586	\$5,042,453	\$5,193,727	\$34,077,558
Inlet Cleaning	\$4,240,303	\$3,976,357	\$4,842,042	\$4,877,685	\$5,024,015	\$5,174,736	\$5,329,978	\$33,465,116
Support of Capital Projects	\$1,060,832	\$899,438	\$715,342	\$1,001,257	\$1,031,295	\$531,117	\$0	\$5,239,281
Debt Service Payment	\$353,838	\$241,406	\$208,424	\$702,528	\$1,639,086	\$4,774,654	\$5,514,581	\$13,434,517
Other (please stipulate program expenditure)*	-	-	-	-	-	-	-	\$0
Capital Expenditures (costs)								
General Fund (Paygo)	\$560,901	\$25,618	\$136,288	\$335,146	\$540,000	\$0	\$0	\$1,597,953
WPR Fund (Paygo)		\$229,858	\$1,375,505	\$10,011,729	\$19,398,505	\$4,931,360	\$0	\$35,946,957
Debt Service	\$1,311,433		\$836,722	\$11,281,226	\$31,033,479	\$6,167,456	\$0	\$50,630,316
Grants & Partnerships			\$0	\$0	\$1,130,516	\$376,839	\$0	\$1,507,355
Other (please stipulate capital expenditure)*								\$0
Subtotal operation and paygo:	\$10,417,216	\$10,421,541	\$12,220,191	\$21,681,341	\$32,528,487	\$20,454,320	\$16,038,286	\$123,761,382
Total expenditures:	\$11,728,649	\$10,421,541	\$13,056,913	\$32,962,567	\$64,692,482	\$26,998,615	\$16,038,286	\$175,899,053

Total ISRP costs except debt service: **\$162,464,536**
 Compare ISRP costs (except debt service) / total ISRP proposed actions: **122.35%**

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 2014	FY 2015	CURRENT/PROJECTED YEAR 1 FY 2016	PROJECTED YEAR 2 FY 2017	PROJECTED YEAR 3 FY 2018	PROJECTED YEAR 4 FY 2019	PROJECTED YEAR 5 FY 2020	TOTAL NEXT 2-YEARS FY 17-18*	TOTAL CURRENT + PROJECTED
Annual Revenue** Appropriated for ISRP	\$65,363,957	\$12,647,379	\$15,059,675	\$20,204,572	\$59,239,742	\$49,859,604	\$14,654,996	\$79,444,314	\$237,029,925
Annual Costs towards ISRP***	\$11,728,649	\$10,421,541	\$13,056,913	\$32,962,567	\$64,692,482	\$26,998,615	\$16,038,286	\$97,655,049	\$175,899,053

Compare annual costs / revenue appropriated****: **81%**
WPRP 2016 Reporting Criteria **75%**

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 2018.

** 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 2016 at the time of FAP reporting.

*** See table of ISRP Cost.

**** Description was changed from MDE mandated format to match the calculation, but the calculation remains the same.

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 2014	FY 2015	CURRENT/PROJECTED YEAR 1 FY 2016	PROJECTED YEAR 2 FY 2017	PROJECTED YEAR 3 FY 2018	PROJECTED YEAR 4 FY 2019	PROJECTED YEAR 5 FY 2020	TOTAL PERMIT CYCLE
Paygo Sources								
Stormwater Remediation Fees (WPR Fund)	\$13,839,985	\$16,183,495	\$21,052,184	\$20,536,714	\$27,443,394	\$24,141,367	\$32,499,181	\$99,055,772
Miscellaneous Fees (WPR Fund)	\$43,490	\$86,130	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$279,620
General Fund	\$0	\$2,524,432	\$2,471,295	\$2,376,498	\$2,447,793	\$2,521,227	\$2,596,864	\$9,820,018
Water and WW Utility	\$1,227,537	\$1,066,731	\$1,663,121	\$2,077,826	\$2,140,161	\$2,204,366	\$2,270,496	\$8,175,376
Other Funds 2 (please stipulate funding source)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Funds 3 (please stipulate funding source)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Paygo Sources	\$15,111,012	\$19,860,788	\$25,236,600	\$25,041,038	\$32,081,348	\$28,916,960	\$37,416,541	\$117,330,786
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 2014).								
County Transportation Bonds	\$27,184,748	\$0	\$0	\$0	\$0	\$0	\$0	\$27,184,748
General Obligation Bonds	\$5,275,000	\$0	\$0	\$0	\$0	\$0	\$0	\$5,275,000
Revenue (Utility) Bonds	\$0	\$0	\$0	\$0	\$11,086,400	\$26,348,000	\$1,458,000	\$11,086,400
State Revolving Loan Fund	\$0	\$0	\$0	\$583,000	\$20,775,600	\$0	\$0	\$21,358,600
MD Water Quality Loan	\$4,800,000	\$0	\$0	\$0	\$0	\$0	\$0	\$4,800,000
Public-private partnership (debt service)	\$7,087,000	\$0	\$0	\$0	\$0	\$0	\$0	\$7,087,000
Subtotal Debt Service	\$44,346,748	\$0	\$0	\$583,000	\$31,862,000	\$26,348,000	\$1,458,000	\$76,791,748
Grants and Partnerships (no payment is expected)								
State funded grants	\$0	\$30,602	\$0	\$700,000	\$500,000	\$500,000	\$0	\$1,230,602
Federal funded grants	\$0	\$0	\$0	\$0	\$2,000,000	\$1,000,000	\$0	\$2,000,000
Public-private partnership (matched grant)	\$0	\$0	\$0	\$250,465	\$0	\$0	\$0	\$250,465
Subtotal Grants and Partnerships	\$0	\$30,602	\$0	\$950,465	\$2,500,000	\$1,500,000	\$0	\$3,481,067
Total Annual Sources of Funds	\$59,457,760	\$19,891,390	\$25,236,600	\$26,574,503	\$66,443,348	\$56,764,960	\$38,874,541	\$197,603,601
Percent of Funds Directed Toward ISRP	20%	52%	52%	124%	97%	48%	41%	

Compare total permit term paygo ISRP costs / subtotal permit term paygo sources: 74%

Compare total permit term ISRP costs / total permit term annual sources of funds: 67%

* WPR Fund: Watershed Protection and Restoration Fund.

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:

4,291

Requirement:

20%

REST BMP ID	REST BMP TYPE	BMP CLASS	NUM BMP	IMP ACRES	BUILT DATE	IMPL COST	% ISRP Complete	IMPL STATUS	GEN COMMENTS
Operation Programs									
	VSS	A	1	3175	6/30/2015	\$5,048,864	74.0%	Complete	
	VSS	A	1	1506	6/30/2014	\$4,201,342	35.1%	Complete	
							0.0%		
							0.0%		
Average Operations Complete To Date*			1	2,341		\$9,250,206	27.3%		
Capital Projects									
	STRE	A	1	31	3/1/2014	\$1,311,443	0.7%	Complete	
							0.0%		
							0.0%		
							0.0%		
Subtotal Capital Complete To Date			1	31		\$1,311,443	0.72%		
Other									
							0.0%		
							0.0%		
Subtotal Other Complete To Date			0	0		\$0	0.0%		
Total Complete to Date			2	2,371.5		\$10,561,649	28.0%		

Baltimore County



KEVIN KAMENETZ
County Executive

VINCENT J. GARDINA, *Director*
Department of Environmental Protection
and Sustainability

July 1, 2016

Mr. Raymond Bahr, Chief
Program Review Division
Water Management Administration
Maryland Department Of The Environment
1800 Washington Boulevard
Baltimore, MD 21230

Re: List of Projects for Meeting the 20% Impervious Surface Restoration
Requirement of the NPDES – MS4 Permit
Watershed Protection and Restoration Program Annual Report

Dear Mr. Bahr:

Please find enclosed the list of capital improvement projects intended to be implemented during the present term of the MS4 permit 11-DP-3317. Also please find enclosed the spreadsheet that summarizes the required information for the Watershed Protection and Restoration Program Annual Report.

The list of capital improvement projects includes proposed actions that do not yet have an identified project(s), but will serve to meet the impervious surface restoration requirement. New projects are identified on a continuing basis. The County will update the list of completed projects and those projects that are in the pipeline on an annual basis with the submission of the Annual Report due each December 23rd. The submission always includes the Attachment A Database, and in the future, will be in the form of the newly-required geodatabase. However, to make it easier for MDE, the submission will also take the form of a spreadsheet, such as the one currently being submitted.

The Financial Assurance Plan will be submitted under separate cover by the Baltimore County administration.

If you have any questions regarding these submittals, please contact Steven Stewart at 410-887-7678 or via email at sstewart@baltimorecountymd.gov.

Sincerely,

A handwritten signature in blue ink that reads "Vincent J. Gardina". The signature is written in a cursive style.

Vincent J. Gardina, LEED
Director
Baltimore County Department of Environmental Protection and Sustainability

Attachment 1

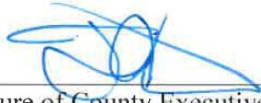
CERTIFICATION

WHEREAS, the provisions of § 4-202.1 of the Environment Article of the Annotated Code of Maryland require Baltimore County to file a financial assurance plan to the Maryland Department of the Environment that demonstrates that it has sufficient funding to meet the impervious surface restoration plan requirements of the (County's/City's) National Pollutant Discharge Elimination System Phase I Municipal Separate Storm Sewer System Permit; and

WHEREAS, the provisions of this law require that "a county or municipality may not file a financial assurance plan under this subsection until the local governing body of the county or municipality: (i) Holds a public hearing on the financial assurance plan; and (ii) Approves the financial assurance plan."

NOW, THEREFORE, I certify that:

1. A public hearing was held on the financial assurance plan on _____ (Date);
2. The local governing body approves the aforementioned financial assurance plan; and
3. Under penalty of law, the information in this financial assurance plan is, to the best of my knowledge and belief, true, accurate, and complete.



Signature of County Executive/Municipal Mayor or Chief Financial Officer

7/12/16

Date

Fred Homan

Printed Name of County Executive/Municipal Mayor or Chief Financial Officer

Administrative Officer

Title



**County Council
of
Baltimore County**

Court House
Towson, Maryland 21204

410-887-3196
Fax: 410-887-5791

Tom Quirk
FIRST DISTRICT

Vicki Almond
SECOND DISTRICT

Wade Kach
THIRD DISTRICT

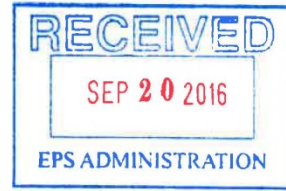
Julian E. Jones, Jr.
FOURTH DISTRICT

David Marks
FIFTH DISTRICT

Cathy Bevins
SIXTH DISTRICT

Todd K. Crandell
SEVENTH DISTRICT

Thomas J. Peddicord, Jr.
LEGISLATIVE COUNSEL
SECRETARY



Copied to:
S. Stewart
R. Ryan
D. Lykens
on 09/20/16

September 20, 2016

Vincent J. Gardina, Director
Department of Environmental Protection and Sustainability
The Jefferson Building
105 W. Chesapeake Avenue
Towson, Maryland 21204

Dear Mr. Gardina:

Attached please find a copy of Resolution 94-16 approving the County's Financial Assurance Plan under the Watershed Protection and Restoration Program.

This Resolution was approved by the County Council at its September 19, 2016 meeting and is being forwarded to you for appropriate action.

Sincerely,

Thomas J. Peddicord, Jr.
Legislative Counsel/Secretary

TJP:jlh
Enclosure

COUNTY COUNCIL OF BALTIMORE COUNTY, MARYLAND
Legislative Session 2016, Legislative Day No. 15

Resolution No. 94-16

Mrs. Vicki Almond, Chairwoman
By Request of County Executive

By the County Council, September 6, 2016

A RESOLUTION approving the County's Financial Assurance Plan under the Watershed Protection and Restoration Program;

WHEREAS, § 4-202.1 of the Environment Article of the Annotated Code of Maryland (EN) requires that every political subdivision that has a National Pollution Discharge Elimination System (NPDES) Phase I Municipal Separate Storm Sewer System Permit (MS4 Permit) must file a Financial Assurance Plan (FAP) with the Maryland Department of the Environment on or before July 1, 2016 and then every two years thereafter on the anniversary date of the issuance of its MS4 Permit; and

WHEREAS, Baltimore County received its MS4 Permit on December 23, 2013; and

WHEREAS, EN § 4-202.1 requires the FAP to identify:

1. Actions that will be required of the county to meet the requirements of its NPDES Phase I MS4 Permit;
2. Projected annual and 5-year costs for the county to meet the impervious surface restoration plan requirements of its NPDES Phase I MS4 Permit;
3. Projected annual and 5-year revenues or other funds that will be used to meet the costs for the county to meet the impervious surface restoration plan requirements of its NPDES Phase I MS4 Permit;
4. Any source of funds that will be utilized by the county to meet the requirements of its NPDES Phase I MS4 Permit; and

5. Specific actions and expenditures that the county implemented in the previous fiscal years to meet its impervious surface restoration plan requirements under its NPDES Phase I MS4 Permit; and

WHEREAS, the County Administrative Officer approved the county's FAP on July 12, 2016; and

WHEREAS, EN § 4-202.1 requires the county's local governing body to hold a public hearing on the FAP; and

WHEREAS, the County Council held the required public hearing on September 13, 2016; now, therefore

BE IT RESOLVED BY THE BALTIMORE COUNTY COUNCIL, that the County Council approves the Financial Assurance Plan; and

BE IT FURTHER RESOLVED, that the County Executive shall forward the Financial Assurance Plan to the Maryland Department of the Environment immediately on approval by the County Council.

READ AND PASSED this 19th day of SEPTEMBER, 2016.

BY ORDER



Thomas J. Peddicord, Jr.
Secretary

ITEM: RESOLUTION 94-16

**Baltimore County– Fiscal Year 2016
Financial Assurance Plan
and
Watershed Protection and Restoration Program Annual Report
as required under the
Watershed Protection and Restoration Program
June 30, 2016**

Executive Summary

The submission of Baltimore County’s Financial Assurance Plan (FAP) and Watershed Protection and Restoration Program (WPRP) annual report to the Maryland Department of the Environment (MDE) fulfills requirements specified in Md. Code Ann. Envir. § 4-202.1. These plans and reports are being filed to MDE in order to document all actions implemented by Baltimore County to comply with its National Pollutant Discharge Elimination System (NPDES) municipal separate storm sewer system (MS4) permit and demonstrate the County’s ability to pay for these activities through the Watershed Protection and Restoration Fund.

An MS4 permit was issued to Baltimore County on December 23, 2013 and annual reports have been submitted to MDE by the County on December 23, 2014 and December 23, 2015. These annual reports are based on the State’s fiscal year (FY) and include updates on the County’s MS4 programs and impervious surface area restoration. Monitoring results are based on calendar year. Baltimore County has continued implementing its MS4 program and this Executive Summary documents achievements detailed in its December 23, 2015 annual report.

In compliance with the Md. Code Ann., Envir. § 4-202.1, the following FAP and WPRP annual report includes all activities that have been completed in compliance with Baltimore County’s MS4 permit, and five-year projections for the implementation of its stormwater program and best management practices (BMPs) necessary for meeting permit requirements. Specifically, these plans and reports document complete implementation and financial data for FY14 and FY15.

A major tenet of the FAP and WPRP annual report is to demonstrate the financial wherewithal for meeting MS4 permit impervious surface area restoration requirements. In order to document this ability, Baltimore County is providing MS4 program implementation projections for FY16, FY17, FY18, FY19, and FY20. Future FAPs will be submitted every two years on the anniversary date of the County’s MS4 permit issuance, beginning with December 23, 2018. Future WPRP annual reports will be submitted every year on the anniversary date of the County’s permit, beginning with December 23, 2016. The sections in this Executive Summary follow the order of Baltimore County’s MS4 permit found in Part IV, Standard Permit Conditions, and highlight the major achievements for each program element. The Baltimore

County Annual MS4 Report can be found at:
<http://www.baltimorecountymd.gov/Agencies/environment/npdes/> for more detailed information.

Permit Administration: No major changes were made in fiscal year 2015.

Adequate Legal Authority: Baltimore County continues to maintain adequate legal authority.

Source Identification: Baltimore County submitted its required data through the Attachment A spreadsheet. The County is currently reviewing its business process for NPDES – MS4 annual report data collection. The review, due in July 2016, will serve as the basis for the development of the NPDES – MS4 geodatabase business process to assure efficient data collection of all of the required data for inclusion in the geodatabase.

Stormwater Management: In fiscal year 2015, the Stormwater Engineering Section reviewed 88 Concept Plans, 34 Site Development Plans, and 484 Final Development Plans. In FY 2015, five exemptions were granted. The County conducted a Historic BMP Database Clean-up for submittal to MDE and inclusion of better data in the Chesapeake Bay Program Phase 6 Watershed Model. The clean-up resulted in a significant identification of as-built dates for SWM facilities constructed over the years. That effort is continuing.

The stormwater facility inspection program inspected 152 facilities for as-built inspection, 191 one-year inspections, and 1,150 facilities for 3-year inspections in fiscal year 2015. The county is continuing to assess its inspection program to assure that all facilities that require 3-year inspections are inspected within the 3-year timeframe to ensure continuing credits for pollutant load reductions.

The publically owned facilities are maintained by a supervisor and six crew members, along with two contracted inspectors and eight contracted field crew members to maintain 1,320 public facilities. Private ponds will be inspected by on-call contractors with oversight by two assigned and experienced County staff.

Erosion and Sediment Control: During fiscal year 2015, 162 grading permits were issued for a disturbance area of 434 acres. A total of 5,457 inspections of constructions were conducted with 1,221 enforcement actions (1,118 correction notices, 103 stop work orders). The County received re-delegation for the erosion and sediment control program effective through June 30, 2018.

Illicit Discharge Detection and Elimination: The County screened 141 storm drain outfalls in calendar year 2014, short of the required 150 outfalls. However, the County screened 341 outfalls in calendar year 2013. Of the outfalls that were screened 20 were found to require follow-up investigations. The County received 99 complaints, all of which were investigated. Of the 99 complaint investigations, 79 were closed and 20 are still under investigation.

The County also conducts hotspot surveys of commercial/industrial sites as part of its Small Watershed Action Plan process and as a new program within the Watershed Management and Monitoring (WMM) section. A total of 46 sites were surveyed through the SWAP and 158 sites through the WMM program. Of the 204 sites, 16% were confirmed hotspots and 10% were potential hotspots. Follow-up investigations of these hotspots has resulted in 50% of the cases being closed with the remaining still under investigation.

In February 2012, the WMM section initiated an IDDE research study to determine the extent of illicit connections in an urban/suburban county with the intent to better target outfalls with higher potential for illicit connections. Six SWAP areas containing 1,224 outfalls were selected for screening all outfalls regardless of size. Outfalls with flow have samples taken for laboratory analysis of nutrient loadings. To date, 854 outfalls have been screened with 370 remaining. The intent is to complete the screening of the remaining outfalls in 2016 and have the report of the findings ready for submittal with the 2016 Annual MS4 Report.

Trash and Litter:

A county-wide trash and litter reduction strategy was submitted to MDE December 23, 2014 and the Trash TMDL Implementation Plan for the impairments in the northeast branch and the middle branch of Baltimore Harbor (drainage areas of Jones Falls and Gwynns Falls, respectively) was submitted December 23, 2015. Baltimore County continues its trash monitoring program in the Jones Falls and Gwynns Falls stream and has added an Upland Trash Assessment program to identify high trash areas.

A Request for Proposals was released in the fall of 2015 for the development of an Environmental Education and Outreach program, of which trash education and outreach is a major component. The firm has been selected and the County is currently preparing a contract, which is anticipated to go to the County Council for approval in early summer of 2016.

Property Management and Maintenance: The County has 42 sites that are permitted under the General Permit for Industrial Stormwater Discharges and all of the sites have Stormwater Pollution Prevention Plans in place. The County continues with its street sweeping program and its storm drain cleaning program with 1,854 and 124 tons of debris removed in FY 2015.

The County applied 264,899 pounds of fertilizer to County lands in FY 2015, primarily applied on the five County golf courses (123,029 lbs.) and by Property Management on athletic fields (141,860 lbs). The County also applied 36,920 pounds of pesticides in FY 2015, again primarily by County golf courses (33,723 lbs.) with lesser amounts by Property Management (1,602 lbs.) and DPW – Bureau of Highways (1,164 lbs.). In fiscal year 2015, 205,325,015 pounds of salt was applied by the County. This represents the second highest amount of salt applied, but there were 20 snow storms during the period, tied with FY2014 for the greatest number of snow storms.

The County Household Hazardous Waste program continues in operation with three permanent drop-off sites (Eastern Sanitary Landfill, Central Acceptance Facility, and the Western Acceptance Facility). There are two Household Hazardous Waste collection days each year. Fifty pounds of mercury and 1,100 pounds of PCB oil was collected in FY2015. Both of these pollutants have TMDLs related to fish tissue and human consumption. All collected materials are disposed of in the proper manner to ensure they do not contaminate the environment.

Public Education: Public education and outreach continue to be a strong component of the Baltimore County MS4 program. As indicated above, the County is in the process of hiring a contractor to provide enhanced education and outreach to Baltimore County residents and businesses. The initial focus will be on trash and pet waste, with other components added as needed. The County works with local Watershed Associations to further promote environmental education and outreach.

Restoration Plans and Total Maximum Daily Loads:

The County has completed 18 Small Watershed Action Plans (restoration plans), with three currently in development and expected to be finished by late 2016/early 2017; leaving two additional plans to be initiated in the spring of 2017. This will complete plans for the entire county by the end of the MS4 permit term as required by the permit.

To date, total of 25 TMDL Implementation Plans have been submitted to MDE, as follows:

- Bacteria – 7 plans
- Sediment – 5 plans (3 stream-based, 2 reservoir-based)
- Phosphorus – 3 plans (all reservoir-based)
- Nutrients – 2 plans
- Mercury – 2 plans
- Chlordane – 2 plans
- PCBs – 3 plans
- Trash – 1 plan

Additional TMDLs are under development and will require the development of additional TMDL Implementation Plans within one year of EPA approval the TMDL. Baltimore County is currently in the process of revising the initial 22 plans submitted to MDE December 23, 2014 and plans to resubmit all 22 by the end of the summer of 2016.

The bacteria monitoring has shown significant reductions in bacteria concentration relative to the monitoring conducted by MDE to develop the TMDLs. Ninety percent of 32 stations have shown improvement compared to the TMDL monitoring.

Most of the sediment and nutrient TMDL targets are on course for meeting the urban stormwater pollutant load reduction target by 2025, with 58% of 12 targets on or above target at the end of fiscal year 2015 and with projects under planning or construction that will result in 67% of the reductions on target by 2017.

The toxics TMDLs (mercury, chlordane, PCBs) are related to concentrations in fish tissue and potential effects on human health. Mercury may be below action levels, but we have not received the most recent fish tissue monitoring data to make the final determination. Baltimore County is in the process of developing a Request for Proposals for analysis of toxics in water quality, fish tissue, and sediment samples to determine where to target efforts for remediation.

Assessments of Controls: Baltimore County met the requirements for the number of storms to be monitored and has met the requirements for the Scotts Level Branch and Windlass Run biological and physical habitat monitoring. In addition, the County has continued the following programs to assess the conditions of Baltimore County waters, better target areas in need of restoration and progress in meeting TMDL reduction targets:

- Bacteria monitoring programs
 - Trend Monitoring
 - Subwatershed Prioritization Monitoring
- Trash monitoring program
- Chemical Trend Monitoring program
- Biological Monitoring programs
 - Stream random point program

- Tidal water random point program
- Sediment TMDL biological monitoring program
- Reference site monitoring program
- Sentinel site monitoring program
- Geomorphological monitoring program
- Restoration effectiveness monitoring program
- Special Studies monitoring program

Program Funding: The NPDES – MS4 permit program funding for capital and operating budgets for FY2016 are \$10,301,622 and \$7,433,270, respectively. The financial assurance plans provides more detail on the funding as it relates to the 20% impervious surface restoration requirement. However, the financial assurance plan does not cover funding related to other NPDES – MS4 permit requirements, such as, restoration plan and TMDL implementation plan development, or monitoring, or a number of operating program components (sediment control, stormwater plans review, inspection or maintenance.

MS4 Information

Jurisdiction	Baltimore County
Contact Name	Steve Stewart
Phone	4108877678
Address	111 W. Chesapeake Avenue, Room 319
City	Towson
State	MD
Zip	21204
Email	sstewart@baltimorecountymd.gov
Baseline Acres	6036.00
Permit Num	11-DP-3317
Reporting Year	2016

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: 6,036 **Requirement:** 20%

REST BMP TYPE*	BMP CLASS	IMP ACRES	IMPL COST	% ISRP COMPLETE	IMPL STATUS**	PROJECTED IMPL YR
Operation Programs						
MSS	A	519	\$500,000	8.6%	Proposed	2016
SDV	A	44.55	\$79,623	0.7%	Proposed	2016
MSS	A	519	\$550,000	8.6%	Proposed	2017
SDV	A	44.55	\$146,376	0.7%	Proposed	2017
MSS	A	519	\$575,000	8.6%	Proposed	2018
SDV	A	44.55	\$153,695	0.7%	Proposed	2018
MSS	A	519	\$600,000	8.6%	Proposed	2019
SDV	A	44.55	\$161,379	0.7%	Proposed	2019
MSS	A	519	\$625,000	8.6%	Proposed	2020
SDV	A	44.55	\$169,448	0.7%	Proposed	2020
Average Operations Next Two Years (FY2017-FY2018)***		563.6	\$1,425,071	9.3%		
Average Operations Permit Term (FY2014-FY2018)***		631.8	\$11,004,694	10.5%		
Average Operations Permit Term and Projected Years (FY2014-FY2020)***		612.3	\$12,560,522	10.1%		
Capital Projects						

STRE	A	88	\$15,999,686	1.5%	Construction	2016
FPU	A	42	\$973,137	0.7%	Construction	2016
SF	S	138	\$1,422,374	2.3%	Construction	2016
STRE	A	357	\$23,379,752	5.9%	Planned	2017
FPU	A	13	\$288,772	0.2%	Planned	2017
SF	S	6	\$155,040	0.1%	Planned	2017
STRE	A	312	\$20,964,168	5.2%	Planned	2018
SHST	A	424	\$12,062,198	7.0%	Planned	2018
STRE	A	470	\$30,550,000	7.8%	Proposed	2018
SWM Conversions/Retrofits	S, E	1,200	\$17,238,000	19.9%	Proposed	2018
SHST	A	180	\$2,250,000	3.0%	Proposed	2018
FPU	A	170	\$1,345,575	2.8%	Proposed	2018
STRE	A	75	\$5,200,000	1.2%	Planned	2019
SHST	A	303	\$3,787,000	5.0%	Planned	2019
STRE	A	178	\$11,537,500	2.9%	Proposed	2020
SHST	A	20	\$250,000	0.3%	Proposed	2020
FPU	A	87	\$5,211,306	1.4%	Proposed	2020
SWM Conversions/Retrofits	S,E	834	\$5,490,000	13.8%	Proposed	2020
Subtotal Capital Next Two Years (FY2017-FY2018)		3,132	\$108,233,505	51.9%		
Subtotal Capital Permit Term (FY2014-FY2018)		3,642	\$133,643,320	60.3%		
Subtotal Capital Permit Term and Projected Years (FY2014-FY2020)		5,139	\$165,119,127	85.1%		
Other						
Watershed Association Projects	A	8.8	\$240,000.00	0.15%	Proposed	2016
Septic Connections	A	27.3	\$410,000.00	0.45%	Proposed	2016
Septic Denitrifying Systems	A	11.1	\$180,000.00	0.18%	Proposed	2016
Septic Pumping	A	56.1	\$0.00	0.93%	Proposed	2016

Big Tree Sale	A	2.8	\$0.00	0.05%	Proposed	2016
Rain Barrell Sale	A	1.0	\$0.00	0.02%	Proposed	2016
Redevelopment	A	21.0	\$0.00	0.35%	Construction	2016
Watershed Association Projects	A	8.8	\$240,000.00	0.15%	Proposed	2017
Septic Connections	A	27.3	\$410,000.00	0.45%	Proposed	2017
Septic Denitrifying Systems	A	11.1	\$180,000.00	0.18%	Proposed	2017
Septic Pumping	A	56.1	\$0.00	0.93%	Proposed	2017
Big Tree Sale	A	2.8	\$0.00	0.05%	Proposed	2017
Rain Barrell Sale	A	1.0	\$0.00	0.02%	Proposed	2017
Redevelopment	A	2.1	\$0.00	0.03%	Planned	2017
Watershed Association Projects	A	4.4	\$120,000.00	0.07%	Proposed	2018
Septic Connections	A	27.3	\$410,000.00	0.45%	Proposed	2018
Septic Denitrifying Systems	A	11.1	\$180,000.00	0.18%	Proposed	2018
Septic Pumping	A	56.1	\$0.00	0.93%	Proposed	2018
Big Tree Sale	A	2.8	\$0.00	0.05%	Proposed	2018
Rain Barrell Sale	A	1.0	\$0.00	0.02%	Proposed	2018
Redevelopment	A	220.0	\$0.00	3.64%	Proposed	2018
Nutrient Trading	A	1000.0	\$0.00	16.57%	Proposed	2018
Watershed Association Projects	A	4.4	\$120,000.00	0.07%	Proposed	2019
Septic Connections	A	27.3	\$410,000.00	0.45%	Proposed	2019
Septic Denitrifying Systems	A	6.4	\$180,000.00	0.11%	Proposed	2019
Septic Pumping	A	56.1	\$0.00	0.93%	Proposed	2019
Big Tree Sale	A	2.8	\$0.00	0.05%	Proposed	2019
Rain Barrell Sale	A	1.0	\$0.00	0.02%	Proposed	2019
Redevelopment	A	250.0	\$0.00	4.14%	Proposed	2019
Watershed Association Projects	A	4.4	\$120,000.00	0.07%	Proposed	2020
Septic Connections	A	27.3	\$410,000.00	0.45%	Proposed	2020
Septic Denitrifying Systems	A	6.4	\$180,000.00	0.11%	Proposed	2020
Septic Pumping	A	56.1	\$0.00	0.93%	Proposed	2020
Big Tree Sale	A	2.8	\$0.00	0.05%	Proposed	2020

Rain Barrell Sale	A	1.0	\$0.00	0.02%	Proposed	2020
Redevelopment	A	250.0	\$0.00	4.14%	Proposed	2020
Subtotal Other Next Two Years (FY2017-FY2018)		1,432	\$1,540,000	23.72%		
Subtotal Other Permit Term (FY2014-FY2018)		1787	\$3,948,000	29.6%		
Subtotal Operations Permit Term and Projected Years (FY2014-FY2020)		2483	\$5,368,000	41.1%		
Total Next Two Years (FY2017- FY2018)		5128	\$111,198,575	85.0%		
Total Permit Term (FY2014- FY2018)		6061	\$148,596,014	100.4%		
Total Permit Term and Projected Years (FY2014- FY2020)		8234	\$183,047,648	136.4%		

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 2014	FY 2015	CURRENT/PROJECTED YEAR 1 FY 2016	PROJECTED YEAR 2 FY 2017	PROJECTED YEAR 3 FY 2018	PROJECTED YEAR 4 FY 2019	PROJECTED YEAR 5 FY 2020	TOTAL COSTS
Operating Expenditures (costs)								
Street Sweeping Program	\$212,583	\$475,967	\$500,000	\$550,000	\$575,000	\$600,000	\$625,000	\$3,538,550
Inlet Cleaning	\$178,186	\$160,408	\$79,623	\$146,376	\$153,695	\$161,379	\$169,448	\$1,049,116
Support of Capital Projects	\$1,272,021	\$1,379,405	\$1,211,951	\$1,614,201	\$1,360,116	\$1,389,182	\$1,418,516	\$9,645,392
Debt Service Payment								\$0
Other (please stipulate program expenditure)*	-	-	-	-	-	-	-	\$0
Capital Expenditures (costs) #								
General Fund (Paygo)	\$46,438	\$0	\$0	\$2,100,000	\$0	\$0	\$0	\$2,146,438
WPR Fund (Paygo)	\$17,587,014	\$4,391,200	\$2,923,700	\$11,544,157	\$0	\$0	\$0	\$36,446,071
Debt Service								\$0
Grants & Partnerships	\$1,858,036	\$7,321,872	\$3,225,312	\$1,150,000	\$626,000	\$626,000	\$438,000	\$15,245,220
GO Bonds	\$2,770,001	\$1,903,700	\$35,000	\$2,115,000	\$5,580,000	\$5,580,000	\$5,000,000	\$22,983,701
Metro funds	\$24,583,959	\$11,749,870	\$7,320,000	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000	\$83,653,829
SW Fee/FC Fee	\$938,305	\$0						
Bay Restoration Fund	\$503,000	\$600,000	\$590,000	\$590,000	\$590,000	\$590,000	\$590,000	\$4,053,000
Carry over of funds from previous fiscal years!	\$0	\$0	\$0	\$43,675,939				
Subtotal operation and paygo:	\$19,296,242	\$6,406,980	\$4,715,274	\$59,630,673	\$2,088,811	\$2,150,561	\$2,212,964	\$96,501,506
Total expenditures:	\$49,949,543	\$27,982,422	\$15,885,586	\$73,485,673	\$18,884,811	\$18,946,561	\$18,240,964	\$223,375,561

Total ISRP costs except debt service: \$223,375,561
 Compare ISRP costs (except debt service) / total ISRP proposed actions: 122.03%

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 2014	FY 2015	CURRENT/PROJECTED YEAR 1 FY 2016	PROJECTED YEAR 2 FY 2017 #	PROJECTED YEAR 3 FY 2018 #	PROJECTED YEAR 4 FY 2019	PROJECTED YEAR 5 FY 2020	TOTAL NEXT 2-YEARS FY 17-18* #	TOTAL CURRENT + PROJECTED
Annual Revenue** Appropriated for ISRP	\$65,350,364	\$41,182,452	\$32,825,006	\$70,626,516	\$18,884,811	\$18,946,561	\$18,240,964	\$89,511,327	\$266,056,674
Annual Costs towards ISRP***	\$49,949,543	\$27,982,422	\$15,885,586	\$73,485,673	\$18,884,811	\$18,946,561	\$18,240,964	\$92,370,484	\$223,375,561

Compare annual costs / revenue appropriated: 97%
WPRP 2016 Reporting Criteria 75%

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 2018.

** 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 2016 at the time of FAP reporting.

*** 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 THRU 2014	FY 2015	CURRENT/PROJECTED YEAR 1 FY 2016	PROJECTED YEAR 2 FY 2017	PROJECTED YEAR 3 FY 2018	PROJECTED YEAR 4 FY 2019	PROJECTED YEAR 5 FY 2020	TOTAL PERMIT CYCLE
Paygo Sources								
Stormwater Remediation Fees (WPR Fund)	\$ 24,706,795	\$24,522,940	\$ 16,949,184	\$11,238,824	\$ -	\$ -	\$ -	\$ 77,417,743
Miscellaneous Fees (WPR Fund)	\$ 1,540,000	\$ -	\$ 300,000					\$ 1,840,000
General Fund	\$2,012,007	\$ 1,237,640	\$ 1,281,989	\$ 1,856,753	\$ 2,088,811	\$ 2,150,561	\$ 2,212,964	\$ 12,840,725
Bay Restoration Fund	\$ 503,000	\$ 600,000	\$ 590,000	\$ 590,000	\$ 590,000	\$ 590,000	\$ 590,000	\$ 4,053,000
Carry over from previous fiscal years!	\$ -	\$ -	\$ -	\$ 43,675,939	\$ -	\$ -	\$ -	\$ 43,675,939
Other Funds 3 (please stipulate funding source)								\$ -
Subtotal Paygo Sources	\$ 28,761,802	\$ 26,360,580	\$ 19,121,173	\$ 57,361,516	\$ 2,678,811	\$ 2,740,561	\$ 2,802,964	\$ 139,827,407
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 2014).								
County Transportation Bonds								\$ -
General Obligation Bonds	\$ 3,429,544	\$ -	\$ 2,000,000	\$ 2,115,000	\$ 5,580,000	\$ 5,580,000	\$ 5,000,000	\$ 13,124,544
Revenue (Utility) Bonds	\$31,300,982	\$ 7,500,000	\$ 8,478,521	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 67,279,503
State Revolving Loan Fund								\$ -
Public-private partnership (debt service)								\$ -
Subtotal Debt Service	\$ 34,730,526	\$ 7,500,000	\$ 10,478,521	\$ 12,115,000	\$ 15,580,000	\$ 15,580,000	\$ 15,000,000	\$ 80,404,047
Grants and Partnerships (no payment is expected)								
State funded grants	\$ 1,858,036	\$ 7,321,872	\$3,225,312	\$ 1,150,000	\$ 626,000	\$ 626,000	\$ 438,000	\$ 14,181,220
Federal funded grants	\$ -	\$ -	\$ -					\$ -
Public-private partnership (matched grant)								\$ -
Subtotal Grants and Partnerships	\$ 1,858,036	\$ 7,321,872	\$ 3,225,312	\$ 1,150,000	\$ 626,000	\$ 626,000	\$ 438,000	\$ 14,181,220
Total Annual Sources of Funds	\$ 65,350,364	\$ 41,182,452	\$ 32,825,006	\$ 70,626,516	\$ 18,884,811	\$ 18,946,561	\$ 18,240,964	\$ 228,869,149
Percent of Funds Directed Toward ISRP								

Compare total permit term paygo ISRP costs / subtotal permit term paygo sources: 66%
 Compare total permit term ISRP costs / total permit term annual sources of funds: 81%

* WPR Fund: Watershed Protection and Restoration Fund.

! Capital funding that is not allocated in the fiscal year it is budgeted is carried over into the next fiscal year. This is reflected for fiscal year 2017, any unallocated funds at the end of FY2017 will carry over into FY2018.

Carroll County

Thomas S. Devilbiss, Director
410-386-2949, fax 410-386-2924
Toll-free 1-888-302-8978
MD Relay service 7-1-1/1-800-735-2258
LRM@cgg.carr.org



**Department of
Land and Resource Management**
Carroll County Government
225 North Center Street
Westminster, Maryland 21157

June 30, 2016

Mr. Raymond P. Bahr
Program Review Division Chief
Sediment, Stormwater, and Dam Safety Program
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, Maryland 21230

RE: Watershed Protection and Restoration Program –
2016 Carroll County Financial Assurance Plan

Dear ^{Ray}Mr. Bahr:

The attached Carroll County 2016 Financial Assurance Plan (FAP) is being submitted per requirements of the Code of Maryland Regulations (COMAR) subsection 4-202.1. The FAP has been prepared per the Maryland Department of the Environment developed spreadsheets and approved per the requirements of subsection 4-201.1(J)(3). The Board of County Commissioners of Carroll County held three public venues regarding the FAP:

- (1) A May 31, 2016, briefing by staff to the Board regarding the FAP, which included Board approval to move forward to a public hearing,
- (2) A June 9, 2016, public hearing in which the public was offered the opportunity to comment, and
- (3) A June 23, 2016, deliberation session in which the Board approved the FAP (minutes of the session are attached to this correspondence).

The Carroll County 2016 FAP demonstrates sufficient funding in the current fiscal year and subsequent budgets to meet its anticipated costs per requirements in COMAR 4-202.1. Therefore, Carroll County feels it has met its statutory requirements with this 2016 submittal.

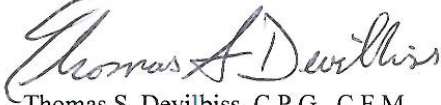
While the FAP reflects current conditions related to an impervious surface assessment and stormwater wasteload allocations, the County expressly reserves the right to modify and amend such numbers as may be necessary based on future refinements, new or additional information, re-interpretations, or ongoing litigation.

Carroll County
a great place to live, a great place to work, a great place to play

Mr. Raymond P. Bahr
2016 Carroll County Financial Assurance Plan
June 30, 2016
Page Two

Finally, I would like to extend the County's sincere appreciation to you and your staff for support and assistance during this initial development and submittal process. Your courtesy review and constructive comments were welcomed and readily accepted. I look forward to MDE and the County continuing to work jointly on any issues through the review and reporting process.

Sincerely,



Thomas S. Devilbiss, C.P.G., C.F.M.
Director

cc: Board of County Commissioners
Timothy C. Burke, County Attorney
Water Resource Coordination Council
Gale Engles, Bureau of Resource Management
Glenn Edwards, Department of Land & Resource Management
Brenda Dinne, Department of Land & Resource Management



Board of Carroll County Commissioners

County Office Building
Westminster, MD 21157
www.ccgovernment.carr.org

Open Session

~ Minutes ~

Admin

Thursday, June 23, 2016

10:00 AM

County Office Building Rm 311

I. Call to Order

Attendee Name	Organization	Title	Status	Arrived
Stephen Wantz	Board of Carroll County Commissioners	President	Present	
Richard Weaver	Board of Carroll County Commissioners	Vice-President	Present	
Dennis Frazier	Board of Carroll County Commissioners	Secretary	Absent	
Richard Rothschild	Board of Carroll County Commissioners	Commissioner	Present	
Doug Howard	Board of Carroll County Commissioners	Commissioner	Present	

II. Invocation ~ Commissioner Rothschild

III. Positively Carroll

IV. Public Comment ~ Item No. V

None

V. Briefing ~ Solid Waste Advisory Council Update

The Bureau of Solid Waste must effectively implement an integrated system of solid waste management and recycling that allows sufficient flexibility to react to changes in regulations, technology and market conditions. The Solid Waste Advisory Council (SWAC) advises the Bureau of Solid Waste as needed on select matters relating to administration, operation, capital projects and budget. SWAC provides a forum for the advisory input from users of the County's solid waste facilities. A discussion was held regarding Waste Haulers pickup by Districts and the concept of Pay as You Throw.

VI. Public Comment ~ Item No. VII

None

VII. Discussion/Decision ~ Chapter 158 Zoning

On June 9th, the Board conducted a Public Hearing to accept testimony in support and/or opposition to a proposed zoning text amendment. The Hearing was conducted in conformance with the Land Use Article, Maryland Annotated Code and the Code of Public Local Laws of Carroll County, following public notice as prescribed by the Code. No public comment was received during the public hearing. After providing ample opportunity for participation, the Commissioners formally closed the hearing and agreed to keep the public

record open for a period of not less than ten (10) days. The ten (10) day comment period has expired with no comments received.

1. **Motion To:** adopt the proposed legislation amending Chapter 158 of the Code of Public Local Laws of Carroll County dealing with Petroleum Storage

RESULT:	ADOPTED [UNANIMOUS]
MOVER:	Doug Howard, Commissioner
SECONDER:	Richard Weaver, Vice-President
AYES:	Stephen Wantz, Richard Weaver, Richard Rothschild, Doug Howard
ABSENT:	Dennis Frazier

VIII. Public Comment ~ Item No. IX

None

IX. Additional Discussion/Decision ~ NPDES Financial Assurance Plan

The 2015 Maryland General Assembly passed Senate Bill 863 - Watershed Protection and Restoration Programs - Revisions. While SB 863 repealed the mandate to implement a stormwater remediation fee to fund stormwater projects, in its place, the bill requires annual reporting to Maryland Department of the Environment (MDE) for certain information related to the Watershed Protection and Restoration Fund and stormwater mitigation projects. SB 863 also requires a jurisdiction to file a Financial Assurance Plan (FAP) with MDE every two years. The first report is to be filed by July 1, 2016, and then every two years thereafter on the anniversary date of the issuance of the NPDES Phase 1 MS4 permit. The FAP must demonstrate that 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 plan. The local governing body must hold a public hearing and approve an FAP before it can be submitted to MDE. MDE will make the plan publically available on its website within 14 days after the plan is submitted. MDE has 90 days from receipt of the FAP to determine if a jurisdiction's FAP demonstrates sufficient funding. Starting September 1, 2016, and every year thereafter, MDE must submit an annual report to the Governor and committees of the Maryland General Assembly evaluating the compliance of Phase I jurisdictions with the requirements of the stormwater fee law. The Commissioners held a public hearing on June 9 and directed that the hearing record be left open for 10 days.

1. **Motion To:** approve the Financial Assurance Plan for submittal to Maryland Department of the Environment.

RESULT:	ADOPTED [UNANIMOUS]
MOVER:	Richard Weaver, Vice-President
SECONDER:	Doug Howard, Commissioner
AYES:	Stephen Wantz, Richard Weaver, Richard Rothschild, Doug Howard
ABSENT:	Dennis Frazier

X. Public Comment ~ Item No. XI

None

XI. Briefing/Discussion/Decision ~ Bid Approval - Finksburg Industrial Park - Stormwater Management

This project is located on the north side of Maryland Route 91, on west side of the junction with Maryland Route 91 North. Work at the site shall include, but is not limited to the retrofit of an existing stormwater management facility, the construction of a new embankment, weir wall, and the installation of new drainage structures at the end of existing culverts beneath Maryland Route 91 and Industrial Park Drive, along with all associated conveyances. Sediment and erosion control is also included in the work effort. Department of Resource Management in cooperation with the Bureau of Purchasing recommends award for the Finksburg Industrial Park Stormwater Management to be awarded to the only bidder CJ Miller in the amount of \$2,337,753.25.

- Motion To:** approve the award of bid for the Finksburg Industrial Park Stormwater Management to C. J. Miller in the amount of \$2,337,753.25

RESULT:	ADOPTED [UNANIMOUS]
MOVER:	Doug Howard, Commissioner
SECONDER:	Richard Weaver, Vice-President
AYES:	Stephen Wantz, Richard Weaver, Richard Rothschild, Doug Howard
ABSENT:	Dennis Frazier

XII. Public Comment ~ Item No. XIII

None

XIII. Discussion/Possible Decision ~ Request Approval of Grant Award from Administrative Office of the Courts FY2017 Conflict Resolution Project Grant Circuit Court/Drug Court

The Carroll County Adult Drug Court (CCADC), a court-operated program under the direction of the Carroll County Circuit Court, is a coordinated effort to identify adult non-violent substance abusing offenders who live in Carroll County and place them under strict court monitoring and community supervision, coupled with effective substance abuse treatment and referrals to supportive services. Participants in CCADC typically have a significant number of arrests related to their addiction, multiple criminal cases, periods of unsuccessful supervision, lengthy periods of incarceration and multiple failures at substance abuse treatment. The Conflict Resolution Project grant's purpose is for benefiting the courts and citizens of Maryland with the goal of increasing efficiency in the courts, expanding access to justice and preventing conflicts from escalating into violence or litigation. The grant request was fully funded and grant funds will provide a 3 day training to improve the Carroll County Adult Drug Court Participants ability to resolve conflict by learning how to be more effective in dealing with conflict with family and friends, how to keep relationships strong, and how to speak effectively for their own needs during conflict.

- Motion To:** accept the grant award for the FY 2017 Conflict Resolution Projects Grant Program.

MS4 Information	
Jurisdiction	Carroll County
Contact Name	Tom Devilbiss
Phone	410-386-2639
Address	225 North Center Street
City	Westminster
State	Maryland
Zip	21157
Email	tdevilbiss@ccg.carr.org
Baseline Acres	1344.00
Permit Num	11-DP-3319
Reporting Year	2016

Background

The 2015 Maryland General Assembly passed Senate Bill 863 – Watershed Protection and Restoration Programs – Revisions. While SB 863 repealed the mandate for Phase I MS4 permittees to implement a stormwater remediation fee to fund stormwater projects, in its place, the bill requires annual reporting to Maryland Department of the Environment (MDE) for certain information related to the Watershed Protection and Restoration Fund and stormwater projects implemented during the previous year. SB 863 also requires a jurisdiction to file a financial assurance plan (FAP) with MDE every two years. The first report is to be filed by July 1, 2016, and then every two years thereafter on the anniversary date of the issuance of the NPDES Phase 1 MS4 permit.

The FAP must demonstrate that 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 plan. The local governing body must hold a public hearing and approve an FAP before it can be submitted to MDE. MDE will make the plan publically available on its website within 14 days after the plan is submitted.

MDE has 90 days from receipt of the FAP to determine if a jurisdiction's FAP demonstrates sufficient funding. Starting September 1, 2016, and every year thereafter, MDE must submit an annual report to the Governor and environmental committees of the Maryland General Assembly evaluating the compliance of Phase I jurisdictions with the requirements of the stormwater fee law.

Summary of Carroll County FAP

Carroll County's third generation permit, which expired in 2009, required restoration of 10 percent of untreated impervious surface. The initial 10 percent restoration requirement was achieved in 2009. The County continued to work toward the next 10 percent, as required by the permit, while awaiting issuance of the fourth generation permit. By the issuance of the fourth generation permit in December 2014, restoration of 23 percent of the untreated impervious surface had been achieved. Because the original 10 percent was complete, and work on the next 20 percent began in 2009, all projects completed that contribute toward the current 20 percent requirement have been included in these spreadsheets to ensure proper credit is given. Total operating and capital costs of \$12,576,575 have been expended thus far through FY 2015 to comply with the 20 percent restoration requirement of the current permit since the third generation permit expired.

With the fourth generation permit, which was issued December 29, 2014, Carroll County and its eight municipalities became co-permittees. The permit requires restoration of 20 percent of untreated impervious surface in the unincorporated areas of the county, as well as restoration of 20 percent of untreated impervious surface in the municipalities. With the addition of the municipalities to the permit, the impervious surface was reassessed, the results of which were incorporated into the FY 2015 annual NPDES report. However, as MDE has not yet officially approved the new impervious area numbers, the untreated impervious acres (6,715) in the approved FY 2014 annual report were used for this FAP.

The County projects spending a total of \$42,962,810 over the permit term for completed and planned projects (Sheet 1 Total Permit Term Costs of \$30,386,235 plus Sheet 5 Total Complete to Date of \$12,576,575). Impervious area restored is projected to be greater than 20 percent through the end of this permit term in anticipation of additional restoration requirements that will be included in the fifth

generation permit, the amount of which as yet has not been determined by MDE. In addition, the FAP demonstrates that revenues are projected to meet estimated Impervious Surface Restoration Plan (ISRP) costs for the two-year period following the filing date, as shown on Sheet 3.

Additional items that should be noted are as follows:

- “All Actions” and “Spec Actions” Worksheets – Projects completed prior to 2009 but counting toward the current permit’s 20 percent restoration requirement are included in these worksheets to ensure proper credit toward the current permit’s ISRP.
- “All Actions” Worksheet – Costs under “Other” were not funded by County revenues. Therefore, no cost is reported. These BMPs were acquired through the development process, as a result of County policies and requirements, and contribute toward the County’s impervious surface restoration requirement.
- “ISRP Costs” Worksheet – Property tax revenues are intended to cover General Fund costs for Projected Costs Years 2 through 5 are \$0 “General Fund” under “Paygo” sources are \$0 unless property taxes are not enough to cover the expenses in that year. General Fund dollars are only used if additional funds are needed. Therefore, no dollars in Years 2 through 5 have been included, as revenues are projected to cover costs.
- “Spec Actions” Worksheet – Septic pumping does not appear under operating costs, as it is not a cost incurred by the County. These costs are paid by the individual property owners.
- The specifics and details related to restoration projects and program implementation can be found in the County’s annual NPDES reports. Funding and efforts related to NPDES permit compliance have historically been, and continue to be, a high priority for Carroll County. This FAP provides confirmation related to that commitment, and, therefore, this submittal represents a level of effort which meets the spirit and intent of SB 863.

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: 1,344

Requirement: 20%

REST BMP TYPE*	BMP CLASS	IMP ACRES	IMPL COST	% ISRP COMPLETE	IMPL STATUS**	PROJECTED IMPL YR
Operation Programs						
				0.0%		
				0.0%		
				0.0%		
				0.0%		
				0.0%		
Average Operations Next Two Years (FY 2017-FY 2018)***		#DIV/0!	\$0	0.0%		
Average Operations Permit Term (FY 2014-FY 2018)***		#DIV/0!	\$0	0.0%		

Average Operations Permit Term and Projected Years (FY 2014-FY 2020)***		#DIV/0!	\$0	0.0%			
Capital Projects							
PWED	S	24.93	\$1,200,000	1.9%	Under Construction	2016	Miller/Watts
FPU	A	11.42	\$119,660	0.8%	Under Construction (Maintenance Period)	2016	Upper Monocacy/Westminster /New Windsor/Double PC 3 Treeplanting
FSND	S	17.00	\$830,000	1.3%	Under Construction	2016	Carroll Co. Main.
FBIO	S	4.00	\$70,000	0.3%	Under Construction	2016	Farm Museum
PWED	S	47.05	\$3,500,000	3.5%	Proposed	2016	Finksburg Ind., Miller/Watts
FSND	S	94.98	\$2,740,000	7.1%	Proposed	2017	Elderwood, Blue Ridge
PWED	S	92.10	\$1,800,000	6.9%	Proposed	2017	Langdon
WPKT	S	24.00	\$750,000	1.8%	Proposed	2017	Manchester Skate
PWED	S	139.20	\$4,000,000	10.4%	Proposed	2018	Willow, Shannon

FBIO
 Bioretention
 FPRSE
 Floodplain
 Restoration
 FSND Sand
 Filter
 WPKT Pocket
 Wetlant
 MENF
 Enhanced
 Filters

FSND	S	61.50	\$2,500,000	4.6%	Proposed	2018	Merr, Small, Whip.	FPU Planting Trees
FPU	A	12.50	\$300,000	0.9%	Planning	2018	Treeplanting \$8,000/acre	OUT Outfall Stabilization
PWED	S	199.30	\$3,150,000	14.8%	Planning	2019	Null, Centr, Greens U.B. Project	PWED Extended Detention (Wet)
WPKT	S	10.00	\$350,000	0.7%	Planning	2019	Centr (Dry), Squires	
FSND	S	55.00	\$800,000	4.1%	Planning	2019	Treeplanting \$9,000/acre	
FPU	A	15.00	\$400,000	1.1%	Planning	2019	Springmount	
OUT	A	10.00	\$240,000	0.7%	Planning	2020	Piney Ridge Village, Candice Estates	
FSND	S	21.00	\$640,000	1.6%	Planning	2020	Treeplanting \$10,000/acre	
FPU	A	18.00	\$550,000	1.3%	Planning	2020		
				0.0%				
Subtotal Capital Next Two Years (FY 2017-FY 2018)		424.28	\$12,090,000	31.6%				
Subtotal Capital Permit Term (FY 2015-FY 2019)		1,412.62	\$30,386,235	84.3%				

Subtotal Capital Permit Term and Projected Years (FY 2015-FY 2020)		1,461.62	\$36,516,235	108.8%		
Other						
NCSA	E	13.50	\$0	1.0%		2016
XFLD	E	3.24	\$0	0.2%		2016
NCSA	E	13.50	\$0	1.0%		2017
XFLD	E	3.24	\$0	0.2%		2017
NCSA	E	13.50	\$0	1.0%		2018
XFLD	E	3.24	\$0	0.2%		2018
NCSA	E	27.00	\$0	2.0%		2019-2020
XFLD	E	6.48	\$0	0.5%		2019-2020
Subtotal Other Next Two Years (FY2017- FY2018)		33	\$0	2.49%		
Subtotal Other		552	\$0	41.1%		

No Cost to the County Acquired through Development Process

No Cost to the County Acquired through Development Process

No Cost to the County Acquired through Development Process

No Cost to the County Acquired through Development Process

No Cost to the County Acquired through Development Process

No Cost to the County Acquired through Development Process

No Cost to the County Acquired through Development Process

No Cost to the County Acquired through Development Process

No Cost to the County Acquired through Development Process

Permit Term (FY 2015-FY 2019)						
Subtotal Operations Permit Term and Projected Years (FY 2015-FY 2020)		602	\$0	44.8%		
Total Next Two Years (FY 2017-FY 2018)		457.8	\$12,090,000	34.1%		
Total Permit Term (FY 2015-FY 2019)		1,964.5	\$30,386,235	125.4%		
Total Permit Term and Projected Years (FY2015-FY2020)		2,063.7	\$36,516,235	153.5%		

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 I Municipal Separate Storm Sewer System Permit.

DESCRIPTION	PAST UP THRU FY 2015	CURRENT/PROJECTED YEAR 1 FY 2016	PROJECTED YEAR 2 FY 2017	PROJECTED YEAR 3 FY 2018	PROJECTED YEAR 4 FY 2019	PROJECTED YEAR 5 FY 2020	TOTAL COSTS
Operating Expenditures (costs)							
Support of Capital Projects	\$2,980,828	\$923,270	\$955,210	\$996,281	\$1,039,700	\$1,085,640	\$7,980,929
Debt Service Payment	\$759,578	\$655,743	\$973,510	\$1,359,650	\$1,759,540	\$2,115,960	\$7,623,981
Other (please stipulate program expenditure)*	-	-	-	-	-	-	\$0
Capital Expenditures (costs)							
General Fund (Paygo)	\$715,508	\$287,800	-	-	-	-	\$1,003,308
WPR Fund (Paygo)	-	-	-	-	-	-	\$0
Municipalities	-	\$516,000	\$871,000	\$405,400	\$458,000	\$223,600	\$2,474,000
Developer contributions	\$328,042	-	-	-	-	-	\$328,042
Debt Service	\$5,541,551	\$4,112,200	\$4,977,000	\$3,432,600	\$3,012,000	\$2,546,400	\$23,621,751
Grants & Partnerships	\$2,199,268	\$1,023,519	\$3,755,377	-	-	-	\$6,978,164
Other (please stipulate capital expenditure)*	-	-	-	-	-	-	\$0
Subtotal operation and paygo:	\$4,455,914	\$1,866,813	\$1,928,720	\$2,355,931	\$2,799,240	\$3,201,600	\$16,608,218
Total expenditures:	\$12,524,775	\$7,518,532	\$11,532,097	\$6,193,931	\$6,269,240	\$5,971,600	\$50,010,175

Removed the Lab Testing and Supplies and Mowing

Total ISRP costs except debt service: \$42,386,194
 Compare ISRP costs (except debt service) / total ISRP proposed actions: 139.49%

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 2015	CURRENT/PROJECTED YEAR 1 FY 2016	PROJECTED YEAR 2 FY 2017	PROJECTED YEAR 3 FY 2018	PROJECTED YEAR 4 FY 2019	PROJECTED YEAR 5 FY 2020	TOTAL NEXT 2-YEARS FY 17-18*	TOTAL CURRENT + PROJECTED
Annual Revenue** Appropriated for ISRP	\$15,414,774	\$7,693,492	\$11,694,567	\$6,361,274	\$6,441,605	\$6,149,136	\$18,055,841	\$53,754,848
Annual Costs towards ISRP***	\$12,524,775	\$7,518,532	\$11,532,097	\$6,193,931	\$6,269,240	\$5,971,600	\$17,726,028	\$50,010,175

Compare annual costs / revenue appropriated: **102%**
WPRP 2016 Reporting Criteria **75%**

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 2018.

** 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 2016 at the time of FAP reporting.

*** 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 THRU FY 2015	CURRENT/PROJECTED YEAR 1 FY 2016	PROJECTED YEAR 2 FY 2017	PROJECTED YEAR 3 FY 2018	PROJECTED YEAR 4 FY 2019	PROJECTED YEAR 5 FY 2020	TOTAL PERMIT CYCLE
Paygo Sources							
Stormwater Remediation Fees (WPR Fund)	-	-	-	-	-	-	\$0
Miscellaneous Fees (WPR Fund)	-	-	-	-	-	-	\$0
General Fund	\$4,730,304	\$943,543	-	-	-	-	\$5,673,847
Property Tax	\$1,066,890	\$1,047,048	\$2,038,882	\$2,469,397	\$2,916,111	\$3,321,977	\$9,538,328
Municipalities	\$249,474	\$566,326	\$922,708	\$458,659	\$512,857	\$280,103	\$2,710,024
Developer Contributions	\$328,042	-	-	-	-	-	\$328,042
Interest	\$583	\$856	\$600	\$618	\$637	\$656	\$3,294
Subtotal Paygo Sources	\$6,375,293	\$2,557,773	\$2,962,190	\$2,928,674	\$3,429,605	\$3,602,736	\$18,253,535
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 2014).							
County Transportation Bonds	-	-	-	-	-	-	\$0
General Obligation Bonds	\$6,840,425	\$4,112,200	\$4,977,000	\$3,432,600	\$3,012,000	\$2,546,400	\$22,374,225
Revenue (Utility) Bonds	-	-	-	-	-	-	\$0
State Revolving Loan Fund	-	-	-	-	-	-	\$0
Public-private partnership (debt service)	-	-	-	-	-	-	\$0
Subtotal Debt Service	\$6,840,425	\$4,112,200	\$4,977,000	\$3,432,600	\$3,012,000	\$2,546,400	\$22,374,225
Grants and Partnerships (no payment is expected)							
State funded grants	\$2,199,056	\$1,023,519	\$3,755,377	-	-	-	\$6,977,952
Federal funded grants	-	-	-	-	-	-	\$0
Public-private partnership (matched grant)	-	-	-	-	-	-	\$0
Subtotal Grants and Partnerships	\$2,199,056	\$1,023,519	\$3,755,377	\$0	\$0	\$0	\$6,977,952
Total Annual Sources of Funds	\$15,414,774	\$7,693,492	\$11,694,567	\$6,361,274	\$6,441,605	\$6,149,136	\$47,605,712
Percent of Funds Directed Toward ISRP	81.25%	97.72%	98.61%	97.37%	97.32%	97.11%	

Compare total permit term paygo ISRP costs / subtotal permit term paygo sources: **73%**
 Compare total permit term ISRP costs / total permit term annual sources of funds: **93%**

* WPR Fund: Watershed Protection and Restoration Fund.

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: 1,344 **Requirement:** 20%

REST BMP ID	REST BMP TYPE	BMP CLASS	NUM BMP	IMP ACRES	BUILT DATE	IMPL COST	% ISRP Complete	IMPL STATUS	GEN COMMENTS
Operation Programs									
							0.0%		
							0.0%		
							0.0%		
							0.0%		
Average Operations Complete To Date*			#DIV /0!	#DIV/0!		\$0	0.0%		
Capital Projects									
CR09RST000004	PWED	S	1	110.50	11/24/2009	\$1,094,171	8.2%	Complete	Airport (Completed after previous permit requirement of 10% was achieved)
CR12RST000002	PWED	S	1	14.50	10/3/2012	\$328,122	1.1%	Complete	Quail
CR12RST000004	PWED	S	1	23.62	10/22/2012	\$312,867	1.8%	Complete	Harvest
CR14RST000003	PWED	S	1	19.92	11/24/2014	\$514,216	1.5%	Complete	Friendship
CR13RST000007	PWED	S	1	10.38	12/6/2013	\$410,907	0.8%	Complete	Carrolltow

									n 2B
CR15RST000003	PWED	S	1	43.92	9/30/2015	\$2,361,489	3.3%	Complete	West. Comm.
CR10RST000001	FSND	S	1	12.36	8/26/2010	\$206,464	0.9%	Complete	Oklahoma I
CR09RST000002	FSND	S	1	16.97	10/20/2009	\$96,312	1.3%	Complete	Edgewood (Completed after previous permit requirement of 10% was achieved)
CR09RST000003	FSND	S	1	14.00	11/9/2009	\$655,799	1.0%	Complete	Naganna (Completed after previous permit requirement of 10% was achieved)
CR09RST000001	FSND	S	1	2.37	9/22/2009	\$217,972	0.2%	Complete	High Point (Completed after previous permit requirement of 10% was achieved)
CR11RST000002	FSND	S	1	29.30	6/8/2011	\$212,672	2.2%	Complete	Brimfield
CR11RST000001	FSND	S	1	42.61	5/11/2011	\$349,898	3.2%	Complete	Hoff
CR11RST000004	FSND	S	1	10.25	11/10/2011	\$98,348	0.8%	Complete	Heritage Heights
CR12RST000003	FSND	S	1	18.20	10/17/2012	\$566,929	1.4%	Complete	Parrish
CR12RST000001	FSND	S	1	16.62	8/16/2012	\$298,094	1.2%	Complete	Clipper/Gardenia
CR13RST000005	FSND	S	1	21.44	11/22/2013	\$751,630	1.6%	Complete	Clipper/Hill

									top
CR11RST000003	FSND	S	1	3.27	6/23/2011	\$4,804	0.2%	Complete	Sun Valley
CR12RST000005	FSND	S	1	1.60	11/30/2012	\$23,388	0.1%	Complete	Chrisman
CR13RST000004	FSND	S	1	63.18	11/20/2013	\$1,000,867	4.7%	Complete	WHS
CR13RST000003	FSND	S	1	20.51	6/24/2013	\$247,708	1.5%	Complete	Benjamins Claim
CR14RST000002	FSND	S	1	19.51	9/24/2014	\$305,143	1.5%	Complete	Diamond 5
CR14RST000004	FSND	S	1	44.75	11/25/2014	\$923,913	3.3%	Complete	Carroll/Gemini
CR15RST000004	FSND	S	1	8.16	10/15/2015	\$523,930	0.6%	Complete	Eldersburg 3-5
CR15RST000009	FSND	S	1	7.65	12/22/2015	\$491,162	0.6%	Complete	Braddock Manor
CR13RST000001	FPU	A		1.06	4/24/2013	\$13,780	0.1%	Complete	Prettyboy
CR13RST000002	FPU	A	1	1.52	5/18/2013	\$15,528	0.1%	Complete	Cherry Branch 1
CR13RST000006	FPU	A	1	3.35	11/25/2013	\$102,037	0.2%	Complete	Wakefield
CR15RST000002	FPU	A		2.07	9/16/2015	\$45,777	0.2%	Complete	Liberty
CR14RST000001	FPU	A	1	1.14	8/29/2014	\$26,894	0.1%	Complete	Cherry Branch 2
CR15RST000001	FPU	A	1	0.57	5/19/2015	\$21,700	0.0%	Complete	Cherry Branch 3
CR15RST000006	FPU	A		3.97	12/5/2015	\$39,676	0.3%	Complete	Double Pipe 1
CR15RST000007	FPU	A		1.82	12/5/2015	\$63,898	0.1%	Complete	Double Pipe 2
CR15RST000008	FPU	A		3.60	12/8/2015	\$56,866	0.3%	Complete	So. Branch
CR15RST000005	FPU	A	1	9.95	11/25/2015	\$193,614	0.7%	Complete	Municipal
							0.0%		
							0.0%		
							0.0%		

							0.0%			
							0.0%			
							0.0%			XFLD Floodplain Mgt.
							0.0%			MENF Enhanced Filters
Subtotal Capital Complete To Date			29	604.64		\$12,576,575	44.99%			SEPP Septic Pumping
Other										
CR09RST000005										Redevelopment completed after previous permit requirement of 10% was achieved (Developer Cost)
	FUND	S	1	14.32	2009	\$0	1.1%	Complete		So. Carroll H.S.
TBD	SEPP	A	1	222.30	2015	\$0	16.5%	Annual		West WWTP (Annual)

TBD	XFLD	E	138	43.21	2014	\$0	3.2%	Complete	FP Easements (No Cost Requirement through Development Process)	Need # of properties
TBD	NSCA	E	325	224.30	2014	\$0	16.7%	Complete	WR Easements (No Cost: Requirement through development process)	Need # of properties
CR15RST000010	FSND	S	1	0.55	2015	\$0	0.0%	Completed	Public Works (No Cost from NPDES CIP)	Benjamin's B
TBD	FPU	A	2	4.34	2013	\$0	0.3%	Completed	Partnership (Grant Funded through partnership with Frederick County)	Frederick Lower/Benet Cerf
TBD	FSND	S	1	9.36	2013	\$0	0.7%	Complete	Private Property (Property Owner Cost)	Sunnyside (Lippy)
Subtotal Other Complete To Date			469	518.38		\$0	38.6%			

Total Complete to Date			498	1,123.02		\$12,576,575	83.6%		
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Charles County



Charles County Government DEPARTMENT OF PLANNING & GROWTH MANAGEMENT

CHARLES COUNTY COMMISSIONERS

Peter F. Murphy, *President*
Debra M. Davis, Esq., *Vice President*
Ken Robinson
Amanda M. Stewart, M.Ed.
Bobby Rucci

Michael D. Mallinoff
County Administrator

Peter Aluotto, *Director*

June 29, 2016

By Electronic Mail and First Class Mail

Mr. Brian Clevenger
Maryland Department of the Environment
Water Management Administration
1800 Washington Blvd., 4th Floor, Suite 440
Baltimore, Maryland 21230-1708

*Re: Charles County NPDES MS4 Permit
11-DP-3322 (MD 0068365)*

Dear Mr. Clevenger:

Please find enclosed Resolution Number 2016-18 by the County Commissioners of Charles County, Maryland, approving the county's Watershed Protection and Restoration Program Financial Assurance Plan and Annual Report, after holding a public hearing on June 7, 2016, and meeting the requirements as specified in the Maryland Code Environment Article, Section 4-202.1. The County Commissioners voted to approve Resolution Number 2016-18 on June 28, 2016.

As you know, Charles County is the smallest MS4 Phase I County in Maryland. Due to new permit requirements stretching the limits of the County's financial capabilities and given the short time frames for implementation, Charles County has reiterated throughout the permit reissuance process, that the 20% impervious restoration requirement exceeds the County's maximum extent practicable (MEP). The County expressly reserves its rights to an MS4 permit that imposes no more than an MEP level of effort. In addition, as noted in the Financial Assurance Plan, the County expressly reserves the right to reduce the acreage identified in the County's Impervious Surface Area Assessment to the minimum acreage required by the permit, and to make refinements to the County's documents based upon new or additional information consistent with an adaptive management approach.

If you have any questions or concerns, please contact Ms. Karen Wigen at (301) 645-0683 or wigenk@charlescountymd.gov.

Sincerely,

Steven Ball, AICP, LEED AP,
Planning Director

Cc: Raymond Bahr, MDE
Matthew Claggett, CAO

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**COUNTY COMMISSIONERS OF CHARLES COUNTY, MARYLAND
RESOLUTION NO. 2016-18**

A RESOLUTION providing for the approval of the Watershed Protection and Restoration Program Financial Assurance Plan and Annual Report, 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 2017 Charles County Budget was adopted on May 3, 2016, 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, BE IT RESOLVED, this 28th day of June 2016, that the Financial Assurance Plan and Annual Report are hereby approved, without prejudice to the issues raised in pending litigation; and

IT IS FURTHER RESOLVED that the Financial Assurance Plan and Annual Report shall be submitted to the Maryland Department of the Environment for its review.

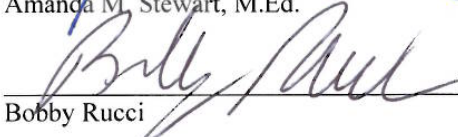
COUNTY COMMISSIONERS OF
CHARLES COUNTY, MARYLAND


Peter F. Murphy, President


Debra M. Davis, Esq., Vice President


Ken Robinson


Amanda M. Stewart, M.Ed.


Bobby Rucci

ATTEST:


Danielle Mitchell, Clerk

Watershed Protection and Restoration Program
Financial Assurance Plan & Annual Report
Charles County, Maryland
June 2016

Executive Summary

Introduction

The submission of Charles County's Financial Assurance Plan (FAP) and Watershed Protection and Restoration Program Annual Report to the Maryland Department of the Environment (MDE) fulfills requirements specified in the Maryland Article – Environment, Section 4-202.1. The plan and report give an overview of actions implemented by Charles County per its National Pollutant Discharge Elimination System (NPDES) municipal separate storm sewer system (MS4) permit and demonstrate the County's budget for these activities from various funding sources.

Charles County was issued its third, five-year, MS4 permit on December 26, 2014. Annual progress reports are required by the permit, and are based on fiscal year. The first annual report under this permit, was submitted to MDE by the anniversary date, and covers the six-month period from January 2015 through June 2015.

Background

MS4 permittees must manage, implement, and enforce a stormwater management program in accordance with the Clean Water Act (CWA) and corresponding NPDES regulations, 40 CFR Part 122, to meet the following requirements:

1. Effectively prohibit pollutants in stormwater discharges or other unauthorized discharges into the MS4 as necessary to comply with Maryland's receiving water quality standards;
2. Attain applicable wasteload allocations for each established or approved Total Maximum Daily Load (TMDL) for each receiving water body, consistent with Title 33 of the U.S. Code (USC) §1342(p)(3)(B)(iii); 40 CFR §122.44(k)(2) and (3); and
3. Comply with all other provisions and requirements contained in the permit, and in plans and schedules developed in fulfillment of the permit.

Compliance with all the conditions in Parts IV through VII of the MS4 permit constitutes compliance with §402(p)(3)(B)(iii) of the CWA and adequate progress toward compliance with Maryland's receiving water quality standards and any EPA approved stormwater WLAs for the permit term.

The December 26, 2014 permit, greatly increased the scope of the County's prior MS4 permit program, by expanding permit coverage, which was previously limited to the County's Development District, to the entire county. This geographical expansion, coupled with significant new permit requirements, has effectively doubled the County's MS4 operating budget from Fiscal Year 2013 to Fiscal Year 2016. Additionally, as shown in the attached FAP tables, implementing impervious surface restoration projects at the current planned rate, is anticipated to cost over ten million dollars annually.

Due to new 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% impervious restoration requirement, exceeds the county's maximum extent practicable (MEP). The County expressly reserves its rights to an MS4 permit that imposes no more than an MEP level of effort.

In addition, the County expressly reserves the right to reduce the acreage identified in the Impervious Surface Area Assessment to the minimum acreage required by the permit, and make future refinements to the assessment based upon new or additional information consistent with an adaptive management approach.

MS4 Permit Conditions

The County's full permit is posted on MDE's website, under Maryland's Stormwater Management Program, and the County's Fiscal Year 2015 annual report detailing progress, is posted on the County website under the Watershed Protection and Restoration Program. Following is a brief summary of each category under Part IV. Standard Permit Conditions:

A. 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.

B. Legal Authority

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

C. 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.

D. 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.

E. 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.

F. 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.

G. Program Funding

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

Financial Assurance Plan (FAP)

Per Maryland Article – Environment, Section 4-202.1(j), on or before July 1, 2016, and every 2 years thereafter the county is required to file the FAP with MDE, which in turn must post the plans on the Department’s website within 14 days. Beginning September 1, 2016, and every year thereafter MDE submits a report evaluating the compliance of the county with the requirements, to the Governor and, in accordance with §2-1246 of the State Government Article, the Senate Education, Health, and Environmental Affairs Committee and the House Environment and Transportation Committee.

The FAP includes five elements specified in Maryland Article – Environment, Section 4-202.1. Each element has a corresponding table attached hereto, briefly described as:

1. Explanation of actions necessary to meet the MS4 permit (in the narrative of the permit conditions), and itemized impervious restoration projects (Table 1);
2. Projected annual and 5-year costs to meet the impervious surface restoration plan (Table 2);
3. Projected annual and 5-year revenues and other funds that will be used to meet the costs of the impervious surface restoration plan (Table 3);
4. Sources of funds that will be utilized by the county to meet the MS4 permit (Table 4); and
5. Specific actions and expenditures that the county implemented in previous fiscal years to meet its impervious surface restoration requirements (Table 5).

The information included in the tables is intended to directly correlate to the Fiscal Years 2016 and 2017 adopted budgets of Charles County.

Watershed Protection and Restoration Program Annual Report

Charles County adopted a Watershed Protection and Restoration Program and Fund, starting in Fiscal Year 2014. In prior years, the county funded the majority of the MS4 permit through a portion of the Environmental Service Fund. Per Maryland Article – Environment, Section 4-202.1(i), counties which implement the Watershed Protection and Restoration Program, must annually report the following information, which is included on the attached tables:

1. The number of properties subject to a stormwater remediation fee (Table 1);
2. Any funding structure developed, if any (Table 2);
3. The amount of money deposited into the watershed protection and restoration fund the previous fiscal year by source (Table 3);
4. The percentage and amount of funds spent on: (i) capital improvements for stormwater management, including stream and wetland restoration, (ii) operation and maintenance of stormwater management systems and facilities, (iii) public education and outreach, (iv) stormwater mapping, monitoring and inspection, (v) any fees deposited into the fund for review of new development, (vi) grants to non-profits for watershed restoration, and (vii) reasonable costs necessary to administer the fund (Table 1);
5. All stormwater management projects implemented in the previous fiscal year (Table 4); and
6. Any other information MDE determines necessary.

This annual report does not require a public hearing or specific approval of the governing body, however is requested by MDE to be submitted along with the FAP, thus is included here.

Charles County Financial Assurance Plan

MS4 Information

Jurisdiction	Charles County
Contact Name	Steven Ball
Phone	301-645-0632
Address	P.O. Box 2150
City	La Plata
State	MD
Zip	20646
Email	ballst@charlescountymd.gov
Baseline Untreated Impervious Acres	7047.80
Permit Num	11-DP-3322
Reporting Year	2016

Charles County Financial Assurance Plan (June 2016) - TABLE 1

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, the executive summary includes a list of the jurisdiction's MS4 permit requirements. The **proposed** actions to meet the impervious surface restoration plan, are in this table.

Baseline: 7,048 (Total untreated impervious acres.)

Restoration Requirement: 20% of Baseline

REST BMP TYPE ¹	BMP CLASS ²	IMP ACRES ³	IMPL COST	% ISRP COMPLETE	IMPL STATUS ⁴	PROJECTED IMPL YR
Operation Programs						
MSS	A	80	\$50,000	1.1%	Under Construction	FY 2016
SDV	A	14	\$72,000	0.2%	Under Construction	FY 2016
SEPP	A	25	\$100,000	0.4%	Under Construction	FY 2016
MSS	A	80	\$50,000	1.1%	Planning	FY 2017
SDV	A	14	\$72,000	0.2%	Planning	FY 2017
SEPP	A	25	\$100,000	0.4%	Planning	FY 2017
MSS	A	80	\$50,000	1.1%	Planning	FY 2018
SDV	A	14	\$72,000	0.2%	Planning	FY 2018
SEPP	A	25	\$100,000	0.4%	Planning	FY 2018
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	0.4%	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	0.4%	Planning	FY 2020

Average Operations Next Two Years (FY2017-FY2018) ⁵		119.0	\$444,000	1.7%		
Average Operations Permit Term (FY2015-FY2020) ⁵		119.0	\$1,329,687	1.7%		
Capital Projects						
MSGW	S	5.25	\$737,530	0.1%	Under Construction	FY 2017
MSGW	S	15.2	\$1,114,300	0.2%	Under Construction	FY 2017
SPSC	S	28.3	\$1,746,700	0.4%	Under Construction	FY 2017
PWED, ODSW, FPU	S, A	26	\$927,759	0.4%	Under Construction	FY 2017
SPSC	S	11.97	\$1,310,410	0.2%	Under Construction	FY 2017
MSGW	S	18.64	\$790,096	0.3%	Under Construction	FY 2017
MSGW	S	2.87	\$107,830	0.0%	Under Construction	FY 2017
SHST	S	59.5	\$1,146,500	0.8%	Under Design	FY 2018
MSGW, WSHW	S	34.9	\$2,976,960	0.5%	Under Design	FY 2018
SPSC, MENF	S	0.83	\$160,304	0.0%	Under Design	FY 2018
PWET	S	1.7	\$555,460	0.0%	Under Design	FY 2018
FORG, FBIO	S, ESD	1.3	\$409,692	0.0%	Under Design	FY 2018
PWED	S	2.64	\$294,925	0.0%	Under Design	FY 2018
SPSC, MRNG	S, ESD	29.5	\$1,200,768	0.4%	Under Design	FY 2018
MSGW, FBIO, MSWB, MSWG	S, ESD	5.52	\$1,089,240	0.1%	Under Design	FY 2018
MSGW, MSWB, MSWG	S, ESD	15.41	\$1,238,560	0.2%	Under Design	FY 2018
PWET	S	12.22	\$1,231,051	0.2%	Under Design	FY 2018
MSHW, FBIO, MSWB	S, ESD	2.88	\$898,320	0.0%	Under Design	FY 2018
MSHW	S	4.09	\$848,580	0.1%	Under Design	FY 2018
PWET	S	6.7	\$1,047,540	0.1%	Under Design	FY 2018
MSGW, FBIO, MSWB, MRWH	S, ESD	6	\$1,097,280	0.1%	Under Design	FY 2018
MSHW	S	9.81	\$1,097,280	0.1%	Under Design	FY 2018
WSHW, FBIO, MSWB	S, ESD	12.46	\$1,123,680	0.2%	Under Design	FY 2018
SPSC, STRE	S, A	6.39	\$967,566	0.1%	Under Design	FY 2018
SDV	A	94	\$1,359,220	1.3%	Under Design	FY 2018

SHST	A	18	\$369,563	0.3%	Planning	FY 2019
WSHW, MRNG, MSWW	S	6.57	\$472,270	0.1%	Planning	FY 2019
PWET	S	1.34	\$94,449	0.0%	Planning	FY 2019
PWET	S	1.92	\$135,317	0.0%	Planning	FY 2019
ODSW, PWET	S	37.09	\$454,458	0.5%	Planning	FY 2019
PWET	S	13.8	\$45,675	0.2%	Planning	FY 2020
PWET	S	13.09	\$72,150	0.2%	Planning	FY 2020
PWET	S	66.28	\$79,175	0.9%	Planning	FY 2020
PWET	S	57.1	\$265,500	0.8%	Planning	FY 2021
PWET	S	30.47	\$42,000	0.4%	Planning	FY 2021
PWET	S	27.2	\$184,375	0.4%	Planning	FY 2021
PWET	S	35.63	\$42,000	0.5%	Planning	FY 2021
PWET	S	182.38	\$42,000	2.6%	Planning	FY 2021
PWET	S	13.25	\$42,000	0.2%	Planning	FY 2021
PWET	S	13.9	\$184,375	0.2%	Planning	FY 2021
PWET	S	137.93	\$42,000	2.0%	Planning	FY 2021
PWET	S	15.1	\$245,500	0.2%	Planning	FY 2021
Subtotal Capital Next Two Years (FY2017-FY2018)		414.08	\$25,477,551	5.9%		
Subtotal Capital Permit Term (FY2008-FY2020)		668.68	\$33,572,959	9.4%		
Subtotal Capital Permit Term and Projected Years (FY2008-FY2021)		1181.64	\$34,662,709	16.6%		
Other						
Nutrient Trading-in-Time with WWTP ⁶		705	\$0	10.0%		
Subtotal Other Next Two Years (FY2017-FY2018)		705	\$0	10.00%		

Subtotal Other Permit Term (FY2015-FY2020)		713	\$0	10.1%		
Total Next Two Years (FY2017-FY2018)		1238.1	\$25,921,551	17.6%		
Total Permit Term (FY2015-FY2020)		1500.5	\$34,902,646	21.2%		
Total Permit Term and Projected Years (FY2015-FY2021)		2013.5	\$35,992,396	28.4%		

¹ See attached list of Restoration BMP Type Codes.

² BMP CLASSES are: A - Alternative BMP, E - Environmental Site Design, or S - Structural BMP.

³ IMP ACRES per MDE guide "Accounting for Stormwater Wasteload Allocations & Imp Acres Treated, Guidance for NPDES Stormwater Permits" (Aug 2014).

⁴ IMPL STATUS categories are: Complete, Under Construction, Planning, or Proposed.

⁵ IMPL COST is a summation and not an average.

⁶ Nutrient trading is being considered as an option. This FAP line item does not obligate Charles County to utilize trading to meet impervious surface restoration requirements.

Charles County Financial Assurance Plan (June 2016) - TABLE 2

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 FY 2015 ¹	CURRENT/PROJECTED YEAR 1 FY 2016	PROJECTED YEAR 2 FY 2017	PROJECTED YEAR 3 FY 2018	PROJECTED YEAR 4 FY 2019	PROJECTED YEAR 5 FY 2020	TOTAL COSTS
Operating Expenditures (costs)							
Street Sweeping (Watershed Protection and Restoration Fund)		\$53,400	\$53,400	\$54,500	\$55,700	\$56,800	\$273,800
Storm Drain Vacuuming (Watershed Protection and Restoration Fund)		\$93,400	\$93,400	\$95,300	\$97,300	\$99,400	\$478,800
Support of Capital Projects (Watershed Protection and Restoration Fund)		\$277,500	\$150,000	\$120,800	\$106,900	\$109,700	\$764,900
Debt Service Payment (Watershed Protection and Restoration Fund)		\$889,700	\$1,046,800	\$2,156,600	\$3,544,200	\$4,448,600	\$12,085,900
Septic Pump-Out (Environmental Service Fund)		\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
Capital Expenditures (costs)							
General Fund (Paygo)							\$0
Watershed Protection and Restoration Fund (Paygo)		\$35,000	\$112,000	\$70,000	\$72,000	\$75,000	\$364,000
Debt Service		\$11,479,000	\$11,560,000	\$11,592,000	\$11,894,000	\$12,258,000	\$58,783,000
Grants & Partnerships							\$0
Other (please stipulate capital expenditure)							\$0
Subtotal operation and paygo:	\$0	\$1,449,000	\$1,555,600	\$2,597,200	\$3,976,100	\$4,889,500	\$14,467,400
Total expenditures:	\$0	\$12,928,000	\$13,115,600	\$14,189,200	\$15,870,100	\$17,147,500	\$73,250,400

Total ISRP costs except debt service: \$61,164,500

Compare ISRP² costs (except debt service) / total ISRP proposed actions: 169.94%

¹ Charles County has not provided this information because it is beyond the requirements of the statute.

² ISRP means impervious surface restoration plan.

Charles County Financial Assurance Plan (June 2016) - TABLE 3

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

DESCRIPTION	PAST UP THRU FY 2015³	CURRENT/PROJECTED YEAR 1 FY 2016	PROJECTED YEAR 2 FY 2017	PROJECTED YEAR 3 FY 2018	PROJECTED YEAR 4 FY 2019	PROJECTED YEAR 5 FY 2020	TOTAL NEXT 2-YEARS FY 17-18⁴	TOTAL CURRENT + PROJECTED
Appropriated for ISRP ¹		\$13,979,700	\$14,345,600	\$14,361,700	\$14,691,400	\$15,084,000	\$28,707,300	\$72,462,400
Annual Costs towards ISRP ²	\$0	\$12,928,000	\$13,115,600	\$14,189,200	\$15,870,100	\$17,147,500	\$27,304,800	\$73,250,400

Compare annual costs / revenue appropriated: 105%
WPRP 2016 Reporting Criteria 75%

¹ 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 2017 at the time of FAP reporting. ISRP means impervious surface restoration plan, or 20% restoration requirement.

² Article 4-202.1(j)(2): Demonstration that county 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 2018.

³ Charles County has not provided this information because it is beyond the requirements of the statute.

⁴ See Table 2 of ISRP Cost.

Charles County Financial Assurance Plan (June 2016) - TABLE 4

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 2015 ¹	CURRENT/PROJECTED YEAR 1 FY 2016	PROJECTED YEAR 2 FY 2017	PROJECTED YEAR 3 FY 2018	PROJECTED YEAR 4 FY 2019	PROJECTED YEAR 5 FY 2020	TOTAL PERMIT CYCLE
Paygo Sources							
Stormwater Remediation Fees (Watershed Protection & Restoration Fund)		\$ 1,794,700	\$ 1,967,600	\$ 1,992,600	\$ 2,017,600	\$ 2,042,600	\$ 7,772,500
Miscellaneous Fees (Watershed Protection & Restoration Fund)		\$ 56,000	\$ 56,000	\$ 57,100	\$ 57,800	\$ 58,400	\$ 226,900
General Fund		\$ 550,000	\$ 550,000	\$ 550,000	\$ 550,000	\$ 550,000	\$ 2,200,000
Fund Balance (Watershed Protection & Restoration Fund)		\$ -	\$ 112,000	\$ 70,000	\$ 72,000	\$ 75,000	\$ 254,000
Environmental Service Fees (Enironmental Service Fund)		\$ 273,700	\$ 273,700	\$ 273,700	\$ 273,700	\$ 273,700	\$ 1,094,800
Sediment & Erosion Control Fees (Inspection & Review Fund)		\$ 418,100	\$ 418,100	\$ 418,100	\$ 418,100	\$ 418,100	\$ 1,672,400
Stormwater Maintenance Inspection Fees (Inspection & Review Fund)		\$ 300,000	\$ 350,000	\$ 350,000	\$ 350,000	\$ 350,000	\$ 1,350,000
Subtotal Paygo Sources	\$ -	\$ 3,392,500	\$ 3,727,400	\$ 3,711,500	\$ 3,739,200	\$ 3,767,800	\$ 14,570,600
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 2014).							
County Transportation Bonds							\$ -
General Obligation Bonds		\$ 11,479,000	\$ 11,560,000	\$ 11,592,000	\$ 11,894,000	\$ 12,258,000	\$ 46,525,000
Revenue (Utility) Bonds							\$ -
State Revolving Loan Fund							\$ -
Public-private partnership (debt service)							\$ -
Subtotal Debt Service	\$ -	\$ 11,479,000	\$ 11,560,000	\$ 11,592,000	\$ 11,894,000	\$ 12,258,000	\$ 46,525,000
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	\$ -	\$ 14,871,500	\$ 15,287,400	\$ 15,303,500	\$ 15,633,200	\$ 16,025,800	\$ 61,095,600
Percent of Funds Directed Toward ISRP							

Compare total permit term paygo ISRP costs / subtotal permit term paygo sources: 66%

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

¹ Charles County has not provided this information because it is beyond the requirements of the statute.

Charles County Financial Assurance Plan (June 2016) - TABLE 5

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: 7,048 (Total untreated impervious acres.) Requirement: 20% of Baseline

REST BMP ID	REST BMP TYPE ¹	BMP CLASS ²	NUM BMP	IMP ACRES ³	BUILT DATE	IMPL COST ⁴	% ISRP Complete	IMPL STATUS	GEN COMMENTS
Operation Programs									
Mechanical Street Sweeping	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)
Average Operations Complete To Date ⁵			1,290	119		\$219,687	1.7%		
Capital Projects									
CC15RST000001	WSHW	S	1	12	4/16/2008	\$143,143.00	0.2%	Complete	Middleton Elem Shallow Marsh
CC15RST000002	WSHW	S	1	25.33	4/16/2008	\$1,464,000.00	0.4%	Complete	Brown Elem Shallow Marsh
CC15RST000003	PWED	S	1	3	4/16/2008	\$201,610.00	0.0%	Complete	Fillmore Weir
CC15RST000004	PWED	S	1	5	4/16/2008	\$58,467.00	0.1%	Complete	Middleton Elem Weir
CC15RST000005	WPWS	S	1	22.34	5/31/2013	\$1,219,630.00	0.3%	Complete	Pinefield Pond
CC15RST000006	MSWG	E	1	0.95	9/30/2013	\$121,862.00	0.0%	Complete	Ryon Woods Grass Swale
CC15RST000007	FORG	S	1	0.58	10/31/201	\$102,698.00	0.0%	Complete	Bryans Road Filterra

					3				
CC15RST000008	ODSW	E	2	0.73	10/31/2013	\$119,814.00	0.0%	Complete	Bryans Road Dry Swales (A&B)
CC15RST000009	FUND	S	1	8.92	10/31/2013	\$1,489,117.00	0.1%	Complete	Bryans Road Underground Filter
CC15RST000010	MRNG	E	1	0.15	8/30/2014	\$42,000.00	0.0%	Complete	Benedict Rain Garden
CC15RST000011	WPWS	S	1	8	9/30/2014	\$318,300.00	0.1%	Complete	Acton Lane Roadway Pond
CC15RST000012	SPSC	S	1	9.51	10/31/2014	\$1,091,710.00	0.1%	Complete	Fox Run Step Pools
Subtotal Capital Complete To Date			12	96.51		\$6,372,351	1.23%		
Other									
Septic Connection	SEPC	A	20	7.8	6/30/2015	\$0	0.1%	Complete	FY 2010 - FY 2015 (20 x 0.39 acres)
Subtotal Other Complete To Date			20	8		\$0	0.1%		
Total Complete to Date			1,322	223.4		\$6,592,038	3.0%		

¹ See attached list of Restoration BMP Type Codes.

² BMP CLASSES are: A - Alternative BMP, E - Environmental Site Design, or S - Structural BMP.

³ IMP ACRES per MDE guide "Accounting for Stormwater Wasteload Allocations & Imp Acres Treated, Guidance for NPDES Stormwater Permits" (Aug 2014).

⁴ When multiple capital projects under one budget, multiply total cost by percent acres treated for each project.

⁵ IMPL COST 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
VSS	Regenerative/Vacuum Street Sweeping
SDV	Storm Drain Vacuuming

*Codes and descriptions from *MDE NPDES MS4, Geodatabase Design and User's Guide, March 2015*

Frederick County

FINANCIAL ASSURANCE PLAN AND WPRP ANNUAL REPORT

Frederick County

NPDES MS4 Permit No. 11-DP-3321, MD0068357

December 30, 2014 to December 29, 2019 (Unless Administratively Extended)

Submittal/Report Date: June 28, 2016

EXECUTIVE SUMMARY

INTRODUCTION

As required by the Annotated Code of Maryland ENV §4-202.1, Frederick County (County) has prepared the attached Financial Assurance Plan (FAP) and Watershed Protection and Restoration Program (WPRP) Annual Report. Both documents provide the five-year funding strategy for addressing the County's NPDES MS4 Permit No. 11-DP-3321, MD0068357 (Permit), effective date December 30, 2014. The FAP and WPRP Annual Report documents were prepared by County staff in the Office of Sustainability and Environmental Resources (OSER) and will be submitted to the Maryland Department of the Environment (MDE) on or before July 1, 2016. The County Council, as the "local governing body" will also hold a public hearing and vote on approval of the financial assurance plan. The attached FAP and WPRP Annual Report include all activities that have been completed in compliance with the Permit, and five-year projections to Fiscal Year 2020 for the implementation of its stormwater program and best management practices (BMPs) necessary for meeting Permit requirements.

BACKGROUND

Maryland House Bill 987, "Stormwater Management - Watershed Protection and Restoration Program", was passed by the Maryland General Assembly in 2012 and codified into State law. This bill required all counties and municipalities that are subject to a Phase I NPDES MS4 Permit to establish a stormwater remediation fee; develop a Watershed Protection and Restoration Fund; and to submit a biennial report beginning July 1, 2014.

Frederick County developed a fee to be fully compliant with HB987. The Board of County Commissioners (BOCC), on May 30, 2013, approved Ordinance 13-06-634 effective July 1, 2013 to create a one cent fee per eligible property to be charged on tax bills issued July 1. The County submitted its first report to MDE by July 1, 2014. Proceeds from the fee were put into a Watershed Protection and Restoration Fund. The BOCC chose at that time to fund the majority of its compliance program for NPDES MS4 Permit No. 11-DP-3321, MD0068357 separately through the County General Fund. The Permit active at that time was issued March 11, 2002,

and was administratively extended by MDE from its initial end date of March 11, 2007 until the new Permit was issued, effective December 30, 2014. The County ended its last Permit cycle in compliance, having completed restoration of over 10% (672.5 acres) of the County's untreated urban impervious acres and all of programmatic elements of the Permit.

Maryland Senate Bill 863, "Watershed Protection and Restoration Programs - Revisions", which was passed in 2015 and codified into State law, amended the Environment Code most notably by (1) removing the requirement to establish a stormwater remediation fee under certain circumstances; (2) modifying the requirement for each jurisdiction to file a Watershed Protection and Restoration Program Report; and (3) adding the requirement to file a Financial Assurance Plan.

The completion and submission of the FAP is required every two years on the anniversary date of the Permit issuance, with this first submittal due on July 1, 2016. The FAP and WPRP Annual Reports demonstrate the financial wherewithal for meeting MS4 Permit impervious surface area restoration requirements. In order to document this ability, Frederick County is providing MS4 program implementation numbers for FY'15 and FY'16, with projections for FY17, FY18, FY19, and FY20. The second half of FY'15 and the first half of FY'20 are in the current Permit cycle.

The County expressly reserves the right to make future changes to the WPRP Annual Report and FAP based on new information, additional information, or based on funding consistent with an adaptive management approach.

Frederick County recognizes the need to address water quality in the Chesapeake Bay and local County streams. We also recognize through the NPDES MS4 permitting program, the role of local governments to play in participating in the restoration of our waters.

Frederick County reiterated throughout the Permit issuance process leading to the December 30, 2014 reissuance of the MS4 Permit that its requirements exceed Frederick County's maximum extent practicable (MEP), considering both limited financial capabilities and short timeframes for implementation. MEP is the legal compliance standard for MS4s established by the Clean Water Act.

This FAP should be read in the context of the County's continuing concern that its current Permit demands a level of effort beyond legal requirements. The County expressly reserves its right to a Permit that imposes no more than an MEP level of effort. In particular, the County provides a discussion of the Impervious Area Assessment in this document.

COSTS AND REVENUES

The County has made a substantial commitment to comply with its Permit, has adequately funded the Permit to the MEP, and is on track programmatically to comply with the Permit to the Maximum Extent Practicable. Funding for the Impervious Surface Restoration Plan by Fiscal Year 2020 is projected to be \$52,384,445. This funding is reflected in the past and current budgets, and is in the programmed CIP. This represents 100% of the MEP cost to implement

the Permit to the MEP; furthermore, the County has funded its first two years of the Permit at 100%, exceeding the 75% minimum compliance benchmark. All proceeds from the stormwater remediation fee go to the Watershed Protection and Restoration Fund. In the previous fiscal year this amounted to \$493.86.

The Frederick County Council (Frederick County changed to Charter Government on December 1, 2014) has continued to authorize the collection of one cent per eligible property, and is funding the majority of the Permit through General Funds, and to a lesser extent, bonds.

Funding information comes from past operating and Capital Improvement Program (CIP) budgets from the Watershed Management Program within OSER and from numbers provided by County Divisions with stormwater management functions; the current FY16 budgets from the same sources; projections based on the current FY16 budget for future operating expenses and the programmed Capital Improvement Project budget from the same sources; and revenue from the stormwater remediation fee tracked by the Finance Division. Where cost numbers for past projects were not available, estimates from Brown and Caldwell were used. Their estimates are based on the King and Hagen study commissioned by MDE for publicly procured stormwater retrofit projects.

COMPLIANCE WITH OTHER SECTIONS OF THE PERMIT

The following sections follow the order of the Permit found in Part IV, Standard Permit Conditions, and highlight the major achievements for each program element. Current efforts do not negate the County's concern about the long-term achievability of this requirement.

PART IV.C. SOURCE IDENTIFICATION

The County migrated its Permit information into MDE's new geodatabase in its first Permit year and was one of the first jurisdictions to complete the task. This task took two years and was a major effort on the part of several Divisions and a consultant. Data managed for the Permit includes but is not limited to:

- A Geographic Information System (GIS) of stormwater management inventory for all categories of infrastructure including culverts, storm drains, structures, ditches, outfalls, and ponds. The County recently provided data to MDE and EPA for the Historical BMP Cleanup;
- A storm drain and structure inventory which includes pipes (approx. 14,082 records), pond outlines (approx. 397 records), and structures (approx. 14,051 records);
- Locations of the total number of industrial and commercial facilities that the County has determined may have the potential to contribute significant pollutants;
- A GIS of Urban Best Management Practices;
- The MS4 service area (as properly defined under Federal law) and impervious surfaces by era of construction;

- An inventory of biological and chemical monitoring sites; and
- Water Quality Improvement Projects.
- Frederick County GIS distributes countywide base maps and Orthophotography. In addition, Frederick County GIS offers a free GIS data download service that includes GIS Base Data, Orthophotography, Contour-Planimetric Data, and Parcel Data. This service can be found at <http://www.frederickcountymd.gov/5450/GIS-Data-Products> under "Download GIS Data".

PART IV.D.1. STORMWATER MANAGEMENT

Frederick County maintains its current Stormwater Management Program in pursuant to Environmental Article, Title 4, Subtitle 2, Annotated Code of Maryland. The County will continue to do so through plan review and inspection of developer projects using the 2000 Maryland Stormwater Design Manual (Effective October 2000, Revised May 2009; MDE 2000).

The Department of Permits and Inspections, Environmental Compliance Section (ECS) conducts a program of preventative maintenance inspections of constructed and functioning stormwater management facilities.

Responsible parties of noncompliant facilities receive notices that outline the failings observed by the inspector, what has to be completed to correct the failings and a timeframe in which the corrections should be completed. Appropriate follow-up inspections and escalating enforcement techniques, as necessary, are completed until compliance is obtained.

Frederick County implemented the stormwater management design policies, principles, methods, and practices of the 2000 Maryland Stormwater Design Manual Volumes I and II and subsequent changes to the Code of Maryland Regulations through the County's Stormwater Management Ordinance and its Design Manual, on June 5, 2001. These changes effective July 1, 2001. The Board of County Commissioners adopted the County's Storm Drainage and Stormwater Management Design Manual effective January 2, 2003. This document helps address safe conveyance of runoff in channels, pipes, swales, culverts, etc. to stormwater management facilities and/or receiving channels. The County updated to address the new ESD requirements adopted by MDE in the 2009 timeframe.

PART IV.D.2. EROSION AND SEDIMENT CONTROL

Frederick County's Erosion and Sediment Control Program is administered by the Department of Permits and Inspections, Environmental Compliance Section (ECS). ECS utilizes inspectors that are specifically knowledgeable in Environmental Compliance inspection and enforcement in order to maintain an acceptable Erosion and Sediment Control Program pursuant to

Environment Article, Title 4, Subtitle 1, Annotated Code of Maryland. The County's program was evaluated by MDE during the winter of 2013 and the result of the evaluation was a full two-year renewal with a new delegation awarded by the end of 2015.

Frederick County ECS provides quarterly reports of all grading activities disturbing more than one acre to MDE to cross reference against their NOI records. The data submitted includes site name, site owner and address, the amount of disturbed area, the local grading permit number, site location, and the type of development (e.g., residential, commercial, etc.).

PART IV.D.3. ILLICIT DISCHARGE DETECTION AND ELIMINATION

Frederick County continues to implement its Illicit Discharge Detection and Elimination (IDDE) Program. The County's IDDE Program identifies potential illicit discharges in three ways: (1) through dry weather screenings completed during as-built inspections and/or triennial maintenance inspections; (2) visual surveys; and, (3) through citizen and/or agency reporting.

ECS field inspectors note evidence of dry weather flows, if present, at all Stormwater Management Structure "As-Built" inspections and at every triennial maintenance inspection. If water is present, inspectors report this information to the County's Office of Sustainability and Environmental Resources (OSER), Watershed Management Section (WMS) within 24 hours of the original inspection. WMS then checks to see if the site has been previously investigated for an illicit discharge due to dry weather flow. If it has not, or if it has but for other indicators like color, odor or suds present, OSER sends an investigation request to Versar, Inc., the consultant on contract to conduct IDDE screenings. If water quality test results or inspections indicate potential illicit connections, pollutant sources are investigated, identified, as possible, and appropriate measures are taken to abate violations. In addition, ECS Inspectors investigate complaints alleging violations. Follow-up actions to resolve all suspected water quality problems are documented in the County's field inspection databases. Field screening results are recorded in the County's facilities database to ensure proper tracking and to follow up when potential problems are detected.

As part of the IDDE program, there is a new requirement to conduct annual visual surveys of commercial and industrial areas for discovering, documenting, and eliminating pollutant sources. A final number of 119 industrial and commercial facilities were identified as priority sites. Surveys will be conducted each year at 24 out of the 119 sites, a fifth of the total number of properties to be visited throughout the 5-year Permit.

Information about how citizens can report illicit discharges is available online on Frederick County Government's Citizen Request Tracker web page at <http://www.frederickcountymd.gov/requesttracker.aspx> under "Water Pollution Issues". A

reporting link is also available at <http://www.frederickcountymd.gov/index.aspx?NID=518>. In addition, citizens may report a problem through the Monocacy and Catoctin Watershed Alliance website: http://www.watershed-alliance.com/mcwa_problem.html.

Frederick County continues to implement a successful program to respond to illegal dumping and spills. Hazardous spill response calls are forwarded to 911; first responders are trained to respond to hazardous spills. Non-hazardous spill responses, including environmental releases, are forwarded to the Watershed Management Section (WMS). When significant, WMS forwards this information to MDE for investigation.

WMS has developed a standard set of procedures for responding to all citizen complaints of spills and illicit discharges, as part of the County's IDDE protocol. The procedures help citizens to report spills to the correct agencies with a minimum of internal transfers. OSER maintains standard procedures for consistent reporting, referral, and addressing of potential illicit discharges, dumping, and spills. These procedures are periodically updated.

The County and other agencies also report spills to the National Response Center.

PART IV.D.4. LITTER AND FLOATABLES

The following litter control programs throughout Frederick County are presented below.

- Potomac River Watershed Cleanup (PRWC) - Yearly
 - The event is an annual watershed-wide effort to clean up trash along the Potomac River. Partners include the Alice Ferguson Foundation and Frederick County Government. A local cleanup was organized by the Monocacy Scenic River Citizens' Advisory Board at Rivermist Park on Monocacy Blvd.
- Catoctin Creek Park and Nature Center Cleanup - Yearly
 - Annual event to clean up trash within the Park's creek bed and banks that is promoted through the Catoctin Creek Park and Nature Center blog.
- Frederick County "Adopt-a-Road" Program - Ongoing
 - The Office of Highway Operations coordinates an "Adopt-a-Road" Program to help control litter along County roads. Approximately 84.04 miles of road are maintained by 36 groups across the County.
- Road Maintenance Activities - Ongoing
 - The Office of Highway Operations removes trash as part of road maintenance. The Office of Highway Operations also conducts street sweeping and inlet cleaning.
- Recycling Outreach (conducted by the Recycling Outreach Program Coordinator under the Frederick County Department of Solid Waste Management) - Ongoing

- Community Engagement: meet with community groups and provide speaking/presentations; present displays at public events
- Digital Media: Facebook; e-newsletter; mobile app (MyWaste)
- Print Media: direct mail; newspaper and other advertising media (bus, billboard, etc.); press releases; articles for publications
- Schools: work directly with Frederick County Public Schools (FCPS) to increase awareness among staff and students of waste and recycling issues; include private and home schools in any contests or promotions
- Special Events: conduct contests, drop-off events, award programs and other campaigns to bring attention to and increase support of County programs and goals

OSER staff is using, and will be using, the following strategies as methods to address litter and floatables throughout Frederick County’s MS4.

- Increased litter prevention education and outreach
- Roadside and stream cleanups – promote and increase participation; promote and support new cleanups
- Adopt-a-Road program – promote and increase participation
- Office of Highway Operations – continue with current road maintenance efforts
- Recycling - continue with current efforts by the Recycling Outreach Program Coordinator

In mid-2015, County Executive Jan Gardner created a solid waste initiative called What’s Next that is designed to look at waste management options including waste reduction and recycling. This effort will help comply with MS4 requirement to identify opportunities for overall improvements.

PART IV.D.5. PROPERTY MANAGEMENT AND MAINTENANCE

The following eleven (11) Frederick County-owned and operated facilities are currently covered by the 12-SW [General Permit for Discharges from Stormwater Associated with Industrial Activities](#) (12-SW Permits):

NOIs with Permit Coverage through December 31, 2018

Facility Name	Permit Number	NOI Submitted	SWPPP Developed	Status of SWPPP	Annual Review by MDE
Jefferson Copperfield Wastewater Treatment Plant	12SW2283	Yes	Yes	Yes	Yes
Ballenger McKinney Wastewater Treatment Plant	12SW1878	Yes	Yes	Yes	Yes

Reich's Ford Landfill	12SW2366	Yes	Yes	Yes	Yes
331 Montevue Lane (Frederick) Highway Operations Yard	12SW1890	Yes	Yes	Yes	Yes
Thurmont Highway Operations Yard	12SW1892	Yes	Yes	Yes	Yes
Johnsville Highway Operations Yard	12SW1891	Yes	Yes	Yes	Yes
Myersville Highway Operations Yard	12SW2285	Yes	Yes	Yes	Yes
Jefferson Highway Operations Yard	12SW2291	Yes	Yes	Yes	Yes
Urbana Highway Operations Yard	12SW1893	Yes	Yes	Yes	Yes
Law Enforcement Center	12SW1942	Yes	Yes	Yes	Yes
Transit	12SW1888	Yes	Yes	Yes	Yes

The County originally submitted twelve (12) NOIs, all which were accepted by MDE resulting in permit coverage through December 31, 2018. However, New Market Wastewater Treatment Plant (12SW2282) was subsequently decommissioned and permit coverage was terminated on April 10, 2105.

All facilities currently covered by the 12-SW Permits have Stormwater Pollution Prevention Plans (SWPPPs) that were last updated in May/June 2016. These facilities have identified SWPPP team members who perform quarterly inspections and visual monitoring. Annual training has been scheduled for Fall 2016. Spills are reported and documented internally and MDE is notified as appropriate. Maryland Environmental Service has been contracted to assist, as necessary, with spill response and other 12-SW related tasks.

The County continues to implement a program to reduce pollutants associated with maintenance activities at County-owned facilities including parks, roadways, and parking lots.

The County continues to move ahead with several of the recommendations developed in the June 2002 evaluation report, including street sweeping, changes in deicing practices and associated reporting. Inlet cleaning, and changes in the use of pesticides, herbicides, fertilizers, and other pollutants. We will continue to address the requirements of our Permit over the next two years.

PART IV.D.6. PUBLIC EDUCATION

OSER continues to make impacts through the County's public outreach and education program. Frederick County addressed Permit-suggested outreach topics and met its own goals and objectives from The Strategic Plan to Improve Water Quality through Public Outreach in

Frederick County, Maryland. Outreach activities are used to educate citizens, to direct the course of watershed plans, and to identify landowners for potential restoration activities.

PART IV.E.1. WATERSHED ASSESSMENTS

There are five 8-digit watersheds within Frederick County:

- Upper Monocacy River
- Lower Monocacy River
- Double Pipe Creek
- Catoctin Creek
- Potomac River – Frederick County

Frederick County is currently conducting watershed assessments for the Lower and Upper Monocacy River Watersheds and has programmed CIP funding to complete the remaining three watersheds. Assessments will be ongoing throughout the Permit term.

In addition, Frederick County completed an assessment for watershed restoration opportunities in the Point of Rocks neighborhood. The area studied is located within the Potomac Direct watershed, catchment area F and is an established residential neighborhood primarily developed prior to 1990. An unnamed tributary to the Potomac River conveys the majority of runoff from the neighborhood drainage area into a stormwater management pond. This area has experienced significant erosion from high water volume in recent years.

PART IV.E.2. RESTORATION PLANS

As a requirement of PART IV.E.2.b of the NPDES MS4 Discharge Permit issued by MDE to Frederick County, the County must develop restoration plans for each stormwater wasteload allocation (SW-WLA) for all Total Maximum Daily Loads approved by the Environmental Protection Agency (EPA) prior to the effective date of the Permit. Any new TMDLs approved by EPA must be addressed within one year of approval. There are currently 12 final approved TMDLs within Frederick County with either an individual or aggregate SW-WLA.

As part of PART IV.E.2.b, the County must also prepare an Impervious Cover Restoration Plan that plans for the Permit requirement to restore 20% of the County's untreated urban impervious area (area where water cannot percolate) using best management practices for stormwater.

OSER prepared a Stormwater Restoration Plan to meet the requirements of the Permit. The Restoration Plan was posted to the website on May 30, 2016. Public notice was published in the Frederick News Post on May 31 and June 1. The thirty day review period went from May 31 to

June 30. The report was submitted to MDE on June 30, 2016. A summary will be published in the Annual Report for Fiscal Year 2016 to be issued December 30, 2016.

The County has 5,063 acres estimated in its baseline of untreated urban impervious area within the Federally-defined MS4 service area. 20% of this number is 1,013 acres. At least half of this number, or 506.5 acres, must be met through restoration projects approved in MDE’s stormwater accounting guidance (2014). The County has completed 160.5 acres of restoration towards its impervious cover restoration requirements, and has an additional 906.5 acres programmed. The County anticipates completing 596.7 additional acres of physical restoration towards the Permit requirement by the end of the Permit cycle on December 30, 2019. Per MDE, 10% of the requirement can be met through credit exchanges during the current Permit cycle. The County plans to address the remaining impervious surface restoration obligation of 255.8 acres through trading. The County will continue to work to address the impervious cover restoration requirement of 1,013 acres.

The Chesapeake Bay TMDL for nitrogen includes all best management practices required to meet all other TMDLs with the exception of some programmatic BMPs for *E. coli*. For this reason the Chesapeake Bay TMDL Restoration Plan for Nitrogen governs the schedules and costs for all other TMDLs. The Chesapeake Bay TMDLs for Nitrogen and Phosphorus include aggregate SW-WLAs for stormwater, which include Frederick County Government’s MS4.

Frederick County Chesapeake Bay TMDL Baseline and Target Loads

Baseline and Target	TN EOS lbs/yr	TN DEL lbs/yr	TP EOS lbs/yr	TP DEL lbs/yr
Calibrated 2010 Baseline Load	1,096,458.45	556,694.68	46,994.58	22,046.67
Target Percent Reduction	10.2%	10.9%	20.7%	20.7%
Calibrated Target Reduction	111,838.76	60,679.72	9,727.88	4,563.66
Calibrated Bay TMDL WLA	984,619.69	496,015.00	37,266.70	17,483.01

The loads achieved under the Chesapeake Bay TMDL Restoration Plan for Nitrogen also meet all other local nutrient and sediment TMDL SW-WLAs for the MS4.

IMPERVIOUS SURFACE AREA ASSESSMENT

Frederick County submitted an Impervious Surface Area Assessment in accordance with Part IV.E.2.a of its Permit with its first Annual Report submission on December 30, 2015. This Assessment was based on the Permit Area established in Part I.B of the Permit. However, as the County noted in its submittal, it makes no representations that 20% of the acreage identified

can be restored in the manner provided in Part IV.E.2.a. considering the County's financial capability and the short timeframe specified in Part IV.E.2.a for that magnitude of work, which the County maintains exceeds the legally-authorized "maximum extent practicable" level of effort for the term of the Permit.

MDE provided the County with a review of the County's Impervious Area Assessment on April 15, 2016 that is inconsistent with the County's Permit requirements. The Permit correctly defines the Permit Area: "This permit covers all stormwater discharges from the municipal separate storm sewer system (MS4) owned or operated by Frederick County, Maryland. (Permit, Part I.B). Part IV.E.2 (Restoration Plans) is consistent with this definition. MDE's review is also inconsistent with federal law and its jurisdictional authority.

Frederick County has prepared a response to MDE's April 15, 2016 review that will be mailed under separate cover.

PART IV.E.3. PUBLIC PARTICIPATION

As required by Part IV.E.3 of the Permit, public participation is required for Frederick County's watershed assessments and restoration plans. The specific requirements include:

1. Notice in a local newspaper indicating a 30-day public comment period for each watershed assessment and restoration plan,
2. Notice in a local newspaper announcing that public information procedures are provided on the County's website for each watershed assessment and restoration plan, and
3. A summary in the Annual Report on public participation activities for each of the watershed assessments and restoration plans.

As noted above, the County provided public notice of its Restoration Plans, and will do so again in the future as additional plans are developed.

PART IV.E.4. TMDL COMPLIANCE

According to the Permit, "Frederick County shall evaluate and document its progress toward meeting all applicable stormwater WLAs included in EPA approved TMDLs. An annual TMDL assessment report with tables shall be submitted to MDE." The first Annual Report showed the baselines as calibrated and disaggregated for all TMDLs in Frederick County. Future reports will be filed and progress noted as appropriate.

PART IV.F.1. WATERSHED RESTORATION ASSESSMENT

The County has had an active stream monitoring program in place since 1999. We have changed the focus of our approach three times since its inception. Most recently, in 2008, the County officially redesigned its monitoring program to include two separate monitoring efforts: (1) targeted restoration monitoring and (2) probability-based stream monitoring, with sites selected randomly and stratified by watershed. The targeted restoration monitoring effort for 2015 involved stream sampling in Bennett Creek, Fishing Creek, Hunting Creek, and Lower Linganore Creek, in support of on-going and potential future restoration and community outreach efforts; restoration monitoring efforts from Lower Bush Creek in 2015 are presented in a separate report. In 2015, the County surveyed stream conditions at 10 targeted locations.

The County's targeted stream restoration monitoring program is an assessment of physical, chemical, and biological data, collected during designated index periods (Southerland et al. 1999, Morgan and Roth 2005). Year 2015 sampling included collection of water quality data, benthic macro invertebrate and fish sampling, and quantitative physical habitat assessment using MBSS habitat and geomorphic data collection methods. Biological and physical monitoring methods employed in this survey are described in detail in the Quality Assurance Project Plan for Biological and Physical Monitoring in Peter Pan Run and Other Selected Watersheds (Morgan and Roth 2005). The geomorphic data collected provide a follow-up to previous surveys for existing stations, monitoring changes over time, in comparison with baseline data collected in the initial year. Cross-sections, established at each site in a previous sampling year, were re-surveyed in 2015. MBSS habitat evaluations performed during spring and summer sampling provide a scored assessment.

PART IV.F.2. STORMWATER MANAGEMENT ASSESSMENT

In May 1999, the County initiated a long-term monitoring program for the Peter Pan Run study area to establish baseline, pre-construction conditions in the catchment and subsequently to monitor conditions as development progresses within the Peter Pan Run watershed in order to assess potential long-term impacts associated with the new land use. The program involves monitoring flow volumes and water quality from both instream and SWM pond outfall stations, as well as collecting physical and biological data from four permanent stream monitoring stations on the mainstem and its tributaries. In particular, monitoring is focused on the long-term problems commonly associated with residential development, which could occur within Peter Pan Run. These potential problems include sedimentation and erosion resulting from increased runoff from impervious surfaces, pollutant runoff from roads and parking lots, elevated nutrient loading caused by the application of lawn fertilizers, and the illegal disposal of oil and other household chemicals via storm drains. This long-term monitoring program is on-going, consistent with the MS4 Permit.

CONCLUSION

The County has made a substantial commitment to comply with its NPDES MS4 Permit No. 11-DP-3321, MD0068357 and is on track to comply with the Permit to the MEP. Funding for the Impervious Surface Restoration Plan by Fiscal Year 2020 is projected to be \$52,384,445, with the understanding that future funding years are not yet approved by the County Council. This funding is reflected in the past and current budgets, and is in the programmed CIP. This represents 100% of the MEP cost to implement the Permit; furthermore, the County has funded its first two years of the Permit at 100%, meeting the SB863 compliance benchmark. All proceeds from the stormwater remediation fee go to the Watershed Protection and Restoration Fund. In the previous fiscal year this amounted to \$493.86. The Permit is funded to date largely by general funds and through bonds. The County is proceeding with plans to restore 20% of the untreated urban impervious area in the Federally-defined MS4 service area to the MEP. The estimate of the untreated urban impervious area within the MS4 boundary is estimated to be 5063 acres, with the 20% at 1,013 acres. The County has already restored 160.5 acres of untreated impervious surface and has plans to physically restore an additional 596.7 acres by the end of 2020. The County also plans to take advantage of MDE's offer to let it use trading to meet up to 50% of its impervious surface restoration requirement. There will be a public hearing and vote on the FAP.

MS4 Information

Jurisdiction	Frederick County
Contact Name	Shannon Moore
Phone	301-600-1413
Address	30 North Market Street
City	Frederick
State	Maryland
Zip	21701
Email	smoore@frederickcountymd.gov
Baseline Acres	5063.00
Permit Num	11-DP-3321 MD0068357
Reporting Year	2016

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: 5,063 **Requirement:** 20%

REST BMP TYPE*	BMP CLASS	IMP ACRES	IMPL COST	% ISRP COMPLETE	IMPL STATUS**	PROJECTED IMPL YR
Operation Programs						
VSS	A	0	\$41,126	0.0%	COMPLETE	2015
VSS	A	0	\$42,153	0.0%	UNDER CONSTRUCTION	2016
VSS	A	0	\$43,208	0.0%	PLANNING	2017
VSS	A	0	\$44,287	0.0%	PLANNING	2018
VSS	A	0	\$45,395	0.0%	PLANNING	2019
VSS	A	0	\$46,530	0.0%	PLANNING	2020
SDV	A	0	\$378,109	0.0%	PLANNING	2015
SDV	A	0	\$387,561	0.0%	PLANNING	2016
SDV	A	0	\$397,250	0.0%	PLANNING	2017
SDV	A	0	\$407,182	0.0%	PLANNING	2018
SDV	A	0	\$417,361	0.0%	PLANNING	2019
SDV	A	0	\$427,795	0.0%	PLANNING	2020
Average Operations Next Two Years (FY2017-FY2018)***		0.0	\$891,927	0.0%		

	Average Operations Permit Term (FY2015-FY2018)***		0.0	\$2,294,526	0.0%		
	Average Operations Permit Term and Projected Years (FY2015-FY2020)***		0.0	\$3,231,607	0.0%		
NAME OF PROJECT	Capital Projects						
Englandtowne Pond Retrofit	WP	ST	13.7	\$681,300	0.3%	UNDER CONSTRUCTION	2017
Clearview Detention Pond	EDSW	ST	3.77	\$305,252	0.1%	PLANNING	2017
Law Enforcement Complex	IB	RR	4.61	\$344,869	0.1%	PLANNING	2017
Tranquility	WP	ST	4.46	\$350,102	0.1%	PLANNING	2017
Dudrow Business Park, SWM Pond 3	EDSW	ST	72.45	\$6,774,075	1.4%	PLANNING	2017
Urbana Satellite Facility - ED pond	PPKTSF	ST	1.38	\$103,500	0.0%	PLANNING	2017
Public Safety Training Facility	EDSW	ST	19.47	\$1,752,250	0.4%	PLANNING	2017
Delauter Road	IMPF	A	1.3	\$583,053	0.0%	PLANNING	2017
DP Forest Buffer	FPU	A	4.18	\$137,940	0.1%	PLANNING	2017
PD Forest Buffer	FPU	A	7.22	\$238,260	0.1%	PLANNING	2018
Reforestation Program	FPU	A	11.6	\$382,553	0.2%	PLANNING	2018
Little Hunting Creek Ph I	STRE	A	18	\$1,660,351	0.4%	PLANNING	2018
Little Hunting Creek Ph I	FPU	A	2.39	\$0	0.0%	PLANNING	2018
Little Hunting Creek Ph I	WSHW	A	12.21	\$0	0.2%	PLANNING	2018
Point of Rocks Bio/Retention	BR	RR	10.56	\$559,159	0.2%	PLANNING	2018
Urbana Pond Retrofits	EDSW	ST	103.5	\$1,287,667	2.0%	PLANNING	2018
Point of Rocks Pond Retrofit	EDSW	ST	8	\$870,695	0.2%	PLANNING	2019
Point of Rocks Stream Rest	STRE	A	40	\$4,428,179	0.8%	PLANNING	2019
Little Hunting Creek Ph II	STRE	A	9.4	\$1,598,593	0.2%	PLANNING	2019

Little Hunting Creek Ph II Reforestation Program	FPU	A	1.06	\$0	0.0%	PLANNING	2019
LM Forest Buffer	FPU	A	43.73	\$1,443,250	0.9%	PLANNING	2019
Little Hunting Creek Ph III	FPU	A	41.8	\$1,379,400	0.8%	PLANNING	2019
Little Hunting Creek Ph III Reforestation Program	STRE	A	31.15	\$1,598,593	0.6%	PLANNING	2020
CC Forest Buffer	FPU	A	3.11	\$0	0.1%	PLANNING	2020
UM Forest Buffer	FPU	A	18.7	\$615,299	0.4%	PLANNING	2020
	FPU	A	19	\$627,000	0.4%	PLANNING	2020
	FPU	A	32.3	\$1,065,900	0.6%	PLANNING	2020
	Subtotal Capital Next Two Years (FY2017-FY2018)		290.8	\$15,160,331	5.7%		
	Subtotal Capital Permit Term (FY2015-FY2018)		357	\$19,527,777	7.1%		
	Subtotal Capital Permit Term and Projected Years (FY2015-FY2020)		605	\$33,154,686	12.0%		
	Other						
	Nutrient Trading with WWTP	A	255.8	\$0	5.1%	PLANNING	2020
	SEPD	A	9.6	\$132,480	0.2%	COMPLETE	2015
	SEPD	A	9.6	\$132,480	0.2%	UNDER CONSTRUCTION	2016
	SEPD	A	9.6	\$132,480	0.2%	PLANNING	2017
	SEPD	A	9.6	\$132,480	0.2%	PLANNING	2018
	SEPD	A	9.6	\$132,480	0.2%	PLANNING	2019
	SEPD	A	9.6	\$132,480	0.2%	PLANNING	2020
	Operating Support of CIP		0	\$41,000	0.0%	COMPLETE	2015
	Operating Support of CIP		0	\$618,489	0.0%	UNDER CONSTRUCTION	2016

Operating Support of CIP		0	\$78,794	0.0%	PLANNING	2017
Operating Support of CIP		0	\$475,648	0.0%	PLANNING	2018
Operating Support of CIP		0	\$288,548	0.0%	PLANNING	2019
Operating Support of CIP		0	\$1,034,308	0.0%	PLANNING	2020
Subtotal Other Next Two Years (FY2017-FY2018)		29	\$1,570,371	0.57%		
Subtotal Other Permit Term (FY2015-FY2018)		388	\$7,015,271	7.7%		
Subtotal Other Permit Term and Projected Years (FY2015-FY2020)		408	\$8,603,087	8.1%		
Total Next Two Years (FY2017-FY2018)		319.6	\$17,622,629	6.3%		
Total Permit Term (FY2015-FY2018)		745.5	\$28,837,574	14.7%		
Total Permit Term and Projected Years (FY2015-FY2020)		1013.0	\$44,989,380	20.0%		

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 FY 2014	CURRENT/PROJECTED YEAR 1 FY 2015	PROJECTED YEAR 2 FY 2016	PROJECTED YEAR 3 FY 2017	PROJECTED YEAR 4 FY 2018	PROJECTED YEAR 5 FY 2019	PROJECTED YEAR 5 FY 2020	TOTAL COSTS
Operating Expenditures (costs)								
Street Sweeping Program	\$184,764	\$38,081	\$39,033	\$40,010	\$41,009	\$42,035	\$43,086	\$428,018
Inlet Cleaning	\$368,886	\$378,109	\$387,561	\$397,250	\$407,182	\$417,361	\$427,795	\$2,784,144
Bridge Deck Cleaning		\$3,045	\$3,120	\$3,198	\$3,278	\$3,360	\$3,444	\$19,445
Support of Capital Projects ¹		\$41,000	\$618,489	\$78,794	\$475,648	\$288,548	\$1,034,308	\$2,536,787
Debt Service Payment								
Other (please stipulate program expenditure)	\$5,271,420	-	-	-	-	-	-	
Capital Expenditures (costs)								
General Fund (Paygo) ²	\$4,367,446	\$4,241,314	\$4,533,258	\$4,185,741	\$5,405,023	\$6,945,969	\$7,863,800	\$37,542,551
WPR Fund (Paygo)								
Debt Service ³					\$106,000	\$106,000	\$256,000	\$468,000
Grants & Partnerships ⁴	\$2,539,200	\$132,480	\$132,480	\$132,480	\$132,480	\$132,480	\$132,480	\$3,334,080
Other (please stipulate capital expenditure)								
Subtotal operation and paygo:	\$10,192,516	\$4,701,549	\$5,581,461	\$4,704,993	\$6,332,140	\$7,697,273	\$9,372,433	\$48,582,365
Total expenditures:	\$12,731,716	\$4,834,029	\$5,713,941	\$4,837,473	\$6,570,620	\$7,935,753	\$9,760,913	\$52,384,445

Total ISRP costs except debt service: **\$52,384,445**

Compare ISRP costs (except debt service) / total ISRP proposed actions⁵: **116.44%**

¹Support of Capital Project equals Assessments + Monitoring costs (operating impacts from Budget) for FY14, FY15, FY16 and FY17. For FY18, FY19, and FY20, it equals O&M (MEP) costs.

²General Fund Paygo - FY15 and 16 are Actuals from Budget. FY17 to FY20 are projected D&C from MEP.

³Estimate 20 year payback at 4% interest rate for FY16 and FY18 budgeted general obligation bonds. Estimated 106K payment for 20 years at 4% interest for FY16 bonds and 150K for FY18 and FY20 bonds. Payment begins the 2nd year after the bonds are issued. For FY15 FAP, these numbers are estimates and will be revised based on actuals as bonds are issued.

⁴Other Septic Denitrification from BRF Grant goes to Canaan Valley Institute

⁵The "Compare ISRP costs" number can not be 100% for the following reasons: the ISRP Cost 4-202.1(j)(1)(i)2 spreadsheet includes O&M and the All Actions 4-202.1(j)(i)1 spreadsheet does not. The CIP costs in the All Actions spreadsheet are grouped by completion year where the ISRP Cost spreadsheet shows costs by year.

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 2014	CURRENT/PROJECTED YEAR 1 FY 2015	PROJECTED YEAR 2 FY 2016	PROJECTED YEAR 3 FY 2017	PROJECTED YEAR 4 FY 2018	PROJECTED YEAR 5 FY 2019	PROJECTED YEAR 5 FY 2020	TOTAL NEXT 2-YEARS FY 17-18*	TOTAL CURRENT + PROJECTED
Annual Revenue** Appropriated for ISRP	\$12,731,716	\$4,834,029	\$5,713,941	\$4,837,473	\$6,570,620	\$7,935,753	\$9,760,913	\$11,408,093	\$52,384,445
Annual Costs towards ISRP***	\$12,731,716	\$4,834,029	\$5,713,941	\$4,837,473	\$6,570,620	\$7,935,753	\$9,760,913	\$11,408,093	\$52,384,445

Compare annual costs / revenue appropriated: **100%**
WPRP 2016 Reporting Criteria **75%**

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 2018.

** 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 2016 at the time of FAP reporting.

*** 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 THRU FY 2015	PROJECTED YEAR 2 FY 2016	PROJECTED YEAR 3 FY 2017	PROJECTED YEAR 4 FY 2018	PROJECTED YEAR 5 FY 2019	PROJECTED YEAR 5 FY 2020	TOTAL PERMIT CYCLE
Paygo Sources							
Stormwater Remediation Fees (WPR Fund) ¹	985	\$ 497	\$ 500	\$ 503	\$ 505	\$ 507	\$ 3,496
Miscellaneous Fees (WPR Fund)							\$ -
General Fund CIP ²	8,608,760	\$ 4,533,258	\$ 4,185,741	\$ 5,405,023	\$ 6,945,969	\$ 7,863,800	\$ 37,542,551
Other Funds 1 General Fund Operating	\$ 6,285,305	\$ 1,048,203	\$ 519,252	\$ 927,117	\$ 751,304	\$ 1,508,633	\$ 11,039,814
Other Funds 2 (please stipulate funding source)							\$ -
Other Funds 3 (please stipulate funding source)							\$ -
Subtotal Paygo Sources	\$ 14,895,050	\$ 5,581,958	\$ 4,705,493	\$ 6,332,643	\$ 7,697,778	\$ 9,372,940	\$ 48,585,861
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 2014).							
County Transportation Bonds							\$ -
General Obligation Bonds ³		\$ 1,459,125		\$ 2,000,000		\$ 2,000,000	\$ 5,459,125
Revenue (Utility) Bonds							\$ -
State Revolving Loan Fund							\$ -
Public-private partnership (debt service)							\$ -
Subtotal Debt Service	\$ -	\$ 1,459,125	\$ -	\$ 2,000,000	\$ -	\$ 2,000,000	\$ 5,459,125
Grants and Partnerships (no payment is expected)							
State funded grants ⁴	\$ 2,671,680	\$ 132,480	\$ 132,480	\$ 132,480	\$ 132,480	\$ 132,480	\$ 3,334,080
Federal funded grants							\$ -
Public-private partnership (matched grant)							\$ -
Subtotal Grants and Partnerships	\$ 2,671,680	\$ 132,480	\$ 132,480	\$ 132,480	\$ 132,480	\$ 132,480	\$ 3,334,080
Total Annual Sources of Funds	\$ 17,566,730	\$ 7,173,563	\$ 4,837,973	\$ 8,465,123	\$ 7,830,258	\$ 11,505,420	\$ 57,379,066
Percent of Funds Directed Toward ISRP	99.99%	99.99%	99.99%	99.99%	99.99%	100.00%	99.99%

Compare total permit term paygo ISRP costs / subtotal permit term paygo sources: 100%

Compare total permit term ISRP costs / total permit term annual sources of funds: 91%

¹ WPR Fund: Watershed Protection and Restoration Fund. Note these funds are stored in an account and have not been expended.

² General Fund equals CIP (county programmed)

³ General Obligation Bonds for CIP project (Budget Office). Estimated 106K payment for 20 years at 4% interest for FY16 bonds and 150K for FY18 and FY20 bonds. Payment begins the 2nd year after the bonds are issued. For FY15 FAP, these numbers are estimates and will be revised based on actuals as bonds are issued.

⁴ Bay Restoration Funds go to Canaan Valley Institute

Check with MDE 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: 5,063

Requirement: 20%

REST BMP ID	REST BMP TYPE	BMP CLASS	NUM BMP	IMP ACRES	BUILT DATE	IMPL COST	% ISRP Complete	IMPL STATUS	GEN COMMENTS
Operation Programs									
Street Sweeping	MSS	A	1	0	12/29/2014	\$184,764	0.0%	COMPLETE	Not counted for credit at this time because protocol does not match
Inlet Cleaning	CBC	A	1	0	12/29/2014	\$368,886	0.0%	COMPLETE	Not counted for credit at this time because protocol does not match
Subtotal Op Complete To Date*			1	0		\$553,650	0.0%		
Capital Projects									
Urbana High School Retrofit	BIO	ST	1	2.83	10/1/2007	\$249,069	0.1%	COMPLETE	
Ballenger Creek Stream	STRE	A	1	6.05	5/1/2007	\$406,986	0.1%	COMPLETE	

Rest									
Pinecliff Park Stream Rest	STRE	A	1	10	11/12/2010	\$427,658	0.2%	COMPLETE	
Public Safety Training Facility	WP	A	1	15	1/1/2010	\$989,970	0.3%	COMPLETE	
Citizens Care and Rehab	WP	ST	1	25.16	1/1/2012	\$1,660,509	0.5%	COMPLETE	
Englandtowne Stream Rest	STRE	A	1	7.3	12/1/2014	\$633,254	0.1%	COMPLETE	
Subtotal Capital Complete To Date			6	66.34		\$4,367,446	1.31%		
Other									
Septic Denitrification (BRF)	SEPD	A	184	47.84	12/29/2014	\$2,539,200.00	0.9%	COMPLETE	
Septic Connections to WWTP	SEPC	A	7	2.73	12/29/2014	\$350,000.00	0.1%	COMPLETE	
Brunswick High School	FPU	A	1	0.37	4/6/2010	\$12,210.00	0.0%	COMPLETE	
Catoctin Mountain Park	PP	A	1	0.1	11/12/2012	\$23,958.00	0.0%	COMPLETE	
Catoctin Mountain Park	FPU	A	1	2.15	4/1/2010	\$70,950.00	0.0%	COMPLETE	
Catoctin Mountain Park	GMB	ESD	1	0	4/1/2010	\$0.00	0.0%	COMPLETE	
Cloverhill	FPU	A	1	0.51	5/1/2007	\$16,830.00	0.0%	COMPLETE	
Cooperative Extension Building	FPU	A	1	0	8/1/2005	\$0.00	0.0%	COMPLETE	
Myersville Elementary School	FPU	A	1	0	4/1/2006	\$0.00	0.0%	COMPLETE	
New Forest Society Nursery	FPU	A	1	0	4/16/2007	\$0.00	0.0%	COMPLETE	
New Market Middle School	FPU	A	1	1.22	5/1/2006	\$40,260.00	0.0%	COMPLETE	
Oakdale Elementary School	FPU	A	1	0	4/22/2009	\$0.00	0.0%	COMPLETE	
Old National Pike Park	FPU	A	1	1.83	4/1/2011	\$60,390.00	0.0%	COMPLETE	
Orchard Grove Elementary School	FPU	A	1	0.32	5/15/2013	\$10,560.00	0.0%	COMPLETE	

Parkway Elementary School	FPU	A	1	0	9/1/2012	\$0.00	0.0%	COMPLETE	
Pinecliff Park	FPU	A	1	0.79	8/1/2012	\$26,070.00	0.0%	COMPLETE	
Rivermist Park	FPU	A	1	0	7/1/2011	\$0.00	0.0%	COMPLETE	
Spring Ridge Elementary School	FPU	A	1	1.05	4/1/2013	\$34,650.00	0.0%	COMPLETE	
St. Peter the Apostle Church	FPU	A	1	0.2	10/31/2006	\$6,600.00	0.0%	COMPLETE	
Thurmont Middle School	FPU	A	1	0	5/1/2004	\$0.00	0.0%	COMPLETE	
Tuscarora Elementary School	FPU	A	1	0	11/1/2007	\$0.00	0.0%	COMPLETE	
Urbana Community Park	FPU	A	1	0.9	4/27/2009	\$29,700.00	0.0%	COMPLETE	
Urbana Elementary School	FPU	A	1	0.13	8/30/2011	\$4,290.00	0.0%	COMPLETE	
Urbana High School	FPU	A	1	0	11/1/2007	\$0.00	0.0%	COMPLETE	
Urbana Middle School	FPU	A	1	0.46	5/31/2008	\$15,180.00	0.0%	COMPLETE	
Cunningham Fall State Park	FPU	A	1	0	4/29/2010	\$0.00	0.0%	COMPLETE	
Deer Crossing Elementary School	FPU	A	1	1.09	5/20/2007	\$35,970.00	0.0%	COMPLETE	
Emmitsburg Elementary School	FPU	A	1	0	5/1/2009	\$0.00	0.0%	COMPLETE	
Fred Archibald Sanctuary	FPU	A	1	2.58	4/1/2007	\$85,140.00	0.1%	COMPLETE	
GTJ Middle School	FPU	A	1	0	5/1/2010	\$0.00	0.0%	COMPLETE	
Holly Hills Country Club	FPU	A	1	5.79	10/10/2007	\$191,070.00	0.1%	COMPLETE	
Holly Hills HOA	FPU	A	1	0.44	10/10/2007	\$14,520.00	0.0%	COMPLETE	
Kempton Elementary School	FPU	A	1	0	1/1/2009	\$0.00	0.0%	COMPLETE	
Liberty Village	FPU	A	1	0.7	5/15/2008	\$23,100.00	0.0%	COMPLETE	
Libertytown Park	FPU	A	1	1.56	4/1/2007	\$51,480.00	0.0%	COMPLETE	
Middletown High School	FPU	A	1	0.16	4/7/2009	\$5,280.00	0.0%	COMPLETE	

Monocacy Elementary School	FPU	A	1	0.04	1/1/2007	\$1,320.00	0.0%	COMPLETE	
Monocacy National Battlefield	FPU	A	1	4.95	11/26/2012	\$163,350.00	0.1%	COMPLETE	
Mountain Village HOA	FPU	A	1	1.22	11/1/2007	\$40,260.00	0.0%	COMPLETE	
Mt. Airy East West Park	FPU	A	1	1.43	3/31/2007	\$47,190.00	0.0%	COMPLETE	
Mt. Airy Village Gate Park	FPU	A	1	1	4/12/2008	\$33,000.00	0.0%	COMPLETE	
Mt. Airy Windy Ridge Park	FPU	A	1	0	10/31/2008	\$0.00	0.0%	COMPLETE	
Mt. Saint Mary's Run	FPU	A	1	0	4/1/2007	\$0.00	0.0%	COMPLETE	
Valley Elementary School	FPU	A	1	0.79	4/1/2008	\$26,070.00	0.0%	COMPLETE	
Walkersville Community Park	FPU	A	1	0	4/1/2007	\$0.00	0.0%	COMPLETE	
Walkersville High and Elem	FPU	A	1	0	10/22/2007	\$0.00	0.0%	COMPLETE	
Waterford Park	FPU	A	1	0	4/1/2006	\$0.00	0.0%	COMPLETE	
West Frederick Middle	FPU	A	1	0	9/1/2010	\$0.00	0.0%	COMPLETE	
Windsor Knolls Elementary	FPU	A	1	4.7	5/1/2010	\$155,100.00	0.1%	COMPLETE	
Wolfsville Elementary	FPU	A	1	0.41	4/1/2007	\$13,530.00	0.0%	COMPLETE	
Woodsboro Community Park	FPU	A	1	0	3/30/2012	\$0.00	0.0%	COMPLETE	
Woodsboro Elementary School	FPU	A	1	0	5/15/2012	\$0.00	0.0%	COMPLETE	
Worthington Manor Golf Course	FPU	A	1	0	7/1/2010	\$0.00	0.0%	COMPLETE	
Utica Park	FPU	A	1	0.29	4/26/2007	\$9,570.00	0.0%	COMPLETE	
Crestwood Middle School	FPU	A	1	0.79	4/1/2013	\$26,070.00	0.0%	COMPLETE	
Ballenger Creek Elementary School	FPU	A	1	0.58	11/1/2007	\$19,140.00	0.0%	COMPLETE	
Windsor Knolls Middle School	FPU	A	2	4.56	12/1/2011	\$150,480.00	0.1%	COMPLETE	

Urbana Community Park	ESDSW	RR	1	0.26	12/1/2013	\$11,440.00	0.0%	COMPLETE	
Cooperative Extension Building	ESDRG	RR	1	0.25	12/1/2013	\$750	0.0%	COMPLETE	
Septic Pumping	SEPP	A	0	0	12/29/2014	NA	0.0%	COMPLETE	Data is not available.
Urbana Elementary School	ESDSW	RR	1	0.004	12/1/2001	\$176	0.0%	COMPLETE	
Support of Capital Projects			0	0	Through 2014	\$926,566	0.0%	COMPLETE	
Subtotal Other Complete To Date			250	94		\$5,271,420	1.9%		
Total Complete to Date			257	160.5		\$10,192,516	3.2%		

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 is a summation and not an average.

Harford County

BARRY GLASSMAN
HARFORD COUNTY EXECUTIVE

BILLY BONIFACE
DIRECTOR OF ADMINISTRATION



JOSEPH J. SIEMEK, P.E.
ACTING DIRECTOR OF PUBLIC WORKS

June 29, 2016

Mr. Raymond Bahr
Water Management Administration
Maryland Department of the Environment
1800 Washington Blvd.
Baltimore, Maryland 21230

Dear Mr. Bahr:

As required by the Annotated Code of Maryland ENV 4-202.1(j), Harford County is submitting the enclosed Financial Assurance Plan ("FAP") which demonstrates the County's projected strategy for addressing our Phase I MS4 permit.

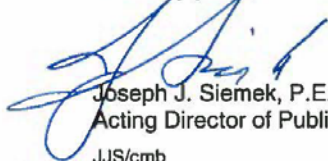
Harford County recognizes the need to improve water quality in the Chesapeake Bay and in impaired local county streams. We also recognize through the NDPEs MS4 permitting program, the role of local governments to participate in the restoration of our waters.

However, we continue to reiterate that the permit requirements exceed the County's maximum extent practicable ("MEP"). MEP is the legal compliance standard for MS4s established by the Clean Water Act. The FAP should be read in the context of the County's continuing concern that its current MS4 permit demands a level of effort beyond legal requirements.

Harford County appreciates MDE's willingness to continue to discuss our concerns and work cooperatively on shared environmental goals through innovative practices and partnerships that are fiscally responsible.

Should you have any questions, or wish to discuss this submittal, please feel free to contact Christine Buckley at (410) 638-3217 extension 1176, or myself at (410) 638-3285.

Sincerely yours,


Joseph J. Siemek, P.E.
Acting Director of Public Works

JJS/cmb
Enclosures

Cc:	The Honorable Barry Glassman	M. Hartka	C. Buckley
	B. Boniface	S. Kearby	B. Appell
	R. Sandless	J. Stratmeyer	C. Lyerly (MDE)
	M. Lambert	M. Rist	

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THIS DOCUMENT IS AVAILABLE IN ALTERNATIVE FORMAT UPON REQUEST

RESOLUTION NO. 014-16

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COUNTY COUNCIL

OF

HARFORD COUNTY, MARYLAND

Resolution No. 014-16

Legislative Session Day 16-016

May 10, 2016

Introduced by Council President Slutzky at
the request of the County Executive

A RESOLUTION providing for the approval of the Financial Assurance Plan, a copy of which is attached hereto, for the Harford County national pollutant discharge elimination system Phase I municipal separate storm sewer system permit and for submission of the Plan to the Maryland Department of the Environment for its review.

RESOLUTION NO. 014-16

RESOLUTION NO. 014-16

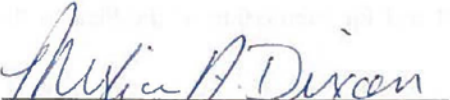
1 WHEREAS, Harford County has been issued a national pollutant discharge elimination
2 system Phase I municipal separate storm sewer system permit ("Permit") for discharges from its
3 storm drain outfalls; and


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

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

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

ATTEST:


Mylia A. Dixon
Council Administrator


Richard C. Slutzky
President of the Council

ADOPTED: June 21, 2016

Harford County NPDES Phase 1 MS4 Financial Assurance Plan

May 10, 2016

As required by the Annotated Code of Maryland ENV §4-202.1(j), Harford County has prepared the following Financial Assurance Plan (“FAP”) which demonstrates the County’s projected strategy for addressing the County’s NPDES Phase I MS4 permit. By its nature, the FAP is a planning document. The County expressly reserves the right to make future changes to the FAP based on new or additional information or based on available funding consistent with an adaptive management approach.

Background

The Clean Water Act, significantly revised in 1972, established the National Pollutant Discharge Elimination System program (“NPDES”) for facilities that discharge pollutants into navigable waters. Before discharging pollutants from a point source (for example, a pipe or outfall), a facility must apply for and receive an NPDES permit.

The 1987 Clean Water Act amendments updated the law to require permits for discharges from certain Municipal Separate Storm Sewer Systems (“MS4s”). Per federal regulations, MS4s serving a populations over 100,000 were required to submit a two-phase application for an individual five-year NPDES MS4 permit. This group of MS4s is called Phase I MS4s.

Maryland has been delegated the authority to run the NPDES program by the U.S. Environmental Protection Agency (“EPA”). The Maryland Department of the Environment (“MDE”) is the state agency that oversees this delegated authority. Harford County received its first MS4 permit on May 17, 1994 and received reissued permits on August 13, 1999, November 1, 2004 and December 30, 2014.

Maryland House Bill 987, *“Stormwater Management – Watershed Protection and Restoration Program”*, was approved in 2012 and codified into State law. This bill required all counties and municipalities subject to a Phase I MS4 permit to establish a stormwater remediation fee to fund the implementation of each jurisdiction’s MS4 permit. Maryland Senate Bill 863, *“Watershed Protection and Restoration Programs – Revisions”*, was approved in 2015 and codified into State law. This bill amended the Environment Code by (1) removing the requirement for each jurisdiction subject to a Phase I MS4 permit to establish a stormwater remediation fee and (2) adding the requirement for each jurisdiction to file a financial assurance plan.

Introduction

Harford County recognizes the need to improve water quality in the Chesapeake Bay and local Harford County streams. We also recognize through the NPDES MS4 permitting program, the responsibility of local governments to participate in the restoration of our waters.

Harford County, however, reiterated throughout the permit issuance process leading to the December 30, 2014 reissuance of our MS4 permit, that the permit requirements exceed Harford County's maximum extent practicable ("MEP"), considering both limited financial capabilities and short timeframes for implementation. MEP is the legal compliance standard for MS4s established by the Clean Water Act. This FAP should be read in the context of the County's continuing concern that its current MS4 permit demands a level of effort beyond legal requirements. The County expressly reserves its right to an MS4 permit that imposes no more than an MEP level of effort.

Program Capacity

Since the reissuance of Harford County's MS4 permit, the County has increased both staff and financial capacity for the implementation of the MS4 program.

The MS4 program is administered through the Department of Public Works, Office of Watershed Restoration and Protection, with support from other departments throughout the County government including capital project managers from highways engineering. Additionally, Harford County utilizes various partnerships with outside agencies such as Maryland Department of Natural Resources and U.S. Geological Survey to accomplish permit requirements.

In addition to increased staff capacity, Harford County continues to utilize and expand the use of open-end contracts for design and design / build in order to complete watershed restoration projects as quickly as is practicable. Focusing watershed restoration projects on County-owned properties will likewise assist in this regard.

In February 2015, the County Council passed Resolution 005-15 to dedicate a portion of the County's recordation tax in the amount of \$1.10 per \$1,000 of consideration beginning with fiscal year 2017 to be dedicated to the implementation of watershed protection and restoration projects. Most of the dedicated funds will be used to pay debt services for future bonds.

Prior to FY2016, the County had no dedicated funding source for the implementation of capital improvement projects for the MS4 program. With the establishment of a dedicated funding source and a commitment to issue bonds, a systematic strategy for addressing the requirements of the MS4 program and more specifically the watershed restoration component

of the MS4 permit has begun. This level of dedicated funding also allows for the design and construction of larger scale restoration projects that can benefit from economies of scale to maximize restoration benefits per cost.

A summary of the capital budgets for the implementation of the MS4 permit for approved FY2016 and the next two proposed fiscal years is listed below.

	Approved FY2016	Proposed FY2017	Proposed FY2018
Paygo ¹	\$0.14 M	\$0.15 M	\$0.15 M
Future Bonds ²	\$5.8 M	\$5.9 M	\$5.95 M
Proposed Grants	\$2.85 M	\$4 M	\$4 M
Total	\$8.79 M	\$10.05 M	\$10.1 M

Footnotes:

¹ Source of funding is recordation tax

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

Within the General Fund, thirteen (13) full time positions are proposed for FY2017 for the implementation of the MS4 program including the following:

Staff Funded under the Watershed Protection and Restoration Program - \$1.3 M

MS4 Office - 4

Stormwater Plans Review and Inspections – 8

Erosion and Sediment Control Plans Review – 1

The budgets discussed above do not include the full costs to implement the MS4 permit. Many of the programs required under the MS4 permit exist within other county departments and divisions such as property management, pollution prevention, and litter and floatables, to mention a few. In addition, future grants have not been secured but are rather estimates of grant awards based projected availability.

Impervious Area Assessment

In December 2015, as required in Part IV E.2.a. of the MS4 permit, the County submitted an impervious surface area assessment consistent with the methods described in the MDE document *"Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated, Guidance for National Pollutant Discharge Elimination System Stormwater Permits"* (MDE, June 2011).

Part 1.B of the MS4 permit correctly defines the MS4 permit area. Outside of the permit, MDE has expressed a more expansive interpretation of the regulated permit area. The County's assessment was conservatively based on MDE's interpretation. However, the County expressly reserves its rights to reduce the acreage associated with the impervious surface area assessment in Part IV.E.2.a. of the permit, which in turn impacts the County's restoration efforts during this permit term under Part IV.E.2.a, to the minimum acreage required by the permit. The County expressly reserves its rights to make refinements to its assessment as necessary in the future based upon new or additional information consistent with an adaptive management approach.

Furthermore, the County made no representation by submittal of the assessment that 20% of the acreage identified can be restored in the manner provided in Part IV.E.2.a considering financial capabilities and the short timeframes specified in Part IV.E.2.a. for the magnitude of work which the County maintains exceeds the legally-authorized maximum extent practicable (MEP) level of effort for the term of the permit. As noted above, the County expressly reserves its right to an MS4 permit that imposes no more than an MEP level of effort.

Based on the assumptions outlined in the assessment, the County determined 9,413 acres of impervious area remained untreated through the end of the previous permit which expired in 2009. Therefore, the impervious surface restoration requirement for 20% is 1,883 impervious acres.

On April 6, 2016, MDE provided comments and requested additional information from the County they deemed necessary to approve the County's impervious area assessment. As directed, Harford County will provide a response to their comments by August 1, 2016.

For the purposes of this financial assurance plan, Harford County has used 9,413 acres of impervious surfaces as untreated. The following represents the County's progress towards addressing watershed restoration for 20% of the untreated impervious surfaces.

	Acres
Untreated Impervious Surfaces	9,413
20% Requirement	1,883
Watershed Restoration <i>(2009 through 2015)</i>	-73
Watershed Restoration <i>(1/1/16 through FY2016)</i>	-59
Balance <i>(through 5/10/2016)</i>	1,751

Based on the County's estimated cost per impervious acre of \$55,000, the cost to implement watershed restoration for an additional 1,751 acres is approximately \$96 M for the 4 remaining years of the permit, or \$24 M annually. As discussed in the County's MEP analysis, this level of spending exceeds the County's ability to fund the program through the general fund or fund the program through bond sales.

Harford County's Maximum Extent Practicable

The County's MEP analysis was submitted to MDE for consideration during the comment period for the tentative determination for the County's permit. This analysis determined the County can complete watershed restoration for 10% of the untreated impervious surfaces, or 941 acres based on financial capabilities and short timeframes. As listed above, the County has completed 182 acres, leaving a balance of 759 acres. The estimated cost to implement watershed restoration for 759 acres is approximately \$42 M for the 4 remaining years of the permit, or \$10.4 M annually. The following table provides a tentative schedule for implementation of watershed restoration projects.

	Acres
Watershed Restoration <i>(2009 through 2016)</i>	175
Watershed Restoration <i>(FY2017)</i>	68
Watershed Restoration <i>(FY2018)</i>	256
Watershed Restoration <i>(FY2019)</i>	247
Watershed Restoration <i>(FY2020)</i>	195
Total	941

Septic Systems

Harford County has also proposed alternative watershed restoration credits for connecting septic systems to the wastewater treatment plant and upgrading septic systems for denitrification. These programs are administered by the Harford County Health Department and fully funded with Bay Restoration Funds. The following table provides a tentative schedule for implementation of these projects.

	Acres
Septic connections and upgrades <i>(2009 through 2016)</i>	112
Septic connections and upgrades <i>(FY2017)</i>	11
Septic connections and upgrades <i>(FY2018)</i>	11
Septic connections and upgrades <i>(FY2019)</i>	11
Septic connections and upgrades <i>(FY2020)</i>	11
Total	156

Additionally, Harford County has listed the annual practice of septic system pumping for 300 impervious acres. This represents an average annual volume of 10 million gallons delivered to the wastewater treatment plant from septic haulers.

Nutrient Trading

MDE is currently working with the Maryland Water Quality Trading Advisory Committee (WQTAC) to develop a *Water Quality Trading Manual*, which will include guidelines for MS4s to participate in nutrient trading to comply with impervious surface area restoration permit requirements. One scenario includes trading with the County's wastewater treatment plant (WWTP). Harford County is proposing to use a WWTP credits to address the remaining watershed restoration for 10% watershed restoration for untreated impervious surfaces. This would be a temporary trade to allow the County to continue to build program capacity and complete projects within more realistic timeframes.

Summary

Harford County has proposed a capital improvement program through the end of the MS4 permit term to address watershed restoration for 10% of the untreated impervious surface. An additional 1.7% from septic upgrades or connection to the wastewater treatment plant and 3% from annual septic pumping. An additional 10% will be proved through nutrient trading with the County's wastewater treatment plant. Enclosed are the spreadsheets developed by MDE for submittal of the financial assurance plan.

Harford County MS4
Active Watershed Restoration Projects

6/24/2016

Project	Impervious Credits (ac)	Grant	Total Cost	Cost / Imp Acre	Design ¹	Construction ¹
CIP0070 <i>Abingdon Library Water Quality Improvements</i>	3.3	\$0	\$239,978	\$72,721	Mar 2016	Jun 2017
CIP0074 <i>Bear Cabin Branch Wetland and Stream Restoration</i>	36.8	\$775,000 ²	\$975,000	\$26,495	Sep 2017	Jul 2018
CIP0029 <i>Bynum at St Andrews Way Stream Restoration</i>	30.0	\$0	\$1,968,568	\$65,619	Jul 2009	Jun 2018
CIP0034 <i>Church Creek ES SWM Retrofit & Stream Restoration</i>	24.0	\$0	\$1,668,180	\$69,508	Jan 2016	Nov 2018
CIP0036 <i>Foster Branch at Dembytown Stream Restoration</i>	19.4	\$500,000 ²	\$881,557	\$45,441	Aug 2014	Nov 2016
CIP0037 <i>Foster Branch at Still Meadow Stream Restoration</i>	15.0	\$0	\$575,000	\$38,333	Sep 2016	Jun 2018
CIP0072 <i>Ha Ha Branch Stream Restoration</i>	25.0	\$0	\$870,000	\$34,800	Jul 2016	Jun 2019
CIP0014 <i>Heavenly Pond Wetland & Stream Creation</i>	8.0	\$0	\$897,187	\$112,148	Nov 2011	Sep 2017
CIP0069 <i>Jarrettsville Highways Shop SWM Retrofit</i>	5.0	\$0	\$200,000	\$40,000	Jul 2016	Jun 2017
CIP0046 <i>Leight Center Parking Lot Green Infrastructure</i>	0.5	\$125,000 ²	\$233,966	\$487,429	Dec 2015	Sep 2016
CIP0043 <i>Northwest Branch Declaration Run Stream Restoration</i>	19.4	\$0	\$1,096,252	\$56,508	Dec 2015	Jul 2017

1 Notice to Proceed
2 Approved grant funding

Harford County MS4
Active Watershed Restoration Projects

6/24/2016

Project	Impervious Credits (ac)	Grant	Total Cost	Cost / Imp Acre	Design ¹	Construction ¹
CIP0039 <i>Plumtree Run at Barrington Stream Restoration</i>	30.0	\$0	\$2,485,040	\$82,835	Aug 2014	Jul 2017
CIP0035 <i>Ring Factory ES SWM Retrofit & Stream Restoraion</i>	18.6	\$700,000 ²	\$950,939	\$51,126	Sep 2014	Nov 2016
CIP0021 <i>Sunnyview Drive Stream Restoration</i>	30.0	\$800,000	\$1,346,446	\$44,882	Jun 2005	Jul 2017
CIP0025 <i>Wheel Creek at Country Walk 1B SWM Retrofit</i>	5.9	\$240,000 ²	\$337,052	\$56,934	Feb 2013	Nov 2016
CIP0033 <i>Willoughby Beach SWM Retrofit & Stream Restoration</i>	42.1	\$600,000	\$1,605,899	\$38,145	Mar 2014	Jul 2017
CIP0071 <i>Woodland Run Stream Restoration</i>	17.0	\$0	\$655,000	\$38,529	Aug 2016	Jun 2019

1 Notice to Proceed
2 Approved grant funding

PROCEEDINGS OF PUBLIC HEARING

June 14, 2016

COUNCIL CHAMBERS

6:00 P.M.

Resolution 013-16 (Dave Wheatley Enterprises, Inc.-MEDAAF loan WFTTG)

The Public Hearing was called to order by Council President Slutzky at 6:00 p.m. with all Council members present, except Council Member Woods.

Steven Overbay, Deputy Director of Economic Development, and Tucker McNulty, Finance Specialist, presented testimony on Resolution 013-16.

Council Member Vincenti offered comments. Council Member McMahan asked a question; Mr. McNulty responded.

There being no testimony from the public, the Public Hearing concluded at 6:06 p.m.

Resolution 014-16 (M4 Financial Assurance Plan)

The Public Hearing was called to order by Council President Slutzky at 6:06 p.m. with all Council members present, except for Council Member Woods.

Christine Buckley, Program Manager, presented testimony on Resolution 014-16. Robbie Sandlass, County Treasurer, was present with Ms. Buckley.

Council Member Woods entered at 6:10 p.m.

Council Member Perrone asked questions and Ms. Buckley responded.

Dion Guthrie, 413 Shore Drive, Joppatowne, speaking on behalf of Rumsey Island Residents Association and Joppatowne Development and Heritage Association, spoke in opposition as written.

Glenn Dudderar, 1806 Park Beach Drive, Aberdeen, spoke in support with amendments.

Ben Alexandro, 86 Maryland Avenue, Annapolis, in his position of Water Policy Advocate for Maryland League for Conservation Voters, spoke in opposition.

There being no further testimony from the public, the Public Hearing concluded at 6:36 p.m.

Resolution 015-16 (Public Necessity – Stewart)

The Public Hearing was called to order by Council President Slutzky at 6:36 p.m. with all Council members present.

Melissa Lambert, County Attorney, and Carlos Smith, Project Manager with the Department of Public Works, presented testimony on Resolution 015-16.

Council Member McMahan and Council Member Shrodes asked questions and offered comments; Mr. Smith responded.

There being no testimony from the public, the Public Hearing concluded at 7:00 p.m.

Bill 16-17 (General Obligation Bond Series 2017)
Bill 16-018 (Water and Sewer Bonds Series 2017)

The Public Hearing was called to order by Council President Slutzky at 7:00 p.m. with all Council members present.

Rob Sandlass, County Treasurer, and Steve Winter, Special Bond Counsel, presented testimony on Bill 16-017 and Bill 16-018.

There being no testimony from the public, the Public Hearing concluded at 7:07 p.m.

Bill 16-019 (Revise Prior Bond Bills)

The Public Hearing was called to order by Council President Slutzky at 7:07 p.m. with all Council members present.

Melissa Lambert, County Attorney, and Rob Sandlass, County Treasurer, presented testimony on Bill 16-019.

Council Member McMahan asked a question and Mr. Sandlass responded.

There being no testimony from the public, the Public Hearing concluded at 7:11 p.m.

Bill 16-020 (Zoning-Outdoor Dining Area)

The Public Hearing was called to order by Council President Slutzky at 7:11 p.m. with all Council members present.

Council Member Joe Woods, presented testimony on Bill 16-020.

There being no testimony from the public, the Public Hearing concluded at 7:15 p.m.

Bill 16-021 (Distribution of Tobacco Products to Minors)

The Public Hearing was called to order by Council President Slutzky at 7:15 p.m. with all Council members present.

Prior to turning over the hearing to Susan Kelly, Council President Slutzky, who has worked for several years with the Local Health Improvement Coalition Tobacco Work Group, offered comments regarding Bill 16-021.

Susan Kelly, Harford County Health Officer, introduced Dr. Russell Moy, Deputy Health Officer, Bill Wiseman, Director of Tobacco Enforcement and Vickie Bands, Chair of the Local Health Improvement Coalition Tobacco Work Group. Ms. Kelly presented testimony on Bill 16-021.

Council President Slutzky offered additional comments.

Bruce Bereano, 191 Duke of Gloucester Street, Annapolis, speaking on behalf of his client, Maryland Association of Candy and Tobacco Wholesalers spoke in opposition.

There being no further testimony from the public, the Public Hearing concluded at 7:31 p.m.

Approved

Richard C. Slutzky

President

6/22/16

Date

MS4 Information

Jurisdiction	Harford
Contact Name	Christine Buckley
Phone	410 638-3217
Address	212 South Bond Street
City	Bel Air
State	Maryland
Zip	21014
Email	cmbuckley@harfordcountymd.gov
Baseline Acres	9413.00
Permit Num	11-DP-3310
Reporting Year	2016

Harford County Financial Assurance Plan (May 10, 2016)

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.

Untreated impervious surfaces (acres) or baseline: 9,413

Impervious Surface Restoration Plan (ISRP) Requirement 20%

CountyID

RESTORATION TYPE	BMP CLASS	IMPERVIOUS ACRES	COST ^{2,3}	% ISRP COMPLETE	STATUS	PROJECTED YEAR ¹
Operation Programs						
(SEPP) Septic Pumping	A	300	\$0	3.2%	Under Construction	2016
(SEPP) Septic Pumping	A	300	\$0	3.2%	Planning	2017
(SEPP) Septic Pumping	A	300	\$0	3.2%	Planning	2018
(SEPP) Septic Pumping	A	300	\$0	3.2%	Planning	2019
(SEPP) Septic Pumping	A	300	\$0	3.2%	Planning	2020
Average Operations Next Two Years (FY2017-FY2018)		300.0	\$0	3.2%		

	Average Operations Permit Term (FY2009-FY2020)		310.8	\$0	3.3%		
Capital Projects							
CIP0027	(STRE) Stream Restoration	A	38	\$1,150,000	0.4%	Under Construction	2016
	(SEPC) Septic Connections to WWTP	A	2.3	N/A	0.0%	Under Construction	2016
	(SEPD) Septic Denitrification	A	9.1	N/A	0.1%	Under Construction	2016
CIP0036, CIP0035	(STRE) Stream Restoration	A	30	\$1,450,000	0.3%	Under Design	2017
CIP0025, CIP0035, CIP0046, CIP0069, CIP0070	(PMED / PWED / WEDW / WSHW) Stormwater Retrofit	S	23	\$1,410,000	0.2%	Under Design	2017
	(FPU) Tree Plantings	A	15	\$500,000	0.2%	Planning	2017
	(SEPC) Septic Connections to WWTP	A	3.2	N/A	0.0%	Planning	2017
	(SEPD) Septic Denitrification	A	7.8	N/A	0.1%	Planning	2017
CIP0014, CIP0021, CIP0029, CIP0033, CIP0034, CIP0037, CIP0039, CIP0043	(STRE) Stream Restoration	A	185	\$11,080,000	2.0%	Under Design	2018
CIP0033, CIP0034, CIP0039	(PMED / PWED / WEDW / WSHW) Stormwater Retrofit	S	13	\$700,000	0.1%	Under Design	2018

CIP0071, CIP0072, CIP0074

(PMED / PWED / WEDW / WSHW) Stormwater Retrofit	S	43	\$2,400,000	0.5%	Planning	2018
(FPU) Tree Plantings	A	15	\$500,000	0.2%	Planning	2018
(SEPC) Septic Connections to WWTP	A	3.2	N/A	0.0%	Planning	2018
(SEPD) Septic Denitrification	A	7.8	N/A	0.1%	Planning	2018
(STRE) Stream Restoration	A	87	\$2,505,000	0.9%	Under Design	2019
(STRE) Stream Restoration	A	85	\$4,700,000	0.9%	Planning	2019
(PMED / PWED / WEDW / WSHW) Stormwater Retrofit	S	60	\$3,300,000	0.6%	Planning	2019
(FPU) Tree Plantings	A	15	\$500,000	0.2%	Planning	2019
(SEPC) Septic Connections to WWTP	A	3.2	N/A	0.0%	Planning	2019
(SEPD) Septic Denitrification	A	7.8	N/A	0.1%	Planning	2019
(STRE) Stream Restoration	A	100	\$5,500,000	1.1%	Planning	2020
(PMED / PWED / WEDW / WSHW) Stormwater Retrofit	S	80	\$4,400,000	0.8%	Planning	2020

(FPU) Tree Plantings	A	15	\$500,000	0.2%	Planning	2020
(SEPC) Septic Connections to WWTP	A	3.2	N/A	0.0%	Planning	2020
(SEPD) Septic Denitrification	A	7.8	N/A	0.1%	Planning	2020
Subtotal Capital Next Two Years (FY2017-FY2018)		346	\$18,040,000	2.8%		
Subtotal Capital Permit Term (FY2009-FY2020)		1028.3	\$46,388,000	10.9%		
Other						
Nutrient Trading with WWTP		940	\$0	10.0%		
Subtotal Other Next Two Years (FY2017-FY2018)		940	\$0	10.0%		
Subtotal Other Permit Term (FY2009-FY2020)		940	\$0	10.0%		
Total Next Two Years (FY2017-FY2018)		1586.0	\$18,040,000	16.0%		
Total Permit Term (FY2009-FY2020)		2279.1	\$46,388,000	24.2%		

¹ Projected year is the year the project is constructed

² Cost is the total cost for the project including planning, design, and construction

³ Cost is not related to annual fiscal costs. Planning, design, and construction typically do not occur within a single fiscal year.

Harford County Financial Assurance Plan (May 10, 2016)

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 (ISRP) requirements of its National Pollutant Discharge Elimination System Phase I Municipal Separate Storm Sewer System Permit.

DESCRIPTION	PAST UP THRU FY 2015 ¹	CURRENT YEAR 1 FY 2016	PROJECTED YEAR 2 FY 2017	PROJECTED YEAR 3 FY 2018	PROJECTED YEAR 4 FY 2019	PROJECTED YEAR 5 FY 2020	TOTAL COSTS
Operating Expenditures							
Street Sweeping Program							\$0
Inlet Cleaning							\$0
Support of Capital Projects		\$100,000	\$150,000	\$200,000	\$250,000	\$300,000	\$1,000,000
Debt Service Payment			\$100,000	\$690,000	\$1,270,000	\$1,800,000	\$3,860,000
Other							\$0
Capital Expenditures							
General Fund							\$0
WPR Fund		\$3,810,000	\$3,351,000	\$8,850,000	\$7,000,000	\$8,000,000	\$31,011,000
Debt Service							\$0

Grants & Partnerships		\$1,508,000	\$2,330,000	\$4,600,000	\$4,000,000	\$4,000,000	\$16,438,000
Other							\$0
Subtotal operation & paygo		\$3,910,000	\$3,601,000	\$9,740,000	\$8,520,000	\$10,100,000	\$35,871,000
Total Expenditures		\$5,418,000	\$5,931,000	\$14,340,000	\$12,520,000	\$14,100,000	\$52,309,000

**Total ISRP costs
except debt service:** **\$48,449,000**
**Compare ISRP costs
(except debt service) /
total ISRP proposed
actions:** **104.44%**

¹ Harford County has not provided this information because it is beyond the requirements of the statute

Harford County Financial Assurance Plan (May 10, 2016)

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 2015 ¹	CURRENT YEAR 1 FY 2016	PROJECTED YEAR 2 FY 2017	PROJECTED YEAR 3 FY 2018	PROJECTED YEAR 4 FY 2019	PROJECTED YEAR 5 FY 2020	TOTAL NEXT 2-YEARS FY 17-18*	TOTAL
Annual Revenue Appropriated for ISRP ²		\$9,750,000	\$11,400,000	\$11,550,000	\$11,750,000	\$11,950,000	\$22,950,000	\$56,400,000
Annual Costs towards ISRP ²		\$5,418,000	\$5,931,000	\$14,340,000	\$12,520,000	\$14,100,000	\$20,271,000	\$52,309,000

Compare annual costs / revenue appropriated: 88%
Reporting Criteria 75%

¹ Harford County has not provided this information because it is beyond the requirements of the statute

² Impervious Surface Restoration Plan (ISRP)

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

** Revenue means "dedicated revenues, funds, or sources of funds (per Article 4-202.1(j)(4)(ii). Note that budget appropriations have

*** See table of ISRP Cost.

Harford County Financial Assurance Plan (May 10, 2016)

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	PAS T UP THR U FY 201 5 ¹	CURRENT YEAR 1 FY 2016	PROJECTED YEAR 2 FY 2017	PROJECTED YEAR 3 FY 2018	PROJECTED YEAR 4 FY 2019	PROJECTED YEAR 5 FY 2020	TOTAL PERMIT CYCLE
Paygo Sources							
Stormwater Remediation Fees (WPR Fund)							\$ -
Miscellaneous Fees (WPR Fund)							\$ -
General Fund (Salaries)		\$ 1,100,000	\$ 1,500,000	\$ 1,600,000	\$ 1,700,000	\$ 1,800,000	\$ 7,700,000
Other Funds 1 (Recordation Tax)		\$ 140,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 740,000

Other Funds 2							\$ -	
Other Funds 3							\$ -	
Subtotal Paygo Sources	\$ -	\$ 1,240,000	\$ 1,650,000	\$ 1,750,000	\$ 1,850,000	\$ 1,950,000	\$ 8,440,000	
Debt Service								
County Transportation Bonds							\$ -	
General Obligation Bonds		\$ 5,800,000	\$ 5,900,000	\$ 5,950,000	\$ 6,050,000	\$ 6,150,000	\$ 29,850,000	
Revenue (Utility) Bonds							\$ -	\$48,700, 000
State Revolving Loan Fund							\$ -	
Public-private partnership (debt service)							\$ -	
Subtotal Debt Service		\$ 5,800,000	\$ 5,900,000	\$ 5,950,000	\$ 6,050,000	\$ 6,150,000	\$ 29,850,000	
Grants and Partnerships								

State funded grants		\$ 2,325,000	\$ 2,700,000	\$ 2,700,000	\$ 2,700,000	\$ 2,700,000	\$ 13,125,000
Federal funded grants		\$ 525,000	\$ 1,300,000	\$ 1,300,000	\$ 1,300,000	\$ 1,300,000	\$ 5,725,000
Public-private partnership (matched grant)							\$ -
Subtotal Grants and Partnerships		\$ 2,850,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000	\$ 18,850,000
Total Annual Sources of Funds³	\$ -	\$ 9,890,000	\$ 11,550,000	\$ 11,700,000	\$ 11,900,000	\$ 12,100,000	\$ 45,040,000
Percent of Funds Directed Toward ISRP²		99%	99%	99%	99%	99%	

Compare total permit term paygo ISRP² costs / subtotal permit term paygo sources: **305%**
 Compare total permit term ISRP² costs / total permit term annual sources of funds: **116%**

¹ Harford County has not provided this information

because it is beyond the requirements of the statute

² Impervious Surface Restoration Plan
(ISRP)

³ Funding excludes programs or portions of programs required outside of the MS4 permit such as illicit discharges, litter and floatables, property management and public education.

Harford County Financial Assurance Plan (May 10, 2016)

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.

Untreated
impervious
surfaces
(acres) or
baseline: 9,413

Impervious Surface
Restoration Plan (ISRP)
Requirement: 20%

CountyID

	RESTORATION ID	REST OR TYPE	BMP CLASS	NUM BMP	IMPE RV ACRES	BUILT DATE	COST	% ISRP Complete	STATUS	COMMENTS
Operation Programs										
	Septic Pumping	SEPP	A	9,926	298	2015	\$0	3.2%	Complete	
	Septic Pumping	SEPP	A	9,811	294	2014	\$0	3.1%	Complete	
	Septic Pumping	SEPP	A	9,719	292	2013	\$0	3.1%	Complete	

	Septic Pumping	SEPP	A	9,887	297	2012	\$0	3.2%	Complete	
	Septic Pumping	SEPP	A	11,482	344	2011	\$0	3.7%	Complete	
	Septic Pumping	SEPP	A	12,959	389	2010	\$0	4.1%	Complete	
	Septic Pumping	SEPP	A	10,511	315	2009	\$0	3.3%	Complete	
	Average Operations Complete To Date			10,614	318		\$0	3.4%		
Capital Projects										
CIP0024	Retrofit of existing stormwater pond	WP WS	S	1	9.8	2016	\$590,000	0.1%	Complete	
CIP0027	Stream restoration	STRE	A	1	19.6	2016	\$600,000	0.2%	Complete	
CIP0027	Retrofit of existing stormwater pond	WP WS	S	4	8.4	2016	\$250,000	0.1%	Complete	
CIP0026	Retrofit of existing stormwater pond	PME D	S	1	12	2016	\$390,000	0.1%	Complete	
CIP0031	New bioretention facility	FBIO	S	1	0.6	2015	\$100,000	0.0%	Complete	

CIP0073	Retrofit of existing stormwater pond	MSG W	S	1	0.5	2015	\$82,000	0.0%	Complete	
CIP0020	Stream restoration	STRE	A	1	12.4	2015	\$550,000	0.1%	Complete	
	Septic Connection to WWTP	SEPC	A	4	1.6	2015	N/A	0.0%	Complete	Funded Bay Restoration Fund
	Installation of new BAT on existing septic Denitrification	SEPD	A	39	10.1	2015	N/A	0.1%	Complete	Funded Bay Restoration Fund
CIP0060, CIP0061, CIP0062	Tree planting	FPU	A	3	1.8	2014	\$50,000	0.0%	Complete	
CIP0032	Stream restoration	STRE	A	1	12.1	2014	\$570,000	0.1%	Complete	
CIP0054, CIP0056, CIP0058, CIP0059	Tree planting	FPU	A	4	3.2	2014	\$81,000	0.0%	Complete	
	Septic Connection to WWTP	SEPC	A	2	0.8	2014	N/A	0.0%	Complete	Funded Bay Restoration Fund
	Installation of new BAT on existing septic Denitrification	SEPD	A	43	11.2	2014	N/A	0.1%	Complete	Funded Bay Restoration Fund
CIP0019	Retrofit of existing stormwater pond	WED W	S	1	3.8	2013	\$240,000	0.0%	Complete	
CIP0049,	Tree planting	FPU	A	4	1.8	2013	\$56,000	0.0%	Complete	

CIP0053, CIP0048, CIP0050										
CIP0022	Retrofit of existing stormwater pond	WED W	S	1	4.8	2013	\$320,000	0.1%	Complete	
CIP0020	Stream restoration	STRE	A	1	7.3	2013	\$320,000	0.1%	Complete	
CIP0057	Tree planting	FPU	A	1	0.8	2013	\$24,000	0.0%	Complete	
	Septic Connection to WWTP	SEPC	A	1	0.4	2013	N/A	0.0%	Complete	Funded Bay Restoration Fund
	Installation of new BAT on existing septic Denitrification	SEPD	A	23	6	2013	N/A	0.1%	Complete	Funded Bay Restoration Fund
	Septic Connection to WWTP	SEPC	A	1	0.4	2012	N/A	0.0%	Complete	Funded Bay Restoration Fund
	Installation of new BAT on existing septic Denitrification	SEPD	A	8	2.1	2012	N/A	0.0%	Complete	Funded Bay Restoration Fund
CIP0018	Retrofit of existing stormwater pond	WP WS	S	1	11.7	2011	\$520,000	0.1%	Complete	
CIP0012	Stream restoration	STRE	A	1	4.7	2011	\$220,000	0.0%	Complete	
CIP0016	New bioretention facility	FBIO	S	1	0.9	2011	\$160,000	0.0%	Complete	
CIP0017	New bioretention facility	STRE	A	1	0.6	2011	\$180,000	0.0%	Complete	

CIP0013	Stream restoration	STRE	A	1	16.8	2011	\$380,000	0.2%	Complete	
CIP0042	Demolition of townhouse community	IMPP	A	1	2.1	2011	N/A	0.0%	Complete	Costs not available
CIP0015	New bioretention facility	FBIO	S	1	0.6	2010	\$110,000	0.0%	Complete	
	Subtotal Capital Complete To Date			154	168.9		\$5,793,000	1.79%		
Other										
								0.0%		
								0.0%		
	Subtotal Other Complete To Date			0	0		\$0	0.0%		
	Total Complete to Date			10,768	487.3		\$5,793,000	5.2%		

Howard County



HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

6751 Columbia Gateway Drive, Suite 514 ■ Columbia Maryland 21046 ■ 410-313-6444

Mark DeLuca, P.E., Deputy Director
Chief, Bureau of Environmental Services
mdeluca@howardcountymd.gov

FAX 410-313-6490
TDD 410-313-2323

July 1, 2016

Mr. Raymond P. Bahr
Program Review Division Chief
Sediment, Stormwater, and Dam Safety Program
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, MD 21230-1708

RE: 2016 Watershed Protection and Restoration Program Annual Report & MS4 Financial Assurance Plan

Dear Mr. Bahr:

In accordance with Section 4-202.1 of the Environment Article of the Annotated Code of Maryland and previous guidance received from the Maryland Department of the Environment (MDE), I am writing to provide you with Howard County's Watershed Protection and Restoration Program Annual Report and MS4 Financial Assurance Plan for 2016, enclosed.

Howard County is grateful to have had the support of MDE in drafting these two documents. The Annual Report outlines how revenues from the local Watershed Protection and Restoration Fee were distributed in Fiscal Year 2015. The Financial Assurance Plan outlines how Howard County plans to fund the work required by its National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit under the current regulatory and technological environment.

The enclosed Financial Assurance Plan was submitted to the Howard County Council on May 31, 2016. The Council held a public hearing on the Financial Assurance Plan on June 20, 2016 and a work session on June 27, 2016. Based on feedback from the public and the Howard County Council, Howard County believes that the Financial Assurance Plan presents the best strategy at this time to guide the County towards meeting NPDES MS4 Permit requirements. The Howard County Council is expected to endorse the attached Financial Assurance Plan on July 8, 2016.

If you have any questions, please feel free to contact me.

Sincerely,



Mark S. Richmond, PE
Chief, Stormwater Management Division

Enclosure: Watershed Protection and Restoration Program Annual Report FY 2015
Howard County Financial Assurance Plan 2016

CC: Mark DeLuca
Jim Caldwell

County Council of Howard County, Maryland

2016 Legislative Session

Legislative Day No. 7

Resolution No. 92 -2016

Introduced by: The Chairperson at the request of the County Executive

A RESOLUTION approving a financial assurance plan for Howard County's National Pollutant Discharge Elimination System, Municipal Separate Storm Sewer System permit programs, in accordance with Section 4-202.1 of the Environment Article of the Annotated Code of Maryland; indicating certain endorsement by the County Executive; and requiring certain copies be sent to the Maryland Department of the Environment.

Introduced and read first time June 6, 2016.

By order Jessica Feldmark
Jessica Feldmark, Administrator

Read for a second time at a public hearing on June 20, 2016.

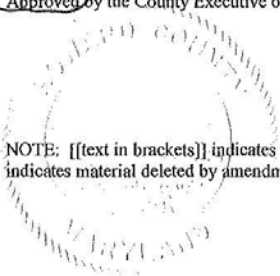
By order Jessica Feldmark
Jessica Feldmark, Administrator

This Resolution was read the third time and was Adopted , Adopted with amendments , Failed , Withdrawn , by the County Council on July 8, 2016.

Certified By Jessica Feldmark
Jessica Feldmark, Administrator

Approved by the County Executive on July 4, 2016.

Allan H. Kittleman
Allan H. Kittleman, County Executive



NOTE: [[text in brackets]] indicates deletions from existing law; TEXT IN SMALL CAPITALS indicates additions to existing law; Strike-out indicates material deleted by amendment; Underlining indicates material added by amendment

1 **WHEREAS**, related to the Watershed Protection and Restoration Fee, Howard County is
2 required to file a financial assurance plan (“Plan”), approved by the local governing bodies, with
3 the Maryland Department of the Environment (“MDE”), in accordance with § 4-202.1 of the
4 Environment Article of the Annotated Code of Maryland (the “State Law”); and
5

6 **WHEREAS**, the County has worked with the MDE over the past several months to craft a
7 Plan that projects and describes actions and financial resources and costs related to stormwater
8 management in Howard County over the two-year period following the filing date of the Plan, and
9

10 **WHEREAS**, the State law requires that the County file a Plan with MDE and that the
11 governing bodies of the County approve the Plan prior to filing with MDE.
12

13 **NOW, THEREFORE, BE IT RESOLVED** by the County Council of Howard County,
14 Maryland, this 8th day of July, 2016, that it hereby approves the
15 Plan, substantially in the form attached, as a projection of actions, funding, and costs of Howard
16 County’s stormwater management program over the two-year period following the filing date of
17 the Plan,
18

19 **AND BE IT FURTHER RESOLVED**, that the County Executive be, and is hereby,
20 requested to endorse this Resolution, thereby indicating his approval of the Plan.
21

22 **AND BE IT FURTHER RESOLVED** that a copy of this Resolution and the Plan be
23 sent to the Maryland Department of the Environment, 1800 Washington Boulevard, Baltimore,
24 MD 21230.

Howard County Financial Assurance Plan 2016: Executive Summary

Permit Overview

The National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) permit issued to Howard County, hereinafter “the County”, on December 18, 2014, mandated that the County implement restoration efforts for 20% of its total impervious surface area, that has not already been restored to the maximum extent practicable (MEP), by December 17, 2019. In December 2015, the County submitted its *Countywide Implementation Strategy* (CIS) which included a detailed impervious surface area assessment and restoration plan that calculated the Countywide impervious surface area not restored to the MEP as 10,222 acres. Thus, the County’s target 20% restoration requirement is 2,044 acres. State law requires that the County approve and file a financial assurance plan (Plan) with the Maryland Department of the Environment (MDE) that describes actions, revenues, and costs required to meet the 20% restoration requirement.

Howard County implemented its stormwater utility fee, the Watershed Protection and Restoration Fee (WPRF), on July 1, 2013, as required by State law. Upon implementation of the Fee and the Watershed Protection and Restoration Fund, the County increased existing efforts to plan, design, construct and monitor restoration projects necessary to meet the NPDES MS4 permit’s 20% restoration goal. As detailed in the CIS, all restoration projects implemented following July 1, 2013 are considered restoration that applies to the County’s 20% restoration goal. From July 2013 through December 2015, the County has restored approximately 157 acres, leaving the total amount of impervious acreage needed to be restored at approximately 1,887 acres by December 17, 2019.

The County received comments on the CIS from MDE on May 27, 2016. The County requested that MDE delay the deadline for the filing of the Plan so that the County could address MDE’s comments on the CIS in the Plan, but MDE denied this request. The Plan has been developed based on the impervious surface area assessment and strategies outlined in the December 2015 CIS and MDE has assured the County that the development of its Plan has been laudatory.

Actions Required to Meet Permit

The County will continue to implement the numerous programs required by the MS4 permit, including development of restoration plans that will identify projects to restore impervious surface area. Best management practices (BMPs) will continue to be utilized to complete the restoration work and improve water quality, including stream restoration, outfall stabilization, tree planting, construction of new BMPs, and retrofitting existing BMPs. The County also continues to research and develop the voluminous electronic data necessary to meet the ever-expanding Geodatabase reporting requirements of the MS4 permit.

The work required by the MS4 permit will be difficult to complete within the allotted timeframe due to the sheer volume of design and construction required, the large resource demand related to maintaining current BMPs, and the necessity of utilizing private property to meet the 20% requirement. There is not enough public land to meet the impervious acreage requirement. Private property owners are not required to work with the County in meeting the 20% requirement and there are currently few incentives for them to do so. The County is proactively pioneering Public-Private Partnerships in order to complete some of the work, but in the end, this will not completely solve the larger issue of gaining access to private land, a fundamental weakness of MDE's stormwater management approach that may require legislative action by the General Assembly to address.

Total Permit Cost and Fund Sources

The County appreciates the importance of working to meet the restoration requirement of its permit. Utilizing current project cost estimates for restoring impervious acreage, as well as including the acres calculated in the CIS, the County believes that the 20% restoration requirement of its MS4 permit will cost approximately \$137,948,680 beginning in Fiscal Year (FY) 2015 through FY 2020. Over the next two fiscal years, FY 2017 and FY 2018, the cost to the County will be approximately \$40,760,000. These cost estimates include the engineering design, construction, and monitoring costs associated with commencing and completing the implementation of the 20% restoration requirement.

The County will use the following revenue sources for FY 2017 and FY 2018 in funding the costs of the MS4 permit over the next two fiscal years:

Grants- The County typically receives funding from various State and Federal grant programs to conduct stormwater restoration work. There is also the potential to work with private entities in conducting stormwater restoration work.

Watershed Protection and Restoration Fee- The County currently collects approximately \$10.8 million from the Watershed Protection and Restoration Fee. This amount will decrease steadily over the next three years, as the Fee for commercial properties begins to decline, as specified in Council Resolution 37-2016.

Transfer Tax- Of the transfer tax that the County currently collects, a quarter is awarded to the County's Agricultural Land Preservation Program. The County believes that this program is reaching its peak and the Agricultural Land Preservation Fund will grow a significant positive balance in the near future. The County believes that allocating \$1 million in FY 2018 to the Watershed Protection and Restoration Fund from the portion of the proceeds that the Agricultural Land Preservation Program currently receives is appropriate, but State legislation is required for this to occur.

General Fund- The County will utilize its General Fund to absorb operating costs in administering stormwater restoration projects and also to provide debt service for General Obligation Bonds issued to fund the stormwater restoration projects.

General Obligation Bonds- The County will issue General Obligation Bonds to fund necessary stormwater restoration projects required by the MS4 permit.

Future Considerations

The Plan describes projected actions, revenues, and costs to meet stormwater management requirements based on the current policy and regulatory environment established by MDE. As the County moves forward in its program, it will continue to gain a better understanding of the costs associated with completing the necessary stormwater restoration work. In addition, the County expects that several factors to be determined at the State level will influence the costs of meeting the MS4 permit:

New Crediting Methods - There is an expectation that new crediting methods related to outfall stabilization, street sweeping, inlet cleaning, public education, and more will allow the County credits for treating impervious acres based on existing and developing programs.

Nutrient Trading Program- MDE and the Maryland Department of Agriculture are dedicating considerable resources to the expansion of existing nutrient trading programs that should allow nutrient trades that will help the County meet its 20% restoration requirement in a cost-effective manner.

Summary

The Plan presented is a projected spending plan that will assist the County in meeting its MS4 permit restoration requirement.

MS4 Information

Jurisdiction	Howard County
Contact Name	Mark S. Richmond, P.E., Chief
Phone	410-313-6413
Address	Howard County Government, Department of Public Works, Bureau of Environmental Services, Stormwater Management Division, 6751 Columbia Gateway Drive, Suite 514
City	Columbia
State	MD
Zip	21046
Email	msrichmond@howardcountymd.gov
Baseline Acres	10221.60
Permit Num	11-DP-3318
Reporting Year	2016

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: 10,222 **Requirement:** 20%

REST BMP TYPE*, #	BMP CLASS	IMP ACRES	IMPL COST ##	% ISRP COMPLETE	IMPL STATUS**	PROJECTED IMPL YR
Operation Programs						
Source ID		0	\$ 95,000	0.0%	Planning	2016
SW Management		0	\$ 5,253,473	0.0%	Planning	2016
IDDE	A	0	\$ 80,000	0.0%	Planning	2016
Inlet Cleaning	A	0	\$ 10,000	0.0%	Planning	2016
Street Sweeping	A	0	\$ 400,000	0.0%	Planning	2016
Public Education		0	\$ 1,102,000	0.0%	Planning	2016
Watershed Assessment		0	\$ 1,169,370	0.0%	Planning	2016
TMDL Assessment Monitoring		0	\$ 417,000	0.0%	Planning	2016
Chemical Monitoring		0	\$ 37,000	0.0%	Planning	2016
Biomonitoring		0	\$ 125,000	0.0%	Planning	2016
Physical Stream Assessment		0	\$ 37,000	0.0%	Planning	2016
Design Manual Monitoring		0	\$ 64,000	0.0%	Planning	2016
Source ID		0	\$ 100,000	0.0%	Proposed	2017
SW Management		0	\$ 5,780,687	0.0%	Proposed	2017
IDDE	A	0	\$ 85,000	0.0%	Proposed	2017
Inlet Cleaning	A	0	\$ 10,000	0.0%	Proposed	2017

Street Sweeping	A	0	\$ 400,000	0.0%	Proposed	2017
Public Education		0	\$ 1,110,000	0.0%	Proposed	2017
Watershed Assessment		0	\$ 500,000	0.0%	Proposed	2017
TMDL Assessment Monitoring		0	\$ 500,000	0.0%	Proposed	2017
Chemical Monitoring		0	\$ 40,000	0.0%	Proposed	2017
Biomonitoring		0	\$ 125,000	0.0%	Proposed	2017
Physical Stream Assessment		0	\$ 50,000	0.0%	Proposed	2017
Design Manual Monitoring		0	\$ 64,000	0.0%	Proposed	2017
Source ID		0	\$ 100,000	0.0%	Proposed	2018
SW Management		0	\$ 5,954,108	0.0%	Proposed	2018
IDDE	A	0	\$ 85,000	0.0%	Proposed	2018
Inlet Cleaning	A	0	\$ 10,000	0.0%	Proposed	2018
Street Sweeping	A	0	\$ 400,000	0.0%	Proposed	2018
Public Education		0	\$ 1,150,000	0.0%	Proposed	2018
Watershed Assessment		0	\$ 500,000	0.0%	Proposed	2018
TMDL Assessment Monitoring		0	\$ 500,000	0.0%	Proposed	2018
Chemical Monitoring		0	\$ 40,000	0.0%	Proposed	2018
Biomonitoring		0	\$ 125,000	0.0%	Proposed	2018
Physical Stream Assessment		0	\$ 100,000	0.0%	Proposed	2018
Design Manual Monitoring		0	\$ 64,000	0.0%	Proposed	2018
Source ID		0	\$ 100,000	0.0%	Proposed	2019
SW Management		0	\$ 6,132,731	0.0%	Proposed	2019
IDDE	A	0	\$ 85,000	0.0%	Proposed	2019
Inlet Cleaning	A	0	\$ 10,000	0.0%	Proposed	2019
Street Sweeping	A	0	\$ 400,000	0.0%	Proposed	2019
Public Education		0	\$ 1,150,000	0.0%	Proposed	2019

Watershed Assessment		0	\$ 500,000	0.0%	Proposed	2019
TMDL Assessment Monitoring		0	\$ 500,000	0.0%	Proposed	2019
Chemical Monitoring		0	\$ 40,000	0.0%	Proposed	2019
Biomonitoring		0	\$ 125,000	0.0%	Proposed	2019
Physical Stream Assessment		0	\$ 150,000	0.0%	Proposed	2019
Design Manual Monitoring		0	\$ 64,000	0.0%	Proposed	2019
Source ID		0	\$ 100,000	0.0%	Proposed	2020
SW Management		0	\$ 6,316,713	0.0%	Proposed	2020
IDDE	A	0	\$ 85,000	0.0%	Proposed	2020
Inlet Cleaning	A	0	\$ 10,000	0.0%	Proposed	2020
Street Sweeping	A	0	\$ 400,000	0.0%	Proposed	2020
Public Education		0	\$ 1,150,000	0.0%	Proposed	2020
Watershed Assessment		0	\$ 500,000	0.0%	Proposed	2020
TMDL Assessment Monitoring		0	\$ 500,000	0.0%	Proposed	2020
Chemical Monitoring		0	\$ 40,000	0.0%	Proposed	2020
Biomonitoring		0	\$ 125,000	0.0%	Proposed	2020
Physical Stream Assessment		0	\$ 200,000	0.0%	Proposed	2020
Design Manual Monitoring		0	\$ 64,000	0.0%	Proposed	2020
Subtotal Operations Next Two Years (FY2017-FY2018)***		0.0	\$ 17,792,795	0.0%		
Subtotal Operations Permit Term (FY2015-FY2019)***		0.0	\$46,294,369	0.0%		

Subtotal Operations Permit Term and Projected Years (FY2015-FY2020)***		0.0	\$55,785,082	0.0%		
Capital Projects						
BR	S	1.0	\$ 187,342	0.01%	Planning	2016
EDSW	S	2.9	\$ 380,000	0.03%	Planning	2016
FPU	A	5	\$ 163,000	0.05%	Construction	2016
OUTS	A	2.0	\$ 240,000	0.02%	Planning	2016
OUTS	A	1.0	\$ 60,000	0.01%	Planning	2016
OUTS	A	1.8	\$ 311,000	0.02%	Planning	2016
OUTS	A	2.0	\$ 460,000	0.02%	Planning	2016
Pond Conversion	S	7	\$ 250,000	0.07%	Construction	2016
Pond Conversion	S	6.7	\$ 350,000	0.07%	Construction	2016
Pond Maintenance	S	0	\$ 350,000	0.00%	Construction	2016
Pond Maintenance	S	0	\$ 600,000	0.00%	Construction	2016
Pond Maintenance	S	0	\$ 400,000	0.00%	Construction	2016
Pond Maintenance	S	0	\$ 1,350,000	0.00%	Construction	2016
Pond Maintenance	S	0	\$ 350,000	0.00%	Construction	2016
SF	S	3.5	\$ 233,660	0.03%	Planning	2016
STRE	A	10.0	\$ 650,000	0.10%	Planning	2016
STRE	A	3.0	\$ 656,484	0.03%	Planning	2016
STRE	A	3.5	\$ 830,000	0.03%	Planning	2016
STRE	A	5.0	\$ 365,000	0.05%	Planning	2016
STRE	A	7.0	\$ 541,202	0.07%	Planning	2016
STRE	A	17.0	\$ 965,000	0.17%	Planning	2016
STRE	A	7.0	\$ 576,430	0.07%	Planning	2016
STRE	A	11.1	\$ 650,000	0.11%	Planning	2016
STRE	A	0	\$ 650,000	0.00%	Planning	2016
WP	S	1.0	\$ 400,000	0.01%	Planning	2016

WP	S	7.5	\$ 80,000	0.07%	Planning	2016
WP	S	6.4	\$ 71,172	0.06%	Planning	2016
WP	S	5.8	\$ 316,995	0.06%	Planning	2016
ESDRG	E	5	\$ 500,000	0.05%	Construction	2017
OUTS	A	2	\$ 100,000	0.02%	Planning	2017
Pond Conversion	S	13.8	\$ 700,000	0.14%	Construction	2017
Pond Conversion	S	4.7	\$ 500,000	0.05%	Construction	2017
Pond Conversion	S	5	\$ 300,000	0.05%	Construction	2017
Pond Maintenance	S	0	\$ 400,000	0.00%	Construction	2017
Pond Maintenance	S	0	\$ 350,000	0.00%	Construction	2017
Pond Maintenance	S	2	\$ 600,000	0.02%	Construction	2017
Pond Maintenance	S	0	\$ 400,000	0.00%	Construction	2017
SPSC	A	7.2	\$ 90,000	0.07%	Planning	2017
SPSC	A	3.89	\$ 230,000	0.04%	Planning	2017
SPSC	A	5.5	\$ 300,000	0.05%	Construction	2017
STRE	A	64	\$ 3,200,000	0.63%	Planning	2017
STRE	A	2	\$ 100,000	0.02%	Planning	2017
STRE	A	14	\$ 600,000	0.14%	Construction	2017
STRE	A	18	\$ 1,000,000	0.18%	Construction	2017
STRE	A	18	\$ 1,000,000	0.18%	Construction	2017
STRE	A	126	\$ 900,000	1.23%	Construction	2017
STRE	A	20	\$ 950,000	0.20%	Construction	2017
STRE	A	7	\$ 350,000	0.07%	Construction	2017
STRE	A	17	\$ 950,000	0.17%	Construction	2017
STRE	A	1	\$ 350,000	0.01%	Construction	2017
STRE	A	10	\$ 900,000	0.10%	Planning	2017
STRE	A	1	\$ 200,000	0.01%	Construction	2017
STRE	A	1	\$ 50,000	0.01%	Planning	2017
STRE	A	1	\$ 350,000	0.01%	Construction	2017
BMP Conversions	S	27.7	\$ 1,764,493	0.27%	Proposed	2018

FPU	A	17.2	\$ 1,962,677	0.17%	Proposed	2018
New BMPs	S	10.0	\$ 1,609,386	0.10%	Proposed	2018
OUTS	A	5.2	\$ 788,608	0.05%	Proposed	2018
SPSC	A	19.8	\$ 972,619	0.19%	Proposed	2018
STRE	A	18	\$ 1,350,075	0.18%	Planning	2018
STRE	A	12.8	\$ 1,047,045	0.13%	Planning	2018
STRE	A	10	\$ 1,500,000	0.10%	Planning	2018
STRE	A	10	\$ 803,081	0.10%	Proposed	2018
STRE	A	10.7	\$ 824,195	0.10%	Proposed	2018
STRE	A	60	\$ 2,000,000	0.59%	Planning	2018
STRE	A	3	\$ 500,000	0.03%	Planning	2018
STRE	A	20	\$ 1,000,000	0.20%	Planning	2018
STRE	A	161.4	\$ 12,389,091	1.58%	Proposed	2018
BMP Conversions	S	30.9	\$ 1,939,383	0.30%	Proposed	2019
FPU	A	17.9	\$ 2,041,769	0.18%	Proposed	2019
New BMPs	S	11.4	\$ 1,823,970	0.11%	Proposed	2019
OUTS	A	5.9	\$ 900,475	0.06%	Proposed	2019
SPSC	A	20.8	\$ 1,023,276	0.20%	Proposed	2019
STRE	A	11.9	\$ 998,490	0.12%	Planning	2019
STRE	A	17.9	\$ 1,344,810	0.18%	Planning	2019
STRE	A	318.0	\$ 24,599,374	3.11%	Proposed	2019
BMP Conversions	S	35.6	\$ 2,216,204	0.35%	Proposed	2020
FPU	A	16.4	\$ 1,873,403	0.16%	Proposed	2020
New BMPs	S	15.4	\$ 2,467,726	0.15%	Proposed	2020
OUTS	A	4.7	\$ 747,939	0.05%	Proposed	2020
SPSC	A	36.9	\$ 1,818,321	0.36%	Proposed	2020
STRE	A	296.8	\$ 22,986,965	2.90%	Proposed	2020
Subtotal Capital Next Two Years (FY2017-FY2018)		734.89	\$43,881,270	7.2%		

Subtotal Capital Permit Term (FY2015-FY2019)		1,362.53	\$103,828,122	13.3%		
Subtotal Capital Permit Term and Projected Years (FY2015-FY2020)		1,768.33	\$135,938,680	17.3%		
Other						
SEPD	A	7.8	\$ 390,000	0.08%	Proposed	2016
SEPD	A	7.8	\$ 390,000	0.08%	Proposed	2017
SEPD	A	7.8	\$ 390,000	0.08%	Proposed	2018
SEPD	A	7.8	\$ 390,000	0.08%	Proposed	2019
SEPP	A	270	\$ 450,000	2.64%	Proposed	2019
Subtotal Other Next Two Years (FY2017-FY2018)		16	\$780,000	0.15%		
Subtotal Other Permit Term (FY2015-FY2019)		382	\$2,010,000	3.7%		
Subtotal Operations Permit Term and Projected Years (FY2015-FY2020)		382	\$2,010,000	3.7%		
Total Next Two Years (FY2017-FY2018)		750.5	\$62,454,065	7.3%		
Total Permit Term (FY2015-FY2019)		1744.7	\$152,132,491	17.1%		
Total Permit Term and Projected Years (FY2015-FY2020)		2150.5	\$193,733,762	21.0%		

Check with MDE Geodatabase:

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

*Use BMP domains from MDE Geodatabase.

**Complete, Under Construction, Planning, or Proposed

***IMPL COST is a summation and not an average.

General REST BMP TYPES are included for future projects for which the specific BMP TYPE has yet to be determined designed

Costs of \$0 are for restoration projects implemented in Howard County by other non-government groups

Street Sweeping and Inlet cleaning are currently not performed at the frequency required to qualify for credit.

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 FY 2015	CURRENT/PROJECTED YEAR 1 FY 2016	PROJECTED YEAR 2 FY 2017	PROJECTED YEAR 3 FY 2018	PROJECTED YEAR 4 FY 2019	PROJECTED YEAR 5 FY 2020	TOTAL COSTS
Operating Expenditures (costs)*							
Capital Expenditures (costs)**							
Stream Restoration BMPs	\$1,576,862	\$6,425,318	\$10,900,000	\$21,413,487	\$26,942,674	\$22,986,965	\$90,245,306
Outfall Stabilization BMPs	\$0	\$1,071,000	\$100,000	\$788,608	\$900,475	\$747,939	\$3,608,022
Other BMPs	\$5,872,589	\$10,719,536	\$4,760,000	\$6,699,175	\$7,668,398	\$8,375,654	\$44,095,352
Subtotal operation and paygo:	\$7,449,451	\$18,215,854	\$15,760,000	\$28,901,270	\$35,511,547	\$32,110,558	\$137,948,680
Total expenditures:	\$7,449,451	\$18,215,854	\$15,760,000	\$28,901,270	\$35,511,547	\$32,110,558	\$137,948,680

Total ISRP costs except debt service: **\$137,948,680**

*The County currently does not receive ISRP credit for operating expenditures

Compare ISRP costs (except debt service) / total NPDES MS4 proposed actions: 71%

**See All Actions and Specific Actions for a full list of BMPs

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 2015	CURRENT/PROJECTED YEAR 1 FY 2016	PROJECTED YEAR 2 FY 2017	PROJECTED YEAR 3 FY 2018	PROJECTED YEAR 4 FY 2019	PROJECTED YEAR 5 FY 2020	TOTAL NEXT 2-YEARS FY 17-18*	TOTAL CURRENT + PROJECTED
Annual Revenue** Appropriated for ISRP	\$7,449,451	\$18,215,854	\$15,760,000	\$25,000,000	\$34,900,000	\$36,623,375	\$40,760,000	\$137,948,680
Annual Costs towards ISRP***	\$7,449,451	\$18,215,854	\$15,760,000	\$28,901,270	\$35,511,547	\$32,110,558	\$44,661,270	\$137,948,680

Compare annual costs / revenue appropriated: 91%
WPRP 2016 Reporting Criteria 75%

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 2018.

** 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 2016 at the time of FAP reporting.

*** 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 THRU FY 2015	CURRENT/PROJECTED YEAR 1 FY 2016	PROJECTED YEAR 2 FY 2017	PROJECTED YEAR 3 FY 2018	PROJECTED YEAR 4 FY 2019	PROJECTED YEAR 5 FY 2020	TOTAL PERMIT CYCLE
Paygo Sources							
Stormwater Remediation Fees for Capital (WPR Fund)	\$ 10,012,839	\$ 7,811,883	\$ 7,980,000	\$ 6,000,000	\$ 3,110,000	\$ 3,173,813	\$ 38,088,535
General Fund (Operating)	\$ 3,600,000	\$ 1,800,000	\$ 1,800,000	\$ 1,854,000	\$ 1,909,620	\$ 1,966,909	\$ 12,930,529
Transfer Tax				\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 3,000,000
Stormwater Remediation Fees for Operating (WPR Fund)	\$ 4,798,693	\$ 3,435,473	\$ 3,980,687	\$ 4,100,108	\$ 4,223,111	\$ 4,349,804	\$ 24,887,876
Subtotal Paygo Sources	\$ 18,411,532	\$ 13,047,356	\$ 13,760,687	\$ 12,954,108	\$ 10,242,731	\$ 10,490,526	\$ 78,906,939
Bonds Issued							
General Obligation Bonds	\$ 11,627,908	\$ 9,679,100	\$ 7,413,000	\$ 17,000,000	\$ 16,400,000	\$ 17,300,000	\$ 79,420,008
Revenue (Utility) Bonds					\$ 13,000,000	\$ 14,483,625	\$ 27,483,625
State Revolving Loan Fund			\$ 3,200,000				\$ 3,200,000
Subtotal Bonds Issued	\$ 11,627,908	\$ 9,679,100	\$ 10,613,000	\$ 17,000,000	\$ 29,400,000	\$ 31,783,625	\$ 110,103,633
Grants and Partnerships (no payment is expected)							
State funded grants	\$ 2,791,279	\$ 1,777,400	\$ 1,450,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 9,018,679
Public-private partnership (matched grant)			\$ 500,000				\$ 500,000
Subtotal Grants and Partnerships	\$ 2,791,279	\$ 1,777,400	\$ 1,950,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 9,518,679
Total Annual Sources of Funds	\$ 32,830,719	\$ 24,503,856	\$ 26,323,687	\$ 30,954,108	\$ 40,642,731	\$ 43,274,151	\$ 198,529,251
Percent of Funds Directed Toward ISRP		74.34%	59.87%	80.76%	85.87%	84.63%	

**Compare total permit term paygo ISRP costs / subtotal permit term paygo sources: 69%
 Compare total permit term ISRP costs / total permit term annual sources of funds: 69%

* WPR Fund: Watershed Protection and Restoration Fund.

**All funding sources are included

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: 10,222

Requirement: 20%

REST BMP ID #	REST BMP TYPE	BM P CLASS	NUM BMP	IMP ACRES	BUILT DATE	IMPL COST ##	% ISRP Complete	IMPL STATUS	GEN COMMENTS
Operation Programs									
Source ID			0	0	2014	\$ 79,000	0.0%	Complete	
SW Management			0	0	2014	\$ 2,517,000	0.0%	Complete	
IDDE		A	0	0	2014	\$ 95,000	0.0%	Complete	
Inlet Cleaning		A	0	0	2014	\$ 10,000	0.0%	Complete	not performed at the frequency required to qualify for credit
Street Sweeping		A	0	0	2014	\$ 400,000	0.0%	Complete	not performed at the frequency required to qualify for credit
Public Education			0	0	2014	\$ 668,000	0.0%	Complete	
Watershed Assessment			0	0	2014	\$ 494,000	0.0%	Complete	
TMDL Assessment Monitoring			0	0	2014	\$ 185,000	0.0%	Complete	
Chemical Monitoring			0	0	2014	\$ 40,000	0.0%	Complete	
Biomonitoring			0	0	2014	\$ 108,000	0.0%	Complete	

Physical Stream Assessment			0	0	2014	\$ 27,000	0.0%	Complete	
Design Manual Monitoring			0	0	2014	\$ 47,000	0.0%	Complete	
Source ID			0	0	2015	\$ 89,000	0.0%	Complete	
SW Management			0	0	2015	\$ 2,665,000	0.0%	Complete	
IDDE		A	0	0	2015	\$ 67,000	0.0%	Complete	
Inlet Cleaning		A	0	0	2015	\$ 10,000	0.0%	Complete	not performed at the frequency required to qualify for credit
Street Sweeping		A	0	0	2015	\$ 400,000	0.0%	Complete	not performed at the frequency required to qualify for credit
Public Education			0	0	2015	\$ 443,000	0.0%	Complete	
Watershed Assessment			0	0	2015	\$ 1,572,000	0.0%	Complete	
TMDL Assessment Monitoring			0	0	2015	\$ 318,000	0.0%	Complete	
Chemical Monitoring			0	0	2015	\$ 44,000	0.0%	Complete	
Biomonitoring			0	0	2015	\$ 96,000	0.0%	Complete	
Physical Stream Assessment			0	0	2015	\$ 28,000	0.0%	Complete	
Design Manual Monitoring			0	0	2015	\$ 53,000	0.0%	Complete	
Average Operations Complete To			0	0		\$10,455,000	0.0%		

Date*									
Capital Projects									
Under Ground Filter	FUND	S	1	12.75	2016	\$ 1,256,553	0.1%	Complete	D-1160 Wilde Lake High School Retrofit
HO220006	MMBR	E	1	0.66	2016	\$ 3,590,814	0.0%	Complete	
Stream Restoration	STRE	A	1	7.0	2016	\$ 541,202	0.1%	Complete	D-1163 Trotter Road Stream Stabilization
HO320001	MRNG	E	1	0.15	1/1/2014	\$5,202	0.001%	Complete	READY FY14
HO320002	MRNG	E	1	0.15	1/1/2014	\$5,202	0.001%	Complete	READY FY14
HO320003	MRNG	E	1	0.15	1/1/2014	\$5,202	0.001%	Complete	READY FY14
HO320004	MRNG	E	1	0.15	1/1/2014	\$5,202	0.001%	Complete	READY FY14
HO320005	MRNG	E	1	0.15	1/1/2014	\$5,202	0.001%	Complete	READY FY14
HO320006	MRNG	E	1	0.15	1/1/2014	\$5,202	0.001%	Complete	READY FY14
HO320007	MRNG	E	1	0.15	1/1/2014	\$5,202	0.001%	Complete	READY FY14
HO320008	MRNG	E	1	0.15	1/1/2014	\$5,202	0.001%	Complete	READY FY14
HO320009	XOTH	S	1	0.00	1/1/2014	\$5,202	0.000%	Complete	READY FY14
HO320010	MRNG	E	1	0.15	1/1/2014	\$5,202	0.001%	Complete	READY FY14
HO320011	XOTH	S	1	0.00	1/1/2014	\$5,202	0.000%	Complete	READY FY14
HO320012	XOTH	S	1	0.00	1/1/2014	\$5,202	0.000%	Complete	READY FY14
HO320013	MRNG	E	1	0.15	1/1/2014	\$5,202	0.001%	Complete	READY FY14
HO320014	MRNG	E	1	0.15	1/1/2014	\$5,202	0.001%	Complete	READY FY14
HO320015	MRNG	E	1	0.15	1/1/2014	\$5,202	0.001%	Complete	READY FY14
HO320016	XOTH	S	1	0.00	1/1/2014	\$5,202	0.000%	Complete	READY FY14
HO320017	MRNG	E	1	0.15	1/1/2014	\$5,202	0.001%	Complete	READY FY14
HO320018	MRNG	E	1	0.15	1/1/2014	\$5,202	0.001%	Complete	READY FY14
HO320019	MRNG	E	1	0.15	1/1/2014	\$5,202	0.001%	Complete	READY FY14
HO320020	MRNG	E	1	0.15	1/1/2014	\$5,202	0.001%	Complete	READY FY14
HO320021	MRNG	E	1	0.15	1/1/2014	\$5,202	0.001%	Complete	READY FY14
HO320022	MRNG	E	1	0.15	1/1/2014	\$5,202	0.001%	Complete	READY FY14

HO320023	MRNG	E	1	0.15	1/1/2014	\$5,202	0.001%	Complete	READY FY14
HO320024	MRNG	E	1	0.15	1/1/2014	\$5,202	0.001%	Complete	READY FY14
HO320025	MRNG	E	1	0.15	1/1/2014	\$5,202	0.001%	Complete	READY FY14
HO320026	MRNG	E	1	0.15	1/1/2014	\$5,202	0.001%	Complete	READY FY14
HO320027	MRNG	E	1	0.15	1/1/2014	\$5,202	0.001%	Complete	READY FY14
HO320028	MRNG	E	1	0.15	1/1/2014	\$5,202	0.001%	Complete	READY FY14
HO320029	MRNG	E	1	0.15	1/1/2014	\$5,202	0.001%	Complete	READY FY14
HO320030	MRNG	E	1	0.15	1/1/2014	\$5,202	0.001%	Complete	READY FY14
HO320031	MRNG	E	1	0.15	1/1/2014	\$5,202	0.001%	Complete	READY FY14
HO320032	XOTH	S	1	0.00	1/1/2014	\$5,202	0.000%	Complete	READY FY14
HO320033	XOTH	S	1	0.00	1/1/2014	\$5,202	0.000%	Complete	READY FY14
HO230021	STRE	A	1	3.39	1/21/2014	\$283,113	0.033%	Complete	D-1158 Tuscany Road Stream Restoration
HO220042	IBAS	S	1	2.58	1/30/2014	\$321,887	0.025%	Complete	D-1160 Ashmede Road Pond Retrofit
HO230017	STRE	A	1	6.93	3/11/2014	\$477,055	0.068%	Complete	D-1158 Whiterock Court Stream Restoration
HO230018	STRE	A	1	2.58	6/16/2014	\$295,931	0.025%	Complete	D-1158/D-1159 Tiller Drive Stream Restoration Phase 2
HO210004	FBIO	S	1	0.09	9/4/2014	\$446,772	0.001%	Complete	D-1164 Savage Library Water Quality Enhancements
HO210010	MENF	E	1	0.18	9/4/2014	\$446,772	0.002%	Complete	D-1164 Savage Library Water Quality Enhancements
HO210011	APRP	E	1	0.66	9/4/2014	\$446,772	0.006%	Complete	D-1164 Savage Library Water Quality Enhancements
HO220037	MSWB	E	1	0.27	9/30/2014	\$70,213	0.003%	Complete	D-1160 Stevens Forest Elementary School - Bioswale

HO220038	MMBR	E	1	0.23	9/30/2014	\$70,213	0.002%	Complete	D-1160 Stevens Forest Elementary School - MB-1
HO220039	MMBR	E	1	0.13	9/30/2014	\$70,213	0.001%	Complete	D-1160 Stevens Forest Elementary School - MB-2A
HO220040	MMBR	E	1	0.09	9/30/2014	\$70,213	0.001%	Complete	D-1160 Stevens Forest Elementary School - MB-2B
HO210016	XDED	S	1	0.00	11/18/2014	\$367,499	0.000%	Complete	D-1159 Old Mill Road Pond Repair
HO240006	FPU	A	1	0.74	1/1/2015	\$22,212	0.007%	Complete	D-1160 SBO Folly Quarter MS
HO240008	FPU	A	1	0.22	1/1/2015	\$7,491	0.002%	Complete	D-1160 SBO Waterloo MS
HO240009	FPU	A	1	2.83	1/1/2015	\$86,101	0.028%	Complete	D-1160 SBO Glenwood MS, Bushy Park ES
HO240010	FPU	A	1	0.70	1/1/2015	\$25,081	0.007%	Complete	D-1160 SBO Dunloggin MS, Northfield ES
HO240011	FPU	A	1	1.21	1/1/2015	\$35,941	0.012%	Complete	D-1160 SBO BOE
HO240012	FPU	A	1	0.85	1/1/2015	\$25,563	0.008%	Complete	D-1160 SBO Harpers Choice MS
HO240013	FPU	A	1	0.85	1/1/2015	\$27,434	0.008%	Complete	D-1160 SBO Lisbon ES
HO240014	FPU	A	1	0.46	1/1/2015	\$16,928	0.005%	Complete	D-1160 SBO Patapsco MS
HO320034	MRNG	E	1	0.15	1/1/2015	\$5,202	0.001%	Complete	READY FY15
HO320035	MRNG	E	1	0.15	1/1/2015	\$5,202	0.001%	Complete	READY FY15
HO320036	MRNG	E	1	0.15	1/1/2015	\$5,202	0.001%	Complete	READY FY15
HO320037	MRNG	E	1	0.15	1/1/2015	\$5,202	0.001%	Complete	READY FY15
HO320038	MRNG	E	1	0.15	1/1/2015	\$5,202	0.001%	Complete	READY FY15
HO320039	MRNG	E	1	0.15	1/1/2015	\$5,202	0.001%	Complete	READY FY15
HO320040	MRNG	E	1	0.15	1/1/2015	\$5,202	0.001%	Complete	READY FY15
HO320041	MRNG	E	1	0.15	1/1/2015	\$5,202	0.001%	Complete	READY FY15
HO320042	MRNG	E	1	0.15	1/1/2015	\$5,202	0.001%	Complete	READY FY15
HO320043	MRNG	E	1	0.15	1/1/2015	\$5,202	0.001%	Complete	READY FY15

HO320074	MRNG	E	1	0.15	1/1/2015	\$5,202	0.001%	Complete	READY FY15
HO320075	MRNG	E	1	0.15	1/1/2015	\$5,202	0.001%	Complete	READY FY15
HO320076	MRNG	E	1	0.15	1/1/2015	\$5,202	0.001%	Complete	READY FY15
HO320077	MRNG	E	1	0.15	1/1/2015	\$5,202	0.001%	Complete	READY FY15
HO320078	MRNG	E	1	0.15	1/1/2015	\$5,202	0.001%	Complete	READY FY15
HO320079	MRNG	E	1	0.15	1/1/2015	\$5,202	0.001%	Complete	READY FY15
HO320080	MRNG	E	1	0.15	1/1/2015	\$5,202	0.001%	Complete	READY FY15
HO320081	MRNG	E	1	0.15	1/1/2015	\$5,202	0.001%	Complete	READY FY15
HO320082	MRNG	E	1	0.15	1/1/2015	\$5,202	0.001%	Complete	READY FY15
HO320083	MRNG	E	1	0.15	1/1/2015	\$5,202	0.001%	Complete	READY FY15
HO210029	SPSC	A	1	3.06	4/20/2015	\$302,285	0.030%	Complete	D-1159 Towering Oak Path Pond Repair
HO230006	STRE	A	1	10.54	5/1/2015	\$520,762.84	0.103%	Complete	D-1158 Pinehurst Court Stream Restoration
HO220007	WSHW	S	1	1.57	6/1/2015	\$520,762.84	0.015%	Complete	D-1158 Pinehurst Court Shallow Wetland Marsh
HO210030	XDPD	S	1	0.00	6/3/2015	\$538,438	0.000%	Complete	D-1159 Glenshire Town Pond Repair
HO220001	SPSC	A	1	3.63	6/30/2015	\$1,522,008	0.036%	Complete	D-1159/1160 Dorsey Hall Outfall and Stream Restoration
Subtotal Capital Complete To Date			111	75.74		\$12,838,020	0.74%		
Other									
Planting Trees	FPU	A	1	1.38	2016	\$ -	0.0%	Complete	
Planting Trees	FPU	A	1	0.75	2016	\$ -	0.0%	Complete	
Planting Trees	FPU	A	1	0.40	2016	\$ -	0.0%	Complete	
Rain Garden	MRNG	E	1	0.15	2016	\$ -	0.0%	Complete	
Rain Garden	MRNG	E	1	0.15	2016	\$ -	0.0%	Complete	

Rain Garden	MRNG	E	1	0.15	2016	\$ -	0.0%	Complete	
HO342652	FPU	A	1	0.40	9/11/2013	\$0	0.004%	Complete	DRP Project
HO341381	FPU	A	1	0.39	10/7/2013	\$0	0.004%	Complete	DRP Project
HO105109	ODSW	S	1	0.22	10/9/2013	\$0	0.002%	Complete	Development
HO105712	MIDW	E	1	0.03	10/9/2013	\$0	0.000%	Complete	Development
HO105713	MIDW	E	1	0.02	10/9/2013	\$0	0.000%	Complete	Development
HO105714	MIDW	E	1	0.01	10/9/2013	\$0	0.000%	Complete	Development
HO106078	MMBR	E	1	0.15	10/12/2013	\$0	0.001%	Complete	Development
HO342108	FPU	A	1	0.49	11/22/2013	\$0	0.005%	Complete	DRP Project
HO101719	PWED	S	1	2.64	12/9/2013	\$0	0.026%	Complete	Development
HO340179	FPU	A	1	0.88	12/17/2013	\$0	0.009%	Complete	DRP Project
HO342010	FPU	A	1	1.64	12/17/2013	\$0	0.016%	Complete	DRP Project
HO310001	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310002	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310003	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310004	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310005	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310006	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310007	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310008	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310009	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310010	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites

HO310011	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310012	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310013	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310014	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310015	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310016	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310017	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310018	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310019	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310020	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310021	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310022	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310023	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310024	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310025	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310026	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310027	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites

HO310028	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310029	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310030	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310031	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310032	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310033	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310034	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310035	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310036	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310037	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310038	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310039	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310040	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310041	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310042	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310043	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310044	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites

HO310045	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310046	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310047	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310048	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310049	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310050	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310051	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310052	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310053	MRNG	E	1	0.15	1/1/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO340098	FPU	A	1	1.36	1/8/2014	\$0	0.013%	Complete	DRP Project
HO105764	MRWH	E	1	0.11	1/11/2014	\$0	0.001%	Complete	Development
HO105765	MRWH	E	1	0.11	1/11/2014	\$0	0.001%	Complete	Development
HO105769	MRWH	E	1	0.11	1/11/2014	\$0	0.001%	Complete	Development
HO105770	MRWH	E	1	0.11	1/11/2014	\$0	0.001%	Complete	Development
HO105771	MRWH	E	1	0.11	1/11/2014	\$0	0.001%	Complete	Development
HO105783	MRWH	E	1	0.11	1/11/2014	\$0	0.001%	Complete	Development
HO105791	MRWH	E	1	0.11	1/11/2014	\$0	0.001%	Complete	Development
HO105792	MRWH	E	1	0.11	1/11/2014	\$0	0.001%	Complete	Development
HO105793	MRWH	E	1	0.11	1/11/2014	\$0	0.001%	Complete	Development
HO105809	MRWH	E	1	0.11	1/11/2014	\$0	0.001%	Complete	Development
HO105914	MRWH	E	1	0.11	1/11/2014	\$0	0.001%	Complete	Development
HO105916	MRWH	E	1	0.11	1/11/2014	\$0	0.001%	Complete	Development
HO105917	MRWH	E	1	0.11	1/11/2014	\$0	0.001%	Complete	Development

HO105918	MRWH	E	1	0.11	1/11/2014	\$0	0.001%	Complete	Development
HO105919	MRWH	E	1	0.11	1/11/2014	\$0	0.001%	Complete	Development
HO105920	MRWH	E	1	0.11	1/11/2014	\$0	0.001%	Complete	Development
HO106128	MRWH	E	1	0.11	1/11/2014	\$0	0.001%	Complete	Development
HO106148	MRWH	E	1	0.11	1/11/2014	\$0	0.001%	Complete	Development
HO106160	MRWH	E	1	0.11	1/11/2014	\$0	0.001%	Complete	Development
HO106212	MRWH	E	1	0.11	1/11/2014	\$0	0.001%	Complete	Development
HO310069	MRNG	E	1	0.15	4/9/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310060	MRNG	E	1	0.15	4/16/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO342665	FPU	A	1	3.75	4/30/2014	\$0	0.037%	Complete	DRP Project
HO310076	MRNG	E	1	0.15	5/8/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310056	MRNG	E	1	0.15	5/21/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310070	MRNG	E	1	0.15	5/23/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO340784	FPU	A	1	0.49	6/25/2014	\$0	0.005%	Complete	DRP Project
HO310062	MRNG	E	1	0.15	7/2/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310061	MRNG	E	1	0.15	7/3/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310090	MRNG	E	1	0.15	7/9/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310083	MRNG	E	1	0.15	8/12/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310072	MRNG	E	1	0.15	10/2/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310086	MRNG	E	1	0.15	10/10/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310071	MRNG	E	1	0.15	10/15/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites

HO310081	MRNG	E	1	0.15	10/15/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310085	MRNG	E	1	0.15	10/29/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310082	MRNG	E	1	0.15	10/31/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310058	MRNG	E	1	0.15	11/5/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310066	MRNG	E	1	0.15	11/14/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310091	MRNG	E	1	0.15	11/14/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310067	MRNG	E	1	0.15	11/25/2014	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO330009	MSWG	E	1	0.34	1/1/2015	\$0	0.003%	Complete	CA Project
HO340956	FPU	A	1	0.38	1/20/2015	\$0	0.004%	Complete	DRP Project
HO342424	FPU	A	1	0.85	1/20/2015	\$0	0.008%	Complete	DRP Project
HO342735	FPU	A	1	0.42	1/20/2015	\$0	0.004%	Complete	DRP Project
HO342787	FPU	A	1	2.29	1/20/2015	\$0	0.022%	Complete	DRP Project
HO343044	FPU	A	1	1.50	1/20/2015	\$0	0.015%	Complete	DRP Project
HO343075	FPU	A	1	0.38	1/20/2015	\$0	0.004%	Complete	DRP Project
HO343077	FPU	A	1	2.97	1/20/2015	\$0	0.029%	Complete	DRP Project
HO310065	MRNG	E	1	0.15	2/5/2015	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO341408	FPU	A	1	0.69	4/13/2015	\$0	0.007%	Complete	DRP Project
HO310087	MRNG	E	1	0.15	4/16/2015	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310077	MRNG	E	1	0.15	4/22/2015	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310080	MRNG	E	1	0.15	4/22/2015	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310054	MRNG	E	1	0.15	4/23/2015	\$0	0.001%	Complete	Volunteer - Smart Tool Sites

HO310073	MRNG	E	1	0.15	4/23/2015	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310075	MRNG	E	1	0.15	4/28/2015	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310079	MRNG	E	1	0.15	5/7/2015	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310063	MRNG	E	1	0.15	5/13/2015	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310089	MRNG	E	1	0.15	5/18/2015	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310074	MRNG	E	1	0.15	6/10/2015	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO341237	FPU	A	1	2.20	6/16/2015	\$0	0.021%	Complete	DRP Project
HO310078	MRNG	E	1	0.15	6/18/2015	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO310064	MRNG	E	1	0.15	6/23/2015	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
HO343116	FPU	A	1	0.72	6/25/2015	\$0	0.007%	Complete	DRP Project
HO343117	FPU	A	1	0.48	6/25/2015	\$0	0.005%	Complete	DRP Project
HO343118	FPU	A	1	2.64	6/25/2015	\$0	0.026%	Complete	DRP Project
HO343119	FPU	A	1	1.03	6/25/2015	\$0	0.010%	Complete	DRP Project
HO310055	MRNG	E	1	0.15	6/25/2015	\$0	0.001%	Complete	Volunteer - Smart Tool Sites
Rain Barrels	MRWH	E	171	0.26	6/30/2015	\$0	0.003%	Complete	Rain Barrels
Septic Upgrades	SEPD	A	128	33.28	6/30/2015	\$0	0.326%	Complete	Septic Upgrades
Subtotal Other Complete To Date			439	81		\$0	0.8%		
Total Complete to Date			550	156.8		\$23,293,020	1.5%		

Montgomery County



DEPARTMENT OF ENVIRONMENTAL PROTECTION

Isiah Leggett
County Executive

Lisa Feldt
Director

June 30, 2016

Mr. Benjamin Grumbles, Secretary
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, Maryland 21230

Dear Mr. Grumbles:

I am pleased to submit Montgomery County's FY2016 Financial Assurance Plan (FAP). This submission fulfills the requirements of the 2015 revisions of the Annotated Code of Maryland, Section 4-202.1 of the Maryland Environmental Article, *Watershed Protection and Restoration Programs*.

The 2015 revisions to Section 4-202.1 of the Environment Article, *Watershed Protection and Restoration Programs*, require all Maryland Phase I National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit jurisdictions to submit a Financial Assurance Plan (FAP) demonstrating that each jurisdiction will have adequate funding to meet their permit requirement for impervious surfaces restoration. The jurisdictions must submit a FAP to the Maryland Department of the Environment (MDE) by July 1, 2016, and every two years thereafter on the anniversary date of its MS4 permit, that details the following:

- All actions required to meet MS4 permit requirements.
- Annual and projected five-year costs necessary to meet the "impervious surface restoration plan" (ISRP) requirement, more commonly known as the 20% restoration requirement in current permits.
- Annual and projected five-year revenues that will be used toward meeting the 20% restoration requirement.
- Any and all sources of funds used toward meeting MS4 permit requirements.
- All specific actions and expenditures undertaken in the previous fiscal years to meet the 20% restoration requirement.

Maryland law (Md. Code Ann., Envir. § 4-202.1 (j) (4) (ii)) states that funding in the FAP is sufficient as long as it demonstrates that the County has dedicated revenues, funds, or sources of funds to meet 75% of the projected costs of the County's MS4 Permit required impervious surface restoration plan for the two-year period immediately following the filing date of the FAP (FY2017 and FY2018).

The FAP demonstrates that the County has sufficient funding in the current fiscal year and subsequent fiscal year budgets to meet 100% of the estimated costs of its impervious surfaces restoration plan for the two-year period following the filing of this plan.

255 Rockville Pike, Suite 120 • Rockville, Maryland 20850 • 240-777-0311
www.montgomerycountymd.gov/dep

montgomerycountymd.gov/311



301-251-4850 TTY

Mr. Benjamin Grumbles
June 30, 2016
Page 2

Montgomery County's FAP format is an excel workbook developed by MDE to capture most of the information needed to meet the requirements of the law. The workbook does not capture "All actions required to meet MS4 Permit requirements", which are detailed in the attached executive summary of Montgomery County's FY2015 NPDES MS4 Annual Report.

The Montgomery County Department of Environmental Protection completed the FAP using the recommended FY2017 operating budget and the recommended FY2017-FY2022 CIP budget. This budget requested the full amount anticipated to carry out the impervious surfaces restoration requirements of the permit.

Section 4-202.1 requires that a jurisdiction's local governing body must hold a public hearing and approve the FAP before it can be submitted to MDE. The FAP was introduced by Resolution to Council on May 19, 2016. A public hearing was held on June 14, 2016. The FAP passed the Council's Transportation, Infrastructure, Energy and the Environment Committee on June 23, 2016, and was approved by full Council on June 28, 2016. Please find the approved Resolution 18-538 attached.

Following County Council approval, Montgomery County's Acting Chief Financial Officer executed the attached Certification page.

If you have any questions concerning this regulation or require additional information, please contact Steven Shofar, Chief of the Watershed Management Division, at 240-777-7736.

Sincerely,



Lisa Feldt
Director

Attachments: (4)

Montgomery County's 2016 Financial Assurance Plan
Resolution 18-538 Approval of Montgomery County's 2016 Financial Assurance Plan
Overview of the County's FY2015 NPDES MS4 Permit Annual Report
FAP Certification Page

cc: Bonnie Kirkland, Assistant Chief Administrative Officer, Montgomery County
Jennifer Hughes, Director, Office of Management and Budget, Montgomery County
Marc Hansen, Montgomery County Attorney
Robert Hagedoorn, Acting Chief Financial Officer, Montgomery County

Resolution No.: 18-538
Introduced: May 19, 2016
Adopted: June 28, 2016

**COUNTY COUNCIL
FOR MONTGOMERY COUNTY, MARYLAND**

Lead Sponsor: County Council

SUBJECT: Approval of 2016 National Pollution Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit Financial Assurance Plan

Background

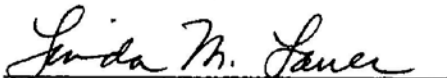
1. The Financial Assurance Plan (FAP) is required by revisions to the Annotated Code of Maryland, Section 4-202.1, Watershed Protection and Restoration Program (May 2015), added to ensure that each National Pollutant Discharge Elimination System (NPDES) Phase I Municipal Separate Storm Sewer System (MS4) jurisdiction will have adequate funding to meet their Phase I MS4 permit requirement for impervious surfaces restoration.
2. Each NPDES Phase I MS4 jurisdiction must submit to the Maryland Department of the Environment (MDE) an FAP by July 1, 2016, and every two years thereafter on the anniversary date of its MS4 permit, that details the following:
 - All actions required to meet MS4 permit requirements
 - Annual and projected 5-year costs necessary to meet the “impervious surface restoration plan” (ISRP) requirement, more commonly known as the 20% restoration requirement in current permits
 - Annual and projected 5-year revenues that will be used toward meeting the 20% restoration requirement
 - Any and all sources of funds used toward meeting MS4 permit requirements
 - All specific actions and expenditures undertaken in the previous fiscal years to meet the 20% restoration requirement.
3. The County is required to submit the information for the FAP using a template provided by the MDE.
4. The Montgomery County Department of Environmental Protection completed the FAP using the recommended FY17 operating budget and the recommended FY17-FY22 CIP budget.
5. The MDE will determine whether the FAP demonstrates sufficient funding within 90 days after County filing.

6. For a plan filed on or before July 1, 2016, funding in the plan is sufficient if the plan demonstrates that the jurisdiction has dedicated revenues, funds, or sources of funds to meet 75% of the projected costs of compliance with the impervious surface restoration requirements under its permit for the two-year period immediately following the filing date of the plan.
7. For the filing of a second or subsequent plan, funding in the plan is sufficient if the plan demonstrates that the jurisdiction has dedicated revenues, funds, or sources of funds to meet 100% of the projected costs of compliance with the impervious surface restoration requirements under its permit for the 2-year period immediately following the filing date of the plan.
8. The FAP shows that the County has dedicated revenues, funds, or sources of funds to meet, for the two-year period immediately following the filing date of the FAP, 100% of the projected costs of compliance with the impervious surfaces restoration plan requirements of the County under its National Pollutant Discharge Elimination System Phase I Municipal Separate Storm Sewer System Permit over that two-year period.

Action

The County Council for Montgomery County, Maryland approves the Financial Assurance Plan for 2016.

This is a correct copy of Council action.



Linda M. Lauer, Clerk of the Council

Attachment 1


CERTIFICATION

WHEREAS, the provisions of § 4-202.1 of the Environment Article of the Annotated Code of Maryland require Montgomery County to file a financial assurance plan to the Maryland Department of the Environment that demonstrates that it has sufficient funding to meet the impervious surface restoration plan requirements of the (County's/City's) National Pollutant Discharge Elimination System Phase I Municipal Separate Storm Sewer System Permit; and

WHEREAS, the provisions of this law require that "a county or municipality may not file a financial assurance plan under this subsection until the local governing body of the county or municipality: (i) Holds a public hearing on the financial assurance plan; and (ii) Approves the financial assurance plan."

NOW, THEREFORE, I certify that:

1. A public hearing was held on the financial assurance plan on June 14;
2. The local governing body approves the aforementioned financial assurance plan; and
3. Under penalty of law, the information in this financial assurance plan is, to the best of my knowledge and belief, true, accurate, and complete.



Signature of County Executive/Municipal Mayor or Chief Financial Officer

6/30/16
Date

ROBERT HAGEDOORN
Printed Name of County Executive/Municipal Mayor or Chief Financial Officer

MS4 Information

Jurisdiction	Montgomery County, Maryland
Contact Name	Pamela Parker
Phone	240-777-7758
Address	255 Rockville Pike, Suite 120
City	Rockville
State	MD
Zip	20832
Email	pamela.parker@montgomerycountymd.gov
Baseline Acres (Untreated Impervious)	18884.00
Permit Num	06-DP-3320-MD0068349
Reporting Year	FY15

Montgomery County, Maryland 2016 NPDES MS4 Financial Assurance Plan

Article 4-202.1(j)(1)(i)1: Actions that will be required of the county or municipality to meet the requirements of its National Pollutant Discharge Elimination System Phase I Municipal Separate Storm Sewer System Permit.

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.

All Actions FY16

and Forward

Baseline

Untreated

Impervious Acres: 18,884

Requirement: 20%

	REST BMP TYPE*	BMP CLASS	IMP ACRES (1)	IMPL COST(1)	% ISRP COMPLETE	IMPL STATUS**	PROJECTED IMPL YR	COMMENTS
Operation Programs	Operation Programs							
MSS	MSS	A		\$211,000			FY16	
CBC	CBC	A		\$353,226			FY16	
	MSS	A		\$211,000			FY17	
	CBC	A		\$353,226			FY17	
	MSS	A		\$211,000			FY18	
	CBC	A		\$353,226			FY18	
	MSS	A		\$211,000			FY19	
	CBC	A		\$353,226			FY19	
RainScapes	RainScapes	E		\$165,329			FY16	
	RainScapes	E		\$165,329			FY17	
	RainScapes	E		\$165,329			FY18	
	RainScapes	E		\$165,329			FY19	

Debt Service	Debt Service			\$3,020,250			FY16
Debt Service	Debt Service			\$6,367,900			FY17
Debt Service	Debt Service			\$6,342,250			FY18
Debt Service	Debt Service			\$11,581,960			FY19
Montgomery County CIP Project Name and Code	Capital Projects						
801300- SM-Retrofit Roads (FY16)				\$5,189,000			FY16
		A	0.03		0.0%	In Construction	FY16
		S	0.46		0.0%	In Construction	FY16
		E	0.13		0.0%	In Construction	FY16
801300- SM-Retrofit Roads (FY17)				\$9,426,000			FY17
		A	0.00		0.0%	Planned	FY17
		S	0.00		0.0%	Planned	FY17
		E	18.40		0.1%	Planned	FY17
801300- SM-Retrofit Roads (FY18)				\$11,182,000			FY18
		A	0.00		0.0%	Planned	FY18
		S	16.64		0.1%	Planned	FY18
		E	26.38		0.1%	Planned	FY18
801300- SM-Retrofit Roads (FY19-FY20)				\$25,038,000			FY19
		A	0.00		0.0%	Planned	FY19
		S	14.17		0.1%	Planned	FY19
		E	37.21		0.2%	Planned	FY19

801301-SM-Retrofit Schools (FY16)				\$1,449,000			FY16
		A	0.00		0.0%	Planned	FY16
		S	0.00		0.0%	Planned	FY16
		E	0.00		0.0%	Planned	FY16
801301-SM-Retrofit Schools (FY17)				\$2,486,000			FY17
		A	0.00		0.0%	Planned	FY17
		S	0.00		0.0%	Planned	FY17
		E	9.93		0.1%	Planned	FY17
801301-SM-Retrofit Schools (FY18)				\$1,948,000			FY18
		A	0.00		0.0%	Planned	FY18
		S	0.00		0.0%	Planned	FY18
		E	2.28		0.0%	Planned	FY18
801301-SM-Retrofit Schools (FY19-FY20)				\$2,505,000			FY19
		A	0.00		0.0%	Planned	FY19
		S	0.00		0.0%	Planned	FY19
		E	5.04		0.0%	Planned	FY19
807359-Misc Stream Valley Improvement (FY16)				\$4,851,000			FY16
		A	44.70		0.2%	Planned	FY16
807359-Misc Stream Valley Improvement (FY17)				\$8,880,000			FY17
		A	45.80		0.2%	Planned	FY17
807359-				\$10,952,000			FY18

Misc Stream Valley Improvement (FY18)							
		A	88.48		0.5%	Planned	FY18
807359-Misc Stream Valley Improvement (FY19-FY20)				\$12,571,000			FY19
		A	295.90		1.6%	Planned	FY19
808726-SM Retrofit:Countywide (FY16)				\$21,648,000			FY16
		S	79.74		0.4%	Planned	FY16
808726-SM Retrofit:Countywide (FY17)				\$21,939,000			FY17
		S	76.63		0.4%	Planned	FY17
808726-SM Retrofit:Countywide (FY18)				\$19,225,000			FY18
		S	1148.82		6.1%	Planned	FY18
808726-SM Retrofit:Countywide (FY19-FY20)				\$19,425,000			FY19

		A	0.14		0.0%	Planned	FY19
		S	406.01		2.2%	Planned	FY19
809319- Facility Planning (FY16)				\$541,000		Planned	FY16
809319- Facility Planning (FY17)				\$2,126,000		Planned	FY17
809319- Facility Planning (FY18)				\$1,323,000		Planned	FY18
809319- Facility Planning (FY19-FY20)				\$997,000		Planned	FY19
809342- Watershed Rest. Interagency (FY16)				\$50,000		Planned	FY16
809342- Watershed Rest. Interagency (FY17)				\$1,599,000		Planned	FY17
809342- Watershed Rest.				\$5,081,000		Planned	FY18

Interagency (FY18)							
809342- Watershed Rest. Interagency (FY19-FY20)				\$60,000		Planned	FY19
						Planned	
800900- Retrofit - Gov Facilities (FY16)				\$2,203,000		Planned	FY16
		A	0.00		0.0%		FY16
		S	0.00		0.0%		FY16
		E	0.00		0.0%		FY16
800900- Retrofit - Gov Facilities (FY17)				\$3,452,000		Planned	FY17
		A	0.00		0.0%		FY17
		S			0.0%		FY17
		E	5.61		0.0%		FY17
800900- Retrofit - Gov Facilities (FY18)				\$2,314,000		Planned	FY18
		A	0.00		0.0%		FY18
		S	0.00		0.0%		FY18
		E	4.42		0.0%		FY18
800900- Retrofit - Gov Facilities (FY19-FY20)				\$2,239,000		Planned	Fy19
		A	0.00		0.0%		FY19
		S	6.35		0.0%		FY19
		E	4.90		0.0%		FY19
	Other						
Other (FY16)							Partnership Projects
		A	133.63		0.7%		FY16

		S	18.89		0.1%		FY16
		E	0.00		0.0%		FY16
Other(FY17)							
		A	0.00		0.0%		FY17
		S	58.84		0.3%		FY17
		E	0.00		0.0%		FY17
Other(FY18)							
		A	68.99		0.4%		FY18
		S	0.00		0.0%		FY18
		E	0.00		0.0%		FY18
Other (FY19- FY20)							
		A	8.52		0.0%		FY19
		S	0.00		0.0%		FY19
		E	0.00		0.0%		FY19
	Restoration Complete (FY10- FY15)		1780.14	\$75,031,122	9.4%		
	Total Next Two Years (FY2017- FY2018)		1571.21	\$116,102,260	8.32%		
	Total Permit Term (FY10-FY18)		3628.92	\$230,814,187	19.22%		
	Total Permit Term and Projected Years (FY10-FY20)		4407.17	\$305,960,702	23.34%		

**(1) The
Montgomery
County
Department
of
Environmenta
l Protection's
7 ongoing
Capital
Projects are
multi-year
projects in
which
expenditures
are incurred
over multiple
fiscal years.**

**The
impervious
area control is
reported in
the fiscal year
that the
project
reached
substantial
completion.**

Montgomery County, Maryland 2016 NPDES MS4 Financial Assurance Plan

Article 4-202.1(j)(1)(i)2: Projected annual and 5-year costs for the county or municipality to meet the impervious surface restoration plan requirements of its National Pollutant Discharge Elimination System Phase I Municipal Separate Storm Sewer System Permit.

DESCRIPTION	PAST UP THRU 2014	CURRENT FY 2015	PROJECTED YEAR 1 FY 2016	PROJECTED YEAR 2 FY 2017	PROJECTED YEAR 3 FY 2018	PROJECTED YEAR 4 FY 2019	PROJECTED YEAR 5 FY20	TOTAL COSTS
Operating Expenditures (costs)								
Street Sweeping Program	\$522,943	\$211,000	\$211,000	\$211,000	\$211,000	\$211,000	\$211,000	\$1,788,943
Inlet Cleaning	\$1,209,538	\$353,226	\$353,226	\$353,226	\$353,226	\$353,226	\$353,226	\$3,328,894
Debt Service Payment	\$5,892,181	\$3,011,877	\$3,020,250	\$6,367,900	\$6,342,250	\$11,581,960	\$11,578,400	\$47,794,818
RainScapes	\$477,028	\$165,329	\$165,329	\$165,329	\$165,329	\$165,329	\$165,329	\$1,469,002
Capital Expenditures (costs)								
G.O Bonds	\$1,645,000							\$1,645,000
General Fund (Paygo)	\$390,000							\$390,000
Fed Aid	\$594,000							\$594,000
State Aid	\$8,300,000	\$7,391,000	\$2,760,000	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$38,451,000
Water Quality Protection Charge (CIP) (Paygo)	\$5,817,000	\$660,000	\$8,254,000	\$6,670,000	\$1,323,000	\$997,000	\$773,000	\$24,494,000
WQPC Bonds	\$27,817,000	\$9,543,000	\$24,917,000	\$38,038,000	\$45,502,000	\$56,638,000	\$57,364,000	\$259,819,000
Stormwater Management Waiver Fee (Paygo)	\$1,031,000			\$200,000	\$200,000	\$200,000	\$200,000	\$1,831,000
Other (please stipulate capital expenditure)*	-	-	-	-	-	-	-	\$0
Subtotal operation and paygo:	\$15,339,690	\$4,401,432	\$12,003,805	\$13,967,455	\$8,594,805	\$13,508,515	\$13,280,955	\$81,096,657
Total expenditures:	\$53,695,690	\$21,335,432	\$39,680,805	\$57,005,455	\$59,096,805	\$75,146,515	\$75,644,955	\$381,605,657

Total ISRP costs except debt service: **\$333,810,839.00**

Compare ISRP costs (except debt service) / total ISRP proposed actions: **109.10%**

Montgomery County, Maryland 2016 NPDES MS4 Financial Assurance Plan

Article 4-202.1(j)(1)(i)3: Projected annual and 5-year revenues or other funds that will be used to meet the cost for the county or municipality to meet the impervious surface restoration plan requirements under the National Pollutant Discharge Elimination System Phase I Municipal Separate Storm Sewer System Permit.

DESCRIPTION	PAST UP THRU 2014	CURRENT FY 2015	PROJECTED YEAR 1 FY 2016	PROJECTED YEAR 2 FY 2017	PROJECTED YEAR 3 FY 2018	PROJECTED YEAR 4 FY 2019	PROJECTED YEAR 5 FY 2020	TOTAL NEXT 2-YEARS FY 17-18*	TOTAL CURRENT + PROJECTED
Annual Revenue** Appropriated for ISRP	\$53,695,690	\$21,335,432	\$39,680,805	\$57,005,455	\$59,096,805	\$75,146,515	\$75,644,955	\$116,102,260	\$381,605,657
Annual Costs towards ISRP***	\$53,695,690	\$21,335,432	\$39,680,805	\$57,005,455	\$59,096,805	\$75,146,515	\$75,644,955	\$116,102,260	\$381,605,657

Compare annual costs / revenue appropriated: 100%
WPRP 2016 Reporting Criteria 75%

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 2018.

** 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 2016 at the time of FAP reporting.

*** See table of ISRP Cost.

Montgomery County Maryland 2016 NPDES MS4 Financial Assurance Plan

Article 4-202.1(j)(1)(i)4: Any sources of funds that will be utilized by the county or municipality to meet the requirements of its National Pollutant Discharge Elimination System Phase I Municipal Separate Storm Sewer System Permit.

SOURCE	PAST UP THRU 2014	CURRENT FY 2015	PROJECTED YEAR 1 FY 2016	PROJECTED YEAR 2 FY 2017	PROJECTED YEAR 3 FY 2018	PROJECTED YEAR 4 FY 2019	PROJECTED YEAR 5 FY 2020	TOTAL PERMIT CYCLE
Paygo Sources								
Water Quality Protection Charge	\$ 86,555,276	\$ 28,232,029	\$ 32,351,520	\$ 34,530,616	\$ 37,892,045	\$ 41,690,438	\$ 46,613,918	\$ 307,865,842
Investment Income	\$ 34,931	\$ 28,213	\$ 63,790	\$ 91,130	\$ 182,260	\$ 273,390	\$ 364,520	\$ 1,038,234
Miscellaneous	\$ 28,127							\$ 28,127
BMP Monitoring Fee			\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 1,000,000
Bag Tax Revenue	\$ 5,667,676	\$ 2,485,541	\$ 2,400,000	\$ 2,280,000	\$ 2,166,000	\$ 1,949,400	\$ 1,754,460	\$ 18,703,077
General Fund (DEP)	\$ 390,000							\$ 390,000
Other Departmental Funds (DOT,DPS,DGS)	\$ 20,640,240	\$ 5,476,661	\$ 4,076,661	\$ 4,076,661	\$ 4,076,661	\$ 4,076,661	\$ 4,076,661	\$ 46,500,206
Stormwater Management Waiver Fees	\$ 1,031,000			\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 1,831,000
Solid Waste Fund	\$ 29,330,870	\$ 6,783,005	\$ 6,783,005	\$ 6,783,005	\$ 6,783,005	\$ 6,783,005	\$ 6,783,005	\$ 70,028,900
Subtotal Paygo Sources	\$ 143,678,120	\$ 43,005,449	\$ 45,874,976	\$ 48,161,412	\$ 51,499,971	\$ 55,172,894	\$ 59,992,564	\$ 447,385,386
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 2014).								
General Obligation Bonds	\$ 1,645,000							\$ 1,645,000
Water Quality Protection Revenue Bonds	\$ 27,817,000	\$ 9,543,000	\$ 24,917,000	\$ 38,038,000	\$ 45,502,000	\$ 56,638,000	\$ 57,364,000	\$ 259,819,000
State Revolving Loan Fund								\$ -
Subtotal Debt Service	\$ 29,462,000	\$ 9,543,000	\$ 24,917,000	\$ 38,038,000	\$ 45,502,000	\$ 56,638,000	\$ 57,364,000	\$ 261,464,000
Grants and Partnerships (no payment is expected)								
State funded grants	\$ 8,300,000	\$ 7,391,000	\$ 2,760,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	\$ 38,451,000
Federal funded grants	\$ 594,000							\$ 594,000
Public-private partnership (matched grant)								
Subtotal Grants and Partnerships	\$ 8,894,000	\$ 7,391,000	\$ 2,760,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	\$ 39,045,000
Total Annual Sources of Funds	\$ 182,034,120	\$ 112,487,898	\$ 144,343,952	\$ 177,398,824	\$ 199,003,942	\$ 228,621,788	\$ 239,713,128	\$ 1,283,603,652
Percent of Funds Directed Toward ISRP								

Includes WQPC for CI

We are recording revenue from Bonds in this section, not debt service

Compare total paygo ISRP costs / subtotal paygo sources: 18%
 Compare total ISRP costs / total annual sources of funds: 30%

* WPR Fund: Watershed Protection and Restoration Fund.

Montgomery County, Maryland 2016 NPDES MS4 Financial Assurance Plan

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

All Actions FY10-15

Baseline: 18,884 Impervious Acres Requirement: 20%

OPERATING	Project	REST BMP TYPE	BMP CLASS	NUM BMP	IMP ACRES	BUILT DATE	IMPL COST	Total Expenditure FY10-FY15	% ISRP Complete	IMPL STATUS	GEN COMMENTS
	MC Catch Basin Cleaning	MSS	A		128	FY12	\$ 137,622			Complete	
	MC Street Sweeping	MSS	A		109	FY13	\$ 211,000			Complete	
	MC Street Sweeping	MSS	A		162	FY14	\$ 174,321			Complete	
	MC Street Sweeping	MSS	A	1	130	FY15	\$ 211,000			Complete	
	MC Catch Basin Cleaning	CBC	A	1	43	FY11	\$ 269,593			Complete	
	MC Catch Basin Cleaning	CBC	A	1	146	FY12	\$ 275,392			Complete	
	MC Catch Basin Cleaning	CBC	A	1	197	FY13	\$ 246,200			Complete	
	MC Catch Basin Cleaning	CBC	A	1	86	FY14	\$ 418,353			Complete	

	MC Catch Basin Cleaning	CBC	A	1	138	FY15	\$ 353,226			Complete	
								\$ 2,296,707	1.5%		
Average Operations Complete to Date					274						
Debt Service	Debt Service							\$ 8,904,058			

MC CIP PROJ NAME & CODE	DEP Project Group	REST BMP TYPE	BMP CLASS	NUM BMP	IMP ACRES	BUILT DATE	IMPL COST- Design, Engineering and Construction	Total Expenditures FY10-FY15	% ISRP Complete	IMPL STATUS	GEN COMMENTS
809319-Facility Planning						FY10-FY15		\$ 4,931,000		Complete	Watershed Assessments
809342-Watershed Rest. Interagency								\$ 2,349,000			
809342-Watershed Rest. Interagency	Batchellors Run East Stream Restoration	STRE	A	1	19.01	FY 12	\$ 1,064,148		0.10%	Complete	USACE Partnership
		FPU	A	14	2.82				0.01%		
809342-	Bryants Nursery Run					FY 12	\$		0.00%	Complete	USACE

Watershed Rest. Interagency	Stream Restoration	STRE	A	1	17.42		855,723		0.09%		Partnership
		FPU	A	4	0.13				0.00%		
809342-Watershed Rest. Interagency	Upper Northwest Branch Stream Restoration					FY 12	\$ 1,057,178		0.00%	Complete	USACE Partnership
		STRE	A	1	21.65				0.11%		
		FPU	A	2	0.04				0.00%		
809342-Watershed Rest. Interagency	Batchellors Run II Stream Restoration	STRE	A	1	25.87	FY 14	\$ 1,261,093		0.14%	Complete	USACE Partnership
809342-Watershed Rest. Interagency	Sherwood Forest I Stream Restoration	STRE	A	1	29.04	FY 14	\$ 1,415,512		0.15%	Complete	USACE Partnership
809342-Watershed Rest. Interagency	Woodlawn Stream Restoration	STRE	A	1	23.13	FY 14	\$ 1,127,262		0.12%	Complete	USACE Partnership
807359-Misc Stream Improvement								\$ 10,837,000			
807359-Misc Stream Improvement	Joseph's Branch Stream Restoration - Spruell Drive	STRE	A	1	10.06	FY 11	\$ 400,983		0.05%	Complete	
807359-Misc Stream	Little Falls - Somerset Stream Restoration	STRE	A	1	5.28	FY 11	\$ 183,609		0.03%	Complete	

Valley Improvement											
807359-Misc Stream Valley Improvement	Little Falls III Stream Restoration	STRE	A	1	5.28	FY 11	\$ 464,159		0.03%	Complete	
807359-Misc Stream Valley Improvement	Booze Creek Stream Restoration	STRE	A	1	48.46	FY 13	\$ 2,269,462		0.26%	Complete	
807359-Misc Stream Valley Improvement	Donnybrook Green Streets & Stream Restoration	STRE	A	1	19.64	FY 15	\$ 1,543,232		0.10%	Complete	
807359-Misc Stream Valley Improvement	Breewood Tributary Stream Restoration	STRE	A	1	12.80	FY 15	\$ 937,848		0.07%	Complete	
807359-Misc Stream Valley Improvement	Little Falls III Stream Restoration	FPU	A	1	0.06	FY 15			0.00%	Complete	Plantings were prior to 2010
807359-Misc Stream Valley Improvement	Middle Gum Springs Reforestation	FPU	A	5	0.74	FY 15			0.00%	Complete	Plantings were prior to

											2010
807359- Misc Stream Valley Improvement	Alta Vista Stream Restoration	FPU	A	1	0.03	FY 15			0.00%	Complete	Plantings were prior to 2010
807359- Misc Stream Valley Improvement	Northwest Branch Stream Restoration (South of Randolph Rd)	FPU	A	1	0.84	FY 15			0.00%	Complete	Plantings were prior to 2010
807359- Misc Stream Valley Improvement	Stream Valley Drive Stream Restoration	FPU	A	3	0.71	FY 15			0.00%	Complete	Plantings were prior to 2010
807359- Misc Stream Valley Improvement	Turkey Branch Stormwater Pond and Stream Restoration	FPU	A	7	0.60	FY 15			0.00%	Complete	Plantings were prior to 2010
800900- Retrofit - Gov Facilities								\$ 10,032,000			
800900- Retrofit - Gov Facilities	Aspen Hill Library Stormwater Practice Upgrades	FBIO	E	1	0.59	FY 12	\$ 355,327		0.00%	Complete	
		MMBR	E	1					0.00%		

					0.12						
		IMPP	A	1	0.01				0.00%		
800900-Retrofit - Gov Facilities	Kensington Park Library Stormwater Practice Upgrades	MRNG	E	4	0.67	FY 12	\$ 355,671		0.00%	Complete	
		IMPP	A	1	0.01				0.00%		
800900-Retrofit - Gov Facilities	Scotland Neighborhood Recreation Center	FUND	S	1	1.04	FY 15	\$ 76,876		0.01%	Complete	Cost share with DGS
801301-SM-Retrofit Schools								\$ 972,000			
801301-SM-Retrofit Schools	Ridgeview Middle School Stormwater Practice Upgrades	MRNG	E	5	1.79	FY 13	\$ 460,942		0.01%	Complete	
801300-SM-Retrofit Roads								\$ 10,620,000			
801300-SM-Retrofit Roads	Arcola Avenue Green Streets	MMBR	E	12	2.30	FY 12	\$ 640,065		0.01%	Complete	DOT Partnership
		IMPP	A	9	0.06				0.00%		
801300-SM-Retrofit Roads	White Oak Green Streets	FBIO	E	2	0.28	FY 12	\$ 1,573,065		0.00%	Complete	
		IMPP	A	6	0.03				0.00%		
		MMBR	E	6					0.01%		

					1.32						
		MSWB	E	4	0.83				0.00%		
		OTH	S	7	-						
801300-SM-Retrofit Roads	Forest Estates Green Streets	MMBR	E	9	2.22	FY 13	\$ 776,504		0.01%	Complete	
		MRNG	E	14	2.52				0.01%		
		MSWB	E	1	0.32				0.00%		
801300-SM-Retrofit Roads	Donnybrook Green Streets and Stream Restoration	FBIO	E	1	0.38	FY 14	\$ 787,670		0.00%	Complete	
		IMPP	A	4	0.04				0.00%		
		MSWB	E	3	0.59				0.00%		
		ODSW	S	1	1.34				0.01%		
		OTH	S	2	0.52				0.00%		
801300-SM-Retrofit Roads	Amherst Green Streets	MMBR	E	2	0.66	FY 15			0.00%	Complete	
801300-SM-Retrofit Roads	Breewood Manor Green Streets	FBIO	E	2	0.31	FY 15			0.00%	Complete	
		IMPP	A	2	0.01				0.00%		
		MRNG	E	8					0.01%		

					1.20						
801300-SM-Retrofit Roads	Dennis Avenue Green Streets	APRP	E	5	1.13	FY 15	\$ 3,571,008		0.01%	Complete	DOT Partne rship
		FBIO	E	13	7.77				0.04%		
		IMPP	A	18	0.11				0.00%		
		MRNG	E	1	0.10				0.00%		
		MSWB	E	6	1.50				0.01%		
		OTH	E	8	3.38				0.02%		
		OTH	E	1	0.53				0.00%		
		OTH	S	14	2.91				0.02%		
801300-SM-Retrofit Roads	Franklin Knolls and Clifton Park Green Streets (Phase 1 and 2)	FBIO	E	7	1.32	FY 15			0.01%	Complete	
		MRNG	E	17	2.37				0.01%		
		MSWB	E	1	0.32				0.00%		
		OTH	S	6	2.60				0.01%		
801300-SM-Retrofit Roads	Sligo Park Hills Neighborhood Green Street	APRP	E	35	4.11	FY 15	\$ 3,701,926		0.02%	Complete	DOT Partne rship
		FBIO	E	13	2.22				0.01%		

		ITRN	E	3	0.58				0.00%		
		OTH	E	18	5.60				0.03%		
		OTH	S	8	1.02				0.01%		
808726-SM Retrofit:Countywide								\$ 23,447,000			
808726-SM Retrofit:Countywide	Peachwood Stormwater Pond Upgrades	XDPD	S	1	4.72	FY 11	\$ 212,214		0.03%	Complete	
808726-SM Retrofit:Countywide	Westleigh (Muddy Branch SVU)	PWED	S	1	9.01	FY 11			0.05%	Complete	M- NCPPC
808726-SM Retrofit:Countywide	Fairland Ridge Stormwater Pond Upgrades	XDPD	S	1	9.95	FY 12	\$ 564,366		0.05%	Complete	SWMF
808726-SM Retrofit:Countywide	Stoney Creek (NIH) Stormwater Pond	PWED	S	1	93.05	FY 13	\$ 4,255,154		0.49%	Complete	
808726-SM Retrofit:Countywide	Georgian Colonies and Georgian Woods Colonies Stormwater Pond Upgrades	PWET	S	1	4.20	FY 14	\$ 374,841		0.02%	Complete	
808726-SM Retrofit:Countywide	Georgian Colonies and Georgian Woods Colonies Stormwater Pond Upgrades	XDPD	S	1	5.26	FY 14	\$ 374,841		0.03%	Complete	
808726-SM Retrofit:Countywide	Fallsreach Stormwater Pond Upgrades and Stream Restoration	XDPD	S	1	12.09	FY 15	\$ 379,787		0.06%	Complete	
808726-SM	Naples Manor	XDPD	S	1		FY 15	\$		0.06%	Complete	

Retrofit:Countywide	Stormwater Pond Upgrades				10.60		327,428				
808726-SM Retrofit:Countywide	Emory Grove Park Stormwater Pond Upgrades	XDPD	S	1	3.05	FY 15	\$ 479,661		0.02%	Complete	
808726-SM Retrofit:Countywide	Meadowvale Stormwater Pond Upgrades	PWET	S	1	11.27	FY 15	\$ 522,641		0.06%	Complete	
808726-SM Retrofit:Countywide	Brookville Bus Depot Stormwater Practice Upgrades	XDPD	S	1	14.59	FY 15	\$ 1,195,743		0.08%	Complete	SWMF
808726-SM Retrofit:Countywide	Gunners Lake Village Stormwater Pond Upgrades	PWED	S	1	318.71	FY 15	\$ 102,669		1.69%	Complete	SWMF
808726-SM Retrofit:Countywide	Montgomery Auto Sales Park Regional Stormwater Pond Upgrades	PWED	S	1	70.45	FY 15	\$ 1,420,412		0.37%	Complete	SWMF

OTHER PARTNERSHIP PROJECTS

Outfall Stabilization	Outfall Stabilization - 1012 Parrs Ridge	OUT	A	1	0.20	FY 11			0.00%	Complete	DOT
Outfall Stabilization	Outfall Stabilization - 13717 Mills Avenue	OUT	A	1	0.50	FY 11			0.00%	Complete	DOT
Outfall Stabilization	Outfall Stabilization - 1517 Menlee Drive	OUT	A	1	0.90	FY 11			0.00%	Complete	DOT
Outfall Stabilization	Outfall Stabilization - 611 Lamberton Drive	OUT	A	1	-	FY 11				Complete	DOT
Outfall Stabilization	Outfall Stabilization - Wayne Avenue at Sligo Creek Parkway	OUT	A	1	0.16	FY 11			0.00%	Complete	DOT

Outfall Stabilization	Road Culvert Replacement - Davis Mill Road at Wildcat Road Culvert	OUT	A	1	1.00	FY 11			0.01%	Complete	DOT
Outfall Stabilization	Road Culvert Stabilization - 821 McCeney Avenue (McCeney at Harper)	OUT	A	1	0.40	FY 11			0.00%	Complete	DOT
Outfall Stabilization	Road Culvert Stabilization - Burnt Mills Avenue at Hoyle Avenue	OUT	A	1	0.75	FY 11			0.00%	Complete	DOT
Outfall Stabilization	Stream Bank Stabilization through Gabion Walls - Woodman Ave Median	OUT	A	1	1.40	FY 11			0.01%	Complete	DOT
Outfall Stabilization	Stream Outfall Restoration - 4305 Havard Street	OUT	A	1	1.50	FY 11			0.01%	Complete	DOT
Outfall Stabilization	Stream Restoration - Bucknell Drive Median Stream Channel	OUT	A	1	3.50	FY 11			0.02%	Complete	DOT
Outfall Stabilization	Stream Restoration through Gabion Walls - 9512 Columbia Blvd	OUT	A	1	0.35	FY 11			0.00%	Complete	DOT
Outfall Stabilization	Road Culvert Replacement - Prathertown Road Culverts	OUT	A	1	0.35	FY 12			0.00%	Complete	DOT
Outfall Stabilization	Road Culvert Stabilization - Circle Drive at Spring Drive	OUT	A	1	0.25	FY 12			0.00%	Complete	DOT
Outfall Stabilization	Stream Restoration - 9014 Marseille Drive	OUT	A	1	1.25	FY 12			0.01%	Complete	DOT

Outfall Stabilization	Stream Restoration - 9412 Emory Grove Road	OUT	A	1	0.50	FY 12			0.00%	Complete	DOT
Outfall Stabilization	Holman Avenue - Forest Glen Outfall Repair	OUT	A	1	0.94	FY 14			0.00%	Complete	DOT
Outfall Stabilization	Schuylkill Rd Outfall Repair	OUT	A	1	0.43	FY 14			0.00%	Complete	DOT
Green Streets	ICC-PB-116	MSWG	E	14	0.42	FY 12			0.00%	Complete	ICC Stewardship Project
Green Streets	ICC-PB-117	MSWG	E	11	0.26	FY 12			0.00%	Complete	ICC Stewardship Project
Green Streets	ICC-PB-119	MSWG	E	13	0.04	FY 12			0.00%	Complete	ICC Stewardship Project
Green Streets	ICC-PB-120	MSWG	E	14	0.28	FY 12			0.00%	Complete	ICC Stewardship Project
Green Streets	ICC-PB-121	MMBR	E	10	0.24	FY 12			0.00%	Complete	ICC Stewardship Project
Green	ICC-PB-122					FY 12				Complete	ICC

Streets											Stewardship Project
		IMPP	A	2	0.03				0.00%		
		MSWG	E	2	-						
Green Streets	ICC-PB-123	MSWG	E	6	0.44	FY 12			0.00%	Complete	ICC Stewardship Project
Green Streets	ICC-PB-124					FY 12				Complete	ICC Stewardship Project
		IMPP	A	1	0.01				0.00%		
		MSWG	E	9	0.22				0.00%		
Green Streets	ICC-PB-125	MSWG	E	5	0.17	FY 12			0.00%	Complete	ICC Stewardship Project
Green Streets	ICC-PB-126	MSWG	E	20	2.13	FY 12			0.01%	Complete	ICC Stewardship Project
Green Streets	ICC-PB-127	MSWG	E	4	0.62	FY 12			0.00%	Complete	ICC Stewa

											rdship Projec t
Green Streets	ICC-PB-128	MSWG	E	15	0.55	FY 12			0.00%	Complete	ICC Stewa rdship Projec t
Green Streets	ICC-PB-129	MSWG	E	8	0.38	FY 12			0.00%	Complete	ICC Stewa rdship Projec t
Green Streets	ICC-PB-130					FY 14				Complete	ICC Stewa rdship Projec t
		FBIO	E	7	1.04				0.01%		
		IMPP	A	5	0.02				0.00%		
Green Streets	ICC-PB-113	MSWG	E	20	9.57	FY 15			0.05%	Complete	ICC Stewa rdship Projec t
Green Streets	ICC-PB-114	MSWG	E	20	2.77	FY 15			0.01%	Complete	ICC Stewa rdship Projec t
Green Streets	ICC-PB-115	MSWG	E	18	2.85	FY 15			0.02%	Complete	ICC Stewa

											rdship Project
Green Streets	ICC-PB-133	MSWG	E	22	3.60	FY 15			0.02%	Complete	ICC Stewardship Project
Green Streets	ICC-PB-140	MSWG	E	9	1.82	FY 15			0.01%	Complete	ICC Stewardship Project
Green Streets	ICC-PB-141	MSWG	E	6	2.73	FY 15			0.01%	Complete	ICC Stewardship Project
Green Streets	ICC-PB-142	MSWG	E	3	0.20	FY 15			0.00%	Complete	ICC Stewardship Project
Green Streets	ICC-PB-143	MSWG	E	7	1.37	FY 15			0.01%	Complete	ICC Stewardship Project
Stormwater Pond	ICC-PB-132	XDED	S	1	1.11	FY 14			0.01%	Complete	ICC Stewardship Project
Stormwater	PB-114A	PWED	S	1		FY 15			0.04%	Complete	ICC

Pond					7.58						Stewardship Project
Stormwater Pond	ICC-NB-11	PWED	S	1	10.74	FY 15			0.06%	Complete	ICC Stewardship Project
Stormwater Pond	ICC-NB-16	XDPD	S	1	29.08	FY 15			0.15%	Complete	ICC Stewardship Project
Stormwater Pond	ICC-NB-6	XDED	S	1	-	FY 15				Complete	ICC Stewardship Project
Stormwater Pond	ICC-NB-7	XDPD	S	1	124.60	FY 15			0.66%	Complete	ICC Stewardship Project
Stormwater Pond	ICC-NW-32	PWED	S	1	5.71	FY 15			0.03%	Complete	ICC Stewardship Project
Stormwater Pond	ICC-NW-35	PWED	S	1	6.15	FY 15			0.03%	Complete	ICC Stewardship Project

Stormwater Pond	ICC-NW-39	XDPD	S	1	4.53	FY 15			0.02%	Complete	ICC Stewardship Project
Stormwater Pond	ICC-NW-47	XDPD	S	1	8.88	FY 15			0.05%	Complete	ICC Stewardship Project
Stormwater Pond	ICC-PB-33	XDPD	S	1	4.38	FY 15			0.02%	Complete	ICC Stewardship Project
Stormwater Pond	ICC-PB-33	XDPD	S	1	1.99	FY 15			0.01%	Complete	ICC Stewardship Project
Stormwater Pond	ICC-PB-43		S	1	7.88	FY 15			0.04%	Complete	ICC Stewardship Project
Stormwater Pond	ICC-PB-46A	XDPD	S	1	6.61	FY 15			0.04%	Complete	ICC Stewardship Project
Stormwater Pond	ICC-PB-48	WEDW	S	1	1.66	FY 15			0.01%	Complete	ICC Stewardship Project

											t
School	Cold Spring Elementary School Stormwater Improvements	MMBR	E	1	0.68	FY 14			0.00%	Complete	MCPS - Cost share
Stream Restoration	Copenhaver WSSC Sewer Repair	STRE	A	1	6.53	FY 15			0.03%	Complete	WSSC Consent Decrease
Stream Restoration	Olney mill road WSSC emergency stream restoration	STRE	A	1	1.34	FY 15			0.01%	Complete	WSSC Consent Decrease
Stream Restoration	WSSC and WGL Emergency Stream restoration	STRE	A	1	3.32	FY 15			0.02%	Complete	WSSC Consent Decrease
Stream Restoration	Kentsdale	STRE	A	1	3.37	FY 15			0.02%	Complete	WSSC Consent Decrease
Stream Restoration	Cabin john task order 16 - Wilson lane	STRE	A	1	2.73	FY 15			0.01%	Complete	WSSC Consent Decrease
Stream Restoration	Cabin john north task 20	STRE	A	1	5.96	FY 15			0.03%	Complete	WSSC Consent Decrease

										e	
Redevelopm ent	Beverly Farms Modernization	IMPP	A	1	1.10	FY 15			0.01%	Complete	MCPS - School Moder nizatio n
Redevelopm ent	Cabin John Modernization	IMPP	A	1	2.23	FY 15			0.01%	Complete	MCPS - School Moder nizatio n
Redevelopm ent	Cannon Road Modernization	IMPP	A	1	1.29	FY 15			0.01%	Complete	MCPS - School Moder nizatio n
Redevelopm ent	Carderock Springs Modernization	IMPP	A	1	0.82	FY 15			0.00%	Complete	MCPS - School Moder nizatio n
Redevelopm ent	Cresthaven Modernization	IMPP	A	1	1.10	FY 15			0.01%	Complete	MCPS - School Moder nizatio n
Redevelopm ent	Fairland Modernization	IMPP	A	1	0.99	FY 15			0.01%	Complete	MCPS - School

											Modernization
Redevelopment	Garrett Park Modernization	IMPP	A	1	1.15	FY 15			0.01%	Complete	MCPS - School Modernization
Redevelopment	Glenallan Modernization	IMPP	A	1	1.11	FY 15			0.01%	Complete	MCPS - School Modernization
Redevelopment	Paint Branch Modernization	IMPP	A	1	0.76	FY 15			0.00%	Complete	MCPS - School Modernization
Redevelopment	Seven Locks Modernization	IMPP	A	1	1.03	FY 15			0.01%	Complete	MCPS - School Modernization
Redevelopment	Singer Modernization	IMPP	A	1	0.90	FY 15			0.00%	Complete	MCPS - School Modernization
Redevelopment	Weller Road	IMPP	A	1		FY 15			0.00%	Complete	MCPS

ent	Modernization				0.37						- School Moder nizatio n
Redevelopm ent	Properties Aquired by M-NCPPC	IMPP	A	55	3.31	FY 15			0.02%	Complete	Propert ies Aquire d by M- NCPPC
Redevelopm ent	Private Redevelopment	IMPP	A	9	8.53	FY 15			0.05%	Complete	Privat e Redev elopm ent
Redevelopm ent	Private Redevelopment - Additional Sites	IMPP	A	46	44.86	FY 15			0.24%	Complete	Privat e Redev elopm ent - Additi onal Sites
Redevelopm ent		AGRE	E	7	1.70	FY 15			0.01%	Complete	New SWMF
Redevelopm ent		APRP	E	14	0.17	FY 15			0.00%	Complete	New SWMF
Redevelopm ent		FBIO	E	8	0.77	FY 15			0.00%	Complete	New SWMF
Redevelopm ent		FBIO	S	30	4.06	FY 15			0.02%	Complete	New SWMF
Redevelopm ent		FBIO	S	1	-	FY 15				Complete	New SWMF

Redevelopm ent		FSND	S	4	0.72	FY 15			0.00%	Complete	New SWMF
Redevelopm ent		FSND	S	84	47.93	FY 15			0.25%	Complete	New SWMF
Redevelopm ent		FSND	S	5	1.63	FY 15			0.01%	Complete	New SWMF
Redevelopm ent		FUND	S	14	2.09	FY 15			0.01%	Complete	New SWMF
Redevelopm ent		FUND	S	37	10.62	FY 15			0.06%	Complete	New SWMF
Redevelopm ent		ITRN	S	47	3.51	FY 15			0.02%	Complete	New SWMF
Redevelopm ent		ITRN	S	3	0.25	FY 15			0.00%	Complete	New SWMF
Redevelopm ent		ITRN	S	11	0.42	FY 15			0.00%	Complete	New SWMF
Redevelopm ent		ITRN	E	19	0.21	FY 15			0.00%	Complete	New SWMF
Redevelopm ent		MIBR	S	1	-	FY 15				Complete	New SWMF
Redevelopm ent		MILS	E	1	-	FY 15				Complete	New SWMF
Redevelopm ent		MMBR	E	25	4.22	FY 15			0.02%	Complete	New SWMF
Redevelopm ent		MRNG	E	6	0.16	FY 15			0.00%	Complete	New SWMF
Redevelopm ent		MRWH	E	2	0.01	FY 15			0.00%	Complete	New SWMF
Redevelopm ent		MSWB	E	2	0.33	FY 15			0.00%	Complete	New SWMF
Redevelopm ent		MSWB	S	4	0.67	FY 15			0.00%	Complete	New SWMF
Redevelopm		MSWG	E	29		FY 15			0.01%	Complete	New

ent					1.15						SWMF
Redevelopm ent		ODSW	S	3	0.51	FY 15			0.00%	Complete	New SWMF
Redevelopm ent		OTH	S	6	1.35	FY 15			0.01%	Complete	New SWMF
Redevelopm ent		OTH	S	3	7.06	FY 15			0.04%	Complete	New SWMF
Redevelopm ent		OTH	S	5	0.39	FY 15			0.00%	Complete	New SWMF
Redevelopm ent		OTH	S	25	9.80	FY 15			0.05%	Complete	New SWMF
Redevelopm ent		OTH	E	46	0.46	FY 15			0.00%	Complete	New SWMF
Redevelopm ent		OTH	S	8	1.07	FY 15			0.01%	Complete	New SWMF
Redevelopm ent		OTH	S	2	0.42	FY 15			0.00%	Complete	New SWMF
Redevelopm ent		OTH	S	22	14.07	FY 15			0.07%	Complete	New SWMF
Redevelopm ent		OTH	S	11	2.80	FY 15			0.01%	Complete	New SWMF
Redevelopm ent		PWED	S	1	1.65	FY 15			0.01%	Complete	New SWMF
Redevelopm ent		PWET	S	1	0.35	FY 15			0.00%	Complete	New SWMF
Redevelopm ent		WEDW	S	3	70.89	FY 15			0.38%	Complete	New SWMF
Redevelopm ent		XDED	S	7	0.09	FY 15			0.00%	Complete	New SWMF
Redevelopm ent		XDPD	S	24	3.61	FY 15			0.02%	Complete	New SWMF
Redevelopm ent		XDPD	S	4	0.19	FY 15			0.00%	Complete	New SWMF

Redevelopm ent		MIDW	E	1753	40.32	FY 15			0.21%	Complete	New SWMF - DW
RainScapes Rewards						FY 08		\$ 11,261		Complete	
		AGRI	E	1	0.00		\$ 1,200		0.00%		
		APRP	E	2	0.01		\$ 2,400		0.00%		
		FPU	A	2	0.01		\$ 361		0.00%		
		MRNG	E	1	0.03		\$ 1,067		0.00%		
		MRWH	E	23	0.40		\$ 3,232		0.00%		
		NSCA	E	6	0.11		\$ 3,000		0.00%		
RainScapes Rewards						FY 09		\$ 22,625		Complete	
		APRP	E	2	0.03		\$ 2,400		0.00%		
		FPU	A	4	0.01		\$ 1,200		0.00%		
		MRNG	E	7	0.15		\$ 6,660		0.00%		
		MRWH	E	2	0.04		\$ 875		0.00%		
		MRWH	E	55	1.07		\$ 6,047		0.01%		
		NSCA	E	7	0.09		\$ 5,442		0.00%		
RainScapes Rewards						FY 10		\$ 75,196		Complete	

		FPU	A	77	0.37		\$ 38,397		0.00%		
		MIDW	E	3	0.18		\$ 900		0.00%		
		MRNG	E	11	1.33		\$ 18,491		0.01%		
		MRWH	E	1	0.01		\$ 264		0.00%		
		MRWH	E	16	0.40		\$ 2,950		0.00%		
		NSCA	E	13	0.14		\$ 14,195		0.00%		
RainScapes Rewards						FY 11		\$ 81,150		Complete	
		AGRI	E	1	0.00		\$ 1,200		0.00%		
		APRP	E	6	0.10		\$ 7,200		0.00%		
		FPU	A	40	0.17		\$ 13,339		0.00%		
		MRNG	E	17	0.69		\$ 31,060		0.00%		
		MRWH	E	4	0.10		\$ 1,743		0.00%		
		MRWH	E	42	1.09		\$ 7,991		0.01%		
		NSCA	E	19	0.32		\$ 18,617		0.00%		
RainScapes Rewards						FY 12		\$ 58,006		Complete	
		APRP	E	4	0.08		\$ 4,800		0.00%		
		FPU	A	4			\$		0.00%		

					0.01		736			
		IMPP	E	1	0.01		\$ 600		0.00%	
		MIDW	E	3	0.04		\$ 1,750		0.00%	
		MRNG	E	9	0.99		\$ 16,620		0.01%	
		MRWH	E	3	0.09		\$ 1,275		0.00%	
		MRWH	E	16	0.37		\$ 3,182		0.00%	
		NSCA	E	16	0.55		\$ 29,043		0.00%	
RainScapes Rewards						FY 13		\$ 111,460		Complete
		APRP	E	5	0.05		\$ 9,800		0.00%	
		FPU	A	9	0.03		\$ 2,800		0.00%	
		IMPP	E	1	0.00		\$ 525		0.00%	
		MIDW	E	2	0.04		\$ 690		0.00%	
		MRNG	E	12	0.43		\$ 29,923		0.00%	
		MRWH	E	1	0.01		\$ 450		0.00%	
		MRWH	E	17	0.38		\$ 3,520		0.00%	
		NSCA	E	34	1.04		\$ 63,752		0.01%	
RainScapes Rewards						FY 14		\$ 117,330		Complete

		APRP	E	13	0.16		\$ 29,000		0.00%		
		FPU	A	21	0.11		\$ 11,433		0.00%		
		IMPP	E	3	0.03		\$ 3,856		0.00%		
		MIDW	E	4	0.06		\$ 2,014		0.00%		
		MRNG	E	11	0.48		\$ 33,581		0.00%		
		MRWH	E	2	0.03		\$ 650		0.00%		
		MRWH	E	8	0.18		\$ 1,945		0.00%		
		NSCA	E	19	0.70		\$ 34,851		0.00%		
RainScapes Rewards						FY 15		\$ 165,329		Complete	
		APRP	E	20	0.33		\$ 48,180		0.00%		
		FPU	A	8	0.05		\$ 4,330		0.00%		
		IMPP	E	3	0.02		\$ 2,738		0.00%		
		MIDW	E	10	0.18		\$ 4,424		0.00%		
		MRNG	E	10	0.14		\$ 14,347		0.00%		
		MRWH	E	1	0.01		\$ 500		0.00%		
		MRWH	E	9	0.19		\$ 1,957		0.00%		
		NSCA	E	52			\$		0.01%		

					1.68		88,853				
RainScapes Neighborhoods		MRNG	E	1	0.02	FY 07			0.00%	Complete	
RainScapes Neighborhoods		MRNG	E	1	0.23	FY 08			0.00%	Complete	
RainScapes Neighborhoods		MRNG	E	15	2.22	FY 09			0.01%	Complete	
RainScapes Neighborhoods						FY 10				Complete	
		MRNG	E	5	0.40				0.00%		
		NDRR	E	1	0.01				0.00%		
RainScapes Neighborhoods						FY 11				Complete	
		IMPP	A	4	0.03				0.00%		
		MRNG	E	14	0.50				0.00%		
		NDRR	E	3	0.02				0.00%		
RainScapes Neighborhoods						FY 12				Complete	
		MRNG	E	6	0.32				0.00%		
		NDRR	E	3	0.01				0.00%		

RainScapes Neighborhoods						FY 13				Complete	
		MRNG	E	12	0.44				0.00%		
		NDRR	E	1	0.01				0.00%		
RainScapes Neighborhoods						FY 14				Complete	
		MRNG	E	8	0.15				0.00%		
		NDRR	E	6	0.03				0.00%		
Water Quality Protection Charge Credits		ESD	E	63	22.99	FY 15			0.12%	Complete	Water Quality Protection Charge Credits
COMPLETE TO DATE				3879	1,780.14				\$ 75,031,122	9.4%	

Prince George's County



Rushern L. Baker, III
County Executive

THE PRINCE GEORGE'S COUNTY GOVERNMENT Department of the Environment

June 30, 2016



Adam Ortiz
Director

Ms. Lynn Y. Buhl, Director
Maryland Department of the Environment
Water Management Administration
1800 Washington Boulevard
Baltimore, Maryland 21230

Dear Ms. Buhl:

Prince George's County, Maryland is pleased to submit its Draft Financial Assurance Plan (FAP) in accordance with Senate Bill 0863, Article 4-202.1(j)(2). The draft status will remain in effect until its approval from the Prince George's County Council. County Council will have an opportunity to review the draft FAP plan after their summer recess in September. At such time, a public hearing should be held for a final approval.

This report constitutes the Prince George's County's financial assurance plan for the current NPDES permit term, identifying:

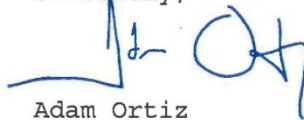
1. Actions that will be required by the County to meet the requirements of its National Pollutant Discharge Elimination System (NPDES) Phase 1 Municipal Separate Storm Sewer System Permit (MS4);
2. Projected annual FY2017, FY2018 and 5-year costs for the County to meet the impervious surface restoration plan requirements of its NPDES Phase 1 MS4 permit;
3. Projected annual and 5-year revenues or other funds that will be used to meet the impervious surface restoration plan requirements of its NPDES Phase 1 MS4 permit;
4. Any sources of funds that will be utilized by the County to meet the requirements of its NPDES Phase 1 MS4 permit; and
5. Specific actions and expenditures that the County implemented in the previous fiscal year (FY2015) to meet its impervious surface restoration plan requirements under its NPDES Phase I MS4 permit.

1801 McCormick Drive, Largo, Maryland 20774

Ms. Lynn Y. Buhl
June 30, 2016
Page Two

Should you have any questions or need additional information, please feel free to contact me at (301) 883-5812.

Sincerely,

A handwritten signature in blue ink, appearing to read 'A. Ortiz', with a stylized flourish at the end.

Adam Ortiz
Director

Enclosure

cc: Brian S. Clevenger, Program Manager
Sediment, Stormwater and Dam Safety, MDE



Prince George's County Financial Assurance Plan



Draft - Not Yet Approved by Prince George's County Council

Meeting the Requirements of the NPDES Municipal Separate Storm Sewer System (MS4) Permit

July 1, 2016

Executive Summary

The Financial Assurance Plan (FAP) is presented in a draft status until such time is approved by the Prince George's County Council, in accordance with the Maryland Department of the Environment (MDE), and as required by SB 863, passed by the Maryland State Legislature in 2015. The draft FAP will be delivered to MDE on June 30, 2016.

This report constitutes Prince George's County's financial assurance plan identifying:

1. Actions that will be required of the County to meet the requirements of its National Pollutant Discharge Elimination System (NPDES) Phase 1 Municipal Separate Storm Sewer System Permit (MS4);
2. Projected annual FY2017, FY 2018 and 5-year costs for the County to meet the impervious surface restoration plan requirements of its NPDES Phase 1 MS4 permit;
3. Projected annual and 5-year revenues or other funds that will be used to meet the impervious surface restoration plan requirements of its NPDES Phase 1 MS4 permit;
4. Any sources of funds that will be utilized by the County to meet the requirements of its NPDES Phase 1 MS4 permit; and
5. Specific actions and expenditures that the County implemented in the previous fiscal year (FY15) to meet its impervious surface restoration plan requirements under its NPDES Phase 1 MS4 permit.

These documents will be introduced to the Prince George's County Council after July 2016, and will be subject to a public hearing currently scheduled for September 2016.



Prince George's County Financial Assurance Plan



Draft - Not Yet Approved by Prince George's County Council

Introduction

Prince George's County's NPDES MS4 permit, issued on January 2, 2014, requires the County complete restoration efforts to achieve the equivalent of treating 20% of the impervious surfaces not previously restored to the maximum extent practicable. The County's baseline, which has been previously approved by MDE, identifies 30,525 acres with either no or partial management, requiring the equivalent of 6,105 acres to be restored to meet the 20% criteria by the end of the permit term in January 1, 2019.

The submission of Prince George's County's Financial Assurance Plan (FAP), as well as the submission of the Watershed Protection and Restoration Program (WPRP) 2015 annual report, is required for compliance with Maryland Environment Article §4-202.1. The attached County's FAP demonstrates that the County has the financial means (75%) to achieve the requirements for FY 2017 and FY 2018 as required by the State Bill.

This FAP lists the activities completed by the County's WPRP for FY14 and FY15, and planned programs / activities from FY16 through FY20. The County's MS4 permit commitment spans from January 2, 2014 through January 1, 2019.

The completion and submission of the FAP is required every two years with this first submittal due on July 1, 2016. The next FAP submittal will address activities through the end of FY18, including revenues and expenditures associated with the County's WPRP restoration activities. This FAP will be updated and re-submitted on or before the anniversary date of the County's NPDES MS4 Permit (January 2, 2019).

According to the requirements for completing the attached FAP, all restoration activities completed by June 30, 2015, are classified as completed activities and their actual costs are reported. These activities include a variety of projects with a variety of funding sources as described below.

CIP projects from Stormwater Runoff Controls and Water Quality Improvement classes that were completed in FY14 and FY15:

- Several of these projects incurred costs prior to WPRP implementation, with construction completed in FY14 or FY15. These restoration projects were included in the NPDES MS4 reports for FY14 and FY15, and were funded by the Enterprise Fund (EF5100).

CIP projects that are Ongoing through Permit Term:

- Beginning FY2016, the WPRP implementation is now fully supported by two funds; Stormwater Enterprise Fund (EF5100) and the Watershed Protection and Restoration Enterprise Fund (EF 5200). Types of implementation projects include installation of water quality devices on urbanized areas of the County, which previously had no Stormwater controls. Project types include Bioretention, Infiltration Devices, Pond Retrofits, Green Streets, Stream Restoration, Regenerative Outfall Repairs, Urban Wetlands, and Street Sweeping.
- The County has put in place two CIP programs to address the implementation of the WPRP; the Conventional CIP implemented by DoE's CIP operations, and the Public Private Partnership (P3) implemented by Corvias Group.



Prince George's County Financial Assurance Plan



Draft - Not Yet Approved by Prince George's County Council

The Operating budget of the two funds in addition to staff support, also fund Street Sweeping, the Raincheck Rebate Program, and Grants to non-profit Organizations to assist in the implementation of the WPRP program.

- Funding for restoration projects by NGOs include grants issued in FY2015 and FY2016 for \$1.05 million and \$1.35 million, respectively, provide additional acres treated towards the WPRP program.
- The Operating fund will support street sweeping as well. This strategy will help the County achieve equivalent acres restored, which will substantially help in reaching the 20% restoration goal.

The FAP Content

Included in the FAP are cost and revenue information. Costs identified include the operating costs for the WPRP, debt service on WPRF bonds, and the County's WPRP grant program to fund restoration projects completed by non-governmental agencies for which the County takes equivalent impervious treatment credits.

On Page 6 of the FAP, actual costs reported for FY14 and FY15, and budgeted figures beyond FY15, were obtained from the County's approved budgets. Pages 2 through 5 of the FAP lists projected costs and project selection types to achieve the MDE's two-year (FY 2017 & FY 2018) 75 percent financial assurance and compliance requirements.

Programmed projects not completed by June 30, 2015, are classified as either under construction, planned, or proposed. Projects considered "under construction" were in the construction phase as of the end of FY15, and are anticipated to be complete at the end of FY16. "Planned projects" are those activities where a design contract has been issued by June 30, 2015. Proposed projects" include restoration activities that had been identified by County project managers but design work has not been initiated.

FAP Sources of Funds:

The County's fund sources are listed on Page 8 of the FAP. The fund sources include operating fund sources, debt service and grants and partnerships. This table explains the percent of the all fund sources directed towards the WPRP goals.

Page 7 of the FAP shows that the County possesses sufficient funding in the current FY and subsequent FY budgets to meet its estimated 75% cost for the two-year period (FY 2017 and FY 2018) following the filing date of the FAP.

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

The projected restoration costs through FY2017 and FY2018 are \$139 million. Costs projected for FY 2019 through FY 2020 are \$180 million. These numbers show substantial CIP project implementation that will be realized during the final year of the permit term.

The projected revenue from FY2017 through FY2018 is \$104 million, which represent 75% funding capacity to meet the objectives of the first two years.



Prince George's County Financial Assurance Plan



Draft - Not Yet Approved by Prince George's County Council

The County's FY 2016 FAP shows the County has sufficient funding to meet its restoration obligations under the WPRP for the next two years, this is in accordance to the State Mandate Article 4-202.1(j)(2).

MS4 Information	
Jurisdiction	Prince George's County, Maryland
Contact Name	Jerry Maldonado
Phone	(301) 883-5943
Address	1801 McCormick Dr.
City	Landover
State	Maryland
Zip	20774
Email	jgmalconado@co.pg.md.us
Baseline Acres	30,524
Permit Num	11-DP-3314
Reporting Year	1-Jul-16

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.

Cumulative Impervious Restoration / Expenditures for Permit Term (5 years)

Baseline:	30,524	Requirement:	20% (6,105 Acres)
------------------	---------------	---------------------	--------------------------

REST BMP TYPE*	BMP CLASS	IMP ACRES	IMPL COST	% ISRP COMPLETE	IMPL STATUS**	PROJECTED Implementation by Fiscal Year
Operating Programs						
(VSS) Property Management						
Street Sweeping (DoE - P3 Partnership)	A	2,000.0	\$2,142,846	6.6%	Planning	2017
			\$2,142,846			2018
			\$1,071,423			2019
Sub Total		2,000.0	\$5,357,115.7	6.6%		
Stormwater Stewardship Grants (DoE)						
Grants to Non-Profit Organizations		167.0	\$6,000,000	0.5%	Ongoing	FYs : 2016;2017;2018 ;2019
Raincheck Rebate		2.5	\$1,000,000	0.0%	Ongoing	FYs : 2016;2017;2018

						;2019
Sub Total		169.5	\$7,000,000	0.6%	Starting Year	2016
Alternative Compliance (DoE)						
		0.0			Ongoing	FYs : 2016;2017;2018 ;2019
			\$836,032	0.0%		
Sub Total		0.0	\$836,032	0.0%	Starting Year	2016
TOTAL OPERATING PROGRAMS Remaining time in the Permit Term (FY16 thru FY19)		2,169.5	\$13,193,148	7%		
Capital Projects	Impervious Surface Restoration Projects (ISRP)					
FBIO	S	0.2	\$16,000	0.0%	Proposed	2016
MMBR	S	0.5	\$40,000	0.0%	Proposed	2016
MSWB	S	1.0	\$46,500	0.0%	Proposed	2016
MSWW	S	0.2	\$16,500	0.0%	Proposed	2016
		0.0	\$0	0.0%		
STRE	A	3.0	\$582,000	0.0%	Complete	2016
FBIO	S	0.4	\$54,000	0.0%	Planning/Design	2016
FBIO	S	0.3	\$278,000	0.0%	Under Construction	2016
ITRN	S	0.9	\$185,000	0.0%	Complete	2016
MMBR	S	0.1	\$17,500	0.0%	Complete	2016
FBIO	S	31.8	\$2,667,679	0.1%	Planning/Design	2016
FSND	S	61.6	\$2,963,719	0.2%	Planning/Design	2016

ITRN	S	18.2	\$659,142	0.1%	Planning/Design	2016
MBIO	S	1.3	\$441,000	0.0%	Planning/Design	2016
MMBR	S	65.1	\$5,660,171	0.2%	Planning/Design	2016
MSGW	S	21.8	\$1,163,052	0.1%	Planning/Design	2016
MSWB	S	2.8	\$165,400	0.0%	Planning/Design	2016
NDNR	S	0.6	\$45,149	0.0%	Planning/Design	2016
WPWS	S	219.2	\$7,690,590	0.7%	Planning/Design	2016
MMBR	S	1.3	\$135,000	0.0%	Under Construction	2016
FBIO	S	0.5	\$66,180	0.0%	Planning/Design	2017
IMPP	A	0.5	\$152,145	0.0%	Planning/Design	2017
MSWB	S	0.6	\$188,972	0.0%	Planning/Design	2017
MRNG	S	2.1	\$349,140	0.0%	Planning/Design	2017
OTH	S	0.2	\$103,895	0.0%	Planning/Design	2017
FBIO	S	1.5	\$381,000	0.0%	Planning/Design	2017
FPU	S	17.0	\$490,000	0.1%	Planning/Design	2017
OTH	S	6.0	\$922,000	0.0%	Planning/Design	2017
STRE	A	32.7	\$3,287,000	0.1%	Planning/Design	2017
WEDW	S	0.0	\$0	0.0%	Planning/Design	2017
FPU	S	1.1	\$195,000	0.0%	Under Construction	2017
STRE	A	9.5	\$1,622,000	0.0%	Under Construction	2017
FBIO	S	0.4	\$60,000	0.0%	Planning/Design	2017
MMBR	S	67.4	\$7,472,600	0.2%	Planning/Design	2017
MSWB	S	1.6	\$240,000	0.0%	Planning/Design	2017
OUT	A	85.0	\$1,700,000	0.3%	Planning/Design	2017
WPWS	S	773.9	\$14,144,000	2.5%	Planning/Design	2017
AGRE	S	0.5	\$45,000	0.0%	Proposed	2017
APRP	S	2.4	\$239,227	0.0%	Proposed	2017

MRNG	S	5.6	\$479,770	0.0%	Proposed	2017
MSWB	S	2.7	\$128,381	0.0%	Proposed	2017
PWED	S	104.0	\$1,201,000	0.3%	Planning/Design	2017
MRNG	S	2.0	\$170,000	0.0%	Planning/Design	2017
MSGW	S	8.9	\$514,000	0.0%	Planning/Design	2017
OTH	S	6.0	\$922,000	0.0%	Planning/Design	2017
OUT	A	142.3	\$7,115,000	0.5%	Planning/Design	2017
PWET	S	110.1	\$2,800,000	0.4%	Planning/Design	2017
STRE	A	6.5	\$697,000	0.0%	Planning/Design	2018
WEDE	S	49.8	\$1,204,000	0.2%	Planning/Design	2018
WEDW	S	71.8	\$2,857,000	0.2%	Planning/Design	2018
WPWS	S	45.0	\$780,000	0.1%	Planning/Design	2018
AGRE	S	55.3	\$25,885,375	0.2%	Proposed	2018
AGRI	S	0.6	\$460,000	0.0%	Proposed	2018
PWED	S	12.5	\$6,291,000	0.0%	Proposed	2018
FBIO	S	79.5	\$7,688,000	0.3%	Proposed	2018
FBIO	S	428.8	\$71,036,000	1.4%	Proposed	2019
MSWB	S	17.7	\$1,774,000	0.1%	Proposed	2019
FUND	S	188.6	\$18,944,000	0.6%	Proposed	2019
PWET	S	72.4	\$4,633,000	0.2%	Proposed	2019
STRE	A	911.0	\$54,912,300	3.0%	Proposed	2019
MMBR	E	2.08	\$495,000.00	0.0%	Proposed	2018
MSGW	E	3.43	\$450,000.00	0.0%	Proposed	2018
MSWB	E	0.29	\$75,000.00	0.0%	Proposed	2018
MSWG	E	0.12	\$50,000.00	0.0%	Proposed	2018
NDNR	E	0.05	\$1,000.00	0.0%	Proposed	2018
XDED	S	142.21	\$4,800,000.00	0.5%	Proposed	2018
Sub-Total CIP Program		3,902.3	\$270,847,387.0			

Restoration Complete (To Date= June 30th 2016)	See Tab: Spec Actions 4-202.1(j)(1)(i)5	139	\$3,563,000	0.5%		
Total Next Two Years (FY2017-FY2018)	See Table Above	3,854	\$101,007,378	13%		
Total Permit Term (January 1, 2019)	See Table Above	6,211	287,603,535	20%		
Total Permit Term and Projected Years	See Table Above (Plus row 92 above)	6,211	287,603,535	20%		

Article 4-202.1(j)(1)(i)2: Projected annual and 5-year costs for the county or municipality to meet the impervious surface restoration plan requirements of its National Pollutant Discharge Elimination System Phase I Municipal Separate Storm Sewer System Permit.

DESCRIPTION	FY 2014	FY 2015	YEAR 1 FY 2016	PROJECTED YEAR 2 FY 2017	PROJECTED YEAR 3 FY 2018	PROJECTED YEAR 4 FY 2019	PROJECTED YEAR 5 FY 2020	TOTAL COSTS to FY2019
Operating Expenditures								
SWM Enterprise Fund (5100) - Supports Agency 154, 166	\$2,067,591.66	\$1,910,906.11	\$2,338,183.77	\$2,620,484.32	\$2,659,791.58	\$2,699,688.46	\$2,740,183.78	\$14,296,645.90
154 - SWM Enterprise Fund , Debt Service (5100)	\$722,855	\$1,078,346	\$1,567,749	\$2,235,675	\$3,674,854	\$5,669,509	\$6,817,518	\$14,948,989
WPR Fund (5200) Clean Water Act Fees	\$316,175	\$1,634,078	\$13,989,000	\$11,807,300	\$6,183,300	\$6,183,300	\$6,183,300	\$40,113,153
WPR Fund (5200) Clean Water Act Fees, Debt Service	\$0	\$0	\$1,415,895	\$2,948,595	\$3,361,410	\$4,504,110	\$5,646,810	\$12,230,010
Operating Expenditures Sub-Total	\$2,383,767	\$3,544,984	\$16,327,184	\$14,427,784	\$8,843,092	\$8,882,988	\$8,923,484	\$54,409,799
Capital Expenditures								
SWM Enterprise Fund (5100) - Supports Agency 54, 89	\$18,534,733	\$9,115,174	\$12,548,786	\$17,126,296	\$36,902,047.07	\$51,145,000	\$29,436,119	\$145,372,037
WPR Fund (5200) Clean Water Act Fees	\$0	\$0	\$36,305,000	\$39,300,000	\$10,585,000	\$29,300,000	\$29,300,000	\$115,490,000
Sub Total Capital and Pay Go - Excludes Debt Service	\$20,918,500	\$12,660,158	\$65,180,970	\$70,854,081	\$56,330,139	\$89,327,988	\$67,659,603	\$315,271,836
Total expenditures - Includes Debt Service:	\$21,641,355	\$13,738,505	\$68,164,614	\$76,038,350	\$63,366,403	\$99,501,608	\$80,123,931	\$342,450,835

Total ISRP costs except debt service: \$315,271,836
Compare ISRP costs (except debt service) / Total ISRP proposed actions: 109.62%

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.

	PAST	CURRENT	PROJECTED	PROJECTED	PROJECTED	PROJECTED	PROJECTED	TOTAL NEXT	TOTAL
DESCRIPTION	UP THRU 2014	FY 2015	YEAR 1 FY 2016	YEAR 2 FY 2017	YEAR 3 FY 2018	YEAR 4 FY 2019	YEAR 5 FY 2020	2-YEARS FY 17-18*	CURRENT + PROJECTED
Annual Revenue** Appropriated for ISRP	\$18,534,733	\$9,115,174	\$48,853,786	\$56,426,296	\$47,487,047	\$80,445,000	\$58,736,119	\$103,913,343	\$260,862,037
Annual Costs towards ISRP***	\$21,641,355	\$13,738,505	\$68,164,614	\$76,038,350	\$63,366,403	\$99,501,608	\$80,123,931	\$139,404,753	\$342,450,835

Compare annual costs / revenue appropriated: 75%
WPRP 2016 Reporting State GOAL Criteria 75%

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 2018.

** 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 2016 at the time of FAP reporting.

*** 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.

FUND SOURCES	PAST UP THRU 2014	CURRENT FY 2015	PROJECTED YEAR 1 FY 2016	PROJECTED YEAR 2 FY 2017	PROJECTED YEAR 3 FY 2018	PROJECTED YEAR 4 FY 2019	PROJECTED YEAR 5 FY 2020	TOTAL PERMIT CYCLE
Operating Funds (GROSS - ALL NPDES PROGRAMS)								
SWM Enterprice Fund (5100) - Suports Agency 154	\$43,327,265	\$42,118,675	\$42,783,400	\$44,972,200	\$44,972,200	\$44,972,200	\$44,972,200	\$263,145,940
WPR Fund (5200) Clean Water Act Fees	\$14,348,151	\$14,669,145	\$14,625,632	\$14,625,632	\$14,625,632	\$14,625,632	\$14,625,632	\$87,519,824
Other Funds 1 (SW Grants)	\$338,006	\$265,650	\$691,800	\$0	\$0	\$0	\$0	\$1,295,456
Sub Total Revenues	\$58,013,422	\$57,053,470	\$58,100,832	\$59,597,832	\$59,597,832	\$59,597,832	\$59,597,832	\$351,961,220
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 2014).								
WPR Fund (5200) Clean Water Act Fees - Agency 154	\$0	\$0	\$36,305,000	\$39,300,000	\$10,585,000	\$29,300,000	\$29,300,000	\$115,490,000
SWM Bonds - (5100 Fund) - Agency DoE 154	\$18,534,733	\$9,115,174	\$12,548,786	\$17,126,296	\$36,902,047	\$51,145,000	\$29,436,119	\$145,372,037
Sub Total Capital Expenditure	\$18,534,733	\$9,115,174	\$48,853,786	\$56,426,296	\$47,487,047	\$80,445,000	\$58,736,119	\$260,862,037
Debt Service Installment paid (principle and interest).								
WPR Fund (5200) Clean Water Act Fees - Agency 154	\$0	\$0	\$1,415,895	\$2,948,595	\$3,361,410	\$4,504,110	\$5,646,810	\$12,230,010
(5100 Fund) - Agency 154	\$722,855	\$1,078,346	\$1,567,749	\$2,235,675	\$3,674,854	\$5,669,509	\$6,817,518	\$14,948,989
Subtotal Debt Service	\$722,855	\$1,078,346	\$2,983,644	\$5,184,270	\$7,036,264	\$10,173,619	\$12,464,328	\$27,178,999
Grants and Partnerships (no payment is expected)								
State funded grants	\$326,006	\$8,433,300	\$0					\$8,759,306
Federal funded grants	\$0	\$0	\$528,600					\$528,600
Public-private partnership (matched grant)								
Subtotal Grants and Partnerships	\$326,006	\$8,433,300	\$528,600	\$0	\$0	\$0	\$0	\$9,287,906
Total Annual Sources of Funds	\$76,151,307	\$73,523,598	\$104,499,574	\$110,839,859	\$100,048,615	\$129,869,213	\$105,869,623	\$594,932,165
Percent of Funds Directed Toward ISRP	24.34%	12.40%	46.75%	50.91%	47.46%	61.94%	55.48%	43.85%
Compare total paygo ISRP costs / subtotal FUND Sources:								90%
Compare total ISRP costs / total annual sources of funds:								58%
* WPR Fund: Watershed Protection and Restoration Fund.								

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: 30,524 Requirement: 20% (6,105 Acres)

REST BMP ID	REST BMP TYPE	BMP CLASS	NUM BMP	IMP ACRES	BUILT DATE	IMPL COST	% ISRP Complete	IMPL STATUS	GEN COMMENTS
Operation Programs									
Capital Projects - CIP									
CP10-0005	FBIO	S	1	0.5	5/28/2014	176000	0.0016%	Complete	FY 2014
CP10-0008	STRE	A	1	1.25	12/1/2014	420000	0.0041%	Complete	FY 2015
CP14-0004-02	FBIO	S	1	1.7	6/19/2015	64000	0.0056%	Complete	FY 2015
CP08-0018	STRE	A	1	2.2	2/1/2015	220000	0.0072%	Complete	FY 2015
CP08-0020	STRE	A	1	13.3	6/22/2015	686000	0.0436%	Complete	FY 2015
CP09-0013	STRE	A	1	1.4	12/17/2014	194000	0.0046%	Complete	FY 2015
CP05-0027-02	STRE	A	1	14	5/20/2015	1200000	0.0459%	Complete	FY 2015
CP12-0012	FBIO	S	1	0.5	12/1/2014	278000	0.0016%	Complete	FY 2015
CP12-0007-04	FBIO	S	1	0.2	2/11/2016	26000	0.0007%	Complete	FY 2016
CP12-0007-05	FBIO	S	1	0.1	2/11/2016	13000	0.0003%	Complete	FY 2016
CP12-0007-02	FBIO	S	1	1.6	2/11/2016	208000	0.0052%	Complete	FY 2016
CP12-0007-03	FBIO	S	1	0.6	2/11/2016	78000	0.0020%	Complete	FY 2016

Capital Projects - CWP										Contract initiated in FY 2016
Other - REDEVELOPMENT										
373	MMBR	E	1	0.22	10/16/2014	N/A	0.0007%	Complete		FY 2015
374	MMBR	E	1	0.25	10/16/2014	N/A	0.0008%	Complete		FY 2015
375	MMBR	E	1	0.12	10/16/2014	N/A	0.0004%	Complete		FY 2015
512	MMBR	E	1	0	5/11/2015	N/A	0.0000%	Complete		FY 2015
513	MMBR	E	1	0.01	5/11/2015	N/A	0.0000%	Complete		FY 2015
1292	PWET	S	1	90.86	6/26/2015	N/A	0.2977%	Complete		FY 2015
1509	FBIO	S	1	0.24	5/28/2015	N/A	0.0008%	Complete		FY 2015
1510	FBIO	S	1	0.3	5/28/2015	N/A	0.0010%	Complete		FY 2015
Other - Health										
1	SEPD	A	1	0.26	12/21/2015	N/A	0.0009%	Complete		FY 2015
2	SEPD	A	1	0.26	12/10/2015	N/A	0.0009%	Complete		FY 2015
3	SEPD	A	1	0.26	11/16/2015	N/A	0.0009%	Complete		FY 2015
4	SEPD	A	1	0.26	11/10/2015	N/A	0.0009%	Complete		FY 2015
5	SEPD	A	1	0.26	11/6/2015	N/A	0.0009%	Complete		FY 2015
6	SEPD	A	1	0.26	11/5/2015	N/A	0.0009%	Complete		FY 2015
7	SEPD	A	1	0.26	11/2/2015	N/A	0.0009%	Complete		FY 2015
8	SEPD	A	1	0.26	10/27/2015	N/A	0.0009%	Complete		FY 2015
9	SEPD	A	1	0.26	10/20/2015	N/A	0.0009%	Complete		FY 2015
10	SEPD	A	1	0.26	10/16/2015	N/A	0.0009%	Complete		FY 2015
11	SEPD	A	1	0.26	10/7/2015	N/A	0.0009%	Complete		FY 2015
12	SEPD	A	1	0.26	9/3/2015	N/A	0.0009%	Complete		FY 2015

13	SEPD	A	1	0.26	9/2/2015	N/A	0.0009%	Complete	FY 2015
14	SEPD	A	1	0.26	7/16/2015	N/A	0.0009%	Complete	FY 2015
15	SEPD	A	1	0.26	6/30/2015	N/A	0.0009%	Complete	FY 2015
16	SEPD	A	1	0.26	6/11/2015	N/A	0.0009%	Complete	FY 2015
17	SEPD	A	1	0.26	6/8/2015	N/A	0.0009%	Complete	FY 2015
18	SEPD	A	1	0.26	5/26/2015	N/A	0.0009%	Complete	FY 2015
19	SEPD	A	1	0.26	5/4/2015	N/A	0.0009%	Complete	FY 2015
20	SEPD	A	1	0.26	4/13/2015	N/A	0.0009%	Complete	FY 2015
21	SEPD	A	1	0.26	4/7/2015	N/A	0.0009%	Complete	FY 2015
22	SEPD	A	1	0.26	3/23/2015	N/A	0.0009%	Complete	FY 2015
23	SEPD	A	1	0.26	11/27/2014	N/A	0.0009%	Complete	FY 2015
24	SEPD	A	1	0.26	11/27/2014	N/A	0.0009%	Complete	FY 2015
25	SEPD	A	1	0.26	11/16/2014	N/A	0.0009%	Complete	FY 2015
26	SEPD	A	1	0.26	11/16/2014	N/A	0.0009%	Complete	FY 2015
27	SEPD	A	1	0.26	11/14/2014	N/A	0.0009%	Complete	FY 2015
28	SEPD	A	1	0.26	10/15/2014	N/A	0.0009%	Complete	FY 2015
29	SEPD	A	1	0.26	10/14/2014	N/A	0.0009%	Complete	FY 2015
30	SEPD	A	1	0.26	7/23/2014	N/A	0.0009%	Complete	FY 2015
31	SEPD	A	1	0.26	5/23/2014	N/A	0.0009%	Complete	FY 2015
32	SEPD	A	1	0.26	4/11/2014	N/A	0.0009%	Complete	FY 2015
33	SEPD	A	1	0.26	3/27/2014	N/A	0.0009%	Complete	FY 2015
34	SEPD	A	1	0.26	3/24/2014	N/A	0.0009%	Complete	FY 2015
35	SEPD	A	1	0.26	2/24/2014	N/A	0.0009%	Complete	FY 2015
36	SEPD	A	1	0.26	1/30/2014	N/A	0.0009%	Complete	FY 2015
Complete to Date			56	138.71		3,563,000	0.4544%		

WPRP Annual Reports

Anne Arundel County

Watershed Protection and Restoration Program Annual Report Table

Article 4-202.1(i)(4): "The percentage and amount of funds in the local watershed protection and restoration fund spent on each of the purposes provided in subsection (h)(4) of this section;"

Program Element	Cost	Percent of WPRF
Capital Improvements for Stormwater Management	\$1,764,236.87	10.17%
O & M of SWM Systems and Facilities	\$6,752,484.21	38.93%
Public Education and Outreach	\$431,503.97	2.49%
Stormwater Management Planning (see Md. Environment Code Ann. § 4-202.1(h)(4)(iv))	\$2,921,903.86	16.84%
Review of Stormwater Management Plans and Permit Applications for New Development	\$0.00	0.00%
Grants to Nonprofit Organizations	\$532,144.09	3.07%
Adminstration of WPRF	\$864,810.00	4.99%
TOTAL	\$13,267,083.00	76.49%
Number of Properties Subject to Fee	171,046	
Reporting Year	2015	
Permit Number	11-DP-3316 MD0068306	
Comments:		

Jurisdiction	Agency	Local Ordinance Submitted to MDE	MDE Approval of Fee Reduction Policy	Fee Reduction Amount
Anne Arundel County	Department of Public Works	Yes		80% phase in for FY15

Use: Yes or No

Use the approval date or N/A

Reduction amount(s), if any, with reason for reduction(s)

Directions:

Notes:

ERU = Equivalent residential unit

Rate Structures							
Annual Single Family Residential Rate	Annual Commercial Rate	Equivalent Residential Unit (ERU) impervious	Commercial Capped Rates	Non-profits, Religious Organizations	Exemptions	Federal Facilities Status	Federal Facility Fee(s)/Rate(s)
34-170	\$85 per ERU	2,940	25% of property tax	\$1			
Use: N/A, amount of flate rate, rate amount per ERU, etc.					General description of exemption(s), if any	Use: No Facilities, Exempt, or Charged	Use: N/A or the fee and rate structures for federal facilities

Additional Sources of Funds			Estimated Annual Revenue
Additional Source 1	Additional Source 2	Additional Source 3	
			\$22,100,000.00

Notes

Article 4-202.1(i)(3): "The amount of money deposited into the watershed protection and restoration fund in the previous fiscal year by source;"

Source	Amount
	\$
Annual Single Family Residential Fees Collected	9,147,779.77
	\$
Annual Commercial Fees Collected	7,010,104.18
	\$
Non-profits, Religious Orgs Fees Collected	10,700.53
	\$
Additional Source 1-HOA, multifamily, private roads	756,553.73
	\$
Additional Source 2-Interfund recoveries*	377,556.87
	\$
Additional Source 3- Investment income	25,758.55
	\$
Additional Source 4- Prior Year encumbrances	148,340.12
	\$
	17,476,793.75

* Source 2 is recognized as revenue as an offset of capital improvement project manager's salaries charged to restoration projects.

All SWM Projects Implemented in Previous FY for the 20% Restoration Requirement

REST BMP ID	REST BMP TYPE	BMP CLASS	NUM BMP	IMP ACRES	BUILT DATE	IMPL COST	IMPL STATUS	IMPL COMP YR
	VSS	A	2,895	246	6/30/2015	\$167,914	Complete	FY15
AA000013	PWET	S	1	3.26	10/15/2014	\$50,722	Complete	FY15
AA000045	PWET	S	1	2.24	10/15/2014	\$82,707	Complete	FY15
AA002478	PWET	S	1	1.86	10/15/2014	\$140,329	Complete	FY15
AA005084	PWET	S	1	2.1	10/15/2014	\$107,902	Complete	FY15
AA000652	PWET	S	1	2.37	10/15/2014	\$168,408	Complete	FY15
AA000887	PWET	S	1	2.56	10/15/2014	\$119,195	Complete	FY15
AA000819	PWET	S	1	3.18	10/15/2014	\$162,884	Complete	FY15
AA000024	PWET	S	1	1.16	10/15/2014	\$127,599	Complete	FY15
AA000839	PWET	S	1	12.82	10/15/2014	\$74,811	Complete	FY15
AA000647	PWET	S	1	2.85	10/15/2014	\$49,770	Complete	FY15
AA007188	PWET	S	1	3.11	10/15/2014	\$101,345	Complete	FY15
AA004181	PWET	S	1	0.49	10/15/2014	\$27,493	Complete	FY15
AA000496	PWET	S	1	2.03	10/15/2014	\$76,239	Complete	FY15
AA000022	PWET	S	1	2.04	10/15/2014	\$30,149	Complete	FY15
AA000831	PWET	S	1	14.69	8/24/2014	\$89,690	Complete	FY15
S17H5O00001	STRE	A	1	5	2/13/2015	\$313,744	Complete	FY15
Q12B50000001								
	SPSC	A	1	3.5	12/22/2014	\$321,210	Complete	FY15
AA005099	PWET	S	1	0.81	6/15/2015	\$103,722	Complete	FY15
AA004096	PWET	S	1	2.48	2/18/2015	\$112,648	Complete	FY15
AA001526	PWET	S	1	1.33	2/18/2015	\$91,155	Complete	FY15
	SPSC	A	1	2.2	5/5/2015	\$856,571	Complete	FY15
Q13A60000002								
	SPSC	A	1	3	12/30/2014	\$331,159	Complete	FY15
	SPSC	A	1	3.34	2/10/2015	\$1,061,644	Complete	FY15

	SPSC	A	1	2.25	12/3/2014	\$333,894	Complete	FY15
	SPSC	A	1	5	11/11/2014	\$371,573	Complete	FY15
	SHST	A	6	109.6	FY15	\$0	Complete	FY15
	SEPC	A	23	9	FY15	\$0	Complete	FY15
	SEPD	A	187	49	FY15	\$227,766	Complete	FY15
	SPSC	A	1	2.39	5/18/2015	\$169,426	Complete	FY15
				501.66		\$5,871,671.44		

Baltimore City

Watershed Protection and Restoration Program Annual Report Table

Article 4-202.1(i)(4): "The percentage and amount of funds in the local watershed protection and restoration fund spent on each of the purposes provided in subsection (h)(4) of this section;"

Program Element	Cost	Percent of WPRF
Capital Improvements for Stormwater Management	\$6,781,052.00	39.39%
Operation and maintenance of stormwater management systems and facilities	\$8,362,242.00	48.57%
Public Education and Outreach	\$169,440.00	0.98%
Stormwater Management Planning (see Md. Environment Code Ann. § 4-202.1(h)(4)(iv))	\$1,035,353.00	6.01%
Review of Stormwater Management Plans and Permit Applications for New Development	\$613,076.00	3.56%
Grants to Nonprofit Organizations	\$102,107.00	0.59%
Adminstration of WPRF	\$152,438.00	0.89%
TOTAL	\$17,215,708.00	100.00%
Number of Properties Subject to Fee	223,623	
Reporting Year	2015	
Permit Number		
Comments:		

Jurisdiction	Agency	Local Ordinance Submitted to MDE	MDE Approval of Fee Reduction Policy	Fee Reduction Amount
Baltimore City	Department of Public Works	Yes	NA	NA

Directions:	Use: Yes or No	Use the approval date or N/A	Reduction amount(s), if any, with reason for reduction(s)
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Notes:

ERU = Equivalent residential unit

2 - SFR Rate structure is 3 tiered based on impervious area: \$40 / yr for less than 820 sf IA, \$60 / yr for 820 to 1,500 sf IA, \$120 / yr for more than 1,500 sf IA

3 -Estimated annual revenue listed includes the amount billed for the stormwater fee, plus the miscellaneous fees collected.

Fee structure and rate established in July 2013 to remain constant for at least 4 years (July 2017).

Rate Structures							
Annual Single Family Residential Rate	Annual Commercial Rate	Equivalent Residential Unit (ERU) impervious	Commercial Capped Rates	Non-profits, Religious Organizations	Exemptions	Federal Facilities Status	Federal Facility Fee(s)/Rate(s)
\$30 - 120 ²	\$60 / ERU	1,050 sf	Capped at 20% of all State and local property taxes	\$12 / ERU on religious and K-12 education structures	IA permitted to public ww system; streets privately maintained and open to public in SFR communities, IA requires as a superfund cap, solar panel bases.	Charged	\$60 / yr / ERU

Use: N/A, amount of flate rate, rate amount per ERU, etc.					General description of exemption(s), if any	Use: No Facilities, Exempt, or Charged	Use: N/A or the fee and rate structures for federal facilities
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Additional Sources of Funds			Estimated Annual Revenue	Notes
Additional Source 1	Additional Source 2	Additional Source 3		
SWM/ESC Misc. Fees for permitting and penalties: \$86,130			\$28,302,000.00	

Article 4-202.1(i)(3): "The amount of money deposited into the watershed protection and restoration fund in the previous fiscal year by source;"

Source	Amount
Stormwater Remediation Fee	\$28,302,000.00
SWM/ ESC Miscellaneous Fees	\$ 86,130.00
	\$ 28,388,130.00

All SWM Projects Implemented in Previous FY for the 20% Restoration Requirement

REST BMP ID	REST BMP TYPE	BMP CLASS	NUM BMP	IMP ACRES	BUILT DATE	IMPL COST	IMPL STATUS	IMPL COMP YR
	VSS	A	1	3,175	6/30/2015	\$5,048,864	74.0%	2015
				3,175		\$5,048,864		

Baltimore County

Watershed Protection and Restoration Program Annual Report Table

Article 4-202.1(i)(4): "The percentage and amount of funds in the local watershed protection and restoration fund spent on each of the purposes provided in subsection (h)(4) of this section;"

Program Element	Cost	Percent of WPRF
Capital Improvements for Stormwater Management	\$20,774,390	60.26%
O & M of SWM Systems and Facilities	\$5,664,250	16.43%
Public Education and Outreach	\$123,991	0.36%
Stormwater Management Planning (see Md. Environment Code Ann. § 4-202.1(h)(4)(iv))	\$561,427	1.63%
Review of Stormwater Management Plans and Permit Applications for New Development	\$0	0.00%
Grants to Nonprofit Organizations	\$9,162	0.03%
Adminstration of WPRF	\$221,221	0.64%
TOTAL	\$27,354,441	79.34%
Number of Properties Subject to Fee	256,060	
Reporting Year	2015	
Permit Number	11-DP-3317 MD0068314	
Comments:		

Cost information is FY2015.

Jurisdiction	Agency	Local Ordinance Submitted to MDE	MDE Approval of Fee Reduction Policy	Fee Reduction Amount
Baltimore County	Department of Environmental Protection and Sustainability	?	?	<p>1. SWM BMPs: Impervious treated by SWM BMPs discharge less pollution into water bodies, and require expenditures for construction and maintenance. In recognition of the water quality benefits and financial costs of SWM BMPs, impervious surfaces draining to a SWM BMP are discounted. The rate of discount based on SWM BMP efficiencies used by the Chesapeake Bay Program at the time the fee program was developed. This SWM BMP reduction is only available to Commercial and Institutional properties. SWM BMPs constructed and maintained with exclusively County or State funding do not provide a discount. Discount for a property cannot exceed 74% of ERUs, as 26% of the impervious surfaces in Baltimore County are on public land and every property should help pay for those shared impervious surfaces.</p> <p>1.1. Detention or Hydrodynamic Structures: 8.3% reduction of ERUs.</p> <p>1.2. Extended Detention: 33.3% reduction of ERUs.</p> <p>1.3. Wet Ponds and Wetlands: 41.6% reduction of ERUs.</p> <p>1.4. Infiltration Practices: 88.6% reduction</p>

				<p>of ERUs.</p> <p>1.5. Filtration Practices: 60.0% reduction of ERUs.</p> <p>1.6. ESD Practices: 66.6% reduction of ERUs.</p> <p>2. Clean Marina participation: The DNR Clean Marina program reduces pollution that is discharged directly into the Chesapeake Bay through direct and indirect mechanisms. To encourage and reward Clean Marina participation, certified Clean Marinas receive a 50% reduction of ERUs.</p> <p>3. Commercial-Residential primary residence credit: When a property supports both the owner's primary residence and a commercial business, it is unfair to bill the single family dwelling at the higher commercial rate. Therefore, the fee is reduced by an amount equal to the difference between 1 ERU at the commercial rate and 1 single family dwelling.</p>
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Use: Yes or No Use the approval date or N/A Reduction amount(s), if any, with reason for reduction(s)

Directions:

Notes:

ERU = Equivalent residential unit

Rate Structures							
Annual Single Family Residential Rate	Annual Commercial Rate	Equivalent Residential Unit (ERU) impervious	Commercial Capped Rates	Non-profits, Religious Organizations	Exemptions	Federal Facilities Status	Federal Facility Fee(s)/Rate(s)
Detached: \$32.00 per dwelling Attached: \$14.00 per dwelling Condo: \$22.00 per dwelling unit	\$69.00 per ERU Note that commercial includes non-condo multifamily dwellings (e.g. apartment buildings).	2000 sq ft	N/A	\$20.00 per ERU	1. Agricultural land without a dwelling is exempt. 2. Single Family Residential with no dwelling is exempt. 3. Financial Hardship exemption: primary residence of a person who receives one or more of the following: <ul style="list-style-type: none"> • the Local Supplement to the Homeowner's Tax Credit (section 9-104 of Tax-Property Article of the Annotated Code of Maryland), • the property tax exemption for a disabled veteran or the surviving spouse of a disabled veteran (Section 7-208 of the Tax-Property Article of the Annotated Code of Maryland), • the property tax credit for surviving spouses of fallen law enforcement officers or rescue workers (section 11-2-109 of the Baltimore County Code 2003), or • the property tax credit for disabled law enforcement officers or rescue workers (section 11-2-109.1 of the Baltimore County Code 2003). 	Charged	\$20.00 per ERU
Use: N/A, amount of flat rate, rate amount per ERU, etc.						Use: No Facilities, Exempt, or Charged	Use: N/A or the fee and rate structures for federal facilities

Additional Sources of Funds			Estimated Annual Revenue
Additional Source 1: Metro Funds	Additional Source 2: Interest	Additional Source 3	
\$ 10,000,000	\$ 32,061		\$ 34,476,210

Notes
 Estimated Annual Revenue is actual total cash collection of fees in FY2015, plus the additional sources.

Article 4-202.1(i)(3): "The amount of money deposited into the watershed protection and restoration fund in the previous fiscal year by source;"

Source	Amount
Cash Collections of Fee to Fund	\$ 24,444,149
Estimated Annual Single Family Detached Fees Collected	\$ 5,993,705
Estimated Annual Single Family Attached Fees Collected	\$ 1,359,095
Estimated Annual Single Family Condo Fees Collected	\$ 630,659
Estimated Annual Commercial Fees Collected	\$ 15,918,030
Estimated Non-profits, Religious Orgs Fees Collected	\$ 542,660
Metro Funds Made Available	\$ 10,000,000
Estimated Interest	\$ 32,061
	\$ 34,476,210

All SWM Projects Implemented in Previous FY for the 20% Restoration Requirement

REST BMP ID	REST BMP TYPE	BMP CLAS S	NUM BMP	IMP ACRES	BUILT DATE	IMPL COST	IMPL STATUS	IMPL COMP YR	
BA_10085.01	SF	S	1	8.64	5/26/2015	\$39,855.66	Complete	2015	Conversion of SWM Pond #85
BA_10115.01	IB	S	1	3.91	6/19/2015	\$32,347.26	Complete	2015	Conversion of SWM Pond #115
BA_10164.01	SF	S	1	3.11	5/11/2015	\$96,833.71	Complete	2015	Conversion of SWM Pond #164
BA_10170.01	SF	S	1	2.31	5/11/2015	\$49,514.25	Complete	2015	Conversion of SWM Pond #170
BA_10181.01	SF	S	1	4.275	5/14/2015	\$51,456.67	Complete	2015	Conversion of SWM Pond #181
BA_10279.01	SF	S	1	5.41	6/1/2015	\$48,350.24	Complete	2015	Conversion of SWM Pond #279
BA_10305.01	SF	S	1	4.86	5/22/2015	\$23,441.00	Complete	2015	Conversion of SWM Pond #305
BA_10348.01	SM	S	1	4.5	6/29/2014		Complete	2015	Conversion of SWM Pond #348
BA_10381.01	SF	S	1	1.83	5/11/2015	\$48,701	Complete	2015	Conversion of SWM Pond #381
BA_10393.01	SF	S	1	7.24	6/1/2015	\$47,061	Complete	2015	Conversion of SWM Pond #393
BA_10452.01	SF	S	1	3.11	6/1/2015	\$51,938	Complete	2015	Conversion of SWM Pond #452
BA_10453.01	SF	S	1	3.62	6/1/2015	\$76,996	Complete	2015	Conversion of SWM Pond #453
BA_10473.01	SF	S	1	4.29	6/1/2015	\$82,463	Complete	2015	Conversion of SWM Pond #473
BA_10517.01	SF	S	1	1.44	6/1/2015	\$57,890	Complete	2015	Conversion of SWM Pond #517

BA_10525 .01	SF	S	1	1.75	6/29/2015	\$72,089	Complete	2015	Conversion of SWM Pond #525
BA_10553 .01	SF	S	1	4.18	5/11/2015	\$27,687	Complete	2015	Conversion of SWM Pond #553
BA_10578 .01	SF	S	1	6.05	5/26/2015	\$67,218	Complete	2015	Conversion of SWM Pond #578
BA_10624 .01	SF	S	1	3.55	6/29/2015	\$19,327	Complete	2015	Conversion of SWM Pond #624
BA_10711 .01	SF	S	1	5.99	6/18/2015	\$37,216	Complete	2015	Conversion of SWM Pond #711
BA_10815 .01	SF	S	1	3.66	5/1/2015	\$52,155	Complete	2015	Conversion of SWM Pond #815
BA_10845 .01	SF	S	1	8.41	5/1/2015	\$62,278	Complete	2015	Conversion of SWM Pond #845
BA_10846 .01	SF	S	1	1.24	5/1/2015	\$44,580	Complete	2015	Conversion of SWM Pond #846
BA_10932 .01	SF	S	1	7.36	5/14/2015	\$29,229	Complete	2015	Conversion of SWM Pond #932
BA_10978 .01	SF	S	1	11.41	5/14/2015	\$96,976	Complete	2015	Conversion of SWM Pond #978
BA_10996 .01	SF	S	1	2.72	4/27/2015	\$46,914	Complete	2015	Conversion of SWM Pond #996
BA_11064 .01	IT	S	1	6.29	6/19/2015	\$39,748	Complete	2015	Conversion of SWM Pond #1064
BA_11167 .01	SF	S	1	3.38	6/18/2015	\$45,486	Complete	2015	Conversion of SWM Pond #1167
BA_11687 .01	SF	S	1	1.61	4/27/2015	\$27,854	Complete	2015	Conversion of SWM Pond #1687
BA_11688 .01	SF	S	1	2	4/27/2015	\$43,504	Complete	2015	Conversion of SWM Pond #1688
BA_11764 .01	SF	S	1	2.58	5/1/2015	\$41,590	Complete	2015	Conversion of SWM Pond #1764
BA_11829 .01	SF	S	1	4.59	5/14/2015	\$15,526	Complete	2015	Conversion of SWM Pond #1829

BA_11868										
.01	SF	S	1	5.78	6/19/2015	\$32,144	Complete	2015	Conversion of SWM Pond #1868	
BA_12090										
.01	SF	S	1	5.27	4/27/2015	\$69,706	Complete	2015	Conversion of SWM Pond #2090	
BA_15412										
	ESDMB	E	1	0.3234	1/13/2015	\$124,588	Complete	2015	DPW Retrofit - Double Rock Maintenance Facility	
BA_15412										
.01	ESDRH	E	1	0.0044	1/13/2015		Complete	2015	DPW Retrofit - Double Rock Maintenance Facility	
BA_15416										
	ESDSW	E	1	0.0764	1/14/2015	\$66,476	Complete	2015	DPW Retrofit - Longview Highway Shop	
BA_00233										
	STRE	A	1	16	3/1/2015	\$765,846	Complete	2015	East Beaver Dam Run II	
	Watershed Association Projects	A		8.7	6/30/2015	\$240,000	Complete	2015	Watershed Association Projects	

171.4692 \$2,774,985.09

NOTE: Other capital projects have allotments, allocations or encumbrances and are in progress. Due to field evaluations, engineering design, permitting and construction restrictions and timelines, these projects will be reported in future years but are funded by carryover funds from FY2015.

Carroll County

Thomas S. Devilbiss, Director
410-386-2949, fax 410-386-2924
Toll-free 1-888-302-8978
MD Relay service 7-1-1/1-800-735-2258
LRM@ccg.carr.org



**Department of
Land and Resource Management**
Carroll County Government
225 North Center Street
Westminster, Maryland 21157

July 27, 2016

Mr. Raymond P. Bahr
Program Review Division Chief
Sediment, Stormwater, and Dam Safety Program
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, Maryland 21230

RE: Supplemental Submittal -
Watershed Protection and Restoration Program –
2016 Carroll County Financial Assurance Plan

Dear Mr. ^{Rau}~~Bahr~~:

I have attached the supplemental workbook spreadsheets you had requested in your discussion with Gale Engles. I apologize for the misunderstanding on our part as we thought those sheets not to be applicable to Carroll County.

Please feel free to contact Gale or myself with any questions or additional information you may require. I appreciate your support and cooperation through this process.

Sincerely,


(Thomas S. Devilbiss, C.P.G., C.F.M.)
Director

cc: Board of County Commissioners
Timothy C. Burke, County Attorney
Water Resource Coordination Council
Gale Engles, Bureau of Resource Management
Glenn Edwards, Department of Land & Resource Management
Brenda Dinne, Department of Land & Resource Management

Carroll County

a great place to live, a great place to work, a great place to play

Watershed Protection and Restoration Program Annual Report Table

Article 4-202.1(i)(4): "The percentage and amount of funds in the local watershed protection and restoration fund spent on each of the purposes provided in subsection (h)(4) of this section;"

Program Element	Cost	Percent of WPRF
Capital Improvements for Stormwater Management	\$0.00	0.00%
Property Management	\$79,723.82	8.05%
Public Education and Outreach	\$3,729.62	0.38%
Stormwater Management Planning (see Md. Environment Code Ann. § 4-202.1(h)(4)(iv))	\$10,268.10	1.04%
Review of Stormwater Management Plans and Permit Applications for New Development	\$0.00	0.00%
Grants to Nonprofit Organizations	\$0.00	0.00%
Adminstration of WPRF	\$896,814.32	90.54%
TOTAL	\$990,535.86	100.00%
Number of Properties Subject to Fee	0	
Reporting Year	2015	
Permit Number	11-DP-3319	
Comments:		

Jurisdiction	Agency	Local Ordinance Submitted to MDE	MDE Approval of Fee Reduction Policy	Fee Reduction Amount

Use: Yes or No Use the approval date or N/A Reduction amount(s), if any, with reason for reduction(s)

Directions:

Notes:

ERU = Equivalent residential unit

NOT APPLICABLE TO CARROLL COUNTY

Rate Structures							
Annual Single Family Residential Rate	Annual Commercial Rate	Equivalent Residential Unit (ERU) impervious	Commercial Capped Rates	Non-profits, Religious Organizations	Exemptions	Federal Facilities Status	Federal Facility Fee(s)/Rate(s)
	Use: N/A, amount of flate rate, rate amount per ERU, etc.				General description of exemption(s), if any	Use: No Facilities, Exempt, or Charged	Use: N/A or the fee and rate structures for federal facilities

Additional Sources of Funds			Estimated Annual Revenue
Additional Source 1	Additional Source 2	Additional Source 3	

Notes

Article 4-202.1(i)(3): "The amount of money deposited into the watershed protection and restoration fund in the previous fiscal year by source;"

Source	Amount
Dedicated Property Tax	\$1,066,890
	\$1,066,890

All SWM Projects Implemented in Previous FY for the 20% Restoration Requirement

REST BMP ID	REST BMP TYPE	BMP CLASS	NUM BMP	IMP ACRES	BUILT DATE	IMPL COST	IMPL STATUS	IMPL COMP YR
CR14RST000003	PWED	S	1	19.92	11/24/2014	\$514,216.00	Complete	2015
CR14RST000002	FSND	S	1	19.51	9/24/2014	\$305,143.00	Complete	2015
CR14RST000004	FSND	S	1	44.75	11/25/2014	\$923,913.00	Complete	2015
CR15RST000001	FPU	A		0.57	5/19/2015	\$21,700.00	Complete	2015
CR14RST000001	FPU	A		1.14	8/29/2015	\$26,894.00	Complete	2015
TBD	SEPP	A		222.3			Annual	2015
				308.19		\$1,791,866.00		

Charles County

Watershed Protection and Restoration Program Annual Report - TABLE 1

Article 4-202.1(i)(4): "The percentage and amount of funds in the local watershed protection and restoration fund spent on each of the purposes provided in subsection (h)(4) of this section;"

Program Element	Cost	Percent of WPRF	Categories from WPRF budget
Capital Improvements for Stormwater Management	\$568,957.00	30.54%	Debt
O & M of SWM Systems and Facilities	\$414,198.00	22.23%	Facilities & Road Maintenance
Public Education and Outreach	\$41,914.12	2.25%	Planning education & outreach line item & staff time (CR 5%, EH 10%, KW 5%)
Stormwater Management Planning (see Md. Environment Code Ann. § 4-202.1(h)(4)(iv))	\$787,932.02	42.29%	Legal, RIM, Inspections & Enf., Codes & Permits, Planning minus education & grant line items & staff time.
Review of Stormwater Management Plans and Permit Applications for New Development	0	0.00%	(N/A - these costs are in the Inspection & Review Fund)
Grants to Nonprofit Organizations	\$38,650.85	2.07%	Planning grant line item & staff time (CR 5%, EH 10%, KW 5%)
Adminstration of WPRF	\$11,600.00	0.62%	FAS costs
TOTAL	\$1,863,252.00	100.00%	
Number of Properties Subject to Fee	49,742		
Reporting Year	Fiscal Year 2015		
Permit Number	11-DP-3322		
Comments:			

Watershed Protection and Restoration Program Annual Report - TABLE 2

Juris	Agency	Local Ordinance Submitted to MDE	MDE Approval of Fee Reduction Policy	Fee Reduction Amount	Rate Structures for Fiscal Year 2015								Additional Sources of Funds		Estimated Annual Revenue
					Annual Single Family Residential Rate	Annual Commercial Rate	Equivalent Residential Unit (ERU) Impervious	Commercial Capped Rates	Non-profits, Religious Organizations	Exemptions	Federal Facilities Status	Federal Facility Fee(s)/Rate(s)	Additional Source 1	Additional Source 2	
Charles County	Charles County Gov	Yes	4/2/2014	50% reduction of fee for properties that meet or exceed the 2000 MD Stormwater Design Manual; or covered by an approved Soil Conservation & Water Quality Plan or Forest Management Plan.	\$43	\$43	N/A	N/A	\$43	Exempt properties are: owned by federal, state, county or municipal government; within a municipality if has a stormwater fee; owned by a disabled veteran; with no impervious surface; subject to an industrial stormwater permit; or owned by person(s) demonstrating financial hardship.	Exempt	N/A	Lot Recordation Fee: \$127 per new lot recorded in the Development District.	Miscellaneous: includes interest and stormwater facility maintenance fees.	\$2,192,500.00

Watershed Protection and Restoration Program Annual Report - TABLE 3

Article 4-202.1(i)(3): "The amount of money deposited into the watershed protection and restoration fund in the previous fiscal year by source;"

Fiscal Year 2015	
Source	Amount
Stormwater Remediation Fees Collected	\$ 2,124,017.00
Additional Source 1 - Lot Recordation Fees	\$ 61,323.00
Additional Source 2 - Miscellaneous	\$ 7,186.00
	\$ 2,192,526.00

Watershed Protection and Restoration Program Annual Report - TABLE 4

All stormwater projects implemented in Fiscal Year 2015 to meet the impervious surface restoration plan.

REST BMP ID	REST BMP TYPE ¹	BMP CLASS ²	NUM BMP	IMP ACRES ³	BUILT DATE	IMPL COST ⁴	IMPL STATUS	IMPL COMP YR
Mechanical Street Sweeping	MSS	A	1	80	6/30/2015	\$48,750	Complete	2015
Storm Drain Vacuuming	SDV	A	468	14.44	6/30/2015	\$72,182	Complete	2015
Septic Pump-Out	SEPP	A	821	24.63	6/30/2015	\$98,755	Complete	2015
CC15RST000010	MRNG	E	1	0.156	8/30/2014	\$42,000.00	Complete	2015
CC15RST000011	WPWS	S	1	8	9/30/2014	\$318,300.00	Complete	2015
CC15RST000012	SPSC	S	1	9.51	10/31/2014	\$1,091,710.00	Complete	2015

Totals 1,293 136.74 \$1,671,697.00

¹ See attached list of Restoration BMP Type Codes.

² BMP CLASSES are: A - Alternative BMP, E - Environmental Site Design, or S - Structural BMP.

³ IMP ACRES per MDE guide "Accounting for Stormwater Wasteload Allocations & Imp Acres Treated, Guidance for NPDES Stormwater Permits" (Aug 2014).

⁴ When multiple capital projects under one budget, multiply total cost by percent acres treated for each project.

Frederick County

Watershed Protection and Restoration Program Annual Report Table

Article 4-202.1(i)(4): "The percentage and amount of funds in the local watershed protection and restoration fund spent on each of the purposes provided in subsection (h)(4) of this section;"

Program Element	Cost	Percent of WPRF
Capital Improvements for Stormwater Management	\$0.00	0.00%
O & M of SWM Systems and Facilities	\$0.00	0.00%
Public Education and Outreach	\$0.00	0.00%
Stormwater Management Planning (see Md. Environment Code Ann. § 4-202.1(h)(4)(iv))	\$0.00	0.00%
Review of Stormwater Management Plans and Permit Applications for New Development	\$0.00	0.00%
Grants to Nonprofit Organizations	\$0.00	0.00%
Adminstration of WPRF	\$0.00	0.00%
TOTAL	\$0.00	0.00%
Number of Properties Subject to Fee	49,394	
Reporting Year	2015	
Permit Number	11-DP-3321 MD0068357	
Comments:		

Jurisdiction	Agency	Local Ordinance Submitted to MDE	MDE Approval of Fee Reduction Policy	Fee Reduction Amount
Frederick County	Planning and Permitting Division, Office of Sustainability and Environmental Resources	Yes	3/26/2015	30% or 60% for homeowners based on documented practices

Use: Yes or No Use the approval date or N/A Reduction amount(s), if any, with reason for reduction(s)

Directions:

Notes:

ERU = Equivalent residential unit

Rate Structures							
Annual Single Family Residential Rate	Annual Commercial Rate	Equivalent Residential Unit (ERU) impervious	Commercial Capped Rates	Non-profits, Religious Organizations	Exemptions	Federal Facilities Status	Federal Facility Fee(s)/Rate(s)
\$0.01	0.01	NA	NA	NA	NA	Charged	NA
Use: N/A, amount of flate rate, rate amount per ERU, etc.					General description of exemption(s), if any	Use: No Facilities, Exempt, or Charged	Use: N/A or the fee and rate structures for federal facilities

Additional Sources of Funds			Estimated Annual Revenue
Additional Source 1	Additional Source 2	Additional Source 3	
NA	NA	NA	\$445.00

Notes

Article 4-202.1(i)(3): "The amount of money deposited into the watershed protection and restoration fund in the previous fiscal year by source;"

Source	Amount
Annual Single Family Residential Fees Collected	\$ 444.58
Annual Commercial Fees Collected	\$ 47.31
Non-profits, Religious Orgs Fees Collected	\$ 1.97
Unnamed Additional Source 1	\$ -
	\$ 493.86

All SWM Projects Implemented in Previous FY for the 20% Restoration Requirement

REST BMP ID	REST BMP TYPE	BMP CLASS	NUM BMP	IMP ACRES	BUILT DATE	IMPL COST	IMPL STATUS	IMPL COMP YEAR
Operation Programs								
Street Sweeping	MSS	A	1	0	12/29/2014	\$184,764	COMPLETE	2014
Inlet Cleaning	CBC	A	1	0	12/29/2014	\$368,886	COMPLETE	2014
Average Operations Complete To Date*			1	0		\$553,650		
Capital Projects								
Urbana High School Retrofit	BIO	ST	1	2.83	10/1/2007	\$249,069	COMPLETE	2007
Ballenger Creek Stream Rest	STRE	A	1	6.05	5/1/2007	\$406,986	COMPLETE	2007
Pinecliff Park Stream Rest	STRE	A	1	10	11/12/2010	\$427,658	COMPLETE	2010
Public Safety Training Facility	WP	A	1	15	1/1/2010	\$989,970	COMPLETE	2010
Citizens Care and Rehab	WP	ST	1	25.16	1/1/2012	\$1,660,509	COMPLETE	2012
Englandtowne Stream Rest	STRE	A	1	7.3	12/1/2014	\$633,254	COMPLETE	2014
Subtotal Capital Complete To Date			6	66.34		\$4,367,446		
Other								
Septic Denitrification (BRF)	SEPD	A	184	47.84	12/29/2014	\$2,539,200.00	COMPLETE	2014
Septic Connections to WWTP	SEPC	A	7	2.73	12/29/2014	\$350,000.00	COMPLETE	2014
Brunswick High School	FPU	A	1	0.37	4/6/2010	\$12,210.00	COMPLETE	2010
Catoctin Mountain Park	PP	A	1	0.1	11/12/2012	\$23,958.00	COMPLETE	2012
Catoctin Mountain Park	FPU	A	1	2.15	4/1/2010	\$70,950.00	COMPLETE	2010
Catoctin Mountain Park	GMB	ESD	1	0	4/1/2010	\$0.00	COMPLETE	2010
Cloverhill	FPU	A	1	0.51	5/1/2007	\$16,830.00	COMPLETE	2007
Cooperative Extension Building	FPU	A	1	0	8/1/2005	\$0.00	COMPLETE	2005
Myersville Elementary School	FPU	A	1	0	4/1/2006	\$0.00	COMPLETE	2006
New Forest Society Nursery	FPU	A	1	0	4/16/2007	\$0.00	COMPLETE	2007
New Market Middle School	FPU	A	1	1.22	5/1/2006	\$40,260.00	COMPLETE	2006
Oakdale Elementary School	FPU	A	1	0	4/22/2009	\$0.00	COMPLETE	2009
Old National Pike Park	FPU	A	1	1.83	4/1/2011	\$60,390.00	COMPLETE	2011

Orchard Grove Elementary School	FPU	A	1	0.32	5/15/2013	\$10,560.00	COMPLETE	2013
Parkway Elementary School	FPU	A	1	0	9/1/2012	\$0.00	COMPLETE	2012
Pinecliff Park	FPU	A	1	0.79	8/1/2012	\$26,070.00	COMPLETE	2012
Rivermist Park	FPU	A	1	0	7/1/2011	\$0.00	COMPLETE	2011
Spring Ridge Elementary School	FPU	A	1	1.05	4/1/2013	\$34,650.00	COMPLETE	2013
St. Peter the Apostle Church	FPU	A	1	0.2	10/31/2006	\$6,600.00	COMPLETE	2006
Thurmont Middle School	FPU	A	1	0	5/1/2004	\$0.00	COMPLETE	2004
Tuscarora Elementary School	FPU	A	1	0	11/1/2007	\$0.00	COMPLETE	2007
Urbana Community Park	FPU	A	1	0.9	4/27/2009	\$29,700.00	COMPLETE	2009
Urbana Elementary School	FPU	A	1	0.13	8/30/2011	\$4,290.00	COMPLETE	2011
Urbana High School	FPU	A	1	0	11/1/2007	\$0.00	COMPLETE	2007
Urbana Middle School	FPU	A	1	0.46	5/31/2008	\$15,180.00	COMPLETE	2008
Cunningham Fall State Park	FPU	A	1	0	4/29/2010	\$0.00	COMPLETE	2010
Deer Crossing Elementary School	FPU	A	1	1.09	5/20/2007	\$35,970.00	COMPLETE	2007
Emmitsburg Elementary School	FPU	A	1	0	5/1/2009	\$0.00	COMPLETE	2009
Fred Archibald Sanctuary	FPU	A	1	2.58	4/1/2007	\$85,140.00	COMPLETE	2007
GTJ Middle School	FPU	A	1	0	5/1/2010	\$0.00	COMPLETE	2010
Holly Hills Country Club	FPU	A	1	5.79	10/10/2007	\$191,070.00	COMPLETE	2007
Holly Hills HOA	FPU	A	1	0.44	10/10/2007	\$14,520.00	COMPLETE	2007
Kempton Elementary School	FPU	A	1	0	1/1/2009	\$0.00	COMPLETE	2009
Liberty Village	FPU	A	1	0.7	5/15/2008	\$23,100.00	COMPLETE	2008
Libertytown Park	FPU	A	1	1.56	4/1/2007	\$51,480.00	COMPLETE	2007
Middletown High School	FPU	A	1	0.16	4/7/2009	\$5,280.00	COMPLETE	2009
Monocacy Elementary School	FPU	A	1	0.04	1/1/2007	\$1,320.00	COMPLETE	2007
Monocacy National Battlefield	FPU	A	1	4.95	11/26/2012	\$163,350.00	COMPLETE	2012
Mountain Village HOA	FPU	A	1	1.22	11/1/2007	\$40,260.00	COMPLETE	2007
Mt. Airy East West Park	FPU	A	1	1.43	3/31/2007	\$47,190.00	COMPLETE	2007
Mt. Airy Village Gate Park	FPU	A	1	1	4/12/2008	\$33,000.00	COMPLETE	2008
Mt. Airy Windy Ridge Park	FPU	A	1	0	10/31/2008	\$0.00	COMPLETE	2008
Mt. Saint Mary's Run	FPU	A	1	0	4/1/2007	\$0.00	COMPLETE	2007

Valley Elementary School	FPU	A	1	0.79	4/1/2008	\$26,070.00	COMPLETE	2008
Walkersville Community Park	FPU	A	1	0	4/1/2007	\$0.00	COMPLETE	2007
Walkersville High and Elem	FPU	A	1	0	10/22/2007	\$0.00	COMPLETE	2007
Waterford Park	FPU	A	1	0	4/1/2006	\$0.00	COMPLETE	2006
West Frederick Middle	FPU	A	1	0	9/1/2010	\$0.00	COMPLETE	2010
Windsor Knolls Elementary	FPU	A	1	4.7	5/1/2010	\$155,100.00	COMPLETE	2010
Wolfsville Elementary	FPU	A	1	0.41	4/1/2007	\$13,530.00	COMPLETE	2007
Woodsboro Community Park	FPU	A	1	0	3/30/2012	\$0.00	COMPLETE	2012
Woodsboro Elementary School	FPU	A	1	0	5/15/2012	\$0.00	COMPLETE	2012
Worthington Manor Golf Course	FPU	A	1	0	7/1/2010	\$0.00	COMPLETE	2010
Utica Park	FPU	A	1	0.29	4/26/2007	\$9,570.00	COMPLETE	2007
Crestwood Middle School	FPU	A	1	0.79	4/1/2013	\$26,070.00	COMPLETE	2013
Ballenger Creek Elementary School	FPU	A	1	0.58	11/1/2007	\$19,140.00	COMPLETE	2007
Windsor Knolls Middle School	FPU	A	2	4.56	12/1/2011	\$150,480.00	COMPLETE	2011
Urbana Community Park	ESDSW	RR	1	0.26	12/1/2013	\$11,440.00	COMPLETE	2013
Cooperative Extension Building	ESDRG	RR	1	0.25	12/1/2013	\$750	COMPLETE	2013
Septic Pumping	SEPP	A	0	0	12/29/2014	NA	COMPLETE	2014
Urbana Elementary School	ESDSW	RR	1	0.004	12/1/2010	\$176	COMPLETE	2010
Subtotal Other Complete To Date			250	94		\$4,344,854		
Total Complete to Date			257	160.5		\$9,265,950		

Harford County

Watershed Protection and Restoration Program Annual Report Table

Article 4-202.1(i)(4): "The percentage and amount of funds in the local watershed protection and restoration fund spent on each of the purposes provided in subsection (h)(4) of this section;"

Program Element	Cost	Percent of WPRF
Capital Improvements for Stormwater Management	\$4,074,596	84%
O & M of SWM Systems and Facilities	\$35,025	1%
Public Education and Outreach	\$0	0%
Stormwater Management Planning (see Md. Environment Code Ann. § 4-202.1(h)(4)(iv))	\$713,781	15%
Review of Stormwater Management Plans and Permit Applications for New Development	\$0	0%
Grants to Nonprofit Organizations	\$0	0%
Adminstration of WPRF	\$0	0%
TOTAL	\$4,823,402	100%
Number of Properties Subject to Fee	-	
Reporting Year	2016	
Permit Number	11-DP-3310	
Comments:		

Jurisdiction	Agency	Local Ordinance Submitted to MDE	MDE Approval of Fee Reduction Policy	Fee Reduction Amount

Use: Yes or No Use the approval date or N/A Reduction amount(s), if any, with reason for reduction(s)

Directions:

Notes:

ERU = Equivalent residential unit

Rate Structures							
Annual Single Family Residential Rate	Annual Commercial Rate	Equivalent Residential Unit (ERU) impervious	Commercial Capped Rates	Non-profits, Religious Organizations	Exemptions	Federal Facilities Status	Federal Facility Fee(s)/Rate(s)
	Use: N/A, amount of flate rate, rate amount per ERU, etc.				General description of exemption(s), if any	Use: No Facilities, Exempt, or Charged	Use: N/A or the fee and rate structures for federal facilities

Additional Sources of Funds			Estimated Annual Revenue
Additional Source 1	Additional Source 2	Additional Source 3	

Notes

Article 4-202.1(i)(3): "The amount of money deposited into the watershed protection and restoration fund in the previous fiscal year by source;"

Source	Amount
Annual Single Family Residential Fees Collected	\$ -
Annual Commercial Fees Collected	\$ -
Non-profits, Religious Orgs Fees Collected	\$ -
Unnamed Additional Source 1	\$ -
	\$ -

All SWM Projects Implemented in Previous FY for the 20% Restoration Requirement

REST BMP ID	REST BMP TYPE	BMP CLASS	NUM BMP	IMP ACRES	BUILT DATE	IMPL COST	IMPL STATUS	IMPL COMP YR	
CIP0046	FBIO / MSGW	S	3	0.5		\$33,966	Design	2017	Leight Center
CIP0014	STRE	A	1	8		\$199,745	Design	2017	Heavenly Pond
CIP0029	STRE	A	1	30		\$28,292	Design	2018	St Andrews Church Creek ES
CIP0034	WPWS / STRE	S / A	4	24		\$348,180	Design	2019	Abingdon Library Design / Build
CIP0070	FBIO / MSGW / FPU	S	3	3.3		\$213,883	Design	2017	Foster Branch at Dembytown
CIP0036	STRE	A	1	19.4		\$54,181	Design	2017	Ring Factory
CIP0035	WPWS / STRE	S / A	3	18.6		\$188,500	Design	2017	Plumtree NW
CIP0039	WPWS / STRE	S / A	3	30		\$136,493	Design	2018	Declaration Run
CIP0043	WPWS / STRE	S / A	3	19.4		\$271,252	Design	2018	Willoughby Beach
CIP0033	WPWS / STRE	S / A	4	42.1		\$164,977	Design	2018	Lower Wheel Phase 1
CIP0027	WPWS / STRE	S / A	5	28	Jun-16	\$687,537	Constructed	2016	Lower Wheel Phase 2
CIP0027	STRE	S	1	38		\$1,098,541	Under construction	2017	CW 1A
CIP0024	WPWS	S	2	9.82	Jun-16	\$492,313	Constructed	2016	
				271.1		\$3,917,860.00			

Howard County

Watershed Protection and Restoration Program Annual Report Table

Article 4-202.1(i)(4): "The percentage and amount of funds in the local watershed protection and restoration fund spent on each of the purposes provided in subsection (h)(4) of this section;"

Program Element	Cost	Percent of WPRF
Capital Improvements for Stormwater Management - Expended	\$ 3,217,826	28.97%
Capital Improvements for Stormwater Management - Encumbered	\$ 3,230,049	29.08%
O & M of SWM Systems and Facilities	\$ 1,617,670	14.57%
Public Education and Outreach	\$ 473,597	4.26%
Stormwater Management Planning (see Md. Environment Code Ann. § 4-202.1(h)(4)(iv))	\$ -	-
Review of Stormwater Management Plans and Permit Applications for New Development	\$ 68,363	0.62%
Grants to Nonprofit Organizations	\$ 152,125	1.37%
Adminstration of WPRF	\$ 682,924	6.15%
Fund Balance	\$ 1,663,133	14.98%
TOTAL	\$ 11,105,687	100.00%
Number of Properties Subject to Fee	93,163	
Reporting Year	FY 2015	
Permit Number	11-DP-3318	

Jurisdiction	Agency	Local Ordinance Submitted to MDE	MDE Approval of Fee Reduction Policy	Fee Reduction Amount
Howard County	Department of Public Works, Office of Community Sustainability	Yes	N/A	N/A

Directions:

Use: Yes or No Use the approval date or N/A Reduction amount(s), if any, with reason for reduction(s)

Rate Structures							
Annual Single Family Residential Rate	Annual Commercial Rate	Equivalent Residential Unit (ERU) impervious	Commercial Capped Rates	Non-profits, Religious Organizations	Exemptions	Federal Facilities Status	Federal Facility Fee(s)/Rate(s)
\$15, \$45, \$90 based on lot size	\$15 per 500 sf impervious	NA	Capped at 15% of all State and local property taxes, decreasing to 5% cap in 3 years	100% credit if in the Nonprofit Partnership, otherwise charged at the commercial rate	Financial Hardship	Not Exempt	subject to the commercial rate and the commercial tax cap. Since most don't pay taxes, most don't have a fee.
Use: N/A, amount of flate rate, rate amount per ERU, etc.					General description of exemption(s), if any	Use: No Facilities, Exempt, or Charged	Use: N/A or the fee and rate structures for federal facilities

Additional Sources of Funds			Estimated Annual Revenue
Additional Source 1	Additional Source 2	Additional Source 3	
			\$11,105,687.00

Notes

Article 4-202.1(i)(3): "The amount of money deposited into the watershed protection and restoration fund in the previous fiscal year by source;"

Source	Amount
Annual Single Family Residential Fees Collected	\$ 4,900,323.00
Annual Commercial Fees Collected	\$ 5,695,176.00
Non-profits, Religious Orgs Fees Collected	\$ 155,175.00
Ag Property Fee Collected	\$ 167,117.00
Apartment	\$ 260,220.00
Credits Granted	\$ (72,324.00)
	\$ 11,105,687.00

All SWM Projects Implemented in Previous FY for the 20% Restoration Requirement

**Baseline: 10,2
22**

Requirement: 20%

REST BMP ID	REST BMP TYPE	BM P CLASS	NUM BMP	IMP ACRES	BUILT DATE	IMPL COST	% ISRP Complete	IMPL STATUS	IMPL COMP YR	GEN COMMENTS
Operation Programs										
Source ID			0	0	2015	\$ 89,000	0.0%	Complete	2015	
SW Management			0	0	2015	\$ 2,665,000	0.0%	Complete	2015	
IDDE		A	0	0	2015	\$ 67,000	0.0%	Complete	2015	
Inlet Cleaning		A	0	0	2015	\$ 10,000	0.0%	Complete	2015	not performed at the frequency required to qualify for credit
Street Sweeping		A	0	0	2015	\$ 400,000	0.0%	Complete	2015	not performed at the frequency required to qualify for credit
Public Education			0	0	2015	\$ 443,000	0.0%	Complete	2015	
Watershed Assessment			0	0	2015	\$ 1,572,000	0.0%	Complete	2015	
TMDL Assessment Monitoring			0	0	2015	\$ 318,000	0.0%	Complete	2015	
Chemical Monitoring			0	0	2015	\$ 44,000	0.0%	Complete	2015	
Biomonitoring			0	0	2015	\$ 96,000	0.0%	Complete	2015	
Physical Stream Assessment			0	0	2015	\$ 28,000	0.0%	Complete	2015	
Design Manual			0	0	2015	\$ 53,000	0.0%	Complete	2015	

Monitoring										
Subtotal Operations Complete To Date*			0	0		\$5,785,000	0.0%			
Capital Projects										
HO210004	FBIO	S	1	0.09	9/4/2014	\$446,772	0.0%	Complete	2015	D-1164 Savage Library Water Quality Enhancements
HO210010	MENF	E	1	0.18	9/4/2014	\$446,772	0.0%	Complete	2015	D-1164 Savage Library Water Quality Enhancements
HO210011	APRP	E	1	0.66	9/4/2014	\$446,772	0.0%	Complete	2015	D-1164 Savage Library Water Quality Enhancements
HO220037	MSWB	E	1	0.27	9/30/2014	\$70,213	0.0%	Complete	2015	D-1160 Stevens Forest Elementary School - Bioswale
HO220038	MMBR	E	1	0.23	9/30/2014	\$70,213	0.0%	Complete	2015	D-1160 Stevens Forest Elementary School - MB-1
HO220039	MMBR	E	1	0.13	9/30/2014	\$70,213	0.0%	Complete	2015	D-1160 Stevens Forest Elementary School - MB-2A
HO220040	MMBR	E	1	0.09	9/30/2014	\$70,213	0.0%	Complete	2015	D-1160 Stevens Forest Elementary School - MB-2B
HO210016	XDED	S	1	0.00	11/18/2014	\$367,499	0.0%	Complete	2015	D-1159 Old Mill Road Pond Repair
HO240006	FPU	A	1	0.74	1/1/2015	\$22,212	0.0%	Complete	2015	D-1160 SBO Folly Quarter MS
HO240008	FPU	A	1	0.22	1/1/2015	\$7,491	0.0%	Complete	2015	D-1160 SBO Waterloo MS
HO240009	FPU	A	1	2.83	1/1/2015	\$86,101	0.0%	Complete	2015	D-1160 SBO Glenwood MS, Bushy Park ES
HO240010	FPU	A	1	0.70	1/1/2015	\$25,081	0.0%	Complete	2015	D-1160 SBO Dunloggin MS, Northfield ES
HO240011	FPU	A	1	1.21	1/1/2015	\$35,941	0.0%	Complete	2015	D-1160 SBO BOE
HO240012	FPU	A	1	0.85	1/1/2015	\$25,563	0.0%	Complete	2015	D-1160 SBO Harpers Choice MS
HO240013	FPU	A	1	0.85	1/1/2015	\$27,434	0.0%	Complete	2015	D-1160 SBO Lisbon ES

HO24001 4	FPU	A	1	0.46	1/1/201 5	\$16,928	0.0%	Complete	2015	D-1160 SBO Patapsco MS
HO32003 4	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32003 5	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32003 6	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32003 7	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32003 8	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32003 9	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32004 0	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32004 1	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32004 2	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32004 3	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32004 4	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32004 5	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32004 6	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32004 7	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32004 8	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32004 9	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32005 0	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32005 1	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32005 2	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32005 3	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32005 4	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32005 5	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32005 6	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32005 7	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32005 8	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15

HO32005 9	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32006 0	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32006 1	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32006 2	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32006 3	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32006 4	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32006 5	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32006 6	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32006 7	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32006 8	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32006 9	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32007 0	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32007 1	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32007 2	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32007 3	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32007 4	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32007 5	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32007 6	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32007 7	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32007 8	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32007 9	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32008 0	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32008 1	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32008 2	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO32008 3	MRN G	E	1	0.15	1/1/201 5	\$5,202	0.0%	Complete	2015	READY FY15
HO21002 9	SPSC	A	1	3.06	4/20/20 15	\$302,28 5	0.0%	Complete	2015	D-1159 Towering Oak Path Pond

										Repair
HO230006	STRE	A	1	10.54	5/1/2015	\$520,762.84	0.1%	Complete	2015	D-1158 Pinehurst Court Stream Restoration
HO220007	WSHW	S	1	1.57	6/1/2015	\$520,762.84	0.0%	Complete	2015	D-1158 Pinehurst Court Shallow Wetland Marsh
HO210030	XDPD	S	1	0.00	6/3/2015	\$538,438	0.0%	Complete	2015	D-1159 Glenshire Town Pond Repair
HO220001	SPSC	A	1	3.63	6/30/2015	\$1,522,008	0.0%	Complete	2015	D-1159/1160 Dorsey Hall Outfall and Stream Restoration
Subtotal Capital Complete To Date			71	35.81		\$5,899,789	0.35%			
Other										
HO310062	MRNG	E	1	0.15	7/2/2014	\$0	0.0%	Complete	2015	Volunteer - Smart Tool Sites
HO310061	MRNG	E	1	0.15	7/3/2014	\$0	0.0%	Complete	2015	Volunteer - Smart Tool Sites
HO310090	MRNG	E	1	0.15	7/9/2014	\$0	0.0%	Complete	2015	Volunteer - Smart Tool Sites
HO310083	MRNG	E	1	0.15	8/12/2014	\$0	0.0%	Complete	2015	Volunteer - Smart Tool Sites
HO310072	MRNG	E	1	0.15	10/2/2014	\$0	0.0%	Complete	2015	Volunteer - Smart Tool Sites
HO310086	MRNG	E	1	0.15	10/10/2014	\$0	0.0%	Complete	2015	Volunteer - Smart Tool Sites
HO310071	MRNG	E	1	0.15	10/15/2014	\$0	0.0%	Complete	2015	Volunteer - Smart Tool Sites
HO310081	MRNG	E	1	0.15	10/15/2014	\$0	0.0%	Complete	2015	Volunteer - Smart Tool Sites
HO310085	MRNG	E	1	0.15	10/29/2014	\$0	0.0%	Complete	2015	Volunteer - Smart Tool Sites
HO310082	MRNG	E	1	0.15	10/31/2014	\$0	0.0%	Complete	2015	Volunteer - Smart Tool Sites
HO310058	MRNG	E	1	0.15	11/5/2014	\$0	0.0%	Complete	2015	Volunteer - Smart Tool Sites
HO310066	MRNG	E	1	0.15	11/14/2014	\$0	0.0%	Complete	2015	Volunteer - Smart Tool Sites
HO310091	MRNG	E	1	0.15	11/14/2014	\$0	0.0%	Complete	2015	Volunteer - Smart Tool Sites
HO310067	MRNG	E	1	0.15	11/25/2014	\$0	0.0%	Complete	2015	Volunteer - Smart Tool Sites
HO330009	MSWG	E	1	0.34	1/1/2015	\$0	0.0%	Complete	2015	CA Project
HO340956	FPU	A	1	0.38	1/20/2015	\$0	0.0%	Complete	2015	DRP Project
HO34242	FPU	A	1	0.85	1/20/2015	\$0	0.0%	Complete	2015	DRP Project

4					15					
HO34273 5	FPU	A	1	0.42	1/20/20 15	\$0	0.0%	Complete	2015	DRP Project
HO34278 7	FPU	A	1	2.29	1/20/20 15	\$0	0.0%	Complete	2015	DRP Project
HO34304 4	FPU	A	1	1.50	1/20/20 15	\$0	0.0%	Complete	2015	DRP Project
HO34307 5	FPU	A	1	0.38	1/20/20 15	\$0	0.0%	Complete	2015	DRP Project
HO34307 7	FPU	A	1	2.97	1/20/20 15	\$0	0.0%	Complete	2015	DRP Project
HO31006 5	MRN G	E	1	0.15	2/5/201 5	\$0	0.0%	Complete	2015	Volunteer - Smart Tool Sites
HO34140 8	FPU	A	1	0.69	4/13/20 15	\$0	0.0%	Complete	2015	DRP Project
HO31008 7	MRN G	E	1	0.15	4/16/20 15	\$0	0.0%	Complete	2015	Volunteer - Smart Tool Sites
HO31007 7	MRN G	E	1	0.15	4/22/20 15	\$0	0.0%	Complete	2015	Volunteer - Smart Tool Sites
HO31008 0	MRN G	E	1	0.15	4/22/20 15	\$0	0.0%	Complete	2015	Volunteer - Smart Tool Sites
HO31005 4	MRN G	E	1	0.15	4/23/20 15	\$0	0.0%	Complete	2015	Volunteer - Smart Tool Sites
HO31007 3	MRN G	E	1	0.15	4/23/20 15	\$0	0.0%	Complete	2015	Volunteer - Smart Tool Sites
HO31007 5	MRN G	E	1	0.15	4/28/20 15	\$0	0.0%	Complete	2015	Volunteer - Smart Tool Sites
HO31007 9	MRN G	E	1	0.15	5/7/201 5	\$0	0.0%	Complete	2015	Volunteer - Smart Tool Sites
HO31006 3	MRN G	E	1	0.15	5/13/20 15	\$0	0.0%	Complete	2015	Volunteer - Smart Tool Sites
HO31008 9	MRN G	E	1	0.15	5/18/20 15	\$0	0.0%	Complete	2015	Volunteer - Smart Tool Sites
HO31007 4	MRN G	E	1	0.15	6/10/20 15	\$0	0.0%	Complete	2015	Volunteer - Smart Tool Sites
HO34123 7	FPU	A	1	2.20	6/16/20 15	\$0	0.0%	Complete	2015	DRP Project
HO31007 8	MRN G	E	1	0.15	6/18/20 15	\$0	0.0%	Complete	2015	Volunteer - Smart Tool Sites
HO31006 4	MRN G	E	1	0.15	6/23/20 15	\$0	0.0%	Complete	2015	Volunteer - Smart Tool Sites
HO34311 6	FPU	A	1	0.72	6/25/20 15	\$0	0.0%	Complete	2015	DRP Project
HO34311 7	FPU	A	1	0.48	6/25/20 15	\$0	0.0%	Complete	2015	DRP Project
HO34311 8	FPU	A	1	2.64	6/25/20 15	\$0	0.0%	Complete	2015	DRP Project
HO34311 9	FPU	A	1	1.03	6/25/20 15	\$0	0.0%	Complete	2015	DRP Project
HO31005 5	MRN G	E	1	0.15	6/25/20 15	\$0	0.0%	Complete	2015	Volunteer - Smart Tool Sites

Rain Barrels	MR WH	E	171	0.26	6/30/2015	\$0	0.0%	Complete	2015	Rain Barrels
Septic Upgrades	SEPD	A	128	33.28	6/30/2015	\$0	0.3%	Complete	2015	Septic Upgrades
Subtotal Other Complete To Date			341	55		\$0	0.5%			
Total Complete to Date			412	90.4		\$11,684,789	0.9%			

Notes:

Baseline, Requirement, % ISRP Complete, General Comments, Subtotals and Totals added for consistency with the Final Howard County FAP 2016.

Prince George's County



Prince George's County, Maryland

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Date: June 30, 2016



WPRP 2015 Annual Report	
Jurisdiction	Prince George's County, Maryland
Contact Name	Jerry Maldonado
Phone	(301) 883-5943
Address	1801 McCormick Dr.
City	Landover
State	Maryland
Zip	20774
Email	jgmaldonado@co.pg.md.us
Baseline Acres	30,524
Permit Num	11-DP-3314
Reporting Year	1-Jul-15



Prince George's County, Maryland
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Watershed Protection and Restoration Program 2015 Annual Report

Article 4-202.1(i)(4): "The percentage and amount of funds in the local watershed protection and restoration fund spent on each of the purposes provided in subsection (h)(4) of this section;"

Program Element (Restoration)	Cost	Percent of WPRF
Capital Improvements for Stormwater Management	\$3,062,000.00	1.06%
Public Education and Outreach	\$468,000.00	0.16%
Stormwater Management Planning (see Md. Environment Code Ann. § 4-202.1(h)(4)(iv))	\$1,466,400.00	0.51%
Review of Stormwater Management Plans and Permit Applications for New Development	\$7,600,800.00	2.64%
Grants to Nonprofit Organizations	\$1,050,000.00	0.37%
Administration of WPRF	\$720,000.00	0.25%
Total (restoration)	\$14,367,200.00	5.00%
Property Management Total (non restoration costs)	\$20,402,000.00	
Number of Properties Subject to Fee	260,553	
Reporting Year	2015	
Permit Number	11-DP-3314	
Total Restoration Costs Permit Term (Jan1, 2019)	\$287,603,535	



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Jurisdiction	Agency	Local Ordinance Submitted to MDE	MDE Approval of Fee Reduction Policy	Fee Reduction Amount	Rate Structures							Additional Sources of Funds					Estimated Annual Revenue		
					Annual Single Family Residential Rate Tier 1	Annual Single Family Residential Rate Tier 2	Annual Single Family Residential Rate Tier 3	Annual Commercial Rate/ ESU* (Administrative Fee = \$20.58 and Impact Fee \$20.90)	Equivalent Service Unit (ESU) Impervious (in square feet)	Commercial Not Capped; Impact Fee is applied per ESU rate*	Non-profits, Religious Organizations/ ESU*	Exemptions**	Federal Facilities Status	Federal Facility Fee(s)/rate(s)	Additional Source 1 (DNR Grants)	Additional Source 2 (Clean Water Act Fees)		Additional Source 3 (State Revolving Loans and Bonds)	Additional Source 4 (State Enterprise Fund)
Prince George's County	Department of the Environment	Yes	6-Jul-2014	See DoE	\$33.12	\$41.48	\$62.38	41.48	2,465	41.48	41.48	Please see list**	Exempt	N/A	\$8,433,300	\$14,669,146	\$0.00	\$42,118,675	\$65,221,120.00
		Use: Yes or No	Use the approval date or N/A	Reduction amount(s), if any, with reason for reduction(s)				Use N/A, amount of rate rate, rate amount per ESU, etc.				General description of exemption(s), if any	Use: No Facilities, Exempt, or Charged	Use: N/A or the fee and rate structures for federal facilities					

Notes:
 (SU)* is Equivalent Service unit = 2465 square feet untreated impervious surface
 ** Exemptions List (City of Bowie), Volunteer Fire Departments, State, Federal, County, and Municipal owned properties)



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Article 4-202.1(i)(3): "The amount of money deposited into the watershed protection and restoration fund in the previous fiscal year by source;"

2015 Source	Amount
Annual Single Family Residential Fees Collected	\$ 8,454,055.00
Annual Commercial Fees Collected	\$ 5,256,281.00
Non-profits, Religious Orgs Fees Collected	\$ 958,809.00
Unnamed Additional Source 1	\$ 14,669,145.00



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All SWM Projects Implemented in Previous FY for the 20% Restoration Requirement

REST BMP ID	REST BMP TYPE	BMP CLASS	NUM BMP	IMP ACRES	BUILT DATE	IMPL COST	IMPL STATUS	IMPL COMP YR
CP10-0005	FBIO	S	1	0.5	5/28/2014	\$176,000	Complete	2014
CP10-0008	STRE	A	1	1.25	12/1/2014	\$420,000	Complete	2015
CP14-0004-02	FBIO	S	1	1.7	6/19/2015	\$64,000	Complete	2015
CP08-0018	STRE	A	1	2.2	2/1/2015	\$220,000	Complete	2015
CP08-0020	STRE	A	1	13.3	6/22/2015	\$686,000	Complete	2015
CP09-0013	STRE	A	1	1.4	12/17/2014	\$194,000	Complete	2015
CP05-0027-02	STRE	A	1	14	5/20/2015	\$1,200,000	Complete	2015
CP12-0012	FBIO	S	1	0.5	12/1/2014	\$278,000	Complete	2015

2014 Summary \$176,000.00
 2015 Summary \$3,062,000.00

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