

**MEMORANDUM**

June 21, 2016

TO: Transportation, Infrastructure, Energy & Environment (T&E) Committee

FROM:  Keith Levchenko, Senior Legislative Analyst

SUBJECT: 2016 National Pollution Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit Financial Assurance Plan

**Council Staff recommends approval of the Financial Assurance Plan.**

On May 16, 2016, the County Executive transmitted Montgomery County's NPDES-MS4 Permit 2016 Financial Assurance Plan for Council approval (see ©1-40)<sup>1</sup>. A draft resolution (see ©3-5) was introduced on May 19, 2016. A public hearing was held on June 14, 2016 (written testimony is attached on ©41). Council action is tentatively scheduled for June 28, 2016.

**Background**

Maryland law (Md. Code Ann., Envir. §4-202.1(j)(4)(ii)) (SB 863, enacted in 2015) requires that Montgomery County transmit a financial assurance plan (FAP) every two years to the Maryland Department of the Environment (MDE). The first FAP (due by July 1, 2016) must demonstrate that the County has sufficient funding in the current fiscal year and the subsequent fiscal year budget to meet 75 percent of the estimated costs of its impervious surfaces restoration plan. Subsequent FAPs must show sufficient funding to meet 100 percent of the estimated costs for that plan's two year period.

The County Executive notes in his transmittal letter that his recommended FY17 Operating Budget and FY17-22 Capital Improvements Program (CIP), which were subsequently approved by the Council in May, assume the full amount of expenditures needed to carry out the impervious surfaces restoration requirements of the permit. The chart on ©32 breaks out total expenditures (operating and capital) by fiscal year, totaling \$381.6 million through 2020 to meet the permit requirement. The chart on ©33 confirms that the County's revenue assumptions would fully meet this expenditure requirement.

<sup>1</sup>The latest version of the Financial Assurance Plan (which includes some technical changes from what was introduced) is attached. An easier-to-read version of the Plan is available for download at: <https://www.montgomerycountymd.gov/DEP/water/ms4.html>.

## **Discussion**

### **MS4 Permit Requirement – Stormwater Retrofits/Restoration**

The primary driver of DEP's permit-related expenditures is the 2010-2015 permit requirement to provide additional stormwater management on impervious acres equal to 20 percent (3,777 acres) of the impervious acres for which runoff is not currently managed (18,884 acres).

In January, the T&E Committee received an update from DEP on the MS4 permit.<sup>2</sup> This update noted that, at the conclusion of the most recent permit term (February 2015), the County had completed restoration work treating 1,726 acres. Work under construction would treat another 197 acres, and work under design would treat another 2,431 acres. While these numbers are impressive and represent a major ramp-up of work over the past five years, the County fell short of its permit requirement. DEP noted that it expected to fully achieve the permit requirement by 2020.

The Financial Assurance Plan includes some updated restoration numbers (see ©31) showing that 1780.14 acres (9.4 percent) have been treated through FY15 and that another 1571.21 acres are expected to be added through FY18 (19.22 percent). By FY20, DEP expects to achieve 4407.17 acres (23.34 percent).

In April 2016, in an MDE letter from Lynn Buhl, Director of MDE's Water Management Administration to Lisa Feldt, Director of DEP, MDE notified the County that it was in violation of its MS4 Permit because it has not met the 20% restoration requirement (see ©42). MDE and DEP are currently discussing next steps.

### **Status of Legal Challenge to the 2010-2015 MS4 Permit**

Also discussed at the January T&E meeting was that the now expired permit was under legal challenge. In April 2015, the Court of Special Appeals affirmed a Circuit Court decision to remand the permit (as well as other similar permits issued to Baltimore City, Baltimore County, Anne Arundel, and Prince George's counties) back to the Maryland Department of the Environment (MDE). The Court of Special Appeals agreed with the Circuit Court that MDE's permits did not "afford an appropriate opportunity for public notice and comment and because it lacks crucial details that would explain the County's stormwater management obligations." MDE appealed the case to the Court of Appeals and had not moved forward with developing a next generation permit for Montgomery County, pending the outcome of this case.

In March 2016, the Maryland Court of Appeals reversed the decision of the Maryland Court of Special Appeals to remand Montgomery County's MS4 Permit back to MDE, effectively establishing the County's 2010-2015 MS4 Permit as valid (see summary on ©43). With the case concluded, MDE is expected to move forward with the development of the next permit. However, discussions on the next permit have not yet begun.

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<sup>2</sup> The Council Staff packet from the January 21 T&E Committee meeting is available for download at: [http://www.montgomerycountymd.gov/council/Resources/Files/agenda/cm/2016/160121/20160121\\_TE1.pdf](http://www.montgomerycountymd.gov/council/Resources/Files/agenda/cm/2016/160121/20160121_TE1.pdf)

As noted during the Council's Stormwater Management CIP discussions, the County's budget numbers assume the next permit will require an additional 10 percent of acreage to be addressed. The County's budget assumptions assume construction work related to this new permit will begin in FY19.

### **Recommendation**

**Council Staff recommends approval of the Financial Assurance Plan. This plan reflects what is approved and/or assumed in the County's FY17-22 Capital Improvements Program and FY17 Operating Budget and Fiscal Plan for the Water Quality Protection Fund.**

*More substantively, DEP is currently working with MDE to formalize plans for meeting restoration requirements of the now expired permit and expects to also work with MDE in the development of the next permit. The results of these discussions could impact future County budgets and DEP's next (2018) Financial Assurance Plan.*

Attachment

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OFFICE OF THE COUNTY EXECUTIVE  
ROCKVILLE, MARYLAND 20850

Isiah Leggett  
County Executive

MEMORANDUM

May 16, 2016

TO: Nancy Floreen, Council President  
Montgomery County Council

FROM: Isiah Leggett, County Executive 

SUBJECT: 2016 National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit Financial Assurance Plan

The purpose of this memorandum is to transmit Montgomery County's 2016 Financial Assurance Plan (FAP) for County Council approval. 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.

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 (FY17 and FY18).

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 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

Nancy Floreen, Council President

MAY 16, 2016  
Page 2

- 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.

The 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". MDE advised the Phase I jurisdictions to attach an executive summary identifying all permit actions required to meet MS4 permit requirements, such as the executive summary submitted in an MS4 annual report. The executive summary of Montgomery County's FY15 NPDES MS4 Annual Report, submitted to MDE in March 2016, is included in the FAP packet.

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. Attached please find the Resolution 17-1140 to introduce the FAP to Council.

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.

Attachments: (3)

Montgomery County's 2016 Financial Assurance Plan

Resolution 17-1140 Approval of Montgomery County's 2016 Financial Assurance Plan

Overview of the County's FY2015 NPDES MS4 Permit Annual Report

cc: Lisa Feldt, Director, Department of Environmental Protection  
Jennifer Hughes, Director, Office of Management and Budget  
Joe Beach, Director, Department of Finance  
Marc Hansen, County Attorney  
Bonnie Kirkland, Assistant Chief Administrative Officer

Resolution No.: \_\_\_\_\_  
Introduced: \_\_\_\_\_  
Adopted: \_\_\_\_\_

**COUNTY COUNCIL  
FOR MONTGOMERY COUNTY, MARYLAND**

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By: County Council

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**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.

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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 \_\_\_\_\_ (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



**MONTGOMERY COUNTY MARYLAND  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) DISCHARGE PERMIT**

## I. Background

The Montgomery County Department of Environmental Protection's (DEP) submission to the Maryland Department of the Environment (MDE) fulfills the annual progress report requirement as specified in Part IV of Permit Number 06-DP-3320 MD0068349 (the Permit). The 5-year Permit term began February 16, 2010, covering stormwater discharges from the MS4 in Montgomery County, Maryland (the County). This is the sixth report in this current permit cycle (February 16, 2010-February 15, 2015) and covers the County's Fiscal Year 2015 (FY15) for July 1, 2014 to June 30, 2015. In addition, in August, 2015, the County submitted a supplement to the FY14 MS4 Annual Report that detailed the County's watershed restoration efforts over the first five years of the Permit cycle. The supplemental report is titled "Restoring Our Watersheds, Montgomery County's 2010-2015 MS4 Watershed Restoration Achievements."

The Permit has been in litigation since the Permit was issued in February 2010. On March 11, 2016 the Maryland Court of Appeals found that the Maryland Department of the Environment's decision to issue several stormwater discharge permits to counties in Maryland [including Montgomery] is supported by substantial evidence, is not arbitrary and capricious, and is legally correct. Additionally, these permits satisfy federal monitoring requirements and do not violate public participation mandates.

Significant accomplishments in the County's stormwater management program during FY15 are highlighted in the Overview. The report itself has been organized based on the headings in the Permit's Part III, Standard Permit Conditions, to document implementation of required elements. Information required by the Permit's Attachment A, Annual Report Databases, Parts A. through L. can be found electronically on the compact disc (CD) submission in Appendix A.

The DEP Watershed Management Division (WMD) has primary responsibility for the majority of the Permit requirements, including interagency coordination, annual reporting, source identification, discharge characterization, monitoring, stormwater facility inspection and maintenance, enforcement, watershed public outreach, watershed assessment and restoration. WMD is also responsible for assessment of stormwater controls, and for tracking progress towards meeting the County's Total Maximum Daily Load (TMDL) urban stormwater wasteload allocations (WLAs) in applicable watersheds. The DEP Division of Solid Waste Services (DSWS) is responsible for all solid waste related programs, including programs to increase awareness of waste reduction and recycling. The DEP Division of Environmental Policy and Compliance (DEPC) is responsible for illicit discharge detection and elimination, and the environmental enforcement, including investigation of water pollution and illegal dumping incidents.

The Department of Permitting Services (DPS) is responsible for reviewing and permitting plans for stormwater management (SWM) and erosion and sediment control (ESC), and for ensuring plan compliance.. The Department of Transportation (DOT) is responsible for storm drains, road and roadside maintenance. The Department of General Services, (DGS), DEP's DSWS, and

DOT are responsible for property maintenance activities at County-owned facilities covered under the NPDES General Permit for Stormwater Discharges Associated with Industrial Activity.

The Permit required DEP to develop and submit a countywide implementation plan within 1 year of Permit issuance to identify how the County would achieve Permit requirements within the 5-year permit cycle. In February 2011, DEP submitted the draft Montgomery County Coordinated Implementation Strategy (the Strategy) and associated Watershed Implementation Plans to MDE with the FY10 MS4 Annual Report. The Strategy presents the restoration and outreach initiatives that are needed to meet the watershed-specific restoration goals and water quality standards, and is referenced frequently in this report. Specifically, the Strategy provides the planning basis for the County to:

1. Meet Total Maximum Daily Loads (TMDLs) and Wasteload Allocations (WLAs) approved by the U.S. Environmental Protection Agency (EPA).
2. Provide additional stormwater runoff management on impervious acres equal to 20 percent of the impervious area for which runoff is not currently managed to the maximum extent practicable (MEP).
3. Meet commitments in the *Trash Free Potomac Watershed Initiative 2006 Action Agreement* which include support for regional strategies and collaborations aimed at reducing trash, increasing recycling, and increasing education and awareness of trash issues throughout the Potomac Watershed.
4. Educate and involve residents, businesses, and stakeholder groups in achieving measurable water quality improvements.
5. Establish a reporting framework that will be used for annual reporting as required in the County's Permit.
6. Identify necessary organizational infrastructure changes needed to implement the Strategy.

The MDE approved the Strategy in July 2012. The approval letter can be found in the electronic attachment to this report in Appendix B. A final version of the Strategy, and Watershed Implementation Plans, are accessible on DEP's website at:

<http://www.montgomerycountymd.gov/DEP/water/county-implementation-strategy.html>.

### **Montgomery County Wins National Award for Its MS4 Program Management**

Montgomery County was one of six recipients of the new national municipal stormwater and green infrastructure awards at the 88<sup>th</sup> Annual Water Environment Federation (WEF) Technical Exhibition and Conference held September 28, 2015, in Chicago. Montgomery County won the Phase I program management category for its multifaceted and effective MS4 program and was recognized as a national leader in stormwater management.

Developed through a cooperative agreement with the U.S. Environmental Protection Agency, the award recognizes high-performing, regulated MS4s and inspires municipal government agencies to exceed requirements through innovative and cost-effective approaches.

“Montgomery County has made tremendous progress in meeting our water quality goals,” said Lisa Feldt, director of the County’s Department of Environmental Protection. “We are very grateful to be recognized on a national scale for our continued efforts to address stormwater pollution and to work to restore our streams and rivers and ultimately the Chesapeake Bay. This award reflects the close coordination and cooperation among County departments, agencies and co-permittees and the strong commitment they share for watershed management, restoration and improved water quality, while also working hand-in-hand to achieve sustainable economic growth.”

“The awards were developed to inspire MS4 program leaders toward innovation that is both technically effective and financially efficient,” said WEF Executive Director Eileen O’Neill. “The success of this first year shows great promise for the program as a means to continually support, encourage and recognize this important and growing segment of the water sector.”

## II. Overview

This Overview highlights County progress in meeting Permit requirements for FY15, and where possible, over the 6-year Permit term.

### Legal Authority

*The Permit requires the County to maintain adequate legal authority in accordance with NPDES regulations 40 CFR Part 122 throughout the term of the Permit.*

#### **Chapter 19 of the Montgomery County Code- The Stormwater Management Ordinance:**

Chapter 19 establishes minimum requirements and procedures to control the adverse impacts associated land disturbance and increased stormwater runoff from developed and developing lands. Chapter 19 includes:

- Article I - Establishes the County's legal authority to administer a Sediment and Erosion Control program
- Article II - Establishes the County's legal authority to administer a Stormwater Management Program
- Article IV - Establishes the County's authority to regulate discharges of pollutants to County streams, and establish inspection and enforcement procedures and penalties for non-compliance.

#### **Chapter 19 was modified during the current Permit cycle to add:**

##### Stormwater Management

In July 2010 and March 2011, the County Council passed Bill 40-10 and Expedited Bill 7-11, amending the County's stormwater management law to require management of stormwater runoff through the use of nonstructural best management practices (BMPs) to the maximum extent practicable (MEP) for new development and redevelopment projects approved by DPS. The bills then brought the County's stormwater management law into compliance with the Maryland Stormwater Management Act of 2007 and associated state implementing regulations adopted in 2010.

##### Sediment and Erosion Control

On March 29, 2013, the County Council passed Expedited Bill 1-13, Erosion and Sediment Control, which brings local erosion and sediment control requirements into compliance with the Maryland Stormwater Management Act of 2007 and the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control.

##### Water Quality Protection Charge

In April 2013, the County Council passed Bill 34-12, Stormwater Management-Water Quality Protection Charge (WQPC). Bill 34-12 modified the structure of the County's original WQPC to comply with the 2012 State HB 987, the Stormwater Management- Watershed Protection and Restoration Program Bill.

In April, 2015, the County Council passed Bill 2-15, which extended the deadline for submittal of both credit and financial hardship exemptions to September 30 of each year, after annual property tax bills are posted in July.

In November 2015, the Council enacted legislation (Bill 45-15, Stormwater Management - Water Quality Protection Charge – Curative Legislation) to designate the WQPC as an excise tax instead of a fee to address concerns raised in a Circuit Court opinion. This legislation was enacted outside the FY15 reporting period.

#### Coal Tar Sealants

In September 2012, the County Council passed the Coal Tar Pavement Products Law, Bill 21-12, that banned the use of coal tar products, effective December 18, 2012.

#### **Other Legislation Enacted During the Current Permit Cycle:**

#### Carryout Bag Law

The County's Carryout Bag Tax, Bill 11-8, went into effect on January 1, 2012. The law taxes 5 cents to a customer of certain retail establishments for each paper and plastic bag provided at the point of sale. The Department of Finance is responsible for enforcement of the Bag Tax. The law was passed to increase awareness of plastic bag litter pollution and reduce the use of carryout bags.

#### Expanded Polystyrene Food Service Ware

In January 2015, the County passed Bill 41-14, which bans the use and sale of expanded polystyrene food service ware and loose fill packaging. The Bill requires that disposable food service ware purchased and used in the County be either recyclable or compostable. The legislation is effective for County agencies, contractors and lessees by January 1, 2016, and for all other food service businesses by January 1, 2017.

#### Pesticides – Notice Requirements – Cosmetic Pesticide Use Restrictions

County Bill 52-14, Pesticides – Notice Requirements – Cosmetic Pesticide Use Restrictions, became law on October 20, 2015. This law:

1. Regulates the use of certain substances on lawns in the County, and permits only those substances that (a) contain active ingredients recommended by the National Organic Standards Board or (b) that are designated as minimum risk pesticides under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). This provision takes effect January 1, 2018.
2. Places additional notification requirements on pesticide retailers and applicators.
3. Requires the implementation of a public outreach and education campaign related to the law.
4. Requires Montgomery County Parks to implement a pesticide-free parks program.

## Source Identification

*The Permit requires the County to submit information for all County watersheds in geographic information systems (GIS) format with associated tables:*

The County continues to improve its storm drain mapping to facilitate identification of pollution sources from the MS4.

The DEP's Urban BMP database as of June 30, 2015, with associated coverage is included in Appendix A, Part B. Over the Permit term, DEP made progress towards updating the drainage areas of all stormwater BMPs.

The County's 2009 impervious area associated with GIS coverage, which was used in the Strategy development, is included in Appendix A, Part C. In this Permit cycle, the County evaluated success towards meeting its Permit restoration requirements using the 2009 impervious coverage. In FY15, DEP continued to digitize and update impervious areas for other Permit requirements and for the County's stormwater utility charge, the WQPC, based on 2014 aerial photography.

The DEP's monitoring locations and locations of watershed restoration projects are also included electronically in Appendix A, Parts D. and E.

## Management Programs

### **Stormwater Management (SWM) Facility Maintenance and Inspection**

*The Permit requires the County to conduct preventative maintenance inspections of all SWM facilities (BMPs) on at least a triennial basis.*

The DEP SWM Facility Maintenance and Inspection Program oversees the triennial inspections, and structural and nonstructural maintenance of all SWM BMPs under the County's jurisdiction. From FY11- FY15, the number of SWM BMPs under County jurisdiction increased from 4,200 to over 8,740. From FY11- FY15, DEP oversaw 6,639 triennial inspections and 9,934 SWM BMPs were maintained by either the DEP structural maintenance program or by the private owner of the facility. DEP also issued over 600 Notice of Violations (NOVs) for correction of deficiencies noted during the triennial inspections. Additionally, DEP sent more than 531 routine maintenance notification letters to property owners. DEP also performed a total of 167 unscheduled inspections. These occurred in response to public complaints, at facilities being considered for transfer into DEP's SWM facility maintenance program, or to assess conditions after a large storm event.

During the Permit term, the SWM Facilities Maintenance and Inspection Program developed new protocols to remain in compliance with County and State SWM facility maintenance requirements while remaining fiscally responsible:

- In December 2012, DEP acquired contractual services for routine maintenance of publically owned environmental site design (ESD) practices, including Roadway Right-of-Way (ROW), beginning one of the first ESD maintenance programs in the Washington metropolitan area.

- During FY13, DEP developed a protocol to rank maintenance need levels for privately owned and maintained facilities. The new protocols ensure that the BMPs with the most serious repair needs are addressed in a timely manner.
- In FY13-FY14, DEP also modified the inspection protocol for public and private underground facilities. The new inspection protocol requires a pre-maintenance inspection of the facility to determine maintenance needs. Facilities deemed acceptable and functioning properly pass inspection and do not need maintenance until the next pre-maintenance inspection or triennial inspection.
- In FY15, many of the first permitted and installed ESD facilities were due for triennial inspections. The inspections were not performed because DEP does not have the legal authority via right of entry agreements to access facilities on private property. DEP is working with DPS to include right of entry agreements for all sediment and erosion control permits.

### **Implementing Maryland's Stormwater Management Act of 2007**

*The Permit requires the County to implement SWM design policies, principles, methods, and practices found in the 2000 Maryland Stormwater Design Manual and provisions of Maryland's Stormwater Management Act of 2007. The Permit requires the County to modify its SWM ordinances, regulations and new development plan approval processes within one year after State adoption of regulations; April 24, 2009, with an effective date of May 4, 2009. The Permit also requires the County to review local codes and ordinances to identify impediments to and opportunities for promoting ESD to the MEP within one year, and to remove those impediments within two years of the Permit's issuance.*

As described under the section "Legal Authority", in July 2010 and March 2011, the County Council passed Bill 40-10 and Bill 7-11 amending the County's stormwater management law to comply with the Maryland Stormwater Management Act of 2007 and associated state implementing regulations adopted in 2010.

In 2010, the County released *Implementing Environmental Site Design in Montgomery County*, a report that summarizes how the County's codes, regulations, programs, and policies may need to be updated to allow the use of ESD techniques to the MEP. The most significant updates required were accomplished through the Zoning Code rewrite, completed by the Planning Department of the Maryland-National Capital Park and Planning Commission (M-NCPPC). The zoning code rewrite, Zoning Text Amendment (ZTA) 13-04 was approved by Council March 5, 2014, and took effect October 30, 2014.

The DEP's Watershed Restoration Program identifies opportunities for impervious area control, including ESD practices, in County watersheds through comprehensive watershed assessments. DEP prioritizes those projects that can be combined with other watershed restoration to implement a holistic program that captures, and infiltrates stormwater while creating and maximizing ecological benefits and increasing connection of green areas in the County. DEP's Watershed Restoration CIP budget reflects the commitment to implementing ESD practices on public property; since 2010, funding for ESD practices increased from 26% in the approved FY2011-FY2016 CIP budget to 39% in the approved FY2015-FY2020 CIP budget

In FY16, DEP is working with community partners to evaluate and develop future approaches to incorporate ESD and other green infrastructure practices into DEP watershed restoration planning, and ultimately into other Countywide programs. DEP and its partners are developing a green infrastructure definition that will reflect DEP's support of ESD, and also recognize ecological benefits of DEP's restoration priorities. DEP has begun drafting an official Department wide policy that will reflect the Department's focus of incorporating green infrastructure approaches. DEP is also working with community partners to identify and implement an innovative green infrastructure pilot project.

**Erosion and Sediment Control (ESC)**

*The Permit requires the County to maintain an acceptable ESC program, including implementing program improvements identified in any MDE evaluation of the County's application for the delegation of ESC enforcement authority, conduct responsible personnel certification classes and report quarterly information on earth disturbances exceeding one acre or more.*

Table II.1, below, summarizes the County's Erosion and Sediment Control Inspection and Enforcement Program over the Permit term.

Table II.1. County Erosion and Sediment Control Program Enforcement Action Summary						
	FY11	FY12	FY13	FY14	FY15	Total
Inspections	13,472	11,191	12,439	18,151	20,793	76,046
NOVs	343	248	235	520	511	1,857
Citations	146	105	103	160	162	676
Fines Collected	\$43,926	\$55,750	\$67,000	\$82,350	\$94,955	\$343,981

**Illicit Discharge Detection and Elimination (IDDE)**

*The Permit requires the County to implement an inspection and enforcement program to ensure that all discharges to and from the MS4 system that are not composed entirely of stormwater are either permitted by MDE or eliminated. The Permit requires the County to field screen 150 outfalls annually, conduct routine surveys of commercial and industrial areas, and maintain an enforcement program to address discharges, dumping and spills.*

In FY15, DEP performed outfall screening in subwatersheds of the Northwest Branch of the Anacostia watershed. DEP screened 159 outfalls and found 75 with dry weather flow. DEP performed field testing for permit required water chemistry parameters and also for ammonia, potassium and fluoride. Twenty-three outfalls had elevated parameters, and follow up investigations were performed. Of those 23 outfalls, 18 were found to have normal water chemistry parameters during follow up visits. Table II.2 shows the problems identified at the remaining outfalls.

Table II.2. Investigation Results of Suspected Illicit Discharges During FY 15			
Outfall ID	Location	Problem Found	Resolution
KP122P6632	10110 New Hamp Ave	Organic matter buildup	Property Management unclogging outfall
KP122P6633	10110 New Hamp Ave	Outfall destabilized with high specific conductivity	State Highway Association (SHA) repairing and cleaning outfall
KP122P6647	Capital Beltway	Outfall destabilized with high specific conductivity	SHA repairing and cleaning outfall
KP122P6635	10142 New Hamp Ave	Elevated detergents	Investigation ongoing
KP123P0285	10214 Royal Rd	Elevated ammonia	Site to be CCTV'ed and investigated further

Table II.3, below, summarizes DEP's IDDE program during the Permit term. From FY11-FY15, DEP assessed 716 outfalls by walking the entire reach of waterbodies in four separate subwatersheds, capturing most of the existing outfalls in each drainage area. DEP is targeting subwatersheds with the highest percentages of commercial and industrial areas to identify and eliminate pollutant sources in those areas.

Table II.3. Illicit Discharge Detection and Elimination Summary, FY 11-FY 14		
		% of Total
Outfalls Screened	875	
Outfalls Unmapped	606	70% of Total Outfalls Screened
Suspected Illicit Discharges	119	13% of Total Outfalls Screened
Resulting Investigations	79	9% of Total Outfalls Screened
Problem Resolved	16	1.8% Of Total Outfalls Screened

Enforcement Actions

DEP's Division of Environmental Policy and Compliance (DEPC) implements a highly effective environmental enforcement program that has great success in eliminating discharges reported by the public. Over the Permit term, the group has responded to 998 water quality related complaints, which led to 157 enforcement actions.

Most complaints are reported to DEP through the County's call center for non-emergency services (311), or through the DEP website.

DEPC also investigates illegal dumping complaints. Details on the enforcement actions over the Permit term are summarized in Table II.4.

Table II.4. Summary of Enforcement Actions, FY11-FY15

	FY11	FY12	FY13	FY14	FY15	Total
Water Quality Investigations	122	208	206	238	224	998
NOV	16	17	14	28	24	99
Citations	18	14	11	6	9	58
Fines Collected	\$9,000	\$7,000	\$6,000	\$3,000	\$4,500	\$29,500
Illegal Dumping Cases	471	450	377	354	385	2,037
NOVs	34	36	16	18	8	112
Citations	7	11	0	2	0	20
Fines	\$3,500	\$5,500	0	\$1,000	0	\$10,000

### Trash and Litter

*The Permit requires the County to meet its obligations under the Potomac River Watershed Trash Treaty, including trash abatement program implementation, education, and evaluation.*

The Strategy includes trash reduction work plans designed to meet the Potomac Trash Free Treaty goals and the MS4 wasteload allocations for the 2010 Anacostia Trash TMDL. The County is also working with the Anacostia Watershed Restoration Partnership, the Alice Ferguson Foundation, and other partners to meet regional trash reduction goals. Initiatives directly related to the regional campaigns include ongoing education and outreach for recycling and litter reduction, mass media outreach campaigns, and litter removal from streets, stormwater ponds, and transit stops.

On January 1, 2012, the County's Carryout Bag Tax, Bill 11-8, was passed to reduce plastic bag pollution in streams and communities. The Carryout Bag Tax requires certain retailers to charge customers 5 cents for each paper and plastic bag provided to carry purchases. From the implementation to June 2015, over 209 million bags were sold in Montgomery County. In FY15, approximately 62 million carryout bags were sold. This represents an average of a little less than five disposable bags bought per county resident each month. As of June 2015, there are 1,251 registered retailers in the system. Carryout Bag Tax data analysis to date suggests a slight downward trend; however, DEP does not have enough data to definitively report a change in bag usage for the County.

In FY16, DEP is working with the County Department of Finance to increase awareness of the law among retailers and the public by expanding Carryout Bag Tax outreach. The goals of the program are to increase retailer compliance and public awareness of plastic bag pollution. Elements of the program include updating and distributing outreach materials, direct contact with retailers, and a public re-useable bag distribution through libraries, Manna food distribution centers, and community aid offices. DEP will reanalyze Carryout Bag Tax data after one year of the expanded outreach effort to determine effectiveness.

In FY15, DEP DSWS also took steps to reduce expanded polystyrene, another material frequently found to pollute local communities and streams. In January 2015, the County Council enacted Bill 41-14 which bans the use and sale of expanded polystyrene food service ware and loose fill packaging and instead requires that disposable food service ware purchased and used in the County be either recyclable or compostable. The Bill requires all county agencies, contractors, and lessees to use compostable or recyclable food service ware by January 1, 2016. All other food service businesses must use compostable or recyclable food service ware by January 1, 2017. Expanded polystyrene (PS) #6 products are not recyclable in the County. In FY15, DEP DSWS developed an education campaign to inform food service businesses, certain retailers and consumers about the requirements and the deadlines for compliance.

The DEP continues via contract to conduct trash monitoring and assessment in the Anacostia Watershed. FY15 highlights include:

- Completed five cycles of post-TMDL trash monitoring in the Anacostia. The Anacostia tributary monitoring follows the same protocols for stream-level and land-based surveys as those used for trash TMDL development. As of FY15, there is a general decreasing trend for plastic bag, plastic bottle and Styrofoam trash categories.
- The Anacostia monitoring program identified the White Oak neighborhood of Silver Spring as an area with high levels of litter. In FY15, DEP conducted three additional types of observation surveys within that focus area. The surveys included a bus stop survey, walking survey, and storm drain inlet survey. Results will be used to develop targeted trash reduction outreach strategies that can then be measured for effectiveness, and help inform future litter reduction efforts.

### Property Management

*The Permit requires the County to ensure that a Notice of Intent (NOI) has been submitted to MDE, and a pollution prevention plan developed, for each County owned and municipal facility requiring a NPDES General Permit for Stormwater Associated with Industrial Activities.*

Table II.5 lists the County facilities covered under the MDE General Discharge Permit for Storm Water Associated with Industrial Activities (the General Permit). The MDE accepted Notices of Intent (NOI's) for these facilities in August 2014 for coverage until December 31, 2018.

Table II.5. County Facilities Covered under the Maryland General Discharge Permit for Storm Water Associated with Industrial Activities	
Name of Facility / Responsible Agency	Watershed / Acreage
Colesville Highway Maintenance Depot (DOT)	Anacostia/Paint Branch; 12 acres
Damascus Highway Maintenance Depot (DOT)	Potomac/Great Seneca: 1.4 acres
Gaithersburg: Highway Maintenance Facility (DOT)	Potomac/Rock Creek: 15.1 acres
Gaithersburg: Equipment Maintenance and Transit Operations Center (EMTOC) (DGS)	
Poolesville Highway Maintenance Facility (DOT)	Potomac/Dry Seneca Creek: 4 Acres

Table II.5. County Facilities Covered under the Maryland General Discharge Permit for Storm Water Associated with Industrial Activities	
Name of Facility / Responsible Agency	Watershed / Acreage
Bethesda/Seven Locks Automotive Service Center (DGS)	Potomac/Cabin John Creek: 19 Acres
Bethesda/Seven Locks Highway Maintenance Facility, Sign Shop and Signal Shop (DGS)	
Kensington Small Transit Service Maintenance Facility at Nicholson Court	Potomac/Rock Creek: 3.31 acres
Silver Spring/Brookville Road Highway Maintenance Facility (DOT)	Potomac/Rock Creek: 18 Acres
Silver Spring/Brookville Road Transit Center/ Fleet Maintenance Center (DGS)	
Shady Grove Processing Facility (DEP)	Potomac/Rock Creek; 43 out of 52.5 acres
Gude Landfill (DEP)	Potomac/Rock Creek; 120 acres
Oaks Landfill (DEP)	Patuxent/Hawlings River (355 acres) and Potomac/Rock Creek;(190 acres)

In 2008, new Capital Improvement Program (CIP) funding dedicated to environmental compliance was added to the DGS budget. In 2015, the following environmental compliance CIP initiatives were accomplished:

- DGS is replacing a major transit bus refueling station in Silver Spring, and is installing 3 above ground diesel refueling tanks to replace 2 aging underground tanks. The bus wash steam bay was also upgraded with improved waste water treatment structures.
- DGS is also currently replacing underground storage tanks with aboveground storage tanks at County fire stations and other government facilities.
- Design continued for FY16 planned improvements including three new permanent structures for the bulk storage of highway maintenance materials (topsoil, sand, salt & gravel). The fabric canopy at the Silver Spring depot was replaced, as it was showing signs of failure.
- Two bioretention basins, and a bioswale feature were installed at the Colesville Highway Maintenance depot, to improve the stormwater quality of this facility, which is located within a Special Protection Area. In addition, three large fabric canopies, and an enlarged truck shed area are being constructed for the covered storage of roadway materials and equipment.
- New antifreeze and motor oil handling tanks and distribution systems were installed at the Seven Locks automotive shop.

- DGS/DOT has begun routine mechanical sweeping of all the industrial facilities, and increasing the cleaning frequency of facility oil/grit separators. In FY15, all depots were swept.
- At the Bethesda Depot, the bulk salt storage barn was repaired and repainted to prevent wood deterioration.

The MCPS conducted pollution prevention (P2) training for staff, prepared and implemented SWPPP and SPCC plans at all industrial sites. P2 improvements have been implemented at these sites as recommended by the annual inspections. MCPS also continued to implement an Integrated Pest Management Program (IPM) program at all facilities. Table II.6 lists the MCPS facilities covered under the MDE General Discharge Permit for Storm Water Associated with Industrial Activities (the General Permit).

Table II.6. Inventory and Status of MCPS Facilities Covered under the Maryland General Discharge Permit for Storm Water Associated with Industrial Activities (12-SW)		
Name of Facility / Responsible Agency	Watershed / Acreage	Status
Bethesda Fleet Maintenance / Bethesda Facilities Maintenance Depot	Cabin John Creek 6.2 acres	NOI accepted for registration under the NPDES General Permit. SWPPP updated in FY14.
Randolph Fleet Maintenance / Randolph Facilities Maintenance	Anacostia 9.3 acres	NOI accepted for registration under the NPDES General Permit. SWPPP updated in FY14.
Shady Grove Fleet Maintenance / Shady Grove Facilities Maintenance	Rock Creek 15 acres	NOI accepted for registration under the NPDES General Permit. SWPPP updated in FY14.
West Farm Transportation Depot	Anacostia River 5.06 acres	NOI accepted for registration under the NPDES General Permit. SWPPP updated in FY14.
Clarksburg Fleet Maintenance/Clarksburg Facilities	Seneca Creek 15.11 acres	NOI accepted for registration under the NPDES General Permit. SWPPP updated in FY14.

### Road Maintenance

*The Permit requires the County to continue to implement a program to reduce pollutants associated with road maintenance activities.*

### Street Sweeping

In FY15, the County continued its street sweeping program, focusing on twice monthly sweeping of 229 miles in selected arterial routes, removing 327 tons of material. The sweeping frequency provides impervious acreage control equivalence and pollutant reduction credit in accordance

with MDE's August 2014 "Accounting for Stormwater Wasteload Allocations and Impervious Acreage Treated" guidance document. For FY15, the County controlled an impervious acreage equivalent of 130 acres and reduced 1143 pounds of Total Nitrogen (TN) and 458 pounds of Total Phosphorous (TP) through its arterial street sweeping program.

The DOT completed annual sweeping for all residential routes. In FY15, DOT swept a total of 4,055 residential curb miles once per year, removing 1,265 tons of material.

#### Inlet Cleaning

For FY15, DOT reported cleaning 2,218 storm drain inlets, and 31,180 linear feet of storm drain, collecting 346 tons of material, resulting in an impervious acre control equivalence of 138 impervious acres.

#### Use of Herbicides

The County's roadside noxious weed spraying program is conducted by Montgomery Weed Control Inc., a cooperative weed control program between Montgomery County Department of Economic Development, Agricultural Services Division, and the Maryland Department of Agriculture, Plant Protection and Weed Management Section. The County uses no other pesticides or any fertilizers for roadside vegetation management.

#### Application of Sand and Salt

The DOT reported applying 87,900 tons of salt and 36,400 gallons of salt brine to County roadways during December through March, 2015. Salt brine is a 23 percent salt solution created in a brine maker that has a lower freezing point than salt. In FY15, over 606 lane miles of both primary and secondary roads received salt brine applications using contracted and County equipment.

### **Public Education and Outreach**

*The Permit requires the County to implement a public education and outreach program to reduce stormwater pollutants.*

Over the Permit term, DEP continued to expand its education and outreach programs to meet Permit requirements as outlined in the Strategy's Public Outreach and Stewardship Work Plan (POSWP). The POSWP identified eight major areas of stormwater impact education, including pet waste management, lawn stewardship, anti-littering, stormwater awareness, and establishing a volunteer Stream Stewards program. Through FY15, DEP has participated in 459 events focused on stormwater awareness, representing direct contact with an estimated 47,798 residents. The RainScapes program hosted an additional 144 workshops on small scale stormwater practices for homeowners and landscape professionals, reaching an additional 6,500 residents.

The DEP tracks details on watershed outreach events, and has included event information in the Permit required Annual Report Database, Part D, found electronically in Appendix A. DEP hopes to eventually quantify pollutant reductions associated with behavior changes resulting from its education and outreach programs.

Summary of Stormwater Outreach Efforts During the Permit Term

The DEP expanded its outreach and stewardship during this fiscal year and throughout the Permit cycle. Outreach and stewardship highlights include:

- General watershed outreach activities increased 800 percent from FY10 to FY15
- Created the Montgomery County Watershed Restoration and Outreach Grant Program, which funds community based restoration projects and programs focused on public engagement through education, outreach and stewardship. Administered by the Chesapeake Bay Trust, \$371,756 was awarded to 13 nonprofit organizations in FY15.
- Creating a "My Green Montgomery" website as a public interactive website to promote green initiatives and activities.
- Creating additional outreach programs, including:
  - The Stream Stewards Volunteer Outreach Program
  - A Pet Waste Management Program targeted to homeowners' associations
  - A Storm Drain Art Program
  - The Montgomery County FrogWatch USA chapter
  - The Greenfest annual community event
  - Worked with other DEP sections to display comprehensive information on DEP programs to over 5,000 visitors at the 2014 Montgomery County Agricultural Fair
  - The "Caching the Rain" stormwater awareness geotrail
- Focused outreach to culturally diverse communities increased, including translations for 22 publications.
- Creation of 43 new outreach publications.
- Achieving a social media presence by creating DEP Facebook, Twitter, Instagram, Flickr and blog accounts including five group listserves and e-newsletters.
- Creating a watershed group capacity building effort which helped eight watershed groups build stronger organizational structures.
- Two new watershed groups were created since FY10: Muddy Branch Alliance and the Watts Branch Alliance.
- The Water WatchDogs group, started by the Friends of Sligo Creek watershed group as a means to raise public awareness on water pollution and enhance an email alert mechanism for reporting pollution incidents.

## Watershed Assessment

*The Permit requires the County to conduct a systematic assessment of water quality within all of its watersheds, including identification of water quality improvement opportunities, and the development and implementation of plans to control stormwater discharges to the MEP.*

### Watershed Implementation Plans

In FY14, DEP completed preliminary assessments of the Lower Monocacy, Patuxent River, Upper and Lower Potomac Direct, Dry Seneca and Little Seneca watersheds. These assessments include identification of ESD opportunities, stormwater pond retrofits, new stormwater control opportunities, and potential stream restoration. Watershed implementation plans were completed in early FY15 that built on the preliminary assessments and contain more detailed implementation planning and schedules to meet regulatory and programmatic targets.

### Stream Monitoring

The County conducts biological monitoring for fish and benthic macroinvertebrates (aquatic insects) on a calendar year basis. In 2014, DEP monitored 52 stations in the Potomac River Direct, and Cabin John watersheds and subwatersheds of the Seneca Creek watershed. The results remained fairly consistent with monitoring conducted between 1996 and 2002. Stream conditions generally improve toward the western part of the county where land use is more rural and part of the agricultural reserve. The more urban areas with older stormwater management generally have poorer and/or declining conditions.

Restoration projects have been focused in urban, southern and eastern county watersheds of Little Falls and Cabin John. Most projects in Little Falls were completed prior to 2008 and impacts appear limited to date. Since 2002, the average stream conditions have been constant. Average stream conditions in Cabin John also continue to be constant. The restoration projects generally have been completed close to the 2014 monitoring cycle, allowing little time for recovery.

In 2015, DEP monitored the Monocacy watershed including Bennett Creek, Little Bennett Creek, and Furnace Branch, and the Patuxent watershed including the Tridelphia Reservoir watershed, and the Rocky Gorge Reservoir watershed. Results of that monitoring will be presented in the FY16 MS4 Annual report.

## Watershed Restoration

*The Permit requires the County to implement practices identified in its watershed assessments to control stormwater discharges to the MEP. The Permit specifically requires the County to complete the implementation of restoration projects identified in the previous Permit term to restore 10% of the County's impervious surface area. The permit also requires the County to complete the implementation of restoration to restore an additional 20% of the County's impervious surface area that is not restored to the MEP.*

The Strategy provides the planning basis to meet the Permit's restoration requirement. DEP developed the Strategy using 2009 data, including impervious area and BMP drainage areas.

The DEP is implementing watershed restoration projects to add stormwater management, improve water quality and minimize physical impacts to streams from uncontrolled urban runoff. Stormwater management facility retrofits, new stormwater facilities, ESD practices and stream restoration projects are planned and designed through DEP's Watershed Restoration Program and constructed by the DEP's Construction Section. DEP continues to assess emerging stormwater control guidance and County data critical to watershed planning to ensure that the most beneficial, and cost effective projects are selected for implementation.

The County continues to improve GIS data to accurately account for the impervious area controlled within the MS4 boundary. Data improvements include digitizing impervious areas, updating the urban BMP database and refining existing BMP's drainage areas.

In August 2015, DEP released a supplement to the MS4 FY14 Annual Report that summarized the County's progress and achievements towards meeting the Permit restoration requirements over the 5 year Permit term. This supplement is titled "Restoring Our Watersheds, Montgomery County's 2010-2015 MS4 Watershed Restoration Achievements".

<https://www.montgomerycountymd.gov/DEP/Resources/Files/downloads/water-reports/npdes/MoCo-RestorationAchievements-080715REV2.pdf>

### **Progress Towards Meeting the 2010 MS4 Permit Watershed Restoration Goal**

The DEP has an aggressive watershed restoration program to meet the current Permit's requirement to add control to 20 percent of the impervious areas not currently controlled to the MEP (3,777 impervious acres). Since 2009 and through FY15, the County and its partners have:

- Completed projects through FY15, adding control to 1,774 impervious acres.
- Begun construction of projects during FY16 that will treat an additional 170 uncontrolled impervious acres.
- Released task orders to DEP's water resources engineering consultants to design watershed restoration projects that will control more than 2,400 additional acres of uncontrolled impervious area.
- Facilitated partnership projects with other County and external agencies. These projects are currently in design and under construction, and include facility modification and modernizations performed by DOT, DGS, and MCPS, and WSSC's stream restoration activities during their asset modernization. They also include the Maryland State Highway Administration's (SHA's) Inter County Connector (ICC) stewardship partnership projects.
- Installed over 470 small scale ESD stormwater practices along County roadways to capture previously uncontrolled impervious (DEP Green Streets).
- Restored over 5 miles of County streams.
- Constructed over 13 new/upgraded stormwater ponds.
- Reforested 6 pervious acres.

- Developed an interactive web map for DEP's Watershed Restoration website that provides project details and schedules to residents.
- Created and began utilization of enhanced data management tools including a business intelligence tool, a portfolio tool, and an upgraded database.

### **Meeting Wasteload Allocations in Watersheds with EPA approved Total Maximum Daily Loads**

*The Permit requires the County to report progress toward meeting any applicable WLAs developed under EPA approved TMDLs in watersheds where restoration has occurred.*

The Strategy used the Watershed Treatment Model (WTM) to verify pollutant baseline loads in TMDL watersheds, and estimate pollutant load reductions by SWM BMPs and retrofits constructed after TMDL baseline years. DEP then calculated pollutant reductions from stream restoration projects using efficiencies provided in MDE's August 2014 *Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated*. County stormwater controls and watershed restoration initiatives implemented in County watersheds with TMDLs after the TMDL baseline years have made progress towards meeting watersheds WLAs by removing a combined estimated:

- 1,137 billion MPN/year of E.coli,
- 33,622 billion MPN/year Enterococci,
- 4,481 tons/year of sediment,
- 17,966 pounds/year of nitrogen,
- 7,903 pounds/year of phosphorus,
- 11,124 pounds/ year of trash from the Anacostia watershed.

Since 2010, the baseline year of the Chesapeake Bay TMDL, an estimated 25,216 pounds of nitrogen, and 4,916 pounds of phosphorous total have been removed from Countywide stormwater runoff. This estimate includes restoration work in all County watersheds, including those with and without TMDLs for nitrogen and phosphorous.

### **RainScapes Program**

The DEP's RainScapes program promotes and implements environmentally friendly landscaping, small scale stormwater control and infiltration projects on residential, institutional, and commercial properties. DEP offers technical and financial assistance to property owners for eligible RainScapes techniques, such as rain gardens, tree planting, rain barrels, and conservation landscaping. The RainScapes program consists of RainScapes Rewards, a rebate program, and the RainScapes Communities, which evaluates targeted neighborhoods and other communities for on-lot stormwater runoff reduction approaches and facilitates neighborhood participation. To date in FY15, almost 20 impervious acres are being controlled through RainScapes projects for at least the first inch of rainfall, with many projects controlled up to the 1-year storm event. The RainScapes Program is funded through the WQPC.

### **Restoration Funding Sources**

During FY15, DEP continued to identify funding sources to support project implementation. The approved SWM CIP budget for FY15-FY20 totals \$363.7 million, an increase of \$128.7 million, or 55 percent from the amended approved FY13-FY18 program of \$235 million, reflecting the significant increase in implementation that will be needed to meet the Permit's restoration requirement. This increase in stormwater management activity will be financed primarily through water quality protection bonds. The debt service for these bonds will be supported by the County's WQPC. The budget assumes \$60 million in State aid over the 6 year CIP cycle.

### **Assessment of Controls**

*The Permit requires that the County use discharge characterization monitoring, along with biological and physical monitoring to assess "the effectiveness of stormwater management programs, County watershed restoration projects, and to document progress towards meeting wasteload allocations (WLAs) indicated in the Total Maximum Daily Loads (TMDLs) approved by the U.S. Environmental Protection Agency (EPA) for watersheds or stream segments located in the County". The Permit specifically requires monitoring where the cumulative effects of watershed restoration activities (the Breewood Tributary) and the effectiveness of stormwater management practices for stream channel protection (Clarksburg Special Protection Area) can be assessed.*

### **Watershed Restoration Assessment**

The DEP targeted the Breewood tributary of Sligo Creek (Anacostia watershed) for comprehensive watershed restoration efforts and assessment of controls. The Permit requires water chemistry, biological and physical monitoring of the watershed, both pre and post restoration. By FY15, DEP has completed construction of 10 ROW ESD facilities along residential roads, and three RainScapes projects on private property within the Breewood tributary watershed. Additionally, 1,299 feet of stream restoration was completed. Monitoring in 2014 reflected changing conditions in the watershed.

In 2014, water samples were collected at an instream station and a stormwater outfall station for a total of 49 storms and 65 baseflow events monitored from 2009 through 2014. For each station, baseflow mean concentrations (MC) were calculated for all Permit required parameters over the 3-year monitoring period. MCs were also calculated for total petroleum hydrocarbons (TPH) and Enterococcus during first flush stormflow.

Storm event mean concentrations (EMCs) represent the weighted average pollutant concentrations based on samples collected at discrete intervals during a storm. EMCs were calculated and averaged over the three-year monitoring period for each parameter except TPH and Enterococcus. The average EMCs and MCs of each parameter at each station were compared:

- Storm samples generally had more concentrated pollutants at the outfall than at the instream station.
- At the instream station, there was not a consistent relationship between flow types and results.
- At the outfall, no clear trends in pollutant concentrations by flow type were found.

The 2010 thru 2014 biological and physical monitoring results provide evidence that the Breewood tributary is impaired and will likely benefit from stream restoration. Monitoring will continue annually to evaluate improvements to the biology and habitat that are anticipated as a result of the restoration efforts.

### **Stormwater Management Assessment**

#### Maryland Design Manual Monitoring in Clarksburg

DEP monitors the developing Newcut Road Neighborhood tributary to Little Seneca Creek “test” area in the Clarksburg SPA and compares results to those from the undeveloped Soper’s Branch, Little Bennett subwatershed “control” area to evaluate the effectiveness of the Maryland Design Manual criteria to protect the stream channel. Development in the test area’s drainage is mostly complete, and ESC BMPs are being converted to SWM BMPs. The land uses in the Soper’s Branch control area remained unchanged.

In 2014, the natural hydrology of the test area has been altered by the development process. On average, the overall amount of precipitation infiltrating into the ground or lost via evapotranspiration has declined in the test area while remaining fairly constant in the control area. The results indicate the stream channel at the test area may still be in a state of flux as the system responds to the conversion from S&EC to SWM structures. Post-construction monitoring has not yet been completed. DEP has observed changes in the test area channel morphology as evidenced by straightening, down-cutting, and enlargement of the channel

### **Program Funding**

*The Permit requires that the County submit annual expenditures for the capital, operation, and maintenance expenditures in database format specified in Permit Part IV.*

The required database is included in electronic format on CD in Attachment A. During FY15, the reported costs associated with Permit requirements were \$53,505,725.

### **Total Maximum Daily Loads**

*The Permit requires development of implementation plans showing how the County will meet the MS4 WLAs for any EPA approved TMDLs within one year of EPA approval.*

The County Strategy addressed all existing TMDLs in September 2009, the baseline year for the Strategy. Since the baseline date, EPA has approved additional TMDLs, which are shown in Table II.7 below, with the status of their implementation plans. The plans are included in the electronic attachment to this report in Appendix I.

Table II.7. TMDLs Approved Since 2009

Watershed	TMDL	Status of Implementation Plan
Anacostia	PCB	Implementation Plan Submitted in 2013
Cabin John Creek	Sediment	Required Reductions Shown in Strategy
Lower Monocacy	Bacteria	Implementation Plan Complete 2014
Lower Monocacy	Phosphorous	Implementation Plan Complete 2014
Potomac River Direct	Sediment	Implementation Plan Complete 2014
Rock Creek	Sediment	Required Reductions Shown in Strategy
Rock Creek	Phosphorous	Required Reductions Shown in Strategy
Seneca Creek	Sediment	Implementation Plan Complete 2014

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**MS4 Information**

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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	<a href="mailto:pamela.parker@montgomerycountymd.gov">pamela.parker@montgomerycountymd.gov</a>
Baseline Acres (Untreated Impervious)	18884.00
Permit Num	06-DP-3320-MD0068349
Reporting Year	FY15

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**Check with MDE Geodatabase:**

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

VERSION 3-8-16

## Montgomery County, Maryland 2016 NPDES MS4 Financial Assurance Plan

Article 4-202.1(j)(1)(i): 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
<b>Operation Programs</b>	<b>Operation Programs</b>						
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
<b>Montgomery County CIP Project Name and Code</b>	<b>Capital Projects</b>						
<b>801300- SM-Retrofit Roads (FY16)</b>				\$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
<b>801300- SM-Retrofit Roads (FY17)</b>				\$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
<b>801300- SM-Retrofit Roads (FY18)</b>				\$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
<b>801300- SM-Retrofit Roads (FY19-FY20)</b>				\$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
801301-SM-Retrofit Schools (FY17)				\$2,486,000			FY17
		A	0.00		0.0%	Planned	FY17
		S	0.00		0.0%	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
801301-SM-Retrofit Schools (FY19-FY20)				\$2,505,000			FY19
		A	0.00		0.0%	Planned	FY19
		S	0.00		0.0%	Planned	FY19
807359-Misc Stream Valley Improvement (FY16)				\$4,851,000			FY16
		A	44.70		0.2%	Planned	FY16
				\$8,880,000			FY17
807359-Misc Stream Valley Improvement (FY17)				\$10,952,000			FY18
		A	45.80		0.2%	Planned	FY17
				\$12,571,000			FY19
807359-Misc Stream Valley Improvement (FY18)				\$10,952,000			FY18
		A	88.48		0.5%	Planned	FY18
				\$12,571,000			FY19
807359-Misc Stream Valley Improvement (FY19-FY20)				\$12,571,000			FY19
		A	295.90		1.6%	Planned	FY19
				\$21,648,000			FY16
808726-SM Retrofit:Countywide (FY16)				\$21,648,000			FY16
		S	79.74		0.4%	Planned	FY16
				\$21,939,000			FY17
808726-SM Retrofit:Countywide (FY17)				\$21,939,000			FY17
		S	76.63		0.4%	Planned	FY17
				\$19,225,000			FY18
808726-SM Retrofit:Countywide (FY18)				\$19,225,000			FY18
		S	1148.82		6.1%	Planned	FY18
				\$19,425,000			FY19
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			FY16
				\$2,126,000			FY17
				\$1,323,000			FY18
				\$997,000			FY19
809342-Watershed Rest. Interagency (FY16)				\$50,000			FY16
				\$1,599,000			FY17
				\$5,081,000			FY18
				\$60,000			FY19
809342-Watershed Rest. Interagency (FY19-FY20)				\$60,000			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 (FY16)	Other						Partnership Projects
		A	133.63		0.7%		FY16
		S	18.89		0.1%		FY16
Other(FY17)		E	0.00		0.0%		FY16
		A	0.00		0.0%		FY17
		S	58.84		0.3%		FY17
Other(FY18)		E	0.00		0.0%		FY17
		A	68.99		0.4%		FY18
		S	0.00		0.0%		FY18
Other (FY19-FY20)		E	0.00		0.0%		FY18
		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 Environmental 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.

**Check with MDE Geodatabase:**

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

\*Use BMP domains from MDE Geodatabase.

\*\*Complete, Under Construction, Planning, or Proposed

VERSION 3-8-16

**Montgomery County, Maryland 2016 NPDES MS4 Financial Assurance Plan**

Article 4-202.1(i)(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
<b>Operating Expenditures (costs)</b>								
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
<b>Capital Expenditures (costs)</b>								
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
<b>Subtotal operation and paygo:</b>	<b>\$15,339,690</b>	<b>\$4,401,432</b>	<b>\$12,003,805</b>	<b>\$13,967,455</b>	<b>\$8,594,805</b>	<b>\$13,508,515</b>	<b>\$13,280,955</b>	<b>\$81,096,657</b>
<b>Total expenditures:</b>	<b>\$53,695,690</b>	<b>\$21,335,432</b>	<b>\$39,680,805</b>	<b>\$57,005,455</b>	<b>\$59,096,805</b>	<b>\$75,146,515</b>	<b>\$75,644,955</b>	<b>\$381,605,657</b>

Total ISRP costs except debt service: **\$333,810,839.00**  
 Compare ISRP costs (except debt service) / total ISRP proposed actions: **109.10%**

**Check with MDE Geodatabase:**

The total current FY 2015 expenditure should be less than the combined total of the "OP\_cost" and "CAP\_Cost" fields in the fiscal analyses table of the geodatabase.  
 The total projected FY 2016 expenditure should be less than the combined total of the "OP\_budget" and "CAP\_budget" fields in the fiscal analyses table of the geodatabase.  
 \*Insert additional rows as necessary.

### 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.

VERSION 3-8-16

**Montgomery County Maryland 2016 NPDES MS4 Financial Assurance Plan**

Article 4-202.1()(1)()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
<b>Paygo Sources</b>								
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
<b>Debt Service (paygo sources will be used to pay off debt service. Note that previous appropriations for debt service used for ISRP is listed in FY 2014).</b>								
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
<b>Grants and Partnerships (no payment is expected)</b>								
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
<b>Total Annual Sources of Funds</b>	<b>\$ 182,034,120</b>	<b>\$ 112,487,898</b>	<b>\$ 144,343,952</b>	<b>\$ 177,398,824</b>	<b>\$ 199,003,942</b>	<b>\$ 228,621,788</b>	<b>\$ 239,713,128</b>	<b>\$ 1,283,603,652</b>
<b>Percent of Funds Directed Toward ISRP</b>								

Includes WQPC for CIP

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.

**Check with MDE Geodatabase:**

The total sources related to WPR Funds in Current FY 2015 should match the "WPR\_Fund" field of the geodatabase.

VERSION 3-8-16

34

**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	MC Street Sweeping	MSS	A		128	FY12	\$ 137,622			Complete	
MC Street Sweeping	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	
Average Operations Complete to Date					274			\$ 2,296,707	1.5%		
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 FPU	A A	1 14	19.01 2.82	FY 12	\$ 1,064,148		0.10% 0.01% 0.00%	Complete	USACE Partnership
809342-Watershed Rest. Interagency	Bryants Nursery Run Stream Restoration	STRE FPU	A A	1 4	17.42 0.13	FY 12	\$ 855,723		0.09% 0.00% 0.00%	Complete	USACE Partnership
809342-Watershed Rest. Interagency	Upper Northwest Branch Stream Restoration	STRE FPU	A A	1 2	21.65 0.04	FY 12	\$ 1,057,178		0.11% 0.00%	Complete	USACE Partnership
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 Valley Improvement								\$ 10,837,000			
807359-Misc Stream Valley Improvement	Joseph's Branch Stream Restoration - Spruce/ Drive	STRE	A	1	10.06	FY 11	\$ 400,983		0.05%	Complete	
807359-Misc Stream Valley Improvement	Little Falls - Somerset Stream Restoration	STRE	A	1	5.28	FY 11	\$ 183,609		0.03%	Complete	
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	Brewwood 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	FBIQ MMBR IMPP	E E A	1 1 1	0.59 0.12 0.01	FY 12	\$ 355,327		0.00% 0.00% 0.00%	Complete	
800900-Retrofit -Gov Facilities	Kensington Park Library Stormwater Practice Upgrades	MRNG IMPP	E A	4 1	0.67 0.01	FY 12	\$ 355,671		0.00% 0.00%	Complete	
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 IMPP	E A	12 9	2.30 0.06	FY 12	\$ 640,065		0.01% 0.00%	Complete	DOT Partnership

25

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	1.32					0.01%		
		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	1.20					0.01%		
801300-SM-Retrofit Roads	Dennis Avenue Green Streets	APRP	E	5	1.13	FY 15	\$	3,571,008		0.01%	Complete	DOT Partnership
		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 Partnership
		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	Peachwood Stormwater Pond Upgrades	XDPD	S	1	4.72	FY 11	\$	212,214		0.03%	Complete	M-NCPPC
808726-SM Retrofit:Countywide	Westleigh (Muddy Branch SVU)	PWED	S	1	9.01	FY 11				0.05%	Complete	
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 (NH) 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 Retrofit:Countywide	Naples Manor Stormwater Pond Upgrades	XDPD	S	1	10.60	FY 15	\$	327,428		0.06%	Complete	
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
								\$ 23,447,000				

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 Lambertson Drive	OUT	A	1	-	FY 11		0.00%	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 Gablon 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 Gablon Walls - 9512 Columbia Blvd	OUT	A	1	0.35	FY 11		0.00%	Complete	DOT
Outfall Stabilization	Road Culvert Replacement - Pratherdown 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 Marcelle 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	Schuyllkill 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	F	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 Streets	ICC-PB-122					FY 12		0.00%	Complete	ICC 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 Stewardship Project
Green Streets	ICC-PB-128	MSWG	E	15	0.55	FY 12		0.00%	Complete	ICC Stewardship Project
Green Streets	ICC-PB-129	MSWG	E	8	0.38	FY 12		0.00%	Complete	ICC Stewardship Project
Green Streets	ICC-PB-130					FY 14			Complete	ICC Stewardship Project
		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 Stewardship Project
Green Streets	ICC-PB-114	MSWG	E	20	2.77	FY 15		0.01%	Complete	ICC Stewardship Project
Green Streets	ICC-PB-115	MSWG	E	18	2.85	FY 15		0.02%	Complete	ICC Stewardship Project
Green Streets	ICC-PB-133	MSWG	F	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 Pond	PB-114A	PWED	S	1	7.58	FY 15		0.04%	Complete	ICC 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	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
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 Decree
Stream Restoration	Olney mill road WSSC emergency stream restoration	STRE	A	1	1.34	FY 15		0.01%	Complete	WSSC Consent Decree
Stream Restoration	WSSC and WGL Emergency Stream restoration	STRE	A	1	3.32	FY 15		0.02%	Complete	WSSC Consent Decree
Stream Restoration	Kentsdale	STRE	A	1	3.37	FY 15		0.02%	Complete	WSSC Consent Decree
Stream Restoration	Cabin John task order 16 - Wilson lane	STRE	A	1	2.73	FY 15		0.01%	Complete	WSSC Consent Decree
Stream Restoration	Cabin John north task 20	STRE	A	1	5.96	FY 15		0.03%	Complete	WSSC Consent Decree

Redevelopment	Beverly Farms Modernization	IMPP	A	1	1.10	FY 15		0.01%	Complete	MCPS - School Modernization
Redevelopment	Cabin John Modernization	IMPP	A	1	2.23	FY 15		0.01%	Complete	MCPS - School Modernization
Redevelopment	Cannon Road Modernization	IMPP	A	1	1.29	FY 15		0.01%	Complete	MCPS - School Modernization
Redevelopment	Carderock Springs Modernization	IMPP	A	1	0.82	FY 15		0.00%	Complete	MCPS - School Modernization
Redevelopment	Cresthaven Modernization	IMPP	A	1	1.10	FY 15		0.01%	Complete	MCPS - School Modernization
Redevelopment	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 Modernization	IMPP	A	1	0.37	FY 15		0.00%	Complete	MCPS - School Modernization
Redevelopment	Properties Acquired by M-NCPPC	IMPP	A	55	3.31	FY 15		0.02%	Complete	Properties Acquired by M-NCPPC
Redevelopment	Private Redevelopment	IMPP	A	9	8.53	FY 15		0.05%	Complete	Private Redevelopment
Redevelopment	Private Redevelopment - Additional Sites	IMPP	A	46	44.86	FY 15		0.24%	Complete	Private Redevelopment - Additional Sites
Redevelopment		AGRE	E	7	1.70	FY 15		0.01%	Complete	New SWMF
Redevelopment		APRP	E	14	0.17	FY 15		0.00%	Complete	New SWMF
Redevelopment		FBIO	E	8	0.77	FY 15		0.00%	Complete	New SWMF
Redevelopment		FBIO	S	30	4.06	FY 15		0.02%	Complete	New SWMF
Redevelopment		FBIO	S	1	-	FY 15			Complete	New SWMF
Redevelopment		FSND	S	4	0.72	FY 15		0.00%	Complete	New SWMF
Redevelopment		FSND	S	84	47.93	FY 15		0.25%	Complete	New SWMF
Redevelopment		FSND	S	5	1.63	FY 15		0.01%	Complete	New SWMF
Redevelopment		FUND	S	14	2.09	FY 15		0.01%	Complete	New SWMF
Redevelopment		FUND	S	37	10.62	FY 15		0.06%	Complete	New SWMF
Redevelopment		ITRN	S	47	3.51	FY 15		0.02%	Complete	New SWMF
Redevelopment		ITRN	S	3	0.25	FY 15		0.00%	Complete	New SWMF
Redevelopment		ITRN	S	11	0.42	FY 15		0.00%	Complete	New SWMF
Redevelopment		ITRN	E	19	0.21	FY 15		0.00%	Complete	New SWMF
Redevelopment		MIBR	S	1	-	FY 15			Complete	New SWMF
Redevelopment		MILS	E	1	-	FY 15			Complete	New SWMF
Redevelopment		MMBR	E	25	4.22	FY 15		0.02%	Complete	New SWMF
Redevelopment		MRNG	E	6	0.16	FY 15		0.00%	Complete	New SWMF
Redevelopment		MRWH	E	2	0.01	FY 15		0.00%	Complete	New SWMF
Redevelopment		MSWB	E	2	0.33	FY 15		0.00%	Complete	New SWMF
Redevelopment		MSWB	S	4	0.67	FY 15		0.00%	Complete	New SWMF
Redevelopment		MSWG	E	29	1.15	FY 15		0.01%	Complete	New SWMF
Redevelopment		ODSW	S	3	0.51	FY 15		0.00%	Complete	New SWMF
Redevelopment		OTH	S	6	1.35	FY 15		0.01%	Complete	New SWMF
Redevelopment		OTH	S	3	7.06	FY 15		0.04%	Complete	New SWMF
Redevelopment		OTH	S	5	0.39	FY 15		0.00%	Complete	New SWMF
Redevelopment		OTH	S	25	9.80	FY 15		0.05%	Complete	New SWMF
Redevelopment		OTH	E	46	0.46	FY 15		0.00%	Complete	New SWMF
Redevelopment		OTH	S	8	1.07	FY 15		0.01%	Complete	New SWMF
Redevelopment		OTH	S	2	0.42	FY 15		0.00%	Complete	New SWMF
Redevelopment		OTH	S	22	14.07	FY 15		0.07%	Complete	New SWMF
Redevelopment		OTH	S	11	2.80	FY 15		0.01%	Complete	New SWMF
Redevelopment		PWED	S	1	1.65	FY 15		0.01%	Complete	New SWMF
Redevelopment		PWET	S	1	0.35	FY 15		0.00%	Complete	New SWMF
Redevelopment		WEDW	S	3	70.89	FY 15		0.38%	Complete	New SWMF
Redevelopment		XDED	S	7	0.09	FY 15		0.00%	Complete	New SWMF
Redevelopment		XDPD	S	24	3.61	FY 15		0.02%	Complete	New SWMF
Redevelopment		XDPD	S	4	0.19	FY 15		0.00%	Complete	New SWMF
Redevelopment		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		\$ 75,195		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	0.01		\$ 736		0.00%	
		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	1.68			\$ 88,853	0.01%		
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	8.4%		

**Testimony of Sylvia Tognetti, on behalf of the Montgomery County Group of the Maryland Sierra Club**

**Tuesday June 14, 2016**

**Montgomery County Council Hearing on the 2016 National Pollutant Discharge Elimination System MS4 Permit Financial Assurance Plan**

The Montgomery County Group of the Maryland Sierra Club strongly supports approval of the proposed Financial Assurance Plan, which assures that the County is dedicating sufficient funds for compliance with its NPDES MS4 permit, as is required under the revised Maryland stormwater law.

Stormwater is a growing source of pollution to the Chesapeake Bay. Stormwater caused pollution is occurring in urbanized and urbanizing watersheds which are, increasingly, upstream from drinking water intakes, where it has already led to higher costs for water treatment. An example of such additional costs is the current plan to construct a mid-river Submerged Channel Intake at the Potomac Water Filtration Plant because of increased stormwater pollution from the Watts Branch watershed, for which total cost estimates nearly tripled in the WSSC FY 2016-2021 Adopted CIP Budget, from \$28.4 to \$82.6 million as the result of a more detailed feasibility study. This is intended to reduce added treatment costs estimated in 2006 at \$800,000 per year. These costs do not factor in added treatment costs expected as a result of additional development, further up the river. They also do not factor in the costs of implementing the WSSC Consent Decree which will require long term capital improvements to the Potomac Water Filtration Plant necessary to comply with the Clean Water Act.

Funding for compliance with the County's MS4 permit enables the restoration of green infrastructure which is an investment in water quality that can be expected to show a return through reduced costs for water treatment along with other environmental, social and economic or "triple bottom-line" benefits. Commonly cited benefits include job creation, air quality improvement, recreational opportunities and increased property values. Green infrastructure can also increase resilience to climate change. According to the National Climate Assessment, climate change has already resulted in a 71% increase in heavy storms in the northeastern US between 1958 and 2012 –and heavier storms produce much greater damage from stormwater.

Through participation in the Stormwater Partners Network, our group is providing input to DEP towards the development of a Green Infrastructure Policy that will maximize these triple bottom-line (environmental, economic and social) benefits. We urge you to approve the Financial Assurance plan, and look forward to collaboration with DEP to develop more effective and innovative green infrastructure projects, along with ways to account for their multiple benefits and demonstrate the actual return on investment.

**Contacts:**

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**Maryland**  
Department of  
the Environment

Larry Hogan  
Governor

Boyd Rutherford  
Lieutenant Governor

Ben Grumbles  
Secretary

April 13, 2016

Ms. Lisa Feldt, Director  
Department of Environmental Protection  
Montgomery County Government  
255 Rockville Pike, Suite 120  
Rockville, MD 20850

Dear Ms. Feldt:

Thank you for your recent letter and submittal of Montgomery County's 2015 municipal separate storm sewer system (MS4) Annual Report to Secretary Ben Grumbles. The Secretary received your letter and asked me to respond on his behalf.

Montgomery County's MS4 Permit (06-DP-3320 MD0068349 ) expired on February 16, 2015 and has been administratively continued by the Maryland Department of the Environment (MDE). A recent court decision (*Maryland Department of the Environment, et al. v. Anocostia Riverkeeper, et al.*, No. 42, September Term, 2015) has affirmed MDE's decision to issue the permit. Montgomery County's 2015 Annual Report documents many MS4 program accomplishments, including the successful implementation of erosion and sediment control, stormwater management, monitoring, and public outreach programs. The County was also required to restore 20% of its impervious surface area that had little or no stormwater management as part of a strategy for working toward Chesapeake Bay total maximum daily loads (TMDL). Regarding this restoration requirement, the County's 2015 Annual Report indicates that:

- The restoration baseline is 3,777 acres
- Restoration has been completed for 1,774 acres, or 47% of the restoration requirement
- Restoration of an additional 170 acres is currently under construction
- Plans for the restoration of 2,430 acres are currently in design
- The County will be capable of meeting the 20% requirement by State fiscal year 2020

Montgomery County is currently in violation of its MS4 permit because it has not met the 20% restoration requirement. MDE would like to discuss with Montgomery County as soon as possible a strategy for accelerating Chesapeake Bay restoration and bringing it into compliance with its MS4 permit. Please call me at your earliest convenience at 410-537-3567 or by email at [lynn.buhl@maryland.gov](mailto:lynn.buhl@maryland.gov) to set up a meeting.

Sincerely,

Lynn Buhl, Director  
Water Management Administration

cc: Secretary Ben Grumbles

## Conduit Street

News and information for Maryland's counties.

# Maryland Court Upholds MS4 Stormwater Permits, Rejects Environmentalist Challenge

□ [March 15, 2016](#) □ [Les Knapp](#) □ [Environment, Government Liability and Courts](#)

A [Capital Gazette](http://www.capitalgazette.com/news/environment/ph-ac-cn-stormwater-permit-lawsuit-0312-20160312-story.html) article (<http://www.capitalgazette.com/news/environment/ph-ac-cn-stormwater-permit-lawsuit-0312-20160312-story.html>) (2016-03-12) reported the Maryland Court of Appeals has rejected arguments in a series of consolidated cases that the Phase 1 Municipal Separate Storm Sewer System (MS4) permits issued by the Maryland Department of the Environment (MDE) were not vague and contained sufficient information to meet federal requirements. The decision caps off a long-running legal battle between environmental groups who challenged the permits, the State, counties, and the United States Environmental Protection Agency (EPA).

The decision supported the permits issued for Baltimore City and Anne Arundel, Baltimore, Montgomery, and Prince George's Counties. The permits are required under the federal Clean Water Act. From the article:

“

“Citizens want to know the state and county are reducing this pollution,” said Tom Zolper, a

spokesman for the Chesapeake Bay Foundation, one of the lawsuit complainants. “We wanted tougher permits to make sure that happens. The court has denied these tougher permits. That’s disappointing.” ...

But MDE said the current system is effective. Environment Secretary Ben Grumbles called the ruling a “big win” for the bay and the watershed.

“The ruling supports our approach of combining accountability with flexibility to help local governments find practical solutions to reducing polluted stormwater runoff,” he said. ...

Erik Michelsen, the administrator of the county’s Watershed Protection and Restoration Program, said the system upheld by the court combined with “total maximum daily load” pollution limits keep the county’s feet to the fire.

### Useful Links

[Consolidated Court of Appeals Case \(http://www.mdcourts.gov/opinions/coa/2016/42a15.pdf\)](http://www.mdcourts.gov/opinions/coa/2016/42a15.pdf)