

## **Annual Reporting for VA0088617**

**The permittee shall submit the annual report to the Department in accordance with the following schedule:**

Reporting Period	Annual Report Due Date
April 1, 2015 through December 31, 2015	March 31, 2016
January 1, 2016 through December 31, 2016	March 31, 2017
January 1, 2017 through December 31, 2017	March 31, 2018
January 1, 2018 through December 31, 2018	March 31, 2019
January 1, 2019 through December 31, 2019	March 31, 2020
January 1, 2020 through March 31, 2020	March 31, 2021

**Each annual report shall include the following background information:**

**The permittee and permit number of the program submitting the annual report;**

Henrico County / VA0088617

**Any modifications to the MS4 Program Plan as a result of the annual report;**

None

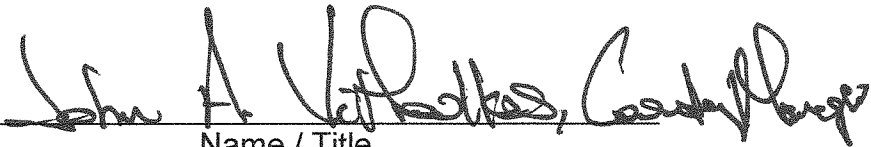
**The reporting dates for which the annual report is being submitted; and**

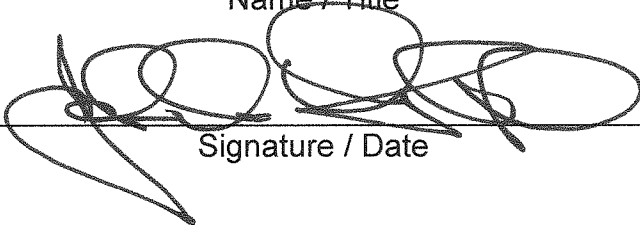
January 1, 2017 through December 31, 2017

**Certification as per Part II.K.**

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware

that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

  
\_\_\_\_\_  
Name / Title

  
\_\_\_\_\_  
Signature / Date

*For a municipality, state, federal, or other public agency signature by either a principal executive officer or ranking elected official. For purposes of this subsection, a principal executive officer of a public agency includes:*

- 1) The chief executive officer of the agency, or*
- 2) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.*

**A summary of the implementation of each of the components established under Part I.B. and an evaluation of the effectiveness of each component. Additionally, the annual report shall include a summary of progress toward development of new MS4 Program components developed in accordance with the due dates as specified in the permit. The permittee should attempt to limit any component's narrative summary to no longer than two-pages plus any necessary tables and figures.**

#### Part I.B.1 - Planning

A stormwater retrofit project summary that includes potential stormwater management projects to be completed during the term of the permit is posted on the County's website. The information Annual Report Supplement adequately addresses the permit requirements.

#### Part I.B.2.a - Construction Site Runoff and Post Construction Runoff from Areas of New Development and Development on Prior Developed Lands

The County implements an Erosion and Sediment Control Program and a Stormwater Management Program that have been determined to be consistent with state law and regulations. Implementation of the programs listed in this section will adequately address the permit concerns for this MS4 program element.

#### Part I.B.2.b - Retrofitting on Prior Developed Lands

The status of the retrofit projects listed in part I.B.1 that are being conducted during this permit term is provided in the Annual Report Supplement. The information included in the summary adequately addresses the permit requirements.

#### Part I.B.2.c - Roadways

The various Departments / Divisions that are responsible for maintaining roads, streets, and parking lots are aware of proper management goals / objectives. Inventories of County-maintained roads, streets and parking lots have also been developed as well as the stormwater treatment details required by the MS4 Permit. Implementation of the programs listed in this section will adequately address the permit concerns for this MS4 program element.

#### Part I.B.2.d - Pesticide, Herbicide, and Fertilizer Application

County-maintained lands have been evaluated to determine where nutrients are applied to more than one contiguous acre and the Departments / Divisions responsible for the County-maintained lands have been made aware of proper management goals / objectives. Summaries of the implementation details are included in the Annual Report Supplement as required by the MS4 Permit. Implementation of the programs listed in this section will adequately address the permit concerns for this MS4 program element.

#### Part I.B.2.e - Illicit Discharges and Improper Disposal

The County continues to implement programs to identify and eliminate illicit discharges. The County also has a program to inspect sanitary sewer system. Community cleanups, litter prevention and collection programs, and development design requirements are in place to reduce floatables. Summaries of the implementation details are included in the Annual Report Supplement as required by the MS4 Permit. Implementation of the programs listed in this section will adequately address the permit concerns for this MS4 program element.

#### Part I.B.2.f - Spill Prevention and Response

The County continues to implement programs to prevent, contain, and respond to spills that may discharge into the MS4. These programs involve cooperation with various Departments / Divisions. The results of the implementation of these programs are included in the Annual Report Supplement as required by the MS4 Permit. Implementation of the programs listed in this section will adequately address the permit concerns for this MS4 program element.

#### Part I.B.2.g - Industrial and High Risk Runoff

The County continues to implement a program to identify and control pollutants in stormwater discharges to the MS4 from industrial and high risk runoff facilities. Summaries of the implementation details are included in the Annual Report Supplement as required by the MS4 Permit. Implementation of the programs listed in this section will adequately address the permit concerns for this MS4 program element.

#### Part I.B.2.h - Stormwater Infrastructure Management

The County continues to implement programs to maintain the County's stormwater infrastructure and to update the accuracy and inventory of the storm sewer system. The Departments / Divisions responsible for County maintained lands are aware of the management goals / objectives and summaries of the implementation details are included in the Annual Report Supplement as required by the MS4 Permit. Implementation of the programs listed in this section will adequately address the permit concerns for this MS4 program element.

#### Part I.B.2.i - County Facilities

County-maintained facilities have been evaluated to determine which ones are High Priority Municipal Facilities and the Departments/Divisions responsible for County facilities are aware of proper management goals / objectives. Summaries of the implementation details are included in the Annual Report Supplement as required by the MS4 Permit. Implementation of the programs listed in this section will adequately address the permit concerns for this MS4 program element.

#### Part I.B.2.j - Public Education / Participation

The various Departments / Divisions in the County implement many public education programs with the goal of increasing the stormwater knowledge

of target audiences and changing behavior to result in pollutant reductions. Summaries of the program activities and the audiences reached are listed in the Annual Report Supplement as required by the MS4 Permit. Implementation of the programs listed in this section will adequately address the permit concerns for this MS4 program element.

#### Part I.B.2.k - Training

The various Departments / Divisions in the County conduct and makes available to County staff many training opportunities to address the topics required by the MS4 Permit. Summaries of the training opportunities and the number of staff attending are listed in the Annual Report Supplement as required by the MS4 Permit. Implementation of the programs listed in this section will adequately address the permit concerns for this MS4 program element.

#### Part I.B.2.l - Water Quality Screening Programs

The County implements both dry and wet weather screening programs in accordance with the requirements of the MS4 permit. Summaries of the implementation details are listed in the Annual Report Supplement as required by the MS4 Permit. Implementation of the programs listed in this section will adequately address the permit concerns for this MS4 program element.

#### Part I.B.2.m - Infrastructure Coordination

The Annual Infrastructure Coordination meeting between County and VDOT representatives occurred on November 30, 2017. During the meeting, all topics required by the MS4 Permit were discussed and the meeting summary is included in the Annual Report Supplement as required by the MS4 Permit.

### **A summary report of the monitoring programs listed under Part I.C**

Summaries of the results of the monitoring programs listed under Part I.C are included in the Annual Report Supplement.

### **A summary of the implementation of each component listed under Part I.D.**

The TMDL Action Plans required by Part I.D have been developed and are posted on the County's website. A summary of projects implemented during this reporting period are included in the Annual Report Supplement.

**The Specific Reporting Requirements identified in this state permit.**

The Specific Reporting Requirements are addressed in the Annual Report Supplements included in the MS4 Program Plan.

# **HENRICO COUNTY MS4 PROGRAM PLAN**

## **PART I.A.1 AUTHORIZED DISCHARGES**

There are no Specific Reporting Requirements associated with this part of the MS4 Permit.

## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.A.2 PERMITTEE RESPONSIBILITIES**

**Each annual report shall include a current list of roles and responsibilities.**

The roles and responsibilities for the appropriate Departments and Divisions have been established and are provided in the applicable part of the MS4 Program Plan. Given the extent of the tasks associated with the MS4 Permit and the numerous Departments and Divisions that have a role in implementing the requirements of the MS4 Permit, the roles and responsibilities have not been repeated here. Please refer to the MS4 Program Plan for the current list of roles and responsibilities.

**Each annual report shall include a list of those circumstances of non-compliance outside of the permittee's control.**

Circumstance of Non-Compliance Outside County's Control From January 1, 2017 through December 31, 2017	Date
None	



# **HENRICO COUNTY MS4 PROGRAM PLAN**

## **PART I.A.3 LEGAL AUTHORITY**

There are no Specific Reporting Requirements associated with this part of the MS4 Permit.

## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.A.4 MS4 PROGRAM RESOURCES**

**A copy of the fiscal year's budget including its proposed capital and operation and maintenance expenditures necessary to accomplish the activities required by this state permit shall be submitted with each annual report.**

The County's Approved Budget for Fiscal Year 2016 - 2017 can be found at <https://henrico.us/pdfs/finance/ApprovedBudgetFY2018.pdf>. Given the size of the document, the budget has not been included in this Annual Report Supplement.

	Approved Overall Budget	Approved Funding for MS4 Program Compliance	Source(s) of Funding
<b>CAPITAL</b>	\$119,278,897	\$2,398,031	General Fund Enterprise Funds
<b>OPERATION AND MAINTENANCE</b>	\$242,556,891	\$7,647,627	General Fund Internal Service Fund Enterprise Funds

# **HENRICO COUNTY MS4 PROGRAM PLAN**

## **PART I.A.5 PERMIT MAINTENANCE FEES**

A statement regarding payment of the applicable MS4 permit maintenance fee, including check date and check number shall be included with each annual report.

**Note:** Please do not include copies of checks or other bank records.

A check (check # 01229467, dated August 31, 2017) for the MS4 Permit Maintenance Fee (\$8,800.00) was submitted on August 31, 2017 to:

Treasurer of Virginia - DEQ  
P. O. Box 1104  
Richmond, VA 23218

# **HENRICO COUNTY MS4 PROGRAM PLAN**

## **PART I.A.6 MS4 PROGRAM PLAN**

Utilizing the last annual report prior to this state permit effective date as a baseline, the permittee's first annual report submitted under this state permit (Initial Report) shall include the necessary updates to describe implementation of this MS4 Program Plan and meet the conditions described in this section.

The current MS4 Program Plan can be found at <http://henrico.us/works/engineering-environmental-services/2015-ms4-permit-and-ms4-program-plan/>.

**NOTE:** For purposes of the next permit cycle, the fourth annual report submitted under this state permit will be considered the updated MS4 Program Plan to be reviewed as part of permit reissuance.

Noted.

# **HENRICO COUNTY MS4 PROGRAM PLAN**

## **PART I.A.7 MS4 PROGRAM REVIEW AND UPDATES**

All modifications and proposed modifications shall be reported in accordance with this section of the permit.

The current MS4 Program Plan can be found at <http://henrico.us/works/engineering-environmental-services/2015-ms4-permit-and-ms4-program-plan/>.

# **HENRICO COUNTY MS4 PROGRAM PLAN**

## **PART I.B.1**

### **PLANNING**

The permittee shall provide a current web link to the analysis no later than 12 months after the effective date of this state permit with each annual report.

The stormwater management retrofit project summary can be found at <http://henrico.us/works/engineering-environmental-services/stormwater-retrofit-projects-summary/>.

## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.B.2.a**

#### **MS4 PROGRAM IMPLEMENTATION CONSTRUCTION SITE RUNOFF AND POST CONSTRUCTION RUNOFF FROM AREAS OF NEW DEVELOPMENT AND DEVELOPMENT ON PRIOR DEVELOPED LANDS**

Each annual report shall contain the number of regulated land disturbing activities approved and the total number of acres disturbed.

Number of Regulated Land Disturbing Activities Approved between January 1, 2017 and December 31, 2017	Total Number of Acres Disturbed
149	1,016.52

Each annual report shall contain the number of land disturbing activity inspections conducted and the number and type of each enforcement action taken.

ESC and SWM Inspection and Enforcement Actions conducted between January 1, 2017 December 31, 2017	Number of Actions
ESC Inspection - Complete	6,542
ESC Inspection - Follow-Up	581
PreConstruction Meeting	149
SWPPP - Complete	578
SWPPP - Follow-Up	112
Notice to Comply	113
Stop Work Order	8

---

## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.B.2.a**

#### **ANNUAL REPORT SUPPLEMENT JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## **HENRICO COUNTY MS4 PROGRAM PLAN**

**Each annual report shall include a summary of actions taken by the permittee to implement Part I.B.2.a)1) through 3) of this state permit.**

No actions such as ordinance revisions, additional staff, revised roles/responsibilities, etc. were taken between January 1, 2017 and December 31, 2017 to implement the local ESC and SWM programs.



## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.B.2.b**

#### **MS4 PROGRAM IMPLEMENTATION RETROFITTING ON PRIOR DEVELOPED LANDS**

Each annual report shall include a status update for those projects for which implementation began during the reporting period.

<b>Retrofit Projects for which Implementation* began between January 1, 2017 and December 31, 2017</b>	
<b>Dunncroft Park, Phase 1</b>	
Land use being retrofitted	Urban
Retrofit performed	Natural Stream Restoration of 480 feet of an unnamed tributary to Meredith Branch
Completion date	August 4, 2017
Anticipated completion date	2017
Total acreage retrofitted	17.23
Total impervious acreage	5.99
Total pervious acreage	11.24
Latitude / Longitude	37.6565 / -77.539
<b>Dunncroft Park, Phase 2</b>	
Land use being retrofitted	Urban
Retrofit performed	Natural Stream Restoration of 730 feet of an unnamed tributary to Meredith Branch
Completion date	August 4, 2017
Anticipated completion date	2017
Total acreage retrofitted	26.20
Total impervious acreage	9.11
Total pervious acreage	17.09
Latitude / Longitude	37.6575 / -77.5398
<b>Dunncroft Park, Phase 3</b>	
Land use being retrofitted	Urban
Retrofit performed	Natural Stream Restoration of 220 feet of an unnamed tributary to Meredith Branch
Completion date	August 4, 2017

---

## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.B.2.b**

#### **ANNUAL REPORT SUPPLEMENT**

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

Anticipated completion date	2017
Total acreage retrofitted	7.90
Total impervious acreage	2.75
Total pervious acreage	5.15
Latitude / Longitude	37.6585 / -77.5402
<b>Dunncroft Park, Phase 4</b>	
Land use being retrofitted	Urban
Retrofit performed	Natural Stream Restoration of 230 feet of an unnamed tributary to Meredith Branch
Completion date	August 4, 2017
Anticipated completion date	2017
Total acreage retrofitted	8.26
Total impervious acreage	2.87
Total pervious acreage	5.38
Latitude / Longitude	37.6592 / -77.5405
<b>Belmont Golf Course, Phase 2</b>	
Land use being retrofitted	Urban
Retrofit performed	Streambank Restoration of 1,050 feet of severely eroded streambank on North Run
Completion date	March 3, 2018
Anticipated completion date	2018
Total acreage retrofitted	10,903.79
Total impervious acreage	2.846.02
Total pervious acreage	4.426.92
Latitude / Longitude	37.6203 / -77.4608
<b>Belmont Golf Course, Phase 3</b>	
Land use being retrofitted	Urban
Retrofit performed	Regenerative Stormwater Conveyance
Completion date	March 3, 2018
Anticipated completion date	2018
Total acreage retrofitted	38.80
Total impervious acreage	5.27
Total pervious acreage	31.05
Latitude / Longitude	37.6203 / -77.4635

\* For purposes of this reporting requirement, implementation means the construction or installation of the retrofit project.

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.b

### ANNUAL REPORT SUPPLEMENT

### JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

# **HENRICO COUNTY MS4 PROGRAM PLAN**

## **PART I.B.2.c MS4 PROGRAM IMPLEMENTATION ROADWAYS**

The permittee shall include a copy of the written protocols identified in Part I.B.2.c)(2) with the annual report due March 31, 2019.

Noted.

## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.B.2.d**

#### **MS4 PROGRAM IMPLEMENTATION PESTICIDE, HERBICIDE, AND FERTILIZER APPLICATION**

Each annual report submitted after March 31, 2016 shall report on compliance with the turf and landscape nutrient management plan implementation schedule and include a list of the permittee's properties for which turf and landscape nutrient management plans have been implemented during the reporting year and the cumulative total of acreage under turf and landscape nutrient management plans.

MS4 Municipal Management Areas (MMMA's) on which Turf and Landscape Nutrient Management Plans were implemented between January 1, 2017 and December 31, 2017		
MMMA	MMMA Description (if applicable)	Acreage Covered
	None	
TOTAL		

Turf and Landscape Nutrient Management Compliance	
Total acres requiring coverage by a Turf and Landscape Nutrient Management Plan	274.55
Total acres managed by a Turf and Landscape Nutrient Management Plan	274.55
Percentage of identified acres requiring coverage by a Turf and Landscape Nutrient Management Plan that is covered by a Turf and Landscape Nutrient Management Plan	100

Each annual report shall include the number of acres managed under Integrated

## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **Pest Management Plans.**

Acres managed under Integrated Pest Management Plans	64.503
--	--------

## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.B.2.e**

#### **MS4 PROGRAM IMPLEMENTATION ILLICIT DISCHARGES AND IMPROPER DISPOSAL**

Each annual report shall include a list of illicit discharges identified, the source, a description of follow-up activities and whether the illicit discharge has been eliminated.

Illicit Discharges Identified between January 1, 2017 and December 31, 2017		
IDDE00278		
Dumped sofa and trash	12/31/2016 Received notification via the online spill reporting form about a large sectional couch and other household trash dumped on the side of the road.  1/3/2017 DPW staff forwarded the complaint to the Road Department to create a work order to remove the items from the side of the road.	Illicit discharge eliminated
IDDE00279		
Leaves and yard debris in inlet	1/4/2017 Received notification about an inlet that was full of leaves and yard debris.  1/5/2017 DPW staff sent out 5 educational letters to the homes adjacent to the inlet where the yard debris was dumped.	Illicit discharge eliminated
IDDE00280		
Potential water leak	1/18/2017 Received notification about a possible water leak, dry weather flow that tested positive for chlorine.  1/18/2017 DPW staff forwarded the location to DPU to investigate as a potential water leak.	Illicit discharge eliminated

---

## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.B.2.e**

#### **ANNUAL REPORT SUPPLEMENT**

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

IDDE00281		
Possible septic system leaking	<p>1/23/2017 Received notification about a potential septic system leaking.</p> <p>1/23/2017 DPW staff made a site visit and did not see any evidence of sewage or other illicit discharge, there was no flow leaving the property. We did observe pink flags in the backyard near where the drain field should be. DPW staff called the complainant to update them on the site visit when the complainant let DPW staff know the house has been having septic issues for over a year. DPW staff also forwarded the location to Health Department.</p> <p>1/25/2017 DPW staff made another site visit and still did not see any sewage, or other flow, entering the roadside ditch.</p> <p>1/26/2017 DPW staff followed up with the Health Department who informed them they were going to be making a site visit in a few days.</p> <p>1/31/2017 DPW staffed received an update from the Health Department who confirmed the septic system is failing and there is sewage on the ground in the area of the tank. They are reaching out to the homeowner and will work with them on getting this resolved.</p>	Illicit discharge eliminated
IDDE00282		
Potential water leak	<p>2/2/2017 Received notification about a possible water leak, dry weather flow that tested positive for chlorine.</p> <p>2/2/2017 DPW staff made a site visit and the inlet was dry. No IDDE found.</p>	Illicit discharge eliminated
IDDE00283		
Potential water leak	2/2/2017 Received notification about a possible water leak, dry weather flow that tested positive for	Illicit discharge

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.e

### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## HENRICO COUNTY MS4 PROGRAM PLAN

	chlorine.  2/2/2017 DPW staff forwarded the location to DPU to investigate as a potential water leak.	eliminated
IDDE00284		
Leaking car	<p>2/7/2017 Received notification about red truck that is leaking in the roadway.</p> <p>2/7/2017 DPW staff made a site visit and confirmed there was staining in the roadway however there was no vehicle there. DPW staff knocked on the door where the staining was and homeowner confirmed their vehicle was leaking however they got it fixed the previous week. Homeowner also stated they tried to get some of the oil up from the roadway. DPW staff informed them if they were going to try to get staining up they were not allowed to use water or liquid unless they were going to capture it.</p> <p>2/8/2017 DPW staff spoke with the complainant to let them know the vehicle in question has been fixed however they should call back if they noticed anything else.</p>	Illicit discharge eliminated
IDDE00285		
Rubber playground material dumped	<p>2/7/2017 Received notification about numerous bags of open rubber playground material in a parking lot that was washing into a nearby inlet.</p> <p>2/7/2017 DPW staff made a site visit and spoke with the owner of the business who informed us she was trying to sell the playground mulch but would clean up and cover the material in the meantime.</p>	Illicit discharge eliminated
IDDE00286		
Potential oil discharge	2/23/2017 Received notification about a homeowner who might be dumping oil in the roadside ditch as it is orange and oily. Complainant said it disappears and reappears after rain event.	Illicit discharge eliminated

---

**HENRICO COUNTY MS4 PROGRAM PLAN**  
**PART I.B.2.e**  
**ANNUAL REPORT SUPPLEMENT**  
**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**



## HENRICO COUNTY MS4 PROGRAM PLAN

	<p>2/24/2017 DPW staff made a site visit and determined the discoloration/oil in the water was iron bacteria buildup. Complainant was present during DPW's site visit and they were able to talk to her about iron bacteria and how it is naturally occurring and not harmful. Complainant expressed an interest in seeing if County could fill potholes in the gravel roadway while DPW staff was out there.</p> <p>2/25/2017 DPW staff forwarded location to Road Department to create a work order to fill in potholes.</p>	
IDDE00287		
Sediment laden water	<p>2/27/2017 Received notification via online spill reporting form about grease overflowing from a grease dumpster.</p> <p>2/28/2017 DPW staff made a site visit and confirmed there was a grease spill in the parking lot near the grease bins, there was absorbent material down. DPW staff walked inside and spoke with the general manger who confirmed there was a grease overflow and had already contacted the grease bin company who was going to come and dump the bin and clean up the overflow. DPW staff informed general manager they could not use water to clean up the overflow unless they planned to capture it and he stated he understood.</p> <p>3/6/2017 DPW received notification about grease in nearby inlets. DPW staff made another site visit and observed what seemed like power wash runoff containing grease in the curb line and inlet in the parking lot. DPW staff looked at downstream stormwater structures and found grease pooling below an end treatment, a boom was placed in this area to ensure the grease did not go further downstream. DPW went inside the business to speak with the general manager however he was already gone for the day. DPW staff spoke with</p>	Illicit discharge eliminated

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.e

### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## HENRICO COUNTY MS4 PROGRAM PLAN

	<p>another employee who confirmed they had power washed over the weekend. DPW staff was given the owners name and number.</p> <p>3/7/2017 DPW staff spoke with the County Attorney's office about the issue and it was agreed the County would send an enforcement letter.</p> <p>3/7/2017 DPW staff spoke with the owner who was very receptive to doing whatever necessary to clean up the area.</p> <p>3/9/2017 DPW staff met owner on site and showed him the area of in question including the residual grease in the curb line and the end treatment where the grease was pooling. DPW staff gave owner a list of clean up contractors he could hire to do the necessary work.</p> <p>3/13/2017 DPW staff made a site visit and confirmed the cleanup had been performed.</p> <p>5/31/2017 Received notification from Building Inspections about grease around the two outside grease bins. DPW staff made a site visit and found 1 very small pool of grease under the bin but not consistent with an overflow, unless they had already cleaned it up. Walked the storm system downstream and did not see any evidence of them power washing the area again.</p> <p>6/1/2017 DPW staff spoke with the owner to make him aware of the complaint they received and reminded him if they had a grease overflow / spill they were not to clean it up with water. He agreed and said he was made aware of the overflow and he told them they were not able to power wash the area however he would talk to his employees again about the proper way to dispose of oil.</p>	
--	--	--

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.e

#### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## HENRICO COUNTY MS4 PROGRAM PLAN

IDDE00288		
Dumped jug of unknown liquid	3/8/2017 Received notification from Road Department about 2 containers of unknown liquid on the side of the road. Road Department hired a cleanup contractor to remove the containers since they were unsure of what the liquid was.	Illicit discharge eliminated
IDDE00289		
Paint cans on side of the road	<p>3/10/2017 Received notification via online spill reporting form about paint on the roadway and cans on the side of the road.</p> <p>3/10/2017 DPW staff made a site visit and determined the paint on the roadway was dry therefore there was nothing that could be done. There were 2 paint cans on the side of the road that DPW staff picked up and put absorbent material in to help dry up product, once dry will dispose of the cans.</p>	Illicit discharge eliminated
IDDE00290		
Garbage in the wetlands	<p>3/12/2017 Received notification via online spill reporting form about garbage in the wetlands.</p> <p>3/13/2017 DPW staff made a site visit and checked the inlet leading to outfall and there was no trash. However, there was a lot of trash and debris at the end treatment and the area around it. DPW staff spoke with the homeowner who stated she calls every year with the same concern and the Road Department comes and cleans the area up.</p> <p>3/13/2017 DPW staff forwarded the location and request to the Road Department to create a work order to clean up the trash.</p>	Illicit discharge eliminated
IDDE00291		
Dumped paint cans	3/13/2017 Received notification from the Road Department about 16 paint cans on the side of the road. Road Department hired a cleanup contractor to pick up the cans and dispose of them.	Illicit discharge eliminated

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.e

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

IDDE00292		
Yard debris	<p>3/14/2017 Received notification via online spill reporting form about someone raking yard debris and blocking drainage.</p> <p>3/14/2017 DPW staff made a site visit and saw where someone has completely covered a yard grate inlet and driveway culvert with leaves.</p> <p>3/15/2017 DPW staff forwarded the location to Road Department to create a work order to clean the leaves from the roadside ditch.</p> <p>3/16/2017 DPW staff spoke with Road Department and they are going to be sending a mailing to the neighborhood about proper disposal of yard debris.</p>	Illicit discharge eliminated
IDDE00293		
Abandoned oil tank	<p>3/14/2017 Received notification about an abandoned oil tank.</p> <p>3/14/2017 DPW staff made a site visit and located the oil tank which appears to be on Recreation and Parks property. DPW forwarded this complaint to Rec. and Parks to investigate and remove if on their property.</p> <p>3/15/2017 DPW staff called the complainant to give her an update on the oil tank.</p> <p>3/27/2017 DPW staff spoke with Rec. and Parks staff who informed them the oil tank was going to be removed this week.</p>	Illicit discharge eliminated
IDDE00294		
Hydraulic leak	<p>3/14/2017 Received notification from the Road Department about one of their trucks that had a hydraulic leak. The Road Department cleaned up the leak themselves, none of the fluid reached the storm drain.</p>	Illicit discharge eliminated

---

**HENRICO COUNTY MS4 PROGRAM PLAN**  
**PART I.B.2.e**  
**ANNUAL REPORT SUPPLEMENT**  
**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

IDDE00295		
Stream is discolored	<p>3/22/2017 Received notification about a stream that was green and they were worried someone was dumping something toxic in the water.</p> <p>3/22/2017 DPW staff made a site visit and walked the stream however did not see discolored water. The water running through the stream was clear. It was noted that at the end of an end treatment water coming into the stream was stirring up sediment and discoloring the water. However, it was not green. No illicit discharge found. DPW part time staff will look at the entire storm sewer system.</p> <p>3/23/2017 DPW part time employees looked at all the structures upstream from where the green water was located and were not able to find anything suspicious.</p> <p>3/29/2017 DPW received another phone call about the creek being green.</p> <p>3/30/2017 DPW staff made a site visit and observed the creek running clear. No illicit discharge found.</p>	Illicit discharge eliminated
IDDE00296		
Leaking vehicle	<p>3/23/2017 Received notification from the Road Department about an oil puddle in the roadway.</p> <p>3/23/2017 DPW staff made a site visit and discovered a rather large pool of fluid on the roadway and along the curb and gutter leading them to believe this was being caused from a leaking vehicle. DPW staff reached out to the Fire Marshall's office to see if they could help keep an eye on the area for the vehicle. DPW staff cleaned up the roadway as best as possible using absorbent pads.</p> <p>3/27/2017 DPW staff made another site visit and</p>	Illicit discharge eliminated

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.e

### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## HENRICO COUNTY MS4 PROGRAM PLAN

	<p>noticed a van parking in the roadway and leaking oil. The daughter of the van owner arrived and DPW staff spoke to her about getting the van fixed and in the meantime placing something underneath the leak to capture it so it did not continue to leak on the roadway. DPW staff also agreed to put down absorbent material in the roadway to help with the cleanup. DPW staff gave the homeowners 30 days to fix the vehicle.</p> <p>4/3/2017 DPW staff made a site visit, the van was not present however you could see where it was now being parked in the private townhome parking lot. There were no new oil spills in the County roadway.</p> <p>4/11/2017 DPW staff made a site visit and the van was parking in the townhome parking lot, it was inoperable. Vehicle owner has placed absorbent material underneath the vehicle. No new spots in the roadway therefore no illicit discharge.</p>	
IDDE00297		
Dumping of yard scrap	<p>3/24/2017 Received notification via online spill reporting form about an easement being used as a dumping ground.</p> <p>3/24/2017 DPW staff made a site visit and did not notice anything that would make them believe someone was dumping items in the yard. No illicit discharge found.</p>	Illicit discharge eliminated
IDDE00298		
Oil slicks on the creek	<p>3/30/2017 Received notification about small oil slicks on a creek.</p> <p>3/30/2017 DPW staff made a site visit, met with the homeowner, and determined the oil slick they were concerned about was sheen from iron bacteria. DPW staff spoke with the homeowner about iron bacteria and how it was naturally occurring and not</p>	Illicit discharge eliminated

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.e

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

	harmful.  4/3/2017 DPW staff emailed the homeowner more information regarding iron bacteria as requested by the homeowner.	
IDDE00299		
Dumped concrete bags	3/30/2017 Received notification from Road Department in regard to 4 bags of concrete dumped in an inlet. The bags are intact however it is a very deep inlet therefore need to figure out best way to remove them.  3/31/2017 DPW staff spoke with Road Department and they agreed they had the resources to remove the bags therefore a work order was created.	Illicit discharge eliminated
IDDE00300		
Oil stain in the roadway	3/31/2017 Received notification from the Road Department in regard to some oil in the roadway.  4/3/2017 DPW staff made a site visit and found what appeared to be an oil leak from a vehicle. There was a vehicle parked in the roadway but not where the staining is. DPW staff knocked on the homeowner's door who stated she thought her husband's car was leaking. DPW staff explained they needed to put containment underneath the vehicle until it could get fixed.  4/11/2017 DPW staff made a site visit and the leaking vehicle was not there and there did not appear to be any new staining on the roadway. DWP staff will follow up with a phone call to the homeowner.  4/13/2017 DPW staff received a phone call from the vehicle owner who stated the vehicle has been fixed and they put down absorbent material in the roadway to get up any product they could.	Illicit discharge eliminated

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.e

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

IDDE00301		
Dumpster/ tree debris in roadway	<p>3/31/2017 Received notification via online spill reporting form regarding a dumpster and trees/debris at the end of the road.</p> <p>4/3/2017 DPW staff made a site visit and determined the house is undergoing a complete renovation therefore a roll off dumpster is outside. DPW staff did not see any violations or illicit discharges however forwarded the address to E&amp;S inspector to look at.</p> <p>4/5/2017 DPW staff received notification from the Road Department that they had received a phone call about trucks leaking oil in the roadway and also mentioned the dumpster in the roadway.</p> <p>4/10/2017 DPW staff made a site visit and did see a few spots of staining however there was no free product therefore cannot say for sure how long they had been there or from what vehicle. All the equipment was parking in the yard. No illicit discharge found.</p>	Illicit discharge eliminated
IDDE00302		
Chemical spraying	<p>4/10/2017 Received notification about a landscape company who is spraying some kind of chemical very close to a pond.</p> <p>4/10/2017 DPW staff made a site visit and the landscape company was no longer present. DPW staff drove around the pond and did not see any evidence of chemicals entering the pond and no negative impacts.</p> <p>4/11/2017 DPW staff called the office for the apartments and they informed us the company was applying pre-emergent. DPW staff asking the apartment complex to speak with the chemical company before treatments to ensure they are not</p>	Illicit discharge eliminated

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.e

### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017



## HENRICO COUNTY MS4 PROGRAM PLAN

	overapplying and not applying to the water itself, which they agreed to.	
IDDE00303		
Potential water leak	<p>4/10/2017 Received notification from routine MS4 inspections about a pipe coming out of a water meter box which was discharging chlorinated water.</p> <p>4/10/2017 DPW staff made a site visit and knocked on the door of the house to see if they could explain the pipe in the meter box however no one was home. DPW staff left a message with DPU to see if they could explain.</p> <p>4/11/2017 DPW staff received a phone call from DPU who explained they had received a call from the homeowner regarding dirty water therefore they are flushing her line. This is an allowed discharge.</p>	Illicit discharge eliminated
IDDE00304		
Staining in the roadway	<p>4/11/2017 Received notification from the Road Department about staining in the roadway.</p> <p>4/11/2017 DPW staff made a site visit and found some free product in the roadway. There was a vehicle parking in the roadway however it did not appear to be leaking. A homeowner at a nearby house saw me and called out to staff asking what they were looking at. DPW staff talked to her and she explained her car was not leaking and she was not sure what car was and who it belonged to, it was made clear DPW staff was not welcome. DPW staff sent an email to Fire Marshall's office to see if they could keep an eye on the area which they agreed to.</p> <p>5/26/2017 DPW staff received an email from Fire Marshall's office that they have driven by the area numerous time but have not seen a vehicle there.</p> <p>6/8/2017 DPW staff received an email from the Fire</p>	Illicit discharge eliminated

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.e

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

	Marshall's office with a picture of 2 cars parking in front of the house to see if either matched a description of the car leaking. Unfortunately, we did not receive a description so unsure if it is the vehicle in question.	
IDDE00305		
Hydraulic leak	<p>4/19/2017 Received notification from Police Communications regarding a hydraulic spill.</p> <p>4/19/2017 DPW staff made a site visit and saw the Fire department sweeping up absorbent material in the roadway. The Fire Department is not able to dispose of contaminated material therefore they asked DPW to take possession of it and dispose of it.</p> <p>4/20/2017 Contaminated material was placed in drums on the DPW Road Department yard for proper disposal.</p>	Illicit discharge eliminated
IDDE00306		
White foam in creek	<p>4/27/2016 Received notification about a bright white foam in the creek that runs throughout the neighborhood.</p> <p>4/27/2016 DPW staff forwarded this information to VDEQ. VDEQ went out and investigated and determined the discharge originated in the County's MS4 however he was not able to determine where it came from. It was determined no negative impact to the creek.</p>	Illicit discharge eliminated
IDDE00307		
Improper dumping of yard debris	<p>5/16/2017 Received notification via online spill reporting form about yard waste and household trash in the roadway.</p> <p>5/18/2017 DPW staff made a site visit and found a small brush/ yard debris pile in the roadway. Not sure who is responsible for the pile however we will</p>	Illicit discharge eliminated

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.e

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

	<p>forward the location to the Road Department to write letters to homeowners.</p> <p>5/19/2017 DPW staff forwarded the location and complaint to Road Department to handle creating a work order for removal and sending out educational mailing.</p>	
IDDE00308		
Improper dumping of yard debris	<p>5/23/2017 Received notification via online spill reporting form about leaves and yard debris blocking drainage ditch between two houses.</p> <p>5/24/2017 DPW staff forwarded this location to the Road Department to investigate.</p>	Illicit discharge eliminated
IDDE00309		
Vehicle leaking gas	<p>5/26/2017 Received notification from Road Department and Community Revitalization about a wrecked vehicle that was leaking gas on the roadway.</p> <p>5/30/2017 DPW staff made a site visit and the car in question was parking along the roadway however there was no staining or pools underneath the vehicle suggesting it is not leaking any fluid. No illicit discharge was found.</p> <p>6/1/2017 DPW staff followed up with Road Department and Community Revitalization departments to let them know no illicit discharge was found.</p>	Illicit discharge eliminated
IDDE00310		
Trash truck spill	<p>5/30/2017 Received notification from the Road Department that a private trash truck had a leak. The Road Department stated they cleaned up what was spilled in the cul-de-sac but left what was spilled in the grass.</p> <p>6/1/2017 DPW staff made a site visit and noticed</p>	Illicit discharge eliminated

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.e

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

	slight staining in the roadway and a small amount of product in the grass beside the roadway however it was not significant enough to make them dig up the area as it would cause more damage in the process.	
IDDE00311		
Sheen on the water	<p>6/1/2017 Received notification from the Health Department about a concrete channel behind a property that has standing water and foul odor and sheen on top.</p> <p>6/2/2017 DPW staff met with Health Department and homeowner and found iron bacteria from ground water holding in trenches the homeowner is digging to put in underdrains. The homeowner expressed frustration that he didn't have drainage problems until the County came through and did improvements to the sewer in the area. Homeowner has spoken to DPU multiple times and asked for reimbursement for the drainage work he is having to do however it was denied. DPU is the correct department for him to be speaking with and DPW staff will reach out to them to see if there is anything more they can do for the homeowner.</p> <p>6/7/2017 DPW staff spoke with DPU Assistant Director who said he would look into the concerns.</p> <p>6/9/2017 DPW staff spoke with DPU who said they are going to go back on during the next rain event to see what the water is doing out there. No further action required by DPW.</p>	Illicit discharge eliminated
IDDE00312		
Improper pet waste disposal	<p>6/6/2017 Received notification that someone might be putting dog waste into the inlet in a neighborhood.</p> <p>6/6/2017 DPW staff made a site visit and did not see evidence of pet waste being dumped in any of</p>	Illicit discharge eliminated

## HENRICO COUNTY MS4 PROGRAM PLAN PART I.B.2.e ANNUAL REPORT SUPPLEMENT JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## HENRICO COUNTY MS4 PROGRAM PLAN

	the stormwater inlets in the neighborhood. An educational letter was sent out to seven homes in the area about proper pet waste disposal.	
IDDE00313		
Leaking vehicles	<p>6/7/2017 Received notification from the Traffic Division that asphalt trucks are dripping oil and diesel fuel onto the roadway.</p> <p>6/7/2017 DPW staff made a site visit and did not see any evidence, no staining or free product, on the roadway. However, a few areas along the road where the trucks are parking has staining and/or product underneath.</p> <p>6/9/2017 DPW staff made another site visit and spoke with a worker, their office is not at this location, who said he would get the mechanic to look at the trucks and fix any leaks he found. He also agreed to put down absorbent material to get up any product that is in the roadway.</p>	Illicit discharge eliminated
IDDE00314		
Asphalt dumped in yard	<p>6/7/2017 Received notification about damage done to the roadway from a water line project. The road was used as a staging area which left the street destroyed from spilled tar in the roadway and grass.</p> <p>6/7/2017 DPW staff made a site visit and saw what appears to be tire tracks up and down the road from trucks tracking a paving project. Will do some research as this appears to be a County hired contractor.</p> <p>6/9/2017 DPW staff spoke with DPU who confirmed it was a DPU contractor doing the work. DPU is going to be handling the complaint from here.</p> <p>6/13/2017 Complainant called from an update. DPW called DPU to find out if there was an update and they responded they would have an update for</p>	Illicit discharge eliminated

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.e

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

	the complainant the next week and follow up with complainant.	
IDDE00315		
Dumped paint in inlet	<p>6/7/2017 Received notification about what appears to be paint dumped on top of a storm water inlet.</p> <p>6/7/2017 Through emails with the complainant and other board members of the neighborhood it was determined it was plaster and not paint dumped on the inlet from a contractor they had re-plaster their baby pool. DPW staff made a site visit and confirmed it was plaster and not paint. DPW sent an email back to the complainant asking they get with their contractor to clean up what they could, not sure how much could be cleaned up since it was already hardened, and to make sure it did not happen in the future.</p>	Illicit discharge eliminated
IDDE00316		
Paint Spill	<p>6/12/2016 Received notification of a paint spill on an active construction site. The site has a SWPPP and E&amp;S inspector was going to send a Notice to Comply to the contractor. The paint spill did not reach the sediment basin and was dry in the storm sewer. The spill was recorded in the SWPPP.</p> <p>6/16/2017 DPW E&amp;S Inspector did a follow up inspection and confirmed the spill has been cleaned up.</p>	Illicit discharge eliminated
IDDE00317		
Green water	<p>6/12/2017 Received notification about bright green water running down the ditch.</p> <p>6/13/2017 DPW staff made a site visit and found the ditch to be dry expect in 2 areas. There was a sheen on top that looked slightly metallic, an absorbent pad was put down however it did not collect the sheen, a universal pad was able to collect the sheen however it did not have an</p>	Illicit discharge eliminated

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.e

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

	<p>obvious odor. There was green algae present in the water which would have been the source for the green coloration.</p> <p>6/13/2017 DPW staff sent an email to the complainant with the findings.</p> <p>6/16/2017 DPW staff made another site visit after an overnight rain and did not find water flowing during the inspection. Standing water was clear with no odor.</p>	
<b>IDDE00318</b>		
Waste water leak	6/19/2017 Received notification about a waste water leak at the County's Water Reclamation Facility. DPU is handling the cleanup and reporting of this release.	Illicit discharge eliminated
<b>IDDE00319</b>		
Hydraulic leak	6/20/2017 Received notification from the Road Department about one of their trucks having a hydraulic leak, less than 5 gallons released. The spill did reach a stormwater inlet and no sheen was noted in the creek. Road Department took the lead on cleanup and reporting for this incident.	Illicit discharge eliminated
<b>IDDE00320</b>		
Hydraulic leak	<p>6/22/2017 Received notification from DPU that one of their trucks had a hydraulic line break and fluid was tracked along several roads. DPU called a cleanup contractor to respond and cleanup.</p> <p>6/22/2017 DPW staff made a site visit and found no evidence of the spill reaching any storm sewer structures. Oil dry had been placed on spill areas but had not been cleaned up. DPW staff spoke with DPU said the cleanup contractor would be getting up the absorbent material from the roadway.</p>	Illicit discharge eliminated
<b>IDDE00321</b>		
Discolored water	7/6/2017 Received notification from the Standing Water Initiative (SWI), about discolored water in a	Illicit discharge

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.e

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

	<p>roadside ditch which appears to be coming from clay tennis courts at a nearby racquet club.</p> <p>7/7/2016 DPW staff made a site visit and noticed a whitish color in the roadside ditch. DPW staff tracked the discoloration upstream and found a concrete swale at the low end of the tennis courts holding clay and discolored water. The upper tennis courts have the same concrete ditch and discolored water/displaced clay however this does not enter the County's MS4 but discharges into the grass.</p> <p>7/10/2017 DPW staff spoke with general manager of the club about the clay discharge. The general manager is new to the facility so does not know about the watering of the courts however he will speak to the right person and get back to us.</p> <p>7/11/2017 The facilities manager for the club left a message for DPW staff. DPW staff called back however he was not there so left a message.</p> <p>7/13/2017 DPW staff spoke with the facilities manager about some extra steps the club could do to limit the discharge to the County's MS4 including cleaning out the concrete swales more frequently. The club is taking good steps in order to minimize the discharge and we are happy with those steps.</p>	eliminated
IDDE00322		
Potential water leak	<p>7/10/2017 Received notification about dry weather flow that tested positive for chlorine. This was discovered during routine MS4 inspections.</p> <p>7/10/2017 DPW staff forwarded this location to DPU to investigate as a potential water leak.</p>	Illicit discharge eliminated
IDDE00323		
Dump site	7/10/2017 Received notification via online spill reporting form about a dumped counter top with screws sticking out in the roadway.	Illicit discharge eliminated

---

**HENRICO COUNTY MS4 PROGRAM PLAN**  
**PART I.B.2.e**  
**ANNUAL REPORT SUPPLEMENT**  
**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**



## HENRICO COUNTY MS4 PROGRAM PLAN

	7/10/2017 DPW staff forwarded this location/ complaint to Road Department to investigate and remove if needed.	
IDDE00324		
Leaking trash truck	<p>7/11/2017 Received notification via online spill reporting form regarding a trash truck that spilled garbage fluid in the roadway throughout the area.</p> <p>7/13/2017 DPW staff made a site visit and confirmed there were areas of garbage juice throughout the neighborhoods in the area, all the areas were dry. DPW staff reached out to the homeowner's association to see if they were aware of the situation and to find out what trash service they use.</p> <p>7/13/2017 DPW staff called the trash service to let them know about the leaking truck. They agreed to pull that particular truck to check it for leaks and fix as needed.</p>	Illicit discharge eliminated
IDDE00325		
Possible oil spill	<p>7/14/2017 Received notification about something, potentially oil, being dumped in the swamp.</p> <p>7/14/2017 DPW staff met with Recreation and Parks employee at the swamp and determined the "oil" was a nasty algal bloom, it had a dark, sludge like feature so easy to think it might be oil.</p>	Illicit discharge eliminated
IDDE00326		
Log in the storm sewer	<p>7/17/2017 Received notification via online spill reporting form about a large log that is stuck in the storm sewer system.</p> <p>7/18/2017 DPW staff forwarded the complaint to the Road Department to investigate and remove if needed.</p>	Illicit discharge eliminated
IDDE00327		

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.e

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

Grease spill	<p>7/28/2017 Received notification via online spill reporting form about a restaurant who had clear evidence that grease had flowed across the lot to a drain.</p> <p>8/1/2017 DPW staff made a site visit and found evidence of a grease spill that had been recently cleaned up. There was a slight sheen on a puddle in the parking lot and in an inlet but nothing that could be recovered. DPW staff spoke with general manager of the restaurant who stated they had canceled their grease contract because they were not picking up the grease frequently enough. The restaurant has already contracted a new company and received a new bin. The old bin was still there and appears to have been the source of the grease in the parking lot.</p> <p>8/17/2017 DPW staff made a site visit and confirmed the old grease bin has been removed.</p>	Illicit discharge eliminated
IDDE00328		
Staining in parking lot	<p>8/1/2017 Received notification from County E&amp;S inspector regarding white staining in a parking lot.</p> <p>8/1/2017 DPW staff made a site visit and found a light dusting of clay colored dirt and white staining in the parking lot. DPW staff spoke with the store manager who informed DPW staff the discoloration was from plaster that was removed from the inside of the building which is currently undergoing a renovation. They are planning on repaving the parking lot in the next few weeks so the staining will be covered up. While there DPW staff noticed water flowing from the roof downspout, which was chlorine positive. The manager said the chiller on the roof was being replaced in the next few days, this is an allowed discharge.</p> <p>8/17/2017 DPW staff made a site visit and observed</p>	Illicit discharge eliminated

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.e

### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## HENRICO COUNTY MS4 PROGRAM PLAN

	all the construction was done and the parking lot had been repaved. No evidence of an illicit discharge.	
IDDE00329		
Sheen on water	<p>8/11/2017 Received notification of sheen on the water in an inlet which was discovered during routine MS4 inspections.</p> <p>8/11/2017 DPW staff made a site visit and did not notice sheen or anything abnormal in the inlet or on top of water. No illicit discharge found.</p>	Illicit discharge eliminated
IDDE00330		
Sheen on water	<p>8/11/2017 Received notification of an oily sheen on water surface in an inlet, this was found during routine MS4 inspections.</p> <p>8/11/2017 DPW staff made a site visit and noticed a small area of sheen however it was caused by oil, it broke up and did not reform. No illicit discharge found.</p>	Illicit discharge eliminated
IDDE00331		
Possible water leak	<p>8/11/2017 Received notification of dry weather flow that tested positive for chlorine, found during our routine MS4 inspections.</p> <p>8/11/2017 DPW staff forwarded the location to DPU to investigate as a potential water leak.</p>	Illicit discharge eliminated
IDDE00332		
Buckets dumped on side of road	<p>8/11/2017 Received notification of several buckets of asphalt emulsion were sitting near a roadside ditch without tops on.</p> <p>8/11/2017 DPW staff made a site visit and confirmed there were multiple buckets being stored in what appears to be a staging area for ongoing construction in the area, DPU sewer rehab project. DPW staff reached out to DPU construction division to see if they knew how long the buckets were</p>	Illicit discharge eliminated

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.e

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

	going to be staged in the area and if it was long term we needed to come up with a better solution for storing. DPU construction replied back that they had already spoken with the contractor and the buckets have been removed and taking to their laydown yard for storage prior to disposal.	
IDDE00333		
Leaking trash truck	<p>8/11/2017 Received notification that a private trash truck leaked fluid throughout a neighborhood.</p> <p>8/11/2017 DPW staff made a site visit and found a few, very small areas of might be leaked fluid the complainant was speaking of. However, it was nothing significant such as if the truck had a ruptured hose. No further action is required.</p>	Illicit discharge eliminated
IDDE00334		
Ruptured gas tank	<p>8/16/2017 Received notification about a van whose gas tank ruptured in the roadway.</p> <p>9/16/2017 DPW staff made a site visit and saw a large area in the roadway where the gasoline had flowed. A boom had already been placed across the inlet on the roadway. DPW staff immediately put absorbent material on the roadway and after a little time swept it up and took it back to the yard to be disposed of.</p>	Illicit discharge eliminated
IDDE00335		
Dumping of yard waste	<p>8/21/2017 Received notification of a homeowner who was blowing the yard debris off their driveway into the roadway creating a large pile of debris.</p> <p>8/21/2017 DPW staff made a site visit and saw a very minimal amount of yard debris, mostly small sticks / mulch, in the roadway. DPW staff walked down the roadway to see if there was additional yard debris however nothing was observed. This was not considered an illicit discharge.</p>	Illicit discharge eliminated

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.e

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

IDDE00336		
Oil in the roadway	<p>8/22/2017 Received notification from the Road Department about an area of oil in the roadway.</p> <p>8/22/2017 DPW staff made a site inspection and did see a large stain in the roadway, no free product, where a car is or has been leaking. There was no vehicle present.</p> <p>8/30/2017 DPW staff made another site visit and did not notice any difference in the staining and/or free product in the roadway and no vehicle was present.</p> <p>9/14/2017 DPW staff made another site visit and again did not notice anything to suggest the vehicle in question is still leaking. No vehicle was present and at this time there is nothing to clean up as there is no free product, just staining on the roadway.</p>	Illicit discharge eliminated
IDDE00337		
Power wash mess in the roadway	<p>8/31/2017 Received notification via online spill reporting form in regard to power wash mess being all over the road.</p> <p>8/31/2017 DPW staff made a site visit and did notice water and dirt / soil in the curb and gutter. It appears there might have been some work on a nearby utility box which resulted in the dirt being in the curb and gutter however the workers were no longer there. DPW staff checked to see if the County had received a permit to work in the right-of-way so they could reach out to the company however we did not have one.</p>	Illicit discharge eliminated
IDDE00338		
Dumped tires	<p>9/11/2017 Received notification via online spill reporting form in regard to several tires that were dumped in the easement.</p> <p>9/14/2017 DPW staff made a site visit and found 5 large tires in a roadside ditch. DPW staff forwarded</p>	Illicit discharge eliminated

**HENRICO COUNTY MS4 PROGRAM PLAN**  
**PART I.B.2.e**  
**ANNUAL REPORT SUPPLEMENT**  
**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

	the location to the Road Department to create a work order to pick up the tires.	
IDDE00339		
Vehicle accident	<p>9/13/2017 Received notification in regard to a vehicle accident where an 18-wheeler lost it entire load of sand in the roadway.</p> <p>9/13/2017 DPW staff made a site visit and found sand dumped across the entire roadway and in the roadside ditch. A cleanup contractor was already on site and starting the process of getting the truck removed so they could start to cleanup of sand. After the truck was removed there was a small leak of oil in the roadside ditch that the cleanup contractor dug up and disposed of. Once the sand and oil was removed from the roadside ditch the cleanup contractor put down seed and hay.</p>	Illicit discharge eliminated
IDDE00340		
Tree fell on county property	<p>9/15/2017 Received notification via online spill reporting form in regard to a tree that fall from County property and has caught fire numerous times.</p> <p>9/18/2017 DPW staff made a site visit and noticed the fallen tree, part of the tree has broken off and is laying in the roadside ditch.</p> <p>9/20/2017 DPW staff forwarded this complaint to the personnel that handles removal of trees and also left a voicemail for the complainant to let them know we were looking into it.</p> <p>9/22/2017 DPW staff did not hear back from the complainant therefore they sent an email to them regarding the County looking into the situation.</p>	Illicit discharge eliminated
IDDE00341		
Dumped sofa on the side of	9/19/2017 Received notification via online spill reporting form in regard to a sofa being dumped on	Illicit discharge

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.e

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

the road	<p>the site of the road.</p> <p>9/21/2017 DPW staff forwarded the location to the Road Department to investigate and create a work order to remove if necessary. DPW staff also called the complainant to let them know we were looking into removing it, the complainant said the sofa had just been removed however there were some cushions that were left behind. DPW staff reached back out to the Road Department to let them know there were cushions that needed to be picked up.</p>	eliminated
IDDE00342		
Chimney dust dumped	<p>9/22/2017 Received notification in regard to a chimney company that was cleaning a neighbor's chimney when they dumped the filter dust in the roadway.</p> <p>9/22/2017 DPW staff made a phone call to the chimney company about the complaint and explained that in the future it would be a good practice for the van drivers to carry bags with them to dispose of the filter lent instead of dumping it in the roadway. The company agreed to stock the vans with bags and speak with all employees to ensure they did it correctly going forward.</p>	Illicit discharge eliminated
IDDE00343		
Dumping of yard debris	<p>9/29/2017 Received notification about a homeowner blowing lawn debris into the storm drain.</p> <p>9/29/2017 DPW staff forwarded this information to the Road Department to remove debris if needed.</p>	Illicit discharge eliminated
IDDE00344		
Dumping of yard debris	<p>9/29/2017 Received notification about a homeowner blowing leaves into the storm drain.</p> <p>9/29/2017 DPW staff forwarded this information to the Road Department to remove leaves if needed.</p>	Illicit discharge eliminated

---

**HENRICO COUNTY MS4 PROGRAM PLAN**  
**PART I.B.2.e**  
**ANNUAL REPORT SUPPLEMENT**  
**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

IDDE00345		
Dumping of pet waste	<p>9/27/2017 Received notification that bags of pet waste were dumped into two storm drains. The bags were found during routine MS4 inspections.</p> <p>9/27/2017 DPW staff removed the pet waste bags and properly disposed of them. A letter was sent to the neighborhood to educate residents about proper pet waste disposal.</p>	Illicit discharge eliminated
IDDE00346		
Possible water leak	<p>9/29/2017 Received notification of dry weather flow that tested positive for chlorine. This was found during DPW's response to a drainage complaint.</p> <p>9/29/2017 DPW staff forwarded the location to DPU to investigate as a potential water leak.</p>	Illicit discharge eliminated
IDDE00347		
Gasoline spill	<p>10/2/2017 Received notification that approximately 180 gallons of gasoline spilled when a hose from a tanker ruptured. The product flowed toward a storm drain.</p> <p>10/2/2017 The Fire Department responded and ventilated the parking lot and the storm sewer system. A cleanup contractor was called to remediate. Booms were placed in the inlet and further downstream. Very little product was observed in the inlet and there was no sign of any product further downstream. The product in the parking lot had evaporated. VDEQ was also notified.</p>	Illicit discharge eliminated
IDDE00348		
Grease spill	<p>10/5/2017 Received notification via online spill reporting form about a restaurant grease spill.</p> <p>10/5/2017 DPW staff made a site visit and observed beer line flushing liquid (not grease) leaking from a trash can. Limited material had only flowed into the</p>	Illicit discharge eliminated

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.e

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**



## HENRICO COUNTY MS4 PROGRAM PLAN

	parking lot. It did not flow into any storm drains. The incident and remediation was discussed with the manager who said he would take care of it with absorbent pads instead of washing.	
IDDE00349		
Possible water leak	<p>10/5/2017 Received notification about several structures with dry weather flow that tested positive for chlorine. These were found during routine MS4 inspections.</p> <p>10/5/2017 DPW staff forwarded the locations to DPU to investigate as possible water leaks.</p>	Illicit discharge eliminated
IDDE00350		
	<p>10/27/2017 Received a complaint from a business owner that the adjacent business (dog daycare) has water running off their property, across the complainant's parking lot and into the storm drain. The water leaves a green slime and there is a strong urine and fecal odor.</p> <p>10/27/2017 DPW staff made a site visit and observed water seeping through the parking lot. Algae was present and the seepage flows toward a stormwater inlet. It had not rained for several weeks and it is suspected that the daily wash down of the dog runs is the source of seepage.</p> <p>11/2/2017 DPW and DPU staff met with owner of the dog daycare and owner of the property on which the dog daycare is located. The dog runs are lined underground with crush and run (gravel). No additional underdrain was installed during the placement of gravel but there is a white pvc pipe that outfalls at the edge of the property, closer to the road. DPW noted that this pipe may have been previously installed to drain the dog daycare facility. The daycare owner and owner of the property believe the seepage and poor drainage conditions in the parking lot next door are the result of the</p>	Illicit discharge eliminated

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.e

### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## HENRICO COUNTY MS4 PROGRAM PLAN

	<p>other business's roof drains and air conditioning condensate. A sample was taken and it tested negative for fecal coliform. The sample also tested negative for chlorine.</p> <p>11/6/2017 DPW staff made follow up site visit and observed very wet conditions with lots of algae in the parking lot of concern. DPW recommended the original complainant connect the roof downspouts to pipe and discharge the water to the roadside inlet to rule out that the roof water is creating the drainage problem.</p> <p>11/20/2017 DPW staff made a follow up site visit. The complainant has tied all questionable roof downspouts to corrugated pipe but the problem persists. Left a message with the dog daycare owner suggesting she hire a plumber to camera the questionable white pvc pipe.</p> <p>1/12/2018 DPW staff made a site visit during rainfall event to confirm the roof water is discharging through the corrugated pipes and not into the parking lot. The white pvc pipe was dry with no evidence of water flowing through it.</p> <p>1/24/2018 DPW spoke with dog daycare owner to inquire if she had contacted a plumber to investigate the questionable white pvc pipe. She plans to hire a plumber in the next few weeks. DPW recognizes the parking lot seepage as a private and civil issue between property owners. Given the negative chlorine and fecal coliform tests, there is no evidence the seepage is an illicit discharge. DPW will continue to monitor the drainage problem for any changes and upon request, will provide recommendations to the involved parties.</p>	
IDDE00351		

---

**HENRICO COUNTY MS4 PROGRAM PLAN**  
**PART I.B.2.e**  
**ANNUAL REPORT SUPPLEMENT**  
**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

Hydraulic oil leak	10/27/2017 Received notification that a DPU refuse truck leaked 10-15 gallons. The leak was stopped and contained. Spill absorbent was applied and the material did not reach any storm drains.	Illicit discharge eliminated
IDDE00352		
Hydraulic oil leak	10/30/2017 Received notification that a DPU contractor truck leaked 2-3 gallons while performing warranty work on a refuse truck. Prior to the leak being stopped and contained, some oil mixed with some standing water in the parking lot. Booms were used to prevent the water from reaching the stormwater ditch. Oily water was removed and the area was remediated by a cleanup contractor.	Illicit discharge eliminated
IDDE00353		
Possible sanitary sewer leak	<p>11/3/2017 Received notification of a possible sanitary sewer leak into a roadside ditch/driveway culvert. A DPW Road Dept. crew noticed the odor and dark water as they were cleaning the roadside ditch and driveway culvert.</p> <p>11/3/2017 DPW staff forwarded the concern to DPU to investigate further. DPU conducted an inspection and determined there were no sanitary leaks or blockages in the area and that it appeared to be groundwater.</p> <p>11/6/2017 DPW collected three water samples and two were positive for fecal coliform. DPW contacted DPU to request they televise the sanitary sewer line in this area. DPW left a message with the homeowner to let her know why the driveway culvert was still blocked.</p> <p>11/13/2017 DPW received notification from DPU that they televised the sewer mainlines and laterals and found no issues or leaks. DPW spoke with a resident at the home who said he was not aware of anything unusual.</p>	Illicit discharge eliminated

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.e

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

	<p>11/14/2017 DPU's vacuum truck removed the clogged water from the culvert pipe, providing a clear view of a plastic 2-inch pipe that appeared to be discharging to the roadside ditch. DPW notified the homeowner that the county suspects the pipe is the washing machine drainline.</p> <p>11/17/2017 DPW and the Health Department met on site and the homeowner agreed to run a load of laundry. Soapy water was observed discharging into the roadside ditch. DPW explained to the homeowner that this is a code violation and that she will receive a violation letter. DPW also spoke about the possibility of financial assistance through projectHOMES.</p> <p>11/20/2017 DPW phoned the homeowner and encouraged her to contact projectHOMES and to let DPW know once she has made contact.</p> <p>11/28/2017 DPW spoke with the homeowner. She had left two messages with project HOMES but no return phone call. DPW called projectHOMES on homeowner's behalf with no return phone call.</p> <p>12/4/2017 DPW spoke with Community Revitalization about the lack of response from project HOMES.</p> <p>12/6/2017 projectHOMES made a site visit to inspect the plumbing and determine the required repair.</p> <p>12/16/2017 Homeowner received the projectHOMES paperwork that is required to determine eligibility for financial assistance.</p> <p>1/5/2018 DPW phoned the homeowner to find out the status of filing the projectHOMES paperwork.</p>	
--	--	--

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.e

#### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## HENRICO COUNTY MS4 PROGRAM PLAN

	<p>The homeowner had not completed the paperwork and DPW reiterated it is high priority because the washing machine drainline is a code violation.</p> <p>1/16/2018 DPW phoned the homeowner. She has started filling out the projectHOMES paperwork.</p> <p>2/7/2018 DPW was notified the homeowner does not qualify for projectHOMES financial assistance to make the required repair.</p> <p>2/12/2018 DPW spoke with the homeowner. She has acquired one estimate and plans to get a few more. Homeowner will hire a plumber to make the repair.</p> <p>2/16/2018 DPW received a call from the homeowner that the repair has been made.</p>	
IDDE00354		
Milky substance in creek	<p>11/3/2017 Received notification of a milky substance flowing into a creek. This was observed during a routine stream bioassessment.</p> <p>11/3/2017 DPW staff made a site visit and determined the cloudy water was the result of sediment from road patchwork on the street above the creek. A boom had already been placed at the road inlet but some sediment must have by-passed it. Re-visited the site a few hours later and there was no evidence of cloudy sediment in the creek. Spoke with the Public Utilities Department to make them aware of this issue and reminded them to use increased awareness while doing these types of road repairs.</p>	Illicit discharge eliminated
IDDE00355		
Dirt in road	<p>11/3/2017 Received notification via online spill reporting form about dirt from a construction site spilling all over the road.</p>	Illicit discharge eliminated

## HENRICO COUNTY MS4 PROGRAM PLAN PART I.B.2.e ANNUAL REPORT SUPPLEMENT JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## HENRICO COUNTY MS4 PROGRAM PLAN

	11/3/2017 DPW forwarded this information to the Erosion and Sediment Control Inspector to investigate.	
IDDE00356		
Vehicle maintenance in roadway	<p>11/17/2017 Received notification about vehicle fuel tank replacement being performed in the roadway.</p> <p>11/17/2017 DPW staff made a site visit and observed the holding tank/fuel tank sitting on the pavement underneath the vehicle. Nobody answered the door where the vehicle was parked and there was no evidence of any fluid leaking onto the road.</p> <p>11/20/2017 DPW staff made a follow up site visit. The vehicle was gone and there was no evidence of leaking fluid.</p>	Illicit discharge eliminated
IDDE00357		
Oily sheen in creek	<p>11/22/2017 Received notification about an oily sheen in the creek that was discovered during routine MS4 inspections.</p> <p>11/27/2017 DPW and VDEQ staff made a site visit and determined that used cooking oil was creating the sheen. Booms were placed in the creek and the source of dumping was traced to a storm drain inlet in an apartment complex across the street. Staff met with the maintenance manager to show him the illicit discharge and to let him know cleanup is required.</p> <p>11/28/2017 DPW staff met with the cleanup contractor hired by the apartment management company. The inlet where the dumping occurred was high-pressure washed and the wastewater was collected and properly disposed of. Absorbent pads were placed in the creek where there was an accumulation of material and they were properly disposed of.</p>	Illicit discharge eliminated

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.e

### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## HENRICO COUNTY MS4 PROGRAM PLAN

	<p>12/4/2017 DPW staff made a site visit to assess the amount of material still present. Absorbent pads were placed in the creek where there was still an accumulation of material and they were properly disposed of.</p> <p>12/15/2017 DPW staff made a site visit to collect the booms and they were properly disposed of.</p>	
<b>IDDE00358</b>		
Improper disposal of gray water	<p>12/3/2017 Received notification via online spill reporting form that a homeowner was discharging washing machine water from a hose out the window.</p> <p>12/4/2017 DPW made a site visit and did not observe any hoses draining from the windows nor were there inlets nearby that would be impacted. The information was forwarded to Building Inspections.</p>	Illicit discharge eliminated
<b>IDDE00359</b>		
Car wash water draining toward inlet	<p>12/5/2017 Received notification via online spill reporting form that a car wash has soapy water leaving the wash bay and going into the storm drain.</p> <p>12/5/2017 DPW staff made a site visit and observed the wet pavement and a small pothole with soapy water. It did not appear the water was reaching the inlet, but the curb and gutter were water-stained (no actual standing water). This is a private system that drains to VDOT's system. DPW staff inquired with VDEQ to see if this is something they would pursue and they opened a case to further investigate.</p>	Illicit discharge eliminated
<b>IDDE00360</b>		
Improper dumping of leaves	<p>12/1/2017 Received notification about a homeowner blowing leaves into the street daily.</p> <p>12/1/2017 DPW staff forwarded this information to</p>	Illicit discharge eliminated

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.e

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

	the Road Department to investigate.	
IDDE00361		
Dumping of containers and tires	<p>12/11/2017 Received notification about used tires, a mattress and several containers filled with solvents discarded on the side of the road.</p> <p>12/11/2017 DPW made a site visit, collected the containers, and properly disposed of them. The solid waste dumping was forwarded to the Road Department for pick up.</p>	Illicit discharge eliminated
IDDE00362		
Stain on concrete	<p>12/19/2017 Received notification about a pink-colored stain on a BMP concrete inlet.</p> <p>12/19/2017 DPW staff made a site visit and it appears it was a one-time occurrence, No free product was observed in the water in the BMP. Spoke with the manager, showed him the discoloration (likely anti-freeze) and recommended he share the information with staff and keep an eye on the storage unit tenants. Also recommended spray painting No Dumping around the parking lot inlets.</p>	Illicit discharge eliminated



## HENRICO COUNTY MS4 PROGRAM PLAN

Sewage Discharges between January 1, 2017 and December 31, 2017		
1/19/2017	A stoppage between MH #070NW500 and MH #070NW012, located in easement at 602 E Laburnum Ave. The stoppage caused sewage to overflow from the MH #070NW500 into a surrounding grass area and a nearby stream. Spill of approximately 6,750 gallons.	A cleanup and wash down of the area was performed; lime was applied.
1/23/2017	Heavy rainfall caused high flows, which caused 1 manhole and 1 junction chamber at the Gillies Creek SPS to overflow for approximately 4 hours. Spill of approximately 9,000 gallons.	A cleanup and wash down of the area was performed; lime was applied.
1/23/2017	Heavy rainfall caused high flows, which caused 1 manhole at the Almond Creek SPS to overflow for approximately 14.5 hours. Spill of approximately 188,700 gallons.	A cleanup and wash down of the area was performed; lime was applied.
1/24/2017	A stoppage between MH #260NE127 and MH #260NE016, located in the street near intersection of Shrader Rd and Loveridge Ct. The stoppage caused sewage to overflow from the MH #260NE127 into a surrounding pavement and a nearby drainage structure. Spill of approximately 750 gallons.	Plastic jug was responsible. Jug was removed; A cleanup and wash down of area was performed.
3/17/2017	A stoppage between MH #070NW500 and MH #070NW012, located in the easement at 602 E Laburnum Ave. The stoppage caused sewage to overflow from the MH #070NW500 into a surrounding grass area and into a nearby creek. Spill of	A cleanup and wash down of the area was performed; lime was applied.

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.e

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

	approximately 1,075 gallons.	
3/22/2017	A stoppage between MH #196SW025 and MH #196SW020, located in the easement behind 9100 Cloisters West. The stoppage caused sewage to overflow from the MH #196SW025 into a surrounding grass area and into a nearby stream. Spill of approximately 1,620 gallons.	Roots were believed to be the cause. Roots were cleared from line.
4/18/2017	A broken sewer main between MH #145NE004 and MH #145NE005, located in the easement behind 2201 Marroit Road. The broken main caused sewage to flow out of the main and into a nearby drainage ditch. Spill of approximately 2,400 gallons.	Broken main repaired.
5/1/2017	A SCADA communication failure caused sewage spill at Rooty Branch SPS. Spill of approximately 8,000 gallons.	Failure fixed and lime applied to area.
5/5/2017	A stoppage between MH #066NW044 and MH #066NW045, located in the easement behind 4915 Bethlehem Rd. The stoppage caused sewage to overflow from the MH #066NW015 into a surrounding pavement and into a nearby drainage ditch. Spill of approximately 485 gallons.	A cleanup and wash down of the area was performed; lime was applied.
5/8/2017	A stoppage between MH #216SW022 and MH #261SW021, located in the easement on the property of 8350 Hermitage High Boulevard. The stoppage caused sewage to overflow from the MH #261SW022 into a surrounding grass area and into a nearby creek. Spill of approximately 384 gallons.	A cleanup and wash down of the area was performed; lime was applied.
6/16/2017	Heavy rainfall caused high flows, which	A cleanup and

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.e

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

	caused a cleanout located on the property of 5501 Smith Street to overflow. Spill of approximately 9,000 gallons.	wash down of the area was performed; lime was applied.
6/16/2017	Heavy rainfall caused high flows, which caused MH #105NW039, located in the easement on the property of 5200 Gillespie Avenue, to overflow. Spill of approximately 22,500 gallons.	A cleanup and wash down of the area was performed; lime was applied.
6/17/2017	Heavy rainfall caused high flows, which caused a cleanout located on the property of 8015 Wilkinson Road, to overflow. Spill of approximately 3,900 gallons.	A cleanup and wash down of the area was performed; lime was applied.
6/19/2017	Leak occurred around 2 pm to a compromised 1.5" fitting on the discharge line from a sample pump that is used in process sampling/testing at the biological process. Staff responded by turning off the pump, placing spill mats over nearby storm water manhole and containing as much liquid as possible with absorbent socks.	COD & TSS samples were collected at 3 locations for lab analysis – the discharge at SWO #2 as well as upstream & downstream from the discharge point in Roundabout Creek.
7/5/2017	Heavy rainfall caused high flows, which caused a cleanout located on the property of 8015 Wilkinson Road, to overflow. Spill of approximately 900 gallons.	A cleanup and wash down of the area was performed; lime was applied.
7/6/2017	A stoppage between MH #408SW044 and	A cleanup and

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.e

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

	MH #408SW046, located in the easement behind 1811 E Blackburn Rd. The stoppage caused sewage to overflow from the MH #408SW044 into a surrounding grass area and into a nearby creek. Spill of approximately 1,500 gallons.	wash down of the area was performed; lime was applied.
8/4/2017	A stoppage between MH #255SW053 and MH #255SW069, located in the easement on the property of 1356 Gaskins d. The stoppage caused sewage to overflow from the MH #322SE042 onto the surrounding pavement and into a nearby drainage structure. Spill of approximately 14,040 gallons.	A cleanup and wash down of the area was performed; lime was applied.
9/20/2017	A stoppage between MH #199SW052 and MH #199SW066, located in the easement behind 7608 Biscayne Rd. The stoppage caused sewage to overflow onto the surrounding grass area and into a drainage structure. Spill of approximately 2,584 gallons.	A cleanup and wash down of the area was performed; lime was applied.
9/26/2017	Leak occurred from 3:30 pm to 3:35 pm of return activated sludge. The leak occurred due to an equipment malfunction on a contractor's vacuum truck. The operators closed off the spill gate to SWO #1 & built a check dam with rip rap.	A vacuum truck was used to vacuum all the free liquids and lime was applied.
10/1/2017	A stoppage between MH #259NW014 and MH #259NW013, located in the easement at 2344 Hickory Creek Dr. The stoppage caused sewage to overflow onto the surrounding grass area and into a nearby creek. Spill of approximately 750 gallons.	A cleanup and wash down of the area was performed; lime was applied.

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.e

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## **HENRICO COUNTY MS4 PROGRAM PLAN**

12/9/2017	A stoppage in sanitary sewer main 584SE510 and MH #584SE511, located in the street in front of 10546 Farm Meadow Dr. The stoppage caused sewage to overflow onto the surrounding pavement area and into a drainage structure. Spill of approximately 102 gallons.	A cleanup and wash down of the area was performed; lime was applied.
12/19/2017	A stoppage in sanitary sewer main MH #410SE002 and MH #SMH000101, located in the street in front of 1000 Pennsylvania Ave. The stoppage caused sewage to overflow from MH #410SE524 onto the surrounding pavement area and into a drainage structure. Spill of approximately 430 gallons.	A cleanup and wash down of the area was performed; lime was applied.

**Each annual report shall include the amount of linear feet of sanitary sewer inspected during the reporting year.**

Length of Sanitary Sewer Inspected between January 1, 2017 and December 31, 2017	532,414.20 feet
---	-----------------

**The initial annual report shall include a description of the procedures the permittee will implement to reduce floatables as required by Part I.B.2.e)3).**

### **Public Works**

DPW requires trash racks on all curb inlets in proposed shopping centers, fast food restaurants, convenience stores, auto parts stores, and other facilities where significant trash, debris and other contaminants may be generated. Due to flooding and safety issues, trash racks are not permitted on any inlets in the public right-of-way. The minimum design standards for the trash racks are specified in Chapter 15 of the Henrico County Environmental Compliance Manual.

---

## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.B.2.e**

#### **ANNUAL REPORT SUPPLEMENT**

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## **HENRICO COUNTY MS4 PROGRAM PLAN**

Henrico County employs ARC to remove litter from County rights-of-way. The pick-up is performed daily and progress is tracked in tons of litter removed as well as the number of bags of litter removed. ARC is also used bi-weekly on the West and East End maintenance yards to reduce floatables from entering the MS4. Program effectiveness is evaluated based on the tons of litter removed, as this decreases the quantity of floatables entering the MS4. Between 1/1/2017 and 12/31/2017, ARC removed 391,717.5 pounds or 13,057.3 bags and 307 tires worth of litter from county rights-of-way and maintenance facilities.

### **Public Utilities**

- Division of Solid Waste implemented programs:
  - Neighborhood clean-ups are a program designed to allow neighborhoods with homeowner associations an opportunity to remove trash/debris from their property. There is no qualification process for neighborhoods to be selected.
  - Community clean-ups are a program designed to allow older neighborhoods with an opportunity to remove trash/debris from their property. There is a qualification process for neighborhoods to be selected.
  - Hazardous Material Disposal is a program where residents can bring their oil/antifreeze/paints/solvents to the public use areas for disposal.
  - Bulky Waste Program is a program where residents can request a pickup of large items, brush, etc from their property for a fee.
- Keep Henrico Beautiful implemented programs:
  - Because We Care Program is a program where groups or individuals can sign up to adopt any County road, park community or school within the County.
  - Yard Waste Disposal Education is a program where we discuss how to get rid of all your yard waste.
  - Litter Removal Education is a program where we discuss the importance of Keeping Henrico Beautiful by not littering.
  - Pet Waste Education is a program where we discuss the importance of picking up after your pets.
  - Green Machine Program – Litter prevention program that targets kids ages 4-7.

---

## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.B.2.e**

#### **ANNUAL REPORT SUPPLEMENT**

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## **HENRICO COUNTY MS4 PROGRAM PLAN**

**Each following annual report shall include a list of sites monitored, a summary of the monitoring protocols used, and a summary of the monitoring results and analyses.**

This reporting language was originally included in a draft version of the MS4 Permit and was related to a "floatables monitoring" condition. Prior to finalization of the MS4 Permit, the "floatables monitoring" condition was eliminated after DEQ reviewed the federal rule making document and determined this condition was not required. However, the reporting language was moved to Part I.B.2.e without being edited to remove reference to the "monitoring" that was no longer required. When this oversight was discovered, DEQ agreed that the reporting element could be interpreted to read:

*Each following annual report shall include a summary of the County's efforts to reduce floatables and an evaluation of the effectiveness of those efforts.*

Therefore, the following revised Specific Reporting Requirement is addressed in this Annual Report.

**Each following annual report shall include a summary of the County's efforts to reduce floatables and an evaluation of the effectiveness of those efforts.**

Although the reductions can't be quantified, observations of several sites on which trash racks have been installed display that the County's trash rack program appears to be effective at reducing floatables.

DPW removed 195 tons of litter from the County ROW using ARC.

Department of Public Utilities views its program to reduce floatables as a success. During this reporting period, Public Utilities have removed the following from our community:

- Community cleanups have removed 2,875 tons of trash and debris from our older communities.

---

### **HENRICO COUNTY MS4 PROGRAM PLAN**

#### **PART I.B.2.e**

#### **ANNUAL REPORT SUPPLEMENT**

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## **HENRICO COUNTY MS4 PROGRAM PLAN**

- Neighborhood cleanups have removed 130.41 tons of trash and debris from selected neighborhoods.
- Our bulky waste program has removed 758.39 tons of trash and debris from the County.
- Public Utilities has collected 406.7 tons of tires.
- Solid Waste division has collected 32,846 gallons of used oil/antifreeze at our public use areas.
- Solid Waste division has collected 2,310 gallons of oil based paint & solvents at our public use areas.
- Keep Henrico Beautiful has collected 316 bags of trash from our roadsides, communities, schools and parks with their programs.



## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.B.2.f**

#### **MS4 PROGRAM IMPLEMENTATION SPILL PREVENTION AND RESPONSE**

Each annual report shall include a list of spills, the source (identified to the best of the permittee's ability), and a description of follow-up activities taken.

Spills that Occurred between January 1, 2017 and December 31, 2017	
1/4/2017	Water Reclamation Facility (WRF) had diluted glycerine that leaked from underground piping and reached a storm water outfall (approximately 20 gallons).  Staff performed troubleshooting methods to determine the source of the leak, valved and isolated the failed piping, and placed sandbags and absorbent mats/towels to minimize the release volume. Staff also collected samples for COD analysis both at the origin of the leak and from the discharge.
1/6/2017	Hydraulic oil leak from truck.  Put oil dry on spill; swept and placed used oil dry in Clean Harbors barrel.
1/6/2017	Hydraulic oil leak from truck.  Put oil dry on spill; swept and placed used oil dry in Clean Harbors barrel.
1/12/2017	Sheen/leak on Public Works equipment yard.  Put oil dry on spill; swept and placed used oil dry in Clean Harbors barrel.
1/25/2017	Motor oil/water leak from patch truck.  Put oil dry on spill; swept and placed used oil dry in Clean Harbors barrel.

---

## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.B.2.f**

#### **ANNUAL REPORT SUPPLEMENT**

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## **HENRICO COUNTY MS4 PROGRAM PLAN**

1/25/2017	Hydraulic oil leak from unknown vehicle. Put oil dry on spill; swept and placed used oil dry in Clean Harbors barrel.
2/6/2017	Motor oil leak from tandem truck. Put oil dry on spill; swept and placed used oil dry in Clean Harbors barrel.
2/6/2017	Hydraulic spill from refuse collection truck. Staff placed absorbent to remove excess fluid. Used absorbent was removed and properly disposed of.
2/13/2017	Hydraulic oil leak from truck. Put oil dry on spill; swept and placed used oil dry in Clean Harbors barrel.
2/22/2017	Hydraulic spill from refuse collection truck. Staff placed absorbent to remove excess fluid. Used absorbent was removed and properly disposed of.
3/7/2017	Unknown spill. Put oil dry on spill; swept and placed used oil dry in Clean Harbors barrel.
3/17/2017	Asphalt solvent spill. Put oil dry on spill; swept and placed used oil dry in Clean Harbors barrel.
3/18/2017	Used cooking oil container was illegally dumped and was leaking. First Call Environmental called in for identification of material, cleanup, and disposal.
3/22/2017	Hydraulic oil leak from truck. Put oil dry on spill; swept and placed used oil dry in Clean Harbors barrel.
3/27/2017	Hydraulic oil leak from truck.

---

**HENRICO COUNTY MS4 PROGRAM PLAN  
PART I.B.2.f  
ANNUAL REPORT SUPPLEMENT  
JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

	Put oil dry on spill; swept and placed used oil dry in Clean Harbors barrel.
3/27/2017	Hydraulic oil leak from truck.  Put oil dry on spill; swept and placed used oil dry in Clean Harbors barrel.
3/31/2017	The WRF had an approximately 0.5 gallon 30w non-detergent motor oil leak from a piece of maintenance equipment. Some motor oil was carried to the storm drain via sheet flow of water across the road surface – it was raining heavily at the time of the leak.  Maintenance crews placed absorbent socks, absorbent mats, and oil-dry at the site of the leak. Cleanup materials were collected and properly disposed of.
4/10/2017	The WRF had a 13-gallon Dilute Biocarb DN release. No material reached the storm drains and the spill was contained to the road.  A valve was shut to isolate and stop the leaking.
5/9/2017	Hydraulic oil spill from backhoe.  Put oil dry on spill; swept and placed used oil dry in Clean Harbors barrel.
5/24/2017	Hydraulic oil leak from tractor.  Put oil dry on spill; swept and placed used oil dry in Clean Harbors barrel.
6/7/2017	The WRF had a Biocarb (glycerine) leak due to failure in the delivery piping.  The Biocarb pumps were shut down. Some biocarb was recovered from the invert of a drop inlet between the site of the spill and the outfall location.
6/19/2017	The WRF had a mixed liquor suspended solids leak.  Staff responded by turning off the pump, placing spill mats

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.f

### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## HENRICO COUNTY MS4 PROGRAM PLAN

	over nearby storm water manhole and containing as much liquid as possible with absorbent socks.
6/20/2017	Hydraulic oil leak from truck.  Put oil dry on spill; swept and placed used oil dry in Clean Harbors barrel. Additional booms were placed in inlets and creeks.
6/22/2017	Hydraulic oil spill from refuse collection truck.  First Call Environmental was called to clean up the spill.
7/12/2017	Approximately 200 gallons of muddy water was released at the WRF while a vendor was dewatering soils that were removed during a soft excavation.  The vendor vacuumed up the water and returned it to the plant for treatment.
7/17/2017	Biocarb DN leak at the WRF.  Operators set up sand bags and absorbent socks and turned off the source. A significant amount of the Biocarb was recovered from the source of the leak. A small amount of Biocarb was possibly lost in the WRF storm water system.
7/18/2017	Hydraulic oil spill from contractor truck.  Put oil dry on entirety of spill; backhoe used to scrape oil dry and top layer of gravel; disposed of at Reco Biotechnology for bioremediation of material.
7/18/2017	Approximately ½ gallon of dilute Biocarb DN was released on the roadside curb at the WRF. No material reached the storm drains.  The valve was shut to isolate and stop the leaking.
7/24/2017	Hydraulic oil spill from a dump truck.  Oil dry put down and earthen berm created to prevent sanitary sewer infiltration; First Call Environmental called in to further cleanup and dispose of material

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.f

### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## HENRICO COUNTY MS4 PROGRAM PLAN

7/26/17	<p>Approximately 3 gallons of diluted Biocarb and NPW was released at the WRF. No material reached the storm drains and the spill was contained.</p> <p>The Biocarb feed system was turned off until a repair could be made.</p>
7/28/17	<p>Approximately 3 gallons of diluted Biocarb and NPW was released at the WRF. No material reached the storm drains and the spill was contained.</p> <p>The Biocarb feed system was turned off until a repair could be made.</p>
8/3/2017	<p>Motor oil leak from abandoned vehicle.</p> <p>Spill pads placed to absorb oil; Fire Station 3 notified to handle cleanup and contact owner.</p>
8/8/2017	<p>Diesel fuel spill from sweeper.</p> <p>Put oil dry on spill; swept and placed used oil dry in Clean Harbors barrel.</p>
8/15/2017	<p>Hydraulic oil spill from sweeper.</p> <p>Put oil dry on spill; swept and placed used oil dry in Clean Harbors barrel. Additional booms were placed in inlets and creeks.</p>
8/16/2017	<p>Hydraulic oil leak from backhoe.</p> <p>Put oil dry on spill; swept and placed used oil dry in Clean Harbors barrel.</p>
8/17/2017	<p>Hydraulic oil spill from truck.</p> <p>Put oil dry on spill; pads and boom used to protect inlet; oil dry swept and placed used oil dry in Clean Harbors barrel.</p>
8/17/2017	<p>Antifreeze leak from truck.</p> <p>Placed pool below leak; maintenance scheduled for 08/18/17.</p>
9/21/2017	<p>Hydraulic oil spill from gradall.</p>

---

**HENRICO COUNTY MS4 PROGRAM PLAN**  
**PART I.B.2.f**  
**ANNUAL REPORT SUPPLEMENT**  
**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

	Pool placed below leak; Put oil dry and sorbent pads on spill; swept and placed used oil dry and pads in Clean Harbors barrel.
9/22/2017	Hydraulic fluid spill on dumpster pad. Put oil dry on spill and swept up material. Product was properly disposed of.
9/28/2017	Spill from loop sealant container on asphalt lot. Cracked buckets were packed in new buckets. Saved material was still usable. Cleaned up spill with oil absorbent materials and used material was removed by Safety Kleen.
10/5/2017	Antifreeze spill. Put oil dry on spill; swept and placed used oil dry in Clean Harbors barrel.
10/5/2017	Antifreeze spill. Sorbent pads and oil dry put down on spill; cleaned up and placed in Clean Harbors barrel.
10/16/2017	Hydraulic oil spill from backhoe. Pool placed below leak; Put oil dry on spill; swept and placed used material in Clean Harbors barrel.
10/24/2017	Hydraulic oil spill from motrim. Containment placed below leak; Put oil dry and sorbent pads on spill; placed used pads in Clean Harbors barrel and oil dry and saturated soil/vegetation will be removed and sent to Reco.
10/25/2017	Hydraulic oil spill from sweeper. Put oil dry on spill; swept and placed used oil dry in Clean Harbors barrel.
11/6/2017	Spill from antifreeze container.

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.f

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## **HENRICO COUNTY MS4 PROGRAM PLAN**

	Cleanup took place using spill absorbent pads. Used absorbent pads were properly disposed of.
11/6/2017	Approximately 50 gallons of potable water containing Chemtreat was released at the WRF. No material reached the storm drains and the spill was contained on the road.  Valves were shut to stop the leak and repairs made.
11/8/2017	Gasoline spill from unknown vehicle.  Put oil dry on spill; swept and placed used oil dry in Clean Harbors barrel.
11/9/2017	Hydraulic leak from refuse truck spilled 5 gallons onto roadway.  DPU staff cleaned up the material before it entered any stormwater conveyances.
11/15/2017	Hydraulic oil spill from loader.  Put oil dry on spill; swept and placed used oil dry in Clean Harbors barrel.
11/21/2017	Power steering fluid spill from truck.  Used oil dry to contain spill and called First Call Environmental for cleanup and disposal.
12/11/2017	Hydraulic oil spill from truck.  Sorbent pads and oil dry put down on spill; cleaned up and placed in Clean Harbors barrel
12/14/2017	Oil leak from backhoe.  Put oil dry on spill; swept and placed used oil dry in Clean Harbors barrel
12/18/2017	Watered down hydraulic fluid and salt from spreader rinsing.  Sorbent pads used to collect small amount of residual (very little product).

---

### **HENRICO COUNTY MS4 PROGRAM PLAN**

#### **PART I.B.2.f**

#### **ANNUAL REPORT SUPPLEMENT**

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.B.2.g**

#### **MS4 PROGRAM IMPLEMENTATION INDUSTRIAL AND HIGH RISK RUNOFF**

The annual report due March 31, 2016 shall include a list of all known industrial and high risk dischargers including any non-VPDES regulated industrial and commercial stormwater dischargers determined by the permittee as contributing a significant pollutant load and that discharge to the MS4 system, a schedule of inspections and procedures for inspecting outfalls.

Industrial and High Risk Dischargers Determined to be Contributing a Significant Pollutant Load to the MS4 between January 1, 2017 and December 31, 2017		
Industrial and High Risk Discharger	VPDES Permit (Permit # or None)	Outfalls to the following to MS4 Structure(s)
No Industrial and High Risk Dischargers were found to be contributing a significant pollutant load to the MS4.		

No fewer than fifty MS4 structures that Industrial and High Risk Runoff Facilities discharge into will be inspected during each permit year and each will be inspected at least once during the permit cycle. In addition, Industrial and High Risk Runoff Facilities outfalls with a history of contributing significant pollutant loading to the MS4 during the previous permit year will be re-inspected the following permit year. These outfalls will be subject to the established inspection procedure, including evaluations of identified flows and maintenance and repair needs.

Each annual report shall report on implementation of the inspection schedule and include a list of the facilities and/or facility outfalls inspected during the reporting period.

During the permit year, fifty outfalls from Industrial and High Risk Dischargers were

---

## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.B.2.g**

#### **ANNUAL REPORTING REQUIREMENTS JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**



## HENRICO COUNTY MS4 PROGRAM PLAN

inspected.

Inspections of Outfalls from Industrial and High Risk Dischargers conducted between January 1, 2017 and December 31, 2017			
Industrial and High Risk Discharger	Outfall Location	Inspection Date	Determined to be Contributing Significant Pollutant Load to the MS4?
IC0001	IN0000000024676	9/19/2017	No
IC0001	MH0000000003732	9/19/2017	No
IC0003	MH0000000006995	9/21/2017	No
IC0003	IN0000000016228	9/21/2017	No
IC0005	IN0000000025371	9/21/2017	No
IC0006	IN0000000024880	9/21/2017	No
IC0007	IN0000000016227	9/21/2017	No
IC0008	MN0000000038755	9/21/2017	No
IC0008	MN0000000038759	9/21/2017	No
IC0036	IN0000000023806	9/19/2017	No
IC0205	IN0000000032804	9/21/2017	No
IC0205	IN0000000032806	9/21/2017	No
IC0632	MH0000000003750	8/31/2017	No
IC0752	IN0000000015600	8/31/2017	No
IC0768	IN0000000025545	8/31/2017	No
IC0768	IN0000000025552	8/31/2017	No
IC0768	IN0000000025568	8/31/2017	No
IC0831	IN0000000009147	9/21/2017	No
IC0834	IN0000000005555	9/21/2017	No
IC0865	IN0000000005551	9/21/2017	No
IC0871	IN0000000024076	9/19/2017	No
IC0880	IN0000000022102	8/30/2017	No
IC0880	IN0000000022106	8/30/2017	No
IC0980	IN0000000022206	8/30/2017	No
IC1295	IN0000000025449	8/30/2017	No
IC1295	IN0000000025509	8/30/2017	No
IC1325	IN0000000017563	8/31/2017	No
IC1338	IN0000000043368	8/31/2017	No

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.g

### ANNUAL REPORTING REQUIREMENTS

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## HENRICO COUNTY MS4 PROGRAM PLAN

IC1348	IN000000025493	8/31/2017	No
IC1352	IN000000025450	8/30/2017	No
IC1352	MH000000008756	8/31/2017	No
IC1700	IN000000024359	9/22/2017	No
IC1700	IN000000024361	9/22/2017	No
IC1700	MH000000008765	9/22/2017	No
IC1790	IN000000012680	9/21/2017	No
IC1908	IN000000023799	9/19/2017	No
IC1908	IN000000023800	9/19/2017	No
IC1908	IN000000023802	9/19/2017	No
IC1910	IN000000025356	8/30/2017	No
IC1920	MH000000007138	9/21/2017	No
IC1991	IN000000044178	8/31/2017	No
IC1991	IN000000044181	8/31/2017	No
IC2094	IN000000024958	8/31/2017	No
IC2096	IN000000006215	8/31/2017	No
IC2096	IN000000006231	8/31/2017	No
IC2096	IN000000006233	8/31/2017	No
IC2096	IN000000006236	8/31/2017	No
IC2102	IN000000026556	9/19/2017	No
IC2272	IN000000005714	9/21/2017	No
IC2445	IN000000025052	8/31/2017	No
IC2461	MN000000124467	9/21/2017	No

Inspections of Industrial and High Risk Dischargers determined to be contributing significant pollutant load to the MS4  
conducted between January 1, 2017 and December 31, 2017

Industrial and High Risk Discharger ID#	Inspection Date	Results of Inspection
No Industrial and High Risk Dischargers were found to be contributing a significant pollutant load to the MS4. Therefore, no Industrial and High Risk Dischargers were inspected during the permit year.		

---

**HENRICO COUNTY MS4 PROGRAM PLAN**  
**PART I.B.2.g**  
**ANNUAL REPORTING REQUIREMENTS**  
**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

**Each annual report shall include a list of referrals to the Department.**

Industrial and High Risk Dischargers referred to the Virginia Department of Environmental Quality between January 1, 2017 and December 31, 2017		
Industrial and High Risk Discharger	Referral Date	Reason for Referral
No Industrial and High Risk Dischargers were referred to the Virginia Department of Environmental Quality during the permit year. (See the following table for DMR submittal information from VPDES Industrial Stormwater Permitted Facilities located in Henrico County)		

DMRs received from VPDES Industrial Stormwater Permitted Facilities* as of December 31, 2017			
Permitted Facility	VPDES Permit #	DMR	
		Date	Received
Alfa Laval Incorporated	VAR051131	No DMRs Received	
AMF Bakery Systems	VAR050885	No DMRs Received	
BFI Old Dominion Landfill	VAR052236	3/14/2017	7/7/2017
Bunge Oils Incorporated	VAR050595	No DMRs Received	
Coca Cola Refreshments USA Inc.	VAR050709	6/5/2017	6/28/2017
		12/5/2017	1/4/2018

---

**HENRICO COUNTY MS4 PROGRAM PLAN**  
**PART I.B.2.g**  
**ANNUAL REPORTING REQUIREMENTS**  
**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

CSX Transportation Inc. – Bryan Park Terminal	VAR051056	No DMRs Received	
Ennis Paints Incorporated	VAR051550	No DMRs Received	
Federal Express Corporation – Sandston	VAR051169	No DMRs Received	
Gillies Creek Industrial Recycling	VAR052249	No DMRs Received	
Hankins and Johann Incorporated	VAR051060	No DMRs Received	
Henkel Corporation	VAR050574	n/a	7/5/2017
		7/1/2017	8/28/2017
Henrico County DPU Springfield Road Waste Management	VAR051025	2/15/2017	7/10/2017
		5/5/2017	7/10/2017
		11/7/2017	1/17/2018
Henrico County Water Reclamation Facility	VAR051633	8/7/2017	1/9/2018
		8/29/17	1/9/2018
Hilex Poly Company LLC	VAR051636	No DMRs Received	
IR Engraving LLC	VAR051142	No DMRs Received	
Johns Manville	VAR051167	No DMRs Received	
Lee Hy Paving Corporation	VAR051024	No DMRs Received	
Mondelez Global LLC	VAR051209	No DMRs Received	

---

**HENRICO COUNTY MS4 PROGRAM PLAN**  
**PART I.B.2.g**  
**ANNUAL REPORTING REQUIREMENTS**  
**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

Power Distribution Incorporated – Richmond	VAR052119	No DMRs Received	
Power Distribution Incorporated – Sandston	VAR052120	No DMRs Received	
Premier Store Fixtures Incorporated	VAR050656	No DMRs Received	
QG LLC	VAR051889	No DMRs Received	
QTS Richmond Data Center	VAR050573	No DMRs Received	
Republic Services of Richmond	VAR051214 VAR051152	3/14/2017	7/7/2017
Rock Tenn CP LLC – North Plant	VAR050565	No DMRs Received	
Rock Tenn CP LLC – South Plant	VAR050570	No DMRs Received	
Rolling Frito Lay	VAR051607	No DMRs Received	
San J International	VAR050623	No DMRs Received	
S.B. Cox Recycling Center MRF	VAR051869	No DMRs Received	
The East End Landfill	VAR050624	10/18/2017	1/19/2018
		11/28/2017	1/19/2018
		12/21-22/2017	1/19/2018
TRANSFLO Terminal Services TTSI	VAR051821	No DMRs Received	
WestRock CP LLC – Laburnum	VAR052154	No DMRs Received	

\* The list of Permitted Facilities was obtained on September 13, 2017 from VDEQ's website

<http://www.deq.virginia.gov/Programs/Water/PermittingCompliance/PollutionDischargeElimination/PermitsFees.aspx#GGPs>

---

### HENRICO COUNTY MS4 PROGRAM PLAN PART I.B.2.g ANNUAL REPORTING REQUIREMENTS JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.B.2.h**

#### **MS4 PROGRAM IMPLEMENTATION STORMWATER INFRASTRUCTURE MANAGEMENT**

Each annual report shall include a progress report on efforts to repair failed storm sewer outfalls.

Progress Reports on Efforts to Repair Failed Storm Sewer Outfalls		
Outfall ID	Identified Problem	Repair Status
EN000000000524	EN has a break, causing it to separate on one side	No work by Road Department outlet okay
EN000000000755	EN has sediment buildup causing blockage	Remove debris at end of pipe
EN0000000001827	Small tree growing in path of outfall	Remove bush in front of cross pipe
EN0000000001861	Large piece of concrete has broken off from pipe	Forwarded to Road Maintenance
EN0000000001918	Erosion in receiving stream	Repair eroded area at pipe outfall
EN0000000002242	Sinkhole adjacent to outfall	Forwarded to Road Maintenance
EN0000000002308	Culvert has exposed rebar	Forwarded to Road Maintenance
EN0000000002429	Outfall is submerged and all inlets have considerable standing water, needs clean out	Clean outfall to allow water to exit pipe
EN0000000002453	Unable to access outfall because of overgrowth	No work by Road Department pipe is open
EN0000000002911	EN is filled with sediment needs to be cleaned out	Forwarded to Road Maintenance
EN0000000003419	Outfall concrete is deteriorating	Forwarded to Road Maintenance

---

## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.B.2.h**

#### **ANNUAL REPORT SUPPLEMENT**

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

EN000000003903	Pipe is broken and in need of repair	Use flashing or a collar to repair and cover with topsoil
EN000000004176	Leaf debris is blocking flow	Open mouth of pipe end
EN000000004302	End of pipe has concrete deterioration	Install flashing at separation, cover flashing with concrete and finish with topsoil
EN000000004312	End treatment is clogged and water is unable to flow	Clean ditch between pipes
EN000000004628	Beaver dam is blocking flow	Remove blockage at box culvert and repair washout at wing wall
EN000000004666	Portion of culvert's rim has exposed rebar	Forwarded to Road Maintenance
EN000000004779	Needs cleanout	No work by county, water can leave nearest inlet and no signs of blockage at outfall
EN000000005199	Needs cleanout	Forwarded to Road Maintenance
EN000000005215	Concrete deterioration and exposed rebar	No work by county, pipe okay
EN000000005219	Concrete deterioration	Seal around joint with concrete
EN000000006683	Leaf debris blocking flow	Reach as far as possible to open outfall end of pipe and jet cross pipe
EN000000006686	Leaf debris blocking flow	Forwarded to Road Maintenance
EN000000006773	EN flooded unable to see the opening to the main line	No work by county, water in lake would need lowering before pipes can be inspected
EN000000009343	Rebar exposed through deteriorated concrete	Forwarded to Road Maintenance
EN000000011249	Rebar exposed through deteriorated concrete	No work by county, pipe okay
EN000000011258	Concrete deterioration	Forwarded to Road Maintenance
EN000000011715	EN needs cleaning out	No work by county. The only

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## HENRICO COUNTY MS4 PROGRAM PLAN

		way to prevent the outfall from being submerged is to clean the ditch in the unimproved right of way all the way to the wetland area leading to the Chickahominy River
EN000000012065	Concrete deterioration and a hole 10 feet from pipe opening	Plug lift hole and adequately cover the pipe with soil and seed. Remove piles of leaves blocking pipe
EN000000012946	Pipe is covered by leaf debris needs cleanout	No work by county. Road is maintained by VDOT
EN000000013350	EN clogged with leaf debris needs cleanout	Clean end section to allow water to drain

Each annual report shall include a list of activities including inspections, maintenance, and repair of stormwater infrastructure operated by the permittee as required in Part I.B.2.h)1), including the total number of stormwater facilities operated by the permittee, the type and number of stormwater facilities inspected and maintained; the linear feet of storm sewer system owned and/or operated by the permittee, and the linear feet of storm sewer system inspected.

MS4 Infrastructure Inspected* between January 1, 2017 and December 31, 2017		
MS4 Infrastructure Type	Unit	Inspected
Inlets	each	5,912
Manholes	each	772
Junction Boxes	each	27
End Treatments	each	1,069
Mains	linear feet	1,510,362

\* includes Screening Inspections, Screening Inspection Follow-Ups, Construction Acceptance Inspections, Maintenance Evaluations, and Repair and/or Maintenance Activities

---

### HENRICO COUNTY MS4 PROGRAM PLAN PART I.B.2.h ANNUAL REPORT SUPPLEMENT JANUARY 1, 2017 THROUGH DECEMBER 31, 2017



## **HENRICO COUNTY MS4 PROGRAM PLAN**

During this permit year (January 1, 2017 and December 31, 2017), 18.07% of the MS4 infrastructure was inspected.

Since the effective date of the MS4 Permit (April 1, 2015), 53.40% of the MS4 infrastructure has been inspected.

Inspection, Maintenance, and Repair Actions conducted on MS4 Infrastructure between January 1, 2017 and December 31, 2017			
MS4 Infrastructure Type	Inspections	Maintenance	Repair
Inlets	5,346	254	312
Manholes	763	3	6
Junction Boxes	24	2	1
End Treatments	1,011	53	5
Mains	15,897	1,730	143

On-Line* County-Operated SWM Facilities Inspected and/or Maintained between January 1, 2017 and December 31, 2017			
Type	Total	Inspected	Maintained
50/10 Basin (5)	8	8	6
50/10 Underground Detention (6)	7	7	7
BayFilter (200)	1	1	1
BaySeparator (205)	1	1	1
Bioretention 1 (145)	2	2	2
Bioretention Basin/Trench (10)	9	9	9
Extended Detention Basin (15)	31	31	29
Extended Detention Basin w/a Shallow Marsh (16)	2	2	2
Filtrerra (215)	24	24	24

---

**HENRICO COUNTY MS4 PROGRAM PLAN**  
**PART I.B.2.h**  
**ANNUAL REPORT SUPPLEMENT**  
**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

Grassed Swale (20)	2	2	2
Imbrium Jellyfish (250)	1	1	1
Infiltration Basin/Trench (25)	7	7	7
Retention Basin (30)	7	7	7
Sheetflow to Vegetated Filter or Conserved Open Space 2 (106)	2	2	2
StormCeptor (225)	1	1	1
StormFilter (220)	4	4	4
StormTreat (230)	1	1	1
Stormwater360 (235)	5	5	5
<b>TOTAL</b>	<b>115</b>	<b>115</b>	<b>111</b>

\* Facilities with either an Active or Accepted status as of December 31, 2017

On-Line Privately-Operated SWM Facilities Discharging to the MS4 that were Inspected and/or Maintained between January 1, 2017 and December 31, 2017			
Type	Total	Inspected	Maintained
50/10 BASIN (5)	56	24	8
50/10 UNDERGROUND (6)	63	16	7
BIORETENTION BASIN/TRENCH (10)	23	9	2
EXTENDED DETENTION BASIN (15)	198	57	10
EXTENDED DETENTION BASIN W/A SHALLOW MARSH (16)	48	8	0
GRASSED SWALE (20)	6	1	0
INFILTRATION BASIN/TRENCH (25)	8	0	0
RETENTION BASIN (WET POND) (30)	64	27	5
RETENTION BASIN (WET POND) W/A WETLAND SYSTEM (31)	0	0	0
SAND FILTER (35)	64	19	4
VEGETATED FILTER STRIP (40)	0	0	0
ROOFTOP DISCONNECTION (100)	0	0	0
SHEETFLOW TO VEGETATED FILTER OR CONSERVED OPEN SPACE 1 (105)	0	0	0
SHEETFLOW TO VEGETATED FILTER	0	0	0

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

OR CONSERVED OPEN SPACE 2 (106)			
GRASS CHANNEL (110)	0	0	0
SOIL AMENDMENTS (120)	0	0	0
VEGETATED ROOF 1 (125)	0	0	0
VEGETATED ROOF 2 (126)	0	0	0
RAINWATER HARVESTING (130)	0	0	0
PERMEABLE PAVEMENT 1 (135)	0	0	0
PERMEABLE PAVEMENT 2 (136)	0	0	0
INFILTRATION 1 (140)	0	0	0
INFILTRATION 2 (141)	0	0	0
BIORETENTION 1 (145)	0	0	0
BIORETENTION 2 (146)	0	0	0
URBAN BIORETENTION (147)	0	0	0
DRY SWALE 1 (150)	1	0	0
DRY SWALE 2 (151)	0	0	0
WET SWALE 1 (155)	0	0	0
WET SWALE 2 (156)	0	0	0
FILTERING PRACTICE (160)	0	0	0
FILTERING PRACTICE 2 (161)	0	0	0
CONSTRUCTED WETLAND 1 (165)	0	0	0
CONSTRUCTED WETLAND 2 (166)	0	0	0
WET POND 1 (170)	0	0	0
WET POND 2 (171)	0	0	0
EXTENDED DETENTION POND 1 (175)	0	0	0
EXTENDED DETENTION POND 2 (176)	0	0	0
DRY DETENTION - POND (177)	1	0	0
DRY DETENTION - UNDERGROUND (178)	3	1	1
BAYFILTER (200)	0	0	0
BAYSEPARATOR (205)	0	0	0
BAYSAVER (210)	1	1	0
FILTERRA (215)	204	124	52
STORMFILTER (220)	0	0	0
STORMCEPTOR (225)	1	1	1

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

STORMTREAT (230)	3	1	0
STORMWATER360 (235)	18	3	0
VORTECH (240)	0	0	0
VORTEXSEPARATOR (245)	2	0	0
IMBRIUM JELLYFISH (250)	2	0	0
OTHER (300)	1	1	1
<b>Totals</b>	<b>767</b>	<b>292</b>	<b>91</b>

\* Facilities with either an Active or Accepted status

County-Owned/Operated Culverts and Pipes Inventoried as of December 31, 2016 and Inspected between January 1, 2017 and December 31, 2017	
Culverts and Pipes Inventoried (miles)	Culverts and Pipes Inspected between January 1, 2017 and December 31, 2017 (miles)
1,104.60	142.33

Each annual report shall provide a summary of actions taken by the permittee to address failure of privately maintained SWM facilities owners to abide by maintenance agreements.

<p>The number of privately-maintained SWM facilities that:</p> <ul style="list-style-type: none"> <li>1) discharge to the MS4,</li> <li>2) needed <i>required</i> maintenance and/or repair based on a previous inspection, and</li> <li>3) are subject to a recorded maintenance agreement,</li> </ul> <p>where the owner(s) failed to perform <i>required</i> maintenance and/or repair as directed by the County.</p>	0
--	---

---

**HENRICO COUNTY MS4 PROGRAM PLAN**  
**PART I.B.2.h**  
**ANNUAL REPORT SUPPLEMENT**  
**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## **HENRICO COUNTY MS4 PROGRAM PLAN**

Each annual report shall include a list of activities including inspections performed and notifications of needed maintenance and repair of stormwater facilities not operated by the permittee as required by Part I.B.2.h)2).

<b>Facility ID</b>	<b>Action Date</b>	<b>Action Type</b>
BMP00001	1/4/2017	MAINTENANCE INSPECTION
BMP00870	1/4/2017	MAINTENANCE INSPECTION
BMP01077	1/4/2017	MAINTENANCE INSPECTION
BMP01277	1/4/2017	MAINTENANCE INSPECTION
BMP01278	1/4/2017	MAINTENANCE INSPECTION
BMP01279	1/4/2017	MAINTENANCE INSPECTION
BMP01697	1/5/2017	RECEIPT OF CERTIFICATION
BMP01699	1/5/2017	RECEIPT OF CERTIFICATION
BMP01700	1/5/2017	RECEIPT OF CERTIFICATION
BMP00172	1/5/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00426	1/5/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01018	1/5/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01697	1/6/2017	ACCEPTANCE INSPECTION
BMP01699	1/6/2017	ACCEPTANCE INSPECTION
BMP01700	1/6/2017	ACCEPTANCE INSPECTION
BMP00934	1/6/2017	ACCEPTANCE INSPECTION
BMP01494	1/6/2017	ACCEPTANCE INSPECTION
BMP01494	1/6/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01697	1/9/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01699	1/9/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01700	1/9/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01474	1/9/2017	RETIREMENT
BMP01475	1/9/2017	RETIREMENT

---

### **HENRICO COUNTY MS4 PROGRAM PLAN**

#### **PART I.B.2.h**

#### **ANNUAL REPORT SUPPLEMENT**

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

BMP01476	1/9/2017	RETIREMENT
BMP01477	1/9/2017	RETIREMENT
BMP01478	1/9/2017	RETIREMENT
BMP01479	1/9/2017	RETIREMENT
BMP00733	1/11/2017	MAINTENANCE INSPECTION
BMP00744	1/11/2017	MAINTENANCE INSPECTION
BMP01764	1/11/2017	INVENTORIED
BMP01765	1/11/2017	INVENTORIED
BMP01766	1/11/2017	INVENTORIED
BMP01767	1/11/2017	INVENTORIED
BMP00180	1/12/2017	MAINTENANCE INSPECTION
BMP00658	1/12/2017	MAINTENANCE INSPECTION
BMP00758	1/12/2017	MAINTENANCE INSPECTION
BMP01031	1/12/2017	MAINTENANCE INSPECTION
BMP01272	1/12/2017	MAINTENANCE INSPECTION
BMP01273	1/12/2017	MAINTENANCE INSPECTION
BMP01628	1/12/2017	ACCEPTANCE INSPECTION
BMP01628	1/12/2017	RECEIPT OF CERTIFICATION
BMP00875	1/17/2017	MAINTENANCE INSPECTION
BMP00406	1/18/2017	MAINTENANCE INSPECTION
BMP01076	1/18/2017	MAINTENANCE INSPECTION
BMP00207	1/19/2017	MAINTENANCE INSPECTION
BMP00805	1/19/2017	EDUCATION
BMP00970	1/19/2017	MAINTENANCE INSPECTION
BMP01768	1/19/2017	INVENTORIED
BMP01770	1/19/2017	INVENTORIED
BMP00045	1/20/2017	MAINTENANCE INSPECTION
BMP00280	1/20/2017	MAINTENANCE INSPECTION
BMP01713	1/20/2017	ACCEPTANCE INSPECTION
BMP01713	1/20/2017	RECEIPT OF CERTIFICATION
BMP01181	1/20/2017	MAINTENANCE INSPECTION
BMP01713	1/23/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01713	1/23/2017	RECEIPT OF CERTIFICATION

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

BMP00838	1/23/2017	EDUCATION
BMP00646	1/24/2017	MAINTENANCE INSPECTION
BMP01276	1/24/2017	MAINTENANCE INSPECTION
BMP01040	1/25/2017	MAINTENANCE INSPECTION
BMP00761	1/26/2017	MAINTENANCE INSPECTION
BMP00762	1/26/2017	MAINTENANCE INSPECTION
BMP00763	1/26/2017	MAINTENANCE INSPECTION
BMP00101	1/26/2017	MAINTENANCE INSPECTION
BMP00102	1/26/2017	MAINTENANCE INSPECTION
BMP01254	1/26/2017	MAINTENANCE INSPECTION
BMP00235	1/30/2017	EDUCATION
BMP00236	1/30/2017	EDUCATION
BMP00237	1/30/2017	EDUCATION
BMP00238	1/30/2017	EDUCATION
BMP00266	1/30/2017	MAINTENANCE INSPECTION
BMP00271	1/30/2017	MAINTENANCE INSPECTION
BMP00272	1/30/2017	MAINTENANCE INSPECTION
BMP00273	1/30/2017	MAINTENANCE INSPECTION
BMP00581	1/30/2017	MAINTENANCE INSPECTION
BMP01771	1/30/2017	RECEIPT OF CERTIFICATION
BMP01091	1/30/2017	MAINTENANCE INSPECTION
BMP01092	1/30/2017	MAINTENANCE INSPECTION
BMP01093	1/30/2017	MAINTENANCE INSPECTION
BMP01094	1/30/2017	MAINTENANCE INSPECTION
BMP01095	1/30/2017	MAINTENANCE INSPECTION
BMP01096	1/30/2017	MAINTENANCE INSPECTION
BMP01097	1/30/2017	MAINTENANCE INSPECTION
BMP01098	1/30/2017	MAINTENANCE INSPECTION
BMP01099	1/30/2017	MAINTENANCE INSPECTION
BMP01100	1/30/2017	MAINTENANCE INSPECTION
BMP01101	1/30/2017	MAINTENANCE INSPECTION
BMP01102	1/30/2017	MAINTENANCE INSPECTION
BMP01103	1/30/2017	MAINTENANCE INSPECTION
BMP01104	1/30/2017	MAINTENANCE INSPECTION

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

BMP01105	1/30/2017	MAINTENANCE INSPECTION
BMP01106	1/30/2017	MAINTENANCE INSPECTION
BMP01107	1/30/2017	MAINTENANCE INSPECTION
BMP01108	1/30/2017	MAINTENANCE INSPECTION
BMP01109	1/30/2017	MAINTENANCE INSPECTION
BMP01110	1/30/2017	MAINTENANCE INSPECTION
BMP01111	1/30/2017	MAINTENANCE INSPECTION
BMP01112	1/30/2017	MAINTENANCE INSPECTION
BMP01113	1/30/2017	MAINTENANCE INSPECTION
BMP01114	1/30/2017	MAINTENANCE INSPECTION
BMP01115	1/30/2017	MAINTENANCE INSPECTION
BMP01116	1/30/2017	MAINTENANCE INSPECTION
BMP01117	1/30/2017	MAINTENANCE INSPECTION
BMP01118	1/30/2017	MAINTENANCE INSPECTION
BMP01119	1/30/2017	MAINTENANCE INSPECTION
BMP01120	1/30/2017	MAINTENANCE INSPECTION
BMP01121	1/30/2017	MAINTENANCE INSPECTION
BMP01122	1/30/2017	MAINTENANCE INSPECTION
BMP01123	1/30/2017	MAINTENANCE INSPECTION
BMP01142	1/30/2017	MAINTENANCE INSPECTION
BMP01323	1/30/2017	EDUCATION
BMP01060	1/31/2017	EDUCATION
BMP01789	2/1/2017	ACCEPTANCE INSPECTION
BMP01789	2/1/2017	RECEIPT OF CERTIFICATION
BMP01790	2/1/2017	ACCEPTANCE INSPECTION
BMP01790	2/1/2017	RECEIPT OF CERTIFICATION
BMP00881	2/1/2017	MAINTENANCE ACTIVITY
BMP00244	2/2/2017	ACCEPTANCE INSPECTION
BMP00430	2/2/2017	MAINTENANCE INSPECTION
BMP00357	2/3/2017	MAINTENANCE INSPECTION
BMP01008	2/3/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01063	2/3/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**



## HENRICO COUNTY MS4 PROGRAM PLAN

BMP00281	2/6/2017	MAINTENANCE INSPECTION
BMP00394	2/6/2017	MAINTENANCE INSPECTION
BMP00877	2/6/2017	MAINTENANCE INSPECTION
BMP01303	2/6/2017	MAINTENANCE INSPECTION
BMP01789	2/7/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01790	2/7/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01728	2/7/2017	CONSTRUCTION INSPECTION
BMP01729	2/7/2017	CONSTRUCTION INSPECTION
BMP00893	2/7/2017	MAINTENANCE INSPECTION
BMP00894	2/7/2017	MAINTENANCE INSPECTION
BMP00895	2/7/2017	MAINTENANCE INSPECTION
BMP00896	2/7/2017	MAINTENANCE INSPECTION
BMP01771	2/7/2017	ACCEPTANCE INSPECTION
BMP01084	2/7/2017	MAINTENANCE INSPECTION
BMP01085	2/7/2017	MAINTENANCE INSPECTION
BMP01309	2/7/2017	EDUCATION
BMP00072	2/8/2017	MAINTENANCE INSPECTION
BMP00294	2/8/2017	MAINTENANCE INSPECTION
BMP00295	2/8/2017	MAINTENANCE INSPECTION
BMP00381	2/8/2017	MAINTENANCE INSPECTION
BMP00648	2/8/2017	MAINTENANCE INSPECTION
BMP00687	2/8/2017	MAINTENANCE INSPECTION
BMP00688	2/8/2017	MAINTENANCE INSPECTION
BMP00689	2/8/2017	MAINTENANCE INSPECTION
BMP00690	2/8/2017	MAINTENANCE INSPECTION
BMP00691	2/8/2017	MAINTENANCE INSPECTION
BMP00692	2/8/2017	MAINTENANCE INSPECTION
BMP00693	2/8/2017	MAINTENANCE INSPECTION
BMP00694	2/8/2017	MAINTENANCE INSPECTION
BMP00695	2/8/2017	MAINTENANCE INSPECTION
BMP00696	2/8/2017	MAINTENANCE INSPECTION
BMP00697	2/8/2017	MAINTENANCE INSPECTION

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## HENRICO COUNTY MS4 PROGRAM PLAN

BMP01044	2/8/2017	MAINTENANCE INSPECTION
BMP01246	2/8/2017	MAINTENANCE INSPECTION
BMP01247	2/8/2017	MAINTENANCE INSPECTION
BMP01248	2/8/2017	MAINTENANCE INSPECTION
BMP01332	2/8/2017	MAINTENANCE INSPECTION
BMP01771	2/8/2017	INVENTORIED
BMP01772	2/8/2017	INVENTORIED
BMP00081	2/9/2017	MAINTENANCE INSPECTION
BMP00426	2/9/2017	EDUCATION
BMP00448	2/9/2017	MAINTENANCE INSPECTION
BMP00754	2/9/2017	RECEIPT OF CERTIFICATION
BMP01773	2/10/2017	INVENTORIED
BMP01493	2/13/2017	ACCEPTANCE INSPECTION
BMP01493	2/13/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01493	2/13/2017	RECEIPT OF CERTIFICATION
BMP01494	2/13/2017	ACCEPTANCE INSPECTION
BMP01494	2/13/2017	RECEIPT OF CERTIFICATION
BMP01774	2/13/2017	INVENTORIED
BMP01697	2/14/2017	RECEIPT OF CERTIFICATION
BMP01699	2/14/2017	RECEIPT OF CERTIFICATION
BMP01700	2/14/2017	RECEIPT OF CERTIFICATION
BMP00205	2/14/2017	MAINTENANCE INSPECTION
BMP00293	2/14/2017	MAINTENANCE INSPECTION
BMP00349	2/14/2017	MAINTENANCE INSPECTION
BMP00611	2/14/2017	MAINTENANCE INSPECTION
BMP00685	2/14/2017	MAINTENANCE INSPECTION
BMP01212	2/14/2017	MAINTENANCE INSPECTION
BMP01213	2/14/2017	MAINTENANCE INSPECTION
BMP01697	2/15/2017	ACCEPTANCE INSPECTION
BMP01699	2/15/2017	ACCEPTANCE INSPECTION
BMP01700	2/15/2017	ACCEPTANCE INSPECTION
BMP00079	2/16/2017	MAINTENANCE INSPECTION
BMP00080	2/16/2017	MAINTENANCE INSPECTION

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

BMP00106	2/16/2017	MAINTENANCE INSPECTION
BMP00107	2/16/2017	MAINTENANCE INSPECTION
BMP00298	2/16/2017	MAINTENANCE INSPECTION
BMP01043	2/16/2017	MAINTENANCE INSPECTION
BMP01495	2/16/2017	EDUCATION
BMP01495	2/16/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01250	2/16/2017	MAINTENANCE INSPECTION
BMP01251	2/16/2017	MAINTENANCE INSPECTION
BMP01775	2/16/2017	INVENTORIED
BMP01823	2/17/2017	CONSTRUCTION INSPECTION
BMP00686	2/17/2017	MAINTENANCE INSPECTION
BMP01008	2/17/2017	EDUCATION
BMP01256	2/20/2017	EDUCATION
BMP01565	2/22/2017	MAINTENANCE ACTIVITY
BMP00172	2/22/2017	EDUCATION
BMP01342	2/23/2017	MAINTENANCE INSPECTION
BMP01343	2/23/2017	MAINTENANCE INSPECTION
BMP00260	2/24/2017	MAINTENANCE INSPECTION
BMP00931	2/24/2017	MAINTENANCE INSPECTION
BMP01074	2/24/2017	MAINTENANCE INSPECTION
BMP01241	2/24/2017	MAINTENANCE INSPECTION
BMP01242	2/24/2017	MAINTENANCE INSPECTION
BMP01243	2/24/2017	MAINTENANCE INSPECTION
BMP01244	2/24/2017	MAINTENANCE INSPECTION
BMP00443	2/27/2017	MAINTENANCE INSPECTION
BMP00967	2/27/2017	ACCEPTANCE INSPECTION
BMP00967	2/27/2017	RECEIPT OF CERTIFICATION
BMP00968	2/27/2017	ACCEPTANCE INSPECTION
BMP00968	2/27/2017	RECEIPT OF CERTIFICATION
BMP01342	2/27/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01776	2/27/2017	INVENTORIED
BMP01777	2/27/2017	INVENTORIED

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## HENRICO COUNTY MS4 PROGRAM PLAN

BMP01778	2/27/2017	INVENTORIED
BMP00460	2/28/2017	MAINTENANCE INSPECTION
BMP00651	2/28/2017	MAINTENANCE INSPECTION
BMP00652	2/28/2017	MAINTENANCE INSPECTION
BMP01252	2/28/2017	MAINTENANCE INSPECTION
BMP00656	3/2/2017	MAINTENANCE INSPECTION
BMP00657	3/2/2017	MAINTENANCE INSPECTION
BMP00799	3/2/2017	MAINTENANCE INSPECTION
BMP00800	3/2/2017	MAINTENANCE INSPECTION
BMP00801	3/2/2017	MAINTENANCE INSPECTION
BMP00876	3/2/2017	MAINTENANCE INSPECTION
BMP00885	3/2/2017	ACCEPTANCE INSPECTION
BMP00886	3/2/2017	ACCEPTANCE INSPECTION
BMP01066	3/2/2017	MAINTENANCE INSPECTION
BMP00944	3/6/2017	MAINTENANCE INSPECTION
BMP00945	3/6/2017	MAINTENANCE INSPECTION
BMP00947	3/6/2017	MAINTENANCE INSPECTION
BMP00241	3/8/2017	ACCEPTANCE INSPECTION
BMP00981	3/8/2017	MAINTENANCE INSPECTION
BMP01779	3/8/2017	ACCEPTANCE INSPECTION
BMP01255	3/8/2017	MAINTENANCE INSPECTION
BMP01779	3/10/2017	INVENTORIED
BMP01460	3/13/2017	RETIREMENT
BMP01781	3/13/2017	INVENTORIED
BMP01772	3/14/2017	ACCEPTANCE INSPECTION
BMP01767	3/14/2017	RETIREMENT
BMP01458	3/14/2017	ACCEPTANCE INSPECTION
BMP01459	3/14/2017	ACCEPTANCE INSPECTION
BMP01781	3/14/2017	ACCEPTANCE INSPECTION
BMP00768	3/15/2017	ACCEPTANCE INSPECTION
BMP00769	3/15/2017	ACCEPTANCE INSPECTION
BMP01131	3/15/2017	MAINTENANCE INSPECTION
BMP01133	3/15/2017	MAINTENANCE INSPECTION
BMP01135	3/15/2017	MAINTENANCE INSPECTION

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## HENRICO COUNTY MS4 PROGRAM PLAN

BMP01136	3/15/2017	MAINTENANCE INSPECTION
BMP01138	3/15/2017	MAINTENANCE INSPECTION
BMP01772	3/16/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01789	3/20/2017	ACCEPTANCE INSPECTION
BMP01790	3/20/2017	ACCEPTANCE INSPECTION
BMP01370	3/20/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01569	3/20/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00769	3/20/2017	RECEIPT OF CERTIFICATION
BMP00951	3/21/2017	MAINTENANCE INSPECTION
BMP00044	3/22/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00798	3/22/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01184	3/22/2017	EDUCATION
BMP00449	3/23/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00450	3/23/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01681	3/24/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01681	3/24/2017	RECEIPT OF CERTIFICATION
BMP01682	3/24/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01682	3/24/2017	RECEIPT OF CERTIFICATION
BMP01683	3/24/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01683	3/24/2017	RECEIPT OF CERTIFICATION
BMP01784	3/24/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01784	3/24/2017	RECEIPT OF CERTIFICATION
BMP01785	3/24/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01785	3/24/2017	RECEIPT OF CERTIFICATION

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

BMP01786	3/24/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01786	3/24/2017	RECEIPT OF CERTIFICATION
BMP01681	3/27/2017	ACCEPTANCE INSPECTION
BMP01682	3/27/2017	ACCEPTANCE INSPECTION
BMP01683	3/27/2017	ACCEPTANCE INSPECTION
BMP01784	3/27/2017	ACCEPTANCE INSPECTION
BMP01785	3/27/2017	ACCEPTANCE INSPECTION
BMP01786	3/27/2017	ACCEPTANCE INSPECTION
BMP00241	3/28/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00244	3/28/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01458	3/28/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01459	3/28/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01781	3/28/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01779	3/28/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01782	3/28/2017	INVENTORIED
BMP01784	3/29/2017	INVENTORIED
BMP01785	3/29/2017	INVENTORIED
BMP01786	3/29/2017	INVENTORIED
BMP00073	3/31/2017	RETIREMENT
BMP01071	3/31/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00170	4/3/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00177	4/3/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00253	4/3/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00392	4/3/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## HENRICO COUNTY MS4 PROGRAM PLAN

BMP00608	4/3/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01045	4/3/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01325	4/3/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01326	4/3/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01787	4/4/2017	ACCEPTANCE INSPECTION
BMP00146	4/4/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00147	4/4/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00149	4/4/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00150	4/4/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00151	4/4/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00152	4/4/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00602	4/4/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00603	4/4/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00604	4/4/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00605	4/4/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01787	4/4/2017	INVENTORIED
BMP01789	4/5/2017	RECEIPT OF CERTIFICATION
BMP01790	4/5/2017	RECEIPT OF CERTIFICATION
BMP01789	4/5/2017	INVENTORIED
BMP01790	4/5/2017	INVENTORIED
BMP01060	4/6/2017	EDUCATION
BMP00241	4/7/2017	EDUCATION

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## HENRICO COUNTY MS4 PROGRAM PLAN

BMP01458	4/7/2017	EDUCATION
BMP01459	4/7/2017	EDUCATION
BMP01781	4/7/2017	EDUCATION
BMP00574	4/12/2017	MAINTENANCE INSPECTION
BMP00289	4/14/2017	MAINTENANCE INSPECTION
BMP00146	4/17/2017	EDUCATION
BMP00147	4/17/2017	EDUCATION
BMP00149	4/17/2017	EDUCATION
BMP00150	4/17/2017	EDUCATION
BMP00151	4/17/2017	EDUCATION
BMP00152	4/17/2017	EDUCATION
BMP00359	4/17/2017	RECEIPT OF CERTIFICATION
BMP00029	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00034	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00056	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00085	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00207	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00288	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00319	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00390	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00391	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00460	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00465	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00550	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017



## **HENRICO COUNTY MS4 PROGRAM PLAN**

BMP00551	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00594	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00651	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00652	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00744	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00906	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00916	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00922	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00924	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00925	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00931	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00939	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00940	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00941	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00943	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00987	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00988	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00989	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01040	4/18/2017	PUNCHLIST DEVELOPMENT AND

---

### **HENRICO COUNTY MS4 PROGRAM PLAN**

#### **PART I.B.2.h**

#### **ANNUAL REPORT SUPPLEMENT**

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

		DISTRIBUTION
BMP01046	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01047	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01067	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01082	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01083	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01318	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01344	4/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00359	4/19/2017	ACCEPTANCE INSPECTION
BMP00359	4/25/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01791	4/25/2017	INVENTORIED
BMP01792	4/25/2017	INVENTORIED
BMP01793	4/25/2017	INVENTORIED
BMP00074	4/26/2017	MAINTENANCE INSPECTION
BMP00706	4/26/2017	MAINTENANCE INSPECTION
BMP00719	4/26/2017	MAINTENANCE INSPECTION
BMP01548	4/26/2017	MAINTENANCE INSPECTION
BMP01320	4/26/2017	MAINTENANCE INSPECTION
BMP00053	5/2/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00289	5/2/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00323	5/2/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00574	5/2/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00747	5/2/2017	CONSTRUCTION INSPECTION
BMP00747	5/2/2017	PUNCHLIST DEVELOPMENT AND

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## **HENRICO COUNTY MS4 PROGRAM PLAN**

		DISTRIBUTION
BMP01026	5/2/2017	CONSTRUCTION INSPECTION
BMP01794	5/2/2017	INVENTORIED
BMP01795	5/3/2017	INVENTORIED
BMP00001	5/4/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00246	5/4/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00247	5/4/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00554	5/4/2017	MAINTENANCE INSPECTION
BMP01342	5/4/2017	MAINTENANCE INSPECTION
BMP00068	5/5/2017	MAINTENANCE INSPECTION
BMP00202	5/5/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00869	5/5/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00870	5/5/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00982	5/5/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00983	5/5/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00984	5/5/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00985	5/5/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00986	5/5/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01077	5/5/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01272	5/5/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01273	5/5/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00359	5/12/2017	ACCEPTANCE INSPECTION

---

### **HENRICO COUNTY MS4 PROGRAM PLAN**

#### **PART I.B.2.h**

#### **ANNUAL REPORT SUPPLEMENT**

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

BMP01771	5/12/2017	RECEIPT OF CERTIFICATION
BMP01774	5/12/2017	RECEIPT OF CERTIFICATION
BMP01737	5/15/2017	CONSTRUCTION INSPECTION
BMP01737	5/15/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00202	5/16/2017	EDUCATION
BMP00382	5/17/2017	MAINTENANCE INSPECTION
BMP00383	5/17/2017	MAINTENANCE INSPECTION
BMP01737	5/17/2017	CONSTRUCTION INSPECTION
BMP00753	5/17/2017	EDUCATION
BMP01779	5/18/2017	RECEIPT OF CERTIFICATION
BMP00001	5/19/2017	EDUCATION
BMP01779	5/19/2017	ACCEPTANCE INSPECTION
BMP01696	5/22/2017	CONSTRUCTION INSPECTION
BMP00724	5/23/2017	MAINTENANCE INSPECTION
BMP00869	5/23/2017	EDUCATION
BMP00870	5/23/2017	EDUCATION
BMP01272	5/23/2017	EDUCATION
BMP01273	5/23/2017	EDUCATION
BMP01823	5/24/2017	RECEIPT OF CERTIFICATION
BMP01796	5/24/2017	INVENTORIED
BMP01772	5/29/2017	RECEIPT OF CERTIFICATION
BMP01077	5/30/2017	EDUCATION
BMP01797	5/30/2017	INVENTORIED
BMP01772	6/1/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00350	6/2/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00104	6/13/2017	MAINTENANCE INSPECTION
BMP00120	6/13/2017	MAINTENANCE INSPECTION
BMP00276	6/13/2017	MAINTENANCE INSPECTION
BMP00277	6/13/2017	MAINTENANCE INSPECTION
BMP00386	6/13/2017	MAINTENANCE INSPECTION
BMP00560	6/13/2017	MAINTENANCE INSPECTION

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

BMP00561	6/13/2017	MAINTENANCE INSPECTION
BMP00562	6/13/2017	MAINTENANCE INSPECTION
BMP00683	6/13/2017	MAINTENANCE INSPECTION
BMP00698	6/13/2017	MAINTENANCE INSPECTION
BMP00841	6/13/2017	MAINTENANCE INSPECTION
BMP01198	6/13/2017	MAINTENANCE INSPECTION
BMP01293	6/13/2017	MAINTENANCE INSPECTION
BMP01696	6/14/2017	CONSTRUCTION INSPECTION
BMP01771	6/14/2017	ACCEPTANCE INSPECTION
BMP01774	6/14/2017	ACCEPTANCE INSPECTION
BMP01681	6/15/2017	RECEIPT OF CERTIFICATION
BMP01682	6/15/2017	RECEIPT OF CERTIFICATION
BMP01683	6/15/2017	RECEIPT OF CERTIFICATION
BMP01784	6/15/2017	RECEIPT OF CERTIFICATION
BMP01785	6/15/2017	RECEIPT OF CERTIFICATION
BMP01786	6/15/2017	RECEIPT OF CERTIFICATION
BMP00505	6/16/2017	OWNER INSPECTION
BMP01681	6/19/2017	ACCEPTANCE INSPECTION
BMP01682	6/19/2017	ACCEPTANCE INSPECTION
BMP01683	6/19/2017	ACCEPTANCE INSPECTION
BMP01784	6/19/2017	ACCEPTANCE INSPECTION
BMP01785	6/19/2017	ACCEPTANCE INSPECTION
BMP01786	6/19/2017	ACCEPTANCE INSPECTION
BMP01823	6/19/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01493	6/19/2017	ACCEPTANCE INSPECTION
BMP01493	6/19/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01494	6/19/2017	ACCEPTANCE INSPECTION
BMP00065	6/20/2017	MAINTENANCE INSPECTION
BMP00066	6/20/2017	MAINTENANCE INSPECTION
BMP00067	6/20/2017	MAINTENANCE INSPECTION
BMP01167	6/20/2017	MAINTENANCE INSPECTION
BMP01168	6/20/2017	MAINTENANCE INSPECTION

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

BMP00343	6/21/2017	MAINTENANCE INSPECTION
BMP00404	6/21/2017	MAINTENANCE INSPECTION
BMP00173	6/21/2017	MAINTENANCE INSPECTION
BMP00046	6/22/2017	MAINTENANCE INSPECTION
BMP00308	6/22/2017	MAINTENANCE INSPECTION
BMP00309	6/22/2017	MAINTENANCE INSPECTION
BMP00310	6/22/2017	MAINTENANCE INSPECTION
BMP00311	6/22/2017	MAINTENANCE INSPECTION
BMP00312	6/22/2017	MAINTENANCE INSPECTION
BMP00313	6/22/2017	MAINTENANCE INSPECTION
BMP00314	6/22/2017	MAINTENANCE INSPECTION
BMP00315	6/22/2017	MAINTENANCE INSPECTION
BMP00316	6/22/2017	MAINTENANCE INSPECTION
BMP00317	6/22/2017	MAINTENANCE INSPECTION
BMP00318	6/22/2017	MAINTENANCE INSPECTION
BMP00353	6/22/2017	MAINTENANCE INSPECTION
BMP00618	6/22/2017	MAINTENANCE INSPECTION
BMP00619	6/22/2017	MAINTENANCE INSPECTION
BMP00862	6/22/2017	MAINTENANCE INSPECTION
BMP00927	6/22/2017	MAINTENANCE INSPECTION
BMP01367	6/22/2017	MAINTENANCE INSPECTION
BMP01798	6/22/2017	INVENTORIED
BMP01799	6/22/2017	INVENTORIED
BMP01800	6/23/2017	INVENTORIED
BMP01554	6/27/2017	ACCEPTANCE INSPECTION
BMP00350	6/28/2017	EDUCATION
BMP00202	6/30/2017	MAINTENANCE INSPECTION
BMP01309	7/5/2017	EDUCATION
BMP00321	7/6/2017	MAINTENANCE INSPECTION
BMP00851	7/6/2017	MAINTENANCE INSPECTION
BMP00852	7/6/2017	MAINTENANCE INSPECTION
BMP00853	7/6/2017	MAINTENANCE INSPECTION
BMP01562	7/6/2017	ACCEPTANCE INSPECTION
BMP00747	7/7/2017	RECEIPT OF CERTIFICATION

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

BMP00276	7/12/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00277	7/12/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00382	7/12/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00560	7/12/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00561	7/12/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01801	7/12/2017	CONSTRUCTION INSPECTION
BMP01801	7/12/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00908	7/12/2017	MAINTENANCE INSPECTION
BMP00909	7/12/2017	MAINTENANCE INSPECTION
BMP01801	7/17/2017	INVENTORIED
BMP00357	7/19/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00087	7/20/2017	MAINTENANCE INSPECTION
BMP00357	7/20/2017	MAINTENANCE INSPECTION
BMP00902	7/20/2017	MAINTENANCE INSPECTION
BMP00907	7/20/2017	MAINTENANCE INSPECTION
BMP01149	7/20/2017	MAINTENANCE INSPECTION
BMP01185	7/20/2017	MAINTENANCE INSPECTION
BMP01186	7/20/2017	MAINTENANCE INSPECTION
BMP01187	7/20/2017	MAINTENANCE INSPECTION
BMP01188	7/20/2017	MAINTENANCE INSPECTION
BMP01189	7/20/2017	MAINTENANCE INSPECTION
BMP01319	7/20/2017	MAINTENANCE INSPECTION
BMP01823	7/21/2017	RECEIPT OF CERTIFICATION
BMP00394	7/24/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00394	7/25/2017	MAINTENANCE INSPECTION
BMP01772	7/26/2017	ACCEPTANCE INSPECTION
BMP01772	7/26/2017	RECEIPT OF CERTIFICATION

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

BMP01516	7/26/2017	ACCEPTANCE INSPECTION
BMP00394	7/26/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00560	7/26/2017	MAINTENANCE INSPECTION
BMP00561	7/26/2017	MAINTENANCE INSPECTION
BMP01696	7/31/2017	CONSTRUCTION INSPECTION
BMP01802	7/31/2017	INVENTORIED
BMP01803	7/31/2017	INVENTORIED
BMP01804	7/31/2017	INVENTORIED
BMP01805	7/31/2017	INVENTORIED
BMP01806	7/31/2017	INVENTORIED
BMP01807	7/31/2017	INVENTORIED
BMP01808	7/31/2017	INVENTORIED
BMP01809	7/31/2017	INVENTORIED
BMP01810	7/31/2017	INVENTORIED
BMP01811	7/31/2017	INVENTORIED
BMP01801	8/1/2017	RECEIPT OF CERTIFICATION
BMP01140	8/7/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01696	8/8/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01309	8/8/2017	EDUCATION
BMP01516	8/10/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00625	8/10/2017	MAINTENANCE INSPECTION
BMP00626	8/10/2017	MAINTENANCE INSPECTION
BMP00627	8/10/2017	MAINTENANCE INSPECTION
BMP01696	8/10/2017	EDUCATION
BMP01516	8/11/2017	ACCEPTANCE INSPECTION
BMP01761	8/11/2017	ACCEPTANCE INSPECTION
BMP01801	8/11/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01493	8/11/2017	ACCEPTANCE INSPECTION
BMP01494	8/11/2017	ACCEPTANCE INSPECTION
BMP01761	8/14/2017	PUNCHLIST DEVELOPMENT AND

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**



## HENRICO COUNTY MS4 PROGRAM PLAN

		DISTRIBUTION
BMP01801	8/14/2017	EDUCATION
BMP00747	8/14/2017	RECEIPT OF CERTIFICATION
BMP01823	8/15/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01053	8/16/2017	MAINTENANCE INSPECTION
BMP00289	8/17/2017	MAINTENANCE INSPECTION
BMP01812	8/17/2017	INVENTORIED
BMP00326	8/18/2017	MAINTENANCE INSPECTION
BMP00595	8/18/2017	MAINTENANCE INSPECTION
BMP00596	8/18/2017	MAINTENANCE INSPECTION
BMP01801	8/18/2017	ACCEPTANCE INSPECTION
BMP01801	8/18/2017	RECEIPT OF CERTIFICATION
BMP01233	8/18/2017	MAINTENANCE INSPECTION
BMP00180	8/21/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01005	8/21/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01493	8/21/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01494	8/21/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00180	8/22/2017	MAINTENANCE INSPECTION
BMP00181	8/22/2017	MAINTENANCE INSPECTION
BMP00182	8/22/2017	MAINTENANCE INSPECTION
BMP01005	8/22/2017	MAINTENANCE INSPECTION
BMP01787	8/23/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01725	8/24/2017	ACCEPTANCE INSPECTION
BMP01725	8/24/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01787	8/25/2017	ACCEPTANCE INSPECTION
BMP00264	8/28/2017	MAINTENANCE INSPECTION
BMP00024	8/29/2017	MAINTENANCE INSPECTION
BMP00450	8/29/2017	MAINTENANCE INSPECTION

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

BMP00699	8/29/2017	MAINTENANCE INSPECTION
BMP01814	8/29/2017	MAINTENANCE INSPECTION
BMP01353	8/29/2017	MAINTENANCE INSPECTION
BMP01813	8/29/2017	INVENTORIED
BMP01814	8/30/2017	INVENTORIED
BMP01815	9/1/2017	RECEIPT OF CERTIFICATION
BMP01816	9/1/2017	RECEIPT OF CERTIFICATION
BMP01031	9/1/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00326	9/5/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00595	9/5/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00596	9/5/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00885	9/5/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00886	9/5/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01030	9/5/2017	MAINTENANCE INSPECTION
BMP01031	9/5/2017	MAINTENANCE INSPECTION
BMP01032	9/5/2017	MAINTENANCE INSPECTION
BMP01233	9/5/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00012	9/6/2017	MAINTENANCE INSPECTION
BMP00013	9/6/2017	MAINTENANCE INSPECTION
BMP00014	9/6/2017	MAINTENANCE INSPECTION
BMP00233	9/6/2017	MAINTENANCE INSPECTION
BMP00234	9/6/2017	MAINTENANCE INSPECTION
BMP00434	9/6/2017	MAINTENANCE INSPECTION
BMP00435	9/6/2017	MAINTENANCE INSPECTION
BMP00436	9/6/2017	MAINTENANCE INSPECTION
BMP00437	9/6/2017	MAINTENANCE INSPECTION
BMP00438	9/6/2017	MAINTENANCE INSPECTION
BMP00439	9/6/2017	MAINTENANCE INSPECTION

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

BMP00440	9/6/2017	MAINTENANCE INSPECTION
BMP00441	9/6/2017	MAINTENANCE INSPECTION
BMP00467	9/6/2017	MAINTENANCE INSPECTION
BMP00468	9/6/2017	MAINTENANCE INSPECTION
BMP00469	9/6/2017	MAINTENANCE INSPECTION
BMP00470	9/6/2017	MAINTENANCE INSPECTION
BMP00473	9/6/2017	MAINTENANCE INSPECTION
BMP00474	9/6/2017	MAINTENANCE INSPECTION
BMP00475	9/6/2017	MAINTENANCE INSPECTION
BMP01158	9/6/2017	MAINTENANCE INSPECTION
BMP01487	9/6/2017	ACCEPTANCE INSPECTION
BMP01140	9/8/2017	MAINTENANCE INSPECTION
BMP00069	9/11/2017	MAINTENANCE INSPECTION
BMP00070	9/11/2017	MAINTENANCE INSPECTION
BMP00397	9/11/2017	MAINTENANCE INSPECTION
BMP00398	9/11/2017	MAINTENANCE INSPECTION
BMP00399	9/11/2017	MAINTENANCE INSPECTION
BMP00400	9/11/2017	MAINTENANCE INSPECTION
BMP00401	9/11/2017	MAINTENANCE INSPECTION
BMP01737	9/11/2017	RECEIPT OF CERTIFICATION
BMP01150	9/11/2017	MAINTENANCE INSPECTION
BMP01151	9/11/2017	MAINTENANCE INSPECTION
BMP01152	9/11/2017	MAINTENANCE INSPECTION
BMP01153	9/11/2017	MAINTENANCE INSPECTION
BMP01154	9/11/2017	MAINTENANCE INSPECTION
BMP00276	9/12/2017	MAINTENANCE INSPECTION
BMP00277	9/12/2017	MAINTENANCE INSPECTION
BMP00382	9/12/2017	MAINTENANCE INSPECTION
BMP00542	9/12/2017	MAINTENANCE INSPECTION
BMP01013	9/12/2017	MAINTENANCE INSPECTION
BMP00038	9/13/2017	MAINTENANCE INSPECTION
BMP00039	9/13/2017	MAINTENANCE INSPECTION
BMP00174	9/13/2017	MAINTENANCE INSPECTION
BMP00175	9/13/2017	MAINTENANCE INSPECTION

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## **HENRICO COUNTY MS4 PROGRAM PLAN**

BMP00176	9/13/2017	MAINTENANCE INSPECTION
BMP00398	9/13/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00537	9/13/2017	MAINTENANCE INSPECTION
BMP00538	9/13/2017	MAINTENANCE INSPECTION
BMP00539	9/13/2017	MAINTENANCE INSPECTION
BMP01059	9/13/2017	MAINTENANCE INSPECTION
BMP01150	9/13/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00014	9/14/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00300	9/14/2017	MAINTENANCE INSPECTION
BMP00301	9/14/2017	MAINTENANCE INSPECTION
BMP00397	9/14/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00400	9/14/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00401	9/14/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00434	9/14/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00435	9/14/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00436	9/14/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00437	9/14/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00438	9/14/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00440	9/14/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00441	9/14/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00467	9/14/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00468	9/14/2017	PUNCHLIST DEVELOPMENT AND

---

### **HENRICO COUNTY MS4 PROGRAM PLAN**

#### **PART I.B.2.h**

#### **ANNUAL REPORT SUPPLEMENT**

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## **HENRICO COUNTY MS4 PROGRAM PLAN**

		DISTRIBUTION
BMP00469	9/14/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00470	9/14/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00473	9/14/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00474	9/14/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00475	9/14/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00542	9/14/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00747	9/14/2017	RECEIPT OF CERTIFICATION
BMP01005	9/14/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01151	9/14/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01152	9/14/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01153	9/14/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01154	9/14/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00079	9/15/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00080	9/15/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00081	9/15/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00298	9/15/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01043	9/15/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00079	9/18/2017	MAINTENANCE INSPECTION
BMP00080	9/18/2017	MAINTENANCE INSPECTION
BMP00081	9/18/2017	MAINTENANCE INSPECTION

---

### **HENRICO COUNTY MS4 PROGRAM PLAN**

#### **PART I.B.2.h**

#### **ANNUAL REPORT SUPPLEMENT**

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

BMP00298	9/18/2017	MAINTENANCE INSPECTION
BMP00638	9/18/2017	MAINTENANCE INSPECTION
BMP00639	9/18/2017	MAINTENANCE INSPECTION
BMP01043	9/18/2017	MAINTENANCE INSPECTION
BMP01072	9/18/2017	MAINTENANCE INSPECTION
BMP01270	9/18/2017	MAINTENANCE INSPECTION
BMP01345	9/18/2017	MAINTENANCE INSPECTION
BMP00012	9/19/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00069	9/19/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00070	9/19/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00233	9/19/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00234	9/19/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01030	9/19/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01031	9/19/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01032	9/19/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01158	9/19/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01353	9/19/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01815	9/20/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01816	9/20/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00572	9/20/2017	MAINTENANCE INSPECTION
BMP00747	9/20/2017	ACCEPTANCE INSPECTION
BMP00990	9/20/2017	MAINTENANCE INSPECTION
BMP00991	9/20/2017	MAINTENANCE INSPECTION
BMP00992	9/20/2017	MAINTENANCE INSPECTION

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

BMP00993	9/20/2017	MAINTENANCE INSPECTION
BMP00994	9/20/2017	MAINTENANCE INSPECTION
BMP00995	9/20/2017	MAINTENANCE INSPECTION
BMP00996	9/20/2017	RETIREMENT
BMP01190	9/20/2017	MAINTENANCE INSPECTION
BMP01815	9/20/2017	INVENTORIED
BMP01816	9/20/2017	INVENTORIED
BMP00325	9/21/2017	MAINTENANCE INSPECTION
BMP00463	9/21/2017	MAINTENANCE INSPECTION
BMP00477	9/21/2017	MAINTENANCE INSPECTION
BMP00579	9/21/2017	MAINTENANCE INSPECTION
BMP00637	9/21/2017	MAINTENANCE INSPECTION
BMP00647	9/21/2017	MAINTENANCE INSPECTION
BMP00721	9/21/2017	MAINTENANCE INSPECTION
BMP00926	9/21/2017	MAINTENANCE INSPECTION
BMP01010	9/21/2017	MAINTENANCE INSPECTION
BMP01011	9/21/2017	MAINTENANCE INSPECTION
BMP01012	9/21/2017	MAINTENANCE INSPECTION
BMP01014	9/21/2017	MAINTENANCE INSPECTION
BMP01056	9/21/2017	MAINTENANCE INSPECTION
BMP01058	9/21/2017	MAINTENANCE INSPECTION
BMP01073	9/21/2017	MAINTENANCE INSPECTION
BMP01333	9/21/2017	MAINTENANCE INSPECTION
BMP00381	9/25/2017	MAINTENANCE INSPECTION
BMP00834	9/25/2017	MAINTENANCE INSPECTION
BMP00835	9/25/2017	MAINTENANCE INSPECTION
BMP01691	9/27/2017	RECEIPT OF CERTIFICATION
BMP01737	9/28/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00233	9/29/2017	EDUCATION
BMP00234	9/29/2017	EDUCATION
BMP01815	9/29/2017	RECEIPT OF CERTIFICATION
BMP01816	9/29/2017	RECEIPT OF CERTIFICATION
BMP00557	10/2/2017	PUNCHLIST DEVELOPMENT AND

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

		DISTRIBUTION
BMP01357	10/2/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00088	10/3/2017	MAINTENANCE INSPECTION
BMP00090	10/3/2017	MAINTENANCE INSPECTION
BMP00546	10/3/2017	MAINTENANCE INSPECTION
BMP00582	10/3/2017	MAINTENANCE INSPECTION
BMP00583	10/3/2017	MAINTENANCE INSPECTION
BMP00584	10/3/2017	MAINTENANCE INSPECTION
BMP00585	10/3/2017	MAINTENANCE INSPECTION
BMP00586	10/3/2017	MAINTENANCE INSPECTION
BMP00587	10/3/2017	MAINTENANCE INSPECTION
BMP00588	10/3/2017	MAINTENANCE INSPECTION
BMP00775	10/3/2017	MAINTENANCE INSPECTION
BMP00776	10/3/2017	MAINTENANCE INSPECTION
BMP00777	10/3/2017	MAINTENANCE INSPECTION
BMP00778	10/3/2017	MAINTENANCE INSPECTION
BMP00779	10/3/2017	MAINTENANCE INSPECTION
BMP00780	10/3/2017	MAINTENANCE INSPECTION
BMP00781	10/3/2017	MAINTENANCE INSPECTION
BMP00782	10/3/2017	MAINTENANCE INSPECTION
BMP01026	10/4/2017	ACCEPTANCE INSPECTION
BMP01026	10/4/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01691	10/6/2017	ACCEPTANCE INSPECTION
BMP01691	10/6/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01200	10/9/2017	ACCEPTANCE INSPECTION
BMP01201	10/9/2017	ACCEPTANCE INSPECTION
BMP01202	10/9/2017	ACCEPTANCE INSPECTION
BMP01203	10/9/2017	ACCEPTANCE INSPECTION
BMP01204	10/9/2017	ACCEPTANCE INSPECTION
BMP01205	10/9/2017	ACCEPTANCE INSPECTION
BMP01206	10/9/2017	ACCEPTANCE INSPECTION

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**



## HENRICO COUNTY MS4 PROGRAM PLAN

BMP01207	10/9/2017	ACCEPTANCE INSPECTION
BMP00114	10/10/2017	MAINTENANCE INSPECTION
BMP00290	10/10/2017	MAINTENANCE INSPECTION
BMP00291	10/10/2017	MAINTENANCE INSPECTION
BMP01761	10/10/2017	RECEIPT OF CERTIFICATION
BMP00362	10/10/2017	MAINTENANCE INSPECTION
BMP00661	10/10/2017	MAINTENANCE INSPECTION
BMP00964	10/10/2017	MAINTENANCE INSPECTION
BMP01269	10/10/2017	MAINTENANCE INSPECTION
BMP01312	10/10/2017	MAINTENANCE INSPECTION
BMP01313	10/10/2017	MAINTENANCE INSPECTION
BMP01314	10/10/2017	MAINTENANCE INSPECTION
BMP01815	10/11/2017	ACCEPTANCE INSPECTION
BMP01816	10/11/2017	ACCEPTANCE INSPECTION
BMP01817	10/11/2017	INVENTORIED
BMP00082	10/12/2017	MAINTENANCE INSPECTION
BMP01200	10/12/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01201	10/12/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01202	10/12/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01203	10/12/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01204	10/12/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01205	10/12/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01206	10/12/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01207	10/12/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00828	10/12/2017	MAINTENANCE INSPECTION
BMP00829	10/12/2017	MAINTENANCE INSPECTION
BMP01147	10/12/2017	MAINTENANCE INSPECTION

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## HENRICO COUNTY MS4 PROGRAM PLAN

BMP01148	10/12/2017	MAINTENANCE INSPECTION
BMP01691	10/13/2017	RECEIPT OF CERTIFICATION
BMP00483	10/16/2017	MAINTENANCE INSPECTION
BMP01761	10/17/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01495	10/17/2017	ACCEPTANCE INSPECTION
BMP00024	10/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00174	10/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00175	10/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00176	10/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00362	10/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00383	10/18/2017	EDUCATION
BMP00537	10/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00538	10/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00539	10/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00699	10/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01814	10/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00730	10/18/2017	RECEIPT OF CERTIFICATION
BMP01270	10/18/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00245	10/19/2017	MAINTENANCE INSPECTION
BMP01191	10/19/2017	MAINTENANCE INSPECTION
BMP01192	10/19/2017	MAINTENANCE INSPECTION
BMP01356	10/19/2017	MAINTENANCE INSPECTION
BMP01016	10/20/2017	ACCEPTANCE INSPECTION
BMP01493	10/20/2017	ACCEPTANCE INSPECTION

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## HENRICO COUNTY MS4 PROGRAM PLAN

BMP01494	10/20/2017	ACCEPTANCE INSPECTION
BMP00108	10/23/2017	MAINTENANCE INSPECTION
BMP01823	10/23/2017	RECEIPT OF CERTIFICATION
BMP01200	10/23/2017	ACCEPTANCE INSPECTION
BMP01201	10/23/2017	ACCEPTANCE INSPECTION
BMP01202	10/23/2017	ACCEPTANCE INSPECTION
BMP01203	10/23/2017	ACCEPTANCE INSPECTION
BMP01204	10/23/2017	ACCEPTANCE INSPECTION
BMP01205	10/23/2017	ACCEPTANCE INSPECTION
BMP01206	10/23/2017	ACCEPTANCE INSPECTION
BMP01207	10/23/2017	ACCEPTANCE INSPECTION
BMP00071	10/24/2017	MAINTENANCE INSPECTION
BMP01289	10/24/2017	RETIREMENT
BMP00493	10/25/2017	MAINTENANCE INSPECTION
BMP00494	10/25/2017	MAINTENANCE INSPECTION
BMP00495	10/25/2017	MAINTENANCE INSPECTION
BMP00496	10/25/2017	MAINTENANCE INSPECTION
BMP00497	10/25/2017	MAINTENANCE INSPECTION
BMP00498	10/25/2017	MAINTENANCE INSPECTION
BMP01236	10/25/2017	MAINTENANCE INSPECTION
BMP00144	10/26/2017	MAINTENANCE INSPECTION
BMP00145	10/26/2017	MAINTENANCE INSPECTION
BMP00159	10/26/2017	MAINTENANCE INSPECTION
BMP00606	10/26/2017	MAINTENANCE INSPECTION
BMP00846	10/26/2017	MAINTENANCE INSPECTION
BMP00905	10/26/2017	MAINTENANCE INSPECTION
BMP01287	10/26/2017	MAINTENANCE INSPECTION
BMP01823	10/27/2017	ACCEPTANCE INSPECTION
BMP01823	10/30/2017	ACCEPTANCE INSPECTION
BMP00730	10/30/2017	ACCEPTANCE INSPECTION
BMP01818	10/30/2017	INVENTORIED
BMP01822	10/30/2017	INVENTORIED
BMP00269	10/31/2017	MAINTENANCE INSPECTION
BMP00270	10/31/2017	MAINTENANCE INSPECTION

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## HENRICO COUNTY MS4 PROGRAM PLAN

BMP00518	10/31/2017	MAINTENANCE INSPECTION
BMP00519	10/31/2017	MAINTENANCE INSPECTION
BMP00520	10/31/2017	MAINTENANCE INSPECTION
BMP00521	10/31/2017	MAINTENANCE INSPECTION
BMP00522	10/31/2017	MAINTENANCE INSPECTION
BMP01028	10/31/2017	MAINTENANCE INSPECTION
BMP01258	10/31/2017	MAINTENANCE INSPECTION
BMP01259	10/31/2017	MAINTENANCE INSPECTION
BMP01260	10/31/2017	MAINTENANCE INSPECTION
BMP01261	10/31/2017	MAINTENANCE INSPECTION
BMP01262	10/31/2017	MAINTENANCE INSPECTION
BMP01263	10/31/2017	MAINTENANCE INSPECTION
BMP01737	11/3/2017	RECEIPT OF CERTIFICATION
BMP01536	11/3/2017	MAINTENANCE INSPECTION
BMP01016	11/6/2017	RECEIPT OF CERTIFICATION
BMP01536	11/6/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01823	11/6/2017	INVENTORIED
BMP01845	11/7/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01845	11/7/2017	RECEIPT OF CERTIFICATION
BMP00537	11/8/2017	EDUCATION
BMP00538	11/8/2017	EDUCATION
BMP00539	11/8/2017	EDUCATION
BMP00542	11/8/2017	MAINTENANCE INSPECTION
BMP00583	11/8/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00584	11/8/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00585	11/8/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00586	11/8/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00587	11/8/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## **HENRICO COUNTY MS4 PROGRAM PLAN**

BMP00588	11/8/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00926	11/8/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01010	11/8/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01011	11/8/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01012	11/8/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01013	11/8/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01014	11/8/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00038	11/13/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00039	11/13/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01059	11/13/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01824	11/13/2017	INVENTORIED
BMP01825	11/13/2017	INVENTORIED
BMP01830	11/13/2017	INVENTORIED
BMP00174	11/14/2017	EDUCATION
BMP00175	11/14/2017	EDUCATION
BMP00176	11/14/2017	EDUCATION
BMP00300	11/14/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00301	11/14/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00639	11/14/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01737	11/14/2017	ACCEPTANCE INSPECTION
BMP01190	11/14/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00233	11/15/2017	EDUCATION

---

### **HENRICO COUNTY MS4 PROGRAM PLAN**

#### **PART I.B.2.h**

#### **ANNUAL REPORT SUPPLEMENT**

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

BMP00234	11/15/2017	EDUCATION
BMP01536	11/15/2017	EDUCATION
BMP01845	11/16/2017	RECEIPT OF CERTIFICATION
BMP01831	11/16/2017	INVENTORIED
BMP01837	11/16/2017	INVENTORIED
BMP00187	11/17/2017	MAINTENANCE INSPECTION
BMP00188	11/17/2017	MAINTENANCE INSPECTION
BMP00189	11/17/2017	MAINTENANCE INSPECTION
BMP00190	11/17/2017	MAINTENANCE INSPECTION
BMP00191	11/17/2017	MAINTENANCE INSPECTION
BMP00192	11/17/2017	MAINTENANCE INSPECTION
BMP00193	11/17/2017	MAINTENANCE INSPECTION
BMP00194	11/17/2017	MAINTENANCE INSPECTION
BMP00477	11/17/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00572	11/17/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00579	11/17/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01838	11/17/2017	INVENTORIED
BMP01839	11/17/2017	INVENTORIED
BMP01200	11/21/2017	RECEIPT OF CERTIFICATION
BMP01201	11/21/2017	RECEIPT OF CERTIFICATION
BMP01202	11/21/2017	RECEIPT OF CERTIFICATION
BMP01203	11/21/2017	RECEIPT OF CERTIFICATION
BMP01204	11/21/2017	RECEIPT OF CERTIFICATION
BMP01205	11/21/2017	RECEIPT OF CERTIFICATION
BMP01206	11/21/2017	RECEIPT OF CERTIFICATION
BMP01207	11/21/2017	RECEIPT OF CERTIFICATION
BMP01536	11/22/2017	MAINTENANCE INSPECTION
BMP01691	11/27/2017	ACCEPTANCE INSPECTION
BMP00926	11/27/2017	EDUCATION
BMP01845	11/29/2017	ACCEPTANCE INSPECTION
BMP01845	12/1/2017	PUNCHLIST DEVELOPMENT AND

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## **HENRICO COUNTY MS4 PROGRAM PLAN**

		DISTRIBUTION
BMP00493	12/1/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00494	12/1/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00495	12/1/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00496	12/1/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00497	12/1/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00498	12/1/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01725	12/1/2017	RECEIPT OF CERTIFICATION
BMP00775	12/1/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00776	12/1/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00777	12/1/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00778	12/1/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00779	12/1/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00780	12/1/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00781	12/1/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00782	12/1/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00303	12/4/2017	MAINTENANCE INSPECTION
BMP01200	12/5/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01201	12/5/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01202	12/5/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION

---

### **HENRICO COUNTY MS4 PROGRAM PLAN**

#### **PART I.B.2.h**

#### **ANNUAL REPORT SUPPLEMENT**

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

BMP01203	12/5/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01204	12/5/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01205	12/5/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01206	12/5/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01207	12/5/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00185	12/6/2017	RETIREMENT
BMP00186	12/6/2017	RETIREMENT
BMP01782	12/7/2017	ACCEPTANCE INSPECTION
BMP01845	12/7/2017	ACCEPTANCE INSPECTION
BMP01782	12/8/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00115	12/8/2017	MAINTENANCE INSPECTION
BMP00116	12/8/2017	MAINTENANCE INSPECTION
BMP01283	12/8/2017	MAINTENANCE INSPECTION
BMP01284	12/8/2017	MAINTENANCE INSPECTION
BMP01841	12/11/2017	INVENTORIED
BMP00548	12/12/2017	MAINTENANCE INSPECTION
BMP01056	12/12/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01073	12/12/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01079	12/12/2017	MAINTENANCE INSPECTION
BMP01275	12/12/2017	MAINTENANCE INSPECTION
BMP01839	12/18/2017	RECEIPT OF CERTIFICATION
BMP00639	12/19/2017	MAINTENANCE INSPECTION
BMP00233	12/20/2017	MAINTENANCE INSPECTION
BMP00234	12/20/2017	MAINTENANCE INSPECTION
BMP01200	12/21/2017	RECEIPT OF CERTIFICATION
BMP01201	12/21/2017	RECEIPT OF CERTIFICATION
BMP01202	12/21/2017	RECEIPT OF CERTIFICATION

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017



## HENRICO COUNTY MS4 PROGRAM PLAN

BMP01203	12/21/2017	RECEIPT OF CERTIFICATION
BMP01204	12/21/2017	RECEIPT OF CERTIFICATION
BMP01205	12/21/2017	RECEIPT OF CERTIFICATION
BMP01206	12/21/2017	RECEIPT OF CERTIFICATION
BMP01207	12/21/2017	RECEIPT OF CERTIFICATION
BMP01846	12/21/2017	RECEIPT OF CERTIFICATION
BMP01200	12/21/2017	RECEIPT OF CERTIFICATION
BMP01201	12/21/2017	RECEIPT OF CERTIFICATION
BMP01202	12/21/2017	RECEIPT OF CERTIFICATION
BMP01203	12/21/2017	RECEIPT OF CERTIFICATION
BMP01204	12/21/2017	RECEIPT OF CERTIFICATION
BMP01205	12/21/2017	RECEIPT OF CERTIFICATION
BMP01206	12/21/2017	RECEIPT OF CERTIFICATION
BMP01207	12/21/2017	RECEIPT OF CERTIFICATION
BMP01846	12/21/2017	RECEIPT OF CERTIFICATION
BMP01839	12/22/2017	ACCEPTANCE INSPECTION
BMP01839	12/22/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00087	12/26/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00357	12/26/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00547	12/26/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00087	12/27/2017	MAINTENANCE INSPECTION
BMP00357	12/27/2017	MAINTENANCE INSPECTION
BMP00547	12/27/2017	MAINTENANCE INSPECTION
BMP00187	12/28/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00188	12/28/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00189	12/28/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00190	12/28/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.h

### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## **HENRICO COUNTY MS4 PROGRAM PLAN**

BMP00191	12/28/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00192	12/28/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00193	12/28/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP00194	12/28/2017	PUNCHLIST DEVELOPMENT AND DISTRIBUTION
BMP01844	12/28/2017	INVENTORIED
BMP01845	12/28/2017	INVENTORIED

The MS4 service area map including outfalls and information included in Part I.B.2.h)3) shall be submitted no later than 18 months after the effective date of this state permit. The information shall be submitted as an electronic file in one of the following formats shapefile, geodatabase, .xls, .xlsx, .csv, .mdx, .dbf, delimited text, XML, or other file approved by the Department.

The requested information was delivered to DEQ on September 27, 2016.

The fourth annual report shall include an updated list of all information requested in Part 1.B.2.h)5).

Noted.

# **HENRICO COUNTY MS4 PROGRAM PLAN**

## **PART I.B.2.i MS4 PROGRAM IMPLEMENTATION COUNTY FACILITIES**

There are no Specific Reporting Requirements associated with this part of the MS4 Permit for this permit year.

## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.B.2.j**

#### **MS4 PROGRAM IMPLEMENTATION PUBLIC EDUCATION / PARTICIPATION**

Each annual report shall include a list of permittee public outreach and education activities and the estimated number of individuals reached through the activities. An evaluation of program effectiveness, as outlined in the MS4 Program Plan with recommendations for future changes shall also be included.

Public Outreach and Education Goals and Activities			
Department / Division	Activity	Date	# of Individuals / Households / Reaches
Goal: Promote, publicize, and facilitate public reporting of the presence of illicit discharges or improper disposal of materials into the MS4			
DPW - EESD	Illicit Discharge Reporting	1/1/2017 thru 12/31/2017	85
Fire	MS4 Education Posters in stations in view of public	Always	Unknown
Goal: Continue to promote individual and group involvement in local water quality improvement initiatives including the promotion of local restoration and clean-up projects, programs, groups, meetings and other opportunities for public involvement			
DPW - EESD	Paint Out Pollution Project with the James River Association and Art on Wheels. Stormwater inlets were painted with James River native plant and animal species to increase awareness of stormwater pollution.	8/23/2017	500
DPW - EESD	Visited HOA meeting and educated residents about proper pet waste disposal and how this activity relates to Total Maximum	10/10/2017	35

---

## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.B.2.j**

#### **ANNUAL REPORT SUPPLEMENT**

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

	Daily Loads where pet waste is a pollutant source		
DPW - EESD	Middle James Roundtable (MJRT) Annual Watershed Conference	10/23/2017	62
DPW - EESD	Septic Educational Mailings Sent in 2017	Multiple	795
DPU/KHB	Visited a Woman's Club meeting and an HOA meeting and educated members about Henrico's MS4 plan and other conservation and environmental initiatives within the County. Color Your Watershed adult coloring books, car litter bags, brochures and seed pencils were handed out.	30 50	2/20/2017 4/20/2017
Henricopolis	Rain Barrel Workshops	April 28, May 25 & June 30, 2017	20
Henricopolis	Virginia State Fair Water Quality Outreach Exhibit	September 29 – October 8, 2017	330
DPU/KHB	James River Cleanup	09/09/2017	15
Goal: Develop an outreach program with public and private golf courses located within Henrico County that discharge to the permittee's MS4 that would encourage implementation of integrated management practice (IMP) plans and techniques to reduce runoff of fertilizer and pesticides			
Rec & Parks	MS4 Outreach for Private Golf Course Owners / Operators	Multiple	5
Goal: Promote, publicize, and facilitate the proper management and disposal of used oil and household hazardous wastes			
Fire	MS4 educational posters in all stations	Always	Unknown
Goal: Promote and publicize the proper disposal of pet waste and household yard waste			
DPW -	Henrico County Energy Fair –	04/24/2017	35

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.j

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

Maintenance	Leaf brochures and 50 educational cell phone wallets were handed out		
DPW - EESD	Celebrate Varina– pet waste bags were given away	6/13/2017	85
DPW - Maintenance	Ridge Elementary School Career Day – Stormwater education discussion with students	06/14/2017	100
DPW - Maintenance	Bark in the Park – Leaf brochures, 200 pet bowls, 100 cell phone wallets, and 50 frisbees (all with educational leaf messages) were handed out	10/07/2017	1,000
DPW - EESD	Bark in the Park – pet waste bags were given away	10/7/2017	191
DPW - EESD	Animal Protection gave away pet waste bags at rabies clinics	Multiple	200
DPW - EESD	Henrico County Energy Fair – pet waste bags were given away	10/27/2017	100
DPW - EESD	Henrico County Energy Fair – had educational information on proper pet waste disposal, leaf disposal, car washing and mosquitoes	10/27/2017	300
DPW - EESD	Santa Paws – pet waste bags were given away	12/10/2017	270
DPW - EESD	Santa Paws – educational ornaments about proper pet waste disposal were given away	12/10/2017	85
DPW - EESD	Middle James Roundtable Pet Waste Coalition Social Media – Facebook Education	Multiple	3,899
DPW - Maintenance	Henrico County Energy Fair – Leaf brochures, 200 pet bowls, and 100 cell phone wallets (all with educational leaf messages) were handed out	10/27/2017	300
DPW -	Leaf brochures containing proper	Multiple	3,924

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.j

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

Maintenance	disposal methods and stormwater education accompanying violation letters and postcards		
DPW - Maintenance	Leaf insert sent in DPU utility bill	Multiple	98,000
DPW - Maintenance	Santa Paws Event – Leaf brochures	12/10/2017	400
DPU/KHB	Educational booth at events – recycling education, litter prevention, pet waste disposal, waste disposal	Multiple	2,489
DPU/KHB	Environmental Educators Workshop – all KHB education topics	8/3/2017	22
Police	Curb Your Dog brochure, promoting the proper disposal of pet waste	Multiple	
Community Revitalization	Attended 44 neighborhood meetings which has been very effective in educating the public in zoning and environmental ordinances (grass & weeds, trash & debris, inoperative vehicles, outside storage, etc...). Meetings are also used to promote opportunities such as volunteer assistance program, enterprise zones, and CDBG fund projects.	Multiple	840
Goal: Promote and publicize the use of the permittee's litter prevention program			
DPU/KHB	Social Media Video – Various Topics	Multiple	3,923
DPU/KHB	Educational booth at events – recycling education, litter prevention, pet waste disposal, waste disposal	Multiple	2,421

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.j

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

DPU/KHB	Green Machine – Litter prevention and recycling education program (targeting ages 4-7)	Multiple	250
DPU/KHB	School presentations to classes on litter prevention/recycling	Multiple	155
DPU/KHB	Environmental Educators Workshop – all KHB education topics	8/3/2017	22
DPU/KHB	James River Cleanup	9/9/2017	15
CVWMA	Presentation at Virginia Recycling Association Conference. Henrico County's Coloring Your Watershed coloring books were handed out	5/16/2017	30
CVWMA	CVWMA and performer Jonathan Austin provided educational performances at 2 local schools as part of America Recycles Day. Educational materials were handed out at each show.	11/2017	643
Goal: Promote and publicize methods for residential car washing that minimize water quality impacts			
DPW - EESD	Henrico County Energy Fair – had educational information on proper pet waste disposal, leaf disposal, car washing and mosquitoes	10/27/2017	300
DPW-EESD	Car-washing Guidelines insert in utility bill	Multiple	98,000
Goal: Promote and publicize the proper use, application, and disposal of pesticides, herbicides, and fertilizers by public, commercial, and private applicators and distributors			
Extension Service	Initial Commercial Pesticide Applicator Certification Workshop – Category Reviews for 3A	1/18/2017	17

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.j

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**



## HENRICO COUNTY MS4 PROGRAM PLAN

	(Ornamentals) and 3B (Turf) <i>Mid Atlantic Horticulture Short Course</i>		
Extension Service	Initial Commercial Pesticide Applicator Certification Workshop – Core Review for Registered Tech (60) <i>Mid Atlantic Horticulture Short Course</i>	1/19/2017	21
Extension Service	Certified Horticulturalist Review for Soils, Fertilizers, Turf Management, and Water Quality Protection <i>Central Virginia Nursery and Landscape Association</i>	1/23/2017	31
Extension Service	“Environmentally-responsible Lawn Care” Training Session for Henrico Extension Master Gardeners	1/24/2017	25
Extension Service	“Pesticide Safety” Training Session <i>Forest Health Professionals</i>	1/30/2017	128
Extension Service	Initial Commercial Pesticide Applicator Certification Workshop – Core Review for Category 60 (Registered Tech) <i>Virginia Turfgrass Council Mid Atlantic Turf Expo</i>	2/2/2017	48
Extension Service	Training class for Henrico Master Gardeners, Pesticide Safety	2/14/2017	25
Extension Service	Commercial Pesticide Applicator Recertification Workshop for Categories 3A (Ornamentals), 3B (Turf), 8 (Public Health), and 60 (Registered Tech) <i>CVNLA Short Course</i>	2/17/2017	77
Extension Service	“Spring Weed Control”, Homeowner Workshop at	2/22/2017	25

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.j

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

	Henrico Recreation and Parks facility		
Extension Service	Training Class for Henrico Master Gardeners, Plant Pathology/Diagnosing Plant Problems	2/23/2017	25
Extension Service	Initial Commercial Pesticide Applicator Certification Workshop – Core Review for Registered Techs (60) <i>Virginia Turfgrass Council Come to the Bay</i>	2/28/2017	17
Extension Service	“Make Your Lawn a SMART Lawn”, Homeowner Workshops – 3 sessions at Henrico County Rec and Parks Facilities	3/4/2017 3/6/2017 4/20/2017	66
Extension Service	“Implementing the SMART Lawns Program in Henrico County”, Advanced Training Workshop for Henrico Extension Master Gardeners	4/20/2017	12
Extension Service	“Starting & Renovating a Lawn”, Homeowner Workshop at Henrico Recreation and Parks facility	8/3/2017	5
Extension Service	Reduce Chemical Event <i>A Girl Scout Gold Award Project</i>	8/14/2017	28
Extension Service	Initial Commercial Pesticide Applicator Certification Workshop - Core Review for Registered Techs (60) <i>Collegiate Schools/Lewis Ginter Botanical Garden/University of Richmond staff</i>	9/25/2017	10
Extension Service	Water Quality Display at the Virginia State Fair	10/7/2017	722
Extension Service	Private Pesticide Applicator Recertification Workshops – 3	11/30/2017 12/7/2017	103

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.j

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

	sessions	12/12/2017	
Goal: Encourage private property owners to implement voluntary stormwater management techniques and/or retrofits			
Henricopolis	Virginia Conservation Assistance Program	Jan 1, 2017 - Present	31

### Evaluations of Program Effectiveness

#### Public Utilities

DPU believes their outreach program is effective in getting the word out to our citizens. We utilize many different methods to ensure our residents are notified. We utilize social media; we hold programs within our schools and we attend neighborhood / community functions.

#### Fire

Each station averages 4 citizens a day that interact at the 20 county stations. The posters are in locations and of a bright nature that they should capture the attention of those visiting the facilities. It would be expected that they would read the poster and retain the important nature of the program.

#### Extension Service

Pesticide Applicator Recertification Sessions
<p>During 2017, 77 commercial pesticide applicators were trained for recertification by the Henrico Extension Office. A total of 77 commercial applicators gained additional knowledge in pesticide safety and Integrated Pest Management (IPM) practices related to ornamental plants and turf. As a result of this pesticide safety education, 77 commercial applicators successfully maintained their pesticide applicator certification to legally apply pesticides in Virginia.</p> <p>Seventy (70) of these participants completed and returned a post-program evaluation. Sixty-eight (68) of those responding (96%) agreed or strongly agreed that as a result of attending this session, they (a)"know what I need to do to comply with state and federal laws and regulations";</p>

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.j

#### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## HENRICO COUNTY MS4 PROGRAM PLAN

(b)"learned more about proper use of application equipment"; and  
(c)"read pesticide labels and use the personal protective equipment they require." Sixty-eight (68)

individuals (97%) rated the session as good, very good or excellent. Fifty-five (55) individuals (79%) provided specific written information describing at least one pesticide safety practice they intend to change or improve upon.

Additionally during 2017, 103 private certification pesticide applicators were trained for recertification by the Henrico Extension Office. A total of 103 commercial applicators gained additional knowledge in pesticide safety and Integrated Pest Management (IPM) practices related to ornamental plants and crops. As a result of this pesticide safety education, 103 private category applicators successfully maintained their pesticide applicator certification to legally apply pesticides in Virginia.

### Initial Pesticide Applicator Certification Sessions

During 2017, 113 individuals seeking commercial pesticide applicator status were trained for initial certification testing by the Henrico Extension Office through 5 different training programs. A total of 113 individuals seeking commercial pesticide applicator certification gained knowledge in pesticide safety and Integrated Pest Management (IPM) practices related to ornamental plants and turf.

### SMART Lawns Program

A total of forty-four (44) Henrico households with residential lawns were enrolled in the Henrico Extension SMART Lawns program in 2017. Seventy-four (74) soil samples were submitted, and forty-four (44) urban nutrient management plans were written and distributed to program participants. A total of 333,500 square feet (7.7 acres) of residential turf in Henrico County were brought under a nutrient management plan that is in full compliance with DCR urban nutrient management planning criteria.

### Plant Health Diagnostics

During 2017, the Henrico Extension Office received 242 samples for either problem diagnosis and management recommendations or simple

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.j

### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## HENRICO COUNTY MS4 PROGRAM PLAN

identification. Of the samples, 111 were pest or disease related. Integrated pest management (IPM) recommendations were given for 78 (70%) of these samples, resulting in the promotion of lower-risk pest control products and/or non-chemical pest management strategies.

### Public Works

Leaf collection program effectiveness is assessed annually by the total number of customer-placed vacuum leaf orders received and completed, the total number of violation orders processed and completed, and customer feedback. Recommendations for future changes will be based on the assessment of program effectiveness and updates will be made as necessary to improve the program overall.

Henrico County employs ARC to remove litter from County rights-of-way. The pick-up is performed daily and progress is tracked in tons of litter removed as well as the number of bags of litter removed. ARC is also used bi-weekly on the West and East End maintenance yards to reduce floatables from entering the MS4. Program effectiveness is evaluated based on the tons of litter removed, as this decreases the quantity of floatables entering the MS4. Between 1/01/17 and 12/31/17, ARC removed 391,717.5 pounds or 13,057.3 bags and 307 tires worth of litter from County rights-of-way and maintenance facilities.

**Each annual report shall provide a summary of voluntary retrofits completed on private property used to demonstrate pollutant reduction requirements. Note that any voluntary project for which the permittee seeks to use for pollutant reduction requirements must be tracked and reported.**

Voluntary Retrofits Completed on Private Property Used to Demonstrate Compliance with Pollutant Reduction Requirements	0
--	---

**Each annual report shall provide a summary of voluntary stormwater management techniques encouraged on private property.**

## HENRICO COUNTY MS4 PROGRAM PLAN

Voluntary Stormwater Management Techniques Encouraged on Private Property			
Department / Division	Activity	Date	# of Individuals / Households / Reaches
Henricopolis	<p>Below are 11 different voluntary stormwater BMPs that Henricopolis can provide technical and financial assistance for County property owners. For more information, refer to <a href="http://henrico.us/services/virginia-conservation-assistance-program/">http://henrico.us/services/virginia-conservation-assistance-program/</a></p> <p style="text-align: center;"> <u>Basic BMPs</u>  Impervious Surface Removal  <u>Intermediate Level BMPs</u>  Conversion Landscaping  Rain Gardens  Dry Well  Rainwater Harvesting  Vegetated Stormwater Conveyance  <u>Advanced BMPs</u>  Bioretention  Infiltration Basin  Constructed Wetlands  Permeable Pavement  Green Roofs </p>		

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.j

#### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.B.2.k MS4 PROGRAM IMPLEMENTATION TRAINING**

Each annual report shall include a list of training events, the date and the estimated number of individuals attending each event.

Training Topics and Events Attended Between January 1, 2017 and December 31, 2017		
Event	Date	# of Individuals
Topic: The permittee shall provide biennial training to appropriate field personnel in the recognition and reporting of illicit discharges		
Illicit Discharge Recognition and Reporting	6/9/2017	28
	12/6/2017	38
Illicit Discharge Detection and Elimination (Schools – Pupil Transportation)	11/7/2017	594
Illicit Discharge Detection and Elimination (Schools –School Nutrition Staff)	8/23/17	449
Illicit Discharge Detection and Elimination (Schools –Technical Education Centers)	2/27/2017	5
HazMat update: All Division of Fire operational personnel are trained to the level of Hazardous Materials Operations (HMO). The initial HMO program consists of 40 hrs. of tested content and is provided in the employee's initial recruit training program. Annual recertification training is mandatory and ensures competency maintenance, including spill response procedures.	Multiple	541
Hazmat update: Many Division of Fire personnel participate in additional hazardous materials training programs, such as Hazmat Technician and Hazmat Specialist. Initial training for these	Multiple	22 Hazmat Technicians & 54 Hazmat Specialists

---

## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.B.2.k**

#### **ANNUAL REPORT SUPPLEMENT**

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

programs include 80 and 240 hours of tested content, respectfully. These higher levels of certification mandate 24 hours of additional recertification training annually. Personnel at the Hazmat Technician and Hazmat Specialist level provide additionally on-duty resources to respond to spills and emergencies throughout the community.		
Chesapeake Stormwater Network – Tracking and Eliminating Illicit Discharges Webcast	11/2/2017	2
Topic: The permittee shall provide biennial training to appropriate employees in good housekeeping and pollution prevention practices that are to be employed in and around County facilities		
Municipal Site Housekeeping	6/5/2017	21
	12/5/2017	35
Good Housekeeping (Schools – Pupil Transportation)	11/7/2017	594
Good Housekeeping (Schools – School Nutrition Staff)	varies	450
Good Housekeeping (Schools – Technical Education Centers)	2/27/2017 11/1/2017 3/24/2017	14
SOP Review – MgCl <sub>2</sub> Tanks, Vactor, Hazardous and Waste Materials Management, and Illegal Dumping or Hazardous Materials in ROW (DPW Road Dept.)	08/16/17& 08/17/17	81
SOP Review – Yard Inspection, Sediment Trap & Inlet Protection Cleaning, Spreader Cleaning, and Waste Tire Recycling (DPW Road Dept.)	09/28/17& 10/12/17	96
SOP Training Leaf Machine Cleaning and BMP Inspection (DPW Road Dept.)	11/8/17& 11/9/17	80
SOP Training Equipment Cleaning (Rec and Parks)	9/29/2017	95

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.k

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**



## HENRICO COUNTY MS4 PROGRAM PLAN

MMA Annual and Quarterly SWPPP Training	2/15/2017	24
	6/7/2017	23
	9/28/2017	17
	12/6/2017	6
SWPPP Training (DPU)	11/9/2017	28
	12/12/2017	
	12/14/2017	
Level II Awareness Training (SWPPP, ODCP, SW, Spill Containment) (Water Reclamation Facility)	12/14/2017	6
Traffic Engineering conducted in house training of Traffic Engineering personnel to train them on: 1) the prohibition of vehicle washing, 2) the prohibition of discharge of wastewater in the MS4, 3) the prohibition of dumping of yard waste into the MS4, 4) preventing fluid leaks from entering the storm sewer system, and 5) Hazardous Waste/Aerosol can puncture training	12/20/2017	32
Environmental Sustainability Management System meetings are held monthly and or semi-monthly and cover a wide variety of topics including spill prevention, AST/UST operating procedures, storm water management, waste reduction and recycling, HVAC refrigerant recovery, proper disposal of batteries and kitchen waste oil, safe coil cleaning, BMP maintenance and proper use of snow removal products. (DGS)	Semi-Monthly or as needed	varies
Environmental Sustainability Management System (ESMS) Training (Rec and Parks)	1/16/2017	5
	3/6/2017	5
	5/15/2017	5
General ESMS Awareness (Rec and Parks)	10/31/17	95
Chesapeake Stormwater Network – Good	11/16/17	3

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.k

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

Housekeeping and Municipal Pollution Prevention		
Storm Water Pollution Prevention Training (Rec & Parks)	11/7/2017 & 12/5/2017	8
Topic: The permittee shall ensure that employees, and require that contractors, who apply pesticides and herbicides are properly trained or certified per the Virginia Pesticide Control Act (§3.2-3900 et seq. of the Code of Virginia). The requirements of the Virginia Pesticide Control Act are established by the Virginia Pesticide Control Board		
Certified fertilizer applicator (CFA) recertification training for lawn and landscape maintenance professionals <i>Henrico County Public Schools</i>	5/15/2017	36
Topic: The permittee shall have a program to ensure that County plan reviewers, inspectors, program administrators and construction site operators (e.g. responsible land disturber) are trained and obtain the appropriate certifications to the extent required under the Virginia Erosion and Sediment Control Law and attendant regulations		
Applied Soil Concepts for ESC & SWP Professionals	6/21/2017	1
Photography for Inspectors	5/25/2017	2
Overview of Wetlands for ESC & SWM	9/15/2017	2
E&S for Construction Sites	Various	3
Erosion and Sediment Control Inspector	6/21/2017	1
Erosion and Sediment Control Inspector	7/19/2017	1
Refresher for E&S Inspectors	11/8/2017	1
Program Administrator for Erosion and Sediment Control	1/10/2017	1
BMP Warehouse 2017 Updates webinar	10/17/2017	1
Topic: The permittee shall have a program to ensure that the applicable County employees obtain the appropriate certifications as required under the Virginia Stormwater Management Act and its attendant regulations to implement the modified stormwater management design criteria		
DEQ Permeable Pavement for VSMP Inspectors	Various	1
Applied Soil Concepts for ESC & SWP Professionals	6/21/2017	1
Program Administrator for Stormwater	7/13/2017	2

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.k

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

Management	1/12/2017	
Stormwater Management Inspector	1/26/2017 5/18/2017 6/14/2017 8/15/2017	8
Wet Ponds for VSMP Inspectors	varies	3
Bioretention for VSMP Inspectors	varies	1
Extended Detention for VSMP Inspectors	varies	1
Plants in Stormwater Management	12/5/2017 5/2/2017	4
Regulatory SWPPP Inspections	12/12/2017	2
Where the Water Goes	11/17/2017	3
Asset Management for Stormwater	varies	1
The Building Blocks of an Effective SWM Program	varies	2
Stormwater Financing 101	varies	1
Stormwater Management Plan Reviewer	5/11/2017 2/28/2017	2
Pollution Prevention for VSMP Inspectors	varies	1
Center for Watershed Protection (CWP) – Stormwater Contaminants of Emerging Concern Webcast	03/24/17	3
CWP – 2017 National Watershed and Stormwater Online Conference	04/04/17	2
Topic: The appropriate emergency response employees shall have training in spill response.		
SPCC Plan Spill Prevention, Control & Countermeasures (Risk Management)	multiple	315
Updated County Spills SOP/Spill Card Training (DPW Road Dept.)	3/10/2017	18
SPCC Training (DPW Road Dept.)	5/22/2017 & 5/23/2017	94
Snow Dry Run- MS4 Information on Proper Salt Application and Spill Kit Usage During Snow Events	11/20/17 & 11/21/17	110

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.k

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

Spill Response SOP Training (Rec & Parks)	7/20/2017	13
Spill Response (Schools –Technical Education Centers)	2/27/2017 11/1/2017 3/24/2017	14
Sigma Consulting & Training Inc Chemical Spill Response Training Class focused on Local Government compliance with 29CFR 1910.120 (q)	8/11/2017	5
During the Annual Environmental and Sustainability Management System training, spill training is taught to Traffic Engineering personnel. This is in house training and includes: 1) spill kit contents and locations, 2) how to clean up and dispose of clean up materials, and 3) phone numbers of staff to call in case of a major spill	6/12/2017 12/20/2017	4 32
Fire: HazMat update: All Division of Fire operational personnel are trained to the level of Hazardous Materials Operations (HMO). The initial HMO program consists of 40 hrs. of tested content and is provided in the employee's initial recruit training program. Annual recertification training is mandatory and ensures competency maintenance, including spill response procedures.	Multiple	541
Topic: Other		
Stormwater Inspection Team Meetings	1/26/17	5
The purpose of the Stormwater Inspection Team is to educate County staff regarding good municipal site housekeeping and the requirements of the County's Municipal Separate Storm Sewer System (MS4) Permit as they relate to municipal facilities.	2/24/2017	6
	3/28/2017	8
	4/26/2017	9
	5/24/2017	6
	6/16/2017	6
The Stormwater Inspection Team consists of a coordinator and representatives from Recreation		

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.k

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

and Parks, General Services, Public Utilities, Fire, Public Works and Public Schools and meets monthly to inspect one municipal facility. The inspections serve as a learning experience so team members become familiar with what is expected on all municipal facilities. Team members can then conduct inspections of the facilities for which their Department or Division is responsible.	7/26/2017	9
	8/30/2017	8
	9/19/2017	5
	10/26/2017	9
	11/30/2017	9
	12/7/2017	7
Semi-Annual Environmental Meetings	4/26/2017	24
In house meetings involving all Departments/Divisions that play a role in the County's MS4 Program and other environmental-related initiatives	10/25/2017	30
SOP Review – Oil/H <sub>2</sub> O Separator, Facility Grass Cutting, Facility Salt Dome, and Park & Rides (DPW Road Dept.)	07/11/17– 07/12/17	85
Environmental Policy Statement Training (Rec and Parks)	6/30/2017	95
Virginia Water Monitoring Council Conference	3/22/2017	4
National Dam Safety Technical Seminar	2/21/2017- 2/23/2017	1
VLWA/VFMA Virginia Water Conference	3/6/2017 – 3/7/2017	3
QRAE3 – 4 Gas Monitor Training	6/6/2017 & 6/28/2017	51
VFMA Floodplain Management Workshop	10/16/2017	1
	10/25/2017	3
River Modeling Workshop	10/13/2017	1
APWA 2017 Conference and Equipment Show	05/11/17 – 05/12/17	5
AST/UST Operator Training	Annual	Varies
ESMS R-22 Recovery Training	As needed	Varies
CWP - Modeling for Water Quality Webcast	09/13/17	2
CWP – Stream Restoration: Where Are We Now? Webcast	11/15/17	2

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.k

### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

**HENRICO COUNTY MS4 PROGRAM PLAN**

---

**HENRICO COUNTY MS4 PROGRAM PLAN  
PART I.B.2.k  
ANNUAL REPORT SUPPLEMENT  
JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.I

#### MS4 PROGRAM IMPLEMENTATION WATER QUALITY SCREENING PROGRAMS

Each annual report shall include the total number of outfalls included as part of the permittee's MS4, the number of outfalls screened during the reporting period, a list of locations upon which dry weather screening was conducted, the results, and any follow-up actions including maintenance and/or repair of infrastructure or outfalls performed as a result of the dry weather screening.

# of MS4 Outfalls	3,199
-------------------	-------

# of Outfalls Screened between 1/1/2017 and 12/31/2017*	847
--	-----

\* includes all end treatments for which a Screening Inspection was conducted, not just those that are identified as MS4 Outfalls

Dry Weather Screening Conducted between 1/1/2017 and 12/31/2017		
MS4 Outfall	Findings	Follow-Up Action
EN000000000199	No Issues Identified	None Required
EN000000000223	No Issues Identified	None Required
EN000000000337	No Issues Identified	None Required
EN000000000385	No Issues Identified	None Required
EN000000000488	No Issues Identified	None Required
EN000000000518	No Issues Identified	None Required
EN000000000521	No Issues Identified	None Required
EN000000000742	No Issues Identified	None Required
EN000000000744	No Issues Identified	None Required
EN000000000745	No Issues Identified	None Required
EN000000001056	No Issues Identified	None Required
EN000000001392	No Issues Identified	None Required
EN000000001472	No Issues Identified	None Required

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.I

#### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## HENRICO COUNTY MS4 PROGRAM PLAN

EN000000001493	No Issues Identified	None Required
EN000000001496	No Issues Identified	None Required
EN000000001499	No Issues Identified	None Required
EN000000001617	No Issues Identified	None Required
EN000000001770	No Issues Identified	None Required
EN000000001787	No Issues Identified	None Required
EN000000001806	No Issues Identified	None Required
EN000000001874	No Issues Identified	None Required
EN000000001907	No Issues Identified	None Required
EN000000001918	Erosion and Lawn / Leaf Debris in Stream	Forward to Road Maintenance
EN000000001978	Area overgrown	Forward to Road Maintenance
EN000000002206	No Issues Identified	None Required
EN000000002242	Sinkhole adjacent to end treatment	Forward to Road Maintenance
EN000000002418	No Issues Identified	None Required
EN000000002430	No Issues Identified	None Required
EN000000002432	No Issues Identified	None Required
EN000000002452	No Issues Identified	None Required
EN000000002455	No Issues Identified	None Required
EN000000002459	No Issues Identified	None Required
EN000000002590	No Issues Identified	None Required
EN000000002597	No Issues Identified	None Required
EN000000002671	No Issues Identified	None Required
EN000000002707	No Issues Identified	None Required
EN000000002776	No Issues Identified	None Required
EN000000002905	No Issues Identified	None Required
EN000000002917	No Issues Identified	None Required
EN000000003077	No Issues Identified	None Required
EN000000003096	No Issues Identified	None Required
EN000000003207	No Issues Identified	None Required
EN000000003225	No Issues Identified	None Required
EN000000003674	No Issues Identified	None Required
EN000000003675	No Issues Identified	None Required
EN000000003723	No Issues Identified	None Required
EN000000003755	No Issues Identified	None Required
EN000000003902	No Issues Identified	None Required

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.I

#### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017



## HENRICO COUNTY MS4 PROGRAM PLAN

EN000000004011	No Issues Identified	None Required
EN000000004231	No Issues Identified	None Required
EN000000004302	Concrete Deterioration	Forward to Road Maintenance
EN000000004307	No Issues Identified	None Required
EN000000004315	No Issues Identified	None Required
EN000000004596	No Issues Identified	None Required
EN000000004778	No Issues Identified	None Required
EN000000004783	No Issues Identified	None Required
EN000000004790	No Issues Identified	None Required
EN000000004846	No Issues Identified	None Required
EN000000005199	Debris blocking end treatment	Forward to Road Maintenance
EN000000005214	No Issues Identified	None Required
EN000000005280	No Issues Identified	None Required
EN000000005312	No Issues Identified	None Required
EN000000005491	No Issues Identified	None Required
EN000000005493	No Issues Identified	None Required
EN000000005498	No Issues Identified	None Required
EN000000005502	No Issues Identified	None Required
EN000000005504	No Issues Identified	None Required
EN000000005506	No Issues Identified	None Required
EN000000006339	No Issues Identified	None Required
EN000000006358	No Issues Identified	None Required
EN000000006374	No Issues Identified	None Required
EN000000006383	No Issues Identified	None Required
EN000000006465	No Issues Identified	None Required
EN000000006570	No Issues Identified	None Required
EN000000006743	No Issues Identified	None Required
EN000000006780	No Issues Identified	None Required
EN000000007033	No Issues Identified	None Required
EN000000007540	No Issues Identified	None Required
EN000000007473	No Issues Identified	None Required
EN000000007482	No Issues Identified	None Required
EN000000007556	No Issues Identified	None Required
EN000000007566	No Issues Identified	None Required
EN000000007671	No Issues Identified	None Required
EN000000007830	No Issues Identified	None Required

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.I

#### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## HENRICO COUNTY MS4 PROGRAM PLAN

EN000000008238	No Issues Identified	None Required
EN000000008372	No Issues Identified	None Required
EN000000008651	No Issues Identified	None Required
EN000000008737	No Issues Identified	None Required
EN000000008924	No Issues Identified	None Required
EN000000008935	No Issues Identified	None Required
EN000000008979	No Issues Identified	None Required
EN000000009314	No Issues Identified	None Required
EN000000009778	No Issues Identified	None Required
EN000000011279	No Issues Identified	None Required
EN000000011543	No Issues Identified	None Required
EN000000012065	Concrete Deterioration	Forward to Road Maintenance
EN000000012106	No Issues Identified	None Required
EN000000012645	No Issues Identified	None Required
EN000000012670	No Issues Identified	None Required
EN000000013075	No Issues Identified	None Required

Follow-Up Actions Performed as a Result of the Dry Weather Screening Conducted between 1/1/2017 and 12/31/2017	
MS4 Structure	Follow-Up Action
EN000000001918	6/17/2017 Road Department said no work needed. The homeowner can request rip rap to place.
EN000000001978	4/29/2017 Road Department said no work needed.
EN000000002242	2/2/2017 End treatment forwarded to Road Department.
EN000000004302	5/8/2017 Road Department installed flashing at separation and then covered with concrete. They finished by adding topsoil and seed.
EN000000005199	2/2/2017 End treatment forwarded to Road Department.
EN000000012065	2/23/2017 Road Department plugged the hole and then cover with soil and seed. Also, removed leaves blocking the pipe.

The annual report due March 31, 2016 shall include the written procedures for wet weather screening.

DPW will develop a list of MS4 structures subject to wet weather screening based on the areas of concern as identified by the County that are within the drainage area to

---

### HENRICO COUNTY MS4 PROGRAM PLAN PART I.B.2.I ANNUAL REPORT SUPPLEMENT JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## **HENRICO COUNTY MS4 PROGRAM PLAN**

the MS4 structure, including:

- (1) fertilizer storage yards,
- (2) mulch / soil storage yards,
- (3) building supply storage yards,
- (4) used automobile lots,
- (5) construction equipment storage areas,
- (6) automobile salvage yards, and
- (7) areas of previously identified spill / IDDE complaints.

DPW will screen no fewer than 25 of the MS4 structures identified as subject to wet weather screening each year between January 1, 2016 and December 31, 2019.

DPW will screen no fewer than 10 of the MS4 structures identified as subject to wet weather screening between January 1, 2020 and March 31, 2020.

The MS4 structures will be subject to the established inspection procedure, evaluating identified flows and maintenance and repair needs.

Depending on the information observed and gathered during the wet weather screening inspections, identified flows may need to be sampled to determine the source of the flow. Whether or not samples are collected, suspected illicit discharges will be forwarded to the IDDE investigator as a potential illicit discharge for follow-up.

**Each annual report shall include a list of locations upon which wet weather screening was conducted, the results, weather conditions at the time sample was collected to include date and approximate time of most recent storm event preceding sample collection, long term trends analyses, and any follow-up actions including maintenance and/or repair of infrastructure or outfalls performed as a result of the wet weather screening.**

---

### **HENRICO COUNTY MS4 PROGRAM PLAN**

#### **PART I.B.2.I**

#### **ANNUAL REPORT SUPPLEMENT**

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

Wet Weather Screening Conducted between 1/1/2017 and 12/31/2017				
MS4 Structure	Last Significant Rainfall	Findings	Sample Collected	Weather Conditions at the time of Sample
EN000000005707	< 2 days	No Issues	No	N/A
IN000000006215	< 2 days	No Issues	No	N/A
IN000000006231	< 2 days	No Issues	No	N/A
IN000000006233	< 2 days	No Issues	No	N/A
IN000000006236	< 2 days	No Issues	No	N/A
IN000000015600	< 2 days	No Issues	No	N/A
IN000000017563	< 2 days	No Issues	No	N/A
IN000000022102	< 2 days	No Issues	No	N/A
IN000000022106	< 2 days	No Issues	No	N/A
IN000000022206	< 2 days	No Issues	No	N/A
IN000000024958	< 2 days	No Issues	No	N/A
IN000000025052	< 2 days	No Issues	No	N/A
IN000000025356	< 2 days	No Issues	No	N/A
IN000000025449	< 2 days	No Issues	No	N/A
IN000000025450	< 2 days	No Issues	No	N/A
IN000000025493	< 2 days	No Issues	No	N/A
IN000000025509	< 2 days	No Issues	No	N/A
IN000000025545	< 2 days	No Issues	No	N/A
IN000000025552	< 2 days	No Issues	No	N/A
IN000000025568	< 2 days	No Issues	No	N/A
IN000000043368	< 2 days	No Issues	No	N/A
IN000000044178	< 2 days	No Issues	No	N/A

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.B.2.I

#### ANNUAL REPORT SUPPLEMENT

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## **HENRICO COUNTY MS4 PROGRAM PLAN**

IN000000044181	< 2 days	No Issues	No	N/A
MH000000003750	< 2 days	No Issues	No	N/A
MH000000008756	< 2 days	No Issues	No	N/A

The data does not lend itself to an analysis of any long-term trends at this time.

Follow-Up Actions Performed as a Result of the Wet Weather Screening Conducted between 1/1/2017 and 12/31/2017	
MS4 Structure	Follow-Up Action
There are no follow-up actions as a result of wet weather screening as no issues were identified.	

## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.B.2.m**

#### **MS4 PROGRAM IMPLEMENTATION INFRASTRUCTURE COORDINATION**

**Annual Coordination Meeting – The permittee shall meet annually with VDOT for purposes of overall coordination on priority issues for the permittee’s MS4 program plan (including operations and maintenance elements) and TMDL action planning relevant to the interconnectivity of the MS4s.**

The Annual Coordination Meeting was held on November 30, 2017 at the Virginia Department of Transportation’s central office. In addition to representatives from VDOT and Henrico County, Chesterfield County staff were also present. The following were in attendance:

Tracey Harmon	VDOT
Chris Swanson	VDOT
Michelle Fults	VDOT
Scott Crafton	VDOT
Christopher Cowan	VDOT
Jacob Bauchman	VDOT
John Olenik	VDOT
Keith White	Henrico County
Lane Carr	Henrico County
Ashley Tucker	Chesterfield County
Scott Flanigan	Chesterfield County

**Mapping – The permittee shall inform VDOT of the status of its mapping program, identifying any uncertainty regarding ownership or actual location of MS4 components associated with the physically-interconnected MS4s, and working to resolve such uncertainty. The permittee shall coordinate with VDOT to identify any areas within the permittee’s municipal boundaries that drain to the VDOT MS4.**

VDOT, Chesterfield, and Henrico discussed their mapping efforts. All agreed to make their mapping available as requested by the other attendees.

---

## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.B.2.m**

#### **ANNUAL REPORT SUPPLEMENT**

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## **HENRICO COUNTY MS4 PROGRAM PLAN**

**Chesapeake Bay TMDL Action Plans** – The permittee shall inform VDOT of the means, methods, and schedule by which the permittee will implement the reductions required by the Chesapeake Bay TMDL Special Condition (Part I.D.1) when those means and methods may impact the physically-interconnected MS4s. The parties are encouraged to cooperate with one another where the siting or design of best management practices (BMPs) may be accelerated or otherwise improved by mutual cooperation.

Henrico's Chesapeake Bay TMDL Action Plans was discussed and is available for review.

The permittee shall coordinate with VDOT to identify any areas within the permittee's municipal boundaries that drain to the VDOT MS4 and are unaccounted for in the Chesapeake Bay TMDL Action Plan developed by VDOT or the permittee. The unaccounted areas shall be quantified (acres) in the Chesapeake Bay TMDL Action Plan submitted by the permittee.

Henrico's action plan quantifies the areas accounted for (and unaccounted for) in the load reduction calculations in accordance with its permit.

**Other TMDL Action Plans** – The permittee shall inform VDOT of TMDL Action Plans and major milestones implemented for other (i.e., non-Chesapeake Bay) TMDLs when those plans may impact the physically-interconnected MS4s. The parties are encouraged to cooperate with one another where the siting or design of BMPs may be accelerated or improved by mutual cooperation.

Henrico's other TMDL Action Plans are available on its website.

**Credit for TMDL Implementation** – Permit specific BMP retrofit requirements shall not be double-counted in the calculation of load reductions. If the permittee undertakes the project, the permittee shall be entitled to full credit for the project, but may share credit with VDOT on mutually agreeable terms, which shall be in writing.

During the development of the TMDL Action Plans, Henrico did not include any projects that could potentially result in "double-counting" of pollutant reductions achieved in the physically-interconnected MS4.

---

### **HENRICO COUNTY MS4 PROGRAM PLAN**

#### **PART I.B.2.m**

#### **ANNUAL REPORT SUPPLEMENT**

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## **HENRICO COUNTY MS4 PROGRAM PLAN**

**Illicit Discharge Detection & Elimination – The permittee shall continue to be responsible for implementing a program for illicit discharge detection and elimination, including dry weather field screening, for the permittee’s portion of the physically-interconnected MS4. As part of the annual coordination meeting, described in item (1) above, the permittee shall coordinate with VDOT on the identification of high risk industrial facilities. The permittee shall establish procedures for notifying VDOT when an illicit discharge is identified in the VDOT MS4.**

Henrico discussed its identification of high risk industrial facilities in accordance with the MS4 permit and Henrico will continue to implement an illicit detection and elimination (IDDE) program. When an illicit discharge that drains to the physically-interconnected MS4 is found, Henrico will notify VDOT and DEQ via email.

**Water Quality Monitoring – The permittee shall conduct water quality monitoring as required by Part I.B.2.l) and Part I.C of this state permit. The permittee shall make available to VDOT all monitoring data collected from areas where the physically-interconnected MS4 discharges to the VDOT MS4 or received flow from the VDOT MS4. The permittee and VDOT are encouraged to cooperate with one another to establish a joint monitoring network.**

Henrico discussed the water quality monitoring provisions of the MS4 Permit and any monitoring data collected from areas that drain into or from the physically-interconnected MS4 will be made available to VDOT.



## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.C.1**

### **MONITORING REQUIREMENTS**

### **BIOLOGICAL STREAM MONITORING**

Each annual report shall include a summary of the monitoring results, analyses, and an interpretation of that data with respect to long-term patterns/trends.

#### **Taxa Richness**

Taxa Richness is the number of different taxa represented in an ecological community. Taxa Richness is simply a count of the taxa, and it does not take into account the relative abundances of the taxa. Taxa Richness for the 2017 Sampling Year was similar to previous years' data. At most of the stream sampling sites during 2017, there was no appreciable change in Taxa Richness between the spring sampling event and the fall sampling event. Taxa Richness is expected to decrease with increasing perturbation.

#### **EPT Index**

The EPT Index is a subset of the above Richness measure. It is the number of species/taxa in the sample in the generally more environmentally sensitive orders Ephemeroptera, Plecoptera, and Trichoptera. The EPT Index for the 2017 Sampling Year was similar to previous years' data. There was also similarity between the spring sampling event and the fall sampling event. The EPT Index is expected to decrease with increasing perturbation.

#### **Dominant Taxon**

The Dominant Taxon is a percentage measurement. It measures the percent abundance of individuals in the single most abundant taxon. In most cases there was an increase in this measurement between the spring sampling event and the fall sampling event. This measurement is expected to increase with increasing perturbation.

#### **Hilsenhoff Biotic Index**

The Hilsenhoff Biotic Index (HBI) estimates the overall tolerance of the community in a sampling area, weighted by the relative abundance of each taxonomic group (family, genus, etc.). Organisms are assigned a tolerance number from 0 to 10 pertaining to the group's known sensitivity to organic pollutants; 0 being most sensitive, 10 being most tolerant. HBI values range from 0 to 10. Low HBI values reflect a higher

---

## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.C.1**

### **ANNUAL REPORT SUPPLEMENT**

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## **HENRICO COUNTY MS4 PROGRAM PLAN**

abundance of sensitive groups, thus a lower level of pollution. While there is much similarity with previous years' data, overall HBI scores decreased between the spring sampling event and the fall sampling event.

### **% Gatherers**

This measures the percent abundance of individuals in the sample whose primary functional mechanism for obtaining food (functional feeding group (FFG)) is to collect/gather depositional organic matter. This percentage is expected to decrease with increasing perturbation for the stream. These measurements increased when compared to data collected in prior years decreased from the spring sampling event to the fall sampling event.

### **% Predators**

This measures the percent abundance of individuals in the sample whose primary functional mechanism for obtaining food (FFG) is to attack prey and ingest whole organisms or their parts. This measurement is variable and difficult to determine if it should increase or decrease with increasing perturbation. This measurement decreased for the spring sampling event to the fall sampling event at 3 out of the 5 monitoring sites.

### **% Scrapers**

This measures the percent abundance of individuals in the sample whose primary functional mechanism for obtaining food (FFG) is to graze on substrate or periphyton-attached algae and associated material. This metric is expected to decrease with increasing perturbation. The majority of the monitoring stations showed an increase in this measurement from the spring sampling event to the fall sampling event.

### **Summary/Conclusions**

Habitat Suitability Data for the 2017 sampling year showed minor increases between the spring sampling event and the fall sampling event at three of the five monitoring sites. The Biological Condition Index for the 2017 sampling year showed only minor differences between the spring sampling event and the fall sampling event at all five monitoring sites.

The integrity of the Access Database used to calculate prior year's metric scores has become compromised. Therefore, it is difficult to compare this year's Biological Condition Index data with prior years' data. Because of this issue, long term trends cannot be easily determined. Habitat data is readily available within the Access Database, and no significant differences are noted when comparing 2017 habitat data with prior years' habitat data. The following graphs depict the Biological Condition

---

## **HENRICO COUNTY MS4 PROGRAM PLAN**

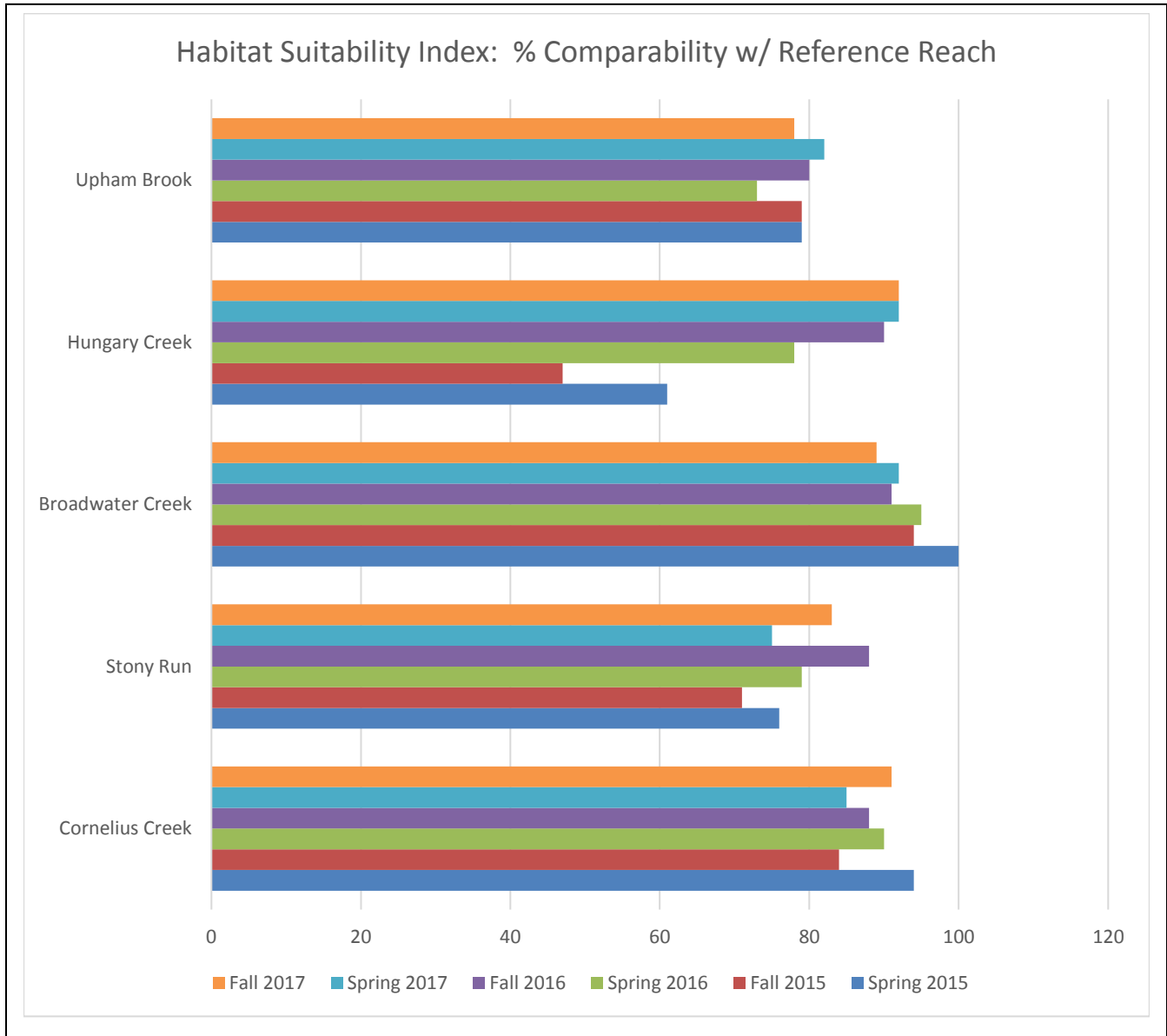
### **PART I.C.1**

### **ANNUAL REPORT SUPPLEMENT**

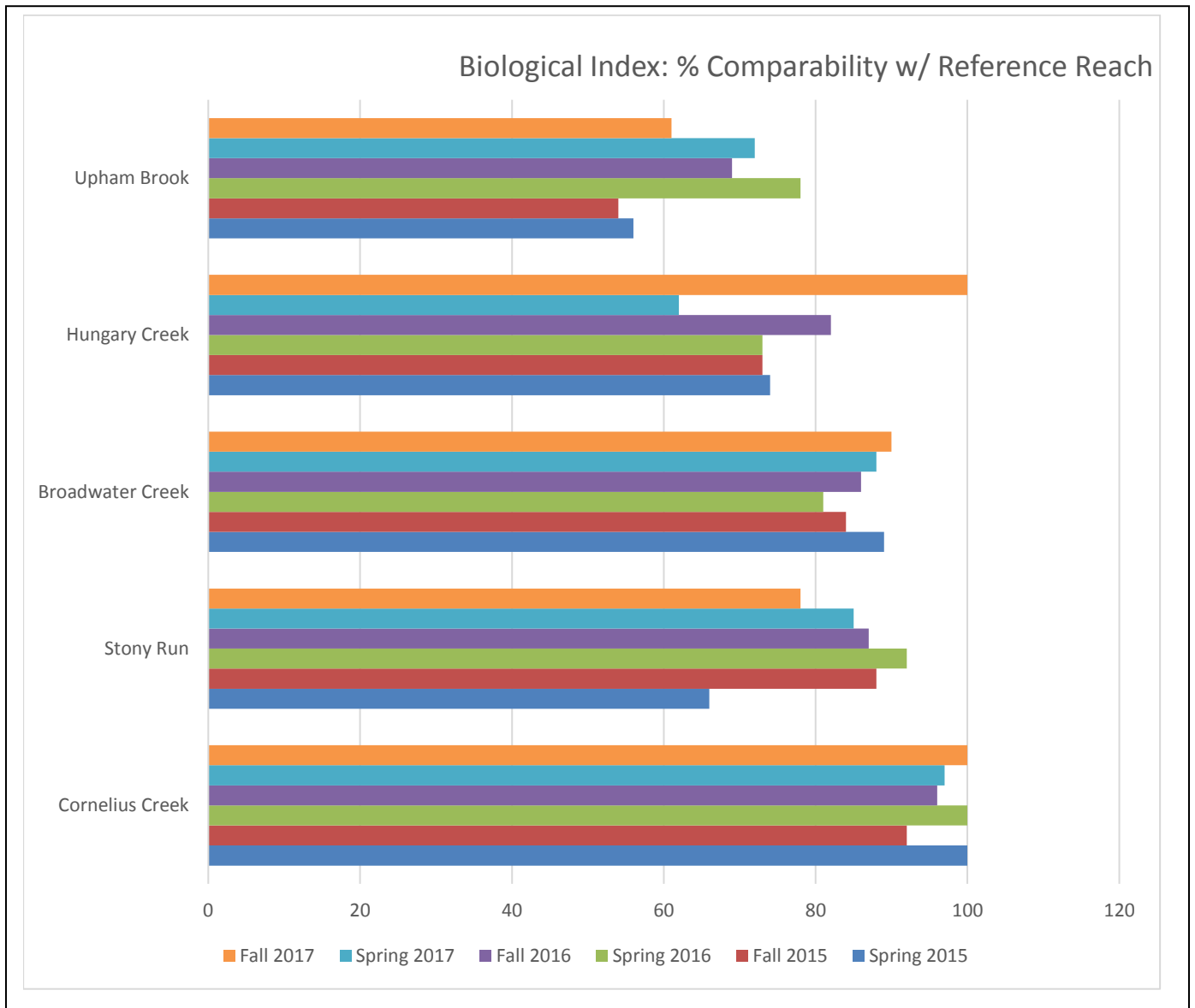
**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

Indices and the Habitat Suitability Indices for the 2015 and 2016 sampling years.



## HENRICO COUNTY MS4 PROGRAM PLAN



# HENRICO COUNTY MS4 PROGRAM PLAN

## Summary of Stream Habitat Assessment Results

### Henrico County Stream Bioassessment Program

1/1/2017 through 5/31/2017

	Scoring Range	Reference										
Poor to Optimal												
Hm2001Lo DSR04.S01 HLS17.S02 UPB17.S02 CRC07.S01 NHC13.S01												
Substrate and Instream Cover												
Epifaunal substrate/available cover	0-20	17	12	12	12	12	12	12	12	12	12	12
Pool substrate characterization	0-20	16	12	18	10	12	16	12	12	16	16	16
Pool variability	0-20	17	8	9	8	14	6	14	14	6	6	6
Channel Morphology												
Sediment deposition	0-20	14	15	15	9	15	18	15	15	18	18	18
Channel flow status	0-20	16	10	12	16	10	19	10	10	19	19	19
Channel alteration	0-20	18	11	18	16	18	19	16	16	18	19	19
Channel sinuosity	0-20	15.5	17	18	18	19	18	18	19	19	18	18
Riparian and Bank Structure												
Bank stability	0-10	8	6	7	7	5	10	7	5	10	10	10
Bank stability	0-10	8.5	6	7	6	7	10	6	7	10	10	10
Bank vegetation protection	0-10	7	7	9	7	6	8	7	6	8	8	8
Bank vegetation protection	0-10	8	7	9	8	8	8	7	8	8	8	8
Riparian vegetative zone width	0-10	10	3	9	9	10	4	9	9	10	4	4
Riparian vegetative zone width	0-10	10	9	9	10	5	3	9	10	5	3	3
Total Score		165	123	152	136	141	151	152	136	141	151	151
Percent of Reference Site			75	92	82	85	92	92	82	85	92	92
Resulting Habitat Suitability			Comparable	Comparable	Supporting	Supporting	Comparable	Comparable	Supporting	Supporting	Comparable	Comparable

**Habitat Criteria**  
 >90% = Comparable to reference  
 75-89 = Supporting  
 60-74 = Partially supporting  
 <59 = non-supporting

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.C.1

### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

# HENRICO COUNTY MS4 PROGRAM PLAN

## Summary of Stream Habitat Assessment Results

### Henrico County Stream Bioassessment Program 10/1/2017 through 12/31/2017

Scoring Range		Reference									
Poor to Optimal		99Ord4-6Lo DSR04.S01 HLS17.S02 UPB17.S02 CRC07.S01 NHC13.S01									
<u>Substrate and Instream Cover</u>											
Epifaunal substrate/available cover	0-20	16.5	13	12	12	13	12	13	13	6	6
Pool substrate characterization	0-20	12	12	14	10	6	11	6	11	11	11
Pool variability	0-20	10	9	8	7	14	8	14	8	8	8
<u>Channel Morphology</u>											
Sediment deposition	0-20	16	12	15	10	16	16	16	16	16	16
Channel flow status	0-20	18	12	12	10	12	18	12	18	18	18
Channel alteration	0-20	20	14	18	16	18	16	18	16	16	16
Channel sinuosity	0-20	8	17	18	18	19	18	19	18	18	18
<u>Riparian and Bank Structure</u>											
Bank stability	0-10	8.5	7	4	4	6	10	6	10	10	10
Bank stability	0-10	8	6	4	5	6	10	6	10	10	10
Bank vegetation protection	0-10	9	7	6	4	7	9	7	9	9	9
Bank vegetation protection	0-10	9	6	6	4	7	9	7	9	9	9
Riparian vegetative zone width	0-10	8.5	3	10	9	10	4	10	4	4	4
Riparian vegetative zone width	0-10	9	9	9	10	5	5	5	5	5	5
Total Score		152.5	127	136	119	139	140	139	140	140	140
Percent of Reference Site			83	89	78	91	92	91	92	92	92
Resulting Habitat Suitability			Supporting		Supporting	Comparable	Comparable	Comparable	Comparable	Comparable	Comparable

Habitat Criteria  
 ~50% = Comparable to reference  
 75-89 = Supporting  
 60 - 74 = Partially supporting  
 <59 = non-supporting

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.C.1

### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## HENRICO COUNTY MS4 PROGRAM PLAN

### Henrico County 2017 Bioassessment Metrics

Spring Bioassessments	Cornelius Creek	Stony Run	Broadwater Creek	Hungary Creek	Upham Brook	Reference Reach
Taxa Richness	30	24	29	20	21	49
EPT Index	12	5	3	2	3	8
% Dominant Taxon	28.22	21.55	24.09	49.92	20.99	14.47
HBI	5.1	5.23	5.78	6	5.57	5.52
% Gatherers	38.33	50.55	19.97	37.33	50.62	37.82
% Predators	5.23	6.91	13	6.83	0.55	10.77
% Scrapers	31.36	11.6	42.63	3.64	15.78	14.38

Fall Bioassessments	Cornelius Creek	Stony Run	Broadwater Creek	Hungary Creek	Upham Brook	Reference Reach
Taxa Richness	38	17	29	20	22	49
EPT Index	13	2	6	3	3	8
% Dominant Taxon	25.1	29.96	35.38	21.15	25.14	14.47
HBI	4.43	5.48	6.05	5.71	5.14	5.52
% Gatherers	16.83	53.74	26.46	42.95	24.18	37.82
% Predators	14.76	6.17	7.7	34.62	0.68	10.77
% Scrapers	13.38	24.23	61.54	3.21	20.79	14.38

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.C.1

### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

# HENRICO COUNTY MS4 PROGRAM PLAN

## Henrico County 2016 Bioassessment Metric Scores

Spring Bioassessments	Cornelius Creek	Stony Run	Broadwater Creek	Hungary Creek	Upham Brook	Reference Reach
Taxa Richness	70	56	67	47	49	114
EPT Index	109	45	27	18	27	73
% Dominant Taxon	84	92	89	59	93	101
HBI	72	70	62	59	65	66
% Gatherers	101	133	53	98	133	100
% Predators	44	58	108	57	5	90
% Scrapers	64	24	87	7	32	29
Total:	78	68	71	49	58	80
% Comparability w/ Reference Reach:	97	85	88	62	72	
Biological Condition:	Non-impaired	Non-impaired	Non-impaired	Slightly Impaired	Slightly Impaired	

Fall Bioassessments	Cornelius Creek	Stony Run	Broadwater Creek	Hungary Creek	Upham Brook	Reference Reach
Taxa Richness	88	40	67	47	51	114
EPT Index	118	18	55	27	27	73
% Dominant Taxon	88	82	76	93	88	101
HBI	82	66	58	63	71	66
% Gatherers	44	141	70	113	64	100
% Predators	123	51	64	289	6	90
% Scrapers	27	49	125	7	42	29
Total	82	64	74	91	50	82
% Comparability w/ Reference Reach:	100	78	90	100	61	
Biological Condition:	Non-impaired	Non-impaired	Non-impaired	Non-impaired	Slightly Impaired	

### Biological Condition Criteria

0-22% - Severely Impaired

23-50% - Moderately Impaired

51-78% - Slightly Impaired

79-100% - Non-impaired

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.C.1

### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017



## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.C.2 MONITORING REQUIREMENTS IN-STREAM MONITORING**

**Beginning with the annual report due March 31, 2017, each annual report shall include a summary of the monitoring results and analyses and an interpretation of that data with respect to long-term patterns/trends.**

The tables below include the data collected during the 2017 reporting year. BQL means Below Quantification Level.

#### **Cornelius Creek**

	1/18/2017	3/15/2017	5/17/2017	7/12/2017	9/13/2017	11/15/2017
pH	6.78	6.44	6.75	6.79	8.43	8.79
Dissolved Oxygen (mg/l)	11.26	13.41	11.93	8.04	8.79	12.19
Temperature (°C)	10	3.3	17.8	25.8	20.4	7.5
Total Suspended Solids (mg/l)	1.7	10.5	2.9	1.4	1.3	3.1
Ammonia as Nitrogen (mg/l)	BQL	0.15	0.19	0.31	BQL	BQL
Nitrate plus Nitrite Nitrogen (mg/l)	1.54	0.7	1.24	1.39	1.8	1.02
Total Kjeldahl Nitrogen (mg/l)	0.19	1.08	0.26	0.33	0.23	0.55
Total Nitrogen (calculated) (mg/l)	1.73	1.78	1.5	1.72	2.03	1.57
Dissolved Phosphorus (mg/l)	BQL	0.06	0.01	0.04	BQL	0.02
Total Phosphorus (mg/l)	0.02	0.08	0.05	0.04	0.02	0.06
Escherichia coli (CFU/100ml)	22	160	90	310	56	120
Air Temperature (°F)	58	26	85	90	78	46

---

## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.C.2**

#### **ANNUAL REPORT SUPPLEMENT**

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

### Broadwater Creek

	1/18/2017	3/15/2017	5/17/2017	7/12/2017	9/13/2017	11/15/2017
pH	5.81	5.94	6.06	5.92	7.58	6.91
Dissolved Oxygen (mg/l)	9.68	12.04	10.69	8.56	8.29	9.9
Temperature (°C)	11.3	4	17.3	21.3	19.2	10.3
Total Suspended Solids (mg/l)	3.4	9.3	4.1	1.9	1.6	3.7
Ammonia as Nitrogen (mg/l)	BQL	BQL	0.26	0.18	BQL	BQL
Nitrate plus Nitrite Nitrogen (mg/l)	0.55	0.38	0.71	1.04	1.2	0.66
Total Kjeldahl Nitrogen (mg/l)	0.2	0.79	0.26	0.19	0.13	0.35
Total Nitrogen (calculated) (mg/l)	0.75	1.17	0.97	1.23	1.33	1.01
Dissolved Phosphorus (mg/l)	0.01	0.06	0.03	0.03	0.01	0.02
Total Phosphorus (mg/l)	0.05	0.08	0.06	0.03	0.03	0.08
Escherichia coli (CFU/100ml)	7	160	240	110	1	42
Air Temperature (°F)	58	28	90	90	78	46

## HENRICO COUNTY MS4 PROGRAM PLAN

### Upham Brook

	1/18/2017	3/15/2017	5/17/2017	7/12/2017	9/13/2017	11/15/2017
pH	7.1	6.79	6.98	6.78	7.03	8.31
Dissolved Oxygen (mg/l)	11.97	13.29	9.86	5.59	7.04	10.78
Temperature (°C)	10.8	3.7	19.3	26.1	20.2	8.4
Total Suspended Solids (mg/l)	5.5	7.6	12.2	2	4.2	3.4
Ammonia as Nitrogen (mg/l)	BQL	BQL	0.28	0.43	0.25	BQL
Nitrate plus Nitrite Nitrogen (mg/l)	0.54	0.47	0.55	0.25	0.68	0.44
Total Kjeldahl Nitrogen (mg/l)	0.19	0.64	0.35	0.43	0.52	0.76
Total Nitrogen (calculated) (mg/l)	0.73	1.11	0.9	0.68	1.2	1.2
Dissolved Phosphorus (mg/l)	0.02	0.07	0.06	0.41	0.07	0.03
Total Phosphorus (mg/l)	0.05	0.09	0.09	0.44	0.22	0.11
Escherichia coli (CFU/100ml)	76	390	130	78	470	170
Air Temperature (°F)	60	29	84	88	71	53

## HENRICO COUNTY MS4 PROGRAM PLAN

### Stony Run

	1/18/2017	3/15/2017	5/17/2017	7/12/2017	9/13/2017	11/15/2017
pH	7.1	6.99	6.77	7	8.55	8.17
Dissolved Oxygen (mg/l)	11.33	13.12	10.52	7.3	8.03	11.07
Temperature (°C)	11.4	6.7	18.3	25.5	20.6	9.9
Total Suspended Solids (mg/l)	2.5	2.9	1.3	2.8	1.3	<1.0
Ammonia as Nitrogen (mg/l)	BQL	BQL	0.21	0.19	BQL	BQL
Nitrate plus Nitrite Nitrogen (mg/l)	0.47	0.24	0.32	0.24	0.36	0.44
Total Kjeldahl Nitrogen (mg/l)	0.3	0.56	0.42	0.34	0.46	0.36
Total Nitrogen (calculated) (mg/l)	0.77	0.8	0.74	0.58	0.82	0.8
Dissolved Phosphorus (mg/l)	BQL	0.04	0.01	0.06	BQL	BQL
Total Phosphorus (mg/l)	0.03	0.04	0.04	0.08	0.03	0.03
Escherichia coli (CFU/100ml)	44	100	220	270	13	270
Air Temperature (°F)	60	35	78	88	74	55

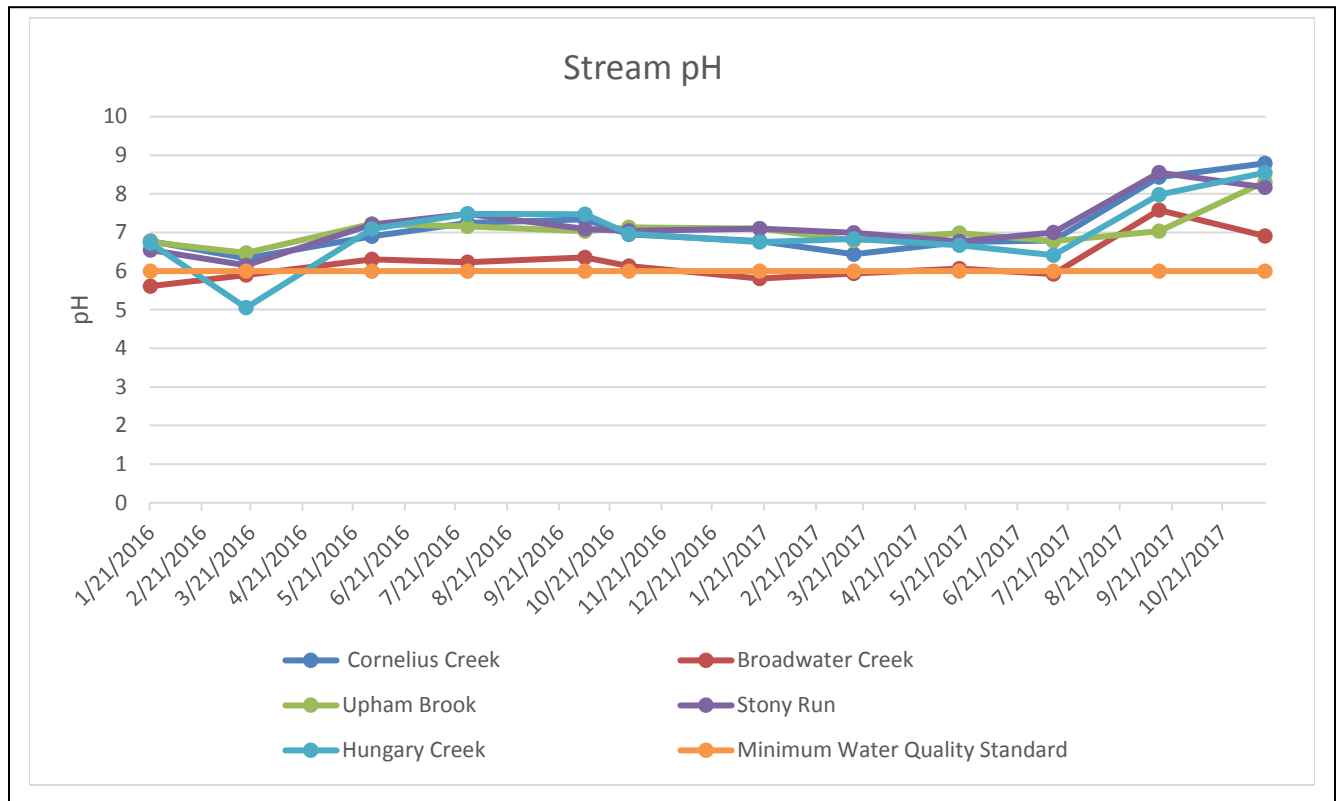
## HENRICO COUNTY MS4 PROGRAM PLAN

### Hungary Creek

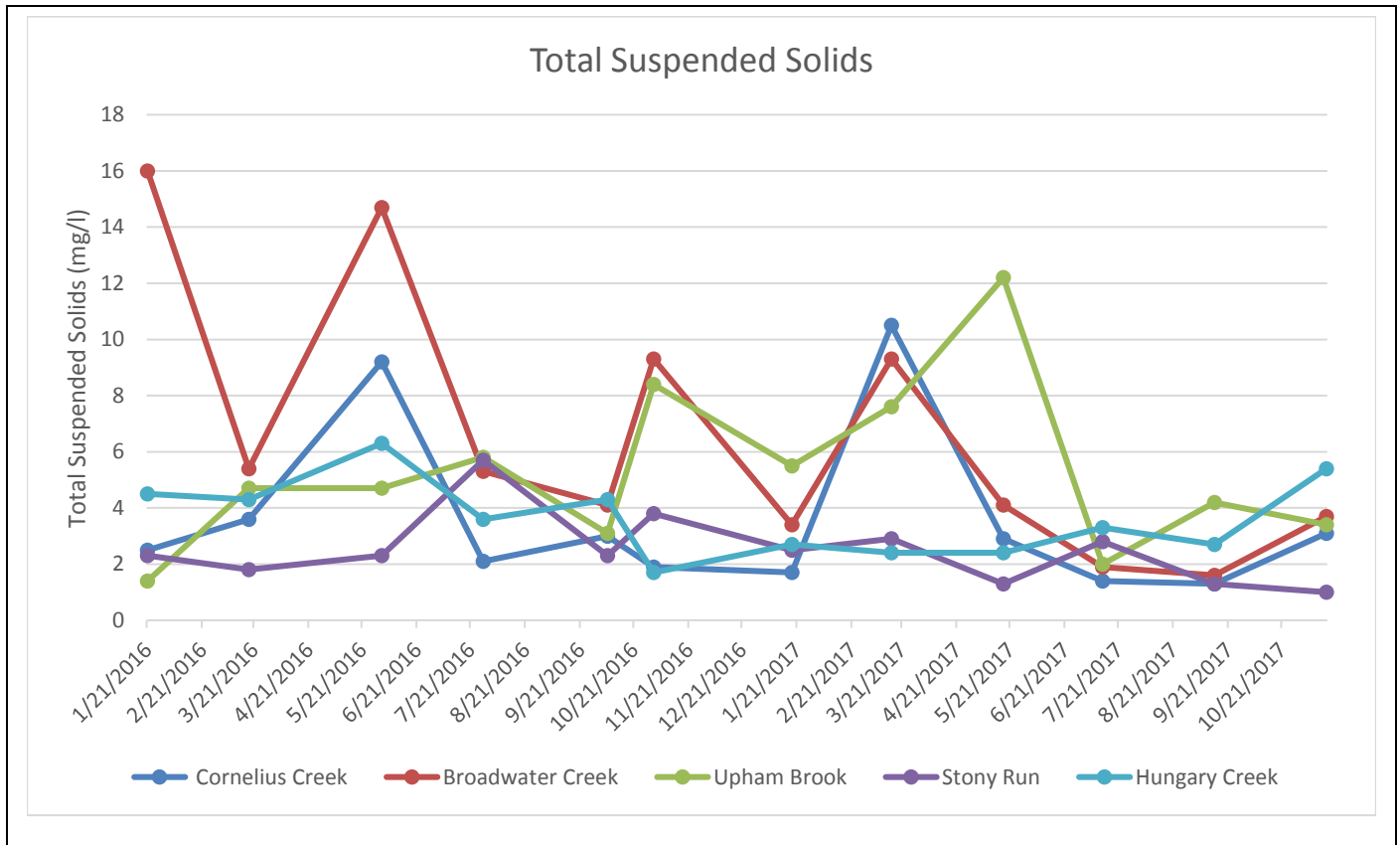
	1/18/2017	3/15/2017	5/17/2017	7/12/2017	9/13/2017	11/15/2017
pH	6.75	6.83	6.67	6.41	7.98	8.55
Dissolved Oxygen (mg/l)	10.28	12.08	12.23	7.99	4.35	10.54
Temperature (°C)	12.4	9.5	20.6	26.6	20.5	11.7
Total Suspended Solids (mg/l)	2.7	2.4	2.4	3.3	2.7	5.4
Ammonia as Nitrogen (mg/l)	BQL	BQL	0.16	0.22	BQL	0.11
Nitrate plus Nitrite Nitrogen (mg/l)	0.53	0.32	0.24	0.16	0.36	BQL
Total Kjeldahl Nitrogen (mg/l)	0.18	0.51	0.24	0.3	0.31	0.55
Total Nitrogen (calculated) (mg/l)	0.71	0.83	0.48	0.46	0.67	0.55
Dissolved Phosphorus (mg/l)	0.02	0.04	0.02	0.06	0.02	0.01
Total Phosphorus (mg/l)	0.04	0.05	0.05	0.09	0.06	0.09
Escherichia coli (CFU/100ml)	79	110	250	380	19	110
Air Temperature (°F)	64	35	82	88	71	55

## HENRICO COUNTY MS4 PROGRAM PLAN

Each data point on the following graphs represents the data collected during this permit's reporting period. Where available, the appropriate Water Quality Standard is also included on the graph. Not enough data have been collected to show statistically significant trends since monitoring began under the NPDES MS4 monitoring plan. Additional monitoring over time will be needed to move toward statistical relevance of the data.



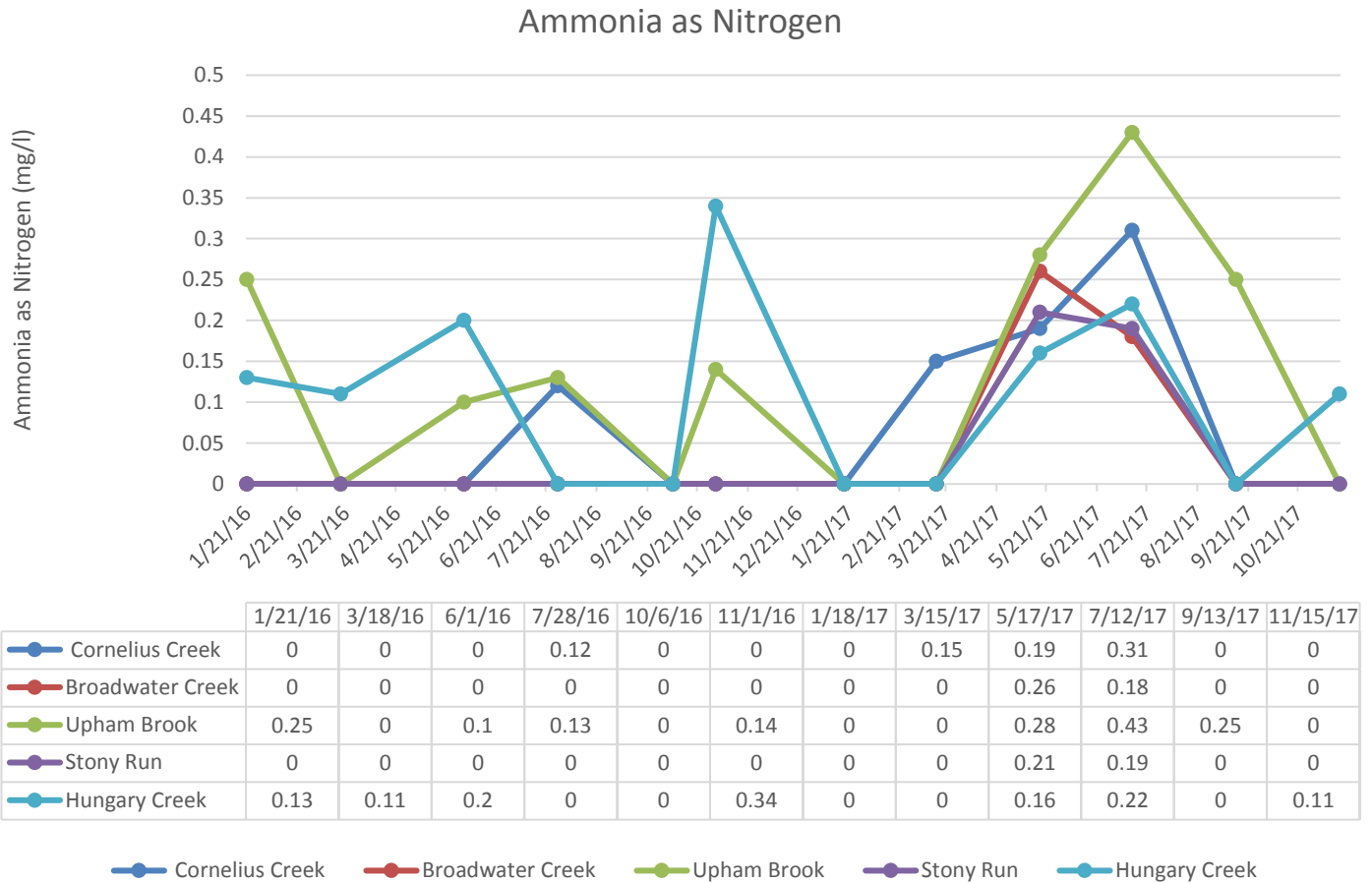
## HENRICO COUNTY MS4 PROGRAM PLAN



---

**HENRICO COUNTY MS4 PROGRAM PLAN**  
**PART I.C.2**  
**ANNUAL REPORT SUPPLEMENT**  
**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

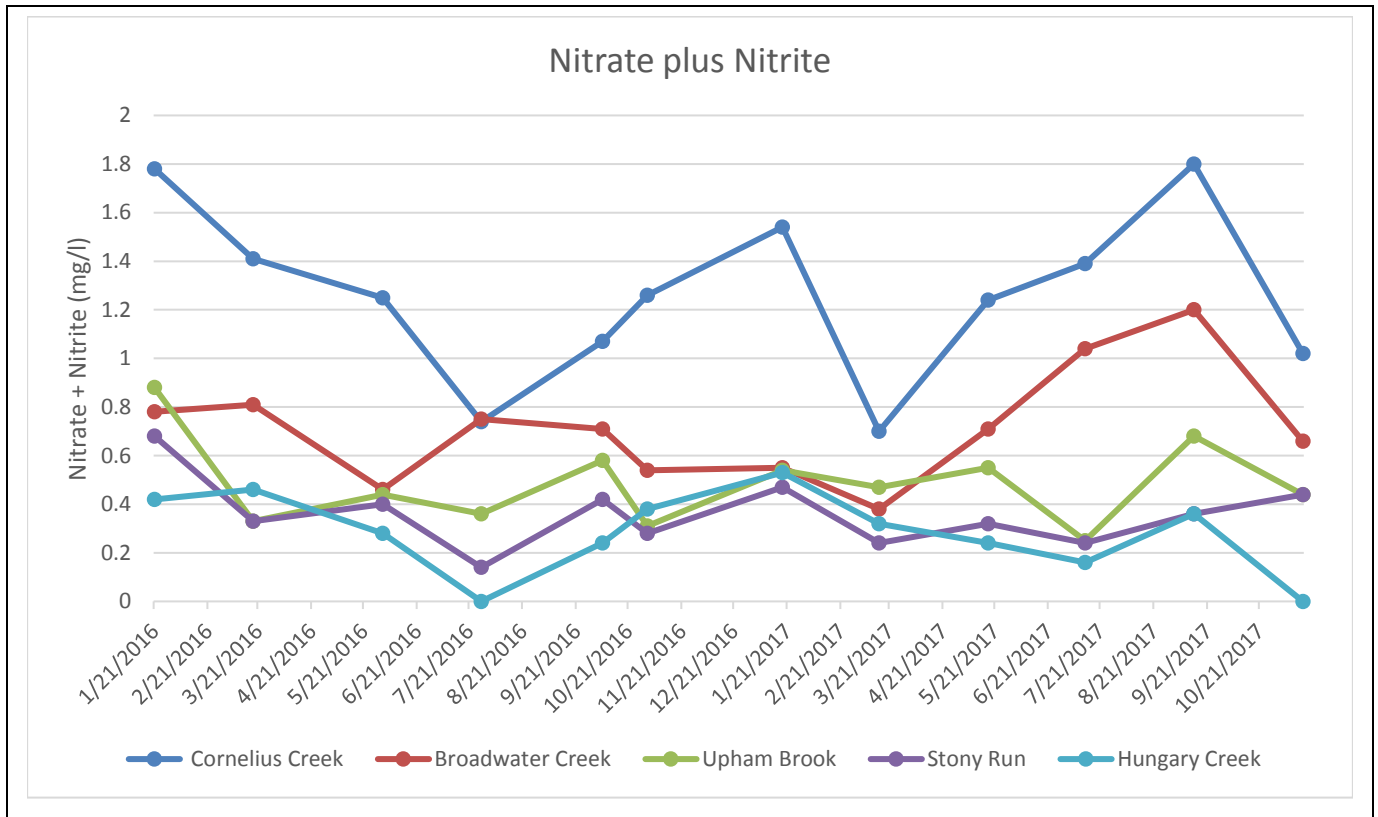
## HENRICO COUNTY MS4 PROGRAM PLAN



Note: Many Ammonia as Nitrogen measurements were Below Quantitation Limits and have been recorded for this graph as Zero.



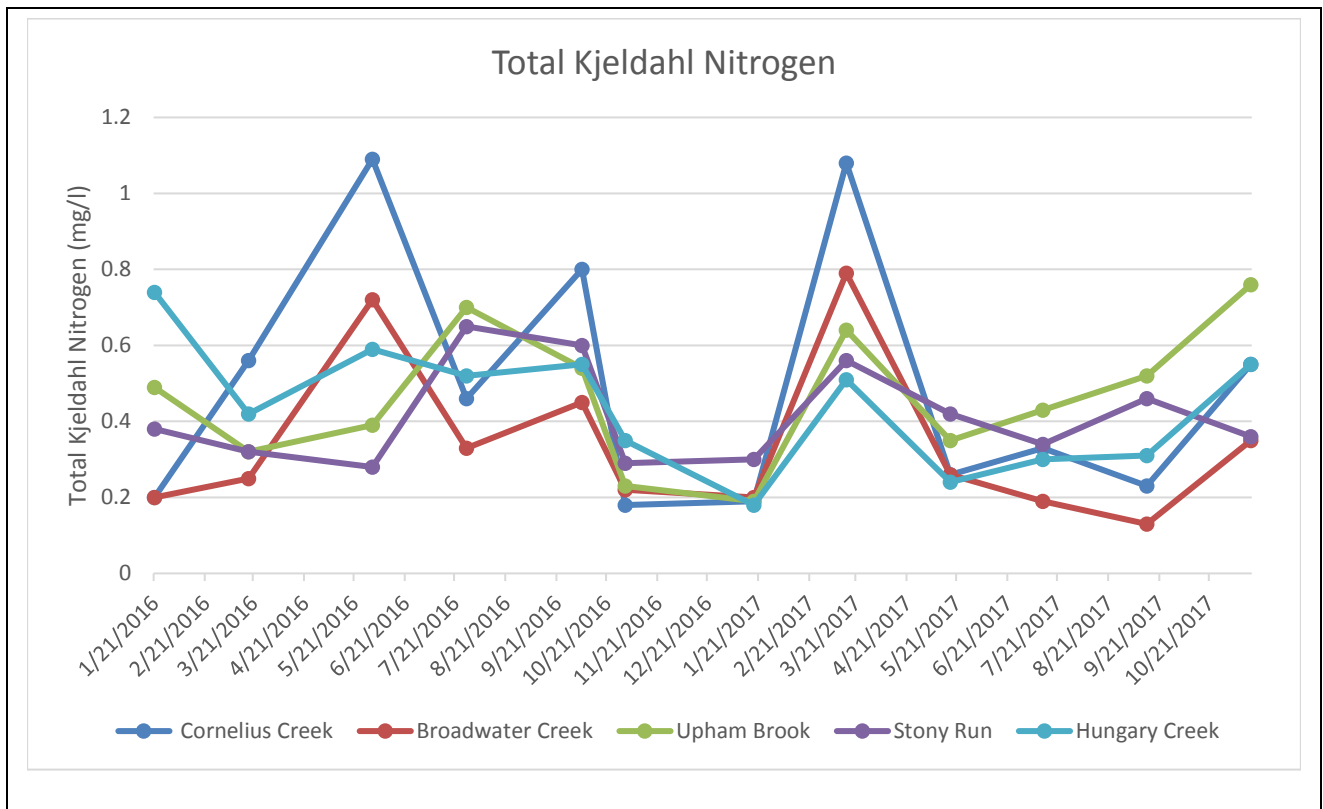
## HENRICO COUNTY MS4 PROGRAM PLAN



---

**HENRICO COUNTY MS4 PROGRAM PLAN**  
**PART I.C.2**  
**ANNUAL REPORT SUPPLEMENT**  
**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

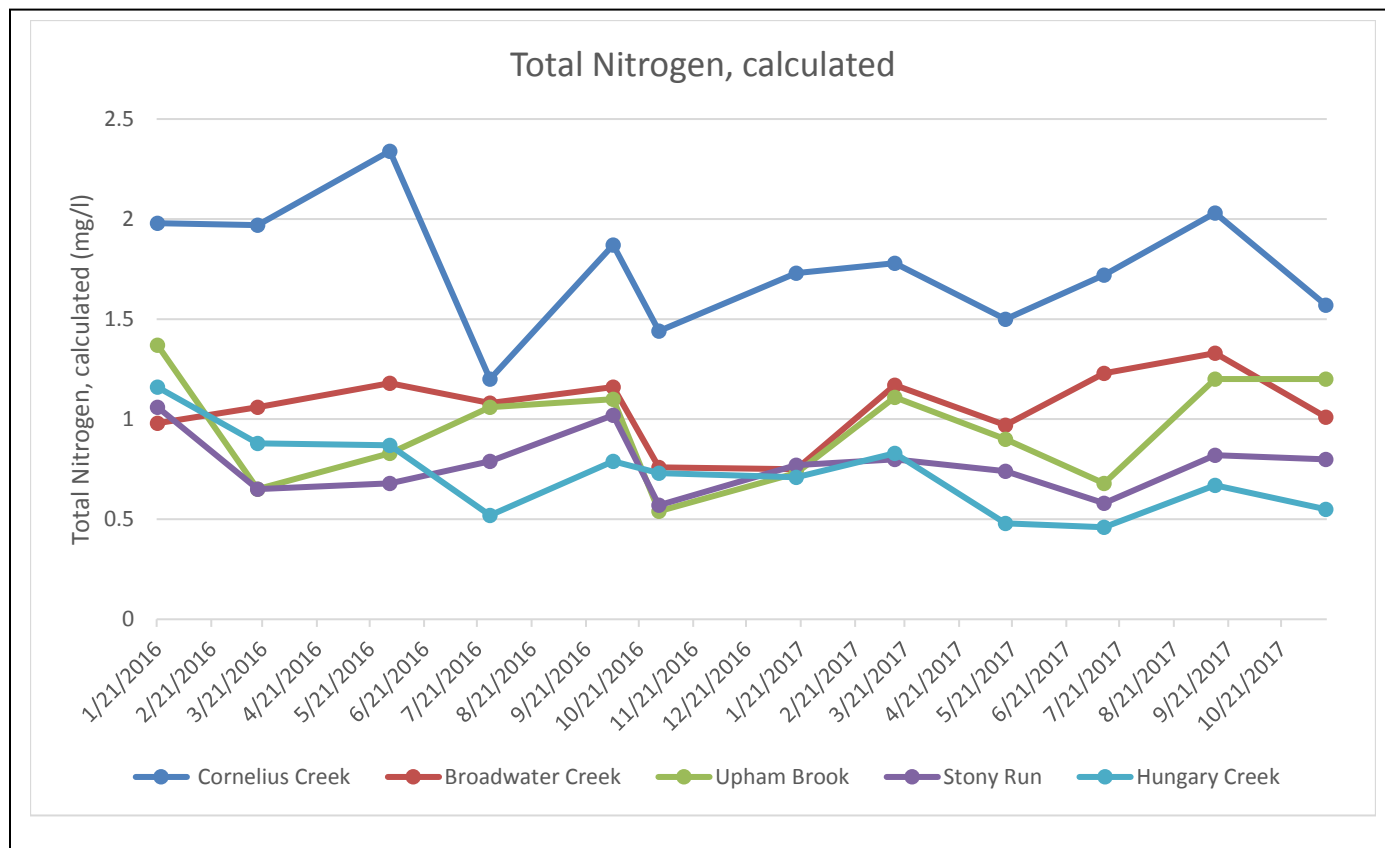
## HENRICO COUNTY MS4 PROGRAM PLAN



---

**HENRICO COUNTY MS4 PROGRAM PLAN**  
**PART I.C.2**  
**ANNUAL REPORT SUPPLEMENT**  
**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

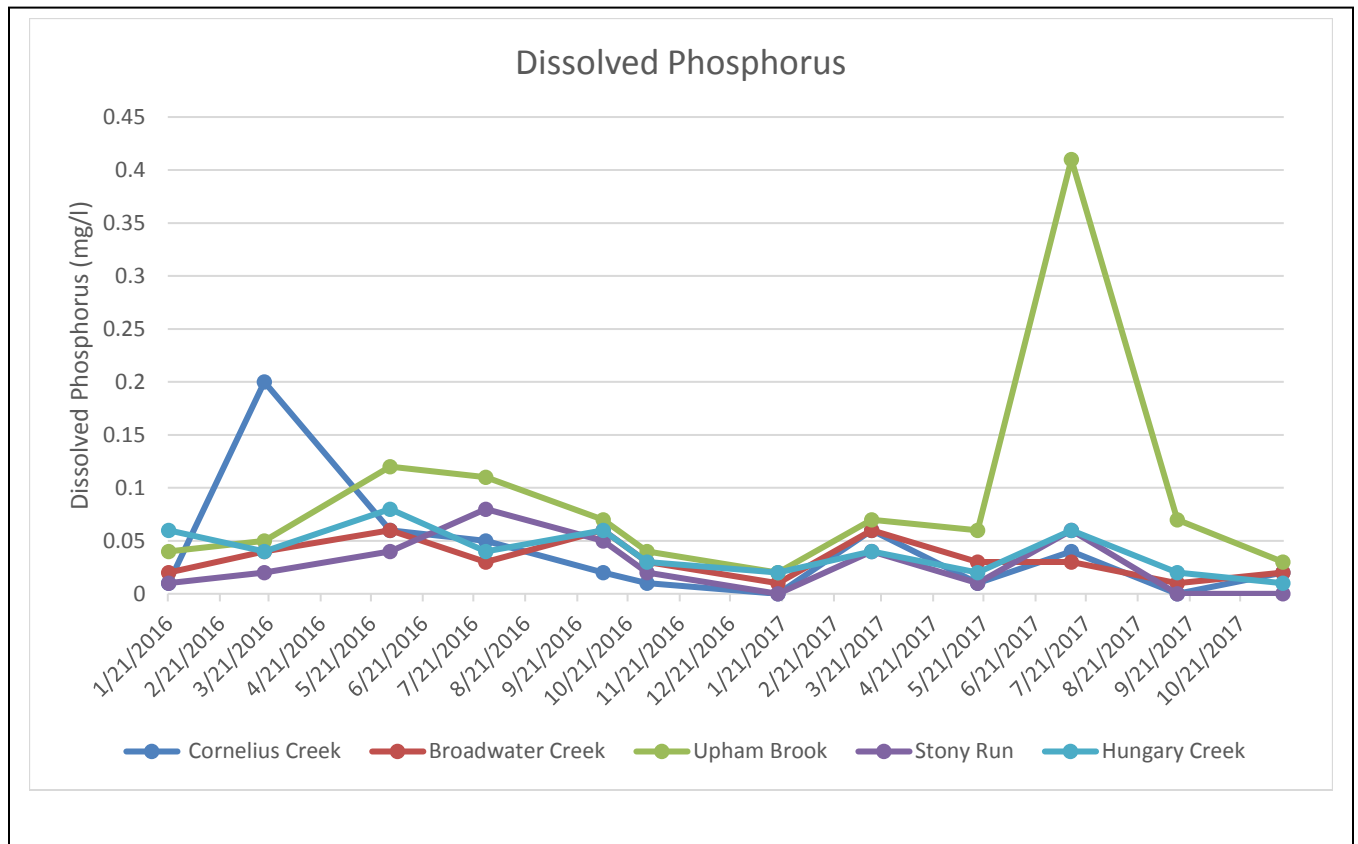
## HENRICO COUNTY MS4 PROGRAM PLAN



---

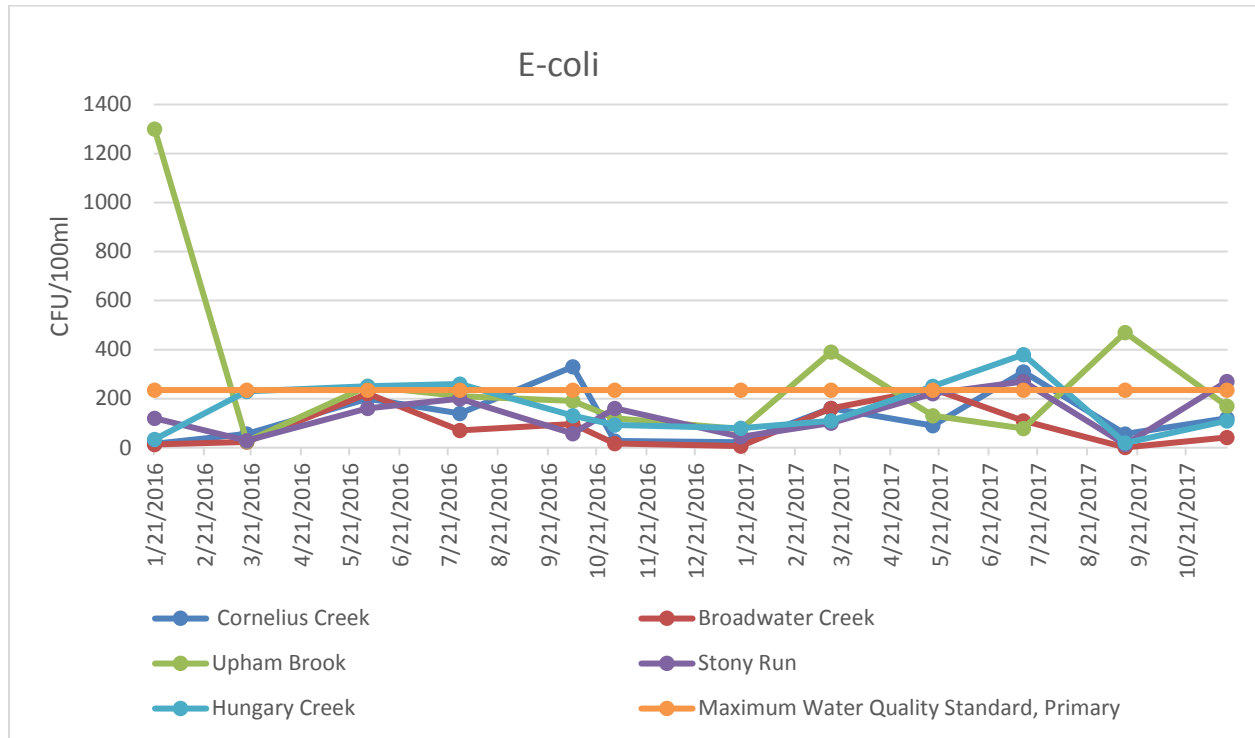
**HENRICO COUNTY MS4 PROGRAM PLAN**  
**PART I.C.2**  
**ANNUAL REPORT SUPPLEMENT**  
**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN



Note: Data unavailable for November 2016 sampling event.

## HENRICO COUNTY MS4 PROGRAM PLAN



---

**HENRICO COUNTY MS4 PROGRAM PLAN**  
**PART I.C.2**  
**ANNUAL REPORT SUPPLEMENT**  
**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.C.3**

#### **MONITORING REQUIREMENTS**

#### **STRUCTURAL AND SOURCE CONTROLS COMPLIANCE**

#### **MONITORING AND TRACKING**

**Each annual report shall include a copy of the updated database in electronic format.**

A spreadsheet (.xls format) of the required data from the County's electronic database of stormwater management facilities has been included in the digital submittal of the MS4 Program Plan and Annual Report Supplements. The spreadsheet includes data for the stormwater management facilities brought online between January 1, 2017 and December 31, 2017.

**Each annual report shall include a summary of the program to ensure maintenance of private stormwater management facilities.**

The Department of Public Works will inspect all privately owned and operated facilities. All privately owned facilities will be inspected a minimum of once every 5 years. All inspections will be documented in the online database (APEX) and in GIS. Any issues found during an inspection will be documented and a punchlist of repairs will be sent to the owner of the facility through certified mail. Owners will have 10 days from receipt of the letter to contact the County BMP inspector with a plan for repairs and a tentative schedule. The owner will contact the inspector at the start of any maintenance work and at its completion. The facility will be re-inspected after completion of work. All inspections will be completed by the county BMP inspector or other qualified person(s) (individuals holding the SWM inspector certification issued by DEQ or a licensed professional). All owner inspections will be documented in APEX.

**Each annual report shall include a summary of the program to ensure maintenance of stormwater management facilities maintained by the permittee.**

## HENRICO COUNTY MS4 PROGRAM PLAN

On-Line* County-Operated SWM Facilities Inspected and/or Maintained between January 1, 2017 and December 31, 2017			
Type	Total	Inspected	Maintained
50/10 Basin (5)	8	8	6
50/10 Underground Detention (6)	7	7	7
BayFilter (200)	1	1	1
BaySeparator (205)	1	1	1
Bioretention 1 (145)	2	2	2
Bioretention Basin/Trench (10)	9	9	9
Extended Detention Basin (15)	31	31	29
Extended Detention Basin w/a Shallow Marsh (16)	2	2	2
Filtterra (215)	24	24	24
Grassed Swale (20)	2	2	2
Imbrium Jellyfish (250)	1	1	1
Infiltration Basin/Trench (25)	7	7	7
Retention Basin (30)	7	7	7
Sheetflow to Vegetated Filter or Conserved Open Space 2 (106)	2	2	2
StormCeptor (225)	1	1	1
StormFilter (220)	4	4	4
StormTreat (230)	1	1	1
Stormwater360 (235)	5	5	5
<b>TOTAL</b>	<b>115</b>	<b>115</b>	<b>111</b>

The annual report due March 31, 2019 under this permit shall include an updated list of stormwater management facilities existing prior to the effective date of this permit.

Noted.

---

**HENRICO COUNTY MS4 PROGRAM PLAN**  
**PART I.C.3**  
**ANNUAL REPORT SUPPLEMENT**  
**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.D.1

#### TMDL ACTION PLAN AND IMPLEMENTATION CHESAPEAKE BAY SPECIAL CONDITION

The permittee shall submit the Chesapeake Bay TMDL Action Plan to the Department for review and acceptance with the annual report due March 31, 2017.

The Chesapeake Bay TMDL Action Plan was submitted to the Department as part of the annual report submitted in March 2017.

Beginning with the annual report due on March 31, 2018, the permittee shall include a list of control measures implemented during the reporting period and the cumulative progress toward meeting the compliance targets for total nitrogen, phosphorus, and total suspended solids.

An additional 13 septic-to-sewer connections were made for a total of 248 (235 were reported in the initial Chesapeake Bay TMDL Action Plan). These additional connections result in a reduction of 116.53 pounds of TN reduction.

$$\text{TN Reduction} = 3.6 \text{ lbs/year/person} \times 2.49 \text{ persons/household} \times 13 \text{ households}$$

$$\text{TN reduction} = 116.53 \text{ lbs/year}$$

Cumulative Progress Toward Meeting Compliance Targets

Pollutant	Total Reduction Required During First Permit Cycle (lbs/yr)	Total Reductions Achieved to Date (lbs/yr)
Nitrogen	918.06	4,877.21
Phosphorus	176.93	558.75
Total Suspended Solids	102,340.90	287,448.21

No other control measures were implemented between January 1, 2017 and December 31, 2017. For purposes of this section of this report, *implemented* means completed.

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.D.1

#### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017



## HENRICO COUNTY MS4 PROGRAM PLAN

Beginning with the annual report due March 31, 2018, each annual report shall include a list of control measures that were implemented during the reporting cycle and the estimated reduction achieved by the control. For stormwater management controls, the report shall include the information required in Part I.C.3.a) and shall include whether an existing stormwater management control was retrofitted, and if so, the existing stormwater management control type retrofit used

An additional 13 septic-to-sewer connections were made for a total of 248 (235 were reported in the initial Chesapeake Bay TMDL Action Plan). These additional connections result in a reduction of 116.53 pounds of TN reduction.

$$\text{TN Reduction} = 3.6 \text{ lbs/year/person} \times 2.49 \text{ persons/household} \times 13 \text{ households}$$

$$\text{TN reduction} = 116.53 \text{ lbs/year}$$

### Cumulative Progress Toward Meeting Compliance Targets

Pollutant	Total Reduction Required During First Permit Cycle (lbs/yr)	Total Reductions Achieved to Date (lbs/yr)
Nitrogen	918.06	4,877.21
Phosphorus	176.93	558.75
Total Suspended Solids	102,340.90	287,448.21

No other control measures were implemented between January 1, 2017 and December 31, 2017. For purposes of this section of this report, *implemented* means completed.

Beginning with the annual report due March 31, 2018, each annual report shall include a list of control measures that are expected to be implemented during the next reporting period and the expected progress toward meeting the compliance targets for total nitrogen, total phosphorus, and total suspended solids.

There are no control measures expected to be implemented between January 1, 2018 and December 31, 2018. For purposes of this section of this report, *implemented* means completed.

---

## HENRICO COUNTY MS4 PROGRAM PLAN

### PART I.D.1

#### ANNUAL REPORT SUPPLEMENT

JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

## **HENRICO COUNTY MS4 PROGRAM PLAN**

The permittee shall include the following as part of its reapplication package due no later than September 1, 2020:

- (a) Documentation that sufficient control measures have been implemented (or documentation detailing that implementation will be complete by the expiration date of this state permit) to meet the compliance target identified in this Special Condition. If temporary credits or offsets have been purchased in order to meet the compliance target, the list of temporary reductions utilized to meet the 5% reduction in this state permit and a schedule of implementation to ensure a permanent 5% reduction shall be provided; and
- (b) A draft second phase Chesapeake Bay TMDL Action Plan designed to reduce the existing POC loads by an additional seven times the required reductions in loading rates using Table 2 of Part I.D.1.b) of this state permit unless alternative calculations have been provided by the Commonwealth;
- (c) An additional 35% reduction in new sources developed between 2009 and 2014 and for which the land use cover condition was greater than 16%; and
- (d) Accounting for any modification to the applicable loading rate provided to the permittee as a result of TMDL modification.

Noted.

## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.D.2**

#### **TMDL ACTION PLAN AND IMPLEMENTATION TMDL ACTION PLANS OTHER THAN THE CHESAPEAKE BAY TMDL**

The permittee shall submit the required TMDL Action Plans to the Department for review and acceptance with the annual report due March 31, 2017.

Drafts of the required TMDL Action Plans were part of the annual report submitted in March 2017.

Beginning with the annual report due on March 31, 2018, the permittee shall report on the implementation of the TMDL Action Plans and associated evaluation including the results of any monitoring conducted as part of the evaluation.

#### **Chickahominy River Benthic TMDL Action Plan**

<b>BMPs, Programs, and/or Projects Implemented during the MS4 Permit Year</b>	<b>Implementation Details</b>
Erosion and Sediment Control Program	This program continues to be administered and implemented in accordance with the requirements of the state law and regulations. Details can be found in the MS4 Annual Supplement for Part I.B.2.a.
Stormwater Management Program	This program continues to be administered and implemented in accordance with the requirements of the state law and regulations. Details can be found in the MS4 Annual Supplement for Part I.B.2.a.
Illicit Discharge Detection and Elimination Program	This program continues to be administered and implemented in accordance with the requirements of the MS4 Permit. Details can be found in the MS4 Annual Supplement for Part I.B.2.e.
SWM Facility and MS4 Infrastructure	These programs continue to be administered and implemented in accordance with state law, regulations and

---

## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.D.2**

#### **ANNUAL REPORT SUPPLEMENT**

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**

## **HENRICO COUNTY MS4 PROGRAM PLAN**

Inspection and Maintenance Programs	the MS4 Permit. Details can be found in the MS4 Annual Supplements for Parts I.B.2.h and I.C.3.
Public Education, Public Outreach, and Employee Training	These efforts continue to be implemented in accordance with the MS4 Permit, the MS4 Program Plan, and the Chickahominy River Benthic TMDL Action Plan. Details of these efforts can be found in the MS4 Annual Supplements for Parts I.B.2.j and I.B.2.k.

### **Escherichia Colli TMDL Action Plan**

BMPs and/or Programs Implemented during the MS4 Permit Year	Implementation Details
Illicit Discharge Detection and Elimination Program	This program continues to be administered and implemented in accordance with the requirements of the MS4 Permit. Details can be found in the MS4 Annual Supplement for Part I.B.2.e.
Public Education, Public Outreach, and Employee Training	These efforts continue to be implemented in accordance with the MS4 Permit, the MS4 Program Plan, and the Chickahominy River Benthic TMDL Action Plan. Details of these efforts can be found in the MS4 Annual Supplements for Parts I.B.2.j and I.B.2.k.

---

## **HENRICO COUNTY MS4 PROGRAM PLAN**

### **PART I.D.2**

#### **ANNUAL REPORT SUPPLEMENT**

**JANUARY 1, 2017 THROUGH DECEMBER 31, 2017**