



# City of Bristol, Virginia

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## Year 1 MS4 Annual Report

Permit No. VAR040048

General VPDES (Virginia Pollutant Discharge Elimination System) Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems

**September 30, 2014**



Department of Public Works  
300 Lee Street  
Bristol, VA 24201  
276-645-7363

# **General VPDES Permit for Small Municipal Separate Storm Sewer Systems**

**Permit No. VAR040048**

Permit Year 1 Annual Report

July 1, 2013 – June 30, 2014

City of Bristol, Virginia

**Submitted by:**

Department of Public Works

300 Lee Street

Bristol, VA 24201

276-645-7363

**With Assistance from:**

AMEC Environment &  
Infrastructure, Inc.

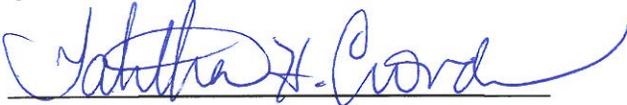
September 30, 2014

## Table of Contents

1.	INTRODUCTION .....	1
2.	BACKGROUND INFORMATION .....	2
3.	STATUS OF COMPLIANCE WITH PY1 PERMIT CONDITIONS .....	3
	MCM #1. Public Education and Outreach.....	3
	MCM#2. Public Involvement/Participation .....	6
	MCM#3. Illicit Discharge Detection and Elimination .....	8
	MCM#4. Construction Site Stormwater Runoff Control.....	11
	MCM#5. Post-Construction Stormwater Management.....	12
	MCM#6 Pollution Prevention/Good Housekeeping for Municipal Operations .....	15
4.	RESULTS OF INFORMATION COLLECTED AND ANALYZED .....	20
5.	SUMMARY OF ACTIVITIES FOR NEXT PLANNING YEAR .....	21
6.	CHANGES IN IDENTIFIED BMPs OR MEASURABLE GOALS .....	22
7.	RELIANCE ON OTHER GOVERNMENT ENTITIES .....	22
8.	APPROVAL STATUS OF QUALIFYING LOCAL PROGRAMS .....	22
9.	SPECIAL CONDITIONS ASSOCIATED WITH TMDLS.....	22

CERTIFICATION

"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: 

Date: 9/30/14

Title: City Manager

## 1. Introduction

This Permit Year 1 (PY1) Annual Report has been prepared by the City of Bristol, Virginia (City) Department of Public Works in accordance with the requirements of the General VPDES (Virginia Pollutant Discharge System) Permit for Discharges of Stormwater from Municipal Separate Storm Sewer Systems (9VAC25-890-40), referred to herein as the MS4 permit. The City was originally issued coverage under MS4 permit VAR040048 on July 8, 2003.. The Department of Environmental Quality (DEQ) reissued the permit on July 1, 2013 for period five years. The permit will expire June 30, 2018.

Under the terms of the MS4 permit, the City has developed a Municipal Separate Storm Sewer System (MS4) Program Plan to implement six minimum control measures aimed at reducing the discharge of pollutants to the “maximum extent practicable”. The minimum control measures (MCMs) are shown in the table below.

**Table1. Minimum Control Measures**

1. Public Education and Outreach	4. Construction Site Runoff Control
2. Public Participation and Involvement	5. Post-Construction Runoff Control
3. Illegal Discharge Detection and Elimination	6. Pollution Prevention and Good Housekeeping

The MS4 permit requires that the City submit annual reports no later than October 1<sup>st</sup> covering the reporting period of the preceding July 1<sup>st</sup> through June 30<sup>th</sup>. This PY1 Annual Report covers period of July 1, 2013 through June 30, 2014. Part II E 3 of the MS4 permit outlines the requirements of the annual report:

- Background information, including (i) the name and permit number of the program submitting the annual report, (ii) the annual report permit year, (iii) modifications to any operator’s department’s roles and responsibilities, and (iv) number of new MS4 outfalls and associated acreage by HUC added during the permit year, and (v) signed certification.
- The status of compliance with permit conditions, an assessment of the appropriateness of the identified best management practices toward achieving the identified measurable goals and progress towards achieving the identified measurable goals for each of the minimum control measures.
- Results of information collected and analyzed, including monitoring data, if any, during the reporting period.
- A summary of the stormwater activities the operator plans to undertake during the next reporting cycle.
- Changes in any identified best management practices or measureable goals for any minimum control measures, including steps to be taken to address any deficiencies.
- Notice that the operator is relying on another government entity to satisfy some of the permit obligations, if applicable.
- The approval status of any qualifying local programs pursuant to Section II C of the MS4 permit, if appropriate, or progress towards achieving full approval of these programs.
- Information required for any applicable total maximum daily load (TMDL) special condition contained in Section I.

In addition to the above, this annual report specific reporting requirements for each MCM required by the MS4 Permit.

- A list of the education and outreach activities conducted during the reporting period for each high-priority water quality issue, the estimated number of people reached, and an estimated percentage of the target audience or audiences reached.
- A list of the education and outreach activities that will be conducted during the next reporting period for each high-priority water quality issue, the estimated number of people that will be reached, and an estimated percentage of the target audience or audiences that will be reached.
- A web link to the MS4 Program Plan and annual report and documentation of compliance with public participation requirements.
- A list of any written notifications of physical interconnection given to other MS4 operators.
- The number of illicit discharges identified during the reporting period and a narrative of how they were controlled or eliminated.
- The total number of outfalls screened, the screening results, and detail of any necessary follow up actions.
- Regulated land-disturbing activities data tracked under Section II 4, including total regulated activities, number of acres disturbed, and inspections conducted.
- A summary of enforcement actions taken, including the total number and type of enforcement actions for land-disturbing activities.
- All known permanent stormwater management facility data tracked under Section II B 5 b (6) submitted in a database format to be prescribed by the department.
- The total number of stormwater management facility inspections completed and, when applicable, the number of enforcement actions taken to ensure long-term maintenance.
- A summary report on the development and implementation of daily operating procedures, required SWPPPs, turf and landscape nutrient management plans (NMPs) and training programs.

## 2. Background Information

This section provides background information as required in Part II E 3 of the MS4 permit.

**Table 2. Background Information**

Name of Operator	Permit Year		Permit Number	
City of Bristol	Permit Year 1		VAR040048	
Modifications to Roles and Responsibilities: None				
New MS4 Outfalls:	Beaver Creek (TH21)		Little Creek (TH21)	
	Outfalls	Drainage Area	Outfalls	Drainage Area
	None	None	None	None

MS4 permit compliance activities are coordinated through the Engineering Division of the Department of Public Works. The organization of the City’s Stormwater Management Program is shown in the following table. The key City personnel with major stormwater management functions or responsibilities are referenced in this table. Additional information about City staff responsibilities can be found in the MS4 Program Plan. There have been no changes to City departments or agencies that carry out the MS4 Program Plan.

**Table 3. Stormwater Management Organization and Responsibilities**

Key City Staff	Responsibilities*
City Engineer	Oversight and coordination Reporting and VDEQ liaison Public Education MCM: BMPs 1.1-1.5 Public Involvement MCM: BMP 2.1 - 2.3 Illicit Discharge MCM: BMPs 3.1 – 3.4 Construction Site MCM: BMPs 4.1 – 4.3 Post-Construction Site MCM: BMPs 5.1 – 5.4
Public Works Director	Good Housekeeping MCM: BMPs 6.1 - 6.6, 6.8-6.10
Golf Course General Manager	Good Housekeeping MCM: BMPs 6.2 - 6.7
City Manager	MS4 permit required signatory certifications

\*Refer to Section D of City of Bristol, Virginia Municipal Separate Storm Sewer (MS4) Program Plan for a description of each BMP.

### 3. Status of Compliance with PY1 Permit Conditions

The following provides the status of Best Management Practices (BMPs) implemented during PY1 for each of the six minimum control measures (MCMs). The MS4 Permit required the City to operate under the existing MS4 Program Plan submitted with the Registration Statement and the current requirements of the reissued permit during this reporting period. The City has updated the MS4 Program Plan consistent with the requirements of permit Table 1 and applicable permit requirements. A summary of those updates is provided in Section 6 of this report. The updated MS4 Program Plan is provided with this annual report under separate cover.

At the beginning of each MCM section is a summary table describing the task, the implementation year, the measurable goal as described in the MS4 Program Plan, and status of each BMP. The implementation year column may include a separate year in parenthesis to identify tasks scheduled for completion in subsequent permit years. Following the summary table for each MCM is a more detailed discussion of the implementation status of each task and description of the measure of effectiveness.

#### **MCM #1. Public Education and Outreach**

The following table is a summary of ongoing annual activities and new activities performed in

PY1 for Minimum Control Measure #1 and their completion status.

**Table 4. Public Education and Outreach BMPs**

BMP/Task	Year	Measurable Goal	Status
<b>1.1 Education on Bacteria from Pet Waste</b>			
Develop and make available educational information about fecal bacteria (in Beaver Creek and Little Creek).	PY1	Report the number and types of flyers distributed per the MS4 Program Plan.	Complete
<b>1.2 Education on Control of Sediment from Land-Disturbing Activities</b>			
Produce and make available educational flyers.	PY2- PY5	Report the number of LDP or AILP applicants who receive the flyer per the MS4 Program Plan.	
Continue to participate in regional educational programs.	PY2- PY5	Report the number and type of collaborative efforts with Boone Watershed Partnership, NRCS, Holston River Soil and Water Conservation District and others.	
<b>1.3 Education on Litter</b>			
Provide information of the impact of litter on stormwater quality on the City's website.	PY2- PY5	Report approximate number of citizens reached per the MS4 Program Plan.	
<b>1.4 Educational Activities for Children</b>			
Update and continue to provide Water Resources Notebook to educators as an instructional supplement in K-12 classrooms.	PY2- PY5	Summarize activities related to the Water Resource Notebook	
Continue to look for additional partnering and promotional opportunities, particularly with local students.	All	Document any new partnering opportunities. [Appendix A] A]	Complete
<b>1.5 Stormwater Educational Information Posted on Website</b>			
Place content related to educating the public on stormwater issues on the City's website.	All	Summarize any changes to the City's website related to providing information on stormwater quality to the public.	Complete

## **Public Education and Outreach Program**

The MS4 Program Plan includes a Public Education and Outreach program which is integrated into the BMPs for MCM #1 and seeks to change pollution-causing behaviors. The compliance activity for PY1 was to update the MS4 Program Plan with the adjusted public education program.

**Identification of High-Priority Water Quality Issues:** The MS4 permit requires the City to identify a minimum of three high-priority water quality issues that contribute to stormwater pollution and provide a rationale for their selection. The program must be designed to annually reach approximately 20% of the target audience for each high-priority water quality issue. The City identified the following high-priority water quality issues for the focus of the public education program during the permit cycle:

1. Bacteria from pet waste;
2. Sediment from land-disturbing activities; and
3. Litter.

The rationale for the chosen high-priority water quality issues is presented in the MS4 Program Plan. Activities to address each issue are listed as BMPs. In each annual report, the City is required to evaluate its Public Education and Outreach program to determine whether adjustment of target audiences and messages, including educational materials and delivery mechanisms to reach target audiences, is needed.

### **1.1. Education on Bacteria from Pet Waste**

#### BMP Implementation

The City produced and distributed educational flyers to provide information about the impacts of stormwater pollution and ways that members of the community can help prevent pollution in stormwater runoff. Included in this information is the importance of cleaning up after pets. The City distributed the flyers which contain information about the hazards of pet waste introduction to local waterways at three pet-themed events, Woofstock, Bark in the Park, and Music & Movies. Additionally, the City installed 25 pet waste stations at Mumpower Park during the previous permit cycle. The City is considering the incorporation of appropriate signage to link pet waste cleanup to water quality. More detail is provided in the MS4 Program Plan.

#### Measure of Effectiveness

In PY1, the City developed the Stormwater Education and Outreach program. It also engaged and educated citizens about bacteria introduced by pet waste through the use of the educational flyer. The flyer provides guidance on ways to minimize the introduction of pet waste to local stream and educates the general public on fecal bacteria pollution. A memorandum dated September 19, 2014, along with a copy of the flyer documents an example of the type of flyer distribution efforts that occurred during PY1. The City distributed approximately 150 flyers during PY1. This information is found in Appendix A. The Education and Outreach program developed in PY1 will be implemented and reported on beginning in PY2.

### **1.2. Education on Prevention of Erosion and Control of Sediment from Land-Disturbing Activities**

The City will implement this BMP beginning in PY2 per the Stormwater Education and Outreach program of the MS4 Program Plan.

### 1.3. Education on Litter Prevention

The City will implement this BMP beginning in PY2 per the Stormwater Education and Outreach program of the MS4 Program Plan.

### 1.4. Educational Activities for Children

The City will revise this BMP beginning in PY2 per the Stormwater Education and Outreach program of the MS4 Program Plan.

#### Measure of Effectiveness

For PY1, the City collaborated with groups to hold Youth Conservation Camp September 4 through 6, 2013, which educated approximately 700 area students (3<sup>rd</sup> & 4<sup>th</sup> grade). The event was held at Sugar Hollow Park. A memorandum dated September 22, 2014 provides the details of this event and can be found in Appendix A.

### 1.5. Educational Website

#### BMP Implementation

The City continues to host and update a stormwater management webpage on the City's website. The webpage includes educational information about the impacts of stormwater pollution and ways that members of the community can help prevent pollution in stormwater runoff. In PY1, the PY5 Annual Report and other stormwater-related educational content links were added to the website.

#### Measure of Effectiveness

The City conducted the annual assessment to determine if any changes are needed. The City determined that the website continues to be a cost effective way to provide educational information to the general public and that no changes were needed in PY1. The webpage is located at: <http://www.bristolva.org/index.aspx?NID=441>.

## MCM#2. Public Involvement/Participation

The following table is a summary of ongoing annual activities and new activities performed during PY1 for Minimum Control Measure #2 and their completion status.

**Table 5. Public Involvement BMPs**

BMP/Task	Year	Measurable Goal	Status
<b>2.1 Public Notice Requirement</b>			
Comply with public notice requirements.	All	Document public notices issued related to the stormwater program and MS4 permit.	Complete
<b>2.2 Participation in Local Activities</b>			
Participate, through promotion, sponsorship, or other involvement.	All	Participate in a minimum of four local activities annually.	Complete

## **2.1. Public Notice and Participation**

### BMP Implementation

The City meets the legal obligations with respect to the public notice and comment requirements related to the City's stormwater management program and permit. The City revised its stormwater ordinance to become a Local Virginia Stormwater Management Program (VSMP) during PY1 and public notices were provided. The City utilizes Civicplus.com to disseminate notices related to City policymaking. This service allows citizens to opt-in to receive notices. Users are directed to a webpage where they can view meeting announcements, agendas and other materials.

### Measure of Effectiveness

The City posts copies of the City Council agenda and meeting minutes as appropriate and users of the site can receive text or email alerts and notices when the items are available. The Civicplus.com program is free to subscribers and open to the public and invites the public to become aware of and participate in City government. The PY5 Annual Report is posted on the City's Stormwater Management webpage and the updated MS4 Program Plan and PY1 Annual Report will be posted within 30 days of submittal to DEQ. In PY1, the City held public meetings for modification of its Stormwater Management and Erosion and Sediment Control Ordinance, Part II, Chapter 50, Article IV to become a VSMP. Meetings were held April 29 and May 6, 2014. A copy of the public notice(s) is included in Appendix B.

## **2.2. Participation in Local Activities**

### **Household Hazardous Waste Collection**

#### BMP Implementation

The City continues to hold and advertise Household Hazardous Waste (HHW) Collection Days to provide citizens with an opportunity to properly dispose of their household hazardous waste at the Public Works Facility. In PY1, the City held HHW Collection events in Fall (November 9, 2013 through November 16, 2013) and Spring (April 26, 2014). The City provides advertisements to promote the HHW Collection Day events. Advertisements included flyers and website promotion.

#### Measure of Effectiveness

The City held two HHW Collection events in PY1. The City maintains a manifest of materials collected and the number of households that participate. The Fall event engaged 104 participants, while the Spring event garnered 91 participants. The City provided advertisements that notified residents prior to the collections days. The results from the HHW Collection Days are included in Appendix B.

### **Partner with Keep Bristol Beautiful Organization**

#### BMP Implementation

The City continues to partner with the *Keep Bristol Beautiful* organization on various river clean-up/trash collection event days.

In PY1, the City assisted Keep Bristol Beautiful on the following events:

- South Holston Lake and River Cleanup - August 10, 2013 - 500 volunteers - 25 tons of litter

- America Recycles Day – November 16, 2013 - 150 volunteers – Truckload of e-waste
- Great American Cleanup - April 26, 2014 - 200 volunteers - 25 tons of litter and e-waste

*Keep Bristol Beautiful* coordinates the activities for the river clean-up/trash collection days. The organization coordinates event logistics, including the provision of bags, gloves, and other supplies needed for the river clean-up efforts. *Keep Bristol Beautiful* also prepares advertisements to encourage civic groups, churches, organizations, youth groups, schools, clubs, and businesses to participate. The City provides for the collection of bagged trash gathered by volunteers and community service workers.

Measure of Effectiveness

Documentation on the overall effectiveness of each event for its intended purpose (e.g., number of volunteers, trash and e-waste collected during river clean-up events, etc.) is provided above and in a memorandum dated September 22, 2014, provided in Appendix B.

**MCM#3. Illicit Discharge Detection and Elimination**

The following table is a summary of ongoing annual activities and new activities performed during PY1 for Minimum Control Measure #3 and their completion status.

**Table 6. IDDE BMPs**

BMP/Task	Year	Measurable Goal	Status
<b>3.1 Stormwater Outfall Map</b>			
Maintain an up-to-date storm sewer system map.	All	Report storm sewer system mapping updates and any new outfalls.	Complete
Collect any new data and record updates to storm sewer system map.	All	Summarize any new data and record updates to storm sewer system mapping.	Complete
Notification of physical connections given by the City to other MS4 operators.	All	Report efforts to notify interconnected MS4s (list of written notifications) as new interconnections are discovered.	N/A
<b>3.2 Prohibition of Illicit Discharges and Tracking</b>			
Continue to maintain and enforce Illicit Discharge Ordinance and track the number of illicit discharges investigated.	All	Maintain and enforce the Illicit Discharge Ordinance	Complete
<b>3.3 Illicit Discharge Program Standard Operating Procedures and Tracking</b>			

Continue to implement Illicit Discharge Program SOP and periodically update SOP.	All	Implement the Illicit Discharge SOP, periodically review and update the SOP.	Complete
<b>3.4 Dry Weather Outfall Screening</b>			
Conduct outfall reconnaissance as required by the permit.	All	Report number of outfalls screened, screening results, and detail of any follow-up actions necessitated by the screening results.	Complete

### 3.1. Stormwater Outfall Map and Associated Table

#### BMP Implementation

The City maintains a stormwater outfall map, which shows all outfalls within the City and the name and location of all waters receiving discharges from the MS4 outfalls and associated HUC. The City updates the stormwater outfall map data when new outfalls are identified. No outfalls were added to the map in PY1.

No physical interconnections to other MS4s were discovered in PY1, therefore there was no need to notify adjacent MS4s of physical interconnections.

#### Measure of Effectiveness

The City's GIS mapping data serves as documentation for this BMP. The City maintains the updated stormwater outfall map through using an electronic mapping tool, Bristol GIS, each year. The City has mapped a total of 369 outfalls. The up-to-date storm sewer map and associated information table will be provided with the PY4 annual report, in accordance with MS4 Permit Table 1.

### 3.2. Illicit Discharge Ordinance and Tracking

#### BMP Implementation

The City continues to maintain and enforce the provisions of the "Ordinance Prohibiting Illicit Discharges into and Illicit Connections to the Municipal Separate Storm Sewer System", Part II Sec. 90, Article IV, Division 2 (adopted in June 2005), which prohibits illicit discharges into and illicit connections to the MS4 and provides appropriate enforcement and right-of-entry tools.

#### Measure of Effectiveness

The Illicit Discharge Ordinance serves as documentation for the BMP. No problems have been identified and no amendments have been made to the Illicit Discharge Ordinance in PY1.

### 3.3. Illicit Discharge Program Standard Operating Procedures and Tracking

#### BMP Implementation

The City will revised the Illicit Discharge Program Standard Operating Procedure (SOP) as part of the MS4 Program Plan update. The revised SOP details the policies and operational management of the City's program to be implemented in PY2. The SOP also describes the assessment of potential illicit discharges/connections, follow-up investigations, reporting

violations, and abatement of violations.

Measure of Effectiveness

The Illicit Discharge Program SOP is located in the MS4 Program Plan. Five (5) suspected or potential illicit discharges were investigated with follow-up and/or enforcement activities during PY1. This information is summarized in the table below, and also included in Appendix C. (Note: the appendix contains an expanded report with spill or release incidents that are not always related to illicit discharges to the MS4.) The table below summarizes the illicit discharge investigations that possibly could have impacted the MS4.

**Table 7. Illicit Discharge Investigations**

ID#	Open/Close Dates	Description	Narrative and Result
#13-00001897	9/26/2013 / same date?	Possible oil spill on Sherwood Rd.	Odor emitted from assorted chemicals stored in basement of home. None were identified outside. Leaking items were secured and sealed.
#13-0002095	10/28/2013	Gas leak at Hassen Heights Rd. & Georgia Street	Natural gas line was struck. The gas provider repaired the leak.
#14-0000874	4/28/2014	Sewer Issue	A sheen was identified on Little Creek near the bridge at West State Street. Fire department spread booms across the creek to contain the contamination. Bristol Virginia Utilities repaired the stopped drain April 26, 2014.
#14-0001308	6/20/2014	Gas leak at intersection of Mary St. and E Virginia St.	Gas smell was detected and investigated through a sewer manhole. Leaks were detected and repaired by gas company.
#14-0001337	6/24/14	Water line break/Chemical Spill	Occurred on City Park property. A water line to a fountain was being serviced in a pit for a blockage. The line was separated and accumulated chlordane escaped. The line was repaired inside the pit and did not affect the storm sewer or surface water.

### 3.4. Dry Weather Outfall Screening

#### BMP Implementation

The City conducts dry weather screening of outfalls per the Illicit Discharge Program Standard Operating Procedure.

#### Measure of Effectiveness

No outfalls were screened during PY1 while the SOP was under development. The City will perform dry weather outfall screening on a minimum of 50 outfalls in PY2, and report the results in the PY2 annual report.

### MCM#4. Construction Site Stormwater Runoff Control

The following table is a summary of ongoing annual activities and new activities performed in PY1 for Minimum Control Measure #4 and their completion status.

**Table 8. Construction Site Stormwater Runoff BMPs**

BMP/Task	Year	Measurable Goal	Status
<b>4.1 Oversight to Address Discharges Entering the MS4 from Land-Disturbing Activities</b>			
Operate a local Virginia Erosion and Sediment Control Program.	All	Continue to operate a VESCP that is consistent with state regulations. The authority is provided in the Code of Ordinances, Part II, Chapter 50, Article IV-Stormwater Management and Erosion and Sediment Control.	Complete
Ensure staff continue training and remain certified.	All	Maintain copies of certifications for City staff. [Appendix D]	Complete
<b>4.2 Public Complaint Reporting Mechanism</b>			
Continue program of responding to citizen complaints.	All	Provide summary of citizen complaints. [Appendix D]	Complete
<b>4.3 Land-Disturbing Activities Tracking</b>			
Continue to track land disturbing activities.	All	Provide summary of the total land disturbing projects and total disturbed acres. [Appendix D]	Complete

#### **4.1. Oversight to Address Discharges Entering the MS4 from Land-Disturbing Activities**

#### BMP Implementation

The City implements the Erosion and Sediment Control Program in accordance with State regulations. The City annually ensures that appropriate staff are trained and remain certified as required by DEQ. The City carries out its responsibilities as set forth in Part II, Chapter 50,

## Article IV-Stormwater Management and Erosion and Sediment Control

### Measure of Effectiveness

The effectiveness of the program to manage runoff associated with construction activities is measured by consistency with State regulations as determined by staff from DEQ. Should differences be identified, the City will take action to address those deficiencies. No changes occurred to this program in PY1.

The City continues to provide staff training and appropriate staff remain certified by the state. The Combined Administrator's certification held by the appropriate staff is presented in Appendix D. The City records whether required land-disturbing activities have obtained coverage under the VSMP Construction General Permit. It tracks this information in its Land-Disturbing Permit database. See BMP 4.3 for more information on tracking.

## **4.2. E&SC Complaint Response and Documentation**

### BMP Implementation

The City continues its ongoing program of responding to and documenting all citizen complaints related to erosion and sediment control issues, in accordance with the current complaint handling procedures. The City Engineer maintains a record of this information.

### Measure of Effectiveness

The City received one complaint during PY1. It involved the tracking of debris onto Dewey Court. The problem was addressed as indicated in a memorandum summarizing this complaint, which can be found in Appendix D. The City is able to receive complaints through its website, by telephone, or in person at City Hall. A screen capture of the web tool for reporting is found in Appendix D.

## **4.3. Land Disturbing Activities Tracking System**

### BMP Implementation

The City continues to track land disturbing activities. The number of permitted land disturbing activities and the acreage of permitted land disturbances for all developments and redevelopments having an area of 10,000 SF or greater is tracked through the Land-Disturbing Permit (LDP) application process. The City also continues to track the number of sites where Agreements in Lieu of a Plan (AILP) were issued for sites that have areas less than 10,000 SF. The City continues to maintain the Erosion and Sediment Control (E&SC) Tracking Information spreadsheet, which includes project, location, drawings, area, permit number, application type, inspector name, approval date, start date and complete date.

### Measure of Effectiveness

The City is required to report the number of permitted LDP-issued sites and the number of AILP-issued sites. The E&SC Tracking Information spreadsheet is used to record the total land disturbing projects and total disturbed acreage annually for the most recent reporting year. The City tracked 20 land-disturbing activities for a total of ~95 acres disturbed. A table summarizing the activities tracked under the Land-disturbing Permit, including inspections and the number and type of enforcement actions taken is included in Appendix D

## **MCM#5. Post-Construction Stormwater Management**

The following table is a summary of ongoing annual activities and new activities performed

during PY1 for Minimum Control Measure #5 and their completion status.

**Table 9. Post-Construction Stormwater BMPs**

BMP/Task	Year	Measurable Goal	Status
<b>5.1 Maintain Local Program Consistency</b>			
Operate a local Virginia Stormwater Management Program (VSMP).	PY2- PY5	Operate a VSMP that is consistent with state regulations. The City's authority is provided in the Code of Ordinances, Part II, Chapter 50, Article IV- <i>Stormwater Management and Erosion and Sediment Control</i> .	Begin June 2014
<b>5.2 Inspection, Compliance and Enforcement of Maintenance of Private Stormwater Facilities</b>			
Require maintenance agreements for new development and redevelopment activities.	All	Report the number of maintenance agreements established each year.	Ongoing
Conduct inspection of private stormwater management facilities at least once every 5 years.	All	Report the number of inspections performed by the City each year.	Ongoing
Initiate enforcement procedures for private owners/operators that are non-compliant with operation and maintenance requirements.	All	Report the number and type of enforcement activities taken to address maintenance issues.	Ongoing
<b>5.3 Inspection and Maintenance of the City-Owned Stormwater Management Facilities</b>			
Inspect structural BMPs for proper operation.	All	Provide summary of structural BMP inspections.	Complete
<b>5.4 Track and Report Required Stormwater Management Facility Information</b>			
Maintain BMP tracking database.	2-5	Report the number and type of BMPs within the City. [Appendix E]	Complete

**5.1. Maintain Local Program Consistency**

BMP Implementation

The City implements a local Virginia Stormwater Management Program (VSMP) as of July 1, 2014. The City is authorized to implement this program through its ordinance (listed above). The ordinance adopts by reference *Virginia Stormwater Management Handbook* and the *Virginia*

*BMP Handbook*. Additionally, the City uses the “City of Bristol, Virginia Supplemental Requirements to the Virginia Stormwater Management Handbook and the Virginia BMP Clearinghouse to establish its requirements and guidelines for development and stormwater management.

#### Measure of Effectiveness

The City adopted its revised ordinance June 10, 2014 to administer the VSMP locally.

### **5.2. Inspection, Compliance and Enforcement of Maintenance of Private Stormwater Facilities**

#### BMP Implementation

The MS4 permit requires that a method of enforcement be established to ensure the owner/operator will perform their maintenance responsibilities. The City is required to conduct facility inspections at least once every five years and apply enforcement measures when necessary.

The owner/operator of new development and redevelopment activities must provide adequate long-term operation and maintenance of structural BMPs, including the provision of a recorded inspection schedule and maintenance agreement. For each new structural BMP the City executes a “Storm Water Facilities Maintenance Agreement” with the BMP owner. The agreement outlines inspections, maintenance and reporting to the City as instructed. This agreement is signed by the owner and recorded at the courthouse to associate it with the property.

#### Measure of Effectiveness

The MS4 Program Plan provides a schedule for inspection of existing stormwater management facilities. The plan did not call for inspections of private stormwater management facilities in PY1. In PY2, the City will report the total number of inspections completed and, when applicable, the number of enforcement actions taken to ensure the long-term maintenance of the stormwater management facility. A summary list of stormwater management facilities is made available in Appendix E.

### **5.3. Inspection and Maintenance of City-Owned Stormwater Management Facilities**

#### BMP Implementation

The City owns and/or maintains 42 stormwater management facilities. These are inspected at frequency of at least once per 5 years and maintained as needed. A schedule of inspection of City-owned facilities is found in the MS4 Program Plan.

#### Measure of Effectiveness

The City will resume inspections of City-owned stormwater management facilities in accordance with schedule of inspection provided in the MS4 Program Plan. In PY2, the City will report the total number of inspections completed and, when applicable, the number of maintenance activities taken to ensure the long-term maintenance of the stormwater management facility. A summary list of stormwater management facilities is made available in Appendix E.

## 5.4. Track and Report Required Stormwater Management Facility Information

### BMP Implementation

The MS4 permit requires the City to track stormwater management facilities (also referred to as structural BMPs) that discharge to the MS4 and to report specific information each year. The City established and maintains a GIS database for tracking structural BMPs. The tracking database enables the City to understand what areas of the City are being treated. stormwater management facility information tracked includes tax parcel information, street location, property owner name, type of BMP, geographic location (HUC), the name of the impaired waterbody the BMP is discharging into, permit number, and number of acres treated. Upgrades will be made to breakdown the number of impervious acres versus the number of pervious acres treated by the BMP.

### Measure of Effectiveness

The BMP tracking system was developed under a previous permit. The City continues to populate the tracking database with new information. The City has developed specific procedures to verify that new stormwater management facilities are identified and entered in the database and that inspection and maintenance is tracked in a database. The City will continue to track information in this manner until such time as the VSMP requires entry into a statewide database.

No new stormwater management facilities were brought online during PY1.

## MCM#6 Pollution Prevention/Good Housekeeping for Municipal Operations

The following table is a summary of ongoing annual activities and new activities performed during PY1 for Minimum Control Measure #6 and their completion status.

**Table 10. Pollution Prevention and Good Housekeeping BMPs**

BMP/Task	Year	Measurable Goal	Status
<b>6.1 Good Housekeeping Procedures for Daily Operations to Minimize or Reduce Pollutant Discharges</b>			
Identify good housekeeping procedures for daily operations.	PY1	The City identified three activities for which Standard Operating Procedures, or SOPs will be developed.	Complete
Develop good housekeeping procedures for daily operations.	PY2		
Implement good housekeeping procedures for daily operations.	PY2-PY5		
<b>6.2 Stormwater Pollution Prevention Plans (SWPPP) for High-Priority Facilities</b>			
Identify high-priority facilities for which SWPPPs will be developed.	PY1	The City identified 5High-Priority Facilities for which SWPPPs will be developed.	Complete

BMP/Task	Year	Measurable Goal	Status
Develop SWPPPs for high-priority facilities.	PY2-PY3		
Implement SWPPPs for high-priority facilities.	PY4-PY5		
<b>6.3 Turf and Landscape Nutrient Management Plans (NMP)</b>			
Identify lands and total acreage of City properties which will require NMPs.	PY1	The City identified 7 properties which will require NMPs. The total acreage is 61 acres.	Complete
Develop and implement NMPs.	PY2-PY5	Percentage of acreage of lands requiring NMP.	
<b>6.4 Staff Training on Recognition and Reporting of Illicit Discharges by Field Personnel</b>			
Provide biennial training for recognizing and reporting illicit discharges.	PY2 PY4	Report the dates and topics of the training event(s) and number of employees trained.	
<b>6.5 Training on Good Housekeeping and Pollution Prevention for Maintenance, Public Works, and Recreation Facility Staff</b>			
Provide training for relevant staff per the MS4 Program Plan.	PY3 PY5	Report the dates and topics of the training event(s) and number of employees trained.	
<b>6.6 Spill Response Training for Emergency Personnel</b>			
Document training efforts for spill response as it relates to emergency personnel.	PY1	Report the dates and topics of the training event(s) and number of employees trained.	Complete
<b>6.7 Fertilizer and Pesticide Management</b>			
Maintain certifications for employees using pesticides.	All	Maintain copies of certifications for City staff. [Appendix F]	Complete
<b>6.8 Street Sweeping Program</b>			
Continue the street sweeping program.	All	Summarize street sweeping activities including the amount of debris removed. [Appendix F]	Complete
<b>6.9 Stormwater System Inspection and Cleaning</b>			

BMP/Task	Year	Measurable Goal	Status
Inspect and clean components of the City stormwater system.	All	Summarize inspection and cleaning activities. [Appendix F]	Complete
<b>6.10 Contractor Oversight Procedures</b>			
The City will review its standard contract language to incorporate or reference the SOPs for daily operations.	PY2		

### 6.1. Good Housekeeping Procedures for Daily Operations to Minimize or Reduce Pollutant Discharge

#### BMP Implementation

The City engages in a number of daily operations such as road, street and parking lot maintenance; equipment maintenance; and the application, storage, transport, and disposal of pesticides and fertilizers. Written Standard Operating Procedures (SOPs) will help guide city employees through steps to properly perform these activities in a manner which prevents possible stormwater pollution from the activities.

#### Measure of Effectiveness

The City identified three (3) activities for which SOPs will be developed by the June 30, 2015 deadline. The activities identified include:

1. Road, street and parking lot maintenance;
2. Equipment maintenance; and
3. Application, storage, transport, and disposal of pesticides and fertilizers.

### 6.2. Stormwater Pollution Prevention Plans for High-Priority Facilities

#### BMP Implementation

The City has to develop Stormwater Pollution Prevention Plans (SWPPPs) for city-owned facilities that have a high potential of discharging pollutants. The Public Works Maintenance Facility and City Transit Facility operate under the VPDES General Permit for Storm Water Discharges Associated with Industrial Activity (Permit No. VAR5100338) and are not included in the MS4 Program Plan or reports.

#### Measure of Effectiveness

The City identified five facilities as high-priority facilities. SWPPPs will be developed and implemented for these facilities by June 30, 2017.

The facilities identified are listed below:

1. Fire Station #2, 1603 Euclid Ave.
2. Randolph, Randolph Street
3. Sugar Hollow Park, 21361 Sugar Hollow Rd
4. Clear Creek Golf Club, 732 Harleywood Rd

### **6.3. Turf and Landscape Nutrient Management Plans**

#### BMP Implementation

The City must develop and implement Nutrient Management Plans (NMPs) for lands where nutrients are applied to a contiguous area of one acre or more in accordance with § 10.1-104.2 of the Code of Virginia. The requirement for PY1 is to identify the lands and acreages of areas requiring NMPs.

#### Measure of Effectiveness

The City identified 7 areas, for a total of 101 acres as listed below:

1. Clear Creek Golf Course, 36°39'54.73"N, 82° 7'12.81"W;
2. Sugar Hollow Soccer, 36°38'49.22"N, 82° 6'14.13"W;
3. Sugar Hollow Baseball, 36°38'21.44"N, 82° 6'42.06"W;
4. Volunteer High School Practice Field, 36°36'44.87"N, 82°10'48.48"W;
5. Gene Malcolm Football Stadium 36°36'6.14"N, 82°11'53.46"W;
6. DeVault Baseball Stadium, 36°36'8.93"N, 82°11'57.82"W; and
7. Stonewall Jackson Senior League Field, 36°35'53.56"N, 82°12'26.94"W

The City will report its efforts to develop NMP for the required percentage of acres in the PY2 annual report.

### **6.4. Staff Training on Recognition and Reporting of Illicit Discharges by Field Personnel**

#### BMP Implementation

The City provides training for appropriate City staff on how to recognize potential illicit discharges, record relevant observations, and report to the proper staff for follow-up. This training will be provided on a biennial basis, per the MS4 Program Plan.

#### Measure of Effectiveness

The City will report the dates and topics of the training event(s) and number of employees trained in the reports for the permit years in which they occur.

For PY1, stormwater pollution prevention training occurs in conjunction with monthly training sessions. The City maintains training records for each employee. Annual training sessions were held February 26, 2014 for the Streets Division and the Solid Waste Collection Division, (21 employees and 20 employees, respectively). Four employees in the Engineering Division were trained on April 10, 2014. A memorandum summarizing these events can be found in Appendix F.

### **6.5. Training on Good Housekeeping and Pollution Prevention for Maintenance, Public Works and Recreation Facility Staff**

#### BMP Implementation

The City provides training to appropriate City staff on pollution prevention and good housekeeping measures that can decrease the likelihood of possible adverse impacts on stormwater quality. Staff who perform road, street and parking lot maintenance; staff who work in and around maintenance and public works facilities; and staff working in and around recreational facilities will receive the biennial training. A list of the position titles of employees receiving the training is provided in the MS4 Program Plan.

### Measure of Effectiveness

The City will report the dates and topics of the training event(s) and number of employees trained in the reports for the permit years in which they occur.

For PY1, stormwater pollution prevention training occurs in conjunction with monthly training sessions. The City maintains training records for each employee. Annual training sessions were held February 26, 2014 for the Streets Division and the Solid Waste Collection Division, (21 employees and 20 employees, respectively). Four employees in the Engineering Division were trained on April 10, 2014. The themes of the training sessions were Municipal Storm Water Pollution Prevention and Everyday Best Management Practices. The following topics were addressed: good housekeeping and spill prevention, outdoor storage of materials and waste, spill reporting and response, vehicle and equipment maintenance, vehicle and equipment washing, and landscaping and lawn care. A memorandum summarizing these events can be found in Appendix F.

## **6.6. Spill Response Training for Emergency Personnel**

### BMP Implementation

Public Works and Engineering staff coordinate with emergency personnel with respect incidents that affect the MS4. Emergency personnel receive training on an annual basis for response to spills and exposure of materials to stormwater.

### Measure of Effectiveness

The Bristol Volunteer Fire Department is dispatched when incidents occur. The roster of firefighters who are certified in hazardous materials response includes twenty-six Hazmat Technicians and four Hazmat specialists. Each attends OSHA refresher training each quarter, along with a live drill. All personnel at the BFVD received using the FEMA National Incident Management System 100-700 courses. A memorandum summarizing training information can be found in Appendix F.

## **6.7. Fertilizer and Pesticide Management**

### BMP Implementation

The MS4 permit requires materials such as fertilizers and pesticides to be applied according to the manufacturer's instructions to minimize the potential for polluting receiving surface waters. Appropriate staff maintain Virginia Department of Agriculture and Consumer Services (VDACS) certification for the handling and application of pesticides. Training is provided as needed in proper application of fertilizers and pesticides.

The Parks and Recreation Department use standard over-the-counter fertilizers and pesticides. All are used in accordance with manufacturer's recommendations and in ways to minimize the potential for pollutant discharges. Staff receives training in the proper application of such products. No contractors are used for vegetation or pest management.

The Clear Creek Golf Course has one staff member that is certified by VDACS in pesticide management. The certificate is kept on file at the Golf Course and a copy is attached in Appendix F of this report. The certified applicator oversees the use of such products at the Golf Course, and is available as required for relevant assistance and training by other City departments.

## **6.8. Street Sweeping Program**

### BMP Implementation

The City continues to implement its ongoing street sweeping program as a means of keeping trash and particulates from entering the storm sewer system.

### Measure of Effectiveness

During PY1, the City collected approximately 144.5 tons of debris during its street sweeping activities. A memorandum summarizing collection totals is included in Appendix F.

## **6.9. Stormwater System Inspection and Cleaning**

### BMP Implementation

The City implements its ongoing stormwater system inspection and clearing program as a means of keeping trash and particulates that have already entered the storm sewer system from discharges to local streams.

### Measure of Effectiveness

The City engaged in a number of cleaning of debris from components of its system in PY1, including inlets, catchbasins, and conveyances. In PY1, the City collected 9.1 tons of roadside litter, as well as 402.5 tons of grass, leaves and yard wastes. In 2014, the City purchased another vacuum truck to remove debris from catch basins and inlets more effectively and efficiently. This model has a capacity of 12 cubic yards. A memorandum documenting this information can be found in Appendix F.

## **6.10. Contractor Oversight Procedures**

### BMP Implementation

Though the City does not contract with commercial entities for turf or landscape management (application of pesticides and herbicides), from time to time contracted services may be procured for minor building maintenance and/or construction. In the event these services are procured, the contractor is notified of their obligation to obtain the necessary certifications, and/or use appropriate control measures and procedures for stormwater discharges to the MS4.

Contractors must follow the laws and regulations, and secure appropriate permits. In addition to meeting appropriate state and federal requirements, contractor must, at a minimum, adhere to the standard daily operating procedures for addressing potential water quality impacts and employ best practices to address stormwater discharges to the MS4. Contract language will be revised accordingly and/or contractors will be given notice of their obligations.

### Measure of Effectiveness

The City will include standard contract language and/or notice given to contractors in the PY2 annual report.

## **4. Results of Information Collected and Analyzed**

No information, including monitoring data, was required to be collected or analyzed under the permit.

## 5. Summary of Activities for Next Planning Year

The City is required to provide a summary of activities it plans to undertake during the next reporting cycle. The MS4 Program Plan includes a full schedule of activities for each permit year. Information on activities that will be performed specifically in PY2, or beginning in PY2 are provided in the table below:

**Table 11. Activities Planned for PY2**

BMP/Task	Permit Reference	Description
<b>Special Conditions</b>		
TMDL Action Plan(s)	Special Conditions	Develop TMDL Action Plan(s) for Sediment and Bacteria on Beaver Creek.
<b>Minimum Control Measure #1 – Public Education and Outreach on Stormwater Impacts</b>		
Flyer for Pet Waste	Section II.B.1	Distribute flyer per Public Education and Outreach program of the MS4 Program Plan.
Information for Erosion Prevention from Land-Disturbing Activities	Section II.B.1	Distribute information on best practices for preventing erosion and controlling sedimentation.
Information on Litter	Section II.B.1	Distribute messages related to the relationship between litter and water quality.
Educational Activities for Children	Section II.B.1	Begin education for school-aged children.
<b>Minimum Control Measure #3 – Illicit Discharge Detection and Elimination</b>		
Illicit Discharge Standard Operating Procedure	Section II.B.3.c	Implement the SOP which was developed in PY1.
<b>Minimum Control Measure #6 – Pollution Prevention and Good Housekeeping</b>		
Written Daily Operational Procedures	Section II.B.6.a	Report on the development of the SOPs for daily operations.
SWPPPs for required locations.	Section II.B.6.b	Begin SWPPP development such that SWPPPs for all required facilities are developed by June 30, 2017.

BMP/Task	Permit Reference	Description
Turf and Landscape Nutrient Management Plans	Section II.B.6.c(1)(a)	Develop NMP for 15% of city-owned turf and landscape acres.
Training Schedule and Program	Section II.B.6.d	Provide training for Recognition and Reporting of Illicit Discharges for field personnel in accordance with MS4 Program Plan.
Contractor Oversight Procedures	Section II.B.6.d.4 and 5	Provide language incorporated into contracts between the City and relevant commercial service providers that notifies contractors of their obligations to follow the laws, secure the appropriate permits, and adhere to the daily operating procedures for addressing potential water quality impacts and to employ best practices to address stormwater discharges to the MS4.

## 6. Changes in Identified BMPs or Measurable Goals

There were no changes to BMPs or measurable goals in PY1. See Section 5 above.

## 7. Reliance on Other Government Entities

The City relies on Bristol, Virginia Public Schools to perform a portion of its education and outreach activities identified in the MS4 permit.

## 8. Approval Status of Qualifying Local Programs

The City relies on implementation of the Virginia Erosion and Sediment Control Regulations to help satisfy Minimum Control Measure #4. The Erosion and Sediment Control Program has been found consistent by the Virginia Soil and Water Conservation Board. The City relies on implementation of the Virginia Stormwater Management Regulations to help satisfy Minimum Control Measure #5. The City adopted an ordinance authorizing its participation as a VSMP June 10, 2014.

## 9. Special Conditions Associated with TMDLs

The MS4 permit provides for specific actions when a Total Maximum Daily Load (TMDL) has been assigned for a specific pollutant of concern. Beaver Creek has been identified as impaired for *Escherichia coli* (E coli) bacteria and sediment and is subject to TMDLs and wasteload allocations (WLAs).

Per the MS4 Program Plan, the City must develop TMDL Action Plan(s) for the TMDLs on Beaver Creek by the end of PY2 (June 30, 2015).

## **Appendix A**

### **MCM #1: Public Education and Outreach**



## PET WASTE

### Why pick up after your pet?

**Myth:** My pet supposed to go outside, it's just one animal, let nature take it's course.

**Fact:** The number of pets in a concentrated area doing their business day after day really adds up. It disrupts the natural processes for managing waste and threatens the health of humans and other animals. If not picked up, waste is often washed into local waterways during rain events. Both Beaver Creek and Little Creek are vulnerable to bacteria pollution.

### It starts with you

- Thanks to a 2010 grant, there are now 25 pet waste stations in Mumpower Park. Do your part and use these facilities.
- Use a bag that is provided or bring your own and always dispose properly.
- Be a proud pet owner and encourage your fellow pet lovers to do the same.



Pet Waste Station at Mumpower Park

## LITTER, ILLEGAL DUMPING, AND ILLICIT DISCHARGES

**True or False?** When water enters the storm drain, it goes to a treatment plant before being released back into a stream or lake.

**False.** Storm drains are designed to drain water away from our homes and streets. Unfortunately, they can sometimes become receptacles for litter and illegally dumped items. Much of the litter and poorly stored items end up in local creeks.



Beaver Creek Clean Up  
Photo Courtesy of [www.2.tricities.com](http://www.2.tricities.com)

Illicit discharges include dumping, straight pipes to a ditch or creek, and irresponsible handling of materials. These activities are illegal and should be reported to the City Engineer.



<http://www.flickr.com/photos/colemana/4096090>

- Pick up or mulch grass clippings
- Wash vehicles in the grass or at a wash facility
- Report sanitary sewer leaks or overflows
- Report dumping and illicit discharges

Report leaks, non-emergency spills, or suspicious activity to the Engineering Department

(276)645-7363

## PROPER STORAGE, APPLICATION AND DISPOSAL

### Handle chemicals with care.

Poorly stored pesticides, cleaners, automotive fluids, and other products have a high probability of running off our yards and driveways and they eventually wind up in a creek.

Manufacturers provide specific instructions to protect health and safety. Follow the recommendations to safely apply the chemicals.



### Safe Homes and Yards = Safer Creeks

- Store chemicals securely and indoors if possible.
- Buy small quantities.
- Read labels and follow manufacturer instructions.
- Clean spills immediately with absorbent material and dispose of the material properly.
- Always dispose of chemicals properly.

Look for waste collection event announcements twice per year or call

(276)645-3791

### Household Hazardous Waste Collection Day



The City of Bristol, Virginia will be hosting a Household Hazardous Waste (HHW) collection day:  
2<sup>nd</sup> Saturday in May and October

Event hours are 9:00 AM – 12:00 PM

Location: City Public Works Facility, 2103 Shakesville Rd. (1/4 mi. south of intersection of Valley Dr. & Kings Hill Pike.)

#### Acceptable Items

Paint, polishes and varnishes  
Paint related materials such as thinners  
Turpentine  
Aerosol cans  
Adhesives  
Motor oil  
Antifreeze  
Solvents  
Cleaners  
Light Bulbs

#### General Information:

This event is for Bristol, Virginia residents and small businesses only.

Please seal material in original container if possible.

Please label unmarked containers if content is known.

Individual limit of 5 gallons or 75 pounds of material per vehicle at any given time.

For more information visit [www.bristolva.org/EVENTS.htm](http://www.bristolva.org/EVENTS.htm) or call 276-645-3791



Unacceptable Items

Gasoline, kerosene & additives  
Batteries  
Mercury debris (includes thermometers)  
Pesticides and herbicides  
Electronics  
Transmission fluid  
Fuel chemicals  
Propane cylinders  
Fire extinguishers  
Industrial waste  
Commercial hazardous waste  
Radioactive material  
Explosives  
Ammunition  
Prescription drugs  
Asbestos materials



## WHY IT MATTERS

### Our Special Place

We are fortunate to live in a beautiful part of the Commonwealth. Our creeks, rivers and lakes play a role in sustaining life, including ours. Keeping our water resources healthy keeps us healthy. Some of our creeks have been found to have high levels of bacteria, nitrates, and sediment. While this is not uncommon for creeks near urban areas, it is critical to address the pollution and take steps to prevent it.

### Begin at Home

We can protect our creeks by starting good habits in our yards and neighborhoods. There are approximately 9,000 households in Bristol. If families could do small things, such as picking up after their pet or washing cars in the grass, the positive impacts would be significant. On the other hand, if families do not make small changes to their behaviors at home, the negative impacts can be detrimental. Forming healthy habits is a solution for problems in our creeks.

### Be a Leader

Help your neighbors remember healthy habits by showing them how simple it is. Flaunt the fact that you brought or used a bag on walks with pets, and put the waste in the proper place. Talk to them about pesticides and fertilizer. Be an advocate healthy streams and the health of your community. It is very important to report leaks or suspicious activity. Do your part and others will follow your lead.

Questions about Stormwater? Call the  
Engineering Department

(276)645-7363

## Things To Remember

1. Pick up after your pet every time.
2. Don't put anything down the storm drain.
3. Report dumping or illegal activity.
4. Keep outside work areas clean and free of debris.
5. Store and use chemicals responsibly.
6. Take advantage of Hazardous Waste collection/disposal events.



Beaver Creek

Photo Courtesy of : Bud Phillips, Special to the Herald Courier , www.2.tricity.com

CITY OF BRISTOL, VIRGINIA  
ENGINEERING DEPARTMENT  
300 LEE STREET  
BRISTOL, VA 24201

Phone: (276)645-7363

Fax: (276) 645-7365

Website: <http://www.bristolva.org/Stormwater/Index.html>

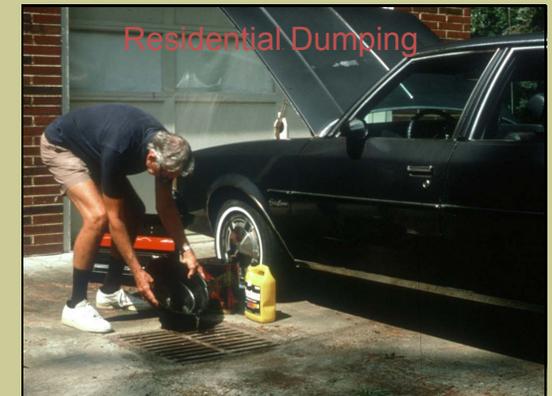


## THERE'S NO PLACE LIKE HOME



### A GUIDE FOR CITIZENS

- PET WASTE
- LITTER, ILLICIT DISCHARGE AND ILLEGAL DUMPING
- CORRECT STORAGE, USE AND DISPOSAL



springfieldmo.gov



**CITY OF BRISTOL, VIRGINIA**  
**Public Works Department**  
**Bristol, Virginia 24201**  
**G. Wallace McCulloch, City Engineer**  
wallace.mcculloch@bristolva.org



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FAX: (276) 645-7235

Engineering Division  
300 Lee Street  
Phone: (276) 645-7360  
FAX: (276) 645-7365

Collection Division  
2125 Shakesville Road  
Phone: (276) 645-7380  
FAX: (276) 645-3781

Disposal Division  
2125 Shakesville Road  
Phone: (276) 645-3791  
FAX: (276) 591-5237

## Memorandum

**Date:** September 19, 2014

**To:** File

**From:** G. Wallace McCulloch, P.E.

**Re:** Stormwater Educational Flyer

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**Comments:**

150 Stormwater Educational Flyers were provided for distribution during the August 2013 to July 2014 year.

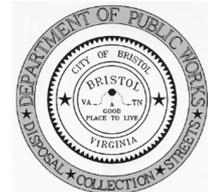
Approximately 100 flyers were distributed at events hosted by Parks and Recreation. The flyer is also available to the public at City Hall and the Parks and Recreation office.

Park Events Include:

Bark in the Park  
Woofstock  
Music & Movies



**CITY OF BRISTOL, VIRGINIA**  
**Public Works Department**  
**Bristol, Virginia 24201**  
**G. Wallace McCulloch, City Engineer**  
wallace.mcculloch@bristolva.org



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Phone: (276) 645-3791  
FAX: (276) 591-5237

## Memorandum

**Date:** September 22, 2014

**To:** File

**From:** G. Wallace McCulloch, P.E.

**Re:** Youth Conservation Camp

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### Comments:

The annual youth Conservation Camp was held at Sugar Hollow Park during the school day from 9:30 AM to 1:30 PM on September 4<sup>th</sup> thru 6<sup>th</sup>. Approximately 700 students from Washington County, Virginia 3<sup>rd</sup> graders and Haynesfield 4<sup>th</sup> graders participated.

The children participated in the following Stations/Activities:

- Soil
- Water
- Littering
- Recycling
- Plants
- Forestry
- Conservation
- Streams
- Herpetology

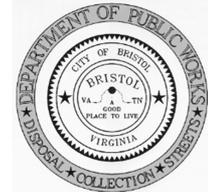
## **Appendix B**

### **MCM #2: Public Involvement/Participation**





**CITY OF BRISTOL, VIRGINIA**  
**Public Works Department**  
**Bristol, Virginia 24201**  
**G. Wallace McCulloch, City Engineer**  
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## Memorandum

**Date:** September 22, 2014

**To:** File

**From:** G. Wallace McCulloch, P.E.

**Re:** Stormwater Ordinance Revision - Public Hearing Advertisement

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**Comments:**

The public notice shown below was posted in the Bristol Herald Courier on Tuesday, April 29, 2014 and Tuesday, May 6, 2014



## **NOTICE OF PUBLIC HEARING**

A Public Hearing will be held on Tuesday May 13, 2014 at 7:00 PM in the Bristol Virginia City Council Chambers located at 300 Lee Street. The Hearing will be part of the regular City Council Meeting and will consider the following item: Revision of Chapter 50, Article IV Stormwater Management and Erosion Control.

The proposed revisions to Chapter 50, Article IV are as follows:

- 1: The City will be established as the Virginia Stormwater Management Program Authority,
2. Section 50-439, The City must require an approved erosion and sediment control plan, stormwater management plan, and general permit registration statement prior to issuance of a permit and,
3. Section 50-440, The City must require that Stormwater Pollution Prevention Plans, Stormwater Management Plans and Pollution Prevention Plans are compliant with state regulations and general permit requirements.

Persons affected may appear and present views.



**CITY OF BRISTOL, VIRGINIA**  
**Public Works Department**  
**Bristol, Virginia 24201**  
**G. Wallace McCulloch, City Engineer**  
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FAX: (276) 591-5237

## Memorandum

**Date:** November 20, 2013

**To:** File

**From:** G. Wallace McCulloch, P.E.

**Re:** Household Hazardous Waste Collection

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### Comments:

The following items were collected at the Fall Event: Between 11/9/13 and 11/16/13  
104 participants.

Aerosols, Flammable:	2 - 55 gal drum
Propane:	1 - 55 gal drum
Fire Extinguishers:	1 - 55 gal drum
Flammable Liquids (Mineral Spirits)	1 - 55 gal drum
Latex Paint:	8 - cubic yard box
Oxidizing Solid:	1 - 5 gal bucket
Organic Peroxide	1 - 5 gal bucket
Pesticides Liquid:	3 - 55 gal drum
Pesticides Solid:	3 - 55 gal drum
Pesticides Solid:	1 - cubic yard box
Corrosive Liquid Acidic:	1 - 55 gal drum
Corrosive Liquid Basic:	2 - 55 gal drum
Corrosive Solid Basic:	2 - 55 gal drum
Mercury Contained Articles:	1 - 5 gal bucket
Paint Related Material:	4 - cubic yard box
Lithium Batteries:	1 - 5 gal bucket
Nickel Metal Hydride Batteries:	1 - 5 gal bucket
Nickel Cadmium Batteries:	1 - 5 gal bucket
Alkaline Batteries:	2 - 5 gal bucket
Used Motor Oil:	2 - 55 gal drum
Used Antifreeze:	1 - 55 gal drum
Compact Fluorescent Bulbs:	2 - 5 gal buckets



**CITY OF BRISTOL, VIRGINIA**  
**Public Works Department**  
**Bristol, Virginia 24201**  
**G. Wallace McCulloch, City Engineer**  
wallace.mcculloch@bristolva.org



Street Maintenance Division  
2103 Shakesville Road  
Phone: (276) 645-7360  
FAX: (276) 645-7235

Engineering Division  
300 Lee Street  
Phone: (276) 645-7360  
FAX: (276) 645-7365

Collection Division  
2125 Shakesville Road  
Phone: (276) 645-7380  
FAX: (276) 645-3781

Disposal Division  
2125 Shakesville Road  
Phone: (276) 645-3791  
FAX: (276) 591-5237

## Memorandum

**Date:** April 28, 2014

**To:** File

**From:** G. Wallace McCulloch, P.E.

**Re:** Household Hazardous Waste Collection

---

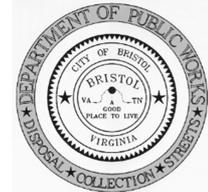
### Comments:

The following items were collected at the Sprint Event on April 26, 2014  
91 participants.

Paint Related Material	4 cubic yard boxes
Flammable solids, Organic	1 - 55 gal drum
Oxidizing Liquids -	1 - 55 gal drum
Pesticide Solid -	1 - 5 gal bucket
Pesticide Liquid -	1 - 5 gal bucket
Corrosive Liquid, Acidic -	1 - 5 gal bucket
Corrosive Liquid, Basic -	1 - 5 gal bucket
Mercury Containing Materials	1 - 5 gal bucket
Batteries, Potassium Hydroxide	1 - 5 gal bucket
Batteries, Wet Acid -	1 cubic yard box
Batteries, Lithium -	1 - 5 gal bucket
Batteries, Alkaline -	1 - 55 gal drum
Batteries, Nickel Metal Hydride	1 - 5 gal bucket
Used Anti-Freeze	1 - 55 gal drum and 1 cubic yard box
Used Motor Oil	2 - 55 gal drum
Compact Fluorescent Lamps	1 - 5 gal bucket
Fluorescent Lamps	4 boxes
Latex Paint	8 cubic yard boxes
Household Cleaners	1 cubic yard box
Propane Tanks	1 cubic yard box
Fire Extinguishers	1 cubic yard box
Aerosols, Flammable	2 - 55 gal drum



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## Memorandum

**Date:** September 22, 2014

**To:** File

**From:** G. Wallace McCulloch, P.E.

**Re:** Keep Bristol Beautiful - Events

---

**Comments:**

For year July 1, 2013 thru June 30, 2014, the following events were sponsored by Keep Bristol Beautiful:

South Holston Lake Cleanup – August 10, 2013

Approximately 500 volunteers collected more than 25 tons of litter.

America Recycles Day – November 16, 2013

Approximately 150 volunteers collected a full truck load of e-waste.

Great American Cleanup – April 26, 2014

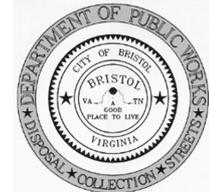
Approximately 200 volunteers collected more than 25 tons of litter and e-waste.

## **Appendix C**

### **MCM #3: Illicit Discharge Detection and Elimination**



**CITY OF BRISTOL, VIRGINIA**  
**Public Works Department**  
**Bristol, Virginia 24201**  
**G. Wallace McCulloch, City Engineer**  
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FAX: (276) 591-5237

## Memorandum

**Date:** September 19, 2014

**To:** File

**From:** G. Wallace McCulloch, P.E.

**Re:** Illicit Discharge Response

---

### Comments:

The following is the Fire Department's incident summary of Illicit Discharge Responses:

#1                      03/17/2014                      Incident # 14- 0000559

Responded to 166 2<sup>nd</sup> Street to investigate a found 100 lbs. propane cylinder. After further research we found the head of the cylinder was leaking and the manufacturers date was 1952. Airgas was called and they said they could not do anything with the cylinder. With a three way conference call with Jack Talbert it was decided that the fire department would assist in "flaring" the Propane off until the hazards were removed. Personnel assembled and lit the Flaring Kit to begin the process of burning off the Propane Gas in the cylinder. Once complete the flare Kit was recovered and the cylinder was returned to its original owner. All units cleared the scene, returning to station.

#2                      09/26/2013                      Incident #13-0001897

Dispatched to a report of a possible oil spill on Sherwood Rd. Odor was detected inside of home. Investigation of main living room area reveals odor only with no visible source. Basement then accessed and odor very strong in basement. Located a table with various cans of old paint and another container severely rusted and leaking. Label on can is deadly deteriorated and is labeled as Termite killer. Secondary label shows the can contains Chlordane. Research of Chlordane revealed it to be extremely toxic and possibly fatal if inhaled, ingested, or absorbed through skin. Leaking can and contaminated paint cans and was placed in oil bucket and sealed. No readings detected on PID. FID revealing reading of 2.85 ppm. Entry objectives were to secure and seal table that the containers were sitting originally, monitor house with Ethyl Acetate Draeger tube and Perchloroethylene Draeger tube. Tube showed no change in levels of home. Team

#3                      10/28/2013                      Incident # 13-0002095

Dispatched for report of a gas leak at Hassen Heights Rd. & Georgia Street. The first arriving personnel was met by bystander who advised there was a strong smell of gas in the road. Problem was located at the intersection of Georgia Street and Hassan Heights Road where a street sign had apparently been driven into the ground and struck an underground natural gas main line. Initial meter readings at base of sign post noted to be 88% of the LEL and dissipating within 5 feet of the post. Occasional higher readings out from the post were noted at around 38% of the LEL with the wind changing direction. Atmos Energy requested to scene. Hassan Heights Road and Georgia Street intersection closed to traffic and pedestrians until the gas company could arrive and secure the leak. During the incident a resident of the subdivision approached and advised she had a strong gas smell in her house. Personnel was assigned to investigate and a separate incident number started.

opened windows for natural ventilation and secured home.

#4                      04/28/2014                      Incident # 14-0000874

Received a call that some type of sheen on the water in little creek near the bridge at West State Street. Upon investigation a light sheen was noted on the water along with several fish kill and waterfowl kill near the Food City building on Euclid Ave. Fire Department placed Booms across the creek at three locations. They were placed above Food City, below Food City and on the Tennessee side behind the Chamber of Commerce. Animal Control was also notified due to ducks suffering contamination. The source was determined to possibly be a stopped up sewer drain behind Gold Traders on Spurgeon Lane. BVU unstopped the drain on Sunday April 26, 2014. There was no sheen or waterfowl kill above this point.

#5                      06/05/2014                      Incident #14-0001192

Call received for a medical response to 400 Commonwealth Ave. – Strongwell Corporation for male having difficulty breathing. Upon arrival they encountered a Bristol Life Saving Crew ambulance on scene attending to a male patient that was experiencing shortness of breath and stated he had been exposed to some type of chemical release. Upon further investigation personnel noted a thick grey cloud (dust looking) inside the structure. With questioning the workers there they discovered that there had been a chemical release of an unknown substance. Upon the additional unit's arrival, all occupants of Strongwell had been evacuated and isolated in a designated clean area. They were given an empty box that contains the released product in question to be able to start research of the chemical properties. They were also were given 2 sets of MSDS sheets for testing different chemicals that this could possibly be. The Haz Mat team encountered a room that was contaminated with the release of the chemical which had been stored in the freezer. They noted the freezer was compromised and damaged due to the chemical release. 14 gallon jugs were noted to have been melted or expelled from the freezer during the release or reaction of the chemical. There was sheen or gloss look was over the entire room, floor, desks, furniture, walls, and the entire room. No other release or activity of the chemical noted during the recon entry. HVAC units were shut off, fans placed at various locations to move air and to help with ventilation of contaminated areas. Assisted HEPACO with contaminate removal and ventilation of affected areas.

#6                      06/20/2014                      Incident # 14-0001308

Dispatched for report of gas odor in the area of Mary St. and Virginia St. Upon investigating found odor concentrated at the intersection of Mary St. and Virginia St. Meter readings at sewer manhole located

at the intersection showing 5% LEL above the cover. LEL at 0% away from cover. 5 % LEL detected in the grass in front of Lee St. Baptist Church adjacent to the manhole. BVU and ATMOS contacted. Manhole cover removed with meter readings of 36.5% LEL and 17% O2 near top of manhole. Leak was detected by ATMOS near the manhole in question. All surrounding buildings in the area were monitored with 0% readings. ATMOS repaired leak and all units released.

#7                      06/24/2014                      Incident # 14-0001337

An employee with Parks & Rec came to the station and was asking if we could assist him with attaching some water lines up in a pit. Upon arrival he advised that he was attempting to resolve some issues with a fountain that he was working on. He took some 1 1/2" lines apart so he could unstop the blockage when he was overcome with an odor of chlorine from the tablets used in the system. We placed a fan for ventilation and suited up two firefighters and entered the pit in Level B suits while they made repairs to the system. They attached two pipes that were unhooked then exited the pit. We stood by to allow the fan to ventilate the pit before turning it back over to parks & rec employees.

## **Appendix D**

### **MCM #4: Construction Site Runoff Control**





## EROSION SEDIMENT CONTROL INSPECTION DATES

288 Blevins Blvd.	01/15/14	02/04/14	02/12/14	02/27/14	03/13/14	03/28/14	04/10/14	04/24/14	05/08/14	05/27/14	06/09/14	06/11/14	06/26/14
102 Carmack Dr	01/09/14	02/04/14	02/27/14	03/28/14	04/24/14								
106 Carmack Dr	01/09/14	02/04/14	02/27/14	03/28/14	04/24/14	05/27/14	06/11/14						
103 Dewey Court	01/09/14	01/23/14	02/04/14	02/27/14	03/28/14								
105 Dewey Court					03/28/14	04/24/14	05/27/14	06/11/14					
204 Harvest Rd	01/09/14	01/23/14	02/04/14	02/27/14	03/28/14	04/24/14	05/27/14	06/11/14					
313 Henrys Lane													
104 Pebble Beach Dr		02/04/14	02/27/14	03/28/14	04/24/14	05/27/14	06/11/14						
214-216 Roo Place	01/09/14												
228 Roo Place													
236 Roo Place					03/28/14	04/24/14	05/27/14	06/11/14					
240 Roo Place					03/28/14	04/24/14	05/27/14	06/11/14					
1035 Valley Drive	01/09/14	02/04/14	02/27/14	03/28/14	04/24/14	05/27/14	06/11/14						
100-102 Willow Oak Ct		01/15/14	02/04/14	02/27/14	03/28/14	04/24/14	05/27/14	06/11/14					
Cell Tower - Exit 5													
Hilton Garden Inn	01/09/14	02/04/14	02/12/14	02/27/14	03/13/14	03/28/14	04/10/14	04/24/14	05/08/14	05/27/14	06/09/14	06/11/14	06/26/14
The Falls	01/09/14	01/23/14	02/04/14	02/12/14	02/27/14	03/13/14	03/28/14	04/10/14	04/24/14	05/08/14	05/27/14	06/09/14	06/11/14
Virginia Premier	01/09/14	02/04/14	02/12/14	02/27/14	03/13/14	03/28/14	04/10/14	04/24/14	05/08/14	05/27/14	06/09/14		
Bristol Infusion Ctr									05/08/14	05/27/14	06/09/14	06/11/14	06/26/14
Mufflers and More						03/28/14	04/10/14	04/24/14		05/27/14		06/11/14	

Land-Disturbing Activities- July 1, 2013 to June 30, 2014

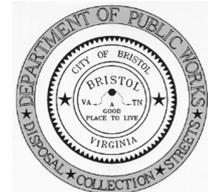
Project Type	Project Name	Project Address	Contact Name	Contact Phone	Disturbed Acres	Plan Approval	Project Start	Project End	Permit Number	VSMF
Comm	The Falls	Lee Highway, 2200-3000 block	Jeremy Baker	(423) 340- 0240	80 acres	5/21/2013	5/23/2013		LDAP-130521- 0340	VAR10-13- 101537
Comm	Virginia Premier	105 Village Cir.	Jeff Hale	(276) 791- 2576	0.75	10/10/2013			LDAP-1301010- 0482	N/A
Comm	Cell Tower @ The Falls	Wallace Pike	Jeremy Baker	(423) 340- 0240	43,000 sq.ft.	4/22/2013	4/23/2013		LDAP-130422- 0187	N/A
Comm	Hilton Garden Hotel	Village Circle	Thomas Builders	(540) 815- 2765	4 acres	9/10/2013	9/12/2013		LDAP-130910- 0416	VAR10-14- 100350
Comm	Mufflers and More	495 Old Airport Rd.	Billy Borrer	(423) 416- 0826	.99 acres	3/24/2014			LDAP-140324- 0105	N/A
Comm	Bristol Infusion Center	349 Island Rd.	Dwain Miller	276) 591- 2785	3 ares	4/30/2014			LDAP-140430- 0172	VAR10- D346
Res	single family dwelling	313 Henrys Ln	Terry Bolling	(276) 669- 3570	<10000 sq.ft.	9/25/2012	9/25/2012	11/12/2013	RNSF-120925- 0115	N/A
Comm	Furgison	288 Blevins Blvd.	Chris Dale	(276) 889- 2700	2.26 acres	12/10/2013	12/10/2013		LDAP-131210- 0587	N/A
Res	single family dwelling	102 Carmack Dr.	Terry Bolling	(276) 669- 3570	<10000 sq.ft.	11/6/2013	11/6/2013	5/5/2014	RNSF-131106- 0526	N/A
Res	single family dwelling	106 Carmack Dr.	Terry Bolling	(276) 669- 3570	<10000 sq.ft.	11/6/2013	11/6/2013	5/16/2014	RNSF-131106- 0529	N/A
Res	single family dwelling	103 Dewey Ct.	Terry Bolling	(276) 669- 3570	<10000 sq.ft.	7/24/2013	7/24/2013	3/12/2014	RNSF-130724- 0341	N/A

**Land Disturbing Permits PY5**

Res	single family dwelling	105 Dewey Ct.	Terry Bolling	(276) 669-3570	<10000 sq.ft.	3/19/2014	3/19/2014	7/1/2014	RNSF-140319-0086	N/A
Res	single family dwelling	204 Harvest Rd.	Ronnie Leonard	(276) 669-2064	<10000 sq.ft.	11/14/2013	11/14/2013		RNSF-131114-0552	N/A
Res	single family dwelling	104 Pebble Beach Dr.	Marty Quillen	(276) 696-4055	<10000 sq.ft.	12/2/2013	12/2/2013		RNSF-131202-0566	N/A
Res	Duplex Dwelling	1035 Valley Drive	Ronnie Leonard	(276) 669-2064	<10000 sq.ft.	12/28/2012	12/28/2012		RNSA-121228-0245	N/A
Res	Duplex Dwelling	100/102 Willow Oak Ct.	Robert Williams	(423) 646-8886	<10000 sq.ft.	1/10/2014	1/10/2014		RNSA-140110-0007	N/A
Res	Duplex Dwelling	214 Roo Place	Terry Bolling	(276) 669-3570	<10000 sq.ft.	9/25/2012	9/25/2012	12/16/2013	RNSA-120925-0121	N/A
Res	Duplex Dwelling	216 Roo Place	Terry Bolling	(276) 669-3570	<10000 sq.ft.	9/25/2012	9/25/2012	12/16/2013	RNSA-120925-0122	N/A
Res	single family dwelling	236 Roo Place	Terry Bolling	(276) 669-3570	<10000 sq.ft.	3/19/2014	3/19/2014		RNSF-140319-0091	N/A
Res	single family dwelling	240 Roo Place	Terry Bolling	(276) 669-3570	<10000 sq.ft.	3/19/2014	3/19/2014		RNSF-140319-0095	N/A



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## Memorandum

**Date:** September 22, 2014

**To:** File

**From:** G. Wallace McCulloch, P.E.

**Re:** Construction Site Related Complaints

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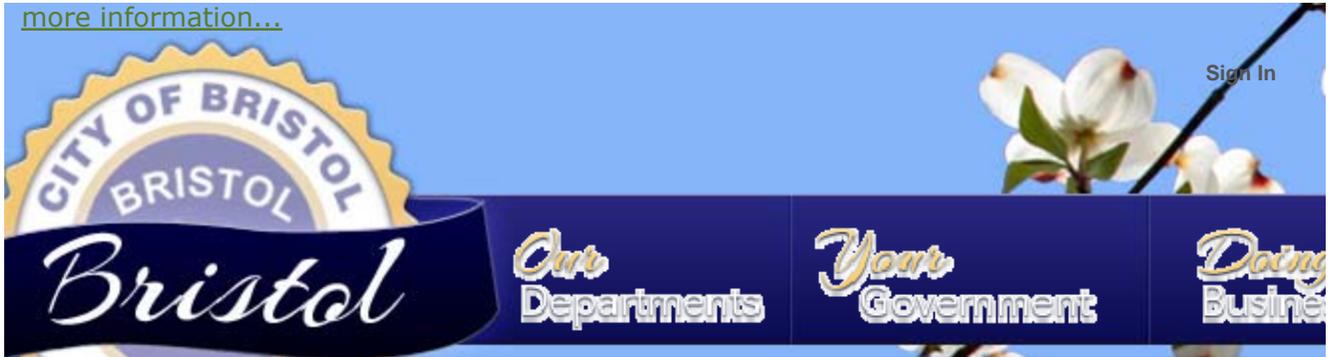
**Comments:**

There was one construction site related complaint for the period July 1, 2013 to June 30, 2014.

The complaint was regarding debris tracked on to Dewey Court. The contractor was called and the problem was addressed.

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**City of Bristol**  
300 Lee Street  
Bristol, VA 24201

**Ph:**  
(276) 645-7300

### Existing User

If you have previously created an account on this site, you do not need to create a new login.

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If you do not have an account on this site, please enter your Email Address and a desired Password in the appropriate boxes and click 'New User'.

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Clear Creek Golf Course Parks and Recreation Police Department Fire Department Public Works

## **Appendix E**

### **MCM #5: Post-Construction Stormwater Management**



## Stormwater Facilities (Structural BMPs) in Bristol, Virginia

Updated 6-25-13

### NOT REQUIRED

BMP-01	344-6-A	Whitten Hill S/D	Kingsmill Pike/Whitten Way	Public	52	Beaver Creek / Mumpower Branch	Dentention Pond	5/19/2006	8/1/2011
BMP-02	344-7-1A	Highland Grove S/D	Lavinia St	Private/Agreement	12	Beaver Creek / Mumpower Branch	Dentention Pond	5/24/2007	8/1/2011
BMP-03	384-A-A	Pebble Creek S/D	Pebble Dr/Kingsmill Pike	Private	9	Beaver Creek / Mumpower Branch	Dentention Pond	6/15/1982	
BMP-04	344-5-5	Meadows Point S/D	Harvest Rd	Private/Agreement	27	Beaver Creek / Mumpower Branch	Dentention Pond	2/25/2002	8/1/2011
BMP-05	229-A-5	Commonwealth of Virginia	Airport Rd/Sonic Restaurant	Public	59	Beaver Creek	Dentention Pond	6/15/1996	7/29/2011
BMP-06	142-A-21	Sugar Hollow Park Wetlands	Sugar Hollow Drive	Public		Beaver Creek	Retention Pond	7/29/2002	5/13/2013
BMP-07	228-5-6A	Bristol Commons S/D	3176 Linden Dr	Public	36	Beaver Creek	Dentention Pond	4/20/1997	7/28/2011
BMP-08	20-1-7	Valley Drive Stormwater Facility	1124 E Valley Dr	Public	420	Beaver Creek / Mumpower Branch	Dentention Pond	7/10/2007	7/27/2011
BMP-09	225-3-1	Preston Square	Blevins Blvd	Private	67	Beaver Creek	Dentention Pond	5/14/2003	
BMP-10	188-A-Tr10	Walmart/Old Dominion Center	3280 Lee Hwy	Private	85	Beaver Creek	Dentention Pond	6/1/1994	
BMP-11	33-7-2A-3A	Stateline Center	Gate City Hwy/Midway St	Private	17	NA / Bristol, TN	Dentention Pond	7/15/2000	
BMP-12	227-4-7	Park 81 S/D	Commerce Ct	Private	21	Beaver Creek	Dentention Pond	9/6/2000	
BMP-13	30-9-1	Springdale Village S/D	Avondale Ln/Second St	Private	37	Beaver Creek	Dentention Pond	6/1/1980	
BMP-14	309-1-4	Bristol Brass & Copper	Thomas Road	Private		NA / Washington Co., VA	Dentention Pond	2/14/2002	
BMP-15	338-2-1	Dale W Gordon Business Park	Gordon Ave	Public	34	Little Creek	Dentention Pond	2/16/2005	7/28/2011
BMP-16	189-5-1	Home Depot S/D	3481 Lee Hwy	Private	15	Beaver Creek	Dentention Pond	9/4/2005	N/A
BMP-17	190-3-3	Home Depot S/D	3481 Lee Hwy	Private	15	Beaver Creek	Dentention Pond	9/4/2005	5/17/2013
BMP-18	22-1-1	Grand Court S/D	Bristol View Dr/1 Liberty Pl	Private	16	NA / Bristol, TN	Dentention Pond	6/15/1986	
BMP-19	40-A-1	Harbor Landing S/D	Dixie Street	Private	11	Beaver Creek	Dentention Pond	8/3/2003	
BMP-20	345-6-118A	Bellehaven S/D	Raintree Cir	Private	27	Beaver Creek / Mumpower Branch	Dentention Pond	6/1/1973	
BMP-21	345-A-3	Northstar Baptist Church	2455 Kingsmill Pike	Private	45	Beaver Creek / Mumpower Branch	Dentention Pond	9/11/2000	
BMP-22	267-A-1	Ridgecrest Townhouses	Heritage Dr	Private	45	Beaver Creek / Mumpower Branch	Dentention Pond	1/5/2008	
BMP-23	309-1-5	JGO LLC	Ohio St	Private	37	Beaver Creek	Dentention Pond	12/8/1987	
BMP-24	264-2-C	Seven Oaks S/D	Beaverview Dr	Private	52	Beaver Creek	Dentention Pond	4/14/2004	
BMP-25	267-5-1	Heritage Townhouses	Heritage Drive	Private		Beaver Creek / Mumpower Branch	Dentention Pond	8/1/1984	
BMP-26	424-A-3	Solid Waste Management Facility	Shakesville Road	Public		Beaver Creek / Mumpower Branch	Dentention Pond	3/1/1998	5/9/2013
BMP-27	347-A-19	Permatile Pond No. 1	Beacon Road	Private		NA / Washington Co., VA	Dentention Pond	1/9/1980	
BMP-28	347-A-16	Permatile Pond No. 2	Beacon Road	Private		NA / Washington Co., VA	Dentention Pond	1/9/1980	
BMP-29	347-A-4A	Contractors Park	Beacon Road	Private		NA / Washington Co., VA	Dentention Pond	8/17/1989	
BMP-30	308-1-1	UPS	Fairfield Street	Private		Beaver Creek	Dentention Pond	6/10/1996	
BMP-31	222-A-3	Commonwealth of Virginia	Long Crescent Road	Public		Beaver Creek	Dentention Pond	6/1/1998	7/29/2011
BMP-33	228-5-21B	Ruby Tuesday	Linden Drive	Private		Beaver Creek	Dentention Pond	6/15/2001	
BMP-34	337-A-13B	Hill Drive Townhouses	Hill Drive	Private		Little Creek	Dentention Pond	10/14/2004	
BMP-35	225-2-64	Henry's Court Pond No. 1	Blevins Boulevard	Public		Beaver Creek	Dentention Pond	10/1/1999	7/29/2011
BMP-36	184-2-1	Henry's Court Pond No. 2	Blevins Boulevard	Public		Beaver Creek	Dentention Pond	5/9/2005	7/29/2011

## Stormwater Facilities (Structural BMPs) in Bristol, Virginia

Updated 6-25-13

Facility ID	Tax Map	Use/Description	Location	Maintenance Responsibility	Acres Treated	Impaired Waters	BMP Type	Install Date	Inspect Date
<b>REQUIRED</b>									
BMP-32	142-A-21	City of Bristol	Resting Tree Drive	Public		Beaver Creek	Retention Pond	5/7/2010	7/29/2011
BMP-37	190-A-1	Mellow Mushroom	3518 Lee Hwy	Private	2.2	Beaver Creek	Manufactured BMP	12/8/2011	12/8/2011
BMP-38	26-10-1	Food City	1320 Euclid Avenue	Private	10.4	Little Creek	Dentention Pond	2/6/2012	2/6/2012
BMP-39	29-10-2	Cheddar's	1003 Old Airport Road	Private	3.2	Beaver Creek	Dentention Pond	7/17/2012	7/17/2012
BMP-40	188-2-3	Olive Garden	3102 Lee Hwy	Private	2.2	Beaver Creek	Manufactured BMP	5/14/2012	5/14/2012
BMP-41	27-10-4	Bristol City School Central Office	220 Lee Street	Private	<1	Beaver Creek	Manufactured BMP	5/21/2012	5/21/2012
BMP-42	227-5-B	Tri-Cities Orthodontics	Linden Square Drive	Private	<1	Beaver Creek	Dentention Pond	2/10/2012	2/10/2012

## **Appendix F**

### **MCM #6: Pollution Prevention and Good Housekeeping**

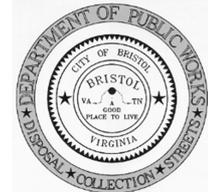


	<p><b>COMMONWEALTH OF VIRGINIA</b> Soil and Water Conservation Board 203 Governor Street, Suite 206, Richmond, Virginia 23219 Telephone (804) 786-2064</p>	
<p><b>COMBINED ADMINISTRATOR</b></p>		
<p>Expires 05/31/2016</p>	<p><b>Charles C. Brewster</b></p>	<p>Certificate Number 928</p>
 <small>Department of Conservation &amp; Recreation OFFICE OF SOIL, WATER, AND RECREATION SERVICES</small>		<p><i>Jack E. Frye</i> Director Division of Soil &amp; Water Conservation</p>

	<p><b>COMMONWEALTH OF VIRGINIA</b> Soil and Water Conservation Board 203 Governor Street, Suite 206 Richmond, Virginia 23219 Telephone (804) 786-2064</p>	
<p><b>COMBINED ADMINISTRATOR</b></p>		
<p>Expires 05/31/2016</p>	<p><b>Charles C. Brewster</b></p>	<p>Certificate 928</p>



**CITY OF BRISTOL, VIRGINIA**  
**Public Works Department**  
**Bristol, Virginia 24201**  
**G. Wallace McCulloch, City Engineer**  
wallace.mcculloch@bristolva.org



Street Maintenance Division  
2103 Shakesville Road  
Phone: (276) 645-7360  
FAX: (276) 645-7235

Engineering Division  
300 Lee Street  
Phone: (276) 645-7360  
FAX: (276) 645-7365

Collection Division  
2125 Shakesville Road  
Phone: (276) 645-7380  
FAX: (276) 645-3781

Disposal Division  
2125 Shakesville Road  
Phone: (276) 645-3791  
FAX: (276) 591-5237

## Memorandum

**Date:** September 19, 2014

**To:** File

**From:** G. Wallace McCulloch, P.E.

**Re:** Fire Department Training

---

### Comments:

The following is a summary of the Fire Department's training:

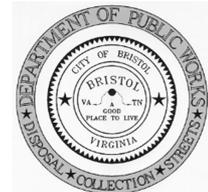
The Bristol, Virginia Fire Department maintains one of eight state-sponsored Hazardous Materials Response Teams. The team is under the direction of the Virginia Department of Emergency Management and can respond to spill emergencies within our designated response area.

Firefighters are certified in hazardous materials response and all personnel attend OSHA-required refresher training each quarter. In addition to this 32 hours of refresher training, a live drill is held with the full team each quarter. At this time, our roster includes (26) Hazmat Technicians and (4) Hazmat Specialists. All fire department personnel have completed the FEMA National Incident Management System 100-700 courses, as required.

Personnel receive training from Virginia Department of Fire Programs and Department of Emergency Management instructors. Other drills and training are presented by industry and equipment experts. Our department has an on-line training program that can access other outside sources for drills and certification needs.



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## Memorandum

**Date:** September 23, 2014

**To:** File

**From:** G. Wallace McCulloch, P.E.

**Re:** BMP Training

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**Comments:**

45 employees from Public Works completed a training class on Storm Water Pollution Prevention.

Engineering Division: 4 Employees 4/10/14

Streets Division: 21 Employees 2/26/14

Solid Waste Division: 20 Employees 2/26/14

**PESTICIDE APPLICATOR CERTIFICATE**

Issued	GOVT EMPLOYEE	Fee Paid	Certificate
09/11/2012	FOR BL# 5185	EXEMPT	88853-G
Expires			
06/30/2014			



Issued in accordance with application duly executed by the person shown below who has agreed to comply with all applicable laws, rules and regulations

MATTHEW S MEADE  
CITY OF BRISTOL CLEAR CREEK GOLF COURSE  
36801 PLUM CREEK RD  
GLADE SPRING, VA 24340

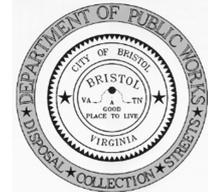


Matthew J. Lohr  
Commissioner

Liza J. Fleeson  
Authorized Representative



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## Memorandum

**Date:** September 22, 2014

**To:** File

**From:** G. Wallace McCulloch, P.E.

**Re:** Solid Waste Pickup

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**Comments:**

The following solid waste items were collected during the period of July 1, 2013 to June 30, 2014. These items were either taken to the landfill or to the mulch recycling facility.

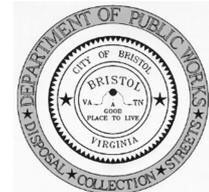
Street Sweepings: 144.5 Tons

Road Side Litter: 9.1 Tons

Grass, Leaves & Yard Waste: 402.5 Tons



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## Memorandum

**Date:** September 22, 2014

**To:** File

**From:** G. Wallace McCulloch, P.E.

**Re:** New Vac Truck Purchase

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**Comments:**

A large capacity, 2013 Vactor Model 2112 Sewer Cleaner was purchased in December of 2013 and placed into service in April 2014. This equipment is used for storm sewer cleaning and maintenance and has a 12 cubic yard capacity.