



# City of Harrisonburg, Virginia

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## MS4 Annual Report

Reporting Period: July 1, 2013 – June 30, 2014

Permit Number: VAR040075

In compliance with the Virginia Stormwater Management Program (VSMP)  
General Permit for Stormwater Discharges from Small Municipal Separate  
Storm Sewer Systems (MS4)





# MS4 Annual Report 2013-2014

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## I. Introduction

The City of Harrisonburg is an independent city located in the Shenandoah Valley of the Commonwealth of Virginia and is surrounded by Rockingham County. The City is an operator of a Small Municipal Separate Storm Sewer System (MS4). A *municipal separate storm sewer* means “a conveyance or system of conveyances otherwise known as a municipal separate storm sewer system, including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains:

1. Owned or operated by a federal, state, city, town, county, district, association, or other public body, created by or pursuant to state law, having jurisdiction or delegated authority for erosion and sediment control and stormwater management, or a designated and approved management agency under § 208 of the CWA that discharges to surface waters;
2. Designed or used for collecting or conveying stormwater;
3. That is not a combined sewer; and
4. That is not part of a publicly owned treatment works.”

The US Census in 2010 determined the City’s population to be 48,914, that the City is within an Urbanized Area, and thus subject to the General VPDES Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems, which became effective July 1, 2013 and will expire on June 30, 2018 when a new permit cycle is expected to become effective.

The MS4 Permit requires the City to develop and MS4 Program Plan and to submit Annual Reports (this document) for each period between July 1 through June 30. The City’s MS4 Program Plan and Annual Reports available on the City’s Stormwater webpages: <http://www.harrisonburgva.gov/stormwater-management-program>.

Additional information on the laws and regulations affecting the City and its operation of an MS4 can be found in:

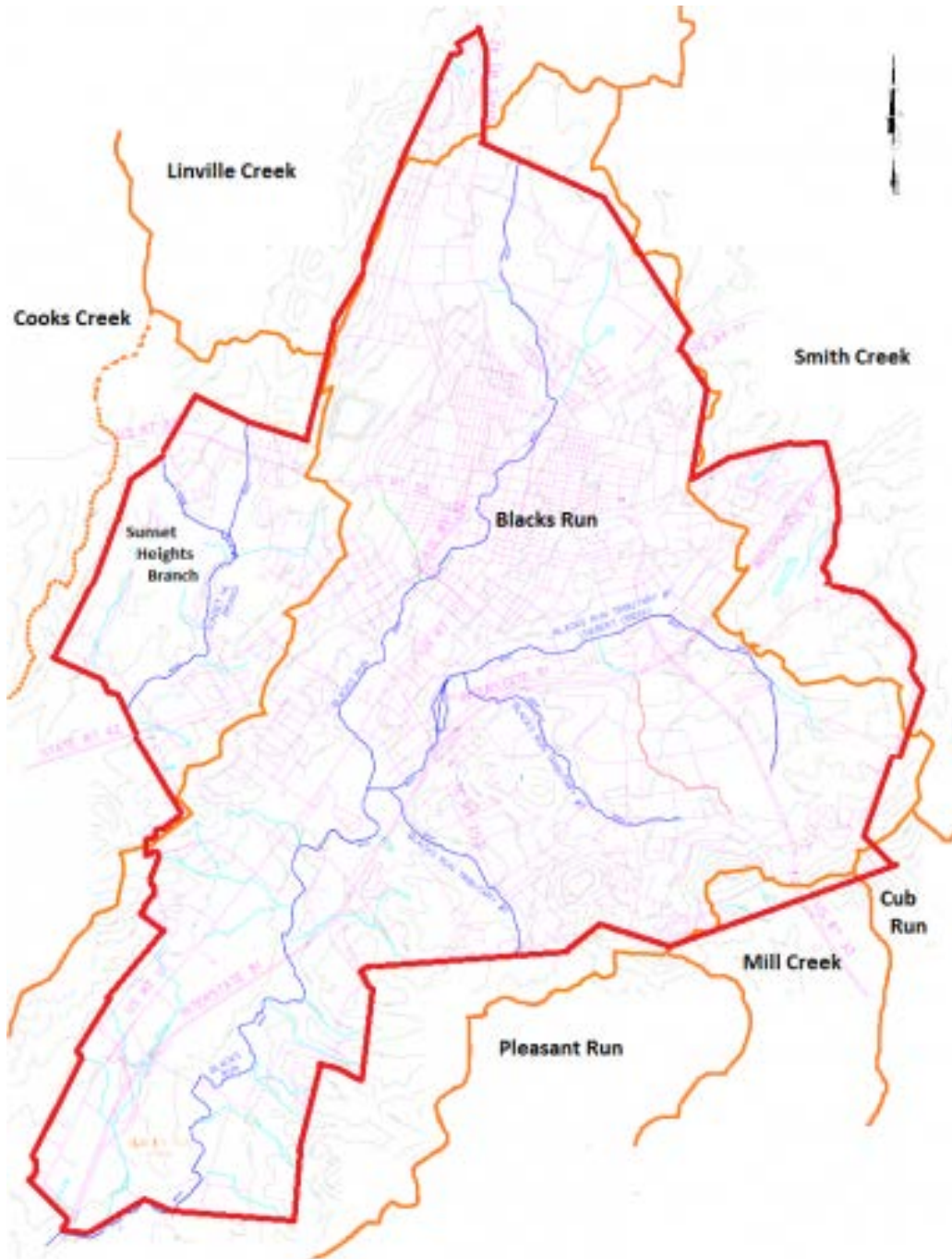
- Virginia Stormwater Management Act, Article 2.3 (§62.1-44.15-24 et seq.) of Chapter 3.1 of Title 62.1 of the Code of Virginia
- Virginia Administrative Code, 9VAC25-870, Virginia Stormwater Management Program (VSMP) Regulations
- Virginia Administrative Code, 9VAC25-890-40, General VPDES Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems
- Virginia Department of Environmental Quality, Municipal Separate Storm Sewer Systems, <http://www.deq.virginia.gov/Programs/Water/StormwaterManagement/VSMPPermits/MS4Permits.aspx>

## II. Watersheds

The City of Harrisonburg’s 17.4 square miles is highly urbanized with substantial amounts of impervious surface. The following table describes approximate stream length, drainage areas, and impairments for each watershed within Harrisonburg city limits.

**Table 1. Subwatersheds in Harrisonburg**

<b>Subwatershed Name</b>	<b>Hydrologic Unit Code (HUC)</b>	<b>Approximate Length (miles) within Harrisonburg</b>	<b>Approximate Drainage Area (acres)</b>	<b>Impairments</b>	<b>TMDL WLA?</b>
<b>Blacks Run</b> ( <i>flows into Cooks Creek</i> )	<b>PS22</b>	<b>8.67</b>	<b>9067</b>	<b>Fecal Coliform, Sediment, Total Phosphorus</b>	<b>No</b>
<b>Sunset Heights Branch of Cooks Creek</b>	<b>PS23</b>	<b>2.09</b>	<b>1347.58</b>	<b>Fecal Coliform, Sediment, Total Phosphorus</b>	<b>No</b>
<b>Dry Fork</b> ( <i>flows into Smith Creek</i> )	<b>PS59</b>	<b>0.206</b>	<b>493</b>	<b>E. Coli, Sediment</b>	<b>Yes, 2004</b>
<b>North River-Mill Creek</b>	<b>PS26</b>	<b>No stream</b>	<b>87.44</b>	<b>E. Coli</b>	<b>No</b>
<b>Cub Run</b> ( <i>flows into South Fork of Shenandoah River</i> )	<b>PS33</b>	<b>No stream</b>	<b>14.75</b>	<b>E. Coli</b>	<b>No</b>
<b>Linville Creek</b> ( <i>flows into North Fork of Shenandoah River</i> )	<b>PS56</b>	<b>0.08</b>	<b>117.8</b>	<b>E. Coli, Sediment</b>	<b>No</b>



**Figure 1. Subwatersheds in Harrisonburg.**

(Red line – Harrisonburg Boundaries; Orange line – Subwatershed Boundaries, Blue line - Streams)

The City of Harrisonburg also drains into the Chesapeake Bay Watershed. The Chesapeake Bay Watershed is 64,000 square miles and includes portions of New York, Pennsylvania, Delaware, Maryland, West Virginia, and Virginia. Altogether, more than 100,000 streams, creeks and rivers make up the Chesapeake Bay Watershed. As part of the Special Conditions for the Chesapeake Bay TMDL, the

MS4 Permit requires the City of Harrisonburg to address impairments for phosphorus, nitrogen, and sediment that enter the Chesapeake Bay.



Figure 2. Chesapeake Bay Watershed Map



### **III. Organizational Structure**

The City of Harrisonburg's Public Works Department coordinates the City's municipal separate storm sewer system (MS4) program. The Public Works Department's MS4 Program Coordinator is responsible for developing and updating the MS4 Program Plan and submitting Annual Reports. The City Manager is responsible for providing the appropriate certification for documents. The Department of Community Development, Department of Public Utilities, the Department of Parks and Recreation, Police Department and Fire Department are the major contributors to Harrisonburg's MS4 Program although it is recognized that this is a citywide and community-wide program.

For MS4 Permit coverage, Harrisonburg City Public Schools (HCPS) and Harrisonburg Electric Commission (HEC) are covered by the City of Harrisonburg's MS4 Permit and their responsibilities are referenced throughout the MS4 Program Plan and associated Annual Reports.

## IV. Contact Information

<b><u>Principal Executive Officer</u></b>	
Title:	City Manager
Name:	Kurt Hodgen
Address:	345 South Main Street Harrisonburg, Virginia 22801
Phone:	(540) 432-7701
Email:	<a href="mailto:Kurt.Hodgen@harrisonburgva.gov">Kurt.Hodgen@harrisonburgva.gov</a>

<b><u>Duly Authorized Representatives</u></b>	
Title:	MS4 Program Coordinator
Name:	Kelley Junco
Address:	320 East Mosby Road Harrisonburg, Virginia 22801
Phone:	(540) 434-5928
Email:	<a href="mailto:Kelley.Junco@harrisonburgva.gov">Kelley.Junco@harrisonburgva.gov</a>
Title:	Director of Public Works
Name:	James Baker
Address:	320 East Mosby Road Harrisonburg, Virginia 22801
Phone:	(540) 434-5928
Email:	<a href="mailto:Jim.Baker@harrisonburgva.gov">Jim.Baker@harrisonburgva.gov</a>

## V. MS4 Annual Report 2013-2014

The MS4 Annual Report details the City of Harrisonburg's stormwater program and its ability to manage the quality of stormwater runoff discharged from the MS4. This section of the MS4 Annual Report is categorized into the following six minimum control measures and special conditions for TMDLs:

1. Public education and outreach on stormwater impacts
2. Public involvement and participation
3. Illicit discharge detection and elimination
4. Construction site stormwater runoff control
5. Post-construction runoff control for development and redevelopment
6. Good housekeeping and pollution prevention for municipal operations
7. Virginia TMDL Special Conditions
8. Chesapeake Bay TMDL Special Conditions

Evaluations gathered while developing the 2013-2014 MS4 Annual Report will be considered during the annual review of the MS4 Program Plan. This MS4 Program Plan and subsequent annual reports from the five year cycle will remain on file in the Public Works Department and on Harrisonburg's stormwater webpage [www.harrisonburgva.gov/stormwater-management-program](http://www.harrisonburgva.gov/stormwater-management-program).

**A. Minimum Control Measure #1: Education & Outreach on Stormwater Impacts**

<b>BMP 1.1: Develop and Implement Education and Outreach Program</b>
<b>1.1.1 Description:</b> The City shall implement an education and outreach program as included in the registration statement until the program is updated to meet the conditions of this new permit.
<p><b>1.1.2 Annual Reporting Requirements:</b></p> <ul style="list-style-type: none"> <li>• A list of education and outreach activities conducted during the reporting period for each high-priority water quality issue, the estimated number of people reached, and the estimated percentage of the target audience or audiences that will be reached. (Year 2)</li> <li>• A list of 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 the estimated percentage of the target audience or audiences that will be reached.</li> </ul>
<p><b>1.1.3 Year 1 Response:</b></p> <ul style="list-style-type: none"> <li>• <b>Develop Education &amp; Outreach Plan</b> - An education and outreach plan for the 2014-2015 reporting period was developed during this reporting cycle, thus no education and outreach activities occurred according to the updated plan. Please see Appendix A for a plan of outlined issues which acts as the City of Harrisonburg’s education and outreach plan for the upcoming 2014-2015 reporting year.</li> <li>• <b>Food, Film &amp; Our Valley</b> – <i>Water Blues, Green Solutions</i> film, presentation on local water quality, and Q&amp;A session 6/24/2014</li> <li>• <b>Fishing Camp</b> – Stocked an old wastewater treatment pool with rainbow trout for youth camp participants. Fall 2013.</li> <li>• <b>Tree Stewards</b> - Weekly meetings to promote healthy urban and rural forests. Tree identification and planting field trips along with riparian buffer presentations. Fall 2013.</li> <li>• <b>Stormwater Utility Meetings:</b> To prepare citizens for a possible implementation of a stormwater utility fee, Public Works employees have met with focus groups to discuss stormwater, the Chesapeake Bay TMDL, and reasons why a stormwater utility fee is needed.</li> <li>• <b>Citizens Academy</b> Participants in the 2013 Citizens Academy learned about the stormwater management program administered in the City of Harrisonburg.</li> <li>• <a href="http://www.cleanstream.org">www.cleanstream.org</a> is a website dedicated to the City of Harrisonburg’s local waterways. Water Quality information is provided and information about upcoming events is posted.</li> <li>• The City of Harrisonburg’s MS4 Stormwater Management Program webpage is updated as new information becomes available. The website can be accessed at <a href="http://www.harrisonburgva.gov/stormwater-management-program">www.harrisonburgva.gov/stormwater-management-program</a>. It has been a source for local events and programs related to stormwater management and stream health.</li> </ul>

<b>Minimum Control Measure 1 Evaluation</b>
<b>Appropriateness of the identified BMPs</b> BMPs will be better identified upon implementation of the public education and outreach plan. BMPS will allow for diversified mechanisms of outreach to target audiences.
<b>Effectiveness of BMPs in addressing discharges into impaired waterways</b> Education through various means is an effective way to address discharges into impaired waterways. Many outreach forums also include education about local TMDLs.
<b>Progress towards achieving the identified measurable goals</b> The measurable goals set forth in the MS4 permit requirements are on track to be completed according to Table 1. See Appendix A.
<b>Modifications to any operator's department's roles and responsibilities</b> A new Stream Health Coordinator in the Parks and Recreation department and MS4 Program Coordinator in the Public Works department were hired at the completion of this reporting cycle to assist with MS4 permit requirements.
<b>Steps to be taken to address deficiencies</b> No deficiencies found. The education and outreach plan will be implemented next reporting year. Any deficiencies observed during the next reporting cycle will be properly addressed in the upcoming MS4 Annual Report.
<b>Plans for the next reporting cycle</b> Implementation of the education and outreach plan. See Appendix A.

## B. Minimum Control Measure #2: Public Involvement & Participation

<b>BMP 2.1: Availability of Program Plan &amp; Annual Reports</b>
<b>2.1.1 Description:</b> The City of Harrisonburg will review and, as needed, will update the MS4 Program Plan in conjunction with the Annual Report as required at a minimum of once a year. The City shall solicit public comment of the MS4 Program Plan prior to applying for coverage and address how comments were received on the MS4 Program Plan as part of the reapplication.
<b>2.1.2 Annual Reporting Requirements:</b> <ul style="list-style-type: none"> <li>• The City shall post copies of each MS4 Program Plan on the City website within 30 days of submittal of the Annual Report which is due October 1 of each year.</li> <li>• Post copies of each Annual Report to the City website within 30 days of submittal to the department and retain copies of annual reports online for the duration of this state permit.</li> </ul>
<b>2.1.3 Year 1 Response:</b> The City of Harrisonburg's MS4 Program Plan has been updated and can be found at the following web link: <a href="http://www.harrisonburgva.gov/MS4-permit-program">http://www.harrisonburgva.gov/MS4-permit-program</a>

<b>BMP 2.a: Public Participation Event #1- Blacks Run Clean-Up Day</b>
<b>2.2.1 Description:</b> The City of Harrisonburg will lead efforts to organize the Annual Blacks Run Clean-Up Day with participation from other local agencies and citizen volunteers. Clean Up Day consists of stream and street litter clean up and watershed education activities. The event typically brings in 300-400

volunteers annually. The website [www.cleanstream.org](http://www.cleanstream.org) has information on upcoming clean-up events.

**2.2.2 Annual Reporting Requirements:**

- Documentation of compliance with the public participation requirements of permit

**2.2.3 Year 1 Response: Blacks Run Clean-Up Day** The Blacks Run Clean-Up Day was held April 12<sup>th</sup>, 2014. Over 400 volunteers assisted in collecting 4,460 lbs of trash. Further documentation is available upon request.

**BMP 2.2b: Public Participation Event #2- Household Hazardous Waste Collection**

**2.3.1 Description:** The City of Harrisonburg makes available Household Hazardous Waste Collection (HHW) Days for City residents. The City of Harrisonburg will provide a used oil recycling program to residents. <http://www.harrisonburgva.gov/hazardous-waste-collection>

**2.3.2 Annual Reporting Requirements:**

- Documentation of compliance with the public participation requirements of permit

**2.3.3 Year 1 Response:** April 19<sup>th</sup>, 2014 & June 21<sup>st</sup>, 2014 Collected waste included aerosols, lamps, propane, insecticides, fertilizers, and paint-related materials.

**BMP 2.2c: Public Participation Event #3 - 6<sup>th</sup> and/or 7<sup>th</sup> Grade River Field Trips**

**2.4.1 Description:** The City of Harrisonburg will volunteer and participate in 6<sup>th</sup> and/or 7<sup>th</sup> grade river field trips organized and hosted by Harrisonburg City Public Schools. Representatives of the City will assist in educating students on various conservation and science topics.

**2.4.2 Annual Reporting Requirements:**

- Documentation of compliance with the public participation requirements of permit

**2.4.3 Year 1 Response:** The freshwater field trip occurred on June 3, 2014 with 7<sup>th</sup> graders from Harrisonburg City Public Schools.

Activities included:

- Watershed and water use lab
- Tree identification (Including presentation on stormwater impacts)
- Macro-invertebrates lab
- Fish shock and Fish Identification

Further documentation is available upon request.

<b>BMP 2.2d: Public Participation Event #4 – Rain Barrel Workshops</b>
<b>2.5.1 Description:</b> The City of Harrisonburg will host rain barrel workshops at which citizens will view a basic stormwater presentation and build their own rain barrels.
<b>2.5.2 Annual Reporting Requirements:</b> <ul style="list-style-type: none"> <li>• Documentation of compliance with the public participation requirements of permit</li> </ul>
<b>2.5.3 Year 1 Response:</b> Rain barrel workshops occurred on May 27, 2014 and May 29, 2014. There were 23 total participants, and 54 rain barrels constructed and distributed. Further documentation is available upon request.

<b>Minimum Control Measure 2 Evaluation</b>
<b>Appropriateness of the identified BMPs</b> The identified BMPs for MCM2 address the public participation requirements of the permit and are therefore deemed appropriate.
<b>Effectiveness of BMPs in addressing discharges into impaired waterways</b> Each participation event encourages citizen involvement with pollution prevention and is therefore effective in addressing discharges into impaired waterways.
<b>Progress towards achieving the identified measurable goals</b> The measurable goals set forth in the MS4 permit requirements have been achieved for this minimum control measure.
<b>Modifications to any operator’s department’s roles and responsibilities</b> A new Stream Health Coordinator in the Parks and Recreation department and MS4 Program Coordinator in the Public Works department were hired this reporting cycle to assist with MS4 permit requirements, including the planning and implementation of public involvement events.
<b>Steps to be taken to address deficiencies</b> No deficiencies found at this time.
<b>Plans for the next reporting cycle</b> .The MS4 Program Coordinator will ensure that four (4) activities are identified, and that a responsible lead is identified for each activity.

**C. Minimum Control Measure #3: Illicit Discharge Detection and Elimination**

<b>BMP 3.1: Storm Drain System, Outfalls, and Information Map</b>
<b>3.1.1 Description:</b> The City of Harrisonburg will maintain an updated map of the City’s MS4 system mapped by Geographic Information Systems (GIS).
<b>3.1.2 Annual Reporting Requirements:</b> <ul style="list-style-type: none"> <li>• None. Data to be made available upon request from VA DEQ.</li> </ul>

<b>BMP 3.2 Notification of Regulated Downstream MS4</b>
<b>3.2.1 Description:</b> The City of Harrisonburg will notify, in writing, any downstream regulated MS4 to which the small regulated MS4 is physically interconnected.
<b>3.2.2 Annual Reporting Requirements:</b> <ul style="list-style-type: none"> <li>• A list of written notifications of physical interconnection given by City to other MS4s.</li> </ul>
<b>3.2.3 Year 1 Response:</b> Interconnection letters were sent to the Stormwater Program Administrator with the Virginia Department of Transportation and the Stormwater Coordinator with James Madison University on June 24, 2014. Further documentation is available upon request.

<b>BMP 3.3: Illicit Discharges &amp; Connections Ordinance</b>
<b>3.3.1 Description:</b> The City of Harrisonburg shall effectively prohibit nonstormwater discharges into the storm sewer system using its Illicit Discharges and Connections ordinance. The ordinance can be found in City Code Title 7, Chapter 6 at <a href="http://www.harrisonburgva.gov/code">http://www.harrisonburgva.gov/code</a> .
<b>3.3.2 Annual Reporting Requirements:</b> <ul style="list-style-type: none"> <li>• None, unless the ordinance is adopted or amended.</li> </ul>
<b>3.3.3 Year 1 Response:</b> On June 24, 2014, City Council adopted and enacted an ordinance; Title 7, Chapter 6 “Illicit Discharges and Connections”

<b>BMP 3.4: Implement and Update Procedures to Detect &amp; Eliminate Illicit Discharges</b>
<b>3.4.1 Description:</b> The City of Harrisonburg shall implement and update written procedures to detect, identify, and address unauthorized nonstormwater discharges to the MS4. Procedures will be utilized in the investigation and follow-up of a potential illicit discharge.
<b>3.4.2 Annual Reporting Requirements:</b> <ul style="list-style-type: none"> <li>• A summary of each investigation conducted by the operator of any suspected illicit discharge. The summary must include (i) the date that the suspected discharge was observed, reported, or both, (ii) how the investigation was resolved, including any follow-up, and (iii) resolution of the investigation, and the date the investigation was closed.</li> </ul>
<b>3.4.3 Year 1 Response:</b> See Appendix C for the illicit discharge response procedure. In addition to the following illicit discharge summary, 39 calls were responded to by the City of Harrisonburg Fire Department that related to chemical spills or leaks and combustible liquid/flammable gas/liquid. Each year the Harrisonburg Fire Department receives 24 hours of Hazardous Materials Training, which includes 7 hours of tactical control, including spill and leak control. See Appendix E for more information about City



of Harrisonburg training information.

Illicit Discharge Summary 2013-2014				
Incident Date	Report Date	Date Closed	Incident Narrative	Resolutions/Conclusion
7/12/13	7/16/13	7/16/13	Sanitary sewer overflow.	Public Utility Staff determined no additional cleanup needed. DEQ notified 7/16/13.
8/1/2013	8/1/13	N/A	High turbidity in stream and a sewage smell.	Could not locate positive source.
10/23/13	10/23/13	10/30/13	Evidence of washwater,suds, etc.	Follow-Up observations. No evidence found.
11/20/13	11/20/13	N/A	Oil/solvents/chemicals; Oil dripping into storm drain/down driveway.	No evidence of dumping found upon investigation.
11/30/13	12/3/13	12/2/13	Sewage spill from manhole.	No evidence remaining of sewer spill. DEQ notified 12/3/13.
1/27/14	1/28/14	1/27/14	Sanitary sewer overflow – personnel investigated for blockages and flushed the downstream line.	No additional actions recognized that could be performed. DEQ notified 1/28/14.
2/4/14	2/4/14	2/4/14	Sudsy foam on top of water with orange tint. Suspect orange tint is from sediment/clays attaching to foam during sump pump activities.	Visited site. Could not locate positive source. Possibly combination of basement sumps, roadways, parking lots.
2/6/14	2/6/14	N/A	Washwater, suds, etc; Oil/solvents/chemicals; Other; Concrete on bank is crossing fence line into Purcell Park. Oil and other chemicals are collecting above bank and flowing down concrete bank into park.	Follow-Up 2/25, 3/04, and, 3/06. Public Works recommended formal notification to the site (1610 South Main) due to the frequency of violations.
3/20/14	3/2/14	4/25/14	Large quantity of poultry offal spilled into road and in/around storm drain.	Pilgrim's Pride, George's, and Mountain Milk have developed a coordinated plan to avoid this issue in the future.
5/5/14	5/5/14	N/A	High turbidity of stream, cloudy water, and a sewage smell.	Unable to locate point source. It is possible that someone may have rinsed a paintbrush or dumped some paint in the stream.

**BMP 3.5: Outfall Reconnaissance Inventory**

**3.5.1 Description:** The City of Harrisonburg will inspect a minimum of 50 outfalls annually as a part of pollution prevention field screenings

**3.5.2 Annual Reporting Requirements:**

- Total number of outfalls screened during the reporting period, the screening results, and detail of any follow-up actions necessitated by the screening results.

**3.5.3 Year 1 Response:**

See Appendix B for the dry screening and outfall inventory standard operating procedure. 52 outfalls were inspected during the 2013-2014 reporting period, and no follow-up actions were considered necessary. No new outfalls were added to the

**BMP 3.6: Promotion and Facilitation of Public Reporting of Illicit Discharges**

**3.6.1 Description:** The City of Harrisonburg shall operate and promote an online pollution reporting form for citizens to report illicit discharges. Citizens may also call Public Works Department at 540-434-5928 to report or call 9-1-1 in cases of emergency. <http://www.harrisonburgva.gov/report-pollution>

**3.6.2 Annual Reporting Requirements:**

- None.

**Minimum Control Measure 3 Evaluation**

**Appropriateness of the identified BMPs** All identified BMPs address MCM4 permit requirements and are therefore deemed appropriate.

**Effectiveness of BMPs in addressing discharges into impaired waterways** The aforementioned techniques are used to prevent non-stormwater discharges into the storm sewer system. Therefore, these BMPs are very effective in addressing water quality and quantity of stormwater discharges.

**Progress towards achieving the identified measurable goals** The measurable goals set forth in the MS4 permit requirements have been achieved for this minimum control measure.

**Modifications to any operator's department's roles and responsibilities** A new Stream Health Coordinator in the Parks and Recreation department and MS4 Program Coordinator in the Public Works department were hired this reporting cycle to assist with MS4 permit requirements, including the investigation and mitigation of illicit discharges.

**Steps to be taken to address deficiencies** The City will work to increase illicit discharge documentation for Fire Department chemical/oil spill responses.

**Plans for the next reporting cycle** The City will continue to implement its Illicit discharge and detection program with increased illicit discharge documentation and mapping, and dissemination of illicit discharge reporting information to the general public.

**D. Minimum Control Measure #4: Construction Site Stormwater Runoff Control**

**BMP 4.1: Ordinance and Other Legal Authorities to Require Erosion & Sediment Controls**

**4.1.1 Description:** The City of Harrisonburg will implement its ordinance and legal authorities to require erosion and sediment controls on construction sites that disturb 10,000 square feet or greater. Legal

authorities include:

- Section 10-4 of the City Code describes the Erosion and Sediment Control Ordinance.
- City's Subdivision and Zoning Ordinance
- Design & Construction Standards Manual
- References from above ordinances and documents to the "Virginia Erosion and Sediment Control Regulations" and the Virginia Erosion & Sediment Control Handbook

Additional information about the City's erosion and sediment control program can be found at: <http://www.harrisonburgva.gov/site-development>. (Note: The City of Harrisonburg utilizes an agreement in lieu of a plan for the construction of single-family residences as provided in §62.1-44.15:55.)

The City requires that land disturbance not begin until and erosion and sediment control plan or an agreement in lieu of a plan is approved by the City.

**4.1.2 Annual Reporting Requirements:**

- None, unless ordinance or procedures are amended.

**BMP 4.2: Inspections and Tracking of Land Disturbance Activities**

**4.2.1 Description:**

City Inspectors will inspect land-disturbing activities for compliance with an approved erosion and sediment control plan or agreement in lieu of a plan in accordance with minimum standards. The inspection schedule for land-disturbing activities will be developed by the Site Development Technician and provided to City Inspectors.

Inspections shall take place (a) upon initial installation of erosion and sediment controls, (b) at least once during every two week period; (c) within 48 hours of any runoff producing storm event; and (d) upon completion of the project and prior to the release of any applicable performance bonds.

The City shall also:

- Utilize legal authority to require compliance with an approved plan when an inspection finds that the approved plan is not being properly implemented.
- Utilize, as appropriate, legal authority to require changes to an approved plan when an inspection finds that the approved plan is inadequate to effectively control soil erosion, sediment deposition, and runoff to prevent the unreasonable degradation of properties, stream channels, waters, and other natural resources.

The City shall ensure that inspections are conducted by personnel who hold a certificate of competence in accordance with 9VAC25-850-40.

**4.2.2 Annual Reporting Requirements:**

- Total number of land disturbing activities,
- Total number of acres disturbed,
- Total number of inspections conducted, and
- A summary of enforcement actions taken including total number and type of enforcement actions taken during reporting period.

**4.2.3 Year 1 Response:**

*Total Number of Regulated Land-Disturbing Activities: 47*

*Total Number of Acres Disturbed: 182.61 acres*

*Total Number of Inspections Conducted: 1,149*

*Summary of Enforcement Actions Taken: 51 potential (no official enforcement action)*

During the 2013-2014 reporting period 1,149 land disturbing activity inspections were conducted. Of the 1,149 inspections, 51 potential violations were noted. The findings and corrective measures were noted in the inspection files and either discussed on site, or emails or written letters were sent to the property owners or RLDs. Of the 51 potential violations, 4 Notice to Comply letters were sent to the property owners or RLDs. All potential violations were resolved in a timely manner without the need for further enforcement actions.

**BMP 4.3: Mechanism for Receipt of Complaints Regarding Regulated Land Disturbance Activities**

**4.3.1 Description:** The City of Harrisonburg promotes reporting of construction site issues through contact with the public at public outreach and education events (as described in MCM 1 and 2) and also promotes reporting through its website at: <http://www.harrisonburgva.gov/site-development> and <http://www.harrisonburgva.gov/report-pollution>. Calls are received by the Department of Public Works and Department of Planning & Community Development and routed to the Chief Construction Inspector.

**4.3.2 Annual Reporting Requirements:**

- None.

**Minimum Control Measure 4 Evaluation**

**Appropriateness of the identified BMPs** All identified BMPs address MCM4 permit requirements and are therefore deemed appropriate.

**Effectiveness of BMPs in addressing discharges into impaired waterways** Since sediment is considered a pollutant of concern for local waterways, the inspection of land-disturbing activities is effective in addressing discharges into impaired waterways.

<p><b>Progress towards achieving the identified measurable goals</b> ESC inspection reports have been revised to include a pollution prevention checklist to address controls to prevent non-stormwater discharges into the MS4.</p>
<p><b>Modifications to any operator’s department’s roles and responsibilities</b> As required by the new permit, inspectors will address controls to prevent non-stormwater discharges to the MS4 during ESC inspections (performed on a bi-weekly basis).</p>
<p><b>Steps to be taken to address deficiencies</b> No deficiencies were found at this time.</p>
<p><b>Plans for the next reporting cycle</b> The City of Harrisonburg will continue to implement its construction site stormwater runoff control inspection frequency.</p>

**E. Minimum Control Measure #5: Post-Construction Stormwater Management**

<p><b>BMP 5.1: Ordinance and Other Legal Authorities to Address Post-Construction Runoff</b></p>
<p><b>5.1.1 Description:</b> The City of Harrisonburg will implement its ordinance to address post-construction runoff from new development and redevelopment projects to ensure compliance with the Virginia Stormwater Management Act and attendant regulations. Legal authorities include:</p> <ul style="list-style-type: none"> <li>• Section 10-7 of the City Code describes the Stormwater Management Ordinance</li> <li>• Section 10-2 of the City Code describes the Subdivision Ordinance</li> <li>• Design &amp; Construction Standards Manual</li> </ul> <p>Additional information about the City’s stormwater management program can be found at: <a href="http://www.harrisonburgva.gov/site-development">http://www.harrisonburgva.gov/site-development</a>.</p>
<p><b>5.1.2 Annual Reporting Requirements:</b></p> <ul style="list-style-type: none"> <li>• None, unless ordinance or procedures are amended.</li> </ul>

<p><b>BMP 5.2: Develop and Implement Policies and Procedures to Address Post-Construction Runoff</b></p>
<p><b>5.2.1 Description:</b> Develop and implement written policies and procedures to address post-construction runoff from privately owned sites and city owned sites. Procedures should address inspection, operation, and maintenance of stormwater management facilities.</p>
<p><b>5.2.2 Annual Reporting Requirements:</b></p> <ul style="list-style-type: none"> <li>• None, unless procedures are amended.</li> </ul>

**BMP 5.3: Require Long-Term O&M of Stormwater Management Facilities Not Owned by the City**

**5.3.1 Description:** The city shall require adequate long-term operation and maintenance of stormwater management facilities by the owner by requiring the owner to develop a recorded inspection schedule and maintenance agreement.

The City provides developers with a template maintenance agreement in the Design and Construction Standards Manual Appendix I and also provides resources, such as a BMP Maintenance and Inspection Checklist. Links to these documents are available at <http://www.harrisonburgva.gov/site-development>. The maintenance agreement and the city's Stormwater BMP Post-Construction Inspection Policy (Design & Construction Standards Manual; Appendix J) requires that the owner submit to the city an inspection report every five years to assure safe and proper functioning of the facilities. The inspection report must be completed by a professional engineer.

Inspection forms for each type of BMP will be those included in the 2013 Virginia Stormwater Management Handbook; Appendix 9E.

If maintenance is neglected by the owner, the maintenance agreement allows the city, after property notice is provided, to enter upon the property and take whatever steps necessary to correct deficiencies and charge the costs of such repairs to the owner.

**5.3.2 Annual Reporting Requirements:**

- None, unless procedures are amended.

**5.3.3 Year 1 Response:** There are 23 privately-owned stormwater management facilities in the City of Harrisonburg that treat approximately 36 acres. These 23 facilities also have long-term maintenance agreements. Further information is available upon request.

**BMP 5.4: Require Long-Term O&M of Stormwater Management Facilities Owned by the City**

**5.4.1 Description:** The city shall require adequate long-term operation and maintenance of stormwater management facilities owned by the City. City Inspectors inspect stormwater management facilities annually, generally in the Fall, and inform city departments responsible for the stormwater management facilities of any deficiencies found.

City departments are responsible for maintaining stormwater management facilities on properties they manage unless an alternative agreement with another city department has been established.

**5.4.2 Annual Reporting Requirements:**

- None, unless procedures are amended.

**5.4.3 Year 1 Response:** There are 31 city-owned stormwater management facilities in the City of Harrisonburg that treat approximately 365.85 acres. The long-term operation and maintenance of these facilities is managed through the City. The City was allowed 12 months after permit coverage to develop operator-owned stormwater management inspection procedures which are provided in Appendix D. Further information is available upon request.

**BMP 5.5: Track Stormwater Management Facilities**

**5.5.1 Description:** The City shall maintain an updated electronic database of all known operator-owned and privately-owned stormwater management facilities that discharge into the MS4. The database shall include:

- (a) The stormwater management facility type;
- (b) A general description of the facility’s location, including the address or latitude or longitude;
- (c) The acres treated by the facility, including total acres, as well as the breakdown of pervious and impervious acres;
- (d) The date the facility was brought online (MM/YYYY).If the date is not known, the City shall use June 30, 2005, as the date brought online for all previously existing stormwater management facilities;
- (e) The sixth order hydrologic unit code (HUC) in which the stormwater management facility is located;
- (f) The name of any impaired water segments within each HUC listed in the 2010 § 305 (b)/ 303 (d) Water Quality Assessment Integrated Report to which the stormwater management facility discharges;
- (g) Whether the stormwater management facility is operator-owned or privately owned;
- (h) Whether a maintenance agreement exists if the stormwater management facility is privately owned; and
- (i) The date of the operator’s most recent inspection of the stormwater management facility.

**5.5.2 Annual Report Requirements:**

- Track and report the total number of inspections completed and, when applicable, the number of enforcement actions taken to ensure long-term maintenance.
- A submittal of an electronic database or spreadsheet of all stormwater management facilities brought online during each reporting year with the appropriate annual report.

**5.5.3 Year 1 Response:** During this reporting period, July 1, 2013-June 20, 2014, there were 7 inspections and there were 0 enforcement actions for privately owned stormwater management facilities. The permit allowed the City 12 months after permit coverage to develop operator-owned stormwater management inspection procedures. See Appendix D for inspection procedures for city-owned stormwater management facilities. The following table shows the 10 new stormwater management facilities brought online during the 2013-2014 reporting year.

Project Type	Project/Facility Name	Unit Code	BMP Type	Acres Treated
Agreement	7-11 Store #36748	PS22 - Blacks Run	3.15 Manufactured BMP System	1.3
Agreement	Hillmont Apartments	PS22 - Blacks Run	3.08 Detention Basin	3.93
Agreement	PCA 2011 Addition	PS22 - Blacks Run	3.11 Bio-Retention	0.35
Agreement	PCA 2011 Addition	PS22 - Blacks Run	3.11 Bio-Retention	0.37
Agreement	PCA 2011 Addition	PS22 - Blacks Run	3.11 Bio-Retention	0.44
Agreement	Quaker Steak and Lube	PS22 - Blacks Run	3.11 Bio-Retention	1.86
Agreement	VMRC Green Houses Phase 1	PS22 - Blacks Run	3.08 Detention Basin	10.89
Municipal	HEC - Smithland Road	PS22 - Blacks Run	3.14 Vegetated Filter Strip	2.8
Municipal	HEC - Smithland Road	PS22 - Blacks Run	3.08 Detention Basin	2.8
Private	AMVETS	PS22 - Blacks Run	3.08 Detention Basin	0.88

Minimum Control Measure 5 Evaluation	
<b>Appropriateness of the identified BMPs</b>	All identified BMPs address MCM5 permit requirements and are therefore deemed appropriate.
<b>Effectiveness of BMPs in addressing discharges into impaired waterways</b>	These permit-required BMPs are effective in addressing water quality and quantity of stormwater discharges since that is the purpose of well-maintained post-construction facilities.
<b>Progress towards achieving the identified measurable goals</b>	The measurable goals set forth in the MS4 permit requirements have been achieved for this minimum control measure.
<b>Modifications to any operator's department's roles and responsibilities</b>	A new Stream Health Coordinator in the Parks and Recreation department and MS4 Program Coordinator in the Public Works department were hired this reporting cycle to assist with MS4 permit requirements, including the tracking and potential maintenance of post-construction stormwater management facilities.
<b>Steps to be taken to address deficiencies</b>	There are remaining private facilities that do not hold long-term maintenance agreements – the City will work with land owners to obtain additional agreements.
<b>Plans for the next reporting cycle</b>	The City of Harrisonburg will continue to implement its post-construction stormwater management facility O&M program.

**F. Minimum Control Measure #6: Pollution Prevention/Good Housekeeping**

BMP 6.1: Develop Operational Procedures to Minimize or Prevent Nonstormwater Discharges
<b>6.1.1 Description:</b> The City of Harrisonburg and its departments shall develop and implement written procedures for daily operations designed to minimize or prevent discharges. Procedures shall be written



for: daily road, street, and parking lot maintenance, equipment maintenance, and pesticide, herbicide, and fertilizer application, storage and transport.

**6.1.2 Annual Reporting Requirements:**

- A summary report on the development and implementation of daily operational procedures.

**6.1.3 Year 1 Response:** The City of Harrisonburg is currently developing daily operational procedures. These procedures shall be completed by the end of Year 2 and will be reported in the 2014-2015 MS4 Annual Report submission.

**BMP 6.2: Identification of High-Priority & High Priority - High Potential Municipal Facilities**

**6.2.1 Description:** The City of Harrisonburg identified all municipal high-priority facilities and municipal high-priority facilities with a high potential for pollutant discharges during the year 2013-2014. The City shall continue to update this list as new facilities are created or as existing facilities are modified or updated.

**6.2.2 Annual Reporting Requirements:**

- Update list of High Priority Facilities if there are changes.
- Report on activities.

**6.2.3 Year 1 Response:**

The City was allowed 12 months after permit coverage to identify those facilities that have a high priority-high potential for stormwater pollution. During this reporting period, 2013-2014, the following facilities were identified:

**High Priority Facilities With A High Potential for Pollutant Discharges:**

- Park View Shops, 901 Chicago Avenue
- Public Utilities and Central Stores Property, 2111 and 2155 Beery Road
- Public Works Administration Building & Recycling Facility, 320 East Mosby Road

**BMP 6.3: SWPPP Development for High Priority - High Potential Facilities**

**6.3.1 Description:** The City of Harrisonburg shall develop and implement site-specific Stormwater Pollution Prevention Plans (SWPPPs) for identified high priority facilities with a high potential for discharging pollutants. Any facilities covered under a separate VPDES permit shall be excluded from this requirement. Each SWPPP shall be evaluated and updated as necessary to reflect any discharge, release or spill from the facility. A copy of each SWPPP shall be kept and updated and utilized as part of staff training.

**6.3.2 Annual Reporting Requirements:**

- A summary report on the development and implementation of the required SWPPPs.

**6.3.3 Year 1 Response:** The City was allowed 12 months after permit coverage to identify those facilities that have a high priority-high potential for stormwater pollution for which SWPPPs would be required. The list of facilities is provided in Section 6.2.3. The City will begin developing SWPPPs for these facilities in Year 2 and will be completed with SWPPP development by end of Year 4.

**BMP 6.4: Implement Turf and Landscape Nutrient Management Plans**

**6.4.1 Description:** The City of Harrisonburg shall implement turf and landscape nutrient management plans developed by a certified nutrient management planner on all lands owned or operated by the City where nutrients are applied to a contiguous area greater than one acre.

**6.4.2 Annual Reporting Requirements:**

- A summary report on the development and implementation of the turf and landscape nutrient management plans that include:
  - The total acreage of lands where turf and landscape nutrient management plans are required;
  - The acreage of lands upon which turf and landscape nutrient management plans have been implemented; and
- Updated list properties with longitude/latitude if changes.

**6.4.3 Year 1 Response:** The City of Harrisonburg has identified six lands which require Nutrient Management Plans. The Plans shall be developed in accordance with the schedule found in the MS4 Program Plan.

- Acreage of land where plans are required:
- Acreage of land where plans have been implemented: **21 acres**

Facilities Requiring Nutrient Management Plans:

1. Harrisonburg High School - 38°26'30"N, 78°54'37"W – ~2 acres
2. Smithland Park - 38°26'55"N, 78°50'02"W – 5 acres, 2.5 acres, 2.5 acres
3. Purcell Park - 38°25'33"N, 78°52'53"W – 1 acre, 4 acres
4. Simms Field - 38°27'15"N, 78°51'30"W – 1.6 acres
5. Ramblewood Fields - 38°24'44"N, 78°53'13"W – 3.6 acres
6. Stone Spring Elementary- 38°24'55.98"N, 78°52'29.38"W – 2 acres

Facilities With a Current Nutrient Management Plan:

1. Heritage Oaks Golf Course - 38°26'49.97"N, 78°54'15.82"W – 21 acres

<b>BMP 6.5: Implement Employee Training On Written Procedures to Minimize or Prevent Discharges</b>
<b>6.5.1 Description:</b> The City of Harrisonburg shall conduct stormwater training for municipal employees. Training shall be designed specifically for different departments and their duties and daily operations and how it relates to stormwater management. The City shall document training activities, employees in attendance, and other applicable information.
<b>6.5.2 Annual Reporting Requirements:</b> <ul style="list-style-type: none"> <li>• A summary report of the required training, including a list of training events, the training date, the number of employees attending the training and the objective of the training.</li> </ul>
<b>6.5.3 Year 1 Response:</b> The City of Harrisonburg is planning training events for municipal employees to take place throughout years 2-5. These events will be held according to the schedule and program plan found in Appendix E of this document.

<b>BMP 6.6: Require Municipal Contractors Use Appropriate Control Measures and Procedures for Stormwater Discharges to the MS4 System</b>
<b>6.6.1 Description:</b> The City of Harrisonburg shall require that municipal contractors use appropriate control measure and procedures for stormwater discharges to the MS4 system.
<b>6.6.2 Annual Reporting Requirements:</b> <ul style="list-style-type: none"> <li>• Report on activities to develop procedures.</li> </ul>
<b>6.6.3 Year 1 Response:</b> Public Works staff is working with the Purchasing Department to place requirements that municipal contractor use appropriate control measures into the City’s “General Terms and Conditions” which are included in all city contract documents. This will also be included as part of training for appropriate city staff.

<b>Minimum Control Measure 6 Evaluation</b>
<b>Appropriateness of the identified BMPs</b> All identified BMPs address MCM6 permit requirements and are therefore deemed appropriate.
<b>Effectiveness of BMPs in addressing discharges into impaired waterways</b> In developing operating procedures, NMPs, and SWPPPs, personnel, and those interacting with potential pollutants, will be better informed about stormwater management.
<b>Progress towards achieving the identified measurable goals</b> The measurable goals set forth in the MS4 permit requirements are on track to be completed according to Table 1.

<p><b>Modifications to any operator's department's roles and responsibilities</b> A new Stream Health Coordinator in the Parks and Recreation department and MS4 Program Coordinator in the Public Works department were hired at the completion of this reporting cycle to assist with MS4 permit requirements, including implementing good housekeeping techniques, developing pollution prevention strategies, and developing municipal procedures.</p>
<p><b>Steps to be taken to address deficiencies</b> The training program is becoming further organized as the stormwater management team receive additional information from municipal departments.</p>
<p><b>Plans for the next reporting cycle</b> Good housekeeping procedures will be developed and formatted according to existing departmental standards operating procedures and according to an analysis of daily operations at the identified high priority-high potential facilities. See Appendix E for more information.</p>

## G. Evaluation and Assessment

<p><b>Section E. (2) Recordkeeping</b></p>
<p><b>Description:</b> The City of Harrisonburg shall submit annual reports for each reporting period of July 1 through June 30 to the Department of Environmental Quality (DEQ).</p>
<p><b>Annual Reporting Requirements:</b></p> <ul style="list-style-type: none"> <li>• Background Information</li> <li>• The status of compliance with state permit conditions, an assessment of the appropriateness of the identified measurable goals for each of the minimum control measures and progress towards achieving the identified measurable goals for each of the minimum control measures;</li> <li>• Results of information collected and analyzed;</li> <li>• A summary of the stormwater activities the operator plans to undertake during the next reporting cycle;</li> <li>• A change in any identified BMPs or measurable goals, including steps to be taken to address deficiencies;</li> <li>• Notice that the operator is relying on another government entity to satisfy some of the state permit obligations (if applicable);</li> <li>• The approval status of any programs pursuant to Section II C (if appropriate), or the progress of achieving full approval of these programs; and</li> <li>• Information required for any applicable TMDL special condition contained in Section I.</li> </ul>
<p><b>Year 1 Response:</b></p> <ul style="list-style-type: none"> <li>• No new outfalls were added during this permit year.</li> <li>• Assessment of appropriateness of measurable goals, changes to identified BMPs (including steps to address deficiencies), modifications to roles and responsibilities, and activities for the next reporting cycle are outlined after each minimum control measure throughout this Annual Report.</li> <li>• No monitoring data was collected during the reporting period.</li> <li>• The City of Harrisonburg does not rely on any other government entities to satisfy state permit obligations.</li> <li>• The City of Harrisonburg's Community Development Department has received provisional approval from DEQ for the City of Harrisonburg's Virginia Stormwater Management Program</li> </ul>

(VSMP). City Council must approve a finalized Stormwater Management ordinance (reflecting DEQ-required revisions) before the City of Harrisonburg can secure final DEQ approval of the VSMP. See Appendix F.

- Please see the following section (Section H) for information about TMDL special conditions.

## H. Virginia Total Maximum Daily Load (TMDL) Special Conditions

TMDL Special Conditions
<p><b>Description:</b> The City will work on developing TMDL Action Plans during the first two years (2013-2014 and 2014-2015) of this permit cycle to address pollutants which the City’s MS4 has been assigned a wasteload allocation. Refer to Table 1. Subwatersheds in Harrisonburg</p>
<p><b>Annual Reporting Requirements:</b></p> <ul style="list-style-type: none"> <li>• The City will implement its TMDL Action Plan and submit progress reports in its MS4 Annual Report in accordance with the permit requirements.</li> </ul>
<p><b>Year 1 Response:</b></p> <p><b>TMDL Action Plan:</b> The City of Harrisonburg is currently developing TMDL Action Plan for approved TMDLs and will have them prepared October 1, 2015 as set forth in Table 1.</p> <p><b>Implementation of TMDL Action Plans:</b> TMDL Action Plans are currently in development, thus no implementation has occurred.</p>

## I. Chesapeake Bay Total Maximum Daily Load (TMDL) Special Conditions

Chesapeake Bay TMDL Special Conditions
<p><b>Description:</b> The City will work on developing the Chesapeake Bay TMDL Action Plan during the first two years of this permit cycle in accordance with the permit requirements. The Chesapeake Bay TMDL Action Plan will be submitted to the Virginia Department of Environmental Quality with the July 1, 2014 through June 30, 2015 MS4 Annual Report.</p>
<p><b>Annual Reporting Requirements:</b></p> <p>Once the Chesapeake Bay TMDL Action Plan is developed, each subsequent annual report shall include:</p> <ul style="list-style-type: none"> <li>• A list of control measures implemented during the reporting period and cumulative progress toward meeting the compliance targets for nitrogen, phosphorus, and total suspended solids</li> <li>• A list of control measures, in electronic format provided by the department, that were implemented during the reporting cycle and the estimated reduction achieved by the control. For</li> </ul>

stormwater management controls, the report shall include information required in Section II B 5 e and whether the existing stormwater management control was retrofitted, and if so, the existing stormwater management control type retrofit used.

- A list of control measures that are expected to implemented during the next reporting period and the expected progress toward meeting the compliance targets

***Year 1 Response:***

***TMDL Action Plan:*** The City of Harrisonburg is currently developing TMDL Action Plan and will have them prepared October 1, 2015 as set forth in Table 1.

***List of Control Measures Implemented During the Reporting Period:*** The City of Harrisonburg is currently developing plans for new control measures to implement.

***Estimate Reduction Achieved by Each Control:*** This section is in progress. No estimated reductions are available to report.

***List of Control Measures Expected to be Implemented During Next Reporting Period:*** Control measures are currently in development.

**Appendix A: Public Education and Outreach Plan**

# Public Education and Outreach Plan (2014-2015)

*Issue 1: Downtown Restaurants' Waste Management*

**1.1 Appropriateness of Issue:**

Due to the high number of restaurants located in Harrisonburg's Downtown District, their close proximity to Blacks Run, and the generally small size and limited space for waste management facilities, this issue was chosen as a high-priority for this year. The City's focus is centered upon clean-up activities (cleaning of hood vents, grease traps, bar mats, etc.), proper disposal of waste, and proper disposal of wash water.

**1.2 Planned Activities:**

A one-page, laminated poster for this campaign will be developed for restaurants to display in their kitchen area. A training program for restaurant managers will be offered by the City. We are also developing a handout that will be distributed to all new restaurant owners upon filing for their business license. On December 12, 2013, members of Public Works staff met with the Downtown Dining Alliance (owners of downtown restaurants) to discuss the upcoming program. The feedback from this meeting was used in development and planning of this program.

**1.3 Estimated Population Size of Target Audience:**

*~30 restaurants located in Downtown Harrisonburg*

**1.4 Percentage Goal of Target Audience Planned to Be Reached:**

20%

**1.5 Responsible Departments/Employees:**

Public Works Department

*MS4 Program Coordinator\**

*Transportation & Environmental Planning Manager*

*Business Services Manager*

Parks & Recreation Department

*Stream Health Coordinator*

City Manager's Office

*Public Information Officer*

*Issue 2: Apartment-Rental Properties Waste Management*

**2.1 Appropriateness of Issue:**

Due to the large population of citizens residing in apartment complexes and the many stormwater-related issues we have encountered in these complexes, this issue was chosen as a high-priority for this year. Our focus is centered on proper disposal of waste in dumpsters or other trash facilities, littering, proper disposal of motor oil, and a general knowledge of what should and should not be discarded into a dumpster.

**2.2 Planned Activities:**

A training seminar will be given to property management companies and rental property owners by the City so they can gain an understanding of these various stormwater management issues and effective techniques to control and eliminate potential sources of pollution. We will also provide educational handout materials for property managers to distribute to residents. Public Works staff met on several occasions with property owners and managers to discuss the upcoming program. The feedback from these meetings was used in development and planning of this program.

**2.3 Estimated Population Size of Target Audience:**

35 apartment complexes and 6 major property management companies

**2.4 Percentage Goal of Target Audience Planned to Be Reached:**

20%

**2.5 Responsible Departments/Employees:**

Public Works Department

MS4 Program Coordinator\*

Transportation & Environmental Planning Manager

Business Services Manager

Parks & Recreation Department

Stream Health Coordinator

City Manager's Office

Public Information Officer



*Issue 3: Automotive Repair Shops' Activities and Waste Management*

**3.1 Appropriateness of Issue:**

Due to historic illicit discharge issues and concerns related to automotive repair shops, this issue was chosen as a high-priority water quality issue for this year. Our focus is centered on oil spills and proper oil disposal, proper disposal of wash rags and other shop materials, proper clean-up after spills, and other issues of pollution.

**3.2 Planned Activities:**

A brochure for this campaign will be developed. The informational brochure will include proper clean-up techniques for automotive shops to avoid pollution and illicit discharges. These brochures will be distributed to existing shops through mailings or in personal visits and also provided by the Commissioner of Revenue with new business licenses for automotive shops. Public Works staff collected data on automotive repair shops in the City in preparation for the upcoming program. This data was used in the planning and development of this program.

**3.3 Estimated Population Size of Target Audience:**

100 automotive repair shops city wide

**3.4 Percentage Goal of Target Audience Planned to Be Reached:**

20%

**3.5 Responsible Departments/Employees:**

Public Works Department

MS4 Program Coordinator\*

Transportation & Environmental Planning Manager

Business Services Manager

Parks & Recreation Department

Stream Health Coordinator

City Manager's Office

Public Information Officer

## Appendix B: Dry Screening and Outfall Inspection Methodologies

# Dry Screening and Outfall Inspection SOP

- Dry screening of outfalls from Harrisonburg’s MS4 will be done annually to include a minimum number of 50 outfalls to be inspected, as required by the MS4 permit. If time and resources permit then more than 50 outfall inspections may be inspected annually.
- Dry screening inspections will be defined as inspections performed when precipitation is less than .5 inches within 48 hour period, per MS4 permit.
- The Stream Health Coordinator will do the outfall inspections in coordination from the GIS Coordinator.
- For outfall inspections, a portable unit with GPS capabilities will be used to record/update outfall data.
- Number of outfalls inspected will be reported to DEQ annually with the MS4 Annual Report including
  - The screenings results, and
  - Detail of any follow-up actions necessitated by screening results.
- The majority of outfalls are already loaded into GIS and assigned a corresponding number; if any new outfalls are found they will be recorded into the GIS outfall data and assigned an ID number.
- Inspection instructions shall be as follows:
  1. Walking from downstream to upstream (if in the stream, as to not disturb water or sediments which could alter assumptions of an outfall) inspect outfalls one at a time).
  2. Collect data and enter into portable GPS unit.
  3. In the event that an outfall is suspected to have an illicit discharge, document the outfall/illicit discharge and fill out an illicit discharge reporting form. The suspected illicit discharge shall be handled with illicit discharge procedures set forth.
- Outfall inspection data will be archived by the GIS coordinator.
- Dry weather field screening to detect illicit discharges in specific areas may also be defined based on criteria such as infrastructure, land use, historical illegal discharges, dumping or cross connections. These areas will be prioritized by the Stream health Coordinator and MS4 Program Coordinator.

## Appendix C: Illicit Discharge Detection & Elimination Investigation Process

# Illicit Discharge Detection & Elimination SOP

### Definitions:

*Illicit Discharge Detection Inspection Team:* MS4 Program Coordinator, Business Services Manager, Stream Health Coordinator, Transportation & Environmental Planning Manager, and GIS Coordinator.

*Lead Investigator:* May be any member of the illicit discharge detection inspection team, other city staff such as Fire Department of Public Utilities, or other agency such as the Virginia Department of Environmental Quality.

### Investigation and Documentation Process:

- Report of IDDE event received by city staff (report may have been received by phone, in person, email, online form, etc., <http://www.harrisonburgva.gov/report-pollution>)
- Staff forwards information to illicit discharge inspection team who will fill out illicit discharge reporting form. A lead investigator will be assigned and the lead investigator is responsible for coordinating the investigation and documentation.
- IDDE form will be forwarded to GIS Technician with U drive folder location (U:\Stormwater\Illicit Discharge Detection & Elimination\Administrative) where associated documentation will be saved based on property tax map number.
- GIS Technician will fill out fields in ArcGIS layer and link that event to a file folder on U drive.
- During investigation, illicit discharge team will update U drive folder with documentation, photos, letters, emails, etc. associated with the IDDE event.
  - Files saved in the folder will be saved by [tax map number] [date investigation initiated year – month -day] [other additional title]. Examples:
    - 010-C-8 2014-02-06 IDDE Report Form.pdf
    - 010-C-8 2014-02-06 Investigation Notes.docx
  - A time frame upon which to conduct an investigation or investigations to identify and locate the source of any observed continuous or intermittent nonstormwater discharge to be prioritized as follows per MS4 permit: (i) illicit discharges suspected of being sanitary sewage or significantly contaminated must be discharged first, (ii) investigations of illicit discharges suspected of being less hazardous to human health and safety such as noncontact cooling water or wash water may be delayed until after all suspected

sanitary or significantly contaminated discharges have been investigated, eliminated, or identified. Discharges authorized under a separate VPDES or state permit require no further action under this permit.

- If an illicit discharge is found, but within six months of the beginning of the investigation neither the source or the same non-stormwater discharge has been identified, then this shall be documented.
- If the observed discharge is intermittent, then Lead Investigator must document that a minimum of three separate investigations were made in attempt to observe the discharge when it was flowing. If these attempts are unsuccessful, the operator must document.
- Legal Authority: City Code Section Title 7, Chapter 6
- Investigators may use the Center for Watershed Protection’s publications as guides, [http://www.cwp.org/online-watershed-library/cat\\_view/64-manuals-and-plans/79-illicit-discharge-detection-and-elimination](http://www.cwp.org/online-watershed-library/cat_view/64-manuals-and-plans/79-illicit-discharge-detection-and-elimination):
  - *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments*
  - *Illicit Discharge Detection and Elimination: Technical Appendices*
  - *Illicit Discharge Detection and Tracking Guide*
- When IDDE event is “closed”, the Lead Investigator will complete the illicit discharge inspector form and will inform GIS coordinator so that ArcGIS layer is updated.
- The illicit discharge inspection form will be included with the MS4 Annual Reports, as it will include required information: (i) date that suspected discharge was observed, reported, or both; (ii) how the investigation was resolved, including any follow-up, and (iii) resolution of the investigation and the date the investigation was closed.

## **Appendix D: Written Procedures for Inspection and Maintenance of Operator-Owned Stormwater Management Facilities**

# **Written Procedures for Inspection and Maintenance of Operator Owned Stormwater Management Facilities**

The City established in March 2014 a program for inspection and maintenance of stormwater management facilities owned by the City. Each City department owning or operating a stormwater management facility has been provided with a “Stormwater Post Construction Inspection Manual”. An example copy of the manual is available upon request.

The manual includes a list of all the stormwater management facilities the department is responsible for and includes the following: type of stormwater management facility, the City ID #, a periodic inspection checklist, and the annual inspection check list. The periodic inspection checklist is optional; however, departments are encouraged to utilize them as stormwater management facilities are maintained. If deficiencies are found during maintenance, they are to be reported to the responsible party within the department, and repairs are to be scheduled.

The annual inspection checklist provided in the manual is to be used by the “Stormwater Inspection Staff” (led by the Public Works Engineer and Chief Construction Inspector). These inspections will be conducted annually by Stormwater Inspectors and the results will be provided to the MS4 Program Coordinator and the responsible person within the given department. If deficiencies are found during annual inspections, repairs will be budgeted and scheduled.

## Appendix E: Training Schedule and Program

# Training Schedule and Program Plan

Standard Operating Procedures are currently being collected from The City of Harrisonburg:

- Police Department
  - Fire Department
  - Parks and Recreation
  - Harrisonburg Department of Public Transportation
  - Public Works
  - Public Utilities
1. The City of Harrisonburg stormwater management team will review all standard operating procedures and develop additional procedures *or* add to existing procedures with pertinent stormwater management/pollution prevention information as outlined in the Daily Good Housekeeping Procedures section of the permit (due 24 months after permit coverage). In collecting the current SOPs, the stormwater management team can determine daily operations of each department and training materials can be appropriately refined to each group of persons.
  2. All procedures, now including stormwater information, will be organized into binders and returned to each department.
  3. Binders will be placed in an accessible location for all employees to reference.

### Training Presentation:

- The training presentation will include an overview of stormwater management and local waterway impairments.
- It will include generalized pollution prevention procedures to fulfill permit requirements.
- The final slides in the presentation will be focused towards each particular department and the stormwater management challenges they are confronted with during daily operations.

### Training and Tracking:

Each department holds safety trainings in person. Currently there are no online trainings. The schedule of these trainings varies according to the department. For example, each year the Harrisonburg Fire Department receives 24 hours of Hazardous Materials Training, which includes 7 hours of tactical control, including spill and leak control. Additionally, the City's HAZMAT unit is located at Fire Station 1, on Maryland Avenue, and is made up of a team of 50-60 trained staff from the Fire Department. Each of these individuals is trained to OSHA 1910.120 requirements. Stormwater training sessions will be held in accordance with these regularly held safety trainings to ensure all employees are reached. Sign-in sheets will be used to track attendees.

**Appendix F: VSMP Provisional Approval Letter from the Department of Environmental Quality**



## COMMONWEALTH of VIRGINIA

### DEPARTMENT OF ENVIRONMENTAL QUALITY

Street address: 629 East Main Street, Richmond, Virginia 23219

Mailing address: P.O. Box 1105, Richmond, Virginia 23218

Fax: 804-698-4019 - TDD (804) 698-4021

[www.deq.virginia.gov](http://www.deq.virginia.gov)

Molly Joseph Ward  
Secretary of Natural Resources

David K. Paylor  
Director

(804) 698-4020  
1-800-592-5482

July 1, 2014

Kurt Hogden, City Manager  
City of Harrisonburg  
345 S. Main Street  
Harrisonburg, VA 22801

Dear Mr. Hogden:

In accordance with §62.1-44.15:27 G of the Virginia Stormwater Management Act (Act), the Department of Environmental (DEQ) has completed its review of the City of Harrisonburg's final Virginia Stormwater Management Program (VSMP) application package submitted on June 12, 2014. Based on this review, DEQ has determined that the City of Harrisonburg's VSMP is consistent with the requirements of the Act and the VSMP regulation in place prior to the 2014 session of the General Assembly. As you know, the General Assembly made changes to the Act during this past session that were signed into law on March 24, 2014.

Because these amendments to the Act were made late in the VSMP development process, DEQ recognizes that you were unable to include these revisions in your VSMP application package and grants provisional approval of City of Harrisonburg's VSMP. This provisional approval is conditioned upon your locality making the required revisions operational by July 1, 2014, and authorizes the City to operate a VSMP on July 1, 2014. When the required revisions are made, DEQ will provide the final approval of the City's VSMP.

Thank you for your cooperation in developing a VSMP. We look forward to continuing to assist the City with the implementation of its VSMP.

Sincerely,

A handwritten signature in cursive script that reads "Melanie D. Davenport".

Melanie D. Davenport  
Director, Water Division DEQ

C: Melanie Davenport, Director, Water Division  
Frederick Cunningham, Director, Office of Water Permits  
Joan Salvati, Manager, Local Government Stormwater Programs