The City of Harrisonburg, Virginia

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STREET MAINTENANCE
TRAFFIC ENGINEERING
TRANSPORTATION PLANNING
REFUSE/ RECYCLING
RESOURCE RECOVERY
CENTRAL STORES

October 1, 2015

Megan K. O'Gorek, Water Permit Writer
Department of Environmental Quality
4411 Early Road
Harrisonburg, VA

Subject: City of Harrisonburg General VPDES Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (VAR040075)

Dear Ms. O'Gorek,

Please find attached the City of Harrisonburg's MS4 Annual Report for the July 1, 2014-June 30, 2015 General VPDES Permit for Small Municipal Separate Storm Sewer Systems. Also included with this submittal are the Smith Creek TMDL Action Plan and the Chesapeake Bay TMDL Action Plan.

Please do not hesitate to contact me should you have any questions at (540) 434-5928 or Kelley.Junco@harrisonburgva.gov.

Sincerely,

Kelley Junco
MS4 Program Coordinator

City of Harrisonburg, Virginia

MS4 Annual Report

Reporting Period: July 1, 2014 – June 30, 2015
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 2014-2015

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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 an 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 are 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

I. 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

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

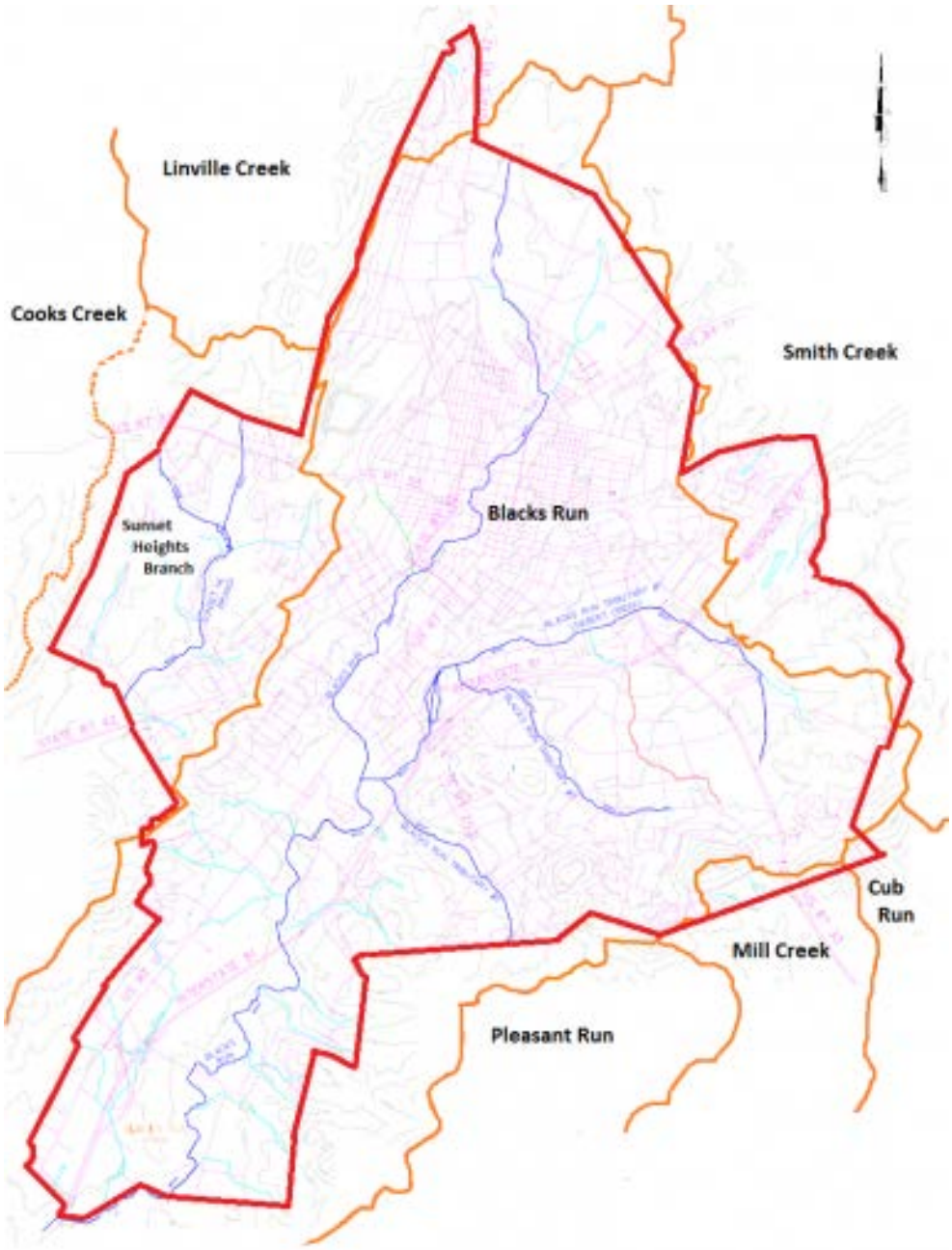

Figure 1. Subwatersheds in Harrisonburg.

(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.

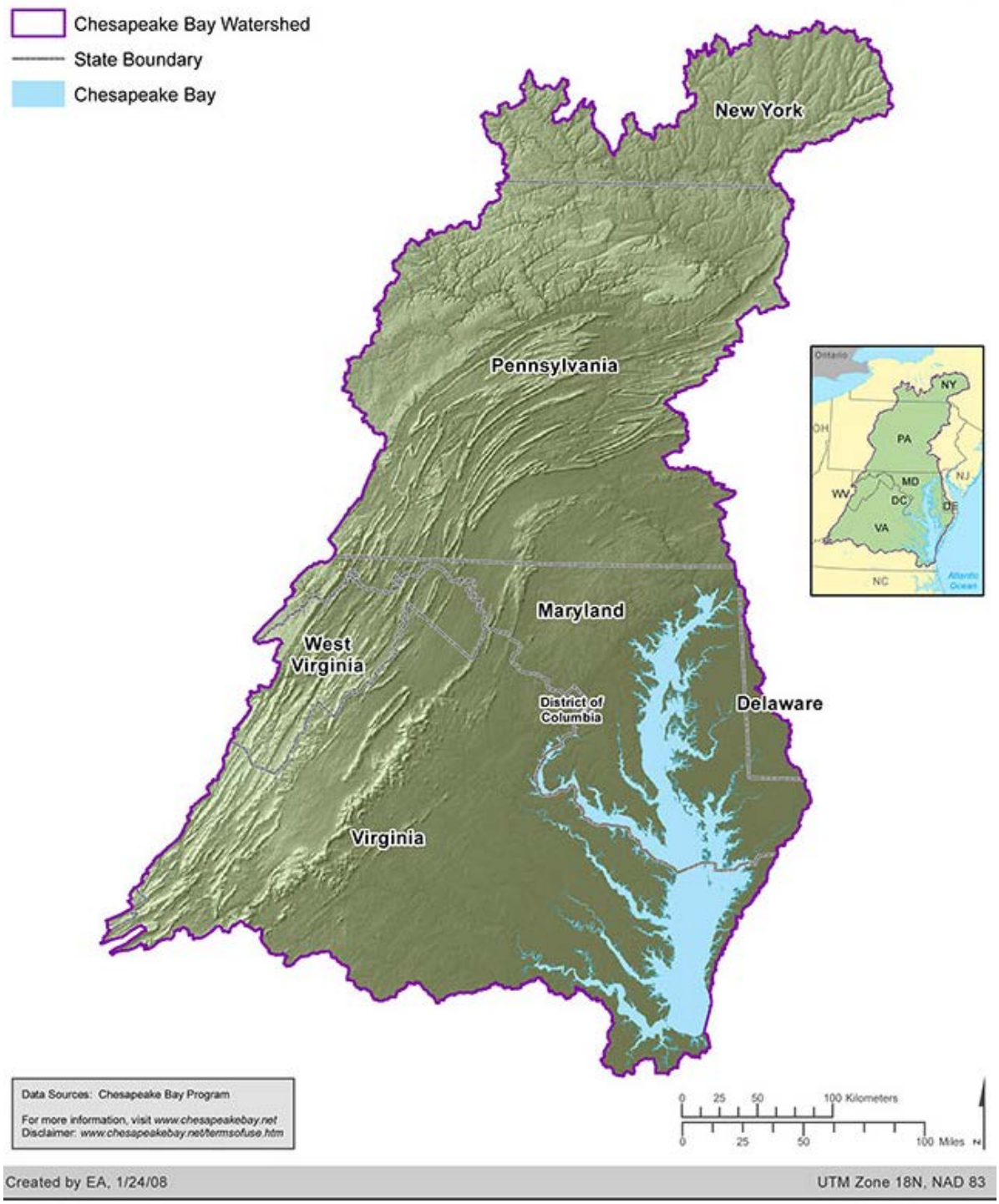

Figure 2. Chesapeake Bay Watershed Map

II. 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.

III. Contact Information

Principal Executive Officer	
Title:	City Manager
Name:	Kurt Hodgen
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Duly Authorized Representatives	
Title:	MS4 Program Coordinator
Name:	Kelley Junco
Address:	320 East Mosby Road Harrisonburg, Virginia 22801
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Email:	Kelley.Junco@harrisonburgva.gov
Title:	Director of Public Works
Name:	James Baker
Address:	320 East Mosby Road Harrisonburg, Virginia 22801
Phone:	(540) 434-5928
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IV. MS4 Annual Report 2014-2015

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. 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 2014-2015 MS4 Annual Report will be considered during the minimum control measure evaluations throughout the document as well as in the MS4 Program Plan. This report 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.

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

BMP 1.1: Develop and Implement Education and Outreach Program
1.1.1 Description: Public education and outreach on stormwater impacts
1.1.2 Annual Reporting Requirements: • 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) • 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.
1.1.3 Year 2 Response: The following education and outreach activities occurred during Year 2. • **Downtown Restaurants:** 20% of the target audience was reached. There are 30 sit-down style restaurants in downtown Harrisonburg and 6 other food-related businesses (i.e. ice cream, café, and breweries) with limited food sales. The City of Harrisonburg Business Services Manager and Sanitation Crew Lead spoke to all 36 downtown businesses regarding waste disposal and stormwater runoff concerns. Managers signed a signoff sheet and all were given an educational poster to post in their kitchen space. • **Apartment – Rental Properties:** 20% of the target audience was reached. Business Services Manager and MS4 Program Coordinator spoke at the Shenandoah Valley Apartment Association to share stormwater utility fee information as well as pollution prevention techniques. A one-page, double-sided handout was distributed to the six property management attendees and emailed to the remaining members. There are a total of 35 apartment complexes and 6 major property managers. The handout reviewed pollution prevention strategies for apartment complexes and overviewed suggested contents of a central spill kit. • **Automotive Shops:** 20% of the target audience was reached. Business Services Manager and Sanitation Crew Lead spoke to 35 of the 100 automotive shops in Harrisonburg. Managers signed a signoff sheet and all were given a Spanish/English language poster highlighting pollution prevention techniques to post in their shop space. • **Outreach and Education for the Next Reporting Period:** See *Appendix A* for details. o *Downtown Restaurants* - Anticipated presentation to the Downtown Dining Alliance organization to reach 20% of the 36 restaurant owners and managers. o *Food Trucks* – Anticipated educational opportunity to 20% of food truck owners in parallel with the City's developing Food Truck Ordinance. o *City Schools* – Anticipated field trips and presentations to 20% of students in the approximately 8 publically-operated city schools..

Minimum Control Measure 1 Evalua*tion*
Appropriateness of the identified BMPs BMPs for this reporting year were sufficient to implement the Public Education and Outreach Plan. *See Appendix A*. The identified BMP will allow for diversified mechanisms of outreach to target audiences.
Effectiveness of BMPs in addressing discharges into impaired waterways Education through diversified mechanisms is an effective way to address discharges into impaired waterways. All outreach forums this reporting year have included distribution of the Water Pollution Reporting business card to encourage pollution reporting.
Progress towards achieving the identified measurable goals The measurable goals set forth in the MS4 permit requirements have been completed according to Table 1 and will be updated as needed. *See Appendix A.*
Modifications to any operator's department's roles and responsibilities No modifications were made to the operator's roles and responsibilities.
Steps to be taken to address deficiencies No deficiencies found. The education and outreach plan has been updated and implemented this reporting year. Any deficiencies observed during the next reporting cycle will be properly addressed in the upcoming MS4 Annual Report.
Plans for the next reporting cycle Implementation of the updated Public Education and Outreach Plan. *See Appendix A.*

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

BMP 2.1: Availability of Program Plan & Annual Reports
2.1.1 Description: 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.
2.1.2 Annual Reporting Requirements: • 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. • 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.
2.1.3 Year 2 Response: The City of Harrisonburg's MS4 Program Plan and Annual Reports have been updated and can be found at the following web link: http://www.harrisonburgva.gov/MS4-permit-program

BMP 2.2: Public Participation Event #1– *Blacks Run Clean-Up Day*
2.2.1 Description: 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 has information on upcoming clean-up day events.

2.2.2 Annual Reporting Requirements:

- Documentation of compliance with the public participation requirements of permit

2.2.3 Year 2 Response: **Blacks Run Clean-Up Day** The Blacks Run Clean-Up Day was held April 11th, 2015. Over 450 volunteers assisted in collecting 4.1 tons of trash. Further documentation is available upon request.

BMP 2.3: 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 2 Response: Household Hazardous Waste days this annual reporting year were held July 30, 2014, August 19, 2014, and June 17, 2015. Collected waste included oil and antifreeze, waste paint, lamps, and aerosols. Further information is available upon request.

BMP 2.4: Public Participation Event #3 – *6th and/or7th Grade Plant-A-Seed Program*

2.4.1 Description: The City of Harrisonburg will volunteer and participate in 6th and/or 7th 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 2 Response: The Plant-A-Seed field trip occurred on September 30th, October 1st, and October 3rd, 2014 with 7th graders from Harrisonburg City Public Schools.

Activities included:

- Watershed and water testing lab
- Land Use lesson
- Hydrology lesson
- Macro invertebrate identification

Further documentation is available upon request.

BMP 2.5: Public Participation Event #4 – *Rain Barrel Workshops*
2.5.1 Description: The City of Harrisonburg will host rain barrel workshops at which citizens will view a basic stormwater presentation and build their own rain barrels.
2.5.2 Annual Reporting Requirements: • Documentation of compliance with the public participation requirements of permit
2.5.3 Year 2 Response: A rain barrel workshop occurred on May 20, 2015 with Friends of the North Fork of the Shenandoah River. There were 32 total participants and 40 rain barrels constructed and distributed. Further documentation is available upon request.

Minimum Control Measure 2 Evaluation
Appropriateness of the identified BMPs The identified BMPs for MCM2 address the public participation requirements of the permit and are therefore deemed appropriate.
Effectiveness of BMPs in addressing discharges into impaired waterways Each participation event encourages citizen involvement with stream health and pollution prevention and is therefore effective in addressing discharges into impaired waterways.
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 No modifications were made to the operator's roles and responsibilities.
Steps to be taken to address deficiencies No deficiencies found at this time.
Plans for the next reporting cycle. Four (4) similar involvement activities are identified for the next reporting cycle. The activities may include new partnerships and additional field trip days.

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

BMP 3.1: Storm Drain System, Outfalls, and Information Map
3.1.1 Description: The City of Harrisonburg will maintain an updated map of the City's MS4 system mapped by Geographic Information Systems (GIS).
3.1.2 Annual Reporting Requirements: • None. Further documentation is available upon request.

BMP 3.2 Notification of Regulated Downstream MS4
3.2.1 Description: The City of Harrisonburg will notify, in writing, any downstream regulated MS4 to which the small regulated MS4 is physically interconnected.
3.2.2 Annual Reporting Requirements: • A list of written notifications of physical interconnection given by City to other MS4s.
3.2.3 Year 2 Response: Physical interconnection letters with the Virginia Department of Transportation and James Madison University were signed and sent in June 2014.

BMP 3.3: Illicit Discharges & Connections Ordinance
3.3.1 Description: The City of Harrisonburg shall effectively prohibit non-stormwater 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 http://www.harrisonburgva.gov/code.
3.3.2 Annual Reporting Requirements: • None, unless the ordinance is adopted or amended.
3.3.3 Year 2 Response: On June 24, 2014, City Council adopted and enacted an ordinance; Title 7, Chapter 6 "Illicit Discharges and Connections"

BMP 3.4: Implement and Update Procedures to Detect & Eliminate Illicit Discharges
3.4.1 Description: The City of Harrisonburg shall implement and update written procedures to detect, identify, and address unauthorized non-stormwater discharges to the MS4. Procedures will be utilized in the investigation and follow-up of a potential illicit discharge.
3.4.2 Annual Reporting Requirements: • 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.
3.4.3 Year 2 Response: The incidents listed in the Illicit Discharge Summary 2014-2015 report include potential (having entered the storm sewer system but not having entered the live waterway) and actual illicit discharges (having entered the storm sewer system and the live waterway). Other suspect illicit discharges (dumping activity or spills away from the storm sewer system) are tracked and enforced as needed through the City of Harrisonburg IDDE Program. For additional information regarding the investigation procedure, see *Appendix C.* Further information is available by request.

Illicit Discharge Summary 2014-2015

Incident Date	Report Date	Date Closed	Incident Narrative	Resolutions/Conclusion
9/18/2014	9/18/2014	9/19/2014	Contractor hired to do renovation work at home dumped dry wall residue mixed with water down curb line.	No evidence of dry wall residue in live waterway. Owner of business was spoken to and ensured his employees would be retrained to take to the Landfill for disposal.
9/3/2014	9/3/2014	9/5/2014	White staining on sidewalk that led to gutter and stormdrain. Stain source was determined to be downtown restaurant washing mats from kitchen.	No evidence of chemicals in live waterway. Spoke with manager. Manager noted that new employees had performed some heavy cleaning the night prior. He said their policy was to dump the buckets in the sinks and that he would ensure the new employees received training.
10/30/2014	10/30/2014	11/4/2014	Dumping incident occurred behind downtown restaurant due to washing activities behind restaurant. Washwater entered drop inlet.	No evidence of washwater in live waterway. Spoke with bartender and said if the violation was noted again it would result in a formal Notice of Violation.
6/17/2015	6/19/2015	7/10/2015	Grease from BBQ smokers at a downtown restaurant dripped from the smoker, down a curb, into the curb inlet.	No evidence of grease in live waterway. Notice of Violation sent. Meeting held with restaurant manager. New smoker with drip pan installed 7/10/2015.
8/1/2014	8/4/2014	8/4/2014	Fish kill caused by a company power washing the jail with a harmful chemical – chemical entered storm drain and live waterway.	DEQ was informed of the fish kill and the investigation was taken over by DEQ staff.
6/12/2015	6/12/2015	6/12/2015	Truck drove over a retaining wall which broke seal on diesel fuel tank and caused leak. Driver recognized the leak and stopped driving. Fire Department was notified by driver. Diesel Fuel entered the roadway curb line.	No evidence of diesel fuel in live waterway. Fire Department responded and placed absorbent material on the diesel fuel. A private company hired by the trucking company responded to sweep and dispose of the absorbent material.
6/17/2015	6/19/2015	6/30/2015	Septic Field damage caused ongoing sewage release from a home into a curb inlet. Public Health department sent Notice of Violation Letter.	No evidence of sewage material in live waterway. Public Utilities confirmed that the property owner hooked up to the sanitary sewer system and no longer has a septic drainage field.
1/02/2015	1/15/2015	1/02/2015	Manure spilled from multiple trucks transporting through a public residential area. Manure material entered curb inlets on the street.	No evidence of manure in live waterway. Public Works vacuum truck crew removed as much material as was possible that had entered the storm drain and street sweeper removed remaining material from the road.

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 2 Response:

See *Appendix B* for the dry screening and outfall inventory standard operating procedure. During the 2014-2015 reporting period, 50 MS4 regulated outfalls were inspected and no active illicit discharges were observed or required follow-up. Non-MS4 regulated outfalls were removed from the MS4 regulated mapping information, but no MS4 regulated outfalls were removed this reporting year.

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.

3.6.3 Year 2 Response:

A Report Water Pollution business card was developed to assist in directing phone calls regarding water pollution and active, potential, and suspect illicit discharges. The card outlines different signs of water pollution such as odor, discoloration, soap suds, etc. and provides reporting contact information. These cards have been distributed during outreach events.

Minimum Control Measure 3 Evaluation

Appropriateness of the identified BMPs All identified BMPs address MCM3 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 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 Fire Department representatives have established communications with the MS4 Program Coordinator and Business Services Manager when they respond to a spill to increase illicit discharge documentation efforts.

Steps to be taken to address deficiencies The City will continue to document potential, actual, and suspect illicit discharges (see definitions in BMP 3.4). When a report is closed, a new check box will be added to determine the type of incident and therefore the reporting requirements associated with the incident.

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. General Spill Incident Report Forms for spill incidents by municipal staff during internal operations were developed and implemented as a Site Supervisor responsibility at Public Works and Parks and Recreations. Implementation will be extended to other departments the next reporting cycle.

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 Code of Virginia §62.1-44.15:55.)

The City requires that land disturbance not begin until an 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 in 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 2 Response:

Total Number of Regulated Land-Disturbing Activities: ***56***
Total Number of Acres Disturbed: ***148.00***
Total Number of Inspections Conducted: **1,221**
Summary of Enforcement Actions Taken: **98 potential violations, 4 notice to comply letters**

During the 2014-2015 reporting period 1,221 land disturbing activity inspections were conducted. Of the 1,221inspections, 98 potential violations were noted. The findings and corrective measures were noted in the inspection files and discussed on site, through emails or written letters were sent to the property owners or RLDs. Of the 98 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.
Progress towards achieving the identified measurable goals As a group, the MCM6 responsible parties have better clarified their internal processes as it relates to inspection procedures, forms, reporting and general coordination between inspectors, supervisors and program administration personnel.
Modifications to any operator's department's roles and responsibilities No modifications were made to roles and responsibilities this reporting year.
Steps to be taken to address deficiencies Monthly meetings are held between City inspectors, Public Works VSMP staff, and Community Development VSMP staff to discuss operations and site issues.
Plans for the next reporting cycle The City of Harrisonburg will continue to implement its construction site stormwater runoff program and improve communications between City inspectors and Community Development VSMP staff.

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

BMP 5.1: Ordinance and Other Legal Authorities to Address Post-Construction Runoff
5.1.1 Description: 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: • Section 10-7 of the City Code describes the Stormwater Management Ordinance • Section 10-2 of the City Code describes the Subdivision Ordinance • Design & Construction Standards Manual Additional information about the City's stormwater management program can be found at: http://www.harrisonburgva.gov/site-development.
5.1.2 Annual Reporting Requirements: • None, unless ordinance or procedures are amended.

BMP 5.2: Develop and Implement Policies and Procedures to Address Post-Construction Runoff
5.2.1 Description: 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.

5.2.2 Annual Reporting Requirements:

- None, unless procedures are amended.

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 give 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 2 Response: There are 55 privately-owned stormwater management facilities in the City of Harrisonburg that treat approximately 88.3240 acres and are under 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 2 Response: There are 35 city-owned stormwater management facilities in the City of Harrisonburg that treat approximately 372.610 acres. The long-term operation and maintenance of these facilities is managed through the City. The City has developed 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 2 Response: During this reporting period there were 31 inspections and there were 0 enforcement actions for privately owned stormwater management facilities. There were 35 inspections and 0 enforcement actions for publically-owned stormwater management facilities.

Stormwater Management Facilities Brought Online 2014-2015

Project_Name	Unit Code	BMP Type	Acres Treated	Impervious AC	Pervious AC	Brought on Line	Latitude/ Longitude
West Bruce Street Parking Lot	PS22 - Blacks Run	3.15 Manufactured BMP System	1.67	1.52	0.15	10-Jun-15	38.448176/ -78.872474
Blakely Park	PS22 - Blacks Run	3.11 Bio-Retention	0.39	0.15	0.24	09-Jun-15	38.459059/ -78.851264
Blakely Park	PS22 - Blacks Run	3.11 Bio-Retention	0.66	0.02	0.64	09-Jun-15	38.459059/ -78.851264

Blakely Park	PS22 - Blacks Run	3.13 Grassed Swale	0.66	0.02	0.64	09-Jun-15	38.459059/ -78.851264
Blakely Park	PS22 - Blacks Run	3.08 Detention Basin	0.39	0.15	0.24	09-Jun-15	38.459059/ -78.851264
University Center	PS22 - Blacks Run	3.15 Manufactured BMP System	2.05	1.78	0.27	01-Jun-15	38.429523/ -78.850683
Harrisonburg Community Health Center	PS22 - Blacks Run	3.11 Bio-Retention	1.227	0.856	0.371	18-Feb-15	38.414082/ -78.865928
Harrisonburg Community Health Center	PS22 - Blacks Run	3.11 Bio-Retention	0.887	0.657	0.23	18-Feb-15	38.414082/ -78.865928
Family Dollar	PS22 - Blacks Run	3.08 Detention Basin	1.09	0.77	0.32	17-Sep-14	38.460573/ -78.874965
Family Dollar	PS22 - Blacks Run	3.11 Bio-Retention	0.252	0.099	0.153	17-Sep-14	38.460573/ -78.874965

Minimum Control Measure 5 Evaluation
Appropriateness of the identified BMPs All identified BMPs address MCM5 permit requirements and are therefore deemed appropriate.
Effectiveness of BMPs in addressing discharges into impaired waterways 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.
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 No modifications have been made to roles and responsibilities.
Steps to be taken to address deficiencies There are remaining private facilities that do not hold long-term maintenance agreements – the City will work with land owners to obtain additional agreements.
Plans for the next reporting cycle 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 Non-stormwater Discharges

6.1.1 Description: 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 2 Response: SOPs have been developed that cover the following pollution prevention topics. SOPs are also available on the City intranet (C2) system accessible by all City of Harrisonburg employees and are distributed to Site Supervisors in hardcopy form to be in an accessible location for employees to reference as needed.

Standard Operating Procedures developed:

- Bulk Storage Areas (Stockpiles)
- Dewatering Operations
- Discharge of Wastewater
- Disposal of Waste Materials (Landscaping)
- Equipment Maintenance
- Fertilizer and Pesticide Applications
- Leaking Automobiles & Equipment
- Municipal Wash Water
- Prevent Illicit Discharges
- Road & Street Maintenance
- Spill Kits

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 2014-2015. 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 2 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, the following facilities were identified:

2013-2014 Municipal 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

A site inspection was performed by the MS4 Program Coordinator to identify any stormwater pollution issues at the 2013-2014 high priority facilities. Issues were discussed on-site and followed-up with after the inspection. Many site changes resulted in these inspections. Additionally as a result of these inspections, high priority facilities were changed to better reflect city operations and site boundaries. The facilities list has been updated as follows. The City of Harrisonburg MS4 Program Plan has also been updated to reflect these changes.

2014-2015 Municipal High Priority Facilities with a High Potential for Pollutant Discharges:

- Park View Shops, 901 Chicago Avenue
- Public Utilities Facility, 2155 Beery Road
- Public Works Facility, 320 East Mosby Road

Central Stores was removed since materials storage is kept primarily indoors. Outdoor storage is organized and limited to non-erodible materials. The recycling facility was removed since waste management operations have changed and the facility has altered and diminished its daily operations.

Municipal High Priority Facilities

- Fire Station 1-Maryland Ave, 80 Maryland Ave
- Fire Department Training Center, 320 East Mosby Road
- Fire Station 2-380, Pleasant Valley Road
- Fire Station 3-Lucy Drive, 299 Lucy Drive
- Fire Station 4-Rock St, 210 East Rock Street
- Heritage Oaks Golf Course, 680 Garbers Church Road
- Heritage Oaks Maintenance, 680 Garbers Church Road
- City School Maintenance 680 Garbers Church Road
- Parks and Recreation Facility (Park View Shops), 901 Chicago Ave
- Ramblewood Conservation Area/Greendale Training Grounds, 868 North Liberty Street
- Harrisonburg Electric Commission Facility, 2129 Ramblewood Drive
- Public Utilities Facility, 2155 Beery Road
- Public Works Facility, 320 East Mosby Road
- Central Stores Warehouse, 2111 Beery Road
- Ramblewood Stockpiles, 2311 Ramblewood Road
- Recycling Center, 320 East Mosby Road
- West Market Street Transfer Facility, West Market Street
- Transit Facility, 474 East Washington Street

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 2 Response: On-call consultants were interviewed during August – September 2015 to establish a stormwater/environmental short-list. The chosen consultants will then submit an additional proposal regarding City of Harrisonburg high priority-high potential facility SWPPP development. Draft SWPPP mapping was developed to identify oil/water separators, storm drains, chemical storage, etc. These maps may be utilized in the development of the final SWPPP documents. The City will have required SWPPPs completed by the 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 2 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: **54.2 acres**
- Acreage of land where plans have been implemented: **52.2 acres**

Facilities for which Nutrient Management Plans will be developed:

1. Harrisonburg High School - 38°26’30”N, 78°54’37”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
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

BMP 6.5: Implement Employee Training On Written Procedures to Minimize or Prevent Discharges

6.5.1 Description: 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.

6.5.2 Annual Reporting Requirements:

- 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.

6.5.3 Year 2 Response: A stormwater pollution prevention training presentation was presented by the Business Services Manager and MS4 Program Coordinator to the following departments, as per the Training Schedule and Program Plan. See *Appendix E* for more information. Employees who received training were also given a Report Water Pollution business card. The supervisor for each group received hardcopy stormwater standard operating procedures to be placed in an accessible location for site employees to reference as needed.

Department Trained this Reporting Year:

- Transit Department – Shop Employees
- Parks and Recreation – Site Supervisors
- Public Utilities
- Public Works

BMP 6.6: Require Municipal Contractors Use Appropriate Control Measures and Procedures for Stormwater Discharges to the MS4 System

6.6.1 Description: The City of Harrisonburg shall require that municipal contractors use appropriate control measure and procedures for stormwater discharges to the MS4 system.

6.6.2 Annual Reporting Requirements:

- Report on activities to develop procedures.

6.6.3 Year 2 Response: Language in the General Terms and Conditions for the City of Harrisonburg, VA states: "The contractor shall comply with all applicable federal, state and local laws, rules and regulations." This statement is included in all city contract documents and would include all stormwater-related ordinances. This language will be emphasized during stormwater training so internal staff understands that contractors are held to the same standards as municipal staff.

Minimum Control Measure 6 Evaluation
Appropriateness of the identified BMPs All identified BMPs address MCM6 permit requirements and are therefore deemed appropriate.
Effectiveness of BMPs in addressing discharges into impaired waterways Required training as a part of MCM6 educates internal staff about local impaired waterways. SOPs, NMPs and SWPPPs all address management of the local pollutants of concern.
Progress towards achieving the identified measurable goals The measurable goals set forth in the MS4 permit requirements are on track to be completed according to Table 1.
Modifications to any operator's department's roles and responsibilities A Stormwater Crew Supervisor was established within the Public Works Department to manage the flusher truck, sweeper truck, and mowing crews. He is also the Site Supervisor for the high priority facility Public Works Department.
Steps to be taken to address deficiencies Regular site inspections are anticipated as a part of SWPPP Development and also on an annual schedule for all high potential municipal facilities.
Plans for the next reporting cycle Stormwater staff plans to perform annual inspections of all high potential municipal facilities to ensure there is regular implementation of pollution prevention techniques.

G. Evaluation and Assessment

Section E. (2) Recordkeeping
Description: 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).
Annual Reporting Requirements: • Background Information • 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; • Results of information collected and analyzed; • A summary of the stormwater activities the operator plans to undertake during the next reporting cycle; • A change in any identified BMPs or measurable goals, including steps to be taken to address deficiencies; • Notice that the operator is relying on another government entity to satisfy some of the state permit obligations (if applicable);

- The approval status of any programs pursuant to Secion II C (if appropriate), or the progress of achieving full approval of these programs; and
- Information required for any applicable TMDL special condition contained in Section I.

Year 2 Response:

- No new outfalls were added during this permit year.
- 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.
- No official monitoring data was collected during the reporting period.
- The City of Harrisonburg does not rely on any other government entities to satisfy state permit obligations.
- The City of Harrisonburg's Community Development Department received approval from DEQ for the City of Harrisonburg's Virginia Stormwater Management Program (VSMP). City Council approved a finalized Stormwater Management ordinance (reflecting DEQ-required revisions) on March 3, 2015. 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
Description: The City will work on developing TMDL Action Plans during the first two years (2014-2015 and 2015-2016) 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
Annual Reporting Requirements: • The City will implement its TMDL Action Plan and submit progress reports in its MS4 Annual Report in accordance with the permit requirements.
Year 2 Response: ***TMDL Action Plan:*** Smith Creek is the only subwatershed in The City of Harrisonburg with an associated waste load allocation. A Smith Creek TMDL Action Plan has been developed and is available at http://www.harrisonburgva.gov/MS4-permit-program. ***Implementation of TMDL Action Plans:*** The Smith Creek TMDL Action Plan outlines the City of Harrisonburg's MS4 program components which contribute to the education of Smith Creek watershed residents on pollutants of concern as well as projects that help reduce the designated pollutants of concern.

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

Chesapeake Bay TMDL Special Conditions
Description: 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.
Annual Reporting Requirements: Once the Chesapeake Bay TMDL Action Plan is developed, each subsequent annual report shall include: • 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 • 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 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 2 Response: ***TMDL Action Plan:*** The City of Harrisonburg has developed a Chesapeake Bay TMDL Action Plan and it is available at http://www.harrisonburgva.gov/MS4-permit-program.. ***List of Control Measures Implemented During the Reporting Period:*** The Chesapeake Bay TMDL Action Plan outlines the City of Harrisonburg's street sweeping operations and resulting pollutant removal. Regular sweeping through the City of Harrisonburg is ongoing and has been fully implemented as a part of daily operations. ***Estimate Reduction Achieved by Each Control:*** TP: 814.70 pounds/year TN: 2,036.76 pounds/year TSS: 244,410.60 pounds/year See Harrisonburg Chesapeake Bay TMDL Action Plan for more information. ***List of New Control Measures Expected to be Implemented During Next Reporting Period:*** East Market Street Dry Swale & Regenerative Stormwater Conveyance, Carlton Street Roundabout Project

Appendix A: Public Education and Outreach Plan

1. Downtown Restaurants:

a. *Appropriateness of Issue:* Due to the high number of restaurants located in our Downtown Historic District and their close proximity to Blacks Run, this issue was chosen as high-priority. Our focus is centered on clean-up activities (cleaning of hood vents, grease traps, bar mats, etc.), proper disposal of waste, and proper disposal of wash water.

b. *Planned Activities:* A presentation is being developed for outreach to the Downtown Dining Alliance regarding stormwater utility fee and pollution prevention techniques.

c. *Estimated Population Size of Target Audience:* 30 restaurants located Downtown

d. *Percentage Goal of Target Audience Reached:* 20%

2. Food Trucks

a. *Appropriateness of Issue:* Due to an increased amount of food truck activity in the City of Harrisonburg, an effort is currently underway to develop a food truck ordinance which will help to regulate operations. Illicit discharge issues surrounding food trucks have raised concern towards this area of food service due to the confined area in which they operate.

b. *Planned Activities:* Ordinance outreach and education will include speaking directly to many food truck owners and may include presentations and discussions regarding proper disposal of oil, grease, trash, and wash water from daily food truck operations.

c. *Estimated Population Size of Target Audience:* 26 food trucks

d. *Percentage Goal of Target Audience Reached:* 20%

3. City Schools

a. *Appropriateness of Issue:* Most students in the City of Harrisonburg school system are also residents of the City of Harrisonburg. For this reason, students often provide a positive avenue to educating families in the area. With the implementation of the stormwater utility fee, it is an important time to discuss stormwater management and pollution prevention. It is also an opportunity to educate young people about environmental pollution and the impact the individual has on its overall health.

b. *Planned Activities:* Lessons are in development to pair with curriculums in an engineering course, a science course, and the STEM program.

c. *Estimated Population Size of Target Audience:* 8 publically-owned schools (5,380 students total)

d. *Percentage Goal of Target Audience Reached:* 20%

Appendix B: Dry Screening and Outfall Inspection Methodologies

Dry Screening and Outfall Inspection Methodologies

General Overview:

- 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, 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 perform outfall inspections in coordination with the MS4 Program Coordinator and GIS Coordinator.
- 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

Pre-Inspection Procedure:

- Materials needed:
    - Waders
    - Camera/Smartphone
    - Outfall Maps
    - Field Screening Inspection Report (if available)
    - Illicit Discharge Reporting Form
    - Clipboard
    - Pen/Pencil
    - Safety Vest

- Print out maps of the anticipated outfalls to be inspected prior to field screenings.
    - Outfall maps can be located at U:\Stormwater\Mapping\Kelley's Stormwater Maps and are available to be printed directly from ArcGIS or from the associated .pdfs found in the provided U:\ folder.
- Print out Field Screening Inspection Reports prior to field screenings.
    - Field Screening Inspections Reports are still in development. Those that have been developed can be found at: U:\Stormwater\Illicit Discharge Detection & Elimination\Outfall Inspections\2014-2015 Inspections

    - If a Field Screening Inspection Report has not been developed for the outfall section being inspected, take pictures and notes on the outfall maps in order to develop a report back in the office.
- A portable unit with GPS capabilities may be used to record/update outfall data, if needed.
- The majority of outfalls are already loaded into GIS and assigned a corresponding number; if any new outfalls are found they will be sent to the GIS Coordinator and recorded into the GIS outfall data and assigned an ID number.
    - Stream Health Coordinator can take a picture of the outfall and send it to GIS Coordinator while in the field or develop a GIS map marking the location back in the office to send to GIS Coordinator.
        - GIS Coordinator adds new outfalls and storm sewer system information into the GIS as new construction information is processed through the Community Development Department.

Inspection Procedure:

- Inspection instructions shall be as follows:
    1. Walk 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 (if needed).
    3. Fill out the Field Screening Inspection Report as you walk along the stream.
    4. Take pictures of each outfall and make notes on the Report.
    5. In the event that an outfall is suspected to have an illicit discharge, document the outfall/illicit discharge on the Field Screening Inspection Report and fill out an Illicit Discharge Reporting Form. The suspected illicit discharge shall be handled with illicit discharge procedures set forth at U:\Stormwater\Illicit Discharge Detection & Elimination\Illicit Discharge\Administrative
        - Investigation will be done with support from IDDE Field Backpack for data collection and the *Illicit Discharge Detection and Elimination Field Guide: How to Identify an Quickly Report Pollution Problems*.
        - Illicit Discharge Reporting Form should be completed and saved to the proper tax map ID folder at U:\Stormwater\Illicit Discharge Detection & Elimination\Illicit Discharge as outlined in the illicit discharge procedures.
    - If the illicit discharge is potential, pursue investigation through the illicit discharge procedures.
    - If the illicit discharge is occurring, pursue investigation through the illicit discharge procedures
    - If the illicit discharge is historical (staining, dried material, etc.) take note on the Field Screening Inspection Report and note if follow-up/education activities are necessary.
- When back in the office, load all pictures into the GIS Attribute Table. This only needs to be performed until each outfall ID has an associated outfall picture. If assistance is needed, contact the GIS Coordinator.
- 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.

Last updated: 6/9/2015

Appendix C: Illicit Discharge Detection & Elimination Investigation Process

IDDE Investigation Process

V. Definitions:

Illicit Discharge Detection Inspection Team: MS4 Program Coordinator – Kelley Junco, Stream Health Coordinator – Trey Jarrels, Business Services Manager – Harsit Patel, Transportation & Environmental Planning Manager – Thanh Dang, GIS Coordinator – Sam Hottinger

Lead Investigator: MS4 Program Coordinator – Kelley Junco and Stream Health Coordinator – Trey Jarrels are the lead investigators for Illicit Discharges.

Other Responsible Parties: Hazardous spill response is the responsibility of the Fire Department, storm sewer overflows are the responsibility of Public Utilities, other spill response or pollution complaints may be routed through another agency such as the Virginia Department of Environmental Quality.

- Informational business cards have been distributed to City staff and citizens to direct illicit discharge detection efforts. The card information is as follows:
  - Stream or Storm Sewer: (540) 434-5928 (Public Works)
  - Construction Issues: (540) 432-7700 (Community Development)
  - Sanitary Sewer Overflows: (540) 434-9959 (Public Utilities)
  - Trash & Solid Waste: (540) 434-5928 (Public Works)
  - Large Spill or Emergency: 911

Other Entities: If a source is traced to jurisdictional boundaries, the following individuals will be notified to take up the investigation.

- Morris Z Walton, Louis Berger (804) 317-8720 (VDOT IDDE Contact) mwalton@louisberger.com *or* IDDEReports@vdot.virginia.gov
- Dale Chestnut, James Madison University (540) 586-7606 or chestndl@jmu.edu

Potential Illicit Discharge: A pollutant having entered the storm sewer system but there is no evidence that the pollutant entered a live waterway.

Actual Illicit Discharge: A pollutant having entered the storm sewer system and there is evidence that the pollutant entered a live waterway.

Suspect Illicit Discharge: A dumping activity or spill that has not entered the storm sewer system or a live waterway.

VI. Investigation and Documentation Process:

1. Report of illicit discharge events are received by city staff (report may have been received by phone, in person, email, online form, etc., http://www.harrisonburgva.gov/report-pollution). Reporting information is routed to lead investigators. If the lead investigators are unavailable, they will notify the rest of the team and another member will respond.

    a. Calls received at Public Works (540) 434-5928 are routed in the following order: Kelley Junco, Harsit Patel, Thanh Dang. Emails received via report.pollution@harrisonburgva.gov are sent to Kelley Junco, Harsit Patel, Thanh Dang, and Trey Jarrels. Response to emails is routed to the lead investigator first and other IDDE Team members as needed.

    b. Deputy Fire Marshall - Captain Mike Armstrong will route information to the IDDE Team during his routine inspections as needed. He will email pictures to the generic pollution reporting email address or directly contact MS4 Program Coordinator - Kelley Junco.

    c. The Fire Department will notify MS4 Program Coordinator – Kelley Junco of an incident that may affect the storm sewer system. If the incident occurs outside of business hours, they will notify her during the next business hours.

    d. Spills during municipal operations will be responded according to the procedures set forth by that department. Significant spills that require interdepartmental coordination should be routed to Public Works and the IDDE Team.

    e. Scans occur daily for potential illicit discharges through sanitation staff – Rick Cave and Julie Fansler. If a potential discharge is observed, they will contact Harsit Patel (who will contact the IDDE Team as needed). Trey Jarrels – Stream Health Coordinator conducts city scans during his daily field operations.

2. Lead investigators will travel out to the site to inspect the potential illicit discharge. Both lead investigators have an IDDE backpack full with supplies (First Aid Kit, Gloves, Flashlight, Notepad, Pens, Measuring Tape, Hand Gel, Duck Tape, Water Collection Bottles, Bags, Dye) that help them test and indentify substances safely.

    a. Lead investigators will trace back manholes or the stream to find the source of the pollution.

        i. If an illicit discharge is found, but within six months of the beginning of the investigation neither the source nor the same non-stormwater discharge has been identified, then this shall be documented.

        ii. 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 investigator must document.

b. An unknown substance can be tested with the materials in the IDDE backpack, the incubator located at Park View Shops, through a third party consultant, and/or with the Central Shenandoah Planning District Commission's IDDE kit – available to IDDE Team by calling (540) 885-5174. (See attachment)

    i. Testing procedures should be consistent with the *Illicit Discharge Detection and Elimination Field Guide: How to Identify and Quickly Report Pollution Problems.*

c. As needed, investigators and IDDE Team will coordinate and dispatch a clean-up (this may involve other City departments), contact the property owner and/or responsible party, and request from the property owner/responsible party mitigation procedures (Corrective Action Plan) be documented and put into place as soon as possible. Any procedures developed will be filed with the City's IDDE Report to ensure corrective action. Enforcement escalation is outlined below. Timeframe for follow-up investigation and corrective action is determined on a case-by-case basis.

    i. Warning Letter - A warning letter is issued for a first offense illicit discharge with typically a two week follow-up investigation by the City.

    ii. Corrective Action Plan – A Corrective Action Plan is requested from the responsible party of larger spill incidents during a first offense which will address the spill response specifically and mitigation measures to be implemented to prevent further spills.

    iii. Notice of Violation (second offense) – A notice of violation is issued after a second offense or if corrective action has not been taken upon a follow-up 2 week investigation.

    iv. Criminal Fines

3. The individual from the IDDE Team that responded to the incident will fill out an Illicit Discharge Reporting Form regardless of whether the event was a potential, suspect, or actual illicit discharge. This individual is also responsible for coordinating with the IDDE Team to follow up on the investigation and ensure sufficient pictures, documentation of correspondence, etc.

    a. Public Utilities will send notification to the Virginia Department of Environmental Quality if sewer system material enters the storm sewer system, a body of water, or

onto land. A copy of this letter is forwarded to the MS4 Program Coordinator – Kelley Junco and is filed by tax map ID in the U:\ folder (as outlined below).

b. Fire Department sends a list of spill responses to the MS4 Program Coordinator – Kelley Junco annually. More information on each incident is available upon request.

4. The completed IDDE form will be filed in the U:\ drive folder location (U:\Stormwater\Illicit Discharge Detection & Elimination) where associated documentation will be saved based on property tax map number as well.

5. MS4 Program Coordinator – Kelley Junco will fill out fields in ArcGIS layer illicit discharge tracking and link that event to a file folder on U:\ drive.

6. Illicit discharge team will update U:\ drive folder with documentation, photos, letters, emails, etc. associated with the illicit discharge event.

    a. Files saved in the folder will be saved by [tax map number] [date investigation initiated year – month -day] [other additional title]. Examples:

        i. 010-C-8 2014-02-06 IDDE Report Form.pdf

        ii. 010-C-8 2014-02-06 Investigation Notes.docx

    b. A time frame upon which to conduct an investigation or investigations to identify and locate the source of any observed continuous or intermittent non-stormwater discharge to be prioritized as follows per the 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.*

    c. Notice of Violation: City Code Section Title 7, Chapter 6

        - *Notice of violation. Whenever the city manager or his designee finds that a person or entity has violated a prohibition or failed to meet a requirement of this chapter, the city manager or his designee may order compliance by written notice of violation to the responsible party.*

        - Business Services Manager - Harsit Patel (Department of Sanitation) is our designated IDDE Team member that assists with enforcement provisions according to the aforementioned City Code.

7. 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:

    i. *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments*

    ii. *Illicit Discharge Detection and Elimination: Technical Appendices*

    iii. *Illicit Discharge Detection and Tracking Guide*

    iv. I*llicit Discharge Detection and Elimination Field Guide: How to Identify and Quickly Report Pollution Problems: http://www.cspdc.org/programs/environment/documents/IDDEFieldGuide_Shenandoah_121914_002.pdf*

8. When IDDE event is closed, the Lead Investigator will complete the Illicit Discharge Reporting Form and will contact MS4 Program Coordinator to update the ArcGIS layer accordingly.

9. A summary of the illicit discharge inspection reports will be included with the MS4 Annual Report and 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.*

Last updated: 9/2015

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

STORMWATER POST CONSTRUCTION INSPECTION PROCEDURE

Equipment Needed:

- Clipboard
- Pens/Pencil/highlighter
- Blank Inspection Sheet (Word document)
- Previous Inspection Report (Found in U:\)
- Record drawings of Facility (if available)/Facility information
- Manhole Hook (for underground facilities)
    - Flusher Truck may be necessary for inspection and maintenance of underground facilities – Coordinate with Gene Sly
- Sludge Judge (for underground facilities)
    - Flusher Truck may be necessary for inspection and maintenance of underground facilities – Coordinate with Gene Sly
- Camera

Pre-Inspection Procedure

Note: Inspections take place annually in October/November by Aaron Rhoney and Kelley Junco. Reports are labeled for maintenance needs that are as follows:

- High Priority: Maintenance to take place 1-6 months
- Medium Priority: Maintenance to take place in 6-9 months
- Low Priority: Maintenance to take place in 1 year

1. Print a blank inspection report from the last folder (ZZ_Inspection Forms) in U:\Stormwater\Construction-Post Construction BMPs-E&S-VSMP\Project - Facilities - City Owned according to the type of BMP you intend to inspect.
2. Print the previous inspection report (if applicable) found in the U:\ link provided above in the specific facility's folder. Use the previous inspection report to determine reoccurring issues in the facility upon the inspection.
3. Check the Facility Tracking Excel sheet to determine the owner of your facility.

4. Notify the Department lead (outlined below) of your planned inspections. Invite the lead to join in the field, although it is not required to complete the inspection.
    a. Parks and Recreation –Lee Foerster (540) 433-9168 Lee.Foerster@harrisonburgva.gov
    b. Public Works –Gene Sly (540) 434-5928 Gene.Sly@harrisonburgva.gov
    c. HEC—Scott Dillard (540) 801-0903 scott@hbgelec.com
    d. City Schools – Roy Kite (540) 810-5098 rkite@harrisonburg.k12.va.us
5. Note the rainfall data information on the inspection report. Rainfall data can be gathered from weather.gov (this information will later be transferred to the electronic inspection form).
    a. Type in Harrisonburg, VA into the search engine
    b. Click 'Get more detailed information' under the weather graphic on the left.
    c. On the far right of the site click on '3 Day History' to gather precipitation data.
    d. Precipitation (in.) is on the far right of the table. Record the sum of the rainfall in the last 3 days.

During Inspection Procedure

1. Take an overall photo of the facility.
2. Inspect the facility according to the guidelines provided in the inspection report. Cross-check with passed inspection reports to ensure that passed issues have been fixed.
3. Take notes on the hardcopy inspection report in order to sufficiently complete the electronic inspection report in the office.
4. Take photos of all areas that need maintenance, areas of concern that need to be monitored, or areas where you have follow-up questions.
5. Document maintenance actions needed in each relevant section of the report in order to sufficiently complete the electronic inspection in the office.

Post-Inspection Procedure

1. Upload all photos and label them with the inspection date. (Ex: BMPInspections_2014.10.31)
2. All photos should be uploaded to U:\Stormwater\Construction-Post Construction BMPs-E&S-VSMP\Project - Facilities - City Owned in the folder specified for each BMP.

Appendix E: Training Schedule and Program

TRAINING PLAN AND SCHEDULE

Standard Operating Procedures

SOPs have been developed that cover:

- Bulk Storage Areas (Stockpiles)
- Dewatering Operations
- Discharge of Wastewater
- Disposal of Waste Materials (Landscaping)
- Equipment Maintenance
- Fertilizer and Pesticide Applications
- Leaking Automobiles & Equipment
- Municipal Wash Water
- Prevent Illicit Discharges
- Road & Street Maintenance
- Spill Kits

1. The City of Harrisonburg stormwater management team will distribute the aforementioned SOPs to each departmental supervisor in a designated 'Stormwater Binder'.
    a. Other stormwater-relevant materials such as Spill Incident Report Forms, Oil/Water Separator Inspections, and Stormwater Site Inspections can be kept in this binder.
2. Binders will be placed in an accessible location for all employees to reference.
3. SOPs are also available on the City intranet (C2) system accessible by all City of Harrisonburg employees.

Training Presentation:

- The training presentation includes an overview of stormwater management pollution prevention techniques and an overview of local waterway impairments.
- The training will include basic pollution prevention procedures and spill response

Training and Tracking:

Stormwater training sessions will be held in accordance with regularly held safety trainings to ensure all employees are reached. Sign-in sheets will be used to track attendees.

Year 1 Training	**Year 2 Training**
Fire Department	Police Department
Transit Department - Shop Employees	City Schools
Parks and Recreation -Site Supervisors	Parks and Recreation - Golf
Public Utilities	Community Development - Building Inspectors
Public Works	Electric Commission

Appendix F: VSMP 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
www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4000
1-800-592-5482

March 27, 2015

Kurt Hogden, City Manager
City of Harrisonburg
409 S. Main Street
Harrisonburg, Virginia 22801

Dear Mr. Hogden:

In accordance with §62.1-44.15:27 G of the Virginia Stormwater Management Act (Act), the Department of Environmental Quality (DEQ) has completed the review of the City of Harrisonburg's final Virginia Stormwater Management Program (VSMP) application package submitted on March 10, 2015. Based on this review, DEQ has determined that the City of Harrisonburg's VSMP is consistent with the Act, the VSMP regulation and the General VPDES Permit for Discharges of Stormwater from Construction Activities.

In light of this determination, DEQ approves the City of Harrisonburg's VSMP and the City of Harrisonburg is authorized to operate a VSMP beginning on July 1, 2014. Please note that this approval is based on the content of the application package. Any changes made to the documents in the package after the approval date, including changes to the adopted ordinance, may necessitate DEQ evaluation as part of its compliance review of your approved 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,

David K. Paylor

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