



City of Harrisonburg, Virginia

MS4 Annual Report

Reporting Period: July 1, 2016 – June 30, 2017

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 2016-2017

Table of Contents:

| | |
|--|-----------|
| I. WATERSHEDS | 5 |
| II. ORGANIZATIONAL STRUCTURE | 8 |
| III. CONTACT INFORMATION | 9 |
| IV. MS4 ANNUAL REPORT 2016-2017 | 10 |
| A. Minimum Control Measure #1: Education & Outreach on Stormwater Impacts | 11 |
| BMP 1.1: Develop and Implement Education and Outreach Program | 11 |
| Minimum Control Measure 1 Evaluation | 12 |
| B. Minimum Control Measure #2: Public Involvement & Participation | 12 |
| BMP 2.1: Availability of Program Plan & Annual Reports | 12 |
| BMP 2.2: Public Participation Event #1– <i>Blacks Run Clean-Up Day</i> | 13 |
| BMP 2.3: Public Participation Event #2– <i>Household Hazardous Waste Collection</i> | 13 |
| BMP 2.4: Public Participation Event #3 – <i>6th Grade Plant-A-Seed Program</i> | 13 |
| BMP 2.5: Public Participation Event #4 – <i>Rain Barrel Workshops</i> | 14 |
| Minimum Control Measure 2 Evaluation | 14 |
| C. Minimum Control Measure #3: Illicit Discharge Detection and Elimination | 15 |
| BMP 3.1: Storm Drain System, Outfalls, and Information Map | 15 |
| BMP 3.2 Notification of Regulated Downstream MS4 | 15 |
| BMP 3.3: Illicit Discharges & Connections Ordinance | 15 |
| BMP 3.4: Implement and Update Procedures to Detect & Eliminate Illicit Discharges | 16 |
| BMP 3.5: Outfall Reconnaissance Inventory | 19 |
| BMP 3.6: Promotion and Facilitation of Public Reporting of Illicit Discharges | 19 |
| Minimum Control Measure 3 Evaluation | 20 |
| D. Minimum Control Measure #4: Construction Site Stormwater Runoff Control | 20 |
| BMP 4.1: Ordinance and Other Legal Authorities to Require Erosion & Sediment Controls | 20 |
| BMP 4.2: Inspections and Tracking of Land Disturbance Activities | 21 |
| BMP 4.3: Mechanism for Receipt of Complaints Regarding Regulated Land Disturbance Activities | 22 |
| Minimum Control Measure 4 Evaluation | 22 |

| | |
|--|-----------|
| E. Minimum Control Measure #5: Post-Construction Stormwater Management | 23 |
| BMP 5.1: Ordinance and Other Legal Authorities to Address Post-Construction Runoff | 23 |
| BMP 5.2: Develop and Implement Policies and Procedures to Address Post-Construction Runoff | 23 |
| BMP 5.3: Require Long-Term O&M of Stormwater Management Facilities Not Owned by the City | 23 |
| BMP 5.4: Require Long-Term O&M of Stormwater Management Facilities Owned by the City | 24 |
| BMP 5.5: Track Stormwater Management Facilities | 24 |
| Minimum Control Measure 5 Evaluation | 25 |
| F. Minimum Control Measure #6: Pollution Prevention/Good Housekeeping | 26 |
| BMP 6.1: Develop Operational Procedures to Minimize or Prevent Non-stormwater Discharges | 26 |
| BMP 6.2: Identification of High-Priority & High Priority – High Potential Municipal Facilities | 27 |
| BMP 6.3: SWPPP Development for High Priority - High Potential Facilities | 28 |
| BMP 6.4: Implement Turf and Landscape Nutrient Management Plans | 29 |
| BMP 6.5: Implement Employee Training On Written Procedures to Minimize or Prevent Discharges | 30 |
| BMP 6.6: Require Municipal Contractors Use Appropriate Control Measures and Procedures for Stormwater Discharges to the MS4 System | 31 |
| Minimum Control Measure 6 Evaluation | 31 |
| G. Evaluation and Assessment | 32 |
| Section E. (2) Recordkeeping | 32 |
| H. Virginia Total Maximum Daily Load (TMDL) Special Conditions | 33 |
| TMDL Special Conditions | 33 |
| I. Chesapeake Bay Total Maximum Daily Load (TMDL) Special Conditions | 33 |
| Chesapeake Bay TMDL Special Conditions | 33 |
| V. APPENDIX ITEMS | 35 |
| Appendix A: Public Education and Outreach Plan 2017-2018 | 35 |
| Appendix B: Dry Screening and Outfall Inspection Methodologies | 37 |
| 2016-2017 Outfall Map | 39 |
| Appendix C: Illicit Discharge Detection & Elimination Investigation Process | 40 |
| 2016-2017 Illicit Discharge Map | 45 |
| Appendix D: Written Procedures for Inspection and Maintenance of Operator-Owned Stormwater Management Facilities | 46 |
| Appendix E: Training Schedule and Program | 48 |
| Appendix F: VSMP Approval Letter from the Department of Environmental Quality | 48 |
| Appendix G: High Priority Stormwater Pollution Prevention Maps | 49 |

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 (<i>flows into Cooks Creek</i>) | 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 (<i>flows into Smith Creek</i>) | PS59 | 0.206 | 493 | E. Coli, Sediment | Yes, 2004 |
| North River-Mill Creek | PS26 | No stream | 87.44 | E. Coli | No |
| Cub Run (<i>flows into South Fork of Shenandoah River</i>) | PS33 | No stream | 14.75 | E. Coli | No |
| Linville Creek (<i>flows into North Fork of Shenandoah River</i>) | PS56 | 0.08 | 117.8 | E. Coli, Sediment | No |

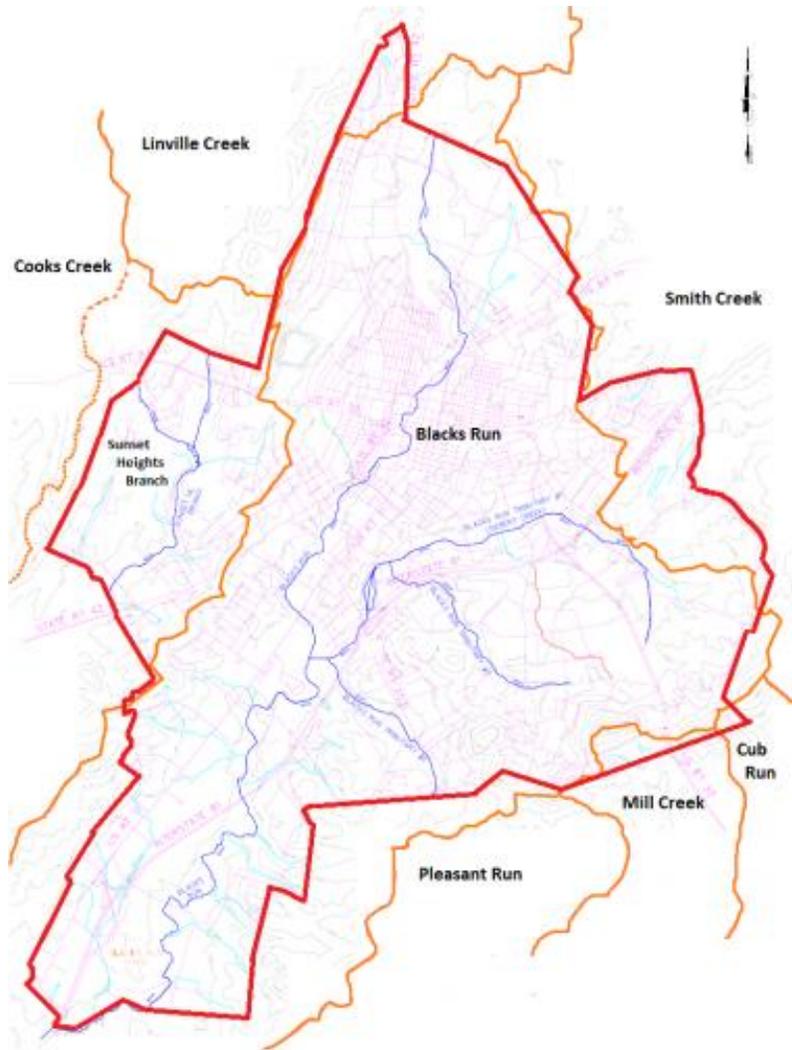


Figure 1. Subwatersheds in Harrisonburg.

(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 in the City of Harrisonburg Chesapeake Bay TMDL Action Plan.



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 Public Works Environmental Compliance Manager 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, 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 |
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| Phone: | (540) 432-7701 |
| Email: | Kurt.Hodgen@harrisonburgva.gov |

| Duly Authorized Representatives | |
|--|--|
| Title: | Environmental Compliance Manager at Public Works |
| Name: | Kelley Junco |
| Address: | 320 East Mosby Road Harrisonburg, Virginia 22801 |
| Phone: | (540) 434-5928 |
| 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 |
| Email: | Jim.Baker@harrisonburgva.gov |

IV. MS4 Annual Report 2016-2017

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 2016-2017 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

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| BMP 1.1: Develop and Implement Education and Outreach Program |
| 1.1.1 Description: Public education and outreach on stormwater impacts |
| <p>1.1.2 Annual Reporting Requirements:</p> <ul style="list-style-type: none"> • 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 reached. (Year 4) • 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. |
| <p>1.1.3 Year 3 Response: The following education and outreach activities occurred during Year 4.</p> <ul style="list-style-type: none"> • 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. A presentation was given to the Downtown Dining Alliance regarding the stormwater utility fee and stormwater pollution prevention techniques. • Food Trucks: 20% of the target audience was reached. There are 11 food trucks in Harrisonburg with business licenses, each was sent a pollution prevention letter and poster which outlined best management practices for food trucks. • City Schools: 20% of the target audience was reached. Stormwater staff taught lessons to pair with school curriculums. Approximately 256 students were reached through these lessons, including through the Plant-A-Seed program (see <i>BMP 2.4</i>). In addition, all middle school students participate in the Trout in the Classroom program and all 7th graders participate in the Drink, Flush, Play program. Staff supports these programs as needed to ensure they continue. • Outreach and Education for the Next Reporting Period: See <i>Appendix A</i> for details. <ul style="list-style-type: none"> ○ <i>City Schools</i> ○ <i>Residential Property Owners/Tenants</i> ○ <i>Litter/Trash</i> |

| Minimum Control Measure 1 Evaluation |
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| <p>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.</p> |
| <p>Effectiveness of BMPs in addressing discharges into impaired waterways Education through diversified mediums is an effective way to address local discharges into impaired waterways. All appropriate outreach forums this reporting year have included distribution of the Water Pollution Reporting business card to encourage pollution reporting (stormwater utility fee credit applications, illicit discharge Notice of Violation letters, letters to food truck owners, etc.).</p> |
| <p>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.</p> |
| <p>Modifications to any operator’s department’s roles and responsibilities No modifications were made to the operator’s roles and responsibilities.</p> |
| <p>Steps to be taken to address deficiencies Limited deficiencies found. Reaching 20% of the city school’s population of students proved challenging – especially when city staff had hoped to reach students face-to-face. The Public Education and Outreach Plan has been updated for this upcoming reporting year to limit the target audience to only to middle school students. Staff will identify opportunities to support the Trout In the Classroom Program and Drink, Flush, Play for 7th graders. Other invitations to work with classrooms outside of these programs will be considered as well. Any deficiencies observed during the next reporting cycle will be properly addressed in the upcoming MS4 Annual Report.</p> |
| <p>Plans for the next reporting cycle Implementation of the updated Public Education and Outreach Plan. See Appendix A.</p> |

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

| BMP 2.1: Availability of Program Plan & Annual Reports |
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| <p>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.</p> |
| <p>2.1.2 Annual Reporting Requirements:</p> <ul style="list-style-type: none"> • 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. |
| <p>2.1.3 Year 3 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</p> |

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 Blacks Run and Downtown Clean Up Day (“Clean Up Day”) with participation from other local agencies and 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 the permit.

2.2.3 Year 4 Response: Blacks Run and Downtown Clean Up Day was held April 8th, 2017. Over 500 volunteers assisted in collecting 3.24 tons of trash. Participating organizations included the Shenandoah Valley Soil and Water Conservation District, Climate Action Alliance of the Valley, Valley Conservation Council, Chesapeake Bay Foundation, Sierra Club - Shenandoah Group, Ten Thousand Villages, Virginia Department of Forestry, Harrisonburg-Rockingham Regional Sewer Authority, Virginia Department of Environmental Quality, Massanutten Chapter of Trout Unlimited, Eastern Mennonite University’s Museum of Natural History, and the Headwaters Master Naturalists. 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 4 Response: Household Hazardous Waste days this annual reporting year were held August 20, 2016; October 15, 2016; and April 22, 2017. 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 Grade Plant-A-Seed Program

2.4.1 Description: The City of Harrisonburg will volunteer and participate in the 6th 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 4 Response: The Plant-A-Seed field trip occurred on August 28, 2016; October 5, 2016; and May 31, 2017 with 6th 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 4 Response: A rain barrel workshop occurred on April 19, 2017 in partnership with the Shenandoah Valley Soil and Water Conservation District. There were 15 total rain barrels 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. It can be challenging for staff to differentiate between Public Outreach and Education events and Public Involvement events during the planning phase of the permit cycle.

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 locally 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. Staff is exploring additional public involvement opportunities for upcoming permit cycles.

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 volunteer stream clean up events.

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

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| 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: <ul style="list-style-type: none"> • None. Further documentation is available upon request. |

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| 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: <ul style="list-style-type: none"> • A list of written notifications of physical interconnection given by City to other MS4s. |
| 3.2.3 Year 4 Response: Physical interconnection letters with the Virginia Department of Transportation and James Madison University were signed and sent in June 2014. |

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| 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: <ul style="list-style-type: none"> • None, unless the ordinance is adopted or amended. |
| 3.3.3 Year 4 Response: On June 24, 2014, City Council adopted and enacted an ordinance; Title 7, Chapter 6 “Illicit Discharges and Connections”. No amendments were made to the ordinance in Year 4. |

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 4 Response: The incidents listed in the Illicit Discharge Summary 2016-2017 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. Significant suspect illicit discharges are included below. For additional information regarding the investigation procedure, see *Appendix C*. Further information is available by request.

As a part of Cityworks software implementation, the Public Works department now maintains and tracks an illicit discharge detection and elimination system electronic database and reporting system.

Illicit Discharge Summary 2016-2017

| Incident Identifier | Incident Date | Report Date | Date Closed | Incident Narrative | Resolutions/Conclusion |
|---------------------|---------------|-------------|-------------|---|---|
| 045-A-07 | 7/5/16 | 7/5/16 | 7/5/16 | Report of overflowing manholes due to a private company discharging wastewater from wastewater treatment facility. | No sanitary sewer surcharge reached streams or state waters. Quantity of overflow was approximately 50 gallons. Field crews used vacuum truck to clean up spill. DEQ notified. |
| 040-M-03 | 7/6/16 | 7/6/16 | 7/6/16 | Private company flushed sanitary sewer line and sent an overabundance of discharge to the sanitary sewer system which caused a manhole to dislodge. | Waste was flushed by Public Utilities and collected with a vacuum truck. No waste entered the storm sewer system. |
| 040-S-01 | 7/7/16 | 7/7/16 | 7/7/16 | Poultry waste truck spilled waste litter into the street. | Poultry company cleaned up the road and disposed of waste product. No waste entered the storm sewer system. |
| 032-G-01B | 7/16/16 | 7/16/16 | 7/16/16 | An unknown source spilled 20 gallons of hydraulic fluid; some fluid entered a storm drain. | Harrisonburg Fire Department responded to, and cleaned up, the spill. DEQ was notified. |
| 088-C-06 | 8/3/16 | 8/8/16 | 8/8/16 | Blockage in a sanitary sewer line required Public Utilities to jet flush the line; this caused a sanitary sewer overflow. | Sanitary sewer overflowed onto a grassed area, did not reach the storm sewer system. Public Utilities properly disposed of all visible evidence of the sanitary sewer overflow. DEQ was notified. |

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| 034-X-10 | 8/12/16 | 8/12/16 | 8/12/16 | Restaurant waste oil staining sidewalk and gutter. | Public Works staff placed absorbent material onto the spill and disposed of the potential pollutant materials properly. Public Works staff discussed the best management of waste oil with the suspected violator and provided them with an educational poster and a Notice of Violation letter. |
| 031-G-06 | 8/15/16 | 8/15/16 | 8/23/16 | Resident was seen dumping dog waste into a drop inlet. A Public Works employee investigated and found a large amount of fecal matter in the drop inlet. | Harrisonburg Police Officer went to the location hoping to see the resident dumping. The resident was not caught dumping but the officer spoke to the suspected violator and provided them with ordinance information. |
| 014-P-04 | 8/16/16 | 8/16/16 | 8/17/16 | Vehicle accident spilled pesticides in the road. | Public Works and Fire Department responded to clean up spill. Materials properly disposed of. |
| 025-G-10 | 8/16/16 | 8/6/16 | 8/16/16 | Concrete truck was seen washing out concrete into a curb inlet. | Violating company notified via telephone conversation and notice of violation letter. |
| 006-D-11 | 10/11/16 | 10/11/16 | 10/11/16 | Public Works brine truck was parked on a slope. Fuel spilled out of fuel tank lid due to the slope. | Spill was covered in absorbent material and materials were disposed of properly. Brine truck was inspected and gas tank lid replaced. |
| 010-C-06 | 10/17/16 | 10/17/16 | 10/18/16 | Vehicle struck utility lines and damaged a transformer. Mineral oil from the damaged transformer ran down curb line. | Public Works stopped flow of oil before drop inlet and applied two separate applications of absorbent material. Material was swept up by street sweeper and potential pollutant materials were properly disposed of. |
| 018-F-05 | 10/19/16 | 10/19/16 | 10/19/16 | An unknown source washed out concrete slurry onto a stream bank. | Area construction projects with new concrete were investigated. No violator identified. |
| 046-C-04 | 10/21/16 | 10/22/16 | 10/22/16 | Poultry fat was spilled from waste truck after a hose on the waste truck burst. Unknown amount of fat was spilled. | Spill took place in private facility and was cleaned up by the business. DEQ was notified. |
| 034-W-04B-A | 10/26/16 | 10/26/16 | 10/26/17 | Good housekeeping concerns at restaurant dumpster. Waste oil traveled down curb line and into the storm sewer system. | Corrective Action letter sent to the responsible party. |
| 034-X-07 | 10/31/16 | 10/31/16 | 10/31/16 | Trash and waste oil was present beside restaurant in the curb and gutter. | Public Works staff spoke to restaurant staff. |
| 034-X-07 | 11/23/16 | 11/28/16 | 11/28/16 | Staining from waste oil and trash juice along street and beside restaurant storage area. | Restaurant employees applied sand to spill area by waste oil storage. Public Works employees applied absorbent material to spill in street and disposed of the material properly. Public Works staff spoke to restaurant employees. |
| 018-F-05 | 12/14/16 | 12/14/16 | 12/19/16 | Concrete slurry was dumped on top of bank and flowed into Blacks Run. (Different incident than 10/21/16, same location.) | Violator unknown, Public Works cleaned up as much material as possible. DEQ was notified. |
| 052-C-05 | 12/20/16 | 12/20/16 | 12/20/16 | Blood and feathers spilled along the public roadway. Blood was already dried. | No clean up actions were taken by Public Works - low temperatures made clean up operations unsafe. Local poultry plants were contacted. |
| 040-M-40 | 1/12/17 | 1/12/17 | ongoing | Continuation of existing issue at Shenandoah Valley Organics, discharge of waste water into storm | DEQ is handling this issue. |

| sewer system. | | | | | |
|---------------|---------|-----------|---------|--|---|
| 018-F-05 | 1/20/17 | 1/20/17 | 1/23/17 | Concrete truck seen washing concrete out onto a gravel pad adjacent to stream. | Violating company issued a Notice of Violation letter and asked to provide proof of staff training. Staff education was completed. |
| 021-G-07 | 2/8/17 | 2/8/17 | 2/9/17 | City staff reported private company dumping washwater onto gravel cul-de-sac. | No washwater entered storm sewer system. A Notice of Violation letter was sent to the suspected violator. |
| 018-B-01 | 2/21/17 | 2/21/17 | 2/21/17 | Harrisonburg Fire Department's response to fuel tanker fire caused about 2.5 gallons of Class B Foam to enter storm drain. No diesel fuel spilled from tanker. | A dam and dyke system was installed to protect storm drain from more spills. Virginia Emergency Operations Center and DEQ were notified. |
| 027 | 3/12/17 | 3/12/17 | 3/12/17 | Waste chicken parts spilled from a haul truck and onto the roadway. | Public Works cleaned chicken parts up and put absorbent material down twice. Potential pollutant materials were disposed of properly. |
| 026-P-20 | 3/27/17 | 3/27/17 | 3/27/17 | Fertilizer unit on the back of a private truck broke. | Fire Department put down absorbent material and cleaned up the spilled area. |
| 026-B-11 | 4/20/17 | 4/21/2017 | 4/21/17 | Fire Department responded to a Hazmat call, unknown amount of white cloudy substance found in the stream. | Fire Department could not find source or suspected violator. Cloudy substance cleared up quickly, no evidence of an illicit discharge the next day. |
| 038-B-01 | 5/2/17 | 5/2/17 | ongoing | Water source infiltrating tops of two underground tanks that hold gasoline at the City's Park View facility. | Gasoline is sealed off from the upper portion of tank where water is collecting. Modifications were made to the tank canopy. |
| 18-F-01 | 5/8/17 | 5/8/17 | 5/8/17 | Train wreck on bridge caused three train car loads of dry feed corn to spill onto stream banks and into stream. | Harrisonburg Fire Department and Public Works initially responded and set up booms and a silt fence to catch kernels. DEQ was notified. Clean up and remediation was handled through DEQ. |
| 34-I-03 | 5/9/17 | 5/10/17 | 5/10/17 | Less than a gallon of antifreeze from a tractor trailer accident spilled. | Harrisonburg Fire Department protected a curb inlet with a boom once they arrived. |
| 44-A-02 | 5/10/17 | 5/10/17 | 6/14/17 | Truck driver was seen dumping from truck into storm drain. | City staff cleaned up waste material. Notice of Violation letter was sent to trucking company. A second Notice of Violation Letter was sent. City staff then spoke with the truck driver, who agreed to move to a truck stop in the future. |
| 92-J-0A | 5/10/17 | 5/10/17 | ongoing | Large accumulation of trash in stream, along banks, and in a retaining wall that is part of a private BMP. | Corrective Action letters sent to the 4 property owners/managers along the stream. Immediate clean-up and quarterly clean-ups requested. |
| 014-P-02 | 6/22/17 | 6/27/17 | 6/27/17 | Sanitary sewer overflow occurred due to blockage in line. Approximately 50 gallons of sanitary sewage spilled into ditch. | The liquid sanitary sewage was not recoverable. Public Utilities stopped sewage from reaching state waters and cleaned up and properly disposed of the sewage. DEQ was notified. |

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 4 Response:

See *Appendix B* for the dry screening and outfall inventory standard operating procedure. During the 2016-2017 reporting period, more than 50 MS4 outfalls were inspected and 0 active illicit discharges were observed or required follow-up. Non-MS4 regulated outfalls were removed from the MS4 regulated mapping information. As a part of Cityworks software implementation, the Public Works department has worked to refine outfall mapping inventory and inspection information.

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 4 Response:

A *Report Water Pollution* business card was developed during the 2014-2015 reporting year 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 and in stormwater mailings during Year 4. A Tow Truck Spill Incident Report Form was developed in the 2015-2016 reporting year to encourage best management practices when tow truck companies respond to an accident within the City of Harrisonburg. The Police Department trained all short-listed tow truck companies and the companies return a completed Form to the Public Works Department after each incident.

| Minimum Control Measure 3 Evaluation |
|---|
| <p>Appropriateness of the identified BMPs All identified BMPs address MCM3 permit requirements and are therefore deemed appropriate.</p> |
| <p>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.</p> |
| <p>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.</p> |
| <p>Modifications to any operator’s department’s roles and responsibilities Fire Department representatives have established communications with the Public Works Environmental Compliance Manager and Business Services Manager when they respond to a spill to increase illicit discharge documentation efforts.</p> |
| <p>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. Public Works Environmental Compliance Manager continues efforts to educate emergency response teams about the importance of contacting the Public Works Department if a spill enters the storm sewer system and if the Department of Environmental Quality is notified of an incident.</p> |
| <p>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. Cityworks software will be used in the 2017-2018 reporting year and will assist city staff in tracking illicit discharge incidents.</p> |

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

| BMP 4.1: Ordinance and Other Legal Authorities to Require Erosion & Sediment Controls |
|--|
| <p>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:</p> <ul style="list-style-type: none"> • 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 <p>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.)</p> <p>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.</p> |
| <p>4.1.2 Annual Reporting Requirements:</p> <ul style="list-style-type: none"> • 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 4 Response:

Total Number of Regulated Land-Disturbing Activities: 67

Total Number of Acres Disturbed: 202.63

Total Number of Inspections Conducted: 1,415

Summary of Enforcement Actions Taken: 149 potential violations, 17 notice to comply letters

During the 2016-2017 reporting period **1415** land disturbing activity inspections were conducted. Of the **1415** inspections, **149** 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 **149** potential violations, **17** 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 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.

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 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 4 Response: There are 65 privately-owned stormwater management facilities in the City of Harrisonburg that treat approximately 142.731 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 4 Response: There are 35 city-owned stormwater management facilities in the City of Harrisonburg that treat approximately 387.7 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*. BMPs are inspected annually. 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 4 Response: During this reporting period there were 5 inspections and there were 0 enforcement actions for privately owned stormwater management facilities.

| Stormwater Management Facilities Brought Online 2016-2017 | | | | | | | |
|---|-------------------|-------------------------------|---------------|---------------|-------------|-----------------|------------------------|
| Project Name | Unit Code | BMP Type | Acres Treated | Impervious AC | Pervious AC | Brought on Line | Latitude / Longitude |
| Campus View Condos | PS22 - Blacks Run | 3.07 Extended Detention Basin | 15.250 | 5.750 | 9.500 | 8/12/2016 | 38.416781 / -78.851707 |
| North Harrisonburg Industrial Park, Lot2 | PS22 - Blacks Run | 3.08 Detention Basin | 0.451 | 0.428 | 0.023 | 7/12/2016 | 38.47426 / -78.865140 |
| North Harrisonburg Industrial Park, Lot2 | PS22 - Blacks Run | 3.08 Detention Basin | 0.620 | 0.589 | 0.031 | 7/12/2016 | 38.47426 / -78.865140 |
| RE Michel | PS22 - Blacks Run | 3.14 Vegetated Filter Strip | 0.370 | 0.240 | 0.130 | 2/22/2017 | 38.433374 / -78.902930 |

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 through

the Non-Residential Stormwater Utility Fee Credit Program. Large-scale maintenance projects have been scheduled and almost half have been completed since Year 3. The city’s Stormwater Improvement Plan will also identify retrofit opportunities that may disrupt the aforementioned schedule. The Stormwater Improvement Plan will begin Phase II of development at the time of this report’s submittal.

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 4 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 stored in 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

As a part of SWPPP development, new SOPs were developed to cover additional pollution prevention and waste disposal topics that were not covered in the 2014-2015 SOPs. This set of SOPs has been disseminated to the Public Works Department, Public Utilities Department, and Parks and Recreation.

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 4 Response:

The City was allowed 12 months after permit coverage to identify those facilities that have a high priority-high potential for stormwater pollution. 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

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

During the 2014-2015 reporting year, Central Stores Property was removed since materials storage is kept primarily indoors. Outdoor storage is organized and limited to non-erodible materials. The Recycling Facility was also removed due to a change in operations that significantly diminished activity at this facility. The Recycling Facility is now demolished and a new facility is under construction (see below).

2016-2017 Municipal High Priority Facilities with a High Potential for Pollutant Discharges:

- Park View Shops, 901 Chicago Avenue
 - Inspected October 13, 2016 and April 7, 2017
- Public Utilities Facility, 2155 Beery Road
 - Inspected November 18, 2016 and April 27, 2017
- Public Works Facility, 320 East Mosby Road
 - Inspected October 5, 2016 and April 6, 2017

Twice yearly site inspections were performed by the Public Works Environmental Compliance Manager to identify any stormwater pollution issues at the high priority-high potential facilities. Issues were discussed on-site and followed-up with after the inspection. No changes were made to the list of high priority-high potential sites during this reporting year. A new transfer facility is currently under construction, the site will be evaluated as a potential high priority/high potential facility upon project completion.

No changes were made to the high priority facilities list in Year 4.

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 4 Response: During the 2014-2015 reporting year a consultant developed SOPs for Good Housekeeping/Pollution Prevention for the City of Harrisonburg municipal operations as well as final SWPPP documents for the Public Works Facility. Draft SWPPP mapping and inspection reports were created in-house for the remaining two High Priority/High Potential facilities: Park View Shops and Public Utilities. During 2016-2017 final SWPPP documents were created in-house for Park View Shops and Public Utilities and the Public Works Facility SWPPP was updated. SWPPP training occurred to all relevant staff, SWPPP documents were posted in each of the three facilities, and bi-annual inspections using the SWPPP inspection forms were completed. See *Appendix G* for copies of these High Priority SWPPPs. Inspection reports and further documentation is available by request.

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 4 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 4 Response: A stormwater pollution prevention training presentation was presented by the Public Works Environmental Compliance Manager 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 standard operating procedures to be placed in an accessible location for site employees to reference as needed.

In Year 4, the City of Harrisonburg purchased a Target Solutions online training portal and launched it to all city departments. The Police Department utilized this tool earlier than other departments in Year 3. Police stormwater training for Year 3 included a pollution prevention fact sheet crafted to Police Department operations and a stormwater management quiz. It is anticipated that within Year 5, the online tool will be utilized for stormwater management training for all required trainings.

Departments Trained in Year 4:

- Golf Course Maintenance – 1/12/2017; 5 employees
- Parks and Recreation – 1/12/2017; 21 employees
- Public Utilities – 1/19/2017; 19 employees
- Fire Department – No formal training was provided to the Fire Department in Year 4.
 - 12/12/2016 Underground best management practice inspection was completed in coordination with fire department confined space training; 7 employees
 - 5/17/2017 Illicit discharge emergency procedures reviewed with staff; 15 employees

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 4 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 in 2015 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. Inspections will also take place on a twice yearly schedule for all high potential municipal facilities. Target Solutions training tool will assist staff in conducting regular stormwater management training and education.

Plans for the next reporting cycle Twice yearly inspections of all high potential municipal facilities are planned to ensure there is regular implementation of pollution prevention techniques. Target Solutions training tool will assist staff in conducting regular stormwater management training and education.

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 Section 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 4 Response:

- One new outfall was added at the City of Harrisonburg Public Works site when the parking lot on the north side of the property was paved. This addition is reflected in the Public Works SWPPP and outfall map in the appendices.
- 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. Informal monitoring activities with university students occurred as a part of Public Education and Outreach and Public Involvement and bacteria samples are taken on a semi-regular basis for internal use only.
- 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 |
|--|
| <p>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</p> |
| <p>Annual Reporting Requirements:</p> <ul style="list-style-type: none"> The City will implement its TMDL Action Plan and submit progress reports in its MS4 Annual Report in accordance with the permit requirements. |
| <p>Year 4 Response:</p> <p>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.</p> <p>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.</p> |

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

| Chesapeake Bay TMDL Special Conditions |
|---|
| <p>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 was submitted to the Virginia Department of Environmental Quality with the July 1, 2014 through June 30, 2015 MS4 Annual Report, and a revised Chesapeake Bay TMDL Action Plan was submitted to the Virginia Department of Environmental Quality with the July 1, 2015 through June 30, 2016 MS4 Annual Report.</p> |
| <p>Annual Reporting Requirements:</p> <p>Once the Chesapeake Bay TMDL Action Plan is developed, each subsequent annual report shall include:</p> <ul style="list-style-type: none"> 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 be implemented during the next reporting period and the expected progress toward meeting the compliance targets

Year 4 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 the 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:

Street Sweeping:

TP: 814.70 pounds/year

TN: 2,036.76 pounds/year

TSS: 244,410.6 pounds/year

Homeowner BMPs:

2015:

TP: 4.96 pounds/year

TN: 71.37 pounds/year

2016:

TP: 3.32 pounds/year

TN: 39.93 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: Storm Drain Cleaning Practice (if approved by the state)

V. Appendix Items

Appendix A: Public Education and Outreach Plan 2017-2018

1. City Schools – Middle School Students

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 about stormwater management and pollution prevention. It is also an opportunity to educate young people about environmental pollution and the impact the individual has on overall health of the environment.

b. *Planned Activities:* Programs in place pair stormwater/watershed health education with STEM programs and the Trout in the Classroom program. A field trip called 'Drink, Flush, Play' includes all 7th graders the city school system. Educational posters will be posted and other lessons led by city staff will be conducted where possible.

c. *Estimated Population Size of Target Audience:* Students at Skyline Middle School and Thomas Harrison Middle School

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

2. Stormwater Pollution Prevention for Residential Property Owners/Tenants

a. *Appropriateness of Issue:* There are many ways in which Harrisonburg residents might create or reduce stormwater pollution during their daily lives. Outreach targeted towards City residents, both homeowners and renters, will help to educate the general population on the importance of clean water and what they can do to help prevent stormwater pollution. The city's Stormwater Utility Fee Residential Credit Program and its associated resources will act as a staple platform from which the following topics will stem.

b. *Planned Activities:* Monthly outreach on various city media resources. Resources include: press releases, city Facebook, Twitter, and Instagram posts, *CleanStream.Org* articles, city website articles, local news media outlets. Monthly outreach will rotate which type of media outlet is used to target the broadest audience possible.

Sample Topic Schedule:

July: Public Education & Stormwater

August: Lawncare & Stormwater

September: Household Hazardous Waste & Stormwater

October: Washing Residential Cars & Stormwater

November: Leaf Removal & Stormwater

December: Riparian Buffers & Stormwater

January: Pets & Stormwater

February: Street Sweepers & Stormwater

March: Macroinvertebrates and Stormwater

April: Blacks Run Clean Up Day

May: Rain Barrels and Stormwater

June: Residential Credit Program

c. Estimated Population Size of Target Audience: The target audience of the Stormwater Pollution Prevention for Homeowners education campaign will be city residents that are already using city-sponsored educational outlets to receive regular informational updates. Therefore, the target audience will be those currently utilizing online resources.

d. Percentage Goal of Target Audience Reached: 20% measured through “Stormwater Pollution Prevention Education” webpages hits, the Stormwater and Environmental newsletter “clicks”, Twitter and Facebook views, and other statistical information that can be gathered from city-sponsored outlets.

3. Litter/Trash

a. Appropriateness of Issue: Many city departments coordinate trash clean up activities, such as the Adopt-A-Street program, Blacks Run Clean Up Day, and cleanup of city streets and medians during mowing and storm drain cleaning operations. These efforts have historically been distinct programs run by different individuals to target the litter problem in Harrisonburg. However, all trash and litter on city streets winds up in the same place - the storm sewer system and local waterways. The MS4 Program will take the lead in coordinating internal trash cleanups and will additionally coordinate with the public to inform them about litter removal for water quality purposes. If necessary, Sec 7-6-5 of Harrisonburg City Code and Sec 6-2-6 of Harrisonburg City Code will be utilized in outreach efforts.

b. Planned Activities: Coordination of city departments and city employee clean-up programs, Adopt-A-Street program, Adopt-A-Stream program, non-profit and volunteer groups, and Blacks Run Clean-Up Day.

c. Estimated Population Size of Target Audience: Target audiences will be determined as trash clean-up efforts continue. Educational outreach and violations will be targeted towards those property owners, renters, businesses, etc. that are sourcing trash from their specific properties.

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

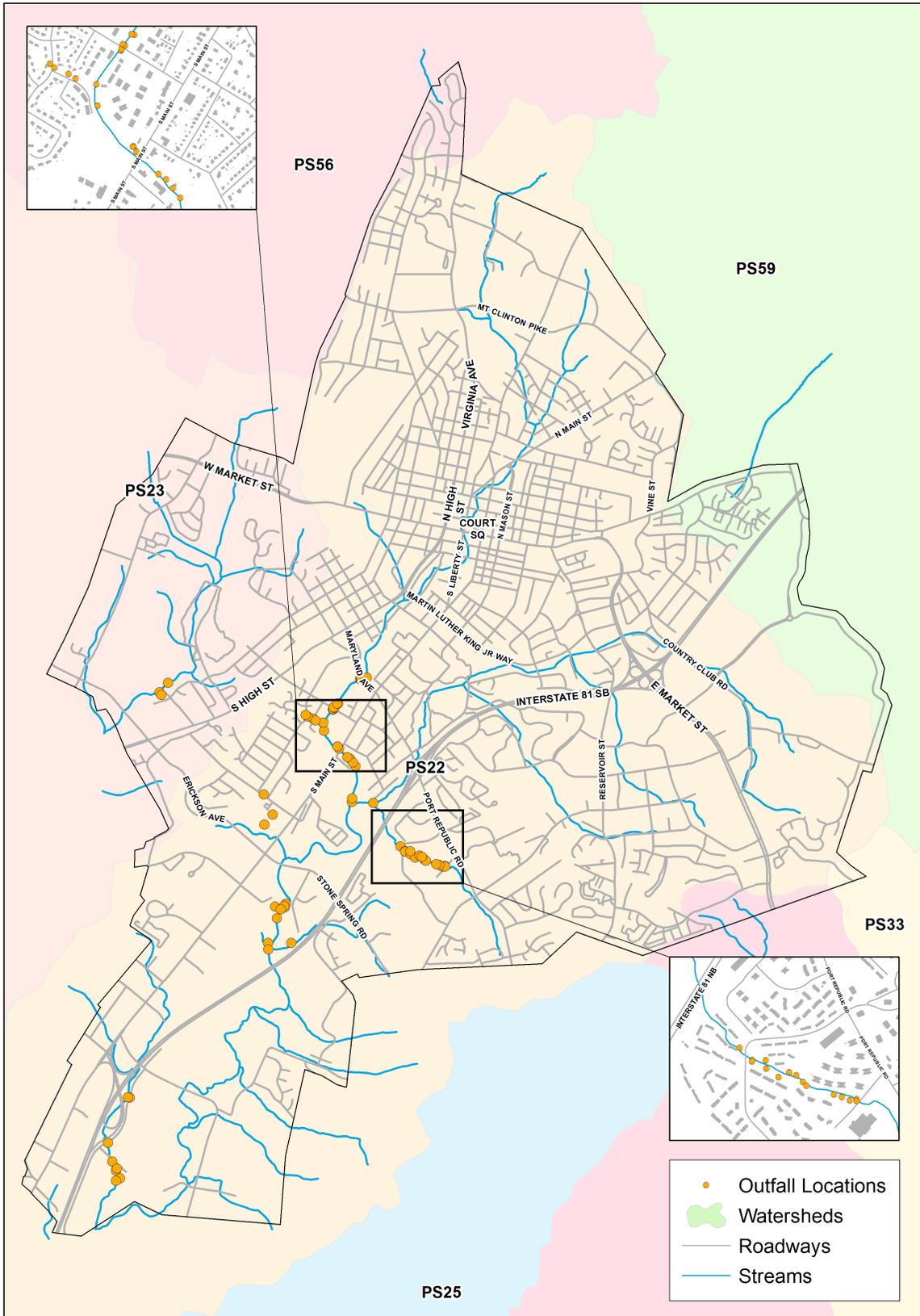
Pre-Inspection Procedure:

- Materials needed:
 - Waders
 - Smartphone
 - Collector for ArcGIS application
 - Outfall Inspection Form
 - Illicit Discharge Reporting Form
 - City of Harrisonburg Outfall Inspection Policy
 - Clipboard
 - Pen/Pencil
 - Safety Vest
 - Measuring Tape
 - Battery Pack
- Using ArcGIS online, create a web map containing the Drop Inlets, Storm Sewer Pipes, MS4 Old Outfalls Draper Aden, MS4 Old Outfalls, City Limits, and MS4 Outfalls app layer. Save this map to the web platform, and download the map on the Collector for ArcGIS phone application.
- Print out the newest version of the City of Harrisonburg Outfall Inspection Policy.
- Print out newest version of the Outfall Inspection Form.
 - Outfall Inspection Forms are updated based on GIS and inspection needs. Those that have been developed can be found at: <U:\Stormwater\Illicit Discharge Detection & Elimination\Outfall Inspections>
- Records of existing outfalls should be in either the MS4 Old Outfalls or MS4 Old Outfalls Draper Aden GIS layers. Outfalls inspected started in 2016-2017 are loaded into the MS4 Outfalls app layer. Future outfall inspections will be recorded in the Collector app and then loaded into GIS.

- GIS Coordinator adds new outfalls and storm sewer system information into the GIS as new construction information is processed through the Community Development Department.

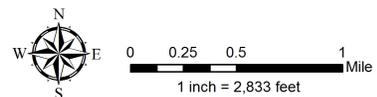
Inspection Procedure:

- 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. Use the Collector for ArgGIS app to fill out information about each outfall. Then, fill out the Cityworks Inspection for the outfall. Load a geographic image, a condition image, and an image of the Cityworks inspection form into the app.
 3. Note Cityworks Priority Ranking Field. This field is to determine priority areas to refine future inspections.
 - a. 1: Outfall is in “good” condition. There are no structural issues to the outfall, no erosion around the outfall, and there is no trash or debris surrounding the outfall.
 - b. 2: Outfall is in “okay” condition. There are no major structural issues, only minor erosion around the outfall, and/or only some trash or debris surrounding the outfall.
 - c. 3: Outfall is in “poor” condition. There are major structural issues, erosion around the outfall, and/or large amounts of trash or debris surrounding the outfall.
 4. 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 and 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 the data collected using the Collector app into the GIS layer.
- 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: 5/15/2017



Outfall Inspections 2016-2017

City of Harrisonburg



Appendix C: Illicit Discharge Detection & Elimination Investigation Process

IDDE Investigation Process

Definitions:

Illicit Discharge Detection Inspection Team: Public Works Environmental Compliance Manager, Environmental Specialist - Stormwater Field, Business Services Manager, GIS Coordinator

Lead Investigator: Public Works Environmental Compliance Manager and Environmental Specialist - Stormwater Field 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.

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 via Cityworks to the Public Works Environmental Compliance Manager. Emails received via report.pollution@harrisonburgva.gov are sent to Public Works Environmental Compliance Manager, Business Services Manager, and Environmental Specialist - Stormwater Field. Response to emails is routed to the lead investigator first and other IDDE Team members as needed.
 - b. Deputy Fire Marshall – Fire Marshall will route information to the IDDE Team during routine inspections as needed. They will email pictures to the generic pollution reporting email address or directly contact Public Works Environmental Compliance Manager .
 - c. The Fire Department will notify Public Works Environmental Compliance Manager of an incident that may affect the storm sewer system. If the incident occurs outside of business hours, they will notify the Public Works Environmental Compliance Manager 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. If a potential discharge is observed, they will contact the Business Services Manager (who will contact the IDDE Team as needed). Environmental Specialist - Stormwater Field conducts city scans during 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.

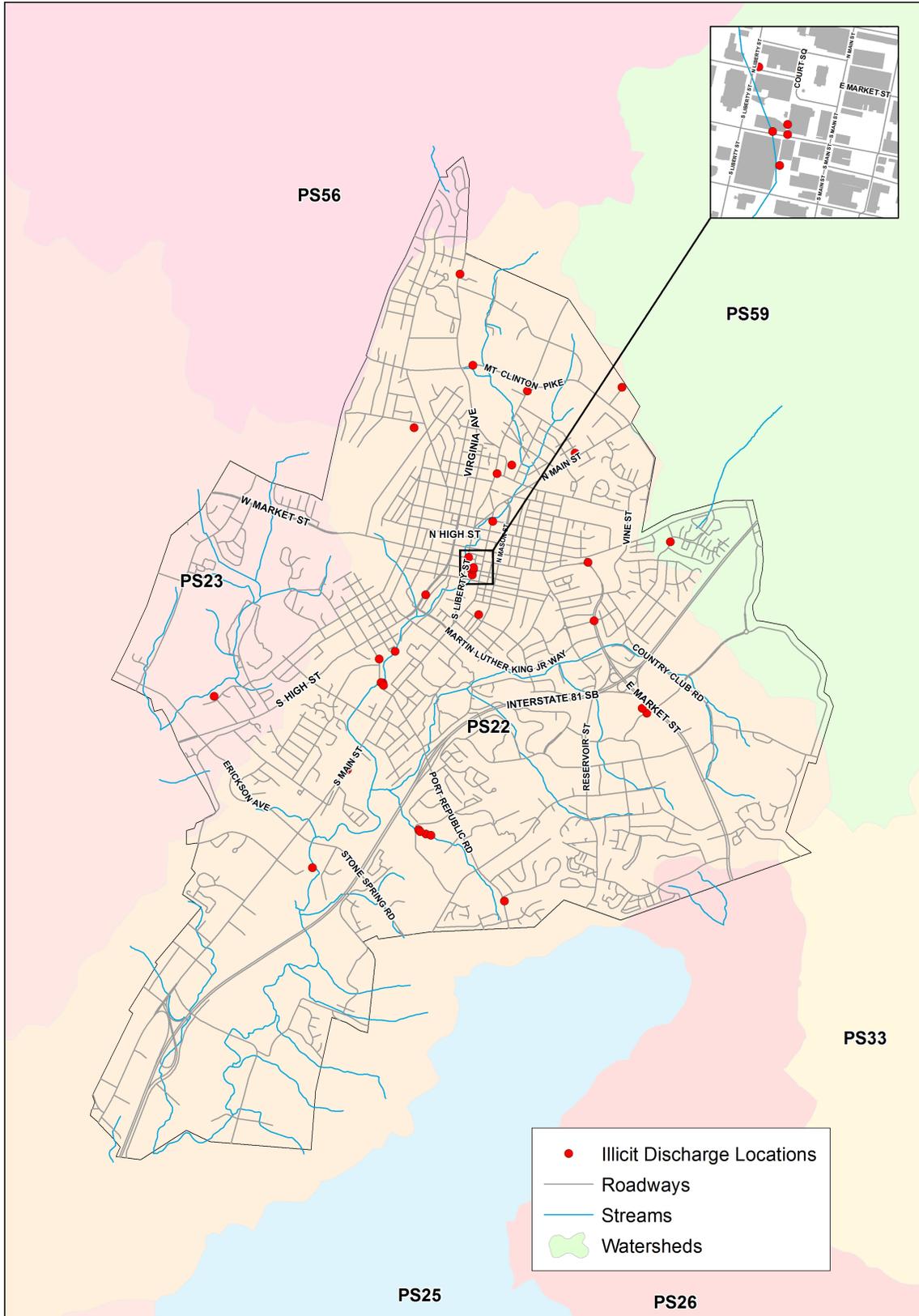
- ii. If the observed discharge is intermittent, then Lead Investigator must document that a minimum of three separate investigations were made in attempt to observe the discharge when it was flowing. If these attempts are unsuccessful, the investigator must document.
 - b. An unknown substance can be tested with the materials in the IDDE backpack, the incubator located at the Public Works Department, 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. Notice of Violation 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/ Remediation Bill– A notice of violation/remediation bill letter is issued after a second offense, if corrective action has not been taken upon a follow-up 2 week investigation, or if the cleanup requires immediate response from city staff because the incident is time sensitive.
 - iv. Civil/Criminal Penalties
- 3. The individual from the IDDE Team that responded to the incident will fill out an Illicit Discharge Reporting Form and Cityworks 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 Public Works Environmental Compliance Manager 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 Public Works Environmental Compliance Manager. 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. Public Works Environmental Compliance Manager 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.*

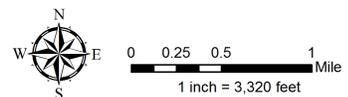
- Business Services Manager - Harsit Patel (Department of Sanitation) is our designated IDDE Team member that assists with enforcement provisions according to the aforementioned City Code.
7. Investigators may use the Center for Watershed Protection's publications as guides, http://www.cwp.org/online-watershed-library/cat_view/64-manuals-and-plans/79-illicit-discharge-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. *Illicit Discharge Detection and Elimination Field Guide: How to Identify and Quickly Report Pollution Problems:*
http://www.cspdc.org/programs/environment/documents/IDDEFieldGuideShenandoah_121914_002.pdf
 8. When IDDE event is closed, the Lead Investigator will complete the Illicit Discharge Reporting Form and will contact Public Works Environmental Compliance Manager 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: 5/2017



Illicit Discharges 2016-2017

City of Harrisonburg



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 as well.
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. When possible, this presentation will be integrated into an online training program.
- The training will include basic pollution prevention procedures and spill response. As needed, site/operation –specific issue will be discussed.

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

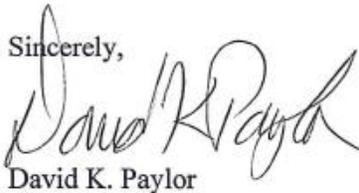
Kurt Hogden, City Manager
City of Harrisonburg
409 S. Main Street
Harrisonburg, Virginia 22801

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

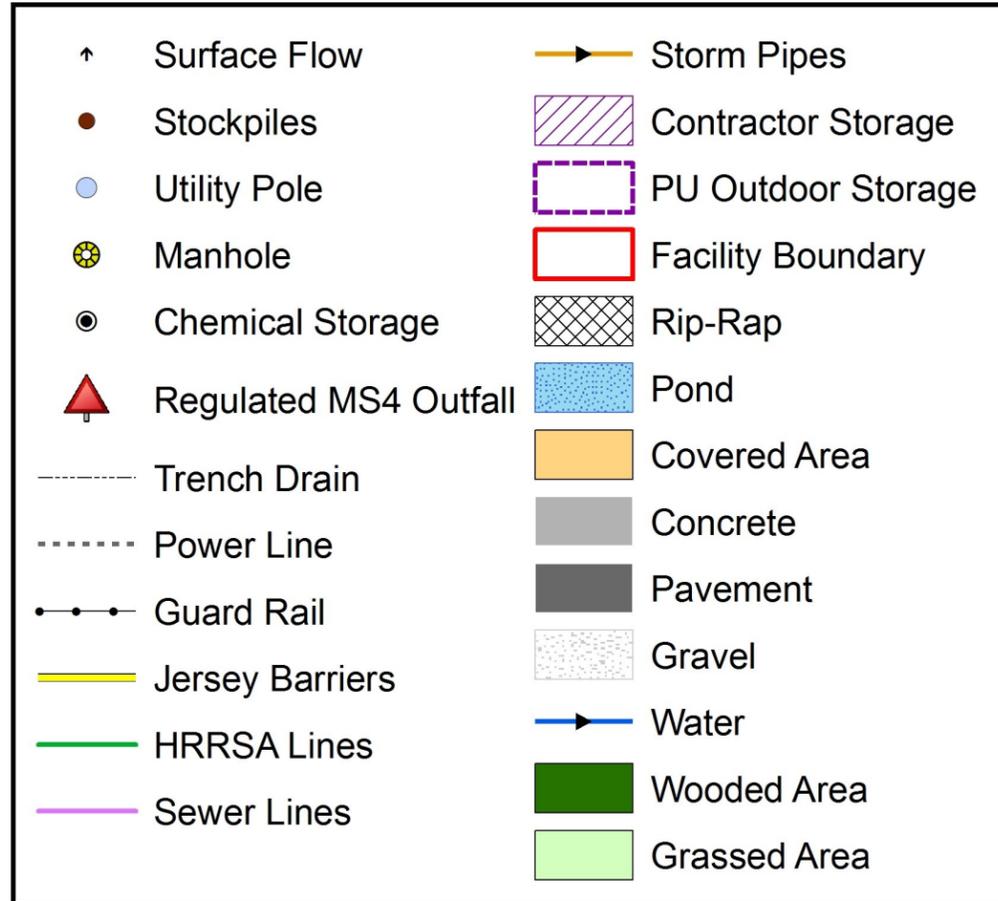
cc: Melanie Davenport, Director, Water Division
Frederick Cunningham, Director, Office of Water Permits
Joan Salvati, Manager, Local Government Stormwater Programs

Appendix G: High Priority Stormwater Pollution Prevention Maps

City of Harrisonburg Public Utilities Facility Stormwater Pollution Prevention Plan Map

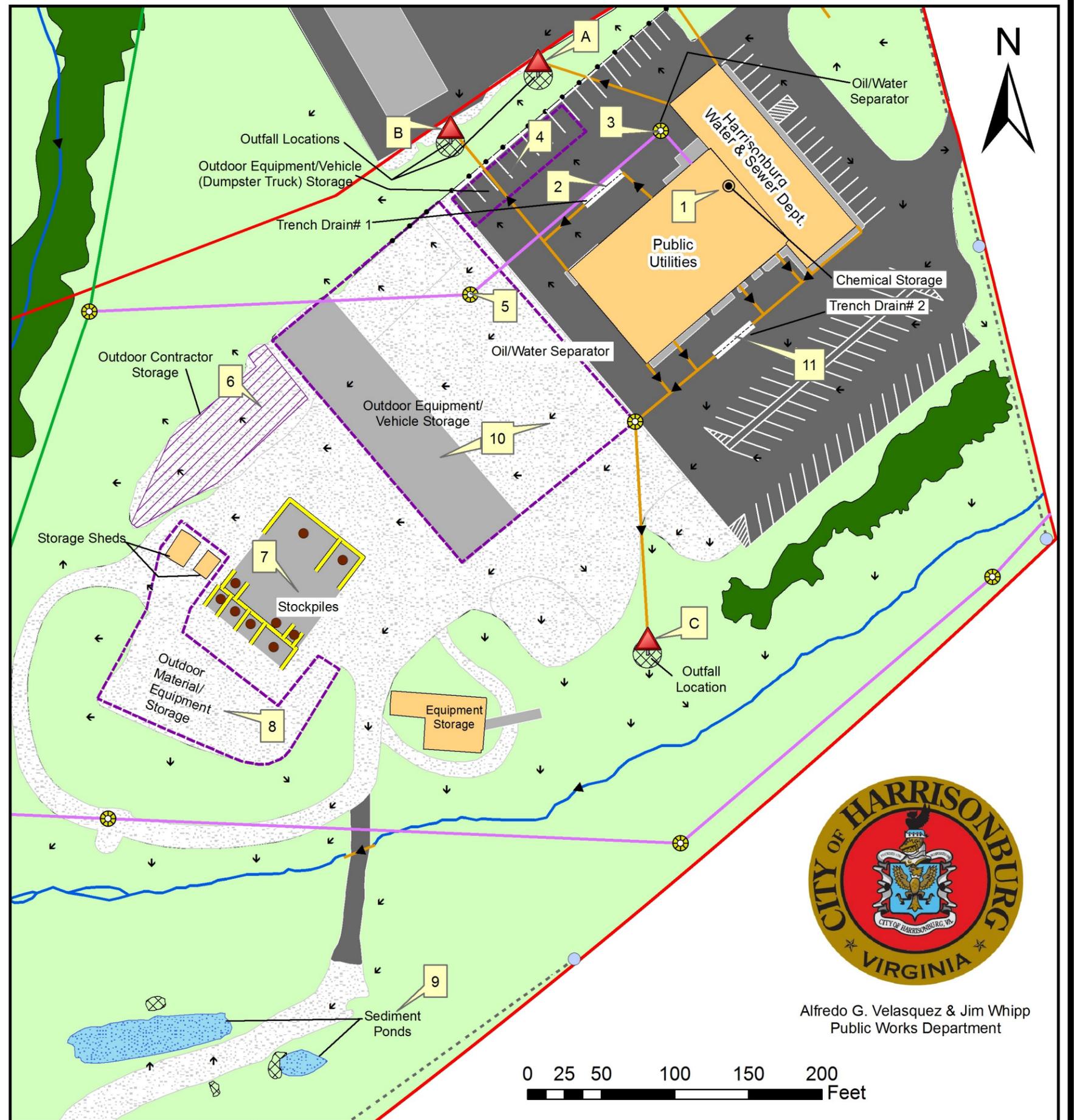
SWPPP Map Description:

This map identifies locations at the Public Utilities Facility site with the greatest potential to generate pollutants. It also depicts how rainwater and snowmelt flow along the site's surface. Polluted stormwater runoff leads directly into Blacks Run or into a storm pipe that outfalls into Blacks Run.



Note: This map is required to be updated when any new infrastructure is built (buildings, storm sewer, outfalls, etc.) or any possible pollutant generating activities are created, moved, or eliminated (new dumpster, new stockpile area, etc.). Notify the MS4 Program Coordinator regarding changes in the field not depicted on this map.

| Potential Pollutant Source Location Key | |
|---|--|
| A B C | Outfall Locations |
| 3 5 | Oil/Water Separator |
| 1 | Covered Mixed Gas/Oil Chemical Storage |
| 2 11 | Trench Drains |
| 4 10 | Outdoor Eqpt./Vehicle Storage |
| 6 | Outdoor Contractor Storage |
| 7 | Uncovered Material Stockpiling |
| 8 | Outdoor Material/Eqpt. Storage |
| 9 | ESC Sediment Pond |



Alfredo G. Velasquez & Jim Whipp
Public Works Department

Site Evaluation Overview

Definitions

Location: Area of greatest potential for pollution

Standard Operating Procedures Reference: Refer to the latest edition of the Good Housekeeping SOP Manual for more information

Source Controls: Action items or pollution prevention controls to minimize polluted runoff

Best Management Practice(s): Action items to perform in the event of a spill or discharge and/or regularly employed pollution prevention strategies

Supervisors: MS4 Program Coordinator, Public Works (PW) Crew Supervisor, PW Sanitation Supervisor, Public Utilities (PU) Director, PU Program Supervisor, Facilities Manager

In the Event of a Spill or Discharge

1. Contact the City of Harrisonburg. Report any spill or discharge immediately to the MS4 Program Coordinator at (540) 434-5928. If spill is large and hazardous call Harrisonburg Fire Department (HFD) at (540) 432-7703 before City staff.

2. Assess the risk. When a spill occurs, determine the risks that may affect human health, the environment, and the property. This may be done easily in cases where the type of contaminant spilled is known. In situations where the contaminant is unknown, determining risks may involve some investigation. In cases where the chemical is unknown, the spilled material may be identified from the container label or the Safety Data Sheet. Refer unknown chemical cleanup to HFD and do not attempt to clean up without appropriate guidance.

3. Select personal protective equipment (PPE). It is crucial that the appropriate PPE is chosen to stop, confine, and clean up the contaminant. Appropriate PPE may be a pair of gloves, eye and foot protection, or face masks. If the chemical is not known, consult the Safety Data Sheet, or the chemical manufacturer. If the chemical remains unknown and the risk level uncertain, use the highest level of caution and protection. Refer unknown chemical cleanup to HFD and do not attempt to clean up without appropriate guidance.

4. Stop the source. Stopping the source of a spill may involve turning a container upright, plugging a leak, or relocating an operation. In any case, the source leak or spill should be controlled as quickly as possible.

5. Confine the spill. It is crucial to confine the spill before it reaches waterbodies or storm drains. In some cases, this step may need to occur before stopping the source. The proper containment measures necessary should be assessed based on the size and type of the spill. A small spill may be confined with the application of absorbent, whereas a larger spill may require absorbent pads/socks. Spill kits should be utilized where applicable. If a large spill of fuel, sewage, or other hazardous materials occurs, contact HFD to assist in response and cleanup.

6. Evaluate the incident and implement cleanup. Once the spill is stopped and confined, the person responsible for cleanup should develop a plan of action to cleanup the spill. The person conducting the cleanup should make sure that they have enough spill response supplies to adequately deal with the spill. Once the chemical is cleaned up or the absorbents are saturated, they may contain hazardous waste and should be disposed of properly by qualified personnel. See the Waste Management and Disposal section of the SOP manual for disposal guidance.

SWPPP Map Quick Reference Guide for Public Utilities Facility Inspectors

Regulated MS4 Outfall A B C

Refer to inspection form to ensure outfalls are free of pollutants. If any colored liquid or chemical is evident at the outfalls, contact the MS4 Program Coordinator immediately.

Oil/Water Separator 3 5

Potential Pollutant and Sources: Grit, sediment, petroleum products, or any free liquids from the maintenance shop and/or grounds.

SOP Reference: N/A

Source Controls: Underground BMPs act as pollution prevention device.

Best Management Practices: Use the vacuum truck to clean out clogged debris or sediments on an as-needed basis. Investigate good housekeeping practices if petroleum or other chemicals are present in trench drain. Notify the MS4 Program Coordinator if petroleum or other chemicals are found.

Covered Mixed Gas/Oil/Chemical Storage 1

Potential Pollutant and Sources: Leaks from loading, unloading, or storing oil, gas, or chemicals such as solvents, lubricants, pesticides, or fertilizers

SOP Reference: Sections 5.6 & 5.12

Source Controls: Cover provided by indoor chemical storage is the primary source control.

Best Management Practices: (1) Clearly label chemicals; (2) Store chemicals away from high traffic areas, and on structures to keep them elevated from the ground; (3) Keep storage, loading, and unloading activities under cover; (4) Routinely inspect for leaks or deterioration of chemical containers.

Trench Drains 2 11

Potential Pollutant and Sources: Grit, sediment, petroleum products, or any free liquids from the maintenance shop.

SOP Reference: N/A

Source Controls: Floor drains inside the maintenance shop lead to the sanitary sewer.

Best Management Practices: Use the vacuum truck to clean out clogged debris or sediments on an as-needed basis. Investigate good housekeeping practices if petroleum or other chemicals are present in trench drain. Notify the MS4 Program Coordinator if petroleum or other chemicals are found.

Outdoor Vehicle/Equipment Storage 4 10

Potential Pollutant and Sources: Petroleum products, leaks from hydraulic hoses, or equipment in disrepair

SOP Reference: Sections 5.3 & 5.17

Source Controls: Place drip pans or absorbent matting under leaks. Wrap and zip-tie bags around leaking components.

Best Management Practices: Repair all leaking equipment and vehicles. Utilize source controls while leaks occur and inspect regularly to ensure pollutant is not exposed to precipitation. Remove and properly dispose of pollutants in a tied plastic bag in a covered dumpster, in the waste oil tank, or elsewhere as directed by PW Sanitation Supervisor. Repair/replace absorbent matting as needed.

Outdoor Contractor Storage 6

Potential Pollutant and Sources: Petroleum products, leaks from hydraulic hoses, or equipment in disrepair

SOP Reference: Sections 5.3 & 5.17

Source Controls: Place drip pans or absorbent matting under leaks. Wrap and zip-tie bags around leaking components.

Best Management Practices: Repair all leaking equipment and vehicles. Utilize source controls while leaks occur and inspect regularly to ensure pollutant is not exposed to precipitation. Remove and properly dispose of pollutants in a tied plastic bag in a covered dumpster, in the waste oil tank, or elsewhere as directed by PW Sanitation Supervisor. Repair/replace absorbent matting as needed.

Uncovered Material Stockpiling 7

Potential Pollutant and Sources: Sand, grit, sediment, mulch, or any other erodible material stored outdoors

SOP Reference: Section 5.9

Source Controls: Jersey barrier perimeter controls prevent transport of stockpiled materials. Cover materials to prevent exposure to precipitation.

Best Management Practices: Regularly inspect stockpile areas and ensure proper maintenance of three-sided jersey barriers and any other perimeter controls. Remove and dispose of materials that have migrated outside of perimeter controls daily. Place stockpiles a suitable distance away from outfalls and surface waters.

Outdoor Material/ Equipment Storage 8

Potential Pollutant and Sources: Petroleum products, solvents, corrosive material, grease, or sediment from materials stored outdoors

SOP Reference: Sections 5.8

Source Controls: Perimeter controls such as absorbent socks, or cover with tarps and secure to ground with sand bags, concrete blocks, etc.

Best Management Practices: Utilize source controls and inspect regularly. Remove and properly dispose of pollutants in a tied plastic bag in a covered dumpster, in the waste oil tank, or elsewhere as directed by PW Sanitation Supervisor.

ESC Sediment Pond 9

Refer to inspection form to ensure the BMP is functioning properly.

General Information

Supervisors Contact Info: See attached.

Utilize HDPT for all leaking equipment. Limit maintenance at PU to small-scale operations.

Hazardous/Unknown Material Disposal

Notify PW Stormwater Crew Supervisor for all site issues that require additional attention.

Contact PW Sanitation Supervisor for questions about hazardous material/unknown material disposal.

Hazardous Material Waste Containers (PW only) Location: Household Hazardous Waste Storage at the Transfer Facility

Procedure: Contact PW Facilities Crew Supervisor for assistance in transporting any hazardous or unknown materials to household hazardous waste storage. New bins are acquired through Environmental Options. Contact PW Sanitation Supervisor to coordinate the need for additional bins, only PW.

Safety Data Sheets (SDS): Located at Central Stores

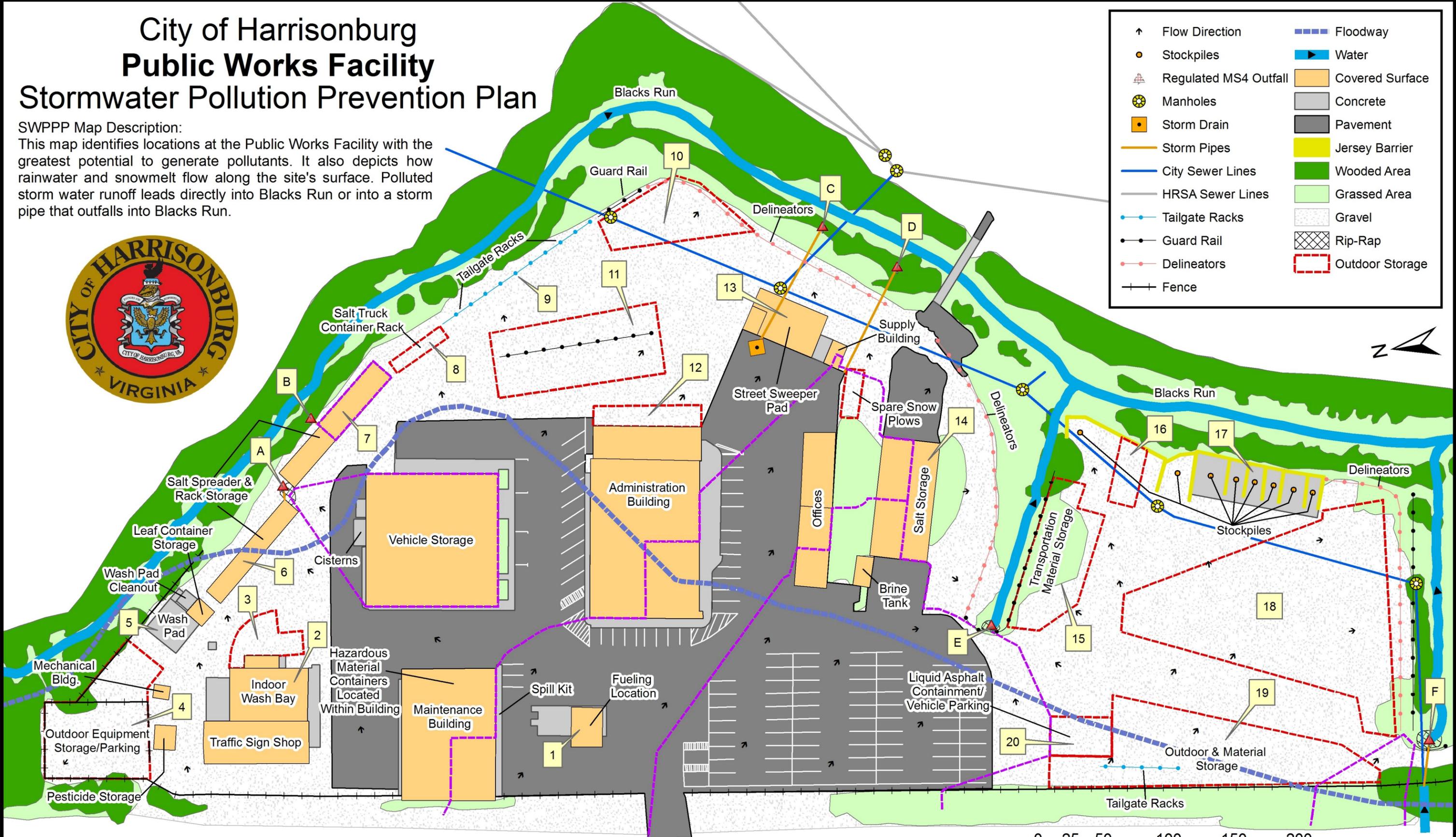
City of Harrisonburg Public Works Facility Stormwater Pollution Prevention Plan

SWPPP Map Description:

This map identifies locations at the Public Works Facility with the greatest potential to generate pollutants. It also depicts how rainwater and snowmelt flow along the site's surface. Polluted storm water runoff leads directly into Blacks Run or into a storm pipe that outfalls into Blacks Run.



| | | | |
|---|-----------------------|-----|-----------------|
| ↑ | Flow Direction | ▬▬▬ | Floodway |
| ● | Stockpiles | ▶ | Water |
| ⚠ | Regulated MS4 Outfall | ▭ | Covered Surface |
| ⊙ | Manholes | ▭ | Concrete |
| ⊠ | Storm Drain | ▭ | Pavement |
| — | Storm Pipes | ▭ | Jersey Barrier |
| — | City Sewer Lines | ▭ | Wooded Area |
| — | HRSA Sewer Lines | ▭ | Grassed Area |
| — | Tailgate Racks | ▭ | Gravel |
| — | Guard Rail | ▭ | Rip-Rap |
| — | Delineators | ▭ | Outdoor Storage |
| — | Fence | | |



Potential Pollutant Source Location Key

Fueling Location: **1**
 Uncoverd Vehicle/Eqpt. Storage: **4 8 10 11 12 16 18 21**
 Equipment/Vehicle Washing: **2 5**
 Uncovered Material Storage: **3 9 15 19**
 Street Sweeper Pad: **13**
 Covered Salt Spreader Equipment/Truck Storage: **6 7**

Regulated MS4 Outfall: **A B C D E F**

Salt Operations/Loading: **14**
 Liquid Material Containment/Asphalt Truck Parking: **20**
 Uncovered Material Stockpiling: **17**



Note: This map is required to be updated when any new infrastructure is built (buildings, storm sewer, outfalls, etc.) or any possible pollutant generating activities are created, moved, or eliminated (new dumpster, new stockpile area, etc.). Notify the MS4 Program Coordinator regarding changes in the field not depicted on this map.

Site Evaluation Overview

Definitions

Location: Area of greatest potential for pollution

Standard Operating Procedures Reference: Refer to the latest edition of the Good Housekeeping SOP Manual for more information

Source Controls: Action items or pollution prevention controls to minimize polluted runoff

Best Management Practice(s): Action items to perform in the event of a spill or discharge and/or regularly employed pollution prevention strategies

Supervisors: PW Assistant Director, PW Sanitation Supervisor, PW Street Superintendent, MS4 Program Coordinator, PW Facilities Crew Supervisor, PW Stormwater Crew Supervisor, Facilities Manager

In the Event of a Spill or Discharge

1. Contact the City of Harrisonburg. Report any spill or discharge immediately to the MS4 Program Coordinator at (540) 434-5928. If spill is large and hazardous call Harrisonburg Fire Department (HFD) at (540) 432-7703 before City staff.

2. Assess the risk. When a spill occurs, determine the risks that may affect human health, the environment, and the property. This may be done easily in cases where the type of contaminant spilled is known. In situations where the contaminant is unknown, determining risks may involve some investigation. In cases where the chemical is unknown, the spilled material may be identified from the container label or the Safety Data Sheet. Refer unknown chemical cleanup to HFD and do not attempt to clean up without appropriate guidance.

3. Select personal protective equipment (PPE). It is crucial that the appropriate PPE is chosen to stop, confine, and clean up the contaminant. Appropriate PPE may be a pair of gloves, eye and foot protection, or face masks. If the chemical is not known, consult the Safety Data Sheet, or the chemical manufacturer. If the chemical remains unknown and the risk level uncertain, use the highest level of caution and protection. Refer unknown chemical cleanup to HFD and do not attempt to clean up without appropriate guidance.

4. Stop the source. Stopping the source of a spill may involve turning a container upright, plugging a leak, or relocating an operation. In any case, the source leak or spill should be controlled as quickly as possible.

5. Confine the spill. It is crucial to confine the spill before it reaches waterbodies or storm drains. In some cases, this step may need to occur before stopping the source. The proper containment measures necessary should be assessed based on the size and type of the spill. A small spill may be confined with the application of absorbent, whereas a larger spill may require absorbent pads/socks. Spill kits should be utilized where applicable. If a large spill of fuel, sewage, or other hazardous materials occurs, contact HFD to assist in response and cleanup.

6. Evaluate the incident and implement cleanup. Once the spill is stopped and confined, the person responsible for cleanup should develop a plan of action to cleanup the spill. The person conducting the cleanup should make sure that they have enough spill response supplies to adequately deal with the spill. Once the chemical is cleaned up or the absorbents are saturated, they may contain hazardous waste and should be disposed of properly by qualified personnel. See the Waste Management and Disposal section of the SOP manual for disposal guidance.

SWPPP Map Quick Reference Guide for Public Works Facility Inspectors

Fueling Location 1

Potential Pollutant and Sources: Fuel spills from fueling activities, waste oil, and leaks from pumping equipment

SOP Reference: Section 5.4

Source Controls: Prevent leaking equipment.

Best Management Practices: For all significant leaks, follow emergency shut off instructions. For spills, cover completely with absorbent and scrub with broom. Promptly remove with a flat shovel. Remove and properly dispose of pollutants in a tied plastic bag in a covered dumpster, or elsewhere as directed by PW Supervisors. For leaks, provide a drip pan or absorbent matting until repairs can be made.

Uncovered Vehicle/Equipment Storage 4 8 10

11 12 17 18 21

Potential Pollutant and Sources: Petroleum products, leaks from hydraulic hoses, or equipment in disrepair

SOP Reference: Sections 5.3 & 5.17

Source Controls: Place drip pans or absorbent matting under leaks. Wrap and zip-tie bags around leaking components.

Best Management Practices: Repair all leaking equipment and vehicles. Utilize source controls while leaks occur and inspect regularly to ensure pollutant is not exposed to precipitation. Remove and properly dispose of pollutants in a tied plastic bag in a covered dumpster, in the waste oil tank, or elsewhere as directed by PW Supervisors. Repair/replace absorbent matting as needed.

Uncovered Material Storage 3 9 15 19

Potential Pollutant and Sources: Petroleum products, solvents, corrosive material, grease, or sediment from materials stored outdoors

SOP Reference: Sections 5.8

Source Controls: Install perimeter controls such as absorbent socks or cover with tarps and secure to ground with sand bags, concrete blocks, etc.

Best Management Practices: Utilize perimeter controls and inspect regularly. Remove and properly dispose of pollutants in a tied plastic bag in a covered dumpster, in the waste oil tank, or elsewhere as directed by PW Supervisors.

Street Sweeper Pad 13

Potential Pollutant and Sources: Sediment, street debris

SOP Reference: N/A

Source Controls: All sweeper debris contained under cover and on concrete pad. All free liquids on pad to flow into pump house pit.

Best Management Practices: Flusher truck to clean out pump house pit before storm events. Ensure free liquids can flow into pit without obstruction, and contain all debris on street sweeper pad. Sweeper debris is transferred to hopper and transported to the landfill weekly at a minimum.

Equipment/Vehicle Washing 2 5

Potential Pollutant and Sources: Downstream transport of solvents, grease, sediment, petroleum product, and cleaning agents through washwater

SOP Reference: 5.1

Source Controls: Wash only in designated areas 3&4 that drain to sanitary sewer. Send larger equipment to HDPT.

Best Management Practices: (1) Ensure all wash-water is directed to the sanitary sewer by inspecting and maintaining diversions that direct the washwater to the sanitary sewer; (2) Ensure intake to the sanitary sewer is clear of debris and sediment.

Covered Salt Spreader Equipment/Truck Storage 6 7

Potential Pollutant and Sources: Petroleum products or leaks from hydraulic hoses or equipment in disrepair. Grease, sediment, and other pollutants on equipment

SOP Reference: 5.3 & 5.7

Source Controls: Roof cover acts as the primary source control. Place drip pans and/or absorbent matting under leaks. Cap hydraulic line, wrap with plastic bag, and secure with zip tie.

Best Management Practices: Repair equipment that is leaking fuel or oil. Utilize source controls while leaks occur and inspect regularly to ensure pollutants are not exposed to precipitation. Remove and properly dispose of pollutants in a tied plastic bag in a covered dumpster, in the waste oil tank, or elsewhere as directed by PW Supervisors.

Salt Operations/Loading 14

Potential Pollutant and Sources: Salt and sand/grit tracked from storage facilities, in mixing locations, and in brine tanks

SOP Reference: Section 5.10

Source Controls: Salt shed located under cover. Perimeter controls such as jersey barriers and/or tarps act as source controls for any outdoor stockpiling and prevent the risk of tracking material.

Best Management Practices: (1) Remove tracked salt and sand/grit from loading and mixing areas immediately following loading and mixing activities; (2) Maintain perimeter controls for outdoor stockpiles; (3) Keep salt shed door closed.

Regulated MS4 Outfall A B C D E F

Refer to inspection form to ensure outfalls are free of pollutants. If any colored liquid or chemical is evident at the outfalls, contact the MS4 Program Coordinator immediately.

Uncovered Material Stockpiling 17

Potential Pollutant and Sources: Sand, grit, sediment, mulch, or any other erodible material stored outdoors

SOP Reference: Section 5.9

Source Controls: Jersey barrier perimeter controls prevent transport of stockpiled materials. Cover materials to prevent exposure to precipitation.

Best Management Practices: Regularly inspect stockpile areas and ensure proper maintenance of three-sided jersey barriers and any other perimeter controls. Remove and dispose of materials that have migrated outside of perimeter controls daily. Place stockpiles a suitable distance away from outfalls and surface waters.

Liquid Material Containment/Asphalt Truck Parking 20

Potential Pollutant and Sources: Overflow or leakage from liquid asphalt tank. Petroleum product and other pollutants leaking or exposed from tank equipment. Petroleum products, leaks from liquid asphalt loading, or leaks from the truck itself.

SOP Reference: Section 5.18 & 5.17

Source Controls: A concrete containment wall surrounding the tank is the primary source control. Place drip pans or absorbent matting under leaks and equipment.

Best Management Practices: (1) Remove and properly dispose of pollutants in a tied plastic bag in a covered dumpster, in the waste oil tank, or elsewhere as directed by PW Supervisors; (2) Maintain equipment to prevent leaks and clean pollutant covered equipment. Place drip pans or absorbent matting under leaks; (3) Ensure lid is secured on barrel for hose.

General Information

Supervisors Contact Info: See attached.

Utilize HDPT for all leaking equipment. Limit maintenance at PW to small-scale operations.

Hazardous/Unknown Material Disposal

Notify PW Stormwater Crew Supervisor for all site issues that require additional attention.

Contact PW Sanitation Supervisor for questions about hazardous material/unknown material disposal.

Hazardous Material Waste Containers (PW only) Location: Household Hazardous Waste Storage at the Transfer Facility

Procedure: Contact PW Facilities Crew Supervisor for assistance in transporting any hazardous or unknown materials to household hazardous waste storage. New bins are acquired through Environmental Options. Contact PW Sanitation Supervisor to coordinate the need for additional bins, only PW.

Safety Data Sheets (SDS): Located at Central Stores

City of Harrisonburg Park View Facility Stormwater Pollution Prevention Plan Map

SWPPP Map Description:
This map identifies locations at the Park View Facility with the greatest potential to generate pollutants. It also depicts how rainwater and snowmelt flow along the site's surface. Polluted storm water runoff leads directly into Blacks Run or into a storm pipe that outfalls into Blacks Run.

| | | | |
|--|-----------------------|--|-------------------|
| | Surface Flow | | HPD Lot |
| | Storm Drain | | Equipment Storage |
| | Spill Kit | | Parcel Boundary |
| | Stockpiles | | Rip-Rap |
| | Manhole | | Miscellaneous |
| | BMP's | | Concrete |
| | Regulated MS4 Outfall | | Jersey Barriers |
| | Water | | Wooded Area |
| | Sewer Lines | | Covered Area |
| | Storm Pipes | | Grassed Area |
| | Fence | | Pavement |
| | Delineators | | Gravel |

Potential Pollutant Source Location Key

| | | | |
|--|--------------------------------|--|---------------------------------|
| | Fueling Location | | HPD Vehicle Evidence |
| | Uncovered Material Stockpiling | | Uncovered Vehicle/Eqpt. Storage |
| | Uncovered Outdoor Storage | | Salt Operations/Loading |
| | Fuel Tank | | Enclosed Dumpster |
| | Air-Washing Area | | Salt Setting Tank |
| | Covered Mixed Gas/Oil Storage | | Regulated MS4 Outfall |



Site Evaluation Overview

Definitions

Location: Area of greatest potential for pollution

Standard Operating Procedures Reference: Refer to the latest edition of the Good Housekeeping SOP Manual for more information

Source Controls: Action items or pollution prevention controls to minimize polluted runoff

Best Management Practice(s): Action items to perform in the event of a spill or discharge and/or regularly employed pollution prevention strategies

Supervisors: Parks and Recreation (PR) Parks Superintendent, Public Works (PW) Sanitation Supervisor, MS4 Program Coordinator, PR Parks Superintendent, Stream Health Coordinator, Facilities Manager

In the Event of a Spill or Discharge

1. Contact the City of Harrisonburg. Report any spill or discharge immediately to the MS4 Program Coordinator at (540) 434-5928. If spill is large and hazardous call Harrisonburg Fire Department (HFD) at (540) 432-7703 before City staff.

2. Assess the risk. When a spill occurs, determine the risks that may affect human health, the environment, and the property. This may be done easily in cases where the type of contaminant spilled is known. In situations where the contaminant is unknown, determining risks may involve some investigation. In cases where the chemical is unknown, the spilled material may be identified from the container label or the Safety Data Sheet. Refer unknown chemical cleanup to HFD and do not attempt to clean up without appropriate guidance.

3. Select personal protective equipment (PPE). It is crucial that the appropriate PPE is chosen to stop, confine, and clean up the contaminant. Appropriate PPE may be a pair of gloves, eye and foot protection, or face masks. If the chemical is not known, consult the Safety Data Sheet, or the chemical manufacturer. If the chemical remains unknown and the risk level uncertain, use the highest level of caution and protection. Refer unknown chemical cleanup to HFD and do not attempt to clean up without appropriate guidance.

4. Stop the source. Stopping the source of a spill may involve turning a container upright, plugging a leak, or relocating an operation. In any case, the source leak or spill should be controlled as quickly as possible.

5. Confine the spill. It is crucial to confine the spill before it reaches waterbodies or storm drains. In some cases, this step may need to occur before stopping the source. The proper containment measures necessary should be assessed based on the size and type of the spill. A small spill may be confined with the application of absorbent, whereas a larger spill may require absorbent pads/socks. Spill kits should be utilized where applicable. If a large spill of fuel, sewage, or other hazardous materials occurs, contact HFD to assist in response and cleanup.

6. Evaluate the incident and implement cleanup. Once the spill is stopped and confined, the person responsible for cleanup should develop a plan of action to cleanup the spill. The person conducting the cleanup should make sure that they have enough spill response supplies to adequately deal with the spill. Once the chemical is cleaned up or the absorbents are saturated, they may contain hazardous waste and should be disposed of properly by qualified personnel. See the Waste Management and Disposal section of the SOP manual for disposal guidance.

SWPPP Map Quick Reference Guide for Parks and Recreation Facility Inspectors

Fueling Location 1

Potential Pollutant and Sources: Fuel spills from fueling activities, waste oil, and leaks from pumping equipment

SOP Reference: Section 5.4

Source Controls: Prevent leaking equipment

Best Management Practices: For all significant leaks, follow emergency shut off instructions. For spills, cover spills completely with absorbent and scrub with a broom. Promptly remove with a flat shovel and dispose of waste. Remove and properly dispose of pollutants in a tied plastic bag in a covered dumpster, or elsewhere as directed by PR Supervisors. For leaks, provide a drip pan or absorbent matting until repairs can be made.

Uncovered Material Stockpiling 2 9 10

Potential Pollutant and Sources: Sand, grit, sediment, mulch, or any other erodible material stored outdoors

SOP Reference: Section 5.9

Source Controls: Jersey barrier perimeter controls prevent transport of stockpiled materials. Cover materials to prevent exposure to precipitation.

Best Management Practices: Regularly inspect stockpile areas and ensure proper maintenance of three-sided jersey barriers and any other perimeter controls. Remove and dispose of materials that have migrated outside of perimeter controls daily. Place stockpiles a suitable distance away from outfalls and surface waters.

Covered Outdoor Storage 3 11

Potential Pollutant and Sources: Leaks or spills from equipment or liquids

SOP Reference: Sections 5.8 & 5.3

Source Controls: Cover provided by shed roof.

Best Management Practices: Ensure that material/equipment is contained beneath the covered area. Place drip pans under any leaking equipment until repairs can be made.

Fuel Tank 4

Potential Pollutant and Sources: Fuel spills from pumping fuel or from refilling fuel tank, leaks from damaged tank or hoses

SOP Reference: N/A

Source Controls: The tank acts as a primary source control. Regularly inspect for leaks or damage.

Best Management Practices: To stop leaks use the emergency shut off for the fuel tank. Ensure shut-off procedure signage is visible. Block the path of any polluted runoff to nearby waterways.

Regulated MS4 Outfall A B C

Refer to inspection form to ensure outfalls are free of pollutants. If any colored liquid or chemical is evident at the outfalls, contact the MS4 Program Coordinator.

Air-Washing Area 5

Potential Pollutant and Sources: Downstream transport of sediment or pollutants from air-washed equipment

SOP Reference: N/A

Source Controls: Air wash only in designated area. Do not use water for washing operations. If water use is necessary, take equipment to the Department of Public Transportation.

Best Management Practices: Use only air in the air-washing area, no water. Dispose of waste properly and ensure no sediment or overabundance of grass clippings or other pollutants are able to travel into waterways.

Covered Mixed Gas/Oil/Chemical Storage 6 14

Potential Pollutant and Sources: Leaks from loading, unloading, or storing oil, gas, or chemicals such as solvents, lubricants, pesticides, or fertilizers

SOP Reference: Sections 5.6 & 5.12

Source Controls: Cover provided by indoor chemical storage is the primary source control.

Best Management Practices: (1) Clearly label chemicals; (2) Store chemicals away from high traffic areas, and on structures to keep them elevated from the ground; (3) Keep storage, loading, and unloading activities under cover; (4) Routinely inspect for leaks or deterioration of chemical containers.

HPD Vehicle Evidence Lot 7

Potential Pollutant and Sources: Paint chips; leaking fluids from long-term vehicle storage such as fuel, oil, and antifreeze

SOP Reference: N/A

Source Controls: Area is fenced and flat. For long-term storage, vehicles should be cleared of all liquid and covered with a tarp.

Best Management Practices: Contain storage to fenced area. Cover all vehicles that have a high probability of leaking or eroding with a tarp.

Uncovered Vehicle/Equipment Storage 8

Potential Pollutant and Sources: Petroleum products, leaks from hydraulic hoses, or equipment in disrepair

SOP Reference: Sections 5.3 & 5.17

Source Controls: Place drip pans or absorbent matting under leaks. Wrap and zip-tie bags around leaking components.

Best Management Practices: Repair all leaking equipment and vehicles. Utilize source controls while leaks occur and inspect regularly to ensure pollutant is not exposed to precipitation. Remove and properly dispose of pollutants in a tied plastic bag in a covered dumpster, in the waste oil tank, or elsewhere as directed by PR Supervisors. Repair/replace absorbent matting as needed.

Salt Operations/Loading 12

Potential Pollutant and Sources: Salt and sand/grit tracked from storage facilities, in mixing locations, and in brine tanks

SOP Reference: Section 5.10

Source Controls: Salt shed located under cover. Perimeter controls such as jersey barriers and/or tarps act as source controls for any outdoor stockpiling and prevent the risk of tracking material.

Best Management Practices: (1) Remove tracked salt and sand/grit from loading and mixing areas immediately following loading and mixing activities; (2) Maintain perimeter controls for outdoor stockpiles; (3) Keep salt shed door closed.

Enclosed Dumpster 15

Potential Pollutant and Sources: Waste and rainwater leaking from the bottom of the dumpster or spilled waste when loading or unloading dumpster; excess trash

SOP Reference: Section 5.5

Source Controls: Provide cover to prevent rainwater from entering the dumpster and leachate from leaking out

Best Management Practices: (1) Keep dumpster covered to prevent rainwater mixing with waste materials; (2) Remove liquids prior to disposal; (3) Routinely inspect for leaks or deterioration of dumpster.

Salt Settling Tank 13

Potential Pollutant and Sources: Leaks/overflow from tank.

SOP Reference: N/A

Source Controls: Valves on tank prevent/allow salt-laden runoff to enter the tank.

Best Management Practices: Use tank valves. Valves are opened in the beginning of snow-ice season and closed at the end of the season by PW Facilities Crew Supervisor.

General Information

Supervisors Contact Info: See attached.

Utilize HDPT for all leaking equipment. Limit maintenance on-site to small-scale operations.

Hazardous/Unknown Material Disposal

Notify PW Stormwater Crew Supervisor for all site issues that require additional attention.

Contact PW Sanitation Supervisor for questions about hazardous material/unknown material disposal.

Hazardous Material Waste Containers (PW only) Location: Household Hazardous Waste Storage at the Transfer Facility

Procedure: Contact PW Facilities Crew Supervisor for assistance in transporting any hazardous or unknown materials to household hazardous waste storage. New bins are acquired through Environmental Options. Contact PW Sanitation Supervisor to coordinate the need for additional bins, only PW.

Safety Data Sheets (SDS): Located at Central Stores