



CITY OF HARRISONBURG  
**PUBLIC  
WORKS**

320 EAST MOSBY ROAD, HARRISONBURG, VA 22801

OFFICE (540) 434-5928 • FAX (540) 434-2695

---

September 16, 2024

Megan O’Gorek  
Department of Environmental Quality  
4411 Early Road  
Harrisonburg, VA

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

Ms. O’Gorek

Please find attached the City of Harrisonburg’s MS4 Annual Report for the July 1, 2023-June 30, 2024 General VPDES Permit for Small Municipal Separate Storm Sewer Systems.

Please do not hesitate to contact Public Works should you have any questions at (540) 434-5928 or [stormwater@harrisonburgva.gov](mailto:stormwater@harrisonburgva.gov)

Sincerely,

Keith Thomas  
Public Works Sustainability and Environmental Manager



*Harrisonburg*  
VIRGINIA



# MS4 Annual Report

Reporting Period: July 1, 2023 – June 30, 2024  
Permit Number: VAR040075

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

## Table of Contents

Introduction .....	4
Watersheds .....	5
Roles and Responsibilities .....	8
Contact Information .....	9
MS4 Annual Report .....	10
Minimum Control Measure #1: Public Education & Outreach .....	11
BMP 1.1: Develop and Implement a Public Education and Outreach Program .....	11
Minimum Control Measure #2: Public Involvement and Participation .....	15
BMP 2.1: Plan for, Respond to, and Document Public Input and Reports .....	15
BMP 2.2: Develop and Maintain a Stormwater Webpage .....	16
BMP 2.3: Implement Four Public Involvement Opportunities .....	17
Minimum Control Measure #3: Illicit Discharge Detection and Elimination .....	19
BMP 3.1: Develop and Maintain a Storm Drain System, Outfalls, and Information Map .....	19
BMP 3.2: Prohibit Illicit Discharges and Connections through Ordinance Language .....	19
BMP 3.3: Maintain and Implement Illicit Discharge Detection and Elimination Written Procedures .....	20
Minimum Control Measure #4: Construction Site Stormwater Runoff Control .....	32
BMP 4.1: Use Legal Authority to Address Discharges Entering the MS4 .....	32
Minimum Control Measure #5: Post-Construction Stormwater Management for New Development and Development on Prior Developed Lands .....	33
BMP 5.1: Implement the VSMP .....	33
BMP 5.2: Inspection and Maintenance Program for City Owned Stormwater Management Facilities .....	33
BMP 5.3: Inspection and Maintenance Program for Privately Owned Stormwater Management Facilities .....	39
BMP 5.4: Track and Report Stormwater Management Facilities .....	40
Minimum Control Measure #6: Pollution Prevention and Good Housekeeping for Facilities Owned or Operated by the Permittee .....	41
BMP 6.1: Maintain and Implement Written Procedures for Pollution Prevention and Good Housekeeping .....	41
BMP 6.2: Pollution Prevention by Contractors .....	42
BMP 6.3: Stormwater Pollution Prevention Training Plan .....	42
BMP 6.4: Stormwater Pollution Prevention Plans .....	44

BMP 6.5: Turf and Landscape Nutrient Management Plans.....	46
TMDL Special Conditions .....	48
Chesapeake Bay TMDL Special Condition.....	48
Local TMDL Special Conditions .....	52
Smith Creek TMDL.....	52

## 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 amended and reissued General VPDES Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems. The City currently has coverage under the latest General Permit which became effective November 1, 2023 and will expire on October 31, 2028 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. Modifications to the MS4 Program Plan are expected throughout the life of the permit as part of the iterative process to reduce pollutant loadings and to protect water quality. The City’s MS4 Program Plan and Annual Reports available on the City’s Stormwater webpages: <http://www.harrisonburgva.gov/stormwater-management-program>.

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

- Virginia Stormwater Management Act, Article 2.3 (§62.1-44.15-24 et seq.) of Chapter 3.1 of Title 62.1 of the Code of Virginia
- Virginia Administrative Code, 9VAC25-870, Virginia Stormwater Management Program (VSMP) Regulations
- Virginia Administrative Code, 9VAC25-875, Virginia Erosion and Stormwater Management (VESM) Regulation
- 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, <https://www.deq.virginia.gov/permits-regulations/permits/water/municipal-separate-storm-sewer-system-permit-ms4s-stormwater>

## Watersheds

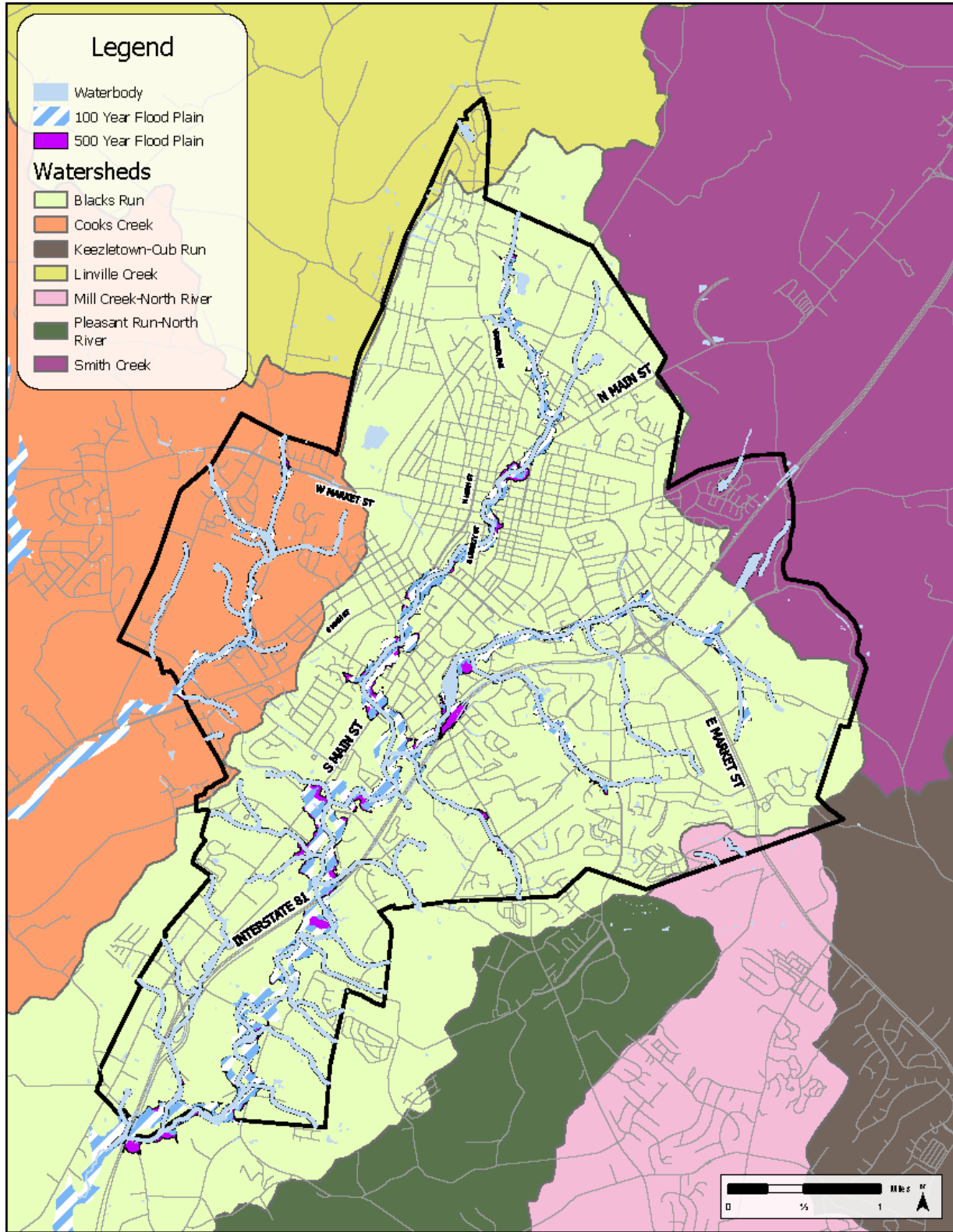
The City of Harrisonburg’s 17.4 square miles is highly urbanized with substantial amounts of impervious surface. The following table describes approximate stream length, drainage areas, and impairments for each watershed within Harrisonburg city limits.

**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	Yes, 2019 <sup>1</sup>
Sunset Heights Branch of Cooks Creek	PS23	2.09	1347.58	Fecal Coliform, Sediment, Total Phosphorus	Yes, 2019 <sup>2</sup>
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

<sup>1,2</sup> The revision of the Blacks Run and Cooks Creek Watershed TMDL includes a WLA. This TMDL was approved by the EPA on July 10, 2019 and so a local TMDL Action Plan will be developed for this permit cycle.

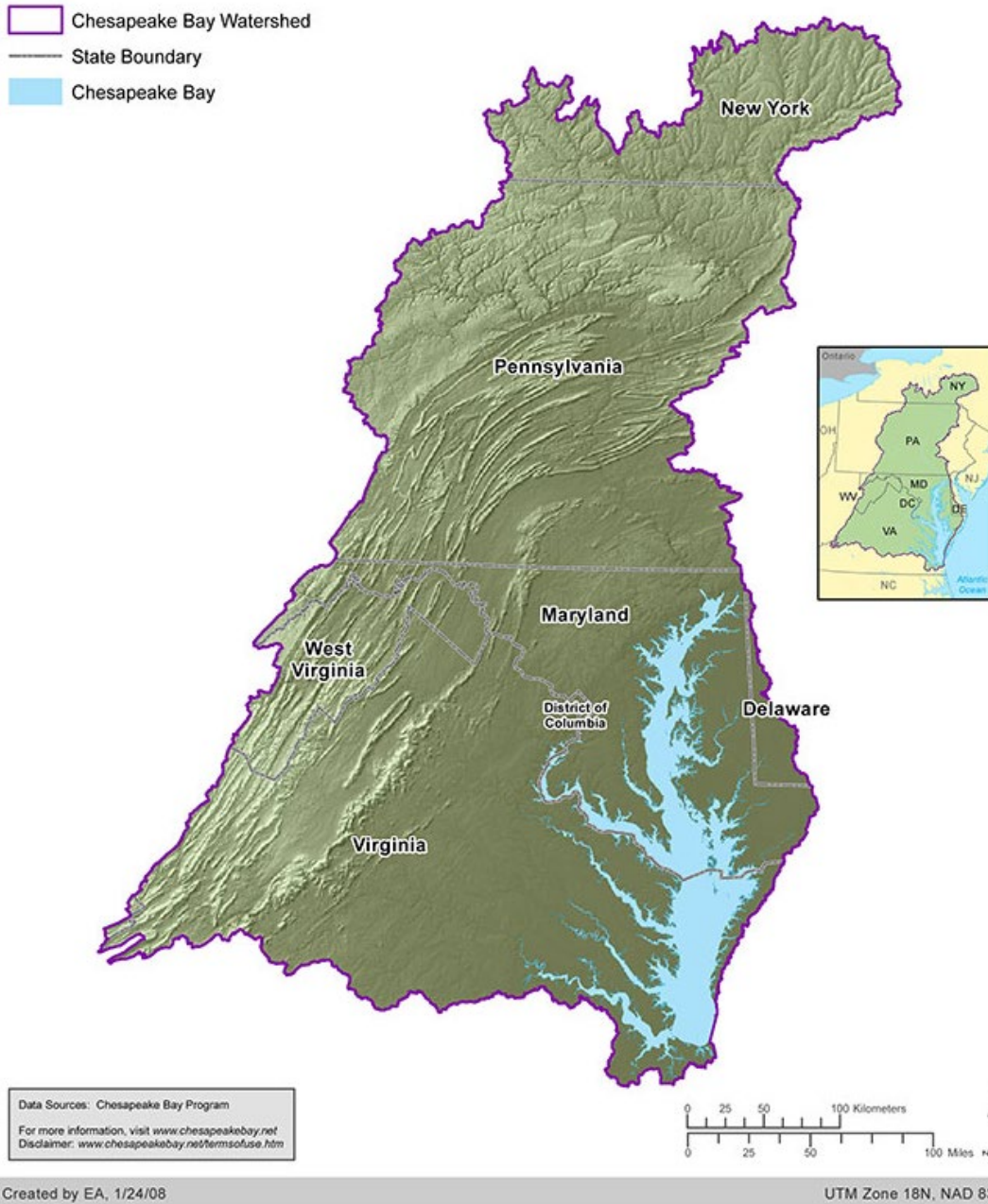
Figure 1. Subwatersheds in Harrisonburg





The City of Harrisonburg also drains into the Chesapeake Bay Watershed. The Chesapeake Bay Watershed is 64,000 square miles and includes portions of New York, Pennsylvania, Delaware, Maryland, West Virginia, and Virginia. Altogether, more than 100,000 streams, creeks and rivers make up the Chesapeake Bay Watershed. As part of the Special Conditions for the Chesapeake Bay TMDL, the MS4 Permit requires the City of Harrisonburg to address impairments for phosphorus, nitrogen, and sediment that enter the Chesapeake Bay.

Figure 2. Chesapeake Bay Watershed Map



## Roles and Responsibilities

The City of Harrisonburg's Public Works Department coordinates the City's municipal separate storm sewer system (MS4) program. The Public Works Department's Sustainability and Environmental 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, the Department of Parks and Recreation, Police Department and Fire Department are the major contributors to Harrisonburg's MS4 Program although it is recognized that this is a citywide and community-wide program.

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

## Contact Information

### *Principal Executive Officer*

Title: City Manager  
Name: Alexander Banks VI  
Address: 409 South Main Street  
Harrisonburg, Virginia 22801  
Phone: (540) 432-7701  
Email: [Ande.Banks@harrisonburgva.gov](mailto:Ande.Banks@harrisonburgva.gov)

### *Duly Authorized Representatives*

Title: Director of Public Works  
Name: Tom Hartman  
Address: 320 East Mosby Road  
Harrisonburg, Virginia 22801  
Phone: (540) 434-5928  
Email: [Tom.Hartman@Harrisonburgva.gov](mailto:Tom.Hartman@Harrisonburgva.gov)

Title: Sustainability and Environmental Manager  
Name: Keith Thomas  
Address: 320 East Mosby Road  
Harrisonburg, Virginia 22801  
Phone: (540) 434-5928  
Email: [Keith.Thomas@harrisonburgva.gov](mailto:Keith.Thomas@harrisonburgva.gov)

Title: Stormwater Compliance Specialist  
Name: Shayna Carter  
Address: 320 East Mosby Road  
Harrisonburg, Virginia 22801  
Phone: (540) 434-5928  
Email: [Shayna.Carter@harrisonburgva.gov](mailto:Shayna.Carter@harrisonburgva.gov)

## MS4 Annual Report

The MS4 Annual Report details the City of Harrisonburg's stormwater program to manage the quality of stormwater runoff discharged from the MS4.

Evaluations gathered while developing the 2023-2024 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 permit cycle will remain on file in the Public Works Department and on Harrisonburg's stormwater webpage: [www.harrisonburgva.gov/stormwater-management-program](http://www.harrisonburgva.gov/stormwater-management-program).

## Minimum Control Measure #1: Public Education & Outreach

### BMP 1.1: Develop and Implement a Public Education and Outreach Program

#### Description

The City will implement a public education and outreach program designed to:

- Increase the public's knowledge of how to reduce stormwater pollution, placing priority on reducing impacts to impaired waters and other local water pollution concerns.
- Increase the public's knowledge of hazards associated with illegal discharges and improper disposal of waste, including pertinent legal implications.
- Implement a diverse program with strategies that are targeted toward individuals or groups most likely to have significant stormwater impacts.

The City will identify no less than three high-priority stormwater issues to meet the goal of educating the public. The high-priority public education and outreach program will:

- Clearly identify the high-priority stormwater issues.
- Explain the importance of the high-priority stormwater issues.
- Include measures or actions the public can take to minimize the impact of the high-priority stormwater issues.
- Provide a contact name and telephone number or location where the public can find out more information.

#### Annual Reporting Requirements

- A list of the high-priority stormwater issues the City addressed in the public education and outreach program.
- A list of the strategies used to communicate each high-priority stormwater issue.
- Description of any changes needed to the Public Education and Outreach Plan.
- A description of public education and outreach activities conducted that included education regarding climate change.

#### List of High Priority Stormwater Issues

##### High Priority Stormwater Issue 1: Chesapeake Bay Nutrients

###### Strategy 1: Traditional Written Materials

- Stormwater and Environmental Newsletters: This email newsletter has a subscription list of around 928 contacts and each newsletter is opened by around 54% of the subscription list.
  - *World Soils Day* – December 2023
  - *The Scoop on Poop.* -- May 2024
- Press Release: City press releases are posted on the City's webpage and are often picked up by local news outlets who share or report on the contents.
  - *City Accepting Comments on Chesapeake Bay TMDL Action Plan.* September 21<sup>st</sup>, 2023
- Harrisonburg Public Works Facebook Page: The Harrisonburg Public Works Facebook page promotes high-quality receiving waters, education about the Chesapeake Bay and local TMDLs, and information about local events and projects. During this permit year

Harrisonburg Stormwater Facebook Page became Harrisonburg Public Works. This switch was made to capture more of the activities that occur at Public Works as well as to increase the number of people following our page. During this permit year, 85 posts were made to the Harrisonburg Stormwater Facebook page. Each post reached an average of 635 people.

#### Strategy 2: Media Materials

- WHSV TV-3 Reports
  - WHSV TV-3 Article, *: Bioretention feature unveiled at Harrisonburg church.* January 25, 2024.  
<https://www.whsv.com/2024/01/25/harrisonburg-church-installs-bioretention-feature/>
  - WHSV TV-3 Article, *: Harrisonburg Public Works plants 600 trees after receiving grant.* December 14, 2023.  
<https://www.whsv.com/2023/12/14/harrisonburg-public-works-plants-600-trees-after-receiving-grant/>
- Daily News Record Articles
  - Daily News Record Article, by Richard H. Hronik III: *Stream Health Coordinator Talks Blacks Run Restoration.* January 24, 2024.  
[https://www.dnronline.com/news/stream-health-coordinator-talks-blacks-run-restoration/article\\_f217f0bd-a74c-522f-9d66-43c9a05fb024.html](https://www.dnronline.com/news/stream-health-coordinator-talks-blacks-run-restoration/article_f217f0bd-a74c-522f-9d66-43c9a05fb024.html)

#### Strategy 3: Speaking Engagements

- All speaking engagements attended by stormwater staff are focused on explaining water quality, including TMDLs, as well as Harrisonburg's role in meeting the Chesapeake Bay TMDL. Staff attended 18 educational events and reached an audience of 1325 participants. These speaking engagements do not include Blacks Run Clean Up Day, Middle School Watershed Field Trips, or the annual rain barrel workshop as these events are counted as Public Involvement Activities.
- HCAP Site Visits: The City partners with the Shenandoah Valley Soil and Water Conservation District (SVSWCD) to implement the Harrisonburg Conservation Assistance Program which includes speaking to landowners about stormwater issues during site visits. The SVSWCD conducted 24 site visits this past year.

#### Strategy 3: Alternative Materials

- Promotional/Alternative Material: This year we had Re-usable Bags/ Magnets/Puzzles: These items were given out to Blacks Run Clean Up Day participants. The re-usable bags have the Blacks Run Clean Up Day logo on them. 614 people volunteered at this year's cleanup event. Additionally, promotional items were distributed at several other education events.

## High Priority Stormwater Issue 2: High Quality Receiving Waters

### Strategy 1: Traditional Written Materials

- Stormwater and Environmental Newsletters: This email newsletter has a subscription list of around 928 contacts and each newsletter is opened by around 50% of the subscription list.
  - *Wipes Clog Pipes*. August 2023
  - *De-Icers Can Be Dangerous*. February 2024
- Press Release: City press releases are posted on the City's webpage and are often picked up by local news outlets who share or report on the contents.
  - *City Launches Public Survey Focused on Improving Stormwater Program*. March 11, 2024
  - *Public Invited to Stormwater Improvement Plan Open House*. May 1, 2024
- Harrisonburg Stormwater Facebook Page: The Harrisonburg Stormwater Facebook page promotes high-quality receiving waters, education about the Chesapeake Bay and local TMDLs, and information about local events and projects. During this permit year, Harrisonburg Stormwater Facebook Page became Harrisonburg Public Works. This switch was made to capture more of the activities that occur at Public Works as well as to increase the number of people following our page. During this permit year, 85 posts were made to the Harrisonburg Stormwater Facebook page. Each post reached an average of 635 people.

### Strategy 2: Media Materials

- WHSV TV-3 Reports
  - WHSV TV-3 Article: *Harrisonburg Public Works Department seeks feedback on water pollutant reduction plan*. September 22, 2023.  
<https://www.wHSV.com/2023/09/22/harrisonburg-public-works-department-seeks-feedback-water-pollutant-reduction-plan/>
- Daily News Record Articles
  - Daily News Record Article, by Richard H. Hronik: *City Launches Stormwater Improvement Survey*. May 8, 2024.  
[https://www.dnronline.com/news/city-launches-stormwater-improvement-survey/article\\_d1967db3-b209-57dc-888a-548c84c461f0.html](https://www.dnronline.com/news/city-launches-stormwater-improvement-survey/article_d1967db3-b209-57dc-888a-548c84c461f0.html)

### Strategy 3: Speaking Engagements

- All speaking engagements attended by stormwater staff are focused on explaining water quality, including TMDLs, as well as Harrisonburg's role in meeting the Chesapeake Bay TMDL. Staff attended 18 educational events and reached an audience of 1325 participants. These speaking engagements do not include Blacks Run Clean Up Day, Middle School Watershed Field Trips, or the annual rain barrel workshop as these events are counted as Public Involvement Activities.
- HCAP Site Visits: The City partners with the Shenandoah Valley Soil and Water Conservation District (SVSWCD) to implement the Harrisonburg Conservation Assistance

Program which includes speaking to landowners about stormwater issues during site visits. The SVSWCD conducted 24 site visits this past year.

#### Strategy 3: Alternative Materials

- Promotional/Alternative Material: This year we had Re-usable Bags/ Magnets/Puzzles: These items were given out to Blacks Run Clean Up Day participants. The re-usable bags have the Blacks Run Clean Up Day logo on them. 614 people volunteered at this year's cleanup event. Additionally, promotional items were distributed at several other education events.

#### High Priority Stormwater Issue 3: Litter and Trash

##### Strategy 1: Traditional Written Materials

- Stormwater and Environmental Newsletters: This email newsletter has a subscription list of around 928 contacts and each newsletter is opened by around 50% of the subscription list.
  - *Plastic Free July/ Wishcycling is a Waste July 2023*
  - *Stream Clean Up Barbie August 2023*
- Harrisonburg Stormwater Facebook Page: The Harrisonburg Stormwater Facebook page promotes high-quality receiving waters, education about the Chesapeake Bay and local TMDLs, and information about local events and projects. During this permit year, Harrisonburg Stormwater Facebook Page became Harrisonburg Public Works. This switch was made to capture more of the activities that occur at Public Works as well as to increase the number of people following our page. During this permit year, 85 posts were made to the Harrisonburg Stormwater Facebook page. Each post reached an average of 635 people.

##### Strategy 2: Media Materials

- WHSV TV-3 Reports
  - WHSV TV-3 Article, by WHSV Newsroom: *Harrisonburg anticipates record turnout for 26th annual Blacks Run Clean Up Day*. April 12, 2024.  
<https://www.wHSV.com/video/2024/04/13/harrisonburg-anticipates-record-turnout-26th-annual-blacks-run-clean-up-day/>
- Daily News Record Articles
  - Daily News Record Article, by Lee Zion: *Black Run Cleanup May Have Broken Attendance Record*. April 15, 2024.  
[https://www.dnronline.com/dnronline/black-run-cleanup-may-have-broken-attendance-record/article\\_e96b3504-dd0e-52e4-a48c-42abddb2efe8.html](https://www.dnronline.com/dnronline/black-run-cleanup-may-have-broken-attendance-record/article_e96b3504-dd0e-52e4-a48c-42abddb2efe8.html)



### Strategy 3: Alternative Materials

- Clean Up Supplies: Apart from the Blacks Run Clean Up Day event, 15 smaller clean ups were organized throughout the year with community groups, university students, and local businesses. These groups removed 4,585 pounds of trash. Trash bags and trash grabbers were provided for these events.
- Promotional/Alternative Material: This year we had Re-usable Bags/ Magnets/Puzzles: These items were given out to Blacks Run Clean Up Day participants. The re-usable bags have the Blacks Run Clean Up Day logo on them. 614 people volunteered at this year's cleanup event. Additionally, promotional items were distributed at several other education events.

#### *BMP Effectiveness*

**Review of BMP:** A wide variety of audiences was reached through this BMP and educated about the high-priority stormwater issues.

**Program Plan Revisions:** Program Plan revisions were not necessary. To increase our ability to educate our community, we will continue to develop educational materials in other languages, such as Spanish and Arabic.

#### *Public Education and Outreach Activities Regarding Climate Change*

**Rocktown Energy Festival:** James Madison University holds an annual event in downtown Harrisonburg to engage the community in climate change and energy saving efforts. City staff tabled this event on October 14<sup>th</sup>, 2023 to educate the community on climate change initiatives Harrisonburg has completed and the goals of the City's Environmental Action Plan.

## Minimum Control Measure #2: Public Involvement and Participation

### BMP 2.1: Plan for, Respond to, and Document Public Input and Reports

#### *Description*

The City will develop and implement procedures for the following:

- The public to report potential illicit discharges, improper disposal, or spills to the MS4, complaints regarding land disturbing activities, or other potential stormwater pollution concerns.
- The public to provide input on the city's MS4 Program Plan.
- Receiving public input or complaints.
- Responding to public input received on the MS4 Program Plan or complaints.
- Maintaining documentation of public input received on the MS4 program and associated MS4 Program Plan and the city's response.

#### *Annual Reporting Requirements*

- A summary of any public comments on the MS4 program received and how the permittee responded
- A summary of stormwater pollution complaints received under the procedures established in Part I E 2 a (1) (excluding flooding complaints) and how the permittee responded

### *Summary of Public Comment*

No public comment on the MS4 program was received.

### *Summary of Stormwater Pollution Complaints*

Public complaints about stormwater pollution and the City's response is detailed in MCM3.

### *BMP Effectiveness*

**Review of BMP:** The public can provide comments about the MS4 program and associated Program Plan as needed. Information about how to provide comments is listed on the stormwater webpages. A survey link (<https://arcg.is/0CjKnX>) was added to our webpage (<https://www.harrisonburgva.gov/MS4-permit-program>) to allow the public to give comments throughout the year.

The public can provide input on the permittee's MS4 program by calling Public Works at (540) 434-5928, emailing [stormwater@harrisonburgva.gov](mailto:stormwater@harrisonburgva.gov) or mailing comments to Harrisonburg Public Works Department, 320 East Mosby Road, Harrisonburg VA 22801. The public can also visit the Public Works office to speak with someone in person. Comments received at City Hall will be sent to Public Works via internal mail.

The public can also attend the quarterly Stormwater Advisory Committee meetings to provide comment during the public comment period of the meeting.

The Harrisonburg City website outlines procedures for the public to report illicit discharges, improper disposal, or spills to the MS4, complaints regarding land disturbing activities, or other pollution concerns. This information can be found at: <https://www.harrisonburgva.gov/report-pollution>.

**Program Plan Revisions:** Program Plan revisions were not necessary.

### *BMP 2.2: Develop and Maintain a Stormwater Webpage*

#### *Description*

No later than three months after this permit's effective date, the City will develop and maintain a webpage dedicated to the MS4 program and stormwater pollution prevention. The following information will be posted on this webpage:

- The effective MS4 permit and coverage letter.
- The most current MS4 Program Plan or location where the MS4 Program Plan can be obtained.
- The annual report for each year of the term covered by this permit.
- A mechanism for the public to report potential illicit discharges, improper disposal, or spills to the MS4, complaints regarding land disturbing activities, or other potential stormwater pollution concerns.
- Methods for how the public can provide input on the city's MS4 program.

### *Annual Reporting Requirements*

A webpage link to the city's MS4 program and stormwater website.

### *Website Information*

The City's MS4 Program Plan and Annual Reports are available on the City's Stormwater webpages: <http://www.harrisonburgva.gov/stormwater-management-program>.

The City of Harrisonburg promotes reporting of construction site issues through its website at: <http://www.harrisonburgva.gov/site-development>.

The City of Harrisonburg operates an online pollution reporting form for citizens to report illicit discharges at: <http://www.harrisonburgva.gov/report-pollution>.

### *BMP Effectiveness*

**Review of BMP:** The metric for determining if the BMP is effective is if the websites are maintained and available for use. All of the websites are available for citizens to use and the City promotes the use of the websites periodically throughout the year.

**Program Plan Revisions:** Program Plan revisions were not necessary.

### *BMP 2.3: Implement Four Public Involvement Opportunities*

#### *Description*

The City will implement no less than four activities per year from two or more of the categories described in the permit to provide an opportunity for public involvement to improve water quality and support local restoration and clean-up projects.

#### *Annual Reporting Requirements*

- A description of the public involvement activities implemented by the City, including any efforts to reach out and engage all economic and ethnic groups.
- A report of the metric as defined for each activity and an evaluation as to if the activity is beneficial to improving water quality.
- The name of other MS4 permittees who participated in the public involvement opportunities.

#### *Public Involvement Activities*

- **Blacks Run Clean Up Day:** Blacks Run Clean Up Day is the annual community stream clean up organized by the City of Harrisonburg. The Event is usually held in April and includes educational exhibits from participating organization. In the past, these have included the Shenandoah Valley Soil and Water Conservation District, Climate Action Alliance of the Valley, Wild Virginia, James Madison University, Virginia Master Naturalists, Potomac Appalachian Trail Club, Chesapeake Bay Foundation, Virginia Department of Forestry, Virginia Clean Cities, Harrisonburg Parks and Recreation, Harrisonburg-Rockingham Regional Sewer Authority, Bring Your Own, Virginia Department of Environmental Quality, and The Natural Garden. The website <https://www.harrisonburgva.gov/cleanstream-home> has information on past and upcoming clean up day events. Further documentation is available upon request.
- **Household Hazardous Waste Collection Days:** Household Hazardous Waste Collection Days are organized by the City of Harrisonburg and Rockingham County and are offered to residents so they can properly dispose of their household hazardous waste. The collection days were held on October 14, 2023 and May 11, 2024.
- **Middle School Watershed Field Trips:** City of Harrisonburg middle school students participate in hands-on watershed field trips as a part of their curriculum. The program introduces middle schoolers to their local watershed. 6th graders participate in "Plant-a-Seed" where they learn

about river hydrology, macroinvertebrates, and water chemistry. City of Harrisonburg staff help to teach lessons during these trips. The events are usually held on multiple days.

- **Rain Barrel Workshops:** Rain Barrel workshops are organized by the Shenandoah Valley Soil and Water Conservation District and the City of Harrisonburg. Participants are taught about water conservation and watershed health and make rain barrels out of pickle barrels. One Rain Barrel Workshops will be planned for the spring and another in the fall pending enough participants signup to hold both events.
- **Public Tree Planting Events:** Tree planting events where the public is invited to help plant trees are organized throughout the year. There are multiple small group volunteer tree planting events throughout the year. Typically, at least one larger group planting event is anticipated each year in the spring around Arbor Day.

### *BMP Effectiveness*

#### **Review of BMP:**

- **Blacks Run Clean Up Day:** The metric for determining if the activity is beneficial to water quality will be tonnage of trash picked up. The average range of pounds of trash removed from 2001 – 2018 is 3,900 pounds – 8,100 pounds. This year, 614 volunteers helped to clean stream sections (removing 2.8 tons of trash) and 25 volunteers helped to plant trees at Keister Elementary School. In addition, 10 volunteer groups assisted with stream cleanup events throughout the year. The volunteers assisted in collecting 595 pounds of trash. Additionally, these volunteers removed several tires, and other large miscellaneous items.
- **Household Hazardous Waste Collection Days:** The metric for determining if the activity is beneficial to water quality will be the type and amounts of items dropped off during the collection days. Collection days were run jointly for Harrisonburg City and Rockingham County residents. Over 17,946 items were collected at the October event across 23 different item categories. 53 items were collected at the May event across 25 different item categories. More information is available upon request.
- **Middle School Watershed Field Trips:** The metric for determining if the activity is beneficial to water quality will be the number of students reached through staff taught lessons. The “Plant-a-Seed” event was held October 17 and October 18, 2023 and reached 80 7<sup>th</sup> grade students.
- **Rain Barrel Workshops:** The metric for determining if the activity is beneficial to water quality will be the number of participants in the workshop and the amount of rain barrels built. At our spring workshop in March workshop, 10 people attended and 12 rain barrels were made. An additional 5 barrels were sold throughout the year to City residents.
- **Public Tree Planting Events:** The metric for determining if the activity is beneficial to water quality will be the number of participants in the workshop and the amount of trees planted. This year eight public tree plantings we held and 186 trees were planted throughout the City. Volunteers for these tree plantings included groups such as; Harrisonburg City Public Schools, local Girl Scout troops, and James Madison University Students.

**Program Plan Revisions:** Program Plan revisions were not necessary.

### *Efforts to Engage all Economic and Ethnic Groups*

- **Stormwater Improvement Plan:** As part of the process to update the Cities Stormwater Improvement Plan, public surveys were made available in eight different languages to ensure participation from multiple different ethnic groups. The City also prioritized outreach for the

survey and subsequent public meetings in areas indicated by EPA EJScreen Mapping Tool as Low Income, Limited English Speaking, and People of Color.

- **Public Tree Planting Events:** Several tree plantings were held throughout the year at Public City Schools. The student population is of various ethnic and economic status.
- **Language Access:** The City frequently translates materials into other languages. These materials include program documentation, drainage studies, and educational signs located in Purcell Park.

#### *Public Education and Outreach Activities Regarding Climate Change*

- **Rocktown Energy Festival:** James Madison University holds an annual event in downtown Harrisonburg to engage the community in climate change and energy saving efforts. City staff tabled this event on October 14<sup>th</sup>, 2023 to educate the community on climate change initiatives Harrisonburg has completed and the goals of the City's Environmental Action Plan.

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

#### BMP 3.1: Develop and Maintain a Storm Drain System, Outfalls, and Information Map

##### *Description*

The City will develop and maintain an accurate MS4 map and information table, which will be submitted to the DEQ no later than July 1, 2019 and updated no later than October 1 of each year. If any physical interconnections to other MS4s are established or discovered, written notification will be provided to those MS4s.

##### *Annual Reporting Requirements*

A confirmation statement that the MS4 map and information table are up-to-date as of June 30 of the reporting year.

##### *Confirmation Statement*

The MS4 map and information table are up-to-date.

##### *BMP Effectiveness*

**Review of BMP:** The MS4 map and information table are up-to-date.

**Program Plan Revisions:** No Program Plan changes are needed at this time.

#### BMP 3.2: Prohibit Illicit Discharges and Connections through Ordinance Language

##### *Description*

The City shall prohibit, through ordinance, policy, standard operating procedures, or other legal mechanism, to the extent allowable under federal, state, or local law, regulations, or ordinances, unauthorized non-stormwater discharges into the storm sewer system.

##### *Annual Reporting Requirements*

No requirements. However, as a note, City Ordinance 7-6 was updated to provide additional clarifications and definitions.

### BMP 3.3: Maintain and Implement Illicit Discharge Detection and Elimination Written Procedures

#### Description

The City will maintain and implement illicit discharge detection and elimination (IDDE) written procedures designed to detect, identify, and address unauthorized non-stormwater discharges, including illegal dumping, to the MS4 with the goal of eliminating the unauthorized discharge. Procedures will include dry weather field screening of at least 50 outfalls per year.

#### Annual Reporting Requirements

- The total number of outfalls screened during the reporting period as part of the dry weather screening program.
- A list of illicit discharges to the MS4 including spills reaching the MS4.

#### Number of Outfalls Screened

During the 2023-2024 reporting period, 50 MS4 outfalls were inspected, and 0 active illicit discharges were observed or required follow-up.

#### Illicit Discharges

The incidents listed in the Illicit Discharge Summary 2023-2024 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. Unfounded illicit discharges are incidents reported as an illicit discharge that are inspected by City Staff and determined to be an unfounded complaint. These unfounded reports are also entered into Cityworks. A summary of incident details is provided below. Further information is available by request.

InspectionId	Date Inspected	Incident Discovered By	Finish Date	Status	Narrative Description of incident	Resolution
86743	7/20/2023	Citizen Notification	9/8/2023	Closed	. A resident of the neighborhood called to notify Public Works staff that someone was throwing dog waste bags in the storm drain.	Staff met with the homeowner closest to the DI. They asked if city staff could post a camera to catch the suspected violator. Homeowners advised that they would watch to see if they notice anyone throwing bags in the DI.

87918	8/17/2023	Other	8/17/2023	Complete	University staff notified Public Utilities that there was a lot of water in the road, and they believed that there was a water break. PU Staff noticed that it was not a water break but an illicit discharge on the street. PU mentioned that a resident was dumping carpet cleaning water in the road, PW could not determine what residence the water came from.	Stain was already dried on the road.
88026	8/22/2023	HFD Inspection/Incident	9/22/2023	Complete	HPW was notified by assistant fire chief that a local cleaning company was dumping in DI and that there was staining in fire lane behind business. The cleaning company was caught dumping in DI #14124.	PW went out the next day and didn't find any evidence of dumping in the DI but found evidence of painting and tar around their back door.
88027	8/22/2023	HPW Staff	9/1/2023	Complete	While responding to another illicit discharge, staff discovered a leaking grease trap behind a Thai restaurant. Staff followed the leak down to the nearest DI and found some evidence of direct dumping into the DI.	The grease trap hauler belongs to a local manufacturer. Staff talked with the owner of Thai restaurant on site. Staff advised that Thai restaurant needed to clean up the grease that leaked from the grease trap and clean the utility poles beside it. The owner began cleaning right away. Left card with him in case he had any more questions.

88081	8/22/2023	HFD Inspection/Incident	9/3/2023	Complete	Residents of a nearby apartment were "milk jousting" in the street in shopping carts. The game caused 30 gallons of milk to spill into the road. Approximately 3 gallons got into a storm drain.	HFD called PW standby to come put sand down on the road, the sweeper truck went out the next day to sweep up the sand.
88082	8/23/2023	HPW Staff	9/3/2023	Complete	PW discovered illicit discharge while responding to a different illicit discharge. When talking to an adjacent business owner, PW staff discovered staining outside of pizza restaurant consistent with dumping mop water.	PW staff advised pressure washing the pavement outside of their business and dump mop water into a mop sink from now on.
88970	9/21/2023	HPW Staff	9/22/2023	Complete	While working on a different project, HPW staff noticed a large puddle of diesel fuel in the roadway. Followed trail until Pleasant Valley Rd and I-81 on ramp.	Staff applied sand to the areas that had ponding and sent the sweeper to clean up the sand. The perpetrator was never discovered. City mitigated.
89485	10/16/2023	HPW Staff	6/13/2024	Closed	HPW mowing staff called in a grey fowl smelling water in ditch adjacent to Acorn Dr. Public Works staff responded and confirmed that the discharge was coming from local food distributor and began investigating the issue. The discharge originated at	Public food company personnel agreed to pump detention pond down to remove all wastewater contaminates and to ensure pond discharge plug was in place. Removal of discharged wastewater may be required for the downstream properties as well.



					<p>outflow pipe of detention pond a public food business property and entered a ditch parallel to Acorn Dr to the north and entered DI. From there it went under Acorn Dr via a storm pipe and outflowed into ditch. Sewer algae was present with a foul rancid smelling odor.</p>	
89870	11/9/2023	Citizen Notification	11/9/2023	Complete	<p>Citizen riding their bike on the shared use path noticed that an auto shop was dumping fluids on the ground outside their garage and notified staff the next day. The citizen noted it looked like wash water that was being dumped in the parking lot. When PW staff investigated, there appeared to be evidence of water or potential dumping outside garage. There was no evidence of suds or any chemical odor. The liquid did not appear to leave garage property.</p>	<p>The liquid did not appear to leave garage property. No mitigation recommended.</p>
90023	11/14/2023	HFD Inspection/Incident	11/26/2023	Complete	<p>During a fire inspection HFD noticed a 150–200-gallon tank of motor oil waste that appeared to be leaking behind garage /</p>	<p>The ground appeared to have some excavation and barrels were removed.</p>

					opposite side of gas station.	
91011	1/2/2024	HPW Staff	1/5/2024	Complete	HPW staff discovered traces of drywall along the roadway / alley behind coffee shop and along West Market Street.	Staff found a contractor on site about the concrete and advised that they clean it up and prevent it from occurring in the future.
91012	1/2/2024	HPW Staff	1/3/2024	Complete	HPW staff discovered spilled feed corn in the roadway on Erickson Ave near S Main Street intersection.	City staff cleaned up the spill with street sweepers.
91214	1/10/2024	HFD Inspection/Incident	1/20/2024	Complete	HFD discovered illicit discharge in lot behind auto shop while conducting fire code inspections. Large amounts of spilled oil/fuel that has permeated into the ground, engine blocks stored outdoors, car batteries stored outside and leaking, large amounts of trash throughout area, and engine work being done outside.	There was an excavation of contaminated ground. The car parts and litter were removed from the site.
91216	1/5/2024	DEQ/EPA Notification	1/20/2024	Complete	DEQ notified HPW staff of illicit discharge. The illicit discharge included suspected sewage described as	Outside jurisdiction. Case turned over to DEQ.

					brown water / raw sewage onto railroad Right of Way at approximately 862 North Liberty Street.	
91298	1/11/2024	Citizen Notification	6/13/2024	Closed	<p>HPW received a call from a citizen reporting a large fuel spill in a parking lot. When the fire department responded, they determined that the elevator shaft was the cause of the spill and had leaked hydraulic fluid in their garage. The garage's sump pump then ended up pumping fluid out of the building and into the parking lot where it entered the storm drain and made it all the way down to the drop inlets on E Market St. The fire department estimated about 30-40 gallons of fluid were spilled. PW crews put absorbent material down in the DIs as well as placing a boom at the downstream DI. PW flusher truck cleaned out the two DIs along East Market St and placed booms back in the DIs once completed. The building</p>	A cleanup company came to the site and performed cleanup and remediation.

					<p>maintenance manager met PW staff on site as well as the building owner. They were informed they needed to contact a cleanup company.</p>	
91726	2/5/2024	Citizen Notification	6/6/2024	Complete	<p>Resident of 751 Jefferson Street called to notify HPW that they believed a local poultry distributor was discharging sewage onto their property. The stormwater pit that collects wastewater for poultry distributor was not working properly and caused a discharge of wastewater to flow onto neighboring properties. The discharge flows from DI at poultry distributor to an outlet pipe on railway property, which then flows behind 745 and 751 Jefferson St and finally connects to Blacks Run.</p>	<p>Following the May 2<sup>nd</sup> DEQ inspection, poultry distributor was asked to identify each inlet source to their stormwater drainage system that discharges under the railroad tracks. Initial drawings showed two drop inlets connected to this outfall. Within the drop inlets were PVC pipes that drained to each outfall, but the facility could not identify the sources of several of the PVC pipes.</p>
91833	2/12/2024	DEQ/EPA Notification	2/12/2024	Complete	<p>DEQ staff notified HPW staff of sewage overflow. The overflow came from a private lateral sanitary. Overflow is in PVC pipe in grass adjacent to Pear Street.</p>	<p>HPW staff forwarded information to Public Utilities staff. PU crew flushed the public main to ensure there was no blockage present. PU plans to talk to the owner to make sure the lateral is properly maintained. If private overflow continues, PU will contact VDH and request assistance with</p>

						insuring that this problem gets resolved.
92180	2/27/2024	HPW Staff	6/13/2024	Closed	HPW staff observed grease stains and fats in DI next to downtown restaurant. Google street image from October 2023 shows grease stains around DI and suggests that the dumping has been occurring for a while.	Unknown violator and after multiple follow-up visits, staff observed no additional activity.
92319	3/5/2024	DEQ/EPA Notification	3/15/2024	Complete	DEQ received complaint about trash in ditch line beside East Market Street and Burgess Rd.	City cleaned up site.
93367	4/3/2024	HPW Staff	4/15/2024	Complete	While responding to a different illicit discharge complaint, staff discovered heavy amounts of oil flowing down the curb and gutter, with the oil eventually reaching the stream. Staff traced the oil uphill to the auto shop.	PW Staff and mailed NOV letter listing corrective action. Staff advised the property manager put down absorbent material on pooling oil and then remove and properly dispose of the material.

94042	4/29/2024	DEQ/EPA Notification	5/8/2024	Complete	DEQ emailed staff that they had received a citizen complaint about illicit discharge from car wash. Soapy water from the car wash was flowing into the nearby storm drain. The owner of the car wash notified staff that their drain was clogged, causing the water to flow outside of the car wash.	Staff advised that the car wash keep all washing activity indoors and prevent soapy water from exiting the sheltered area.
95151	6/6/2024	HFD Inspection/Incident	6/16/2024	Complete	HFD responded to ECC call for tractor trailer rollover on I-81. HFD contacted PW staff to inform them of illicit discharge. The trailer was hauling sodium laureth sulfate with approximately 150 gallons on the ground surrounding the rolled over truck, located along interstate exit in grassy area.	Illicit discharge was VDOT's responsibility, and they followed corrective action immediately after the incident.
95159	6/6/2024	Citizen Notification	6/13/2024	Closed	Citizen (459 N Liberty St) emailed HPW staff about chicken parts that were along alley and parking lot near local poultry distributor. Staff went to location but could not find any evidence of chicken part in alley or parking lot.	N/A Unfounded

95526	6/24/2024	HPW Staff	6/24/2024	Complete	Illicit discharge discovered by HPW staff while managing BMP mowing alongside Erickson Ave. Chicken feet/parts fell off truck during transportation in the right turn lane on Erickson Ave onto South Main St along serpentine BMP.	The illicit discharge was found by PW employee and street sweeper was called to clean up discharge.
95665	6/26/2024	HPW Staff	6/26/2024	Complete	HPW staff notified Stormwater staff that a strong bleach smell was coming from the parking lot of 51 N Liberty St. The cleaning company washing the side of a building allowed soapy water and detergents containing chlorine into DI and directly into Blacks Run. There were dead fish and affected wildlife observed.	The cleaning company immediately stopped operation and placed absorbent socks along DI and outfall into the stream. Chlorine product was left on parking lot for the air to volatize the material.
95764	6/29/2024	DEQ/EPA Notification	6/28/2024	Complete	DEQ notified HPW staff of a citizen complaint about a potential illicit discharge in connection to campers dumping sewage onto the ground located in parking lot adjacent to house towards Linda Lane.	HPW staff found no evidence of sewage dumping and referred the issue to the Virginia Department of Health.

### *BMP Effectiveness*

**Review of BMP:** Outfalls were screened, and illicit discharges were followed up on per the permit requirements.

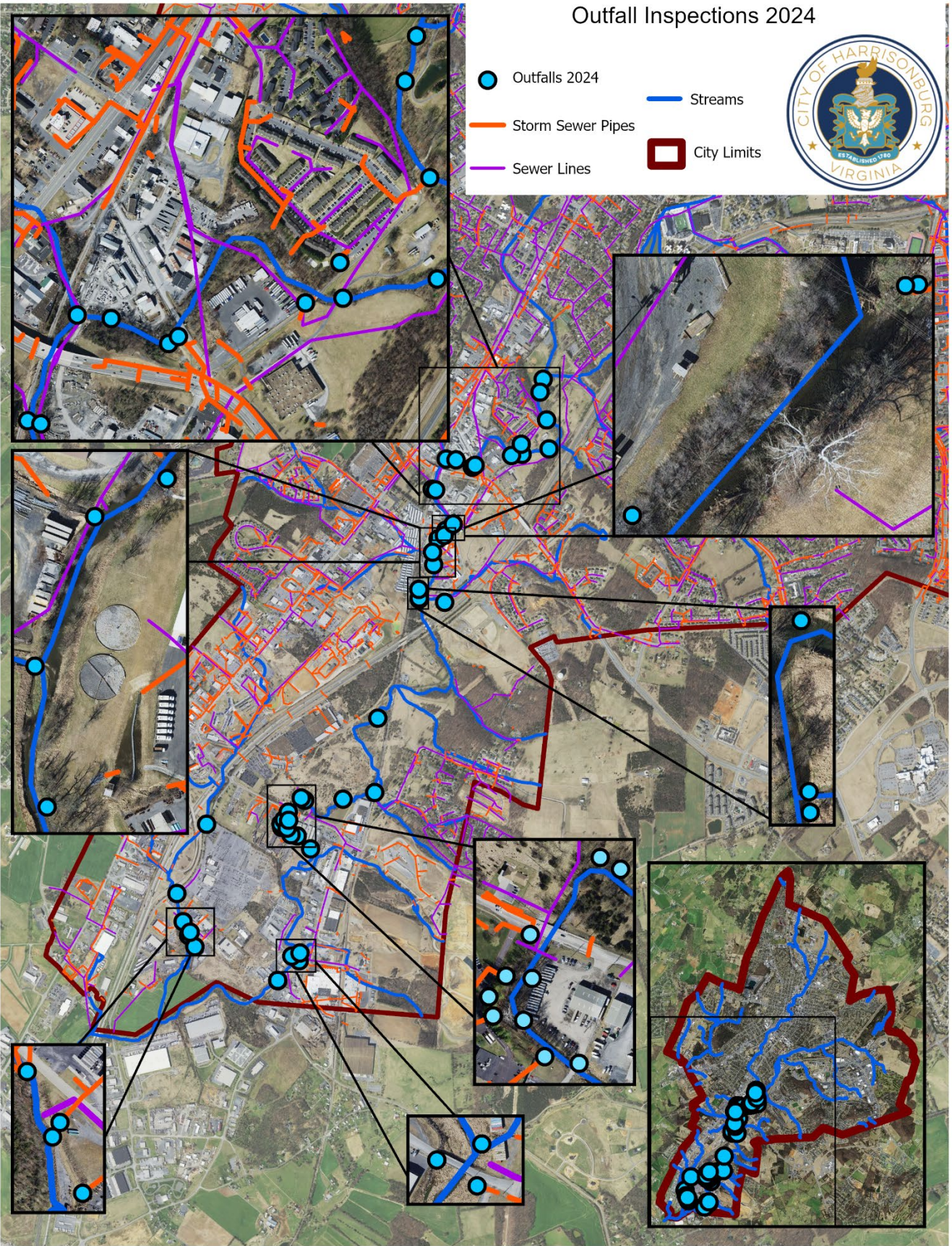
**Program Plan Revisions:** Program Plan changes are not needed at this time. However, as a note, City Ordinance 7-6 was updated to provide additional clarifications and definitions.



# Outfall Inspections 2024



- Outfalls 2024
- Streams
- Storm Sewer Pipes
- Sewer Lines
- City Limits



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

### BMP 4.1: Use Legal Authority to Address Discharges Entering the MS4

#### *Description*

The City will utilize its legal authority, such as ordinances, permits, orders, specific contract language, and interjurisdictional agreements, to address discharges entering the MS4. The City will control construction site stormwater runoff by implementing its Virginia Erosion and Sediment Control Program (VESCP) consistent with the Virginia Erosion and Sediment Control Law (Sec. 62.1-44.15:51 et seq. of the Code of Virginia) and Virginia Erosion and Sediment Control Regulations (9VAC25-840).

#### *Annual Reporting Requirements*

- A confirmation statement that land disturbing projects that occurred during the reporting period have been conducted in accordance with the current department approved standards and specifications for erosion and sediment.
- If one or more of the land disturbing projects were not conducted with the department approved standards and specifications, an explanation as to why the projects did not conform to the approved standards and specifications.
- Total number of inspections conducted.
- The total number and type of enforcement actions implemented and the type of enforcement actions.

#### *Confirmation Statement*

All land disturbing projects that occurred during the 2023-2024 reporting period were conducted in accordance with the current department approved standards and specification for erosion and sediment control.

#### *Explanation of Nonconformity*

All land disturbing projects were conducted in accordance with the current department approved standards and specifications.

#### *Total Number of Inspections conducted*

- Total number of land disturbing activities: 470
- Total number of acres disturbed: 201.02
- Total number of inspections conducted: 908

#### *Enforcement Actions*

During the 2023-2024 reporting period 908 land disturbing activity inspections were conducted. Of the 908 inspections, 452 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 452 potential violations, 6 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 Effectiveness*

**Review of BMP:** All land disturbing projects that occurred during the 2023-2024 reporting period were conducted in accordance with the current department approved standards and specifications. Potential

violations were noted and Notice to Comply letters were sent and all potential violations were resolved in a timely manner without the need for further enforcement actions.

**Program Plan Revisions:** Program Plan changes are not needed at this time.

#### Minimum Control Measure #5: Post-Construction Stormwater Management for New Development and Development on Prior Developed Lands

##### BMP 5.1: Implement the VSMP

###### *Description*

The city has an approved Virginia Stormwater Management Program (VSMP) and so shall implement the VSMP consistent with the Virginia Stormwater Management Act (Sec 62.1-44.15:24 et seq. of the Code of Virginia) and the VSMP Regulations (9VAC25-870).

###### *Annual Reporting Requirements*

None

##### BMP 5.2: Inspection and Maintenance Program for City Owned Stormwater Management Facilities

###### *Description*

The City will implement an inspection and maintenance program for those stormwater facilities owned or operated by the City that discharges to the MS4. The City will:

- Develop and maintain written inspection and maintenance procedures to ensure adequate long-term operation and maintenance of its stormwater management facilities.
- Inspect city owned or operated stormwater management facilities no less than once per year.
- Conduct maintenance as necessary.

###### *Annual Reporting Requirements*

- Total number of inspections conducted on stormwater management facilities owned or operated by the City.
- A description of the significant activities performed on the stormwater management facilities owned or operated by the City to ensure they continue to perform as designed. This does not include activities such as grass mowing or trash collection.
- The most up to date prioritized stormwater management facility significant maintenance and repair schedule maintained in accordance with Part I E 5 b (4).

###### *City Owned BMP Inspections*

All city-owned BMPs were inspected once, for a total of 47 inspections.

###### *Significant Activities performed*

Trapping for nuisance animals occurred on an as-needed basis in BMPs and all rodent holes were repaired after their removal. Raingardens/Bioretention/Extended Enhanced Detention ponds were treated for invasive vegetation and mulch was added where needed. Meadows and stream restorations were treated for invasive vegetation. All Detention ponds were mowed, and woody vegetation removed.

**Structural repair:**

Stone spring detention pond: Overflow from forebay to basin was regraded to remove channels that were formed and to provide sheet flow into basin.

Erickson Serpentine extended enhanced basin: Hole was repaired on riser structure with grout and hole in ground around the riser structure was filled with clay and soil and seeded.

HHS Detention Pond: Inlet pipes were reconnected and regraded to allow for proper flow into basin. Channels in basin were regraded as well.

Lucy Simms Detention Pond: Hole repaired in ground that formed due to inlet pipe disconnection. Metal flashing installed to secure pipe joint and soil was added to fix hole in ground.

*Prioritized Maintenance and Repair Schedule*

<b>BMP ID</b>	<b>BMP Name</b>	<b>BMP Type</b>	<b>Maintenance Items</b>	<b>Schedule</b>	<b>Priority (High, Medium, Low)</b>
17	Smithland/Skyline Schools	Extended Detention Basin	Fill hole on fore bay. Replace riprap on conveyance from fore bay to basin	1-6 Months	Moderate
278	Early Education Center - Elon Rhodes	Underground Detention System	Seed and mulch area at intake playground and repair hole above intake pipe. Install eruption pad below roof runoff drains. Fill in around intake system drain.	1-6 Months	Moderate
23	Linda Lane Roundabout	Extended Detention Basin	Reduce spraying Reseed and mulch. Remove sediment in inlet pipe.	1-6 Months	Moderate
138	HEC-Smithland Rd Right Side	Detention Basin	Cut trees and mow areas	1-6 Months	Moderate
N/A	Smithland Rd Soccer Fields	Detention Basin	Uncap outlet pipe and remove logs from dam.	1-6 Months	Moderate

50	Lucy Simms School	Detention Basin	Excavate inlet pipe and reattached pipe joint. Remove sediment from inlet pipe.	1 Month	Critical
203	Park View Water Tank	Bioretention	No maintenance needed.	1 year	Low
203	Park View Water Tank	Bioretention	Trim overgrown vegetation. Remove trampoline. Mulch bio retention area and spray invasive weeds.	1-6 Months	Moderate
N/A	Liberty Park	Rain Garden	Level inlet area up with soil. Mulch	1 year	Low
137	HEC-Smithland Rd Surrounding Facility	Vegetated Filter Strip	No maintenance needed.	1 year	Low
201	Park View Water Tank, inside bend in road	Bioretention	No maintenance needed.	1 year	Low
202	Park View Water Tank, smallest	Bioretention	No maintenance needed.	1 year	Low
174	Harrisonburg City Hall	Bioretention	No maintenance needed.	1 year	Low
7	Harrisonburg High School	Detention Basin	Reconnect and reset inlet pipes and add appropriate soil on top. Add large riprap below inlet structures. Regrade channel in basin and add soil or riprap (possible to use exerting deposits of eroded soil in basin). Fill holes around riser structure.	1 Month	Critical
213	Bluestone Elementary -	Bioretention	No maintenance needed.	1-6 Months	Moderate

	Larger Square Pond				
211	Bluestone Elementary - Triangular out front	Bioretention	Replant dead trees. Mow basin during dormant time. Spray invasive weeds during growing season.	1-6 Months	Moderate
TMDL 2	Bluestone Elementary Meadow	Conserved Open Space	Mow meadow. Spray for thistle. Prevent foot traffic in meadow.	1-6 Months	Moderate
		Detention Pond	No maintenance needed.	1 year	Low
215	Bluestone Elementary	Underground Detention System	No maintenance needed.	1 year	Low
N/A	Heritage Oaks Golfcourse - Small Pond	Wet Pond	No maintenance needed.	1 year	Low
N/A	Heritage Oaks Golfcourse - Large Pond	Wet Pond	Continue to monitor banks, maybe regrade some areas. Remove muskrats	1-6 Months	Moderate
12	West Market St - Concrete Conveyance	Detention Basin	Remove sediment in concrete U ditch and unclog trash rack. Remove trash.	1-6 Months	Moderate
535	Community Activities Center - Westover Park	Detention Basin	Remove sediment and trash	1-6 Months	Moderate
10	West Market St - across from Mobil-7/11	Detention Basin	Remove debris on trash rack to allow for proper drainage	1-6 Months	Moderate
13	Thomas Harrison Middle School - Front	Detention Basin	Reconnect inlet pipe. Fill in channels in basin and add riprap below inlets. Remove inappropriate trees and invasive shrubs to allow for	1 Month	Critical

			proper maintenance of facility.		
14	Thomas Harrison Middle School - Basketball Court and Track	Detention Basin	Add riprap below inlets. Regrade basin. Remove inappropriate trees and shrubs to allow for proper maintenance.	1 Month	Critical
16	Westover - Parking Loop	Bioretention/Rain Garden	No maintenance needed.	1 year	Low
15	Thomas Harrison Middle School - Bottom of Parking Lot	Bioretention/Rain Garden	No maintenance needed.	1 year	Low
11	West Market Street - Fenced, Beside Car Wash	Detention Basin	No maintenance needed.	1 year	Low
9	Stone Spring Elementary - Back, Near Track	Detention Basin	Remove groundhogs and fill holes. Replace riprap in concentrated flow area. Re-attach inlet pipe and regrade	1 Month	Critical
1	Dream Come True Playground	Detention Basin	Remove and treat tree with herbicide, replace trash rack.	1-6 Months	Moderate
N/A	Reservoir St, Corner of Woodland Dr	Extended Detention Basin	Remove trash. Mow basin and fore bay when dry and remove trees growing at riser. Reseed bare soil and stop over spraying herbicide.	1-6 Months	Moderate
43	Spotswood Elementary School - Bottom of Parking Lot	Bioretention/Rain Garden	Resize raingarden. Spray invasive weeds.	1-6 Months	Moderate
133	Erickson/Stone Spring Phase 2 -	Extended Detention Basin	N/A	1 year	Low

	Bridge, Cattails, Wetland				
249	Transfer Station - Towards Blackrun	Extended Detention Basin	Reseed and mulch outside dam wall slope. Mow basin and side slopes during dormant season	1-6 Months	Moderate
132	Erickson/Stone Spring Phase 2 - White House	Extended Detention Basin	Remove buildup at inlet pipe.	1-6 Months	Moderate
168	Erickson/Stone Spring Phase 3 - Top of Hill	Extended Detention Basin	Identify source of oil	1-6 Months	Moderate
83	Erickson/Stone Spring Phase 1 - Fenced, Pear Street	Extended Detention Basin	Repair holes on for bay slopes and cut trees	1-6 Months	Moderate
406	Cale Trail Shared Use Path	Detention Basin	Mow basin and slopes. Spray with aquatic approved broadleaf herbicide.	1-6 Months	Moderate
N/A	Purcell Park - Beside Tennis Courts	Rain Garden	Mulch	1-6 Months	Moderate
TMDL 1	Purcell Park Bioreactor	Bioreactor	No maintenance needed.	1-6 Months	Moderate
167	Erickson/Stone Spring Phase 3 - Serpentine, Vegetation	Extended Detention Ponds	Remove trash in fore bay, add clay/topsoil reseed 2 holes in side slope. Add clay to seal hole forming at riser structure with top soil and seed, may have to patch hole with concrete on riser structure to prevent water from entering.	1-6 Months	Moderate



8	Stone Spring Elementary - Front, Near Entrance	Detention Basin	BMP needs extensive invasive removal, surrounding area needs to have invasive species removed, excessive trash present in and surrounding BMP needs to be removed.	1-6 Months	Moderate
188	Carlton St Roundabout	Detention Basin	No maintenance needed.	1 year	Low
248	Transfer Station	Cistern	No maintenance needed.	1 year	Low
134	Erickson/Stone Spring Phase 2 - Across from Beery Rd	Extended Detention Basin	No maintenance needed.	1 year	Low
TMDL 3	Purcell Park Meadow	Open Space/Land Conversion-Meadow	No maintenance needed.	1 year	Low

*BMP Effectiveness*

**Review of BMP:** All BMPs were inspected at least once during the permit year.

**Program Plan Revisions:** Program Plan changes are not needed at this time. However, our SOP for post-construction BMP inspections was modified to better clarify expectations and requirements for maintenance items to be completed within the schedule noted. The SOP was also modified to note the need for staff to follow up on the status of maintenance items. In future annual reports, the status of the maintenance item will be included. The inspection forms were also modified to clearly denote maintenance schedules.

**BMP 5.3: Inspection and Maintenance Program for Privately Owned Stormwater Management Facilities**

*Description*

The City will implement an inspection and maintenance program for privately owned stormwater facilities that includes:

- An inspection frequency of no less than once per five years.
- Adequate long-term operation and maintenance by the owner by requiring the owner to develop a recorded inspection schedule and maintenance agreement.
- Enforcement of maintenance as needed.

### *Annual Reporting Requirements*

- The number of privately owned stormwater management facility inspections conducted.
- The number of enforcement actions initiated by the permittee to ensure long-term maintenance of privately owned stormwater management facilities including the type of enforcement action.

### *Private Stormwater BMP Inspections and Enforcement Actions*

During this reporting period, there were 8 inspections and there were 0 enforcement actions for privately owned stormwater management facilities.

### *BMP Effectiveness*

**Review of BMP:** The inspection and maintenance program were implemented per permit requirements.

**Program Plan Revisions:** Program Plan changes are not needed at this time.

### *BMP 5.4: Track and Report Stormwater Management Facilities*

#### *Description*

The City will maintain an electronic database or spreadsheet of all known city owned or city operated and privately owned stormwater management facilities that discharge into the MS4. The database shall also include all BMPs implemented by the city to meet the Chesapeake Bay TMDL load reduction required. The database will be updated when new stormwater management facilities are brought on-line, or existing stormwater management facilities are discovered.

The City will use the DEQ Construction Stormwater Database to report stormwater management facilities installed to address the control of post-construction runoff from land disturbing activities for which the city is required to obtain a General VPDES Permit for Discharges of Stormwater from Construction Activities.

Historical BMPs will be reported using the DEQ Construction Stormwater Database, and new BMPs will be added to the DEQ BMP Warehouse on a yearly basis.

### *Annual Reporting Requirements*

- A confirmation statement that the City submitted stormwater management facility information through the Virginia Construction Stormwater General Permit Database for those land disturbing activities for which the city was required to obtain coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities or a statement that the city did not complete any projects requiring coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities.
- A confirmation statement that the City electronically reported BMPs using the DEQ BMP Warehouse in accordance with the permit and the date on which the information was submitted.
- A confirmation statement that the permittee electronically reported stormwater management facilities using the DEQ BMP Warehouse in accordance with Part III B 1 and 2; and
- A confirmation statement that the permittee electronically reported stormwater management facilities inspected using BMP Warehouse in accordance with Part III B 5.

### *Confirmation of VPDES Project Submittal*

The permittee submitted stormwater management facility information through the Virginia Construction Stormwater General Permit database for those land disturbing activities for which the permittee was required to obtain coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities in accordance with Part I E 5 a and Part III B.

### *Confirmation of BMP Project Reporting*

The permittee submitted BMPs using the DEQ BMP Warehouse in accordance with the permit on 8/28/24. The permittee submitted Inspection Log using the DEQ BMP Warehouse in accordance with the permit on 8/29/24.

### *BMP Effectiveness*

**Review of BMP:** The remaining BMPs were not able to be reported on the DEQ BMP Warehouse and include:

1. Homeowner BMPs
2. Permanent Credit Purchases

**Program Plan Revisions:** Program Plan changes are not needed at this time.

## Minimum Control Measure #6: Pollution Prevention and Good Housekeeping for Facilities Owned or Operated by the Permittee

### BMP 6.1: Maintain and Implement Written Procedures for Pollution Prevention and Good Housekeeping

#### *Description*

The City shall maintain and implement written procedures for those activities at facilities owned or operated by the City, such as road, street, and parking lot maintenance; equipment maintenance; and the application, storage, transport, and disposal of pesticides, herbicides, and fertilizers designed to:

1. Prevent illicit discharges
2. Ensure the proper disposal of waste materials, including landscape wastes.
3. Prevent the discharge of wastewater or city vehicle washwater into the MS4 without authorization under a separate VPDES permit
4. Require implementation of best management practices when discharging water pumped from utility construction and maintenance activities
5. Minimize the pollutants in stormwater runoff from bulk storage areas (e.g., salt storage, topsoil stockpiles) using best management practices
6. Prevent pollutant discharge into the MS4 from leaking municipal automobiles and
7. Ensure the application of materials, including fertilizers and pesticides, is conducted in accordance with the manufacturer's recommendations

Written pollution prevention and good housekeeping procedures shall be utilized as a part of the employee training program.

### *Annual Reporting Requirements*

A summary of any daily operational procedures developed or modified in accordance with the permit requirements during the reporting period.

#### *Summary of new or modified operational procedures*

No operational procedures were created or modified during the permit cycle.

#### **Existing Standard Operating Procedures**

- 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
- Sweeper Pad

#### *BMP Effectiveness*

**Review of BMP:** Operational procedures are 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.

**Program Plan Revisions:** Program Plan changes are not needed at this time. New SOPs for anti-icing and deicing agent application, transport, and storage will be developed by November 2025 and SOPs for renovation and significant exterior maintenance activities will be developed by November 2026 in compliance with the requirements of Part I E 6 a (1) and (2).

#### *BMP 6.2: Pollution Prevention by Contractors*

##### *Description*

The City will require through the use of contract language, training, standard operating procedures, etc., that contractors employed by the city and engaging in activities with the potential to discharge pollutants use appropriate control measures to minimize the discharge of pollutants to the MS4.

##### *Annual Reporting Requirements*

None

#### *BMP 6.3: Stormwater Pollution Prevention Training Plan*

##### *Description*

The City will develop a training plan in writing for applicable staff. The City will maintain documentation of each training event conducted for a minimum of three years after the training event.

##### *Annual Reporting Requirements*

A list of the training events conducted in accordance with the permit requirements including the following information:

- The date of the training event.
- The number of employees who attended the training event.
- The objective of the training event.

### Training Event Summaries

Trainings are posted on the City's online training platform, VectorSolutions (formally TargetSolutions). Trainings were assigned in June to departments in this year's rotation per training plan. For departments not within the City's organization, but covered under the City's MS4, trainings are given either in person or through PowerPoint distribution. A record of employee completion and training sign-ins are available upon request.

#### Training Presentation Topics:

##### Basic Pollution Prevention Training (PP)

- An overview of water quality and local waterway impairments.
- Definition of MS4
- Basic pollution prevention procedures and spill response procedures.
- Illicit discharge detection

##### Advanced Pollution Prevention with SWPPP Training (PP w/ SWPPP)

- An overview of water quality and local waterway impairments.
- Definition of MS4
- Basic pollution prevention procedures and spill response procedures.
- Illicit discharge detection
- Information on what is in a SWPPP and one short video on maintenance

Type of Training	Attendees	Department	Date
PP	74	Police Department	6/3/24-6/21/24
PP	11	Community Development	6/3/24-6/21/24
PP	5	HDPT	6/3/24-6/21/24
PP w/ SWPPP	64	Department of Public Works	6/3/24-6/21/24
PP w/ SWPPP	67	Fire Department	6/3/24-6/21/24

### BMP Effectiveness

**Review of BMP:** Online or in person training was given for this year's rotation per training plan.

**Program Plan Revisions:** Program Plan changes are not needed at this time.

## BMP 6.4: Stormwater Pollution Prevention Plans

### *Description*

**Identify High-Priority, High-Potential Sites and Implement Stormwater Pollution Prevention Plans** - The City will maintain and implement a site pollution prevention plan for each high-priority facility owned or operated by the permittee with a high potential to discharge pollutants that are not covered under a separate VPDES permit. SWPPP facilities will be inspected. Facilities without SWPPPs will be reviewed annually and added as necessary.

**SWPPP Development for High-Priority, High-Potential Sites** - Each SWPPP will contain information about the site and potential pollutants, written procedures designed to reduce and prevent pollutant discharge, procedures for training, an inspection and maintenance schedule, an inspection log, a log of unauthorized discharges, releases or spills.

**Non-SWPPP Site Review** - No later than June 30 of each year, the City will review any high-priority facility owned or operated by the City for which a SWPPP has not been developed to determine if the facility has a high potential to discharge pollutants. If the facility is determined to be a high-priority facility with a high potential to discharge pollutants, the City will develop a SWPPP no later than December 31 of that same year.

**SWPPP Site Review** - The City will review the contents of any site specific SWPPP no later than 30 days after any unauthorized discharge, release, or spill is reported to determine if additional measures are necessary to prevent future unauthorized discharges, releases, or spills. If necessary, the SWPPP will be updated no later than 90 days after the unauthorized discharge.

**SWPPP Documentation** - The SWPPP shall be kept at the high-priority facility with a high potential to discharge and utilized as part of staff training. The SWPPP and associated documents may be maintained as a hard copy or electronically if the documents are available to employees at the applicable site.

**Facility Removal** - If activities change at a facility such that the facility no longer meets the criteria of a high-priority facility with a high potential to discharge pollutants, the City may remove the facility from the high-priority, high-potential list.

### *Annual Reporting Requirements*

- A summary of any new SWPPPs developed in accordance with the permit requirements during the reporting period
- A summary of any SWPPPs modified in accordance with the permit requirements during the reporting period.
- A confirmation statement that all high-priority facilities were reviewed to determine if SWPPP coverage is needed during the reporting period
- The rationale of any high-priority facilities delisted in accordance with Part I E 6 l or m during the reporting period

### *Summary of new SWPPP Development*

High-priority facilities were reviewed by June 30, 2024 to determine if there were any facilities meeting the high-priority, high-potential criteria requiring a SWPPP. Four facilities were identified:

1. Ramblewood Stockpiles – 2311 Ramblewood Rd
2. Rocktown High School – 2970 E Kaylor Park Dr
3. Harrisonburg Department of Public Transportation – 475 E Washington St
4. Heritage Oak Golf Center & Course & Maintenance Facility / City School Maintenance Facility – 680 Garbers Church Rd & 1611 W Market Street.

•  
SWPPPS will be developed and implemented on these facilities by December 31, 2024.

### *Summary of SWPPP Modifications*

#### **Public Utilities SWPPP October 2023 Map Changes**

1. Added Matt Cooper as operator.

#### **Public Works and Old Quarry SWPPP October 2023 Map Changes**

1. Added storage building.

#### **Ramblewood Athletic Complex SWPPP October 2023 Map Changes**

1. Changed operator name from Charlie Fultz to Todd Campbell.

#### **Fire Station 2 2023 Map Changes**

1. Changed SWPPP operator from Morgan McComas to Larry Bennington

#### **Fire Station 4 2023 Map Changes**

1. Changed SWPPP operator from CJ Chandler to Chris Lantz.

#### **Harrisonburg High School 2023 Map Changes**

1. Developed SWPPP map as this facility was classified as a High Priority, High Potential facility in previous permit year.

#### **Greenhouse 2023 Map Changes**

1. Developed SWPPP map as this facility was classified as a High Priority, High Potential facility in previous permit year.

#### **Smithland Stock Pile 2023 Map Changes**

1. Developed SWPPP map as this facility was classified as a High Priority, High Potential facility in previous permit year.

#### **Park View SWPPP May 2024 Map Changes**

1. Removed grill.
2. Changed label for greenhouses.

#### **Public Utilities SWPPP May 2024 Map Changes**

1. Added sediment pond.

#### **Fire Station 1 SWPPP May 2024 Map Changes**

1. Removed trench drain.

#### **Fire Station 2 SWPPP May 2024 Map Changes**

1. Added covered area for grill.

### **Fire Station 3 SWPPP May 2024 Map Changes**

1. Added covered outdoor storage.
2. Changed operator name to Trevor Nelson.

### **Harrisonburg High School May 2024 Map Changes**

1. Removed gravel pile.

#### *Confirmation statement that all high-priority facilities were reviewed*

All high-priority facilities were reviewed to determine if SWPPP coverage were needed during the reporting period. Additional information or inspection forms are available upon request.

#### *Delisted High-Priority Facilities*

No SWPPP facility were de-listed to a high priority facility in this permit cycle.

#### *BMP Effectiveness*

##### **Review of BMP:**

- **New SWPPP Development:** High-priority facilities were reviewed to determine if new SWPPP development would be necessary by December 31.
- **SWPPP Modifications:** SWPPP modifications were made as necessary.

**Program Plan Revisions:** Program Plan changes are not needed at this time.

#### **BMP 6.5: Turf and Landscape Nutrient Management Plans**

##### *Description*

The City will maintain and 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.

Nutrient management plans that are expired as of the effective date of this permit shall be submitted to DCR for renewal no later than six months after the effective date of this permit. Thereafter, all nutrient management plans shall be submitted to DCR at least 30 days prior to nutrient management plan expiration. Within 36 months of permit coverage, no nutrient management plans maintained by the permittee in accordance with Part I E 6 n shall be expired due to DCR documented noncompliance with 4VAC50-85-130 provided to the permittee.

##### *Annual Reporting Requirements*

A summary of any new turf and landscape nutrient management plans developed that includes:

- Location and total acreage of each land area.
- The date of the approved nutrient management plan.
- The status of each nutrient management plan as of June 30 of the reporting year (e.g. approved, submitted and pending approval, and expired)

##### *Summary of new nutrient management plans*

No new plans were developed.



**Existing Nutrient Management Plans**

Facility Name	Lat/Long	Acreage	Approval Date	Expiration Date	Status	Location of Plan
Heritage Oaks Golf Course	38°26'49.97"N, 78°54'15.82"W	66.42 acres	11/1/2022	11/1/2027	Approved	"U:\Stormwater\Pollution Prevention - Good Housekeeping\Nutrient Management Plans\Nutrient Management Plans"
Smithland Park	38°26'55"N, 78°50'02"W	5 acres, 2.5 acres, 10 acres	5/25/2023	5/25/2026	Approved	"U:\Stormwater\Pollution Prevention - Good Housekeeping\Nutrient Management Plans\Nutrient Management Plans"
Purcell Park	38°25'33"N, 78°52'53"W	1 acre, 5.0 acres	5/25/2023	5/25/2026	Approved	"U:\Stormwater\Pollution Prevention - Good Housekeeping\Nutrient Management Plans\Nutrient Management Plans"
Ramblewood Fields	38°24'44"N, 78°53'13"W	3.6 acres	5/25/2023	5/25/2026	Approved	"U:\Stormwater\Pollution Prevention - Good Housekeeping\Nutrient Management Plans\Nutrient Management Plans"
Harrisonburg High School	38°26'30"N, 78°54'37"W	11.14 acres	9/26/2023	9/23/2026	Approved	"U:\Stormwater\Pollution Prevention - Good Housekeeping\Nutrient Management Plans\Nutrient Management Plans"

*BMP Effectiveness*

**Review of BMP:** Nutrient management plans are in place and up to date at the required facilities.

**Program Plan Revisions:** Program Plan changes are not needed at this time.

## TMDL Special Conditions

### Chesapeake Bay TMDL Special Condition

#### *Description*

In its Phase I and Phase II Chesapeake Bay TMDL Watershed Implementation Plans (WIP), the Commonwealth committed to a phased approach for MS4s to implement necessary pollutant reductions (phosphorus, nitrogen, and sediment). This permit (2018-2023) requires implementation of an additional 35% pollutant reductions as specified in the 2010 Phase I and II WIPs. In combination with the 5% pollutant reductions that have already been achieved, the total reduction at the end of this permit term is 40%.

The City developed the draft Chesapeake Bay TMDL Action Plan which was submitted to the Virginia Department of Environmental Quality with the Registration Statement.

The City will implement its Chesapeake Bay TMDL Action Plan and submit progress reports in its MS4 Annual Report in accordance with the permit requirements. Any updates to the Chesapeake Bay TMDL Action Plan will be submitted with each MS4 Annual Report.

#### *Program Plan Requirements*

The Chesapeake Bay TMDL Action Plan will be incorporated by reference into the program plan.

#### *Anticipated BMPs or Strategies*

The Chesapeake Bay TMDL Action Plan is available at: <https://www.harrisonburgva.gov/MS4-permit-program>

#### *Annual Reporting Requirements*

Once the Chesapeake Bay TMDL Action Plan is developed, each subsequent annual report shall include:

- A list of BMPs (not including annual practices) implemented during the reporting period and the estimated reduction of pollutants of concern achieved by each and reported in pounds per year;
- A list of annual practices implemented during the reporting period and the estimated reduction of pollutants of concern achieved by each and reported in pounds per year;
- If the permittee acquired credits during the reporting period to meet all or a portion of the required reductions, a statement that credits were required,
- The progress, using the final design efficiency of the BMPs, toward meeting the required cumulative reductions for total nitrogen, total phosphorous, and total suspended solids; and,
- A list of BMPs that are planned to be implemented during the next reporting period.

*BMPs Implemented during the reporting period*

Type of BMP	Project Name	Location	Reductions (lbs/yr)		
			TP	TN	TSS
Septic to Sanitary Sewer Connections	Septic to Sanitary Sewer Connections (since 2006)	Harrisonburg, VA	0	18.86	0
Bioreactor	Bioreactor	Purcell Park	0	Pending DEQ Approval	0
Urban Tree Canopy Expansion	New Tree Planting	Harrisonburg, VA	0.28	1.24	26.63

*Annual Practices Implemented during the reporting period*

Type of BMP	Project Name	Location	Reductions (lbs/yr)		
			TP	TN	TSS
Street Sweeping	Street Sweeping (annual)	Harrisonburg, VA	13.75	48.54	19,879.64
Storm Drain Cleaning	Storm Drain Cleaning (annual)	Harrisonburg, VA	70.75	318.39	35,376
BMP Retrofits	HCAP Program	Harrisonburg, VA	0.514	2.059	284.34
Homeowner BMPs	Homeowner BMPs (annual)	Harrisonburg, VA	10.89	137.98	0

*BMPs Implemented during the reporting period but not reported to the DEQ Warehouse*

1. Homeowner BMPs
2. HCAP Program BMPs
3. Bioreactor (Pending DEQ Approval)

*Acquired Credits*

No credits were acquired during this permit year.

*Progress towards Chesapeake Bay TMDL*

**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:** Street Sweeping, Homeowner BMPs, HCAP Program BMPs, Septic to Sanitary Sewer Connections, Land Conversion, Bioreactor (Pending DEQ Approval)

**Estimate Reduction Achieved by Each Control:**

Summary of Completed BMPs					
Type of BMP	Project Name	Location	Reductions (lbs/yr)		
			TP	TN	TSS
Permanent Water Quality Trading Credits	As Needed	Nutrient Credit Market	8	59.44	571.44
North End Greenway – Permanent Water Quality Credits	North End Greenway Stream Restoration	North End Greenway	117.90	256.10	40,660.00
Stream Restoration	Mountain View Drive Stream Restoration	Harrisonburg, VA	144.97	415.90	49,980.00
Stream Restoration	Blacks Run South Stream Restoration-Phase 1	Harrisonburg, VA	711.99	1,546.03	245,464.22
Street Sweeping	Street Sweeping (annual)	Harrisonburg, VA	13.75	48.54	19,879.64
Storm Drain Cleaning	Storm Drain Cleaning (annual)	Harrisonburg, VA	70.75	318.39	35,376
Septic to Sanitary Sewer Connections	Septic to Sanitary Sewer Connections (since 2006)	Harrisonburg, VA	0	584.66	0
Homeowner BMPs	Homeowner BMPs (annual)	Harrisonburg, VA	10.89	137.98	0
Bioreactor	Bioreactor	Purcell Park	0	Pending DEQ Approval	0
Urban Tree Canopy Expansion	New Tree Planting	Harrisonburg, VA	4.06	18.11	527.23
Land Conversion: Turf to Mixed Open	Pollinator Habitats (1.60 ac)	Harrisonburg, VA	1.85	8.47	0
<b>Total</b>			<b>1084.16</b>	<b>3,393.62</b>	<b>392,458.53</b>
<b>Amount Needed by 2028</b>			<b>885</b>	<b>6,711</b>	<b>759,697</b>

*BMPS to be implemented during next reporting period*

The anticipated BMPs to be implemented during the next reporting period include (but are not limited to): Storm Drain Cleaning Practice, Septic to Sanitary Sewer Connections, Tree Planting, Permanent Credit Purchases, Stream Restoration, Pollinator Habitat Conversion, Homeowner BMPs, BMP Retrofits, and Bioreactor projects.

Below is a table with the estimated projects and any estimated reduction values for the remainder of the permit period.

Summary of Planned BMPs for 2023-2028 Permit Cycle					
Planned Type of BMP	Project Name	Planned Location	Estimated Reductions (lbs/yr)		
			TP	TN	TSS
Stream Restoration	Blacks Run South Stream Restoration – Phase 2	Harrisonburg, VA	390.96	848.65	0
Wet Pond	VMRC	Harrisonburg, VA	32.43	196.52	7,898
Land Conversion: Pasture/Crop to Forest	Saufley Farm	Rockingham, VA	92.73	1054.60	0
Bioreactor	Bioreactor	Purcell Park	0	300	0
BMP Retrofits	HCAP Program	Harrisonburg, VA	0.514	2.059	284.34
Urban Tree Canopy Expansion <sup>3</sup>	New Tree Planting	Harrisonburg, VA	0.26	0.06	6.25
Previously Implemented			1084.954	3,415.78	392,769.5
<b>Total</b>			<b>1,601.85</b>	<b>5,817.67</b>	<b>400,958.09</b>
<b>Amount Needed by 2028</b>			<b>885</b>	<b>6,711</b>	<b>759,697</b>

Note the City is currently updating our Stormwater Implementation Plan (SWIP) to identify additional BMPs needed to reach the 2028 target.

<sup>3</sup> Estimated value by assuming 50 new trees per year. Between 2018 and 2020, the average number of trees added per year has been around 200 new trees per year. This value may change.

## Local TMDL Special Conditions

### *Description*

The City will develop a local TMDL action plan designed to reduce loadings for pollutants of concern if the permittee discharges the pollutants of concern to an impaired water for which a TMDL has been approved by the U.S. Environmental Protection Agency (EPA) as described below:

1. For TMDLS approved by the EPA prior to July 1, 2013, and in which an individual or aggregate wasteload has been allocated to the permittee, the permittee shall update the previously approved local TMDL action plans to meet the conditions of the new permit as applicable, no later than 18 months after the permit effective date and continue implementation of the action plan; and
2. For TMDLs approved by EPA on or after July 1, 2013, and prior to June 30, 2018, and in which an individual or aggregate wasteload has been allocated to the permittee, the permittee shall develop and initiate implementation of action plans to meet the conditions of the new permit as applicable for each pollutant for which wasteloads have been allocated to the city's MS4 no later than 30 months after the permit effective date.

### *Annual Reporting Requirements*

For each reporting period, each annual report shall include a summary of actions conducted to implement each local TMDL action plan.

## Smith Creek TMDL

Smith Creek watershed has a TMDL that was approved by the EPA prior to July 1, 2013 and has an associated wasteload allocation. The Smith Creek Action Plan was updated and submitted to DEQ no later than 18 months after the permit effective date. The Action Plan was updated and submitted to DEQ on 4/29/2020. It is available at <http://www.harrisonburgva.gov/MS4-permit-program>.

### *Best Management Practices to Reduce Bacteria*

#### BMP Strategy 1: Domestic Pets (Cats and Dogs)

- Provide signage to pick up dog waste, provide pet waste bags and disposal containers.
  - There are 20 pet waste stations with signage throughout city parks. Approximately 72,000 bags are used at the stations every year.
- Maintain dog parks by removing disposed of pet waste bags.
  - Smithland Road Dog Park was constructed in early 2015 and includes four pet waste stations. Park rules include that pet waste must be picked up and properly disposed of. City of Harrisonburg Parks and Recreation staff will continue maintaining these pet waste stations on a regular basis and additional stations will be installed on an as needed basis.

#### BMP Strategy 2: Urban Wildlife

- Clean out storm drains to remove wildlife waste.
  - The City provides maintenance and repair to the storm drain system that is located on the public street right-of-way or in easements specifically assigned to the City and designated

for drainage. One flusher truck cleans outfalls from approximately April – October, as weather allows.

- Implement rooftop disconnection programs or site designs that minimize connections to reduce bacteria from rooftops.
  - The Stormwater Utility Fee Credit Program provides incentives for homeowners who disconnect roof drains from the storm sewer system. The program provides best practice and site design specifications for this practice.

#### BMP Strategy 3: Illicit Connections or Illicit Discharges to the MS4

- Implement a program to identify potentially failing septic systems. Implement a septic tank inspection and maintenance program.
  - Sec. 7-3-1 to 7-3-80 of the sewer ordinance requires septic systems to be inspected and pumped out every five years. The sewer ordinance was updated to include this requirement in August 2018.

#### *Best Management Practices to Reduce Sediment*

##### *Description (Part 2 B 3 e-f and Part 2 B 5):*

The BMPs designed to reduce the pollutants of concerns, as well as any calculations. Reduce the loads associated with sediment through implementation of one or more of the following:

- One or more of the BMPs from the Virginia Stormwater BMP Clearinghouse.
- One or more BMPs approved by the Chesapeake Bay Program.
- Land disturbance thresholds lower than Virginia’s regulatory requirements for erosion and sediment control and post development stormwater management.

No later than 36 months after the effective date of the permit, the City will submit the anticipated end dates by which the City will meet the WLA for sediment.

#### *Response*

Based on the following BMPs implemented in the Smith Creek Watershed, the City of Harrisonburg has not yet met the required TSS reductions. The City was previously in compliance with the TSS Waste Load Allocation; however, the 2020 change to the credit methodology of street sweeping significantly reduced the amount of TSS reductions.

- Street Sweeping: The Public Works Department is responsible for clearing debris from public roadways. This includes litter, gravel, and accident debris. By removing this debris, the City is also actively reducing the sediment, bacteria, and pollutants that flow through the storm drain system and eventually into local streams. Using Market Street and Main Street as a divider, the Public Works Department routinely sweeps city streets in a counterclockwise rotation.
  - The street sweeping program annually removes an estimated 391.76 lbs of TSS from the Smith Creek Watershed per year. Calculations for reductions associated with street sweeping are attached in Appendix A.
- Storm Drain Cleaning: The Public Works Department is responsible for cleaning publicly owned drop inlets once every two to three years as a part of storm drain maintenance. A flusher truck is used to remove sediment and debris from the storm drain system.
  - The storm drain cleaning program annually removes an estimated 94.81 lbs TSS from the Smith Creek Watershed per year. Calculations for reductions associated with storm drain

cleaning, as well as the storm drain cleaning standard operating procedures, are attached in Appendix B.

- **New Tree Planting:** The Public Works Department is responsible for greenspace management in City Right of Ways (ROW). In addition, the Parks and Recreation Department is responsible for management of park facilities in the city. New trees are planted annual in both park facilities and in City ROW.
  - The New Tree Planting program annually removes an estimated 21.00 lbs TSS from the Smith Creek Watershed every year. Calculations for reductions associated with new tree planting are attached in Appendix C. (Smith Creek watershed is 4.43% of the City’s total area).
- **HCAP Program BMPs- only BMPs implemented in Smith Creek:** voluntary installation of certain stormwater Best Management Practices (BMPs) within City limits on private property with a 10 year maintenance agreement. BMPs based on the Virginia Stormwater Best Management Practice Clearinghouse specifications and pollutant reduction values.
  - These BMPs are intended to capture and/or infiltrate surface runoff produced immediately following a 1-inch rainfall event, on average. An estimated annual amount of 0.00 lbs TSS is collected during this process.

<b>Summary of Completed BMPs in Smith Creek</b>			
<b>Type of BMP</b>	<b>Project Name</b>	<b>Location</b>	<b>TSS Reduction (lbs/yr)</b>
Street Sweeping	Street Sweeping (annual)	Harrisonburg, VA	425.89
Storm Drain Cleaning	Storm Drain Cleaning (annual)	Harrisonburg, VA	820.74
BMP Retrofits	HCAP Program	Harrisonburg, VA	0
Urban Tree Canopy Expansion	New Tree Planting	Harrisonburg, VA	24.54
<b>Total</b>			<b>1,271.17</b>
<b>Amount Needed</b>			<b>5,583.93</b>

Note the City is currently updating our Stormwater Implementation Plan (SWIP) to identify additional BMPs needed to reach the target.

*Public Education and Outreach strategies:*

*Pollutants of Concern: Nutrients*

*Strategy 1: Traditional Written Materials*

- **Stormwater and Environmental Newsletters:** This email newsletter has a subscription list of around 928 contacts and each newsletter is opened by around 50% of the subscription list.
  - *Introducing the New Flusher Truck.* December 2023
- **Harrisonburg Public Works Facebook Page:** The Harrisonburg Public Works Facebook page promotes high-quality receiving waters, education about the Chesapeake Bay and local TMDLs, and information about local events and projects. During this permit year Harrisonburg Stormwater Facebook Page became Harrisonburg Public Works. This switch was made to capture



more of the activities that occur at Public Works as well as to increase the number of people following our page. During this permit year, 85 posts were made to the Harrisonburg Stormwater Facebook page. Each post reached an average of 635 people.

#### *Strategy 2: Media Materials*

- Daily News Record Article, by RICHARD H. HRONIK III : Harrisonburg Accepting Comments on Water Pollution Plan. September 26, 2023. [https://www.dnronline.com/news/harrisonburg-accepting-comments-on-water-pollution-plan/article\\_8afbc42c-39fe-512b-9ec1-512744650eb8.html](https://www.dnronline.com/news/harrisonburg-accepting-comments-on-water-pollution-plan/article_8afbc42c-39fe-512b-9ec1-512744650eb8.html)

#### *Strategy 3: Speaking Engagements*

- All speaking engagements attended by stormwater staff are focused on explaining water quality, including TMDLs, as well as Harrisonburg's role in meeting the Chesapeake Bay TMDL. These speaking engagements do not include Blacks Run Clean Up Day, Middle School Watershed Field Trips, or the annual rain barrel workshop as these events are counted as Public Involvement Activities. Our traditional reach through speaking engagements was partially reduced this permit year due to ongoing COVID-19 concerns that limited interest in in-person meetings as well as school gatherings.

#### *Strategy 4: Workshops/City Programs*

- As part of advertising city programs aimed at installing or promoting stormwater BMP installation (Harrisonburg Conservation Assistance Program, Stormwater Utility Fee Program), city staff communicate the reasons why nutrients are an issue in local water quality as well as ways for landowners to reduce impacts from their property.
- HCAP Site Visits: The City partners with the Shenandoah Valley Soil and Water Conservation District (SVSWCD) to implement the Harrisonburg Conservation Assistance Program which includes speaking to landowners about stormwater issues during site visits. The SVSWCD conducted 24 site visits this past year.

#### *Strategy 5: Staff Training*

- As part of the Good Housekeeping / Illicit Discharge training, city staff are trained bi-annually on stormwater issues. This training includes information about Harrisonburg's watersheds, water quality impairments, and TMDLs. The training is given to field staff through an online training platform called VectorSolutions (formerly TargetSolutions). Copies of the training material can be provided upon request.

#### *Pollutant of Concern 2: Sediment*

##### *Strategy 1: Traditional Written Materials*

- Stormwater and Environmental Newsletters: This email newsletter has a subscription list of around 928 contacts and each newsletter is opened by around 50% of the subscription list.
  - *Best of the Best Stormwater BMP Awards*. February 2024
- Harrisonburg Public Works Facebook Page: The Harrisonburg Public Works Facebook page promotes high-quality receiving waters, education about the Chesapeake Bay and local TMDLs,

and information about local events and projects. During this permit year Harrisonburg Stormwater Facebook Page became Harrisonburg Public Works. This switch was made to capture more of the activities that occur at Public Works as well as to increase the number of people following our page. During this permit year, 85 posts were made to the Harrisonburg Stormwater Facebook page. Each post reached an average of 635 people.

#### *Strategy 2: Media Materials*

- Daily News Record Article, by RICHARD H. HRONIK III: City Seeks Comment On Smith Creek Plan. April 16, 2023. [https://www.dnronline.com/news/city-seeks-comment-on-smith-creek-plan/article\\_4016e63d-c128-5773-a193-7cbe55ba4cdc.html](https://www.dnronline.com/news/city-seeks-comment-on-smith-creek-plan/article_4016e63d-c128-5773-a193-7cbe55ba4cdc.html)

#### *Strategy 3: Speaking Engagements*

- All speaking engagements attended by stormwater staff are focused on explaining water quality, including TMDLs, as well as Harrisonburg's role in meeting the Chesapeake Bay TMDL. These speaking engagements do not include Blacks Run Clean Up Day, Middle School Watershed Field Trips, or the annual rain barrel workshop as these events are counted as Public Involvement Activities.

#### *Strategy 4: Workshops/City Programs*

- As part of advertising city programs aimed at installing or promoting stormwater BMP installation (Harrisonburg Conservation Assistance Program, Stormwater Utility Fee Program), city staff communicate the reasons why nutrients are an issue in local water quality as well as ways for landowners to reduce impacts from their property.
- HCAP Site Visits: The City partners with the Shenandoah Valley Soil and Water Conservation District (SVSWCD) to implement the Harrisonburg Conservation Assistance Program which includes speaking to landowners about stormwater issues during site visits. The SVSWCD conducted 24 site visits this past year.

#### *Strategy 5: Staff Training*

- As part of the Good Housekeeping / Illicit Discharge training, city staff are trained bi-annually on stormwater issues. This training includes information about Harrisonburg's watersheds, water quality impairments, and TMDLs. The training is given to field staff through an online training platform called VectorSolutions (formerly TargetSolutions). Copies of the training material can be provided upon request.

#### *Pollutant of Concern 3: Bacteria*

##### *Strategy 1: Traditional Written Materials*

- Stormwater and Environmental Newsletters: This email newsletter has a subscription list of around 600 contacts. Newsletters are typically sent out monthly on various stormwater topics.
- Harrisonburg Stormwater Facebook Page: The Harrisonburg Stormwater Facebook page promotes high-quality receiving waters, education about the Chesapeake Bay and local TMDLs,

and information about local events and projects. Facebook posts generally take place multiple times per month on various topics, including issues like pet waste and feeding waterfowl.

#### *Strategy 2: Media Materials*

- Local News Media: Includes TV, radio, print, and digital news organizations. Messaging will occur when there is an important stormwater project or program taking place within Harrisonburg.

#### *Strategy 3: Speaking Engagements*

- All speaking engagements attended by stormwater staff are focused on explaining water quality, including TMDLs, as well as Harrisonburg's role in meeting TMDLs. These speaking engagements do not include Blacks Run Clean Up Day, 6<sup>th</sup> and 7<sup>th</sup> grade Plant a Seed Field Trips, and the annual rain barrel workshop as these events are counted as Public Involvement Activities.

#### *Strategy 4: Workshops/City Programs*

- As part of advertising city programs aimed at installing or promoting stormwater BMP installation, city staff communicate the reasons why bacteria are an issue in local water quality as well as ways for landowners to reduce impacts from their property.

#### *Strategy 5: Staff Training*

- As part of the Good Housekeeping / Illicit Discharge training, city staff are trained bi-annually on stormwater issues. In addition to the requirements identified in Part I E 6 m, 57his training also includes information about Harrisonburg's watersheds and water quality impairments, and TMDLs. The training is given to staff through an online training platform called VectorSolutions (formerly TargetSolutions).