

City of Richmond, Virginia

Municipal Separate Storm Sewer
System (MS4) Program Plan

City of Richmond, Virginia
Department of Public Utilities
1801 Commerce Road
Richmond, Virginia 23226

Revised February 28, 2026



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MS4 PROGRAM PLAN RECORD OF REVISIONS

Revisions to the MS4 Program Plan are expected as part of the iterative process to reduce pollutant loading and protect water quality to the maximum extent practicable (MEP). The City must summarize revisions to the MS4 Program Plan as part of the MS4 annual reporting process and document these modifications in the space below.

Table 1. MS4 Program Plan Revisions

Revision Date	Program Plan Section	Revision Description	Effective Date
02/28/2026	All	Update to reflect 2025 MS4 Integrated Permit Reissuance	09/01/2025



MS4 PROGRAM PLAN CERTIFICATION

As required by the Integrated Permit, Part V.K.4:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name: Scott Morris, DBA, P.E.

Signed by: Signature: Scott morris
519C3E4AEE124C6...

Title: Director of Public Utilities

Date: 2/27/2026



ACRONYMS

The following acronyms are utilized in this document.

BMP	Best Management Practice
CBPA	Chesapeake Bay Preservation Act
City	City of Richmond, VA
COR	City of Richmond, VA
CWA	Federal Clean Water Act
DEQ	Virginia Department of Environmental Quality
DPDR	City of Richmond – Department of Planning and Development Review
DPR	City of Richmond – Department of Parks and Recreation
DPU	City of Richmond – Department of Public Utilities
DPU – Water Resources	DPU – Engineering Services Division: Water Resources
DPU – SW Operations	DPU – Stormwater Operations Division
DPU – Wastewater	DPU – Wastewater Collections Division
DPW	City of Richmond – Department of Public Works
EPA	United States Environmental Protection Agency
ESC	Erosion and Sediment Control
RPS	City of Richmond Public Schools
GIS	Geographic Information System
HUC	Hydrologic Unit Code
IDDE	Illicit Discharge Detection and Elimination
MCM	Minimum Control Measure
MS4	Municipal Separate Storm Sewer System
POC	Pollutants of Concern
SOP	Standard Operating Procedure
SUMA	Stormwater Utility Maintenance Agreement
SWCB	Virginia State Water Control Board
SWM	Stormwater Management
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load
VAC	Virginia Administrative Code
VESMP	Virginia Erosion and Stormwater Management Program
VDOT	Virginia Department of Transportation
VPDES	Virginia Pollutant Discharge Elimination System



MS4 PROGRAM PLAN REFERENCE LIBRARY - DOCUMENTS

The following documents are referenced in this document and are necessary for the implementation of the MS4 Program and are incorporated by reference. These documents, combined with the MS4 Program Reference Web Pages, are identified as the City’s MS4 Program Plan Reference Library.

Table 2. MS4 Program Plan Reference Library – Documents

Name	Version Date
City of Richmond Integrated Permit – Notice of Coverage (Available in Appendix A)	08/28/2025
City of Richmond DPU Pretreatment Illicit Discharge Detection and Elimination Procedures (Available in Appendix B)	03/2021
City of Richmond Best Management Practices Map	02/2026
City of Richmond DPU Water Resources Guidance Manual	09/2025
DPU – Water Resources Virginia Stormwater Management Program Policies and Procedure Manual	03/2018
Chesapeake Bay TMDL Action Plan	04/2022
James River Bacteria TMDL Action Plan	06/2016

These documents are reviewed periodically and updated as needed. Unless otherwise noted, these documents are available upon request by contacting DPU – Water Resources.



MS4 PROGRAM PLAN REFERENCE LIBRARY – WEB PAGES

The following webpages are referenced in this document and are necessary for the implementation of the MS4 Program. These webpages are listed combined with the MS4 Program Reference Documents.

Table 3. MS4 Program Plan Reference Library – Web Pages

Title	Webpage Link
Code of the City of Richmond, Virginia	Code of Ordinances Richmond, VA Municode Library
Code of the City of Richmond, Virginia - Floodplain Management, Erosion and Sediment Control, and Drainage	Chapter 14 - FLOODPLAIN MANAGEMENT, EROSION AND SEDIMENT CONTROL, AND DRAINAGE Code of Ordinances Richmond, VA Municode Library
Code of the City of Richmond, Virginia – Richmond Erosion and Stormwater Management Program	ARTICLE V. - RICHMOND EROSION AND STORMWATER MANAGEMENT PROGRAM Code of Ordinances Richmond, VA Municode Library
City of Richmond VPDES Integrated Permit	Permit No VA0063177
City of Richmond Department of Public Utilities MS4 Webpage	City of Richmond MS4
City of Richmond Department of Public Utilities Stormwater Management Webpage	City of Richmond Stormwater Management
DPU – Water Resources Guidance Manual	Richmond Water Resources Guidance Manual Final 6.25.2025.pdf
City of Richmond DPU RESMP Permit Process	City of Richmond Stormwater Management
City of Richmond Online Permit Portal	City of Richmond Online Permit Portal
City of Richmond Site Plan Process	City of Richmond Site Plan
City of Richmond Integrated CSS and MS4 Annual Report 2024	Integrated CSS and MS4 2024 Annual Report 2024 0225.pdf
RVAH2O	Home - RVAH2O



1.0 INTRODUCTION

Municipal separate storm sewer systems (MS4s) are conveyances, or a system of conveyances, owned and operated by government entities that are designed or used in the collection or conveyance of stormwater runoff and are not part of a combined sewer or part of a Publicly Owned Treatment Works (POTW). Discharges from MS4s are classified as point sources of pollutants as a result of 1987 modifications to the federal Clean Water Act (CWA). Operators of regulated MS4s, identified as small, medium, or large MS4s in regulatory language, are required to obtain National Pollutant Discharge Elimination System (NPDES) permit coverage for their MS4 discharges. The federal Environmental Protection Agency (EPA) has delegated authority to the Commonwealth of Virginia to implement the NPDES program within its jurisdictional boundaries. In Virginia, MS4 discharges are regulated under the Virginia Erosion and Stormwater Management Act (VESMA) and the Virginia Erosion and Stormwater Management (VESM) Regulation.

1.1 MS4 Permitting and the City of Richmond

The City of Richmond (City) is an independent city located in the central part of the Commonwealth of Virginia and is surrounded by Henrico and Chesterfield Counties. Approximately 16,791 acres of the City drain to a combined sewer system. The other 23,240 acres drain to a small MS4.

In July 2018, the US Census Bureau estimated the City's population to be 228,783 and that the City is within an Urbanized Area, and thus subject to the *Integrated VPDES Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems*, which became effective October 1, 2018. A new permit took effect September 1, 2025, and will expire August 30, 2030, when a new permit is expected to become effective.

By applying for and receiving coverage under the Integrated Permit, the City agrees to comply with the Integrated Permit conditions and authorizations specific to City MS4 discharges. This includes the development, implementation, and enforcement of an MS4 Program that is designed to reduce the discharge of pollutants to the maximum extent practicable, protect water quality, and satisfy the appropriate water quality requirements of the State Water Control Law and its attendant regulations. This MS4 Program Plan describes the strategies and programs chosen by the City as part of its MS4 Program and provides guidance for the City in MS4 Program implementation.

1.2 City of Richmond Integrated Permit

The current Integrated Permit authorizes the City to discharge stormwater from its MS4 in accordance with its conditions. The Integrated Permit applies to all discharges from City-owned or operated stormwater conveyances that are not covered under a separate VPDES permit. The Integrated Permit is the legal authority upon which City VPDES compliance is determined. Failure to meet the conditions and requirements contained in the Integrated Permit can lead to State or Federal authority compliance actions. Under the CWA, third parties may also utilize citizens' lawsuits to ensure compliance.

The Integrated Permit is divided into the following seven (7) parts: Part I – City of Richmond Department of Public Utilities (DPU) Total Annual Load Limits and Other Conditions; Part II – Wastewater Treatment Plan; Part III – Combined Sewer System (CSS); Part IV – Municipal Separate Storm Sewer System (MS4); Part V – Conditions Applicable to all VPDES Permits; Part VI – Stormwater Management Conditions and Requirements; and Part VII - Biosolids.



2.0 MS4 PROGRAM PLAN

The purpose of this MS4 Program Plan is to provide a management tool for the City to comply with the six minimum control measures of the Integrated Permit. Sections C through E of Part V of the Integrated Permit contain the MS4 Program Plan and annual reporting requirements, as well as the requirements for each of the following six (6) Minimum Control Measures (MCMs):

- MCM 1 – Public Education and Outreach
- MCM 2 – Public Involvement and Participation
- MCM 3 – Illicit Discharge Detection and Elimination
- MCM 4 – Construction Site Stormwater Runoff and Erosion and Sediment Control
- MCM 5 – Post-Construction Stormwater Management for New Development and Development on Prior Developed Lands
- MCM 6 – Pollution Prevention and Good Housekeeping for Facilities Owned and Operated by the Permittee Within the MS4 Service Area

2.1 MS4 Program Plan Activities & Strategies

This MS4 Program Plan includes individual strategies chosen for implementation by the City. Activities and strategies applicable for each MCM or Special Condition are referenced in the applicable MS4 Program Plan section. The [MS4 Program Plan Reference Library – Documents](#) and [MS4 Program Plan Reference Library - Web Pages](#) are collectively known as the Reference Library and are included in the preface of the MS4 Program Plan. The MS4 Program Plan Reference Documents are available for public review by contacting the Department of Public Utilities – Engineering Services Division: Water Resources (DPU – Water Resources).

2.2 MS4 Program Plan Updates

The MS4 Program Plan is intended to guide the City on implementation in a manner compliant with the Integrated Permit. However, MS4 program implementation is an iterative process and revisions to the MS4 Program Plan are expected throughout the five-year Integrated Permit cycle. The MS4 Program Plan will be reviewed annually as part of City MS4 annual reporting process. Revisions will be made as necessary and summarized in each annual report. Each iteration of the MS4 Program Plan should be saved as an updated version with the effective date identifying the version. Additionally, City staff must be informed of MS4 Program Plan modifications if the revisions alter their day-to-day operations.

To ensure that impacted City employees have access to the up-to-date documents and webpage links, the current information will be maintained in the Reference Library. To ensure this, DPU – Water Resources will:

- Update the individual strategies to reflect any modifications in their implementation.
- Insert the updated material into the Reference Library, when applicable, and update the version date in the Reference Library.
- Document the modification of the MS4 Program Plan in the MS4 Program Plan Revisions table on Page 1 of this document.
- Notify impacted City Departments or Partner Organizations of the newly developed or modified document, material, or MS4 Program Plan element.



2.3 MS4 Program Plan and its Relationship to Other City Programs

The MS4 Program Plan is the link between City programs and the Integrated Permit conditions. While Integrated Permit conditions and requirements apply to all City activities and actions, all City activities and actions are not implemented solely to address the Integrated Permit requirements. Similarly, individual activities and actions are often impacted by other regulatory mandates that influence their application. As such, the MS4 Program Plan identifies the roles, responsibilities, and efforts undertaken to comply with Integrated Permit conditions, such as the implementation of standard operating procedures (SOPs), while also identifying the existing City programs applicable for meeting Integrated Permit requirements, such as the City’s Richmond Erosion and Stormwater Management Program (RESMP).

3.0 CITY OF RICHMOND’S MS4 PROGRAM PLAN ADMINISTRATION

The conditions and requirements contained in the Integrated Permit for discharges from the City’s MS4 apply to all discharges from City-owned or operated storm drainage conveyances located within the City. Section 3 of this MS4 Program Plan describes the roles and responsibilities of City departments, agencies, and partners in administering the MS4 Program Plan.

3.1 Roles and Responsibilities

Many City departments and agencies share responsibility in ensuring that their individual department’s activities and actions are compliant with Integrated Permit requirements. DPU – Water Resources is responsible for the administrative oversight of the City’s efforts and includes, among other responsibilities, coordinating with and aiding other City departments and agencies in MS4 Program Plan implementation and communicating with DEQ, other regulatory agencies, and the general public.

The Department of Public Utilities, Department of Public Works, Department of Parks and Recreation, the Police Department and the Richmond Fire Department are the major contributors to Richmond’s MS4 Program although it is recognized that this is a citywide effort. **Table 4** outlines the specific departments in the City and their specific roles as they relate to the six minimum control measures required in the Integrated Permit.

Table 4. Department/Agency-Specific MS4 Program Plan Implementation Role, and Applicable MCM

Department/Agency	MS4 Program Plan Implementation Role	Applicable MCM
DPU – Communications & Marketing	Serves as the public information repository for all DPU-related information. Manages the comprehensive DPU communications program to keep residents, business owners, visitors, and the media informed of DPU services and activities. Manages DPU TV media relations and administers DPU’s social media platforms.	MCM 1 & MCM 2
DPU – Innovation & Technology	Maintains outfall and BMP mapping in coordination with DPU – Water Resources.	MCM 3
DPU – Water Resources	Performs the intake, review, and fee collection for Richmond VESMP permit applications through the City’s Online Permit Portal. DPU coordinates with PDR on ensuring land disturbing and development plans are approved before City permit issuance.	MCM 4 & MCM 5



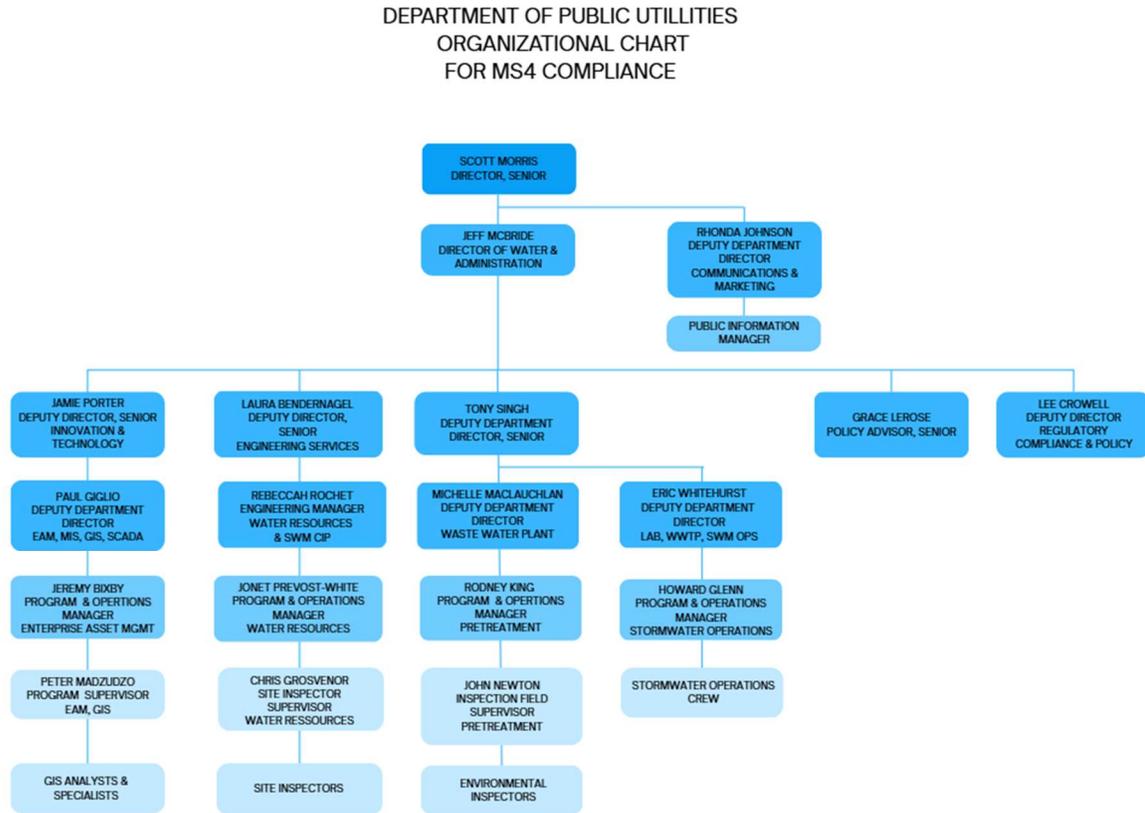
	Maintains the MS4 Program Plan document and collects data from other divisions. Provides guidance regarding MS4 Program Plan implementation to other City departments, agencies, and contractors.	MCM 1, MCM 2, MCM 3, MCM 4, MCM 5
	Provides compliance inspections of privately operated post-construction SWM facilities.	
	Maintains log of post-construction inspections.	
DPU – Pretreatment	Provides compliance inspections of active construction sites, provides notices to comply, final inspections and serves as liaison for as-builts to plan reviewers. Maintains log of inspections.	MCM 3
	Performs inspections and monitoring of outfalls within the city. Investigates illicit discharges to stormwater infrastructure.	
	Monitors for illicit discharges as part of normal operations. Inspects HPF for SWPPP compliance.	
DPU – Human Capitol	Organizes and facilitates the required MS4 Good Housekeeping training program plan, schedule, and events	MCM 6
DPU – Stormwater Operations	Maintains city-owned or operated SWM facilities.	MCM 5, MCM 6
DPW	Maintains city-owned or operated SWM facilities.	MCM 6
DPR	Maintains city-owned or operated SWM facilities.	MCM 6
Police Department and Richmond Fire Department	Emergency Response	MCM 6

3.2 Department of Public Utilities

The City of Richmond Department of Public Utilities manages the MS4 permit, operations and maintenance of the MS4 sewer system, onsite active construction and permitting, post-construction BMP inspection, and the illicit discharge program. An organizational chart for the City of Richmond Department of Public Utilities is provided in **Figure 1**.



Figure 1. Department of Public Utilities Organizational Chart





3.3 Legal Authorities

Implementation of the MS4 Program Plan requires that the City formalize numerous legal authorities. These necessary legal authorities are summarized in **Table 5**.

Table 5. City of Richmond Stormwater Legal Authorities Summary

Legal Authority	Code Summary	Relationship to MS4 Program Plan
Richmond City Code, Chapter 14 – Floodplain Management, Erosion Control and Drainage	The City’s Floodplain, Erosion Control & Drainage Ordinance provides the necessary legal authorities to implement the following stormwater-related programs: <ul style="list-style-type: none"> • Floodplain protection; • Erosion and sediment control; • Post-construction stormwater management; and • Chesapeake Bay Preservation Area (CBPA). 	Erosion and sediment control (ESC) requirements
		Address discharges from regulated construction activities
		Chesapeake Bay Protection Areas (CBPA) and Floodplain Management requirements
		Require post development stormwater management from regulated new development and redevelopment on prior developed land
	Enforce long-term stormwater facility maintenance responsibilities	
Richmond City Code, Chapter 28 – Utilities Article III, Division 4 -5	The city’s utility ordinance outlines the laws allowing pretreatment to conduct site inspections, take samples, and identify unacceptable characteristics of wastewater.	Discharge of certain types of waste prohibited, performing lawful inspection, repairs and compliance, unlawful discharges of prohibited substances and prohibited discharges
Water Resources Guidance Manual	The Water Resources Guidance Manual contains the information needed by design engineers, developers, and contractors to facilitate design, development, and construction of municipal infrastructure within the City of Richmond service area.	Erosion and sediment control (ESC) permit requirements
		Stormwater Management permitting requirements
		Floodplain permit requirements
DPU Stormwater Standards and Specification Manual	The DPU Stormwater Standards and Specification Manual contains the information needed by design engineers, developers, and contractors to facilitate design, development, and construction of municipal infrastructure within the City of Richmond service area.	Standards for preparing plans for new or redevelopment proposing new connections to the MS4 system and best management practices providing water quality and quantity.

Web page links to the current version of the [Code of the City of Richmond, Virginia](#) and the [DPU Water Resources Guidance Manual](#) are provided in the Reference Library.



3.4 Specific Compliance Dates/Schedules

The Integrated Permit contains compliance requirements that are either part of an annual compliance schedule or a one-time compliance requirement. These compliance items and associated compliance dates are identified in Section 4 of this MS4 Program Plan.

3.4.1 MS4 Annual Reporting to DEQ

As a condition of the Integrated Permit, the City is required to submit to DEQ an Annual Report no later than March 31 of each year. Each Annual Report is required to include the information specified throughout the Integrated Permit regarding the City’s accomplishments completed between January 1 and December 31 of the previous year as listed in **Table 6**.

Table 6. Annual MS4 Reporting Dates

Permit Year (PY)	PY Reporting Period		Annual Report Due Date	Responsible City Department
	Begins	Ends		
PY1	January 1, 2025	December 31, 2025	March 31, 2026	DPU
PY2	January 1, 2026	December 31, 2026	March 31, 2027	DPU
PY3	January 1, 2027	December 31, 2027	March 31, 2028	DPU
PY4	January 1, 2028	December 31, 2028	March 31, 2029	DPU
PY5	January 1, 2029	December 31, 2029	March 31, 2030	DPU

Each Annual Report must include the following information:

- The permittee, system name, and permit number (**City of Richmond, Virginia; City of Richmond MS4; VAR0063177**)¹;
- The reporting period for which the MS4 Annual Report is being submitted (See Table 6);
 - A signed certification² by a principal executive officer, ranking elected official, or an individual employed in a duly authorized position (**see MS4 Program Plan Certification at the beginning of this MS4 Program Plan**);
- Each annual reporting item specified in one of the six (6) MCMs;
- An evaluation of the MS4 program implementation, including a review of each MCM, to determine the MS4 Program’s effectiveness and whether changes to the MS4 Program Plan are necessary;³
- A status report on the implementation of the local TMDL Action Plans, including the specific reporting requirements identified in the Integrated Permit Special Condition Part II B for local TMDLs in which the City MS4 has been allocated a pollutant wasteload; and

¹ DEQ Notice of Coverage under the Integrated Permit is included in the Reference Library.

² All persons signing a document for which a signature is required must make the following certification, "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

³ In accordance with the Integrated Permit, the MS4 Program Plan and all MS4 Annual Reports are to be maintained separately. Proposed modifications, identified and listed in an MS4 Annual Report, must be incorporated separately into a revised MS4 Program Plan.



- A summarized list of MS4 Program Plan modifications.

Each MS4 Annual Report covering the term of the Integrated Permit will be placed on the DPU MS4 webpage and be considered part of the Reference Library.

3.4.2 Chesapeake Bay TMDL Implementation Annual Status Report

As a condition of the Integrated Permit, the City is required to submit to DEQ a Chesapeake Bay TMDL implementation annual status report in a method (i.e., how the permittee must submit) and format (i.e., how the report shall be laid out) as specified by the department no later than October 1 of each year. Annual status reports are available on the DPU MS4 webpage and are considered part of the Reference Library.

3.4.3 Integrated Permit Coverage

Per the Integrated Permit, Part IV.M, the City must submit a new Registration Statement to DEQ before **Wednesday, February 28, 2029**, unless a later date is granted by DEQ.

4.0 MCM BMPs AND STRATEGIES

The six (6) MCMs form the Integrated Permit's backbone and make up the basics of what is required in the City's MS4 Program and MS4 Program Plan. Each MCM requires the City to address several specific requirements throughout the Integrated Permit cycle. This section identifies the following for each of the MCMs:

- Permit conditions for the specific MCM;
- Strategies and programs selected and implemented by the City; and
- Reference library documents necessary for implementation of the identified strategies and programs.

4.1 MCM 1 – Public Education and Outreach

MCM 1 contains the expectations and requirements of the City's efforts to increase public knowledge and awareness regarding stormwater pollution, community impacts on water quality, and local water quality concerns.

4.1.1 Integrated Permit Compliance Requirements

The City is required to implement a public education and outreach program (PEOP) that is 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 illicit discharges and improper disposal of waste, including pertinent legal implications; and
- Implement a diverse program with strategies that are targeted toward individuals or groups most likely to have significant stormwater impacts.

The City is required to select and utilize two (2) or more strategies listed in the Integrated Permit Table 1 in communicating with the public the high-priority stormwater issues identified per Part IV.F.1, including how to reduce stormwater pollution (**Table 7**).



Table 7. MS4 Strategies for Public Education and Outreach (Integrated Permit – Table 1)

Strategies	Examples (provided as examples and are not meant to be all-inclusive or limiting)
Traditional Written Materials	Informational brochures, newsletters, fact sheets, utility bill inserts, or recreational guides for targeted groups of citizens
Alternative Materials	Bumper stickers, refrigerator magnets, t-shirts, or drink koozies
Signage	Temporary or permanent signage in public places or facilities, vehicle signage, billboards, or storm drain placards
Media Materials	Information disseminated through electronic media, radio, televisions, movie theater, newspaper, or GIS story maps
Speaking Engagements	Presentations to school, church, industry, trade, special interest, or community groups
Curriculum Materials	Materials developed for school-aged children, students at local colleges or universities, or extension classes offered to local citizens
Training Materials	Materials developed to disseminate during workshops offered to local citizens, trade organizations, or industrial officials
Public education activities	Booth at community fair, demonstration of stormwater control projects, presentation of stormwater materials to schools to meet applicable education Standards of Learning or curriculum requirements, or watershed walks
Public meetings	Public meetings on proposed community stormwater management retrofits, green infrastructure redevelopment, ecosystem restoration projects, TMDL development, climate change's effects on stormwater management, voluntary residential low impact development, or other stormwater issues

4.1.2 High Priority Stormwater Issues

The City has identified the three following high-priority stormwater issues for emphasis in their public education and outreach efforts:

- **Pet Waste**

Responsible Department: DPU – Communications & Marketing

Rationale: Minimize the degree of pet waste runoff to reduce the bacteria loads entering local waterways

Target Audience: Pet owners

Strategies:

1. Traditional Materials: flyers and handouts
2. Alternative materials: Pet waste Stations, pet waste bags
3. Signage: Yard Signs
4. Media materials: Social Media posts



- **Integrated Stormwater Awareness**

Responsible Department: DPU – Communications & Marketing

Rationale: Educate residents on stormwater and its impact on the environment to improve the quality and minimize the quantity of urban runoff from residential areas.

Target Audience: Richmond citizens and K-12 students

Strategies:

1. Traditional Materials: Newsletters
2. Speaking engagements: Presentations to varied community groups
3. Signage
4. Media materials: Social Media posts

- **Litter Awareness**

Responsible Department: DPU – Communications & Marketing

Rationale: Educate residents on stormwater and its impact on the environment to improve the quality and minimize the quantity of urban runoff from residential areas.

Target Audience: Richmond citizens and pedestrians

Strategies:

1. Alternative Materials: Stickers
2. Media materials: Social Media posts, radio ads
3. Speaking engagements: Presentations to varied community groups

The City has already worked to develop the majority of the above materials and strategies as part of the existing PEOP, and will continue to implement a PEOP with the goal of reducing the bacteria loads to receiving streams, educate residents on ways to reduce the volume of urban stormwater runoff and associated pollutants, and to reduce litter to the MS4 through an effective public outreach and education program.

4.1.3 Annual Reporting

The Public Education and Outreach Coordinator will annually evaluate the effectiveness of the public education and outreach efforts at addressing the City’s high priority issues and will provide updates in the annual report.

4.2 MCM 2 – Public Involvement and Participation

MCM 2 is designed to both keep the public informed of the City’s efforts at minimizing pollutant discharge through its MS4 and to encourage public involvement and participation in pollution prevention efforts.

4.2.1 Integrated Permit Compliance Requirements

The City is required to develop and implement procedures regarding public communication and participation that address:

- Receiving public reporting of potential illicit discharges, improper disposal, or spills to the MS4, complaints regarding land disturbing activities, or other potential stormwater pollution concerns;
- Receiving public input on the permittee’s MS4 program plan;
- Responding to public input received on the MS4 program plan or complaints; and



- Maintaining documentation of public input received on the MS4 program and associated MS4 program plan and the permittee's response.

The City is also required to maintain a website dedicated to the MS4 Program and stormwater pollution prevention.

Finally, the City is required to implement no fewer than four activities per year from two or more of the categories listed in **Table 8** to provide an opportunity for public involvement to improve water quality and support local restoration and clean-up projects.

Table 8. MS4 Public Involvement Opportunities (Integrated Permit Table 2)

Public Involvement Opportunities	Examples (provided as examples and are not meant to be all-inclusive or limiting)
Monitoring	Establish or support citizen monitoring group
Restoration	Stream, watershed, shoreline, beach, or park clean-up day, adopt-a-waterway program, tree plantings, and riparian buffer plantings
Public Education Activities	Booth at community fair, demonstration of stormwater control projects, climate change's effects on stormwater management, presentation of stormwater materials to schools to meet applicable education Standards of Learning or curriculum requirements, or watershed walks
Public Meetings	Public meetings on proposed community stormwater management retrofits, green infrastructure redevelopment, ecosystem restoration projects, TMDL development, voluntary residential low impact development, climate change's effects on stormwater management, or other stormwater issues
Disposal or Collection Events	Household hazardous chemicals collection, vehicle fluids collection
Pollution Prevention	Adopt-a-storm drain program, implement a storm drain marking program, promote the use of residential stormwater BMPs, implement pet waste stations in public areas, adopt-a-street program

4.2.2 Maps and Web Page Links

The City maintains an MS4 webpage that provides information specific to its stormwater management program and meets the content requirements of the Integrated Permit. A link to the following information can be found in the [MS4 Program Plan Reference Library – Webpages](#):

1. The City's effective Integrated Permit and coverage letter;
2. The current MS4 Program Plan;
3. Copies of the previous Integrated CSS and MS4 Annual Reports;
4. Location of the most current Chesapeake Bay TMDL Action Plan;
5. Copies of the previous Chesapeake Bay TMDL annual status reports;



6. Directions for reporting illicit discharges, improper disposal, spills, land disturbance or other potential stormwater pollution concerns; and
7. Directions for submitting comments regarding the City’s MS4 Program Plan.

4.2.3 Public Involvement Opportunities

The City will utilize the following strategies in **Table 9** for MCM 2:

Table 9. MS4 Public Involvement Opportunities

Opportunity	Time period	Metric Measurement
Watershed Restoration Events	Spring and/or fall each reporting year	Number of trees planted Number of Volunteers
Public Education Activities/ Events	Summer and fall each reporting year	Number of people attended
Public Meetings	Throughout the reporting year with various NGOs, city departments and environmental groups	Number of citizens in attendance.
Disposal or Collection Events	Spring & Fall of each reporting year	Volume or weight of materials collected

4.2.4 Annual Reporting

The Public Education and Outreach Coordinator will annually evaluate the effectiveness of the public involvement and participation activities by analyzing the associated metrics for each opportunity presented in Table 9. Should the City be unable to execute one of the programs specified above, an appropriate substitute program will be identified and completed as an alternative.

4.3 MCM 3 – Illicit Discharge Detection and Elimination

MCM 3 requires the City to maintain a map of the storm sewer system owned and operated by the City and implement and enforce illicit discharge identification and elimination prohibitions and procedures, including dry weather screening.

4.3.1 Integrated Permit Compliance Requirements

Under the Integrated Permit, the City is required under MCM 3 to do the following:

- Develop and maintain an accurate MS4 map and information table.
- Prohibit through legal mechanism unauthorized non-stormwater discharges into the City’s MS4 and address authorized non-stormwater discharges or flows if the City identifies them as a significant contributor of pollutants contributing to the MS4.
- Maintain, implement, and enforce IDDE written procedures designed to detect, identify, and address unauthorized non-stormwater discharges, including illegal dumping, to the small MS4 to effectively eliminate the unauthorized discharge.

4.3.2 Program Description

The City utilizes the following applications outlined in Tables 10 through 13 to meet the Integrated Permit requirements for MCM 3:



Table 10. GIS and Outfall Data Management

Geographic Information System (GIS) Mapping and MS4 Outfall Data Management Tracking	
Description	The City maintains stormwater infrastructure-related data in spatially enabled relational databases. This means of data storage management allows for the production of maps documenting the location of the City’s various stormwater infrastructure including MS4 outfall and stormwater management facilities. The MS4 map and outfall information table are available upon request from DPU – Water Resources.
Objective/expected results	The City has developed and maintains an accurate MS4 map that documents and labels the stormwater infrastructure and known outfalls within the MS4 area.
Responsible division/department	DPU - Innovation & Technology – GIS Mapping DPU – Water Resources – Outfall tracking DPU – Pretreatment – Inspection and monitoring
Compliance dates/schedules	No later than December 31 st of each year, the City will update the MS4 map and outfall table, as necessary.
	By October 1 of each year, the City must report any updates MS4 Map to reflect new construction, modifications, and field observations.
Annual reporting requirements	Confirmation statement that the MS4 Map was updated to reflect any changes to the MS4 that occurred during the reporting period.

Table 11. Prohibition of MS4 Illicit Discharges

Prohibition of MS4 Illicit Discharges	
Description	The City will maintain the legal authority to enforce City Code regarding illicit discharges.
Objective/expected results	The City will maintain the legal authority to enforce City Code regarding illicit discharges.
SOPs or policies necessary to implement	Richmond City Code Chapter 28 Stormwater Article VIII Division 3 prohibits unauthorized non-stormwater discharges into the City’s MS4.
Responsible division/department	DPU is responsible for implementing City Code and enforcement procedures to eliminate unauthorized discharges to the City’s MS4.
	The DPU – Stormwater Operations is responsible for assisting DPU – Pretreatment in ensuring the elimination of illicit discharges under the City Code.
	Utilize City Code to ensure adequacy in eliminating unauthorized discharges to the City’s MS4.
Measurable goal	Review of illicit discharges identified and enforcement activities from each year and the adequacy of City Code for elimination.



Table 12. Illicit Discharge Detection and Elimination

Illicit Discharge Detection and Elimination (IDDE)	
Description of selected BMPs and strategies	The City has developed and currently implements written Illicit Discharge Detection and Elimination (IDDE) Procedures that provide staff and contractors guidance when conducting illicit discharge detection, investigation, and elimination activities.
Objective/expected results	Continue to implement the IDDE program to identify and eliminate potential illicit discharges into the City’s MS4 and update, as necessary.
SOPs or policies necessary to implement BMPs	Illicit Discharge Detection and Elimination Procedures (Available in Appendix B)
Department(s) responsible for implementing BMP	DPU - Pretreatment is responsible for illicit discharge investigation and enforcement of the City Code.
	DPU - Pretreatment is responsible for maintaining, implementing, and enforcing the City's IDDE Procedures, including identifying and eliminating illicit discharges to the City's MS4.
	DPU - Pretreatment is responsible for the administration of the IDDE program, including record keeping and documentation.
Measurable goal	Continue to implement the IDDE Procedures to continue identifying and eliminating illicit discharges into the MS4.
Method utilized to determine effectiveness	Evaluate the number of potential illicit discharges identified each year and review how the City addressed them.
Compliance dates / schedules	MCM 3 does not include any specific compliance dates or schedules aside from the annual reporting requirements.
Annual reporting requirements	A list of illicit discharges to the MS4 including spills that reached the MS4 that includes the following information will be included in the annual report: <ol style="list-style-type: none"> 1. The source of illicit discharge; 2. The dates that the discharge was observed, reported, or both; 3. Whether the discharge was discovered by the City during dry weather screening, reported by the public, or another method; 4. How the investigation was resolved; 5. A description of any follow-up activities; and 6. The date the investigation was closed.

Table 13. Dry Weather Field Screening

Dry Weather Field Screening	
Description	The DPU – Pretreatment selects and conducts dry weather screening on 50 MS4 outfalls following the written IDDE Procedures. Required follow-up inspections are conducted as directed in the IDDE procedures.



Objective/expected results	Identification and elimination of illicit discharges through the implementation of prioritized dry weather screening.
SOPs or policies necessary to implement	Illicit Discharge Detection and Elimination (IDDE) Procedures
	MS4 Outfall database
Department(s) responsible for implementation	DPU – Pretreatment is responsible for ensuring the annual dry weather screening is completed, any necessary follow-up investigations are conducted, and records and documentation are properly recorded.
Measurable goal	The City will conduct field screening on a minimum of 50 MS4 Outfalls annually.
	The City will complete all necessary follow-up investigations regarding potential illicit discharges and take any necessary action to eliminate identified illicit discharges.
Compliance dates/schedules	Conduct a minimum of 50 outfalls during each Integrated Permit reporting period as outlined in the IDDE Procedures.
Annual reporting requirements	The total number of outfalls screened during the reporting period as part of the dry weather screening program.

Copies of written notifications of new or discovered physical interconnections given to other MS4s will be included as an appendix to the Program Plan, as developed.

4.4 MCM 4 – Construction Site Stormwater Runoff and Erosion and Sediment Control

MCM 4 contains the Integrated Permit conditions to address discharges to the MS4 from regulated construction site stormwater runoff.

4.4.1 Integrated Permit Compliance Requirements

The Integrated Permit conditions associated with construction site stormwater runoff are consistent with those contained in the Virginia Erosion and Stormwater Management Act (§62.1-44:15:24 et seq. of the Code of Virginia) and the Virginia Erosion and Stormwater Management Regulation (9VAC25-875), in which the City is required to implement a local VESMP. Under the Integrated Permit, the City is also required to ensure the implementation of appropriate controls to prevent non-stormwater discharges to the MS4 from construction activities regulated under the City’s VESMP. Employees and contractors serving as plan reviewers, inspectors, program administrators, and construction site operators shall obtain the appropriate certifications as required under the Virginia Erosion and Stormwater Management Act and its attendant regulations.

4.4.2 Local Ordinance

The City currently implements a program to control construction site stormwater runoff consistent with the permit requirements and is DEQ-approved VESMP authority. The City’s legal authority resides in the City of Richmond Code Chapter 14 – Floodplain Management, Erosion and Sediment Control, and Drainage. A link to the City Code is provided in [MS4 PROGRAM PLAN REFERENCE LIBRARY – WEB PAGES](#).

4.4.3 Program Description

The Department of Public Utilities Water Resources Division is responsible for implementing the City’s VESMP. Land-disturbing activities that are 4,000 sq. ft or larger and 2,500 sq. ft. or larger in Chesapeake Bay Preservation Areas are required to submit erosion and stormwater management plans for approval prior to initiating any land-disturbing activities, as well as obtain a RESMP permit. To implement this, the City has developed a Water Resources Guidance Manual with detailed step applicants must take to apply for an RESMP



permit, as well as a standard RESMP Permit Application, Process Quick Sheet, Environmental Checklist, E&S Developers Agreement, and Responsible Land Disturbance Form. Additional information regarding the City's RESMP is located on the [City of Richmond Department of Public Utilities Stormwater Management](#) website.

The City's VESMP staff hold DEQ certifications as combined administrators, plan reviewers, and inspectors. The DPU VSMP Policies and Procedures Manual outlines the inspection and compliance measures to ensure compliance, as well as the procedures for serving and documenting enforcement measures. The VSMP Policies and Procedures Manual is maintained and updated, as needed, by DPU – Water Resources, and is available upon request.

4.4.4 Roles and Responsibilities

DPU coordinates with other inter-departmental agencies for City permit approval and plan review.

DPU – Water Resources is responsible for ESC plan review, inspection, compliance, recordkeeping, and documentation.

4.4.5 Annual Reporting

The City will continue to operate a compliant erosion and sediment control program and will report on the total number of construction inspections and associated enforcement actions in the annual report.

4.5 MCM 5 – Post-Construction Stormwater Management for New Development and Development on Prior Developed Lands

MCM 5 contains the Integrated Permit conditions to address discharges from post-development stormwater runoff.

4.5.1 Integrated Permit Compliance Requirements

Under the Integrated Permit, the City is required under MCM 5 to do the following:

- Address post-construction stormwater runoff that enters the MS4 from the following land disturbing activities by implementing a post-construction stormwater runoff management program;
 - Implement an inspection and maintenance program for those stormwater management facilities owned or operated by the permittee;
 - Implement an inspection and enforcement program for stormwater management facilities not owned by the permittee (i.e., privately owned);
 - Utilize legal authority for enforcement of the maintenance responsibilities in accordance with 9VAC25-870-112 if maintenance is neglected by the owner;
- The permittee may develop and implement a progressive compliance and enforcement strategy provided that the strategy is included in the MS4 program plan; and
- The permittee may utilize the inspection reports provided by the owner of a stormwater management facility as part of an inspection and enforcement program in accordance with 9VAC25-870-114 C.

4.5.2 VESMP Letter of Authority

The DEQ letter approving the Richmond Erosion & Stormwater Management Program (RESMP) program can be found in Appendix C.



4.5.3 Local Ordinance

The City currently implements a program to manage post-construction stormwater management in the same manner as Section [4.4.2](#) of this document.

4.5.4 Program Description

The Department of Public Utilities Engineering Services Division: Water Resources is responsible for implementing the City's VESMP. Land-disturbing activities that are 4,000 sq. ft or larger and 2,500 sq. ft. or larger in Chesapeake Bay Preservation Areas are required to submit erosion and stormwater management plans for approval prior to initiating any land-disturbing activities, as well as obtain a RESMP permit.

To implement this, the City has developed a Water Resources Guidance Manual with detailed step applicants must take to apply for an RESMP permit, which must be obtained prior to approval of any building permit land disturbance greater 4,000 sq. ft. and greater than one acre. Land-disturbing activities greater than or equal to one acre must also develop and implement a SWPPP and obtain coverage under the General VPDES Permit for the Discharges of Stormwater from Construction Activities. In addition, the City has developed a standard RESMP Permit Application, Process Quick Sheet, Environmental Checklist, and a Stormwater Utility Maintenance Agreement template. Additional information regarding the City's RESMP is located on the City of Richmond Department of Public Utilities Stormwater Management website.

The City's VESMP staff hold DEQ certifications as combined administrators, plan reviewers, and inspectors. The DPU VSMP Policies and Procedures Manual outlines the inspection and compliance measures to ensure compliance, as well as the procedures for serving and documenting enforcement measures. The VSMP Policies and Procedures Manual is maintained and updated, as needed, by DPU – Water Resources, and is available upon request.

The City uses the DEQ Construction Stormwater Database (<https://apps.deq.virginia.gov/swcgp>), or other application as specified by the Department, to report each stormwater management facility installed after July 1, 2014, to address the control of post-construction runoff from land disturbing activities for which the permittee is required to obtain coverage under the General VPDES Permit for Discharges of Stormwater for Construction Activities.

4.5.5 Post Construction Inspection & Maintenance Procedures

The City has established an inspection and maintenance program that ensures City-owned stormwater management facilities are being adequately maintained. The purpose of public facility inspections is to assess and record the current condition of the facility compared to its original design. An alternative inspection schedule was developed to reflect the City's assessment of the risk of failure based on facility type and frequency of routine maintenance. The reduced inspection frequency has proven sufficient to maintain proper function because the City's routine maintenance schedule provides additional visual evaluation of each facility each year. This alternative inspection schedule is allowed in Part IV.E.5.b.(3) of the Integrated Permit. Inspections are performed once every three to five years, depending on the facility's intended purpose. City-owned stormwater facilities that are receiving credit for Total Maximum Daily Load compliance are inspected every three to five years. All other City-owned stormwater management facilities are inspected at least once every five years.

The City inspects stormwater management facilities not owned by the City at least once every five years. Procedures for the inspection, long-term operation and maintenance of city-owned stormwater management facilities and private stormwater management facilities are included in the DPU – Water Resources Virginia Stormwater Management Program Policies & Procedures Manual, which is incorporated by reference in this document and is available upon request from DPU – Water Resources.



In accordance with Sec. 14-331 of the City of Richmond Code Chapter 14 Article V, a Stormwater Utility Maintenance Agreement (SUMA) must be recorded for all new privately-owned stormwater management facilities. As part of the SUMA, an owner is required to inspect any stormwater management facility on their property at least once every five years and submit the inspection and maintenance report to the City. The DPU – Water Resources Virginia Stormwater Management Program Policies & Procedures Manual contains procedures for the compliance and enforcement of SUMAs. As mentioned previously, this manual is available upon request from DPU – Water Resources.

4.5.6 Roles and Responsibilities

DPDR is responsible for coordinating most City permitting and plan review.

DPU – Water Resources is responsible for SWM plan review, inspection, compliance, recordkeeping, and documentation is responsible for conducting SWM facility inspections and documenting SWM facility inspections (and completion of required maintenance) in the City's tracking spreadsheet/database.

DPU – Stormwater Operations is responsible for conducting maintenance on public SWM facilities.

DPU is responsible for developing the annual Scope of Work for the third-party contractor and overseeing the implementation of the associated task order.

DPU is responsible for ensuring that SWM facility maintenance records are maintained.

4.5.7 Annual Reporting

The City will continue to operate a compliant stormwater management program and will report on the total number of stormwater inspections and associated enforcement actions in the annual report.

No later than October 1 of each year, the permittee shall electronically report the most recent inspection date for any existing BMP that was previously reported and re-inspected between July 1 and June 30 using the BMP Warehouse. If an existing BMP has not been previously reported, the BMP shall be reported as new. No later than October 1 of each year the DEQ BMP Warehouse shall be updated if an existing BMP is discovered between July 1 and June 30 that was not previously reported to the DEQ BMP Warehouse.

No later than October 1 of each year the DEQ BMP Warehouse shall be updated if an existing BMP is discovered between July 1 and June 30 that was not previously reported to the DEQ BMP Warehouse.

The BMP Warehouse reporting data can be found in the Integrated CSS and MS4 Annual Report on the City's MS4 webpage found in the [MS4 PROGRAM PLAN REFERENCE LIBRARY – WEB PAGES](#).

4.6 MCM 6 – Pollution Prevention and Good Housekeeping for City Facilities

MCM 6 defines the Integrated Permit's conditions and requirements for minimizing pollutant discharge associated with City facilities and operations.

4.6.1 Integrated Permit Compliance Requirements

Under the Integrated Permit, the City is required under MCM 6 to do the following:

- Maintain and implement written good housekeeping procedures for activities at facilities owned or operated by the permittee.
- Written good housekeeping procedures shall be developed for the following activities:
 - Road, street, sidewalk, and parking lot maintenance and cleaning;
 - Renovation and significant exterior maintenance activities (e.g., painting, roof resealing, and HVAC coil cleaning) not covered under a separate VSMP construction Integrated permit;



- Discharging water pumped from construction and maintenance activities not covered by another permit covering such activities;
 - Temporary storage of landscaping materials;
 - Maintenance of permittee owned or operated vehicles and equipment (i.e., prevent pollutant discharges from leaking permittee vehicles and equipment);
 - Application of materials, including pesticides and herbicides shall not exceed manufacturer's recommendations; and
 - Application of fertilizer shall not exceed maximum application rates established by applicable nutrient management plans. For areas not covered under nutrient management plans where fertilizer is applied, application rates shall not exceed manufacturer's recommendations.
- Require through the use of contract language, training, written procedures, or other measures within the permittee's legal authority that contractors employed by the permittee and engaging in activities described in Part I E 6 b follow established good housekeeping procedures and use appropriate control measures to minimize the discharge of pollutants to the MS4.
 - Develop a written training plan for applicable field personnel.
 - Maintain and implement a site specific SWPPP for each high-priority facility as defined in 9VAC25-890-1 that does not have or require separate VPDES permit coverage, and which any of the following materials or activities occur and are expected to have exposure to stormwater resulting from rain, snow, snowmelt, or runoff:
 - Maintain and implement turf and landscape nutrient management plans that have been developed by a certified turf and landscape nutrient management planner in accordance with § 10.1-104.2 of the Code of Virginia on all lands owned or operated by the permittee where nutrients are applied to a contiguous area greater than one acre.

4.6.2 Program Description

The City has developed and implemented Pollution Prevention and Good Housekeeping SOPs designed to minimize or prevent illicit pollutant discharge from daily operation and maintenance activities, such as facility maintenance, equipment maintenance, waste disposal, bulk storage, and the application of materials, including pesticides, herbicides, and fertilizers. The specific SOPs for these activities are incorporated by reference in Appendix D.

Per Part IV.E.6.b of the Integrated Permit, the City's current Pollution Prevention and Good Housekeeping SOPs that address road, street, sidewalk, and parking lot maintenance and cleaning will be updated and implemented no later than August 31, 2027, to include procedures for the implementation of best management practices for anti-icing and deicing agent application, transport, and storage. The procedures will prohibit the application of any anti-icing or deicing agent containing urea or other forms of nitrogen or phosphorus. In addition, the City will develop and implement SOPs that address the renovation and significant exterior maintenance activities (e.g., painting, roof resealing, and HVAC coil cleaning) no later than August 31, 2028. Once these SOPs have been implemented, they will be incorporated by reference with the other Pollution Prevention and Good Housekeeping SOPs.

The City requires contractors to implement pollutant prevention and good housekeeping procedures through procurement contract language.



4.6.3 List of High Priority Facilities

A list of high-priority facilities owned or operated by the City is provided in Appendix E. This list is reviewed annually (no later than December 31 of each year). If a facility is determined to need a SWPPP, one will be developed no later than June 30th of the following year.

4.6.4 Turf and Landscape Nutrient Management Plans

The City does not own or operate any properties which require a turf and nutrient management plan. If, in the future, nutrients will be applied over a contiguous area greater than one acre on a City-owned or operated property, a turf and nutrient management plan will be developed by a certified turf and landscape nutrient management planner in accordance with § 10.1-104.2 of the Code of Virginia. Nutrient management plans will be submitted to the Virginia Department of Conservation and Recreation for approval. Approved nutrient management plans will be maintained in a manner they are available to employees at the applicable site.

4.6.5 Training Plan

DPU has developed the City of Richmond's Training Plan, which includes the training requirements, schedule, and identifies the staff that should be provided training. Individual departments are responsible for providing staff training. A copy of the Training Plan is provided in Appendix F.

DPU – Human Capital is responsible for:

- Maintaining training attendance forms.
- Tracking events, coordinating training with other City departments, and documenting that necessary training has occurred.

DPW and DPR are each responsible for:

- Coordinating training with DPU for applicable staff regarding illicit discharge recognition, good housekeeping, and pollution prevention.
- Ensuring applicable staff and contractors are certified under the Virginia Pesticide Control Act for pesticide activities.

Training is evaluated annually and modified, as necessary, to verify the following:

- Applicable field personnel receive training in the prevention, recognition, and elimination of illicit discharges no less often than once per 24 months.
- Employees performing road, street, sidewalk, and parking lot maintenance receive training in good housekeeping SOPs no less often than once per 24 months;
- Employees working in and around facility maintenance, public works, or recreational facilities receive training in good housekeeping SOPs required no less often than once per 24 months;
- Employees working in and around high-priority facilities with a SWPPP receive training in applicable site specific SWPPP procedures no less often than once per 24 months;
- Employees whose duties include emergency spill control and response are trained in spill control and response.
- Employees and contractors hired by the permittee who apply pesticides and herbicides are trained and certified in accordance with the Virginia Pesticide Control Act (§ 3.2-3900 et seq. of the Code of Virginia).



5.0 TMDL ACTION PLANS AND SPECIAL CONDITIONS

5.1 Chesapeake Bay TMDL Action Plan

The City has an approved Chesapeake Bay TMDL Action Plan, dated April 12, 2022. The City continues to implement and update the action plan, as needed, to comply with conditions of the Integrated Permit. Compliance activities and progress are included in annual report submitted to VA DEQ. The most recent plan and annual compliance reports are provided on the City's MS4 webpage found in the [MS4 PROGRAM PLAN REFERENCE LIBRARY – WEB PAGES](#).

5.2 Local TMDL Action Plans

The City has an approved James River Bacteria TMDL Action Plan dated November 30, 2016, which addresses bacteria TMDLs within nine watersheds throughout the City. The City has developed an Interim and Final Plan to assist the City in meeting the 2010 James River Bacteria TMDL for the Gillies Creek and Almond Creek tributaries. Additional information about the Interim and Final Plans and the status of the proposed projects is provided on the RVAH2O found in the [MS4 PROGRAM PLAN REFERENCE LIBRARY – WEB PAGES](#).

Compliance activities and progress are included in annual report submitted to VA DEQ. The most recent plan and annual compliance reports are provided on the City's MS4 webpage found in the [MS4 PROGRAM PLAN REFERENCE LIBRARY – WEB PAGES](#).



APPENDIX A. Integrated Permit and Transmittal Coverage Letter



APPENDIX B. City of Richmond DPU Pretreatment Illicit Discharge Detection and Elimination Procedures



City of Richmond
MS4 Program Plan

APPENDIX C. VESMP Approval Letter



APPENDIX D. List of Standard Operating Procedures for Operations and Maintenance



List of Standard Operating Procedures for Operations and Maintenance

The following is a list of the City of Richmond’s Standard Operating Procedures for Pollution Prevention and Good Housekeeping, incorporated by reference in the MS4 Program Plan. SOPS will be made available upon request.

SOP Topic	Department	Date Developed	Date Implemented
Vehicle/Equipment Storage & Maintenance	DPU – Operations Center	2015	2015
Chemical Handling/Transporting & Spill Response	DPU – Operations Center	2015	2015
Chemical Application, Storage & Disposal (Herbicides/Pesticides)	DPU – Operations Center	2015	2015
Spill Kits/Spill Leak Response	DPU – Operations Center	2015	2015
Dumpster Skids	DPU – Operations Center	2015	2015
General Refuse/Dumpsters	DPU – Operations Center	2015	2015
Transporting/Storing Mulch	DPU – Operations Center	2015	2015
Storage Yard Materials	DPU – Operations Center	2015	2015
Storm Drain Cleaning	DPU – Operations Center	2015	2015
Parking Lot Maintenance	DPU – Operations Center	2015	2015
Landscaping – Mowing & Trimming	DPU – Operations Center	2015	2015



APPENDIX E. List of High-Priority Facilities



List of High-Priority Facilities

Owner	Facility Name	Facility Address	Operations	SWPPP?*	Notes
DPW	Grounds Maintenance	6120 Warwick Road	ESM, MS, PSF	Yes	MS4
DPW	Forst Tee Public Golf Course	500 School Street	ESM, MS, PSF	Yes	CS
DPR	JRPS Headquarters	4201 Riverside Drive	ESM, MS, VSM	Yes	MS4
DPR	Forest Hill Park Field Office	4001 Stonewall Avenue	ESM, MS, PSF	Yes	CS, MS4
DPR	Byrd Park Field Office	2301 Amelia Street	ESM, MS, PSF	Yes	MS4
DPR	Oakwood Cemetery	3511 E. Richmond Road	ESM, MS	Yes	MS4
DPR	Riverview Cemetery	1305 Randolph Street	ESM, MS, PSF	Yes	CS, MS4
DPR	Maury-Mount Olivette Cemetery	2700 Maury Street	ESM, MS, PSF	Yes	MS4
DPU	DPU Operations Center	400 Richmond Highway	ESM, MS, PSF	Yes	CS, MS4
DPU	DPU Stormwater O & M	1801 Commerce Road	VMS, ESM, MS	Yes	MS4
DPU	DPU Operations Center	814 Forest Lawn Drive	ESM, MS	Yes	MS4
DPW	Commerce Road Fleet Facility	1700 Commerce Road	VSM, MS	Yes	CS, MS4
DPW	E. Richmond Road Landfill	3800 E. Richmond Road	MS, RF, VSM	Yes	MS4
DPW	Hopkins Road Facility	3502 Hopkins Road	ESM, MS, SSF, SWF	Permit	MS4
DPW	Urban Forestry	800 Forest Lawn Drive	ESM, VSM	Yes	MS4

CF = Composting Facilities; ESM = Equipment Storage and Maintenance; MS = Material Storage; PSF = Pesticide Storage Facility; DPW = Public Works; RF = Recycling Facility; SSF = Salt Storage Facility; SWF = Solid Waste Handling and Transfer; VSM = Vehicle Storage and Maintenance

*SWPPP documents are located at the facility and are available upon request.



APPENDIX F. Training Plan



Training Plan

Annual Training Schedule by Department and Facility							
Department / Facility Being Trained	No. of Employees Identified for Training*	Training Needed				Training Facility / Capacity**	No. of Sessions Needed
		General Training	Road, Street, Utility Construction, and Parking Lot Work Training	Equipment and Vehicle Maintenance Training	Recreational and Public Works Yard Training		
Department of Public Utilities	815 total						17 total
Operations Center Facility	500	X	X	X	X	DPU Operations Center Conference Room/ 50	10
General Employee Training (includes 3-1-1 Call Center)	300	X				DPU Operations Center Conference Room / 50	6
Contractor Training	15	X	X		X	DPU Operations Center Conference Room / 50	1
Department of Public Works	415 total						26 total
Hopkins Road	25	X		X		At Facility / 15	2
Commerce Road Fleet Facility	25	X		X		At Facility / 15	2
Parker Field Operations Center	25	X		X	X	At Facility / 15	2
DPW Grounds Maintenance	50	X		X	X	At Facility / 15	4
Maury Street Transfer Station	25	X		X	X	At Facility / 15	2



Annual Training Schedule by Department and Facility							
Department / Facility Being Trained	No. of Employees Identified for Training*	Training Needed				Training Facility / Capacity**	No. of Sessions Needed
		General Training	Road, Street, Utility Construction, and Parking Lot Work Training	Equipment and Vehicle Maintenance Training	Recreational and Public Works Yard Training		
Richmond Ambulance Authority	25	X		X		At Facility / 15	2
Main Street Station	25	X		X		At Facility / 15	2
Whitcomb Laydown Yard	25	X		X	X	At Facility / 15	2
Additional O&M Crews Training	100	X	X	X	X	Wastewater Treatment Trailer / 25	4
General Employee Training	75	X				Wastewater Treatment Trailer / 25	3
Contractor Training	15	X	X		X	Wastewater Treatment Trailer / 25	1
Richmond Police Department	880 total						10 total
Mounted Police Stables	20	X			X	At Facility / 20	1
General Employee Training	860	X				Policy Academy / 100	9
Parks and Recreation	235 total						13 total
Forest Lawn Operations Center	10	X		X	X	At Facility / 10	1
Byrd Park Field Office	10	X		X	X	At Facility / 10	1



Annual Training Schedule by Department and Facility							
Department / Facility Being Trained	No. of Employees Identified for Training*	Training Needed				Training Facility / Capacity**	No. of Sessions Needed
		General Training	Road, Street, Utility Construction, and Parking Lot Work Training	Equipment and Vehicle Maintenance Training	Recreational and Public Works Yard Training		
Forest Hill Park Field Office	10	X		X	X	At Facility / 10	1
Additional O&M Crews Training	150	X	X	X	X	Community Center / 30	5
General Employee Training	40	X				Community Center / 30	2
Contractor Training	15	X			X	Community Center / 30	1
Richmond Public Schools	360 total						7 total
RPS School Bus Maintenance Facility	20			X		At Facility / 15	2
RPS Transit Warehouse	20			X	X	At Facility / 15	2
RPS Maintenance Yard	20			X	X	At Facility / 15	2
Additional Maintenance Crews Training	300	X		X	X	Thomas Jefferson High School / 75 Huguenot High School / 75 Armstrong High School / 75 George Wythe High School / 75	1 at each High School



Annual Training Schedule by Department and Facility							
Department / Facility Being Trained	No. of Employees Identified for Training*	Training Needed				Training Facility / Capacity**	No. of Sessions Needed
		General Training	Road, Street, Utility Construction, and Parking Lot Work Training	Equipment and Vehicle Maintenance Training	Recreational and Public Works Yard Training		
Fire and Emergency Services	420 total						21 total
General Employee Training	420	X		X		At Each Fire Station / 20	21
Richmond City Sheriff's Office (RCSO)	480 total						12 total
General Employee Training	480	X				RSCO Training Center / 40	12
Code Enforcement	30 total						2 total
Training for Inspectors	30	X				At Code Enforcement / 15	2
Animal Care and Control	25 total						2 total
General Employee Training	25	X		X	X	At Facility / 15	2

*Number of employees obtained from City of Richmond Human Resources. Where unavailable, estimates were made.

**Where facility capacity was unknown, made assumptions about training capacity, on average about 15 people.



APPENDIX G. References



References

Title	Webpage Link
Code of the City of Richmond, Virginia	https://library.municode.com/VA/richmond/codes/code_of_ordinances
Code of the City of Richmond, Virginia - Floodplain Management, Erosion and Sediment Control, and Drainage	https://library.municode.com/va/richmond/codes/code_of_ordinances?nodeId=PTIICICO_CH14FLMAERSECODR
Code of the City of Richmond, Virginia – Richmond Erosion and Stormwater Management Program	https://library.municode.com/va/richmond/codes/code_of_ordinances?nodeId=PTIICICO_CH14FLMAERSECODR_ARTVRIERSTMAPR
City of Richmond VPDES Integrated Permit	https://rva.gov/sites/default/files/2025-11/VPDES%20Integrated%20Permit.pdf
City of Richmond Department of Public Utilities MS4 Webpage	https://www.rva.gov/public-utilities/ms4
City of Richmond Department of Public Utilities Stormwater Management Webpage	https://www.rva.gov/index.php/public-utilities/stormwater-management
DPU – Water Resources Guidance Manual	rva.gov/sites/default/files/2025-07/Richmond Water Resources Guidance Manual_Final_6.25.2025.pdf
City of Richmond DPU RESMP Permit Process	https://www.rva.gov/public-utilities/stormwater-management
City of Richmond Online Permit Portal	https://www.rva.gov/planning-development-review/online-permit-portal
City of Richmond Site Plan Process	https://www.rva.gov/planning-development-review/site-plan
City of Richmond Integrated CSS and MS4 Annual Report 2024	https://rva.gov/sites/default/files/2025-07/Integrated%20CSS%20and%20MS4%202024%20Annual%20Report%202024%200225.pdf
RVAH2O	https://rvah2o.org/