

City of Falls Church, Virginia

Municipal Separate Storm Sewer (MS4) Program Plan

Version 06/12/2019

Prepared for:



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Acronyms

BMP	Best Management Practice
CBPA	Chesapeake Bay Preservation Act
CWA	Federal Clean Water Act
CWP	Northern Virginia Regional Commission – Clean Water Partners
DEQ	Virginia Department of Environmental Quality
DH-ESS	Department of Health – Environmental Services Section
DPW	City of Falls Church Department of Public Works
DPW-ECD	City of Falls Church Department of Public Works – Engineering and Construction Division
EPA	United States Environmental Protection Agency
ESC	Environmental Sustainability Council
E&SC	Erosion and Sediment Control
FCPS	Falls Church Public Schools
GMHS	George Mason High School
GIS	Geographic Information System
HUC	Hydrologic Unit Code
HHW	Household Hazardous Waste
IDDE	Illicit Discharge Detection and Elimination
MCM	Minimum Control Measure
MEP	Maximum Extent Practicable
MOU	Memorandum of Understanding
MS4	Municipal Separate Storm Sewer System
NMP	Nutrient Management Plan
NPDES	National Pollutant Discharge Elimination System
NTP	Neighborhood Tree Program
NVRC	Northern Virginia Regional Commission



PEOP	Public Education and Outreach Program
POTW	Publicly Owned Treatment Works
POC	Pollutants of Concern
PY	Permit Year
Reference Library	MS4 Program Plan Reference Library
SOP	Standard Operating Procedure
SMRT	Stormwater Management Review Team
SWCB	State Water Control Board
SWM	Stormwater Management
SWPPP	Stormwater Pollution Prevention Plans
TJES	Thomas Jefferson Elementary School
TMDL	Total Maximum Daily Load
UA	United States Census Bureau Urbanized Area
US	United States
VAC	Virginia Administrative Code
VESCP	Virginia Erosion and Sediment Control Program
VDOT	Virginia Department of Transportation
VPDES	Virginia Pollutant Discharge Elimination System
VPIS	Village Preservation and Improvement Society
VSMP	Virginia Stormwater Management Program



Signatory Authorizations

Part III K of the Virginia Pollutant Discharge Elimination System General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4 General Permit) establishes signatory requirements for the submission of registration statements, reports and other information.

The following positions are authorized under Part III K to sign all registration statements, reports and other information:

- Principal Executive Officer¹
- Ranking Elected Official

In addition, the aforementioned officials are permitted to provide authorization for other "persons" to sign reports required by state permits, including annual reports, and other information requested by the State Water Control Board or Department of Environmental Quality. Other "persons" are considered duly authorized to sign these reports and other information only if:

1. Authorization is made in writing by either a principal executive officer or a ranking elected official;
2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the operator. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and
3. The signed and dated written authorization is submitted to the Department of Environmental Quality.

City of Falls Church Duly Authorized Positions

In accordance with Part III. K. of the Virginia Pollutant Discharge Elimination System General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems, the following City of Falls Church positions (job titles) are duly authorized to sign reports and other information requested by the State Water Control Board (SWCB) or the Department of Environmental Quality (DEQ):

- City Manager
- Director of Public Works
- DPW - Engineering Manager
- City Stormwater Engineer

This authorization is provided by:

Name: Michael Whitfield

Signature Michael J. Whitfield

Title: Director of Public Works

Date 5/31/19

¹ A principal executive officer of a public agency is defined as the chief executive officer of the agency or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.



MS4 Program Plan Certification

As required by the MS4 General Permit, Part III 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: Alan R. Dalton Signature _____

Title: City Stormwater Engineer Date 5/30/2019



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). Modifications to the federal Clean Water Act (CWA) in 1987 classified discharges from MS4s as point-source discharges and initiated a phased regulatory approach to require MS4 operators to obtain National Pollutant Discharge Elimination System (NPDES) permit coverage for their MS4 discharges. Under the first phase of NPDES permit implementation, localities that were specifically identified in the federal regulations adopted as a result of the CWA modifications were required to obtain individual NPDES permits. As part of the second phase of NPDES permit implementation, operators of small MS4s were required to obtain NPDES permit coverage. Small MS4s are defined primarily as MS4s located within an Urbanized Area (UA) identified delineated as part of the latest US Census.

1.1 MS4 Permitting in Virginia

The Commonwealth of Virginia has been authorized by the federal Environmental Protection Agency (EPA) to implement the NPDES program within its jurisdictional boundaries. As such, the State Water Control Board (SWCB) issued its first Virginia Pollutant Discharge Elimination System (VPDES) General Permit for Stormwater Discharges from Small MS4s in 2003 (MS4 General Permit), under which small MS4 operators obtained coverage and agreed to comply with the conditions set out within it regarding discharges. As a general permit, the MS4 General Permit has a five-year permit cycle, upon which the SWCB must reissue a new general permit under which small MS4 operators must reapply for coverage and agree to apply with the conditions contained in the new permit. In 2018, DEQ reissued the latest version of the MS4 General Permit containing a revised slate of permit conditions that small MS4 operators must comply with in order to remain in compliance with the federal CWA and the State Water Control Law.

1.2 MS4 Permitting and City of Falls Church

The City of Falls Church, Virginia (City) encompasses approximately two (2) square miles within the northeastern portion of Fairfax County, VA. The City lies within the Washington DC-VA-MD UA boundaries defined by the 2010 US Census.

The City has retained coverage under the MS4 General Permit since the State's initial permit in 2003. During such time, the City has successfully implemented numerous best management practices (BMPs), activities and strategies to meet the conditions in each successive permit. In 2018, the City submitted a complete Registration State for Permit Coverage to obtain coverage under the most recent MS4 General Permit. The City received its Notice of Coverage under the MS4 General Permit on October 29, 2018.

By applying for, and receiving coverage, under the MS4 General Permit, the City has agreed to comply with its conditions and authorizations regarding discharges from the City's MS4. This includes the development, implementation and enforcement of an MS4 Program that is designed to reduce the discharge of pollutants from the small MS4 to the maximum extent practicable (MEP) in accordance with the MS4 General Permit, to protect water quality and to satisfy the appropriate water quality requirements of the State Water Control Law and its attendant regulations. The MS4 Program Plan, established here, defines the means and methods that the City will utilize to meet these overarching requirements.

1.3 2018 MS4 General Permit

The 2018 MS4 General Permit, which is also a state regulation found at 9VAC25-890 et. seq. of the Virginia Administrative Code (VAC), became effective November 1, 2018 and will expire on October 31, 2023. The MS4 General Permit provides the City authorization to discharge stormwater from its MS4 provided conditions contained in the permit are met. The MS4 General Permit applies to all discharges from City owned or operated storm drainage conveyances. The MS4 General Permit is the legal authority upon which City VPDES compliance will be determined. Failure to meet the conditions and requirements contained in the MS4



General Permit can lead to State or Federal authorities initiating compliance action against the City. The CWA also allows third-parties to utilize Citizen's Suits to ensure compliance in case of alleged City non-compliance.

The MS4 General Permit is divided into three Parts: Part I – Discharge Authorization and Special Conditions; Part 2 – TMDL Special Conditions; and Part III – Conditions Applicable to all State and VPDES Permits. Part I of the MS4 General Permit contains the requirement to develop, implement and enforce a MS4 program designed to reduce the discharge of pollutants from the small MS4 to the MEP in accordance with this permit, to protect water quality, and to satisfy the appropriate water quality requirements of the State Water Control Law and its attendant regulations of the Commonwealth of Virginia to control discharges to and from the MS4. The MS4 Program Plan and Annual Reporting requirements are included in Part I, along with the six (6) Minimum Control Measures (MCMs). The MCMs are the six (6) stormwater pollution prevention measures expected of MS4 Programs operated by small MS4 operators, such as the City. The six (6) MCMs are:

- Public Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Construction Site Stormwater Runoff Control
- Post-Construction Stormwater Management for New Development and Development on Prior Developed Lands
- Pollution Prevention and Good Housekeeping for Facilities Owned and Operated by the City within the MS4 Service Area

Along with the minimum requirements for each MCM, Part I contains conditions that require development and implementation of an MS4 Program Plan and submission of annual reports to DEQ.

Part II of the MS4 General Permit contains special conditions that define how the City is required to address applicable Total Maximum Daily Loads (TMDLs). The MS4 General Permit contains two special conditions, both of which are applicable to the City. Part II A is the Chesapeake Bay TMDL Special Condition, which is applicable to all MS4s located in the Chesapeake Bay watershed. Part II B is the Local TMDL Special Condition, which is applicable to MS4s that discharge into a waterbody that does not meet water quality standards due to excessive pollution and for which a TMDL has identified the MS4 as a source of the contributing pollutant.

Part III of the MS4 General Permit contains the standard VPDES permit conditions including, but not limited to, records retention, reporting of unauthorized discharges and unusual discharges, signatory requirements, certification requirements, and authorization for DEQ entry to conduct inspections.

The conditions and requirements included in the MS4 General Permit have been incorporated into the City's MS4 Program Plan to provide the City guidance in complying with the permit. The concept of reducing the pollutant loads in MS4 discharges and protecting water quality to the MEP is an iterative process based on continued implementation, review and revision of the MS4 Program and associated MS4 Program Plan. MS4 Program revisions must be incorporated into the MS4 Program Plan to continue to provide up to date guidance regarding the City's iterative process.

The official version of the MS4 General Permit is found via the following link:

<https://law.lis.virginia.gov/admincode/title9/agency25/chapter890/>



2.0 MS4 Program Plan

DEQ will evaluate the City's MS4 Program compliance against the conditions and requirements of the MS4 General Permit. The purpose of the MS4 Program Plan is to provide and maintain a clear and concise description of how the City will administer its MS4 Program to comply with the conditions of the MS4 General Permit.

2.1 MS4 Program Plan Reference Library

Successful implementation of the MS4 Program Plan relies on the development of numerous policies and procedures as well as their periodic review, evaluation and update. All materials and documents referenced in the MS4 Program Plan are included in the digital MS4 Program Plan Reference Library (Reference Library) maintained by the City of Falls Church Department of Public Works – Engineering and Construction Division (DPW-ECD). A list of the documents and materials included in the Reference Library are found in Appendix A. Current document and materials, as well as an up-to-date list that identifies current versions including applicable effective and expiration dates, are available by accessing the Reference Library. Material and document versions are identified using the MM/DD/YYYY format, consisting of the applicable month (MM), day (DD), and year (YYYY).

2.2 MS4 Program Plan Updates

While compliance with the MS4 General Permit is an iterative process, the MS4 Program Plan is intended to provide guidance to the City on maintaining this compliance in conjunction with its daily operations. As such, revisions to the MS4 Program Plan are expected throughout the five-year MS4 General Permit cycle. Revisions to the MS4 Program Plan must be documented and reported to DEQ as part of the required MS4 Annual Report. Additionally, effort must be made to ensure that affected City staff are informed of MS4 Program Plan modifications when the revisions may impact day-to-day operations.

To ensure that City employees impacted have access to the up-to-date materials and documents, the current information must be maintained in the Reference Library. In order to ensure this, DPW-ECD must:

- Identify the newly developed or modified document or material using the MM/DD/YYYY format to identify that it is the current version;
- Replace the previous document or material with the new document or material in the Reference Library;
- Document the update of the MS4 Program Plan as directed in Section 6 (MS4 Program Plan Revisions); and
- Notify impacted City Departments or Partner Organizations of the newly developed or modified document, material or MS4 Program Plan element.

The MS4 Program Plan will be reviewed annually during development of the City MS4 Annual Report and revisions will be made as needed and summarized in each annual report. Each iteration of the MS4 Program Plan will be saved as a new version by dating it MM/DD/YYYY and updating the plan cover page and the footer throughout the plan, and a description of the changes will be provided in the Table in Section 6 (MS4 Program Plan Revisions).



2.3 MS4 Program Plan and its Relationship to Other City Programs

The MS4 Program Plan provides the linchpin between City programs and the MS4 General Permit conditions. While MS4 General Permit conditions and requirements are applicable to all City activities and actions, all City activities and actions are not implemented solely to address the MS4 General Permit requirements. Similarly, individual activities and actions are often impacted by additional regulatory mandates that influence how they are completed. As such, the MS4 Program Plan has identified the roles, responsibilities and efforts undertaken to comply with MS4 General Permit conditions, such as implementation of standard operating procedures (SOPs), while also identifying the existing City programs applicable for meeting MS4 General Permit requirements, such as the City's Local Virginia Erosion and Sediment Control Program (VESCP).



3.0 Administration of the City of Falls Church’s MS4 Program Plan

As previously discussed, the conditions and requirements contained in the MS4 General Permit for discharges from the City’s MS4 are applicable to all discharges from City owned or operated storm drainage conveyances located within the latest decennial US Census UA. Section 3 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 these MS4 General Permit requirements. Administrative oversight of the City’s efforts is assigned to DPW-ECD’s. DPW-ECD’s administrative responsibilities include coordination with and providing aid other City departments and agencies in implementation of the MS4 Program Plan; implementation of the specific portions of the MS4 Program Plan where it has been identified as responsible; and documentation, evaluation and reporting the City’s overall MS4 General Permit compliance efforts to the DEQ.

3.1.1 City of Falls Church Departments

While a significant portion of MS4 General Permit compliance efforts are the responsibility of DPW-ECD, other City departments and agencies have specific roles in the City’s MS4 General Permit compliance efforts. These specific department roles are summarized in the table below.

Department and Agency Specific MS4 Program Plan Implementation Role, and MCM		
Department	MS4 Program Plan Implementation Role	Applicable BMP #s
City Attorney’s Office	Provide legal assistance in enforcement of City ordinances utilized to implement the MS4 Program Plan.	All
	Review contracts and other legal documents to ensure legal documents are consistent with MS4 Program Plan.	
City Manager’s Office	Provide administrative support to ensure necessary resources and inter-departmental cooperation is secured to ensure compliance with applicable laws and regulations.	All
	Assist DPW-ECD in the implementation of the PEOP.	
Communications & Public Information	Assist DPW-ECD with webpage updates and tracking webpage hits for stormwater and MS4 webpages.	MCM #2
DPW-Operations	Conduct required maintenance of non-public schools City stormwater management (SWM) facilities.	MCM #s 5 & 6
	Implement SOPs as part of daily DPW operations.	
	Implement and maintain the Stormwater Pollution Prevention Plan (SWPPP) for the Property Yard Complex and the Remote Storage Area at George Mason High School (GMHS).	
	Ensure applicable employee/contractor training requirements included in the Training Plan are met.	
	Assist in minimizing the impact of illicit discharges from spills and releases.	
Environmental Sustainability Council (ESC)	The ESC and its subcommittees have increasingly addressed a wide range of environmental and sustainability issues important to the quality of life in the City; including SWM. DPW-ECD provides SWM/ water quality informational updates to the citizen-based council and solicits input on the MS4 Program Plan and the	MCM #2



Department and Agency Specific MS4 Program Plan Implementation Role, and MCM		
Department	MS4 Program Plan Implementation Role	Applicable BMP #s
	Annual Reports from the council.	
Falls Church Public Schools (FCPS)	Conduct required maintenance of FCPS SWM facilities.	MCM #s 5 & 6
	Implement Nutrient Management Plans (NMPs) at both Thomas Jefferson Elementary School and George Mason High School.	
Fire Marshal	Assist in minimizing the impact of illicit discharges from spills and releases.	MCM #3
Recreation & Parks	Implement SOPs as part of daily Recreation & Parks operations.	MCM #6
	Ensure applicable employee/contractor training requirements included in the Training Plan are met.	
Stormwater Management Review Team (SMRT)	Evaluate development plans as directed by Section 48-840 of the City Code: the Chesapeake Bay Preservation Area Overlay District.	MCM #s 4 & 5
Urban Forestry	Coordinate with the Village Preservation and Improvement Society (VPIS) for tree planting throughout the City.	MCM #2

3.1.2 Partner Organizations

The City partners with numerous public organizations to provide local government services to its residents in the most economic and efficient manner. These partnerships are part of a broader local government services provision mechanism and not specifically for implementing MS4 General Permit control measures. Partner organizations, along with their relationship to the City and their role in MS4 Program Plan implementation are contained in the table below.

Partner Organizations and their Potential Involvement in the City of Falls Church MS4 Program Plan Implementation			
Organization	Relationship	Role/Relationship	MCM
Northern Virginia Regional Commission (NVRC)	NVRC partners with the City and whose role specific to the MS4 Program is in the City's Memorandum of Understanding (MOU) ² with NVRC.	NVRC administers the Clean Water Partners (CWP) <i>Only Rain Down the Drain</i> regional stormwater education initiative.	MCM #1
Village Preservation and Improvement Society (VPIS)	VPIS partners with the City to organize citizen volunteers to plant trees throughout the City.	The Neighborhood Tree Program (NTP) is a collaboration between citizen volunteers (through VPIS) working in partnership with the City's Urban Forestry Division. Its goals are to increase the number of trees in the City and educate the community about the importance of trees, which help to slow down runoff, thereby reducing erosion, and improve water and air quality by removing pollutants. Since its foundation in 2000, the program has planted hundreds of street trees throughout the City.	MCM #2

² Copies of MOUs implemented with Partner Organizations are maintained in the Reference Library.



3.2 Legal Authorities

The City has secured the necessary legal authorities to implement this MS4 Program Plan utilizing the following Chapter of the City of Falls Church, Virginia Code of Ordinances identified in the table below.

Summary of the City of Falls Church Stormwater Legal Authorities	
Chapter	MS4 Program Plan Applicability
Chapter 4 – Animals	Chapter 4, Section 4-41 prohibits dogs to defecate immediately remove the dog's excrement from any property other than the dog owner's property.
Chapter 35 – Stormwater	Chapter 35 provides legal authority for the implementation of a local Virginia Erosion and Sediment Control Program (VESCP) and local Virginia Stormwater Management Program (VSMP).
	Chapter 35, Section 35-10 establishes the entire City as a Chesapeake Bay Preservation Area and enacts Chesapeake Bay Preservation Act (Code of Virginia § 62.1-44.15:67 et seq.) into City Ordinance.
	Chapter 35, Section 35-21 prohibits illicit discharges and illegal dumping.
Chapter 42 – Utilities	Chapter 42, Article VII (Stormwater) provides legal authority for the City to establish a utility and to enact a system of service charges to support a local SWM program consistent with the Virginia Stormwater Management Act (Code of Virginia, § 10.1-603.1 et seq.) or any other state or federal regulation governing stormwater management.
Chapter 48 – Zoning	Chapter 48, Division 8 (Landscaping), Section 48-1179 is intended to preserve existing healthy vegetation and create new landscaping areas in areas that are being developed or redeveloped in commercial and residential areas.
	Chapter 48, Division 14 (Floodplain District), Section 48-675 requires that uses, activities, and development occurring within any floodplain district shall be undertaken only upon the issuance of a floodplain permit which shall be issued by the zoning administrator after review for compliance.

The most current available version of the City of Falls Church, Virginia Code of Ordinances is available at https://library.municode.com/va/falls_church/codes/code_of_ordinances.

The City has developed policy, procedure and guidance (materials and documents) based on the authorities provided by the legal authority provided by City ordinance. Materials and documents required for the successful implementation of the MS4 Program Plan are referenced throughout this plan and listed in the Reference Library (Appendix A). Digital copies of the most current versions of the materials and documents are available from DPW-ECD.



3.3 Specific Compliance Dates/Schedules

The MS4 General Permit contains both annual compliance dates and schedules, which occur each year, and dates and schedules specific to one permit condition. The dates and schedules specific to individual permit conditions are both identified in the applicable MS4 Program Plan sections.

3.4 MS4 Annual Reporting to DEQ

As a condition of the MS4 General Permit, the City is required to submit an MS4 Annual Report to the DEQ no later than October 1 of each year. Each MS4 Annual Report is required to include information specified throughout the MS4 General Permit regarding the City's compliance accomplishments completed between the previous July 1 and June 30 as identified in the table below.

Summary of MS4 Annual Reporting Requirements by Permit Year				
Permit Year (PY)	PY Reporting Period		Annual Report Due Date	Responsible City Department
	Begins	Ends		
PY1	July 1, 2018	June 30, 2019	October 1, 2019	DPW
PY2	July 1, 2019	June 30, 2020	October 1, 2020	DPW
PY3	July 1, 2020	June 30, 2021	October 1, 2021	DPW
PY4	July 1, 2021	June 30, 2022	October 1, 2022	DPW
PY5	July 1, 2022	June 30, 2023	October 1, 2023	DPW

Each MS4 Annual Report is required to include the following information:

- The permittee, system name, and permit number;
- The reporting period for which the MS4 Annual Report is being submitted;
- A signed certification³ by a principal executive officer, ranking elected official or an individual employed in a duly authorized position;
- 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;⁴
- A status report on the implementation of the Chesapeake Bay TMDL Action Plan including the specific reporting requirements identified in the MS4 General Permit Special Condition Part II A;
- A status report on the implementation of the Bacterial TMDLs for the Four Mile Run and Holmes Run Watersheds and Hunting Creek, Cameron Run, and Holmes Run Watersheds including the specific reporting requirements identified in the MS4 General Permit Special Condition Part II B;

³ 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."

⁴ In accordance with the MS4 General Permit, the MS4 Program Plan and all MS4 Annual Reports are to be maintained separately. Proposed modifications identified and listed in a MS4 Annual Report must be incorporated separately into a revised MS4 Program Plan.



- A status report on the Total Maximum Daily Loads of Polychlorinated Biphenyls (PCBs) for Tidal Portions of the Potomac and Anacostia Rivers in the District of Columbia, Maryland, and Virginia; and
- A summarized list of MS4 Program Plan modifications.

Each MS4 Annual Report covering the term of the MS4 General Permit will be maintained in the Reference Library.

3.5 Duty to Reapply for Continued MS4 General Permit Coverage

Per the MS4 General Permit, Part III M, the City must submit a new Registration Statement to DEQ before Wednesday, August 2, 2023, unless a later date is granted by the SWCB.



4.0 BMPs and Strategies for Compliance with Minimum Control Measures (MCMs)

The six (6) MCMs in the MS4 General Permit form its 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 MS4 General Permit cycle. Section 4 contains the following for each of the six (6) MCMs:

- MS4 General Permit compliance requirements
- Description of selected BMPs and strategies
- Objective/expected results
- List of SOPs or policies necessary to implement BMPs (provided in Reference Library)
- Department(s) responsible for implementing BMP
- Measurable goal by which each BMP or strategy will be evaluated
- Compliance dates/schedules
- Annual reporting requirements
- Method utilized to determine effectiveness

4.1 Minimum Control Measure 1 - Public Education and Outreach (MCM #1)

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

4.1.1 MS4 General Permit Compliance Requirements

Under the MS4 General Permit, 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 illegal 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.

To address requirements associated with MCM 1, the City must identify no less than three (3) high-priority stormwater issues to address in meeting the abovementioned goals. The PEOP associated with the high-priority stormwater issues must:

- 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; and
- Provide a contact and telephone number, website, or location where the public can find out more information.



The City must use two (2) or more strategies listed in Table 1 of the MS4 General Permit (Figure 1) to communicate to the public the high-priority stormwater issues identified in accordance with Part I E 1 B including how to reduce stormwater pollution.

Strategies	Examples (provided as example 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, bill boards, or storm drain stenciling
Media Materials	Information disseminated through electronic media, radio, televisions, movie theater, or newspaper
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 organization, or industrial officials

Figure 1: Table 1 from the MS4 General Permit

4.1.2 Selected BMPs and Strategies

The City has identified the following BMPs/compliance strategies to meet the MS4 General Permit requirements for MCM #1.

BMP 1A – Revise and Implement Public Education and Outreach Program Document	
Description of selected BMPs and strategies	Revise and implement a Public Education and Outreach Program (PEOP) designed to: <ul style="list-style-type: none"> ▪ 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; and ▪ Implement a diverse program with strategies that are targeted toward individuals or groups most likely to have significant stormwater impacts.
Objective/expected results	Inform the City's citizens and businesses on stormwater management/water quality issues and provide options demonstrating steps they can take to improve water.
SOPs or policies necessary to implement BMPs	City's PEOP that includes a list of high-priority issues and the rationale for why each high-priority stormwater issue was selected. The PEOP also includes the list of selected strategies from Table 1 that will be used to communicate each high-priority issue and includes an explanation of how each strategy is intended positively impact stormwater discharges, defines the public audience that is to receive each high-priority message, and includes the anticipated time periods the messages will be communicated. NVRC Memorandum of Understanding (MOU)
Department(s) responsible for	DPW-ECD is responsible for coordinating implementation of the PEOP among the participating partner organizations and ensuring that the latest version of the PEOP is



BMP 1A – Revise and Implement Public Education and Outreach Program Document	
implementing BMP	<p>available to the public via the MS4 webpage. DPW-ECD is also responsible for ensuring that a minimum of two (2) or more strategies are used annually to communicate the high priority stormwater issue messages to the public.</p> <p>City Manager’s Office is responsible for assisting DPW-ECD in the implementation of the PEOP.</p>
Measurable goal by which each BMP or strategy will be evaluated	Implement a PEOP that meets the current permit requirements and achieves the desired results.
Compliance dates/schedules	The PEOP will be developed during PY01 and implemented in subsequent years of permit coverage.
Annual reporting requirements	<p>A list of the high-priority stormwater issues the permittee will communicate to the public as part of the public education and outreach program.</p> <p>A list of the strategies used to communicate each high-priority stormwater issue.</p>
Method utilized to determine effectiveness	Evaluate implementation of the PEOP and annual review of the PEOP and results.

4.2 Minimum Control Measure 2 - Public Involvement and Participation (MCM #2)

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 MS4 General Permit Compliance Requirements

Under the MS4 General Permit, the City is required to develop and implement procedures for the following:

- 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;
- Receiving public input or complaints;
- 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.

In addition, by February 1, 2019, the City must develop and maintain a website dedicated to the MS4 Program and stormwater pollution prevention. The webpage must include:

- The effective MS4 General Permit and coverage letter;
- The most current MS4 Program Plan (or location where the MS4 Program Plan can be obtained); and
- A mechanism for the public to report the following:
 - Potential illicit discharges, improper disposal or spills to the MS4
 - Complaints regarding land disturbing activities
 - Other potential stormwater pollution prevention concerns
 - A method for how the public can provide input on the MS4 Program Plan.



The City must implement no less than four (4) activities per year selected from two (2) or more of the categories listed in Table 2 of the MS4 General Permit (Figure 2) to provide an opportunity for public involvement to improve water quality and support local restoration and clean-up projects.



Table 2 Public Involvement Opportunities	
Public involvement opportunities	Examples (provided as example and are not meant to be all inclusive or limiting)
Monitoring	Establish or support citizen monitoring group
Restoration	Stream or watershed clean-up day, adopt-a-waterway program
Educational Events	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, watershed walks, participation on environmental advisory committees
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 use of residential stormwater BMPs, implement pet waste stations in public areas, adopt-a-street program

Figure 2: Table 2 from the MS4 General Permit

4.2.2 Selected BMPs and Strategies

The City has identified the following BMPs/compliance strategies to meet the MS4 General Permit requirements for MCM #2.

BMP 2A – Revise and Implement Procedures for Public Involvement and Participation	
Description of selected BMPs and strategies	Revise and implement procedures for the following: <ul style="list-style-type: none"> ▪ 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 permittee's MS4 Program Plan; ▪ Receiving public input or complaints; ▪ 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.
Objective/expected results	Provide the City's citizens and businesses the opportunity to participate and provide input on the City's stormwater management program and water quality issues in the City.
SOPs or policies necessary to implement BMPs	Public Involvement and Participation Procedures - ongoing refinement. VPIS Memorandum of Understanding (MOU) for implementation of City Rainsmart Program.
Department(s) responsible for implementing BMP	DPW-ECD is responsible for revising and implementing procedures for the receipt of public input regarding the City's stormwater management program and public input and complaints.
Measurable goal by which each BMP or strategy will be evaluated	Implement Public Involvement and Participation Procedures that meet the current permit requirements and achieves the desired results.
Compliance dates/schedules	The Public Involvement and Participation Procedures will be developed by June 1, 2019 and implemented in subsequent years of permit coverage.



BMP 2A – Revise and Implement Procedures for Public Involvement and Participation	
Annual reporting requirements	A summary of any public input on the MS4 program received (including stormwater complaints) and how the City responded.
Method utilized to determine effectiveness	Evaluate implementation of the Public Involvement and Participation Procedures and results.

BMP 2B – Revise and Maintain a Webpage Dedicated to the MS4 Program and Stormwater Pollution Prevention	
Description of selected BMPs and strategies	Revise and maintain a webpage that contains the following: <ul style="list-style-type: none"> ▪ The effective MS4 permit and coverage letter; ▪ The most current MS4 Program Plan or location where the MS4 Program can be obtained; ▪ The annual report for each year of the term covered by this permit; ▪ A mechanism for the public to report illicit discharges, improper disposal, or spills to the MS4, complaints regarding land disturbing activities, or other potential stormwater pollution concerns; and ▪ Methods for how public can provide input on the permittee's MS4 Program Plan.
Objective/expected results	Provide the City's citizens and businesses the opportunity to participate in and provide direct input on the City's stormwater program and water quality issues in the City.
SOPs or policies necessary to implement BMPs	Public Involvement and Participation Procedures - ongoing refinement. City's MS4 webpage: https://www.fallschurchva.gov/261/Municipal-Separate-Storm-Sewer-System-MS
Department(s) responsible for implementing BMP	DPW-ECD is responsible for web-page content and ensuring required items are posted as required to the web-page. Office of Communications is responsible for assisting DPW-ECD with webpage updates and tracking webpage hits for stormwater and MS4 webpages.
Measurable goal by which each BMP or strategy will be evaluated	Implement Public Involvement and Participation Procedures that meet the current permit requirements and achieves the desired results.
Compliance dates/schedules	The City's website was updated prior to January 31, 2019. Applicable documents (i.e., annual reports and any updates to the City's MS4 Program Plan) will be posted to the City's website by November 1 each year.
Annual reporting requirements	The webpage address to the City's MS4 program and stormwater webpage. A summary of any public input on the MS4 program received (including stormwater complaints) and how the permittee responded.
Method utilized to determine effectiveness	Evaluate the effectiveness of the website based on the number of visits to the website and the number and types of input received.

BMP 2C – Participate in No Less than Four (4) Activities Per Year from Two (2) or more Categories to Provide an Opportunity for Public Involvement	
Description of selected	Participate in no less than four (4) activities per year from two (2) or more of the categories



BMP 2C – Participate in No Less than Four (4) Activities Per Year from Two (2) or more Categories to Provide an Opportunity for Public Involvement	
BMPs and strategies	listed in Table 2 of the MS4 General Permit to provide an opportunity for public involvement.
Objective/expected results	Provide the City's citizens and businesses an opportunity for involvement in the City's stormwater management program and water quality issues in the City and to support local restoration and clean-up efforts.
SOPs or policies necessary to implement BMPs	Public Involvement and Participation Procedures
Department(s) responsible for implementing BMP	DPW-ECD is responsible for coordinating, attending, and tracking local activities identified in the PEOP.
	City Manager's Office is responsible for assisting with public involvement and participation activities such as article content, attending public events, etc.
Measurable goal by which each BMP or strategy will be evaluated	Implement Public Involvement and Participation Procedures that meet the current permit requirements and achieves the desired results.
Compliance dates/schedules	The Public Involvement and Participation Activities will be identified during PY1 and the City will participate in no less than four (4) activities per year from two (2) or more categories in subsequent years of permit coverage.
Annual reporting requirements	A description of the public involvement activities implemented by the permittee.
	A report regarding each activity's metric of the metric and an evaluation as to whether or not the activity is beneficial to improving water quality.
	The name of other MS4 permittees, if any, with whom the City has collaborated to implement the public involvement opportunities.
Method utilized to determine effectiveness	Evaluate implementation of the Public Involvement and Participation Procedures and results.

Comment [MK1]: NEED TO DEVELOP or include in the PEOP



4.3 Minimum Control Measure 3 - Illicit Discharge Detection and Elimination (MCM #3)

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

4.3.1 MS4 General Permit Compliance Requirements

Under the MS4 General Permit, the City is required under MCM #3 to do the following:

- Maintain an accurate MS4 map and information table;
- Submit a GIS-compatible shapefile of the permittee's MS4 map to DEQ by July 1, 2019;
- Provide written notification to any downstream adjacent of any known physical interconnection established or discovered after the effective date of the permit;
- Prohibit through legal mechanism unauthorized non-stormwater discharges into the City's MS4 and must address authorized stormwater discharges or flows if the City identifies them as a significant contributor of pollutants contributing to the MS4; and
- Maintain, implement and enforce IDDE written procedures to 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 Selected BMPs and Strategies

The City has identified the following BMPs/compliance strategies to meet the MS4 General Permit requirements for MCM #3.

BMP 3A – Maintain an Accurate MS4 Map	
Description of selected BMPs and strategies	<p>Maintain an accurate MS4 Map of the storm sewer system owned or operated by the permittee within the census urbanized area identified by the 2010 decennial census that includes, at a minimum, the following:</p> <ul style="list-style-type: none"> ▪ MS4 outfalls discharging to surface waters, except as follows: <ul style="list-style-type: none"> • In cases where the outfall is located outside of the MS4 permittee's legal responsibility, the permittee may elect to map the known point of discharge location closest to the actual outfall; • In cases where the MS4 outfall discharges to receiving water channelized underground, the permittee may elect to map the point downstream at which the receiving water emerges above ground as an outfall discharge location. If there are multiple outfalls discharging to an underground channelized receiving water, the map shall identify that an outfall discharge location represents more than one outfall. This is an option a permittee may choose to use and recognizes the difficulties in accessing outfalls to underground channelized stream conveyances for purposes of mapping, screening, or monitoring. ▪ A unique identifier for each mapped item required in Part I E 3; ▪ The name and location of receiving waters to which the MS4 outfall or point of discharge discharges; ▪ MS4 regulated service area; and ▪ SWM facilities owned or operated by the permittee.
Objective/expected results	To maintain an accurate map of the City's MS4 including the required information.
SOPs or policies necessary to implement	MS4 Map data layers maintained in the City's GIS



BMP 3A – Maintain an Accurate MS4 Map	
BMPs	
Department(s) responsible for implementing BMP	DPW-ECD is responsible for maintaining GIS data layers to be able to produce an accurate and complete MS4 Map.
Measurable goal by which each BMP or strategy will be evaluated	Ability to produce an accurate and complete MS4 Map.
Compliance dates/schedules	No later than July 1, 2019 the permittee shall submit to DEQ a GIS-compatible shapefile of the City's MS4 Map and within 14-days of DEQ-request throughout the permit cycle. ⁵ Annually, by October 1 of each year, update the 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.
Method utilized to determine effectiveness	Review of GIS Data Information Tables associated with City Stormwater System Map and MS4 Outfall Data Information to ensure all required updates have been completed.

BMP 3B – Maintain a MS4 Outfall Information Table with the MS4 Map	
Description of selected BMPs and strategies	Maintain an information table associated with the storm sewer system map that includes the following information for each outfall or point of discharge for those cases in which the City elects to map the known point of discharge in accordance with Part I E 3 a (1) (a): <ul style="list-style-type: none"> ▪ A unique identifier as specified on the storm sewer system map; ▪ The latitude and longitude of the outfall or point of discharge; ▪ The estimated regulated acreage draining to the outfall or point of discharge; ▪ The name of the receiving water; ▪ The 6th Order Hydrologic Unit Code (HUC) of the receiving water; ▪ An indication as to whether the receiving water is listed as impaired in the Virginia 2016; ▪ 305(b)/303(d) Water Quality Assessment Integrated Report; ▪ The predominant land use for each outfall discharging to an impaired water; and ▪ The name of any EPA approved TMDLs for which the permittee is assigned a wasteload allocation.
Objective/expected results	Maintain an up-to-date MS4 Outfall Data Information Table with the MS4 Map.
SOPs or policies necessary to implement BMPs	MS4 Map maintained in GIS MS4 Outfall Data Information Table 2016 303(d)/305(b) list

⁵ Per MS4 General Permit Part I E 3 d, "The map shall be made available to [DEQ] within 14 days upon request."



BMP 3B – Maintain a MS4 Outfall Information Table with the MS4 Map	
Department(s) responsible for implementing BMP	DPW-ECD is responsible for maintaining MS4 Outfall Data Information Table.
Measurable goal by which each BMP or strategy will be evaluated	Update MS4 Outfall Data Information Table.
Compliance dates/schedules	Annually, by October 1 of each year, update the MS4 Outfall Data Information Table to reflect changes made to the MS4 Map for new construction, modifications, and field observations.
Annual reporting requirements	Confirmation statement that the MS4 Outfall Data Information Table was updated to reflect any changes to the MS4 occurring on or before June 30 of the reporting year.
Method utilized to determine effectiveness	Review City's MS4 Outfall Data Information Table associated with City Stormwater System Map and MS4 Outfall Data Information to ensure all required updates have been completed.

BMP 3C – Notification to Downstream MS4 Permit Holders of Interconnections	
Description of selected BMPs and strategies	Notify downstream MS4 operators, in writing, of any physical interconnections to the City's MS4. As required in Part I E 3 d (2), the written notification to downstream interconnected MS4s will be provided upon request. These operators may include Fairfax County, Arlington County, and Virginia Department of Transportation (VDOT).
Objective/expected results	Share information with downstream MS4 operators of physical interconnections for potential collaborative efforts.
SOPs or policies necessary to implement BMPs	MS4 Map maintained in GIS and associated MS4 outfall Data Information Table
	Physical interconnected notification letters
Department(s) responsible for implementing BMP	DPW-ECD will notify the appropriate MS4 operators of newly established or newly discovered physically interconnected MS4 outfalls based on the aforementioned criteria.
Measurable goal by which each BMP or strategy will be evaluated	Successful notification to downstream MS4 operators of physical interconnections.
Compliance dates/schedules	On or before October 1, 2019, notify downstream adjacent MS4s of any known physical interconnection.
	Annually, on or before October 1, notify downstream adjacent MS4s of new physical interconnections discovered within the reporting year (if applicable).
Annual reporting requirements	List of written notifications to applicable adjacent downstream MS4 operators.
Method utilized to determine effectiveness	Review of GIS MS4 Outfall Data Information Table associated with the City Stormwater System Map to identify any new interconnections.



BMP 3D – Prohibit Unauthorized Discharges into the MS4	
Description of selected BMPs and strategies	Prohibit, through ordinance, to the extent allowable, unauthorized non-stormwater discharges into the City's storm sewer system. ⁶
Objective/expected results	Maintain specific language in City Code that prohibits unauthorized non-stormwater discharges to the City's MS4 and provides for civil and/or criminal remedies and enforcement capabilities for violation of the City Code.
SOPs or policies necessary to implement BMPs	Chapter 35, Section 35-21 of the City Code of Ordinances
	Illicit Discharge Detection and Elimination (IDDE) Standard Operating Procedures
Department(s) responsible for implementing BMP	DPW-ECD is responsible for ensuring that the Chapter 35, Section 35-21 is maintained and updated as necessary to ensure elimination of unauthorized non-stormwater discharges into the City's MS4. DPW-ECD is also responsible for implementing City Code and enforcement procedures to eliminate unauthorized discharges to the City's MS4.
	The City Attorney's Office is responsible for assisting DPW-ECD in ensuring the elimination of illicit discharges under Chapter 35, Section 35-21 of the City Code of Ordinances.
Measurable goal by which each BMP or strategy will be evaluated	Utilize City Code to ensure adequacy in elimination unauthorized discharges to the City's MS4.
Compliance dates/schedules	Annually, by October 1 of each year, review Chapter 35, Section 35-21 of the City Code of Ordinances.
Annual reporting requirements	MCM #3 does not include any specific compliance dates or schedules for implementing City Code for prohibition of unauthorized discharges.
Method utilized to determine effectiveness	Review of illicit discharges identified and enforcement activities from each year and the adequacy of City Code for elimination.

BMP 3E – Maintain, Implement, and Enforce Illicit Discharge Detection and Elimination (IDDE) Written Procedures	
Description of selected BMPs and strategies	<p>Maintain, implement, and enforce illicit discharge detection and elimination (IDDE) written procedures designed to detect, identify, and address unauthorized nonstormwater discharges, including illegal dumping, to the City's MS4 to effectively eliminate the unauthorized discharge. Written procedures shall include:</p> <ul style="list-style-type: none"> ▪ A description of the legal authorities, policies, standard operating procedures or other legal mechanisms available to the permittee to eliminate identified sources of ongoing illicit discharges including procedures for using legal enforcement authorities; ▪ Dry weather field screening protocols to detect, identify, and eliminate illicit discharges to the MS4; ▪ A mechanism to track required information; ▪ A timeframe upon which to conduct an investigation to identify and locate the source of any observed unauthorized nonstormwater discharge;

⁶ Nonstormwater discharges or flows identified in 9VAC25-890-20 D 3 shall only be addressed if they are identified by the permittee as a significant contributor of pollutants discharging to the MS4. Flows that have been identified by the department as de minimis discharges are not significant sources of pollutants to surface water.



BMP 3E – Maintain, Implement, and Enforce Illicit Discharge Detection and Elimination (IDDE) Written Procedures	
	<ul style="list-style-type: none"> ▪ Methodologies to determine the source of all illicit discharges; ▪ Methodologies for conducting a follow-up investigation for illicit discharges; and ▪ A mechanism to track all illicit discharge investigations to document required information.
Objective/expected results	Develop and implement a program to identify and eliminate potential illicit discharges into the City's MS4.
SOPs or policies necessary to implement BMPs	Illicit Discharge Detection and Elimination (IDDE) Procedures Spill and Illicit Discharge Response and Reporting SOP
Department(s) responsible for implementing BMP	DPW-ECD is responsible for maintaining, implementing, and enforcing the City's IDDE Procedures; including identification and elimination of illicit discharges to the City's MS4.
Measurable goal by which each BMP or strategy will be evaluated	Implement the IDDE Procedures, including conducting annual dry weather MS4 outfall screening, to continue to identify and eliminate illicit discharges into the MS4.
Compliance dates/schedules	Screen a minimum of 50 outfalls annually such that no more than 50% are screened in the previous 12-month 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. A list of illicit discharges to the MS4 including spills reaching the MS4 with information as follows: <ul style="list-style-type: none"> ▪ The source of illicit discharge; ▪ The dates that the discharge was observed, reported, or both; ▪ Whether the discharge was discovered by the permittee during dry weather screening, reported by the public, or other method; ▪ How the investigation was resolved; ▪ A description of any follow-up activities; and ▪ The date the investigation was closed.
Method utilized to determine effectiveness	Evaluate the number of potential illicit discharges identified each year and review how each was addressed.



4.4 Minimum Control Measure 4 - Construction Site Stormwater Runoff Control (MCM #4)

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

4.4.1 MS4 General Permit Compliance Requirements

The MS4 General Permit conditions associated with construction site stormwater runoff are consistent with those contained in the Virginia Erosion and Sediment Control Law (§62.1-44.15:51 et seq. of the Code of Virginia) and the Virginia Erosion and Sediment Control Regulations (9VAC25-840) in which the City is required to implement a local VESCP. Under the MS4 General Permit, the City is also required to ensure implementation of appropriate controls to prevent nonstormwater discharges to the MS4 from construction activities regulated under the City's Virginia Stormwater Management Program (VSMP).

The City's VESCP is required to conduct plan reviews, site inspections and enforcement for non-compliance. As a defined Tidewater locality under the CBPA, the City is required to regulate land disturbing activities that are equal to or greater than 2,500 square feet in areas of the jurisdiction designated by the City under Chapter 35 of the City Code of Ordinances. The City VESCP must be administered by a DEQ-certified Program Administrator with plan reviews and compliance inspections being conducted by DEQ-certified individuals.

4.4.2 Selected BMPs and Strategies

The City has identified the following BMPs/compliance strategies to meet the MS4 General Permit requirements for MCM #4.

BMP 4A – Maintain a Consistently Rated Combined Local Virginia Erosion and Sediment Control Program (VESCP) and Virginia Stormwater Management Program (VSMP)	
Description of selected BMPs and strategies	Utilize the City's legal authority to address discharges entering the MS4 from regulated construction site stormwater runoff by implementing VESCP consistently with the Virginia Erosion and Sediment Control Law (§ 62.1-44.15:51 et seq. Permit No. VAR040065 Part I Page 12 of 22 pages of the Code of Virginia) and Virginia Erosion and Sediment Control Regulations (9VAC25-840). Implement appropriate controls to prevent nonstormwater discharges to the MS4, such as wastewater, concrete washout, fuels and oils, and other illicit discharges identified during land disturbing activity inspections of the MS4. The discharge of nonstormwater discharges other than those identified in 9VAC25-890-20 D through the MS4 is not authorized by the MS4 General Permit.
Objective/expected results	Effectively enforce local VESCP and VSMP (when applicable) requirements on new and re-development projects, which disturb 2,500 square feet or greater of land within the City or involves any land disturbance in the Resource Protection Area (RPA).
SOPs or policies necessary to implement BMPs	Chapter 35 of the City Code of Ordinances DEQ VSMP Approval Notification Letter City of Falls Church Plan Review Policies and Procedures Virginia Stormwater Management Program Application Package City of Falls Church Stormwater Construction Site Inspections for Land Disturbing Activities Policies and Procedures City of Falls Church Reporting and Recordkeeping Policy and Procedures Inspection records, which are maintained in the City's Inspection and Facility Database System "I:\E&S Folder\Project info & notes.mdb Approved plans and as-builts



BMP 4A – Maintain a Consistently Rated Combined Local Virginia Erosion and Sediment Control Program (VESCSP) and Virginia Stormwater Management Program (VSMP)	
Department(s) responsible for implementing BMP	DPW-ECD is responsible for the implementation of the City's VESCSP and VSMP.
	The City Attorney's Office is responsible for assisting DPW-ECD in the enforcement of Chapter 35 of the City Code of Ordinances.
	SMRT is responsible for plan review and approval.
Measurable goal by which each BMP or strategy will be evaluated	Enforce Chapter 35 of the City Code with respect to maintaining a consistently-rated combined VESCSP and VSMP.
Compliance dates/schedules	MCM #4 does not include any specific compliance dates or schedules outside of what is identified as part of the annual reporting requirements.
Annual reporting requirements	The total number of erosion and sediment control (E&SC) and VSMP inspections conducted during each permit year.
	The total number and type of enforcement action implemented for both the E&SC and for pollution prevention compliance issues under the VSMP program.
Method utilized to determine effectiveness	Review and evaluate of VESCSP and VSMP effectiveness and whether changes are necessary.



4.5 Minimum Control Measure 5 - Post-Construction Stormwater Management for New Development and Development on Prior Developed Lands (MCM #5)

MCM #5 contains the MS4 General Permit conditions to address discharges to the MS4 from post-development stormwater runoff.

4.5.1 MS4 General Permit Compliance Requirements

The MS4 General Permit conditions associated with post-development stormwater management for new development and development on prior developed lands are consistent with those contained in the Virginia Stormwater Management Act (§62.1-44:15:28 et seq. of the Code of Virginia) and the Virginia Stormwater Management Program Regulations (9VAC25-870). Under the MS4 General Permit, the City is also required to ensure that both public and private permanent SWM facilities are maintained and continue to function as designed.

The City's VSMP is required to conduct plan reviews, site inspections and enforcement for non-compliance. As a defined Tidewater locality under the CBPA, the City is required to regulate land disturbing activities that are equal to or greater than 2,500 square feet in areas of the jurisdiction designated by the City as regulated as part of the CBPA area. The City's VSMP must be administered by a DEQ-certified Program Administrator with plan reviews and compliance inspections being conducted by DEQ-certified individuals.

In addition to MS4 General Permit conditions pertaining to MS4 Program Plan content and Annual Reporting, the MS4 General Permit contains conditions specific to MCM #5 for which the City must ensure compliance.

4.5.2 Selected BMPs and Strategies

The City has identified the following BMPs/compliance strategies to meet the MS4 General Permit requirements for MCM #5.

BMP 5A – Maintain a Consistently Rated Local Virginia Stormwater Management Program (VSMP)	
Description of selected BMPs and strategies	Implement the VSMP consistent with the Virginia Stormwater Management Act (§ 62.1-44.15:24 et seq. of the Code of Virginia) and VSMP Regulations (9VAC25-870) as well as develop an inspection and maintenance program in accordance with Parts I E 5 b and c.
Objective/expected results	Effectively enforce local VESCP and VSMP (when applicable) requirements on new and re-development projects, which disturb 2,500 square feet or greater of land within the City or involves any land disturbance in the Resource Protection Area (RPA).
SOPs or policies necessary to implement BMPs	Chapter 35 of the City Code of Ordinances
	DEQ VSMP Approval Notification Letter
	City of Falls Church Reporting and Recordkeeping Policy and Procedures
	Inspection records, which are maintained in the City of Falls Church Inspection and Facility Database System File at: Public\Public Works\Stormwater\BMP & SWM Facility Program\Inspections\BMP Inspections.mdb
	Approved plans and as-builts
Department(s) responsible for implementing BMP	DPW-ECD is responsible for the implementation of the City's VSMP including maintaining accurate, up-to-date SWM facility records.
Measurable goal by which each BMP or strategy will be evaluated	Enforce Chapter 35 of the City Code with respect to the City's VSMP.
Compliance dates/	MCM #5 does not include any specific compliance dates or schedules outside of what is



BMP 5A – Maintain a Consistently Rated Local Virginia Stormwater Management Program (VSMP)	
schedules	identified as part of the Annual Reporting Requirements.
Annual reporting requirements	Consistency status with documentation will be noted in each annual report.
Method utilized to determine effectiveness	Evaluate documentation received from DEQ through the agency's periodic review of the City's VSMP.

BMP 5B – Implement an Inspection and Maintenance Program for City Owned/Operated SWM Facilities	
Description of selected BMPs and strategies	<p>Implement an inspection and maintenance program for City owned/operated SWM facilities that discharge to the City's MS4 as follows:</p> <ul style="list-style-type: none"> ▪ Maintain written inspection and maintenance procedures in order to ensure adequate long-term operation of its SWM facilities; ▪ Inspect SWM facilities owned or operated by the City once per year; and ▪ Conduct required maintenance in accordance with the written procedures.
Objective/expected results	Implement an inspection and maintenance program that ensures that the City SWM facilities are functioning as designed.
SOPs or policies necessary to implement BMPs	Stormwater Management (SWM) Facility Inspection Standard Operating Procedure (SOP) Manual
Department(s) responsible for implementing BMP	DPW-ECD is responsible for conducting SWM facility inspections and follow-ups as described in the City Owned/Operated SWM Facility Inspection and Maintenance Procedures. DPW-ECD is responsible for documenting SWM facility inspections and follow-ups in the City's tracking spreadsheet/database.
	DPW-O&M is responsible for conducting maintenance on City owned/operated SWM facilities as described in the City Owned/Operated SWM Facility Inspection and Maintenance Procedures.
Measurable goal by which each BMP or strategy will be evaluated	Conduct annual inspections on all City owned/operated SWM facilities. Maintenance will be conducted on City owned/operated SWM facilities as necessary.
Compliance dates/schedules	MCM #5 does not include any specific compliance dates or schedules outside of what is identified as part of the Annual Reporting Requirements.
Annual reporting requirements	The total number of inspections conducted on City owned/operated SWM facilities.
	A description of the significant maintenance, repair or retrofit activities, not including routine activities, performed on City owned/operated SWM facilities to ensure that it continues to perform as designed.
Method utilized to determine effectiveness	Evaluate number or inspections conducted on City owned/operated SWM facilities and BMPs.
	Evaluate maintenance activities on City owned/operated SWM facilities and BMPs in accordance with the Stormwater Management (SWM) Facility Inspection Standard Operating Procedure (SOP) Manual



BMP 5C – Implement an Inspection and Enforcement Program for Private SWM Facilities	
Description of selected BMPs and strategies	<p>Implement an inspection and enforcement program for SWM facilities not owned by the City that includes:</p> <ul style="list-style-type: none"> ▪ An inspection frequency of no less than once per five years for all privately-owned SWM facilities that discharge into the MS4; ▪ Adequate long-term operation and maintenance by the owner of the SWM facility by requiring the owner to develop and record a maintenance agreement, including an inspection schedule to the extent allowable under state or local law or other legal mechanism; ▪ Utilization of the City's legal authority for enforcement of the maintenance responsibilities if maintenance is neglected by the owner; and ▪ Development and implementation of a progressive compliance and enforcement strategy, if desired by the City.
Objective/expected results	Assurance that private facility owners are conducting necessary maintenance on their SWM facilities through implementation of inspection and enforcement program.
SOPs or policies necessary to implement BMPs	Stormwater Management (SWM) Facility Inspection Standard Operating Procedure (SOP) Manual
Department(s) responsible for implementing BMP	<p>DPW-ECD is responsible for the inspection of privately-owned SWM facilities and for enforcing maintenance requirements so that SWM facilities function as designed.</p> <p>The City Attorney's office is responsible for assisting DPW-ECD in enforcement of Chapter 35 of the City Code of Ordinances.</p>
Measurable goal by which each BMP or strategy will be evaluated	Inspect privately-owned SWM facilities on a five-year rotational basis.
Compliance dates/schedules	Inspect of each privately-owned SWM facility once every five (5) years.
Annual reporting requirements	<p>The number of privately-owned SWM facilities inspected.</p> <p>The number and type of enforcement actions initiated by the City to ensure long-term maintenance of privately-owned SWM facilities.</p>
Method utilized to determine effectiveness	Evaluate documentation and maintenance activities performed and/or enforcement actions initiated by the City.- maintain list of BMPs inspected and cumulative percentage.

BMP 5D – Maintain an Electronic Database or Spreadsheet of all Known City and Private Stormwater Management (SWM) Facilities	
Description of selected BMPs and strategies	<p>Maintain an electronic database or spreadsheet of all known permittee-owned /operated and privately-owned SWM facilities that discharge into the MS4. The database shall also include all BMPs implemented by the permittee to meet the Chesapeake Bay TMDL load reduction as required in Part II A. The database shall include the following information as applicable:</p> <ul style="list-style-type: none"> ▪ The SWM facility or BMP type; ▪ The SWM facility or BMPs location as latitude and longitude; ▪ The acres treated by the SWM facility or BMP, including total acres, pervious acres, and impervious acres; ▪ The date the facility was brought online (MM/YYYY). If the date brought online is not



BMP 5D – Maintain an Electronic Database or Spreadsheet of all Known City and Private Stormwater Management (SWM) Facilities	
	<p>known, the City shall use June 30, 2005;</p> <ul style="list-style-type: none"> ▪ The 6th Order Hydrologic Unit Code (HUC) in which the SWM facility is located; ▪ Whether the SWM facility or BMP is owned or operated by the permittee or privately owned; ▪ Whether or not the SWM facility or BMP is part of the permittee's Chesapeake Bay TMDL action plan required in Part II A or local TMDL action plan required in Part II B, or both; ▪ If the SWM facility or BMP is privately owned, whether a maintenance agreement exists; and ▪ The date of the permittee's most recent inspection of the SWM facility or BMP.
Objective/expected results	Identify, geographically locate, and track all known SWM facilities and stormwater BMPs in the City so as to administer the requirements that ensure their proper operation and maintenance.
SOPs or policies necessary to implement BMPs	Spreadsheet/database with the inventory of SWM facilities located in the City.
Department(s) responsible for implementing BMP	DPW-ECD is responsible for tracking new facilities and maintaining the inventory spreadsheet/database (including data entry into the City's and DEQ's spreadsheets/databases).
Measurable goal by which each BMP or strategy will be evaluated	Updates to the electronic database or spreadsheet.
Compliance dates/schedules	The electronic database or spreadsheet shall be updated no later than 30 days after a new SWM facility is brought online, a new BMP is implemented to meet a TMDL load reduction as required in Part II, or discovered if it is an existing SWM facility.
	By October 1 of each year, the permittee shall electronically report the SWM facilities and BMPs implemented between July 1 and June 30 of each year using the DEQ BMP Warehouse and associated reporting template for any practices not reported in accordance with Part I E 5 f including SWM facilities installed to control post-development stormwater runoff from land disturbing activities less than one acre in accordance with the Chesapeake Bay Preservation Act regulations (9VAC25-830) and for which a General VPDES Permit for Discharges of Stormwater from Construction Activities was not required.
Annual reporting requirements	A confirmation statement that the City submitted SWM facility information through the Virginia Construction Stormwater General Permit database for land disturbing activities required to obtain 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 and the date upon which the information was submitted.
Method utilized to determine effectiveness	Evaluate database or spreadsheet to ensure that all SWM facilities in the inventory.

4.6 Minimum Control Measure 6 - Pollution Prevention and Good Housekeeping for Facilities Owned and Operated by the Permittee within the MS4 Service Area (MCM #6)



MCM #6 defines the MS4 General Permit's conditions and requirements for minimizing pollutant discharge associated with City facilities and operations.

4.6.1 MS4 General Permit Compliance Requirements

MCM #6 requires the City to develop and implement pollution prevention/good housekeeping procedures at City activities, identify high-priority City facilities; develop stormwater pollution prevention plans (SWPPPs) for certain City-owned and/or operated high-priority facilities with a high potential for causing pollution, development and implementation of nutrient management plans (NMPs) at City facilities where nutrients are applied on an area greater than one contiguous acre, and implement a stormwater training program for City employees and contractors.

4.6.2 Selected BMPs and Strategies

The City has identified the following BMPs/compliance strategies to meet the MS4 General Permit requirements for MCM #6.

BMP 6A – Maintain and Implement Written Pollution Prevention Procedures	
Description of selected BMPs and strategies	<p>Maintain and implement written procedures for those activities at facilities owned or operated by the permittee, such as road, street, and parking lot maintenance; equipment maintenance; and the application, storage, transport, and disposal of pesticides, herbicides, and fertilizers designed to:</p> <ul style="list-style-type: none"> ▪ Prevent illicit discharges; ▪ Ensure the proper disposal of waste materials, including landscape wastes; ▪ Prevent the discharge of wastewater or permittee vehicle wash water or both into the MS4 without authorization under a separate VPDES permit; ▪ Require implementation of best management practices when discharging water pumped from utility construction and maintenance activities; ▪ Minimize the pollutants in stormwater runoff from bulk storage areas (e.g., salt storage, topsoil stockpiles) through the use of best management practices; ▪ Prevent pollutant discharge into the MS4 from leaking municipal automobiles and equipment; and ▪ Ensure that the application of materials, including fertilizers and pesticides, is conducted in accordance with the manufacturer's recommendations. <p>The written procedures established in accordance with Part I E 6 of the MS4 General Permit and utilized as part of the Employee Training Program.</p>
Objective/expected results	<p>Ensure that City employees are trained on best practices in their operational areas of responsibility to reduce or eliminate stormwater pollution or other potential water quality impairments through the execution of their tasks and duties.</p>
SOPs or policies necessary to implement BMPs	<p>Pollution Prevention and Good Housekeeping Procedures, including the following:</p> <ul style="list-style-type: none"> ▪ Spill and Illicit Discharge Response and Reporting ▪ Landscaping ▪ Storm Drain System Cleaning ▪ Vehicle and Equipment Maintenance ▪ Vehicle and Equipment Washing ▪ Vehicle Fueling
Department(s) responsible for implementing BMP	<p>DPW-ECD is responsible for the overall coordination regarding Pollution Prevention and Good Housekeeping Procedures implementation across the City.</p> <p>DPW is responsible for implementation of the appropriate Pollution Prevention and Good</p>



BMP 6A – Maintain and Implement Written Pollution Prevention Procedures	
	Housekeeping Procedures as part of daily operations.
	Recreation and Parks is responsible for implementation of the appropriate Pollution Prevention and Good Housekeeping Procedures as part of daily operations.
Measurable goal by which each BMP or strategy will be evaluated	Implement the Pollution Prevention SOPs as part of its overall daily operations throughout the MS4 Service Area.
Compliance dates/schedules	MCM #6 does not include any specific compliance dates or schedules outside of what is identified as part of the Annual Reporting Requirements.
Annual reporting requirements	A summary of any operational procedures developed or modified in accordance with Part I E 6 a during the reporting period.
Method utilized to determine effectiveness	Evaluation of activities to ensure that appropriate procedures are in place.

BMP 6B – Evaluate High-Priority Facilities with a High Potential of Discharging Pollutants	
Description of selected BMPs and strategies	Evaluate the previously identified high-priority facilities to identify those that have a high potential of discharging pollutants.
Objective/expected results	Identify City-owned and operated facilities that have a high potential for discharging pollutants.
SOPs or policies necessary to implement BMPs	High Priority Facility Review
Department(s) responsible for implementing BMP	DPW-ECD is responsible for evaluating City-owned high-priority facilities to determine if the high priority facilities have a high potential of discharging pollutants and to determine if a site-specific SWPPP is required.
Measurable goal by which each BMP or strategy will be evaluated	Identify City-owned and operated facilities that are required to have a site-specific SWPPP.
Compliance dates/schedules	Within 12 months of state permit coverage, identify which of the high priority facilities have a high potential of discharging pollutants.
	Annually, by June 30, review any high-priority City facility for which a SWPPP has not been developed to determine if the high-priority facility has a high-potential to discharge pollutants.
	No later than December 31 of each year, develop a SWPPP for any high-priority facility identified during the annual high-priority facility review as having a high-potential to discharge pollutants.
Annual reporting requirements	A summary of any new SWPPPs developed during the reporting period.
	Rationale of any high-priority municipal facilities delisted in accordance with Part I E 6 h during the reporting period.
Method utilized to determine effectiveness	Evaluate stormwater pollution potential posed by City-owned and operated facilities.



BMP 6C – Maintain and Implement Stormwater Pollution Prevention Plan(s) (SWPPPs)	
Description of selected BMPs and strategies	<p>The City shall maintain and implement a site-specific SWPPP for each high-priority facility identified as having a high potential for discharging pollutants. High priority facilities that have a high potential for discharging pollutants are those facilities that are not covered under a separate VPDES permit 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:</p> <ul style="list-style-type: none"> ▪ Areas where residuals from using, storing or cleaning machinery or equipment remain and are exposed to stormwater; ▪ Materials or residuals on the ground or in stormwater inlets from spills or leaks; ▪ Material handling equipment; ▪ Materials or products that would be expected to be mobilized in stormwater runoff during loading or unloading or transporting activities (e.g., rock, salt, fill dirt); ▪ Materials or products stored outdoors (except final products intended for outside use where exposure to stormwater does not result in the discharge of pollutants); ▪ Materials or products that would be expected to be mobilized in stormwater runoff contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers; ▪ Waste material except waste in covered, nonleaking containers (e.g., dumpsters); ▪ Application or disposal of process wastewater (unless otherwise permitted); or ▪ Particulate matter or visible deposits of residuals from roof stacks, vents or both not otherwise regulated (i.e., under an air quality control permit) and evident in the stormwater runoff.
Objective/expected results	Ensure that best practices are implemented at the Property Yard Complex and Remote Storage Area to reduce or eliminate stormwater pollution through the execution of tasks and duties at the facilities.
SOPs or policies necessary to implement BMPs	Property Yard Complex and Remote Storage Area Stormwater Pollution Prevention Plan (SWPPP)
Department(s) responsible for implementing BMP	<p>DPW-ECD is responsible for coordination with each individual high-priority City facility to ensure that SWPPPs are being implemented and the SWPPP document is being maintained.</p> <p>DPW-Operations is responsible for the day-to-day implementation of the Property Yard Complex and Remote Storage Yard SWPPP, including the required annual evaluation and documentation of activities.</p>
Measurable goal by which each BMP or strategy will be evaluated	Implement and maintain SWPPP(s) on high-priority municipal facilities.
Compliance dates/schedules	Annually, by June 30, review SWPPP implementation.
Annual reporting requirements	A summary of any SWPPPs modifications.
Method utilized to determine effectiveness	Evaluate SWPPP implementation.



BMP 6D – Implement Turf and Landscape Nutrient Management Plans (NMPs)	
Description of selected BMPs and strategies	Continue to implement turf and landscape NMPs on City facilities where nutrients are applied to greater than one contiguous acre.
Objective/expected results	Ensure that the appropriate types and amounts of nutrients are applied to City lands.
SOPs or policies necessary to implement BMPs	Thomas Jefferson Elementary School (TJES) Nutrient Management Plan (NMP) <ul style="list-style-type: none"> ▪ Total acreage to which nutrients are applied: 1.3 Acres ▪ Date of most recently approved NMP: April 1, 2018 ▪ Location: 601 S. Oak Street, Falls Church, VA 22046
	George Mason High School (GMHS) Nutrient Management Plan (NMP) <ul style="list-style-type: none"> ▪ Total acreage to which nutrients are applied: 4.94 Acres ▪ Date of most recently approved NMP: June 1, 2018 ▪ Location: 7124 Leesburg Pike, Falls Church, VA 22043
Department(s) responsible for implementing BMP	DPW-ECD is responsible to ensure that NMPs are renewed and updated prior to their expiration date.
	FCPS is responsible for implementation of the NMPs. FCPS is also responsible for maintaining documentation required to demonstrate compliance with the NMPs.
Measurable goal by which each BMP or strategy will be evaluated	Implement and maintain NMPs on City facilities where nutrients are applied to an area greater than one contiguous acre.
Compliance dates/schedules	MCM #6 does not include any specific compliance dates or schedules outside of what is identified as part of the Annual Reporting Requirements.
Annual reporting requirements	A summary of any new turf and landscape nutrient management plans developed including: <ul style="list-style-type: none"> ▪ Location and the total acreage of each land area; and ▪ The date of the approved nutrient management plan.
Method utilized to determine effectiveness	Evaluate NMP evaluation for City facilities where nutrients are applied to greater than one contiguous acre.

BMP 6E – Require Contractors to Minimize the Discharge of Pollutants to the City's MS4	
Description of selected BMPs and strategies	Require through the use of contract language, training, standard operating procedures, or other measures within the City's legal authority that contractors employed by the permittee and engaging in activities with the potential to discharge pollutants use appropriate control measures to minimize the discharge of pollutants to the MS4.
Objective/expected results	Ensure that contractors engaging in activities with the potential to discharge pollutants use appropriate control measures to minimize the discharge of pollutants to the MS4.
SOPs or policies necessary to implement BMPs	Individual City departments work with their purchasing agents to ensure that necessary language regarding environmental laws, regulations, certifications and SOPs are incorporated into City contracts.
Department(s) responsible for implementing BMP	DPW-ECD is responsible for coordinating with individual City departments and the City Attorney's Office to ensure necessary stormwater-related contract language is included in contracting documents.



BMP 6E – Require Contractors to Minimize the Discharge of Pollutants to the City’s MS4	
Measurable goal by which each BMP or strategy will be evaluated	Appropriate language is included in contractual documents to ensure that necessary permits and certifications are obtained and that required pollution prevention efforts are implemented.
Compliance dates/schedules	MCM #6 does not include any specific compliance dates or schedules outside of what is identified as part of the Annual Reporting Requirements.
Annual reporting requirements	Confirmation statement that necessary language regarding environmental laws, regulations, certifications and SOPs are incorporated into City contracts.
Method utilized to determine effectiveness	Evaluation of applicable City contracts to ensure appropriate language is incorporated.

BMP 6F – Develop and Implement a Written Training Plan	
Description of selected BMPs and strategies	<p>Development and implementation of a written training plan for applicable staff that ensures the following:</p> <ul style="list-style-type: none"> ▪ Field personnel receive training in the recognition and reporting of illicit discharges no less than once per 24 months; ▪ Employees performing road, street, and parking lot maintenance receive training in pollution prevention and good housekeeping associated with those activities no less than once per 24 months; ▪ Employees working in and around maintenance, public works, or recreational facilities receive training in good housekeeping and pollution prevention practices associated with those facilities no less than once per 24 months; ▪ Employees and contractors hired by the permittee who apply pesticides and herbicides are trained or certified in accordance with the Virginia Pesticide Control Act (§ 3.2-3900 et seq. of the Code of Virginia). Certification by the Virginia Department of Agriculture and Consumer Services (VCACS) Pesticide and Herbicide Applicator program shall constitute compliance with this requirement; ▪ Employees and contractors serving as plan reviewers, inspectors, program administrators, and construction site operators obtain the appropriate certifications as required under the Virginia Erosion and Sediment Control Law and its attendant regulations; ▪ Employees and contractors implementing the stormwater program obtain the appropriate certifications as required under the Virginia SWM Act and its attendant regulations; and ▪ Employees whose duties include emergency response have been trained in spill response. Training of emergency responders such as firefighters and law-enforcement officers on the handling of spill releases as part of a larger emergency response training shall satisfy this training requirement and be documented in the training plan.
Objective/expected results	Ensure DPW employees are trained on best practices in their operational areas of responsibility to reduce or eliminate stormwater pollution or other potential water quality impairments through the execution of their tasks and duties.
SOPs or policies	Written Training Schedule and Program



BMP 6F – Develop and Implement a Written Training Plan	
necessary to implement BMPs	<p>The following training modules:</p> <ul style="list-style-type: none"> ▪ Illicit Discharges ▪ Fleet and Facility Operations and Maintenance ▪ Streets, Parking, and Drainage Operations and Maintenance ▪ Parks and Grounds Maintenance ▪ Land Disturbing Activities ▪ Spill Response ▪ PCB Training
Department(s) responsible for implementing BMP	DPW-ECD is responsible for updating and implementing a written training program for DPW employees.
	Departments who apply pesticides and herbicides are responsible for keeping current copies of Virginia Department of Agriculture and Consumer Services (VDACS) Pesticide and Herbicide Applicator certifications of all employees or contractors who apply pesticides and herbicides for the City. Copies of the certifications should be made available to DPW-ECD upon request.
	DPW is responsible for maintaining required DEQ E&SC and SWM Certifications.
	DPW-ECD is responsible for maintaining Training Attendance Forms for training events that include the date of the training session, the trainer, the topics covered and the names of the employees who attend the training.
Measurable goal by which each BMP or strategy will be evaluated	Develop and implement a written training program and provide training and the intervals specified in the program.
Compliance dates/schedules	MCM #6 does not include any specific compliance dates or schedules outside of what is identified as part of the Annual Reporting Requirements.
Annual reporting requirements	<p>A list of the training events conducted in accordance with Part I E 6 m, including the following information:</p> <ul style="list-style-type: none"> ▪ The date of the training event; ▪ The number of employees who attended the training event; and ▪ The objective of the training event.
Method utilized to determine effectiveness	Evaluate training and ensure trainings are conducted on the schedule provided in the Pollution Prevention/Good Housekeeping for Municipal Operations Training Plan.



5.0 Compliance with Total Maximum Daily Load (TMDL) Special Conditions

DEQ evaluates Virginia waterbodies (i.e., streams, reservoirs and estuaries) on a biennial basis as part of the 305(b)/303(d) Water Quality Assessment process. Individual waterbodies are categorized based on whether they meet the State-adopted water quality standards. Those that do not meet the water quality standards are considered impaired. A subset of the impaired waterbodies undergoes a more thorough evaluation involving long-term monitoring and computer modeling known as a TMDL study. Each TMDL study identifies source (pollutant) causing the waterbody impairment and calculates the maximum pollutant load that can be introduced into the waterbody without causing the impairment. The allowable pollutant load is then divided up between non-regulated non-point dischargers such as undeveloped lands and agriculture and regulated point source discharges, including MS4s. The MS4 General Permit Part II Special Conditions are applicable to MS4s when and where TMDLs have allocated a pollutant load (wasteload) to the specific MS4 discharge. The City is required to address applicable MS4 General Permit Special Permit Conditions through development and implementation of action plans for each applicable TMDL. TMDL action plans identify the means and methods that the City will utilize to meet the Special Conditions pertaining to the pollutant load. DEQ has developed the following TMDLs, which require the City to develop and implement TMDL action plans:

- Chesapeake Bay TMDL for Nitrogen, Phosphorus and Sediment;
- Fecal Coliform TMDL for Four Mile Run and Holmes Run Watershed;
- Fecal Coliform TMDL for Hunting Creek, Cameron Run, and Holmes Run Watersheds; and
- Polychlorinated Biphenyl (PCB) TMDL Action Plan for Four Mile Run.

The following TMDL action plans further describe the City's initiatives for complying with the applicable MS4 General Permit Special Conditions.

5.1 Chesapeake Bay TMDL for Nitrogen, Phosphorus and Sediment

The City operates an MS4 in the Potomac River which is a tributary to the Chesapeake Bay. As such, the MS4 General Permit Part II A, Chesapeake Bay TMDL Special Condition (CB Special Condition), is applicable to the City's MS4 discharges. The CB Special Condition requires that the City develop and maintain a Chesapeake Bay TMDL Action Plan that addresses nitrogen, phosphorus and sediment (i.e., pollutants of concern or POCs) from the following:

- Transitional Sources
- New Sources
- Nutrient Application on City Facilities
- Existing Sources

5.1.1 Selected City BMPs and Strategies

The City will rely upon a combination of BMPs and strategies implemented to address the six (6) MCMs discussed in Section 4 and additional BMPs and strategies described in its Chesapeake Bay TMDL Action Plan.

5.1.1.1 Control of POCs from Transitional Sources

The City will control POC from transitional sources through the implementation of its local VESCP and VSMP consistent with State law and regulation as described in Section 4. The roles, responsibilities, schedules, compliance requirements and referenced materials and documents described in Section 4 remain applicable.



5.1.1.2 Control of POC from New Sources

The City will control POCs from new sources through the implementation of its local VSMP consistent with State law and regulation as described in Section 4.5. The roles, responsibilities, schedules, compliance requirements and referenced materials and documents described in Section 4.5.2 remain applicable.

5.1.1.3 Control of POC from Nutrient Application on City Facilities

The City will control POCs from transitional sources through the implementation of the nutrient management plans identified in Section 4.6. The roles, responsibilities, schedules, compliance requirements and referenced materials and documents described in Section 4.6 remain applicable.

5.1.1.4 Control of POC from Existing Sources

The City will control POCs from existing sources through the implementation of its most current Phase II Chesapeake Bay TMDL Action Plan.

5.1.2 Reference Materials and Documents

The most recent versions of City of Falls Church Phase II Chesapeake Bay TMDL Action Plan is available in the Reference Library.

5.1.3 Compliance Dates/Schedules

The compliance dates/schedules required to be met during the MS4 General Permit reporting cycle regarding the Chesapeake Bay TMDL Special Condition are contained in the following table.

Due Date	Compliance Dates/Schedule
Prior to 10/30/19	Provide an opportunity for the public to comment on the additional BMPs proposed to meet the required POC reductions for no less than 15-days.
10/30/19	Submit an updated Phase II Chesapeake Bay TMDL Action Plan.
10/30/23	Reduce the POC load from Existing Sources served by the City MS4 within the 2010 UA by at least 40% of the L2 Scoping Run (Defined in the Phase II TMDL Chesapeake Bay Action Plan).
10/30/23	Offset 40% of the increased POC loads from new sources that initiated construction between July 1, 2009 and June 30, 2014 that resulted in a land disturbance one acre or greater and the resulting phosphorus load was greater than 0.45 lb./acre/year.
10/30/23	Offset the increased POC loads from new sources that initiated construction after July 1, 2014 that resulted in a land disturbance one acre or greater and the resulting phosphorus load was greater than 0.45 lb./acre/year.

5.1.4 Annual Reporting Requirements

Items regarding the Chesapeake Bay TMDL Action Plan implementation that are required to be included in the City's MS4 Annual Report submitted to DEQ are contained in the following table.

Annual Reporting Items Required for Chesapeake Bay TMDL Action Plan
A list of BMPs implemented during the reporting period but not reported to the DEQ BMP warehouse as part of VSMP implementation.
If credits were obtained, a statement that credits were acquired during the reporting period to meet all or a portion of the required POC reductions identified in the Phase II Chesapeake Bay Action Plan.
The progress, using the final design efficiency of the BMPs, toward meeting the required cumulative reductions for each of the POC – nitrogen, phosphorus and sediment.
A list of BMPs that are planned to be implemented during the next reporting period.



5.2 Local TMDLs

Numerous receiving waters including stream, rivers, reservoirs and estuaries have been identified as impaired for not meeting its specified designated uses as specified in Virginia's Water Quality Standards. For many of the receiving waters that are considered impaired, DEQ has developed local TMDLs to restore and maintain water quality in order ensure that the specified designated uses are met. The MS4 General Permit has integrated the TMDL requirements into the Local TMDL Special Condition and are based upon the source of the local receiving water impairment and the TMDL publication date.

5.2.1 Local TMDLs Applicable to the City's MS4

For the City, the following three (3) applicable TMDLs for which it must comply with the MS4 General Permit Local TMDL Special Condition:

- Fecal Coliform TMDL (Total Maximum Daily Load) Development for Four Mile Run;
- Bacteria TMDLs for the Hunting Creek, Cameron Run, and Holmes Run Watersheds; and
- TMDLs of PCBs for Tidal Portions of the Potomac and Anacostia Rivers in the District of Columbia, Maryland, and Virginia.

5.2.1.1 *Bacteria TMDLs*

The City developed a Bacteria TMDL Action Plan, dated April 2, 2016 to address the Bacteria TMDL for both the Fecal Coliform TMDL for Four Mile Run and the Fecal Coliform TMDL for Hunting Creek, Cameron Run, and Holmes Run Watersheds. A copy of the approved TMDL Action Plan is available in the Reference Library.

The City is required to update the Bacteria TMDL Action Plan by May 1, 2020 to define the means and methods by which the City will comply with the Local TMDL Special Condition in the current MS4 General Permit. The updated Bacteria TMDL Action Plan will include the BMPs and strategies selected by the City, as well as identify the responsible Departments, necessary materials and documents, annual reporting requirements and other information necessary to comply with the Local TMDL Special Condition for bacteria. Upon development, the updated Bacteria TMDL Action Plan will be available in the Reference Library.

5.2.1.2 *TMDLs of PCBs for Tidal Portions of the Potomac and Anacostia Rivers in the District of Columbia, Maryland, and Virginia*

The City developed a PCB TMDL Action Plan, dated June 21, 2016 to address the PCB TMDL. The City is required to update the existing PCB TMDL Action Plan by May1, 2020 to define the means and methods by which the County will comply with the Local TMDL Special Condition. The PCB TMDL Action Plan will include the BMPs and strategies selected by the City, as well as identify the responsible departments, necessary materials and documents, annual reporting requirements and other information necessary to comply with the Local TMDL Special Condition for PCBs. Upon development, the updated PCB TMDL Action Plan will be available in the Reference Library.

5.2.2 Reference Materials and Documents

The most recent versions of the City of Falls Church Local TMDL Action Plans are available in the Reference Library.



5.2.3 Compliance Dates/Schedules

The compliance dates/schedules required to be met during the MS4 General Permit reporting cycle regarding the development and modification of Local TMDL Action Plans are contained in the following table.

Due Date	Compliance Dates/Schedule
5/1/2020	The City must update the previously approved Fecal Coliform TMDL for Four Mile Run and the Fecal Coliform TMDL for Hunting Creek, Cameron Run, and Holmes Run Watersheds to meet the conditions of the MS4 General Permit Local TMDL Special Condition. Prior to submission to DEQ, the County must provide a minimum of 15-days for the public to provide comment on the proposed TMDL Action Plan.
5/1/2020	The City must update the PCB TMDL Action Plan for the TMDLs of PCBs for Tidal Portions of the Potomac and Anacostia Rivers in the District of Columbia, Maryland, and Virginia to meet the conditions of the MS4 General Permit Local TMDL Special Condition. Prior to submission to DEQ, the County must provide a minimum of 15-days for the public to provide comment on the proposed TMDL Action Plan.

5.2.4 Annual Reporting Requirements

Items regarding Local TMDL Action Plan implementation that are required to be included in the City's MS4 Annual Report submitted to DEQ are contained in the following table.

Annual Reporting Items Required for Local TMDL Action Plans
A list of BMPs implemented during the reporting period but not reported to the DEQ BMP warehouse as part of VSMP implementation.



6.0 MS4 Program Plan Revisions

Revisions to the MS4 Program Plan are expected throughout the live of the MS4 General Permit as part of the iterative process to reduce pollutant loading and protect water quality to the MEP. The City must summarize revisions to the MS4 Program Plan as part of the MS4 Annual Report. The City must document modifications to the MS4 Program Plan in the table below.

Revision Date	Program Plan Section	Revision Description	Effective Date
05/01/2019	Entire Plan	Updated the MS4 Program Plan prepared for the 2013 MS4 General Permit to comply with the 2018 MS4 General Permit.	05/01/2019
06/12/2019	Appendix A	Updated Reference Library to include dates for appendices	06/12/2019



APPENDIX A
Reference Library



Reference Library

Document No.	Requirement	Document Name	Version	Expiration Date	Location
1	All MCMs	City Code of Ordinances, Chapters 4, 35, 42, and 48	01/28/2019	N/A	https://library.municode.com/va/falls_church/codes/code_of_ordinances
2	All MCMs	P4/Y1 MS4 Annual Report	TBD	N/A	https://www.fallschurchva.gov/262/Yearly-Permits
3	MCM #1	Public Education and Outreach Plan	05/27/2014 (Under Revision)	N/A	Reference Library
4	MCM #1	NVRC MOU	TBD		Reference Library
5	MCM #2	Public Involvement and Participation Procedures	Under Development	N/A	Reference Library
6	MCM #2	VPIS MOU	01/11/2018	N/A	Reference Library
7	MCM #2	City MS4/Stormwater Webpages	2/1/2019 (Regular Updates)	N/A	https://www.fallschurchva.gov/261/Municipal-Separate-Storm-Sewer-System-MS
8	MCM #3	City MS4 Map (Maintained in GIS)	07/01/2019	N/A	Reference Library
9	MCM #3	City MS4 Outfall Data Information Table	07/01/2019	N/A	Reference Library
10	MCM #3	2016 303(d)/305(b) List	03/6/2018	N/A	https://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/WaterQualityAssessments/2016305b303dIntegratedReport.aspx
11	MCM #3	Physical Interconnection Notification Letter - Fairfax County	03/30/2018	N/A	Reference Library
12	MCM #3	Physical Interconnection Notification Letter - Arlington County	03/30/2018	N/A	Reference Library
13	MCM #3	Physical Interconnection Notification Letter - VDOT	Under Development	N/A	Reference Library
14	MCM #3	Illicit Discharge Detection and Elimination (IDDE) Procedures	07/9/2015	N/A	Reference Library
15	MCM #3	Spill and Illicit	10/31/2015	N/A	Reference Library



Document No.	Requirement	Document Name	Version	Expiration Date	Location
		Discharge Response and Reporting SOP			
16	MCM #4 & 5	DEQ VSMP Approval Notification Letter	07/03/2014	N/A	Reference Library
17	MCM #4 & 5	City of Falls Church Local VSMP Application Package including Recordkeeping and Reporting Procedures	05/06/2015	N/A	Reference Library
18	MCM #4 & 5	VESCP and VSMP Inspection and Enforcement Records	Regular Updates	N/A	Reference Library
19	MCM #5	Stormwater Management (SWM) Facility Inspection Standard Operating Procedure (SOP) Manual	02/01/2016	N/A	Reference Library
20	MCM #5	Stormwater Management (SWM) Facility Tracking Spreadsheet/Database	Regular Updates	N/A	Reference Library
21	MCM #6	Department of Public Works Operations Division Pollution Prevention/Good Housekeeping Standard Operating Procedures	06/19/2019	N/A	Reference Library
22	MCM #6	High Priority Facility Review	04/21/2014	N/A	Reference Library
23	MCM #6	Property Yard Complex and Remote Storage Area Stormwater Pollution Prevention Plan (SWPPP)	07/21/2017	N/A	Reference Library
24	MCM #6	Thomas Jefferson Elementary School (TJES) Nutrient Management Plan (NMP)	04/02/018	04/01/2021	Reference Library
25	MCM #6	George Mason High School (GMHS) Nutrient Management Plan (NMP)	06/15/2018	06/14/2021	Reference Library
26	MCM #6	Pollution Prevention /	Draft -	N/A	Reference Library



Document No.	Requirement	Document Name	Version	Expiration Date	Location
		Good Housekeeping for Municipal Operations Training Plan	06/04/2019		
27	MCM #6	DEQ E&SC and SWM Certifications	Multiple Certifications	N/A	Reference Library
28	CB TMDL - Special Condition	Chesapeake Bay TMDL	12/29/2010	N/A	https://www.epa.gov/chesapeake-bay-tmdl/chesapeake-bay-tmdl-document
29	CB TMDL - Special Condition	Phase I Chesapeake Bay TMDL Action Plan	07/27/2015	N/A	Reference Library
30	CB TMDL - Special Condition	Draft Phase II Chesapeake Bay TMDL Action Plan	06/01/2018	N/A	Reference Library
31	CB TMDL - Special Condition	Updated Phase II Chesapeake Bay TMDL Action Plan	Under Development	N/A	Reference Library
32	Local TMDL - Special Condition 2	Fecal Coliform TMDL (Total Maximum Daily Load) Development for Four Mile Run	05/31/2002	N/A	Reference Library
33	Local TMDL - Special Condition 2	Bacteria TMDLs for the Hunting Creek, Cameron Run, and Holmes Run Watersheds	11/2/2010	N/A	Reference Library
34	Local TMDL - Special Condition 2	City of Falls Church, Virginia, Bacteria TMDL Action Plan	04/02/2016	N/A	Reference Library
35	Local TMDL - Special Condition 2	TMDLs of PCBs for Tidal Portions of the Potomac and Anacostia Rivers in the District of Columbia, Maryland, and Virginia	10/31/2007	N/A	Reference Library
36	Local TMDL - Special Condition 2	Falls Church PCB TMDL Action Plan	06/27/2016	N/A	Reference Library