



CITY OF FALLS CHURCH

September 30, 2016

Mr. Bryant Thomas
Regional Water Permits & Planning Manager
Virginia Department of Environmental Quality
Northern Regional Office
13901 Crown Court
Woodbridge, VA 22193

Subject: Small MS4 Program Plan – Annual Report – Program Year 3

Dear Mr. Thomas:

The City of Falls Church, Virginia is submitting the enclosed Annual Report for Program Year Three (PY3) in accordance with the Department of Environmental Quality approved MS4 Program Plan requirements dated July 1, 2013.

The City's PY3 Annual Report provides a summary of activities performed between July 1, 2015 and June 30, 2016, as required by the MS4 Program.

As the duly authorized representative for the City 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.

If you have any questions please feel free to contact me at (703) 248-5026 or by email at jwidstrom@fallschurchva.gov.

Sincerely,

A handwritten signature in cursive script that reads "Jason Widstrom".

Jason Widstrom, P.E.
Principal Engineer



Municipal Separate Storm Sewer System
Program Plan
Permit Number VAR040065

Annual Report
Permit Year Three

September 30, 2016

Performed for compliance with the
Authorization to Discharge Under the
Virginia Pollutant Discharge Elimination System
and the Virginia State Water Control Law
Clean Water Act

CITY OF FALLS CHURCH

CITY COUNCIL MEMBERS

David Tarter - Mayor
Marybeth Connelly
David F. Snyder
Phil Duncan
Karen Oliver
Dan Sze
Letty Hardi

CITY MANAGER

F. Wyatt Shields

REPORT PREPARED AND COMPILED BY:

DEPARTMENT OF PUBLIC WORKS
Jason Widstrom, Principal Engineer

CONTRIBUTING AGENCIES AND ORGANIZATIONS:

DEVELOPMENT SERVICES
RECREATION AND PARKS
OFFICE OF COMMUNICATIONS

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I. INTRODUCTION

On July 8, 2013, the City of Falls Church received authorization to operate its small municipal separate storm sewer system (MS4) under a Virginia Pollutant Discharge Elimination System (VPDES) general permit. The general permit, which expires June 30, 2018, requires the City to adhere to an approved MS4 Program Plan. The July 2013 authorization was based on a continuance of the City of Falls Church's 2012 MS4 Program Plan that was in compliance with prior Storm Water Management Program Permit Regulations. This report covers the requirements of that Program Plan, which was updated and included in the Permit Year 2 report.

The City of Falls Church is required to submit an annual report to remain in compliance with the VPDES general permit. The report describes the City's collective efforts in stormwater management and updates the progress toward meeting the Best Management Practices (BMPs) for each of the six Minimum Control Measures (MCM) identified in the City's MS4 Program Plan. Tasks required by the permit in Permit Year Three (PY3) and contained in this annual report are annotated with a BMP shown in italics, for example (*BMP A*), and each corresponds with the MS4 Program Plan. This report places an emphasis on the accomplishments made in PY3, other actions undertaken by the City to meet the stated goals, and a look forward to new general permit requirements. Supporting documentation is provided in the appendices.

II. ADMINISTRATION

The administration of the City's MS4 Program Plan is an important aspect of the plan itself. Throughout the life of the current permit, the plan will remain a dynamic document. The City will update and, where necessary, provide additional schedules to implement best management practices. The process is ongoing from one permit year to the next.

Roles and Responsibilities

There were no changes to the City's roles and responsibilities in PY3. The City will not be relying on another government entity to satisfy permit obligations.

III. PUBLIC EDUCATION AND OUTREACH (MCM#1)

Each year the City of Fall Church performs education and outreach activities related to stormwater and water quality. As part of the MS4 Program Plan our city distributes educational materials to the community and conducts outreach activities about the impacts of stormwater discharges on water bodies and the steps that the public can take to reduce pollutants in stormwater runoff. The

City's Public Education and Outreach Table included in Appendix A shows our current and future activities for the current permit cycle.

The City of Falls Church, Department of Public Works (DPW), working in partnership with the State, citizen volunteers, local/regional non-profit groups, and neighboring jurisdictions, has conducted a variety of education and outreach activities during PY3. Among these are the following:

Watershed and Floodplain Awareness Month – The City Mayor proclaimed May 2016 "Watershed Awareness Month". This year one of our stormwater engineers read an announcement outlining the importance of watershed protection and outlining various activities sponsored by the City in celebration of Watershed Awareness Month. Additionally, the City also proclaimed June 2-12, 2016 as Chesapeake Bay Awareness Week. The Mayor's proclamations are provided in Appendix B.

Local Newspapers (MCM#1 BMP A) – DPW staff placed three separate articles on watershed protection in the *Falls Church News-Press* (total circulation of 10,000 in the greater Falls Church area), in PY3. Each article is provided in Appendix A.

Northern Virginia Clean Water Partners (MCM#1 BMP B) – The City participated with other local jurisdictions as part of the Northern Virginia Clean Water Partners (NVCWP) to conduct a regional advertising campaign targeting the most prevalent and controllable forms of contamination in local waterways, including pet waste, household chemicals, and disposal of waste oil. The NVCWP funded an "Only Rain Down the Drain" advertising campaign through Comcast Spotlight and covered the topics of pet waste, lawn care, and auto care. Through this campaign the NVCWP commercial received 16,750,236 household impressions in PY3, resulting in more than 20% of our target audience being reached.

A copy of the NVCWP annual report can be found in Appendix A.

Stormwater Website (MCM#1 BMP C, BMP D) – In May of 2014 the City of Falls Church launched a brand new website. This allowed DPW and the Office of Communications staff to update and freshen up the stormwater webpages. The new webpages list information on stormwater pollution, stormwater projects, the MS4 program, the updated stormwater ordinance, and the Stormwater Utility Program. The stormwater section also has information about different BMPs and credit programs for the Stormwater Utility. Select material is provided in Spanish. All of the materials can be found using our shortcut link, <http://www.fallschurchva.gov/173/Stormwater>. We are still awaiting the page counts for PY3 and will report them when available.

Pet Waste Outreach (MCM#1 *BMP E*) – DPW developed a mailer specifically targeting pet owners to educate them on proper management of pet waste for the protection of water quality. It was mailed to all 728 citizens who hold a dog license. The same publication continued to be made available throughout City Hall and on the City's website in PY3. A copy of the mailer is included in Appendix A.

Citizen engagement (MCM#1 *BMP F*) – On May 7, 2014 the City's Request Tracker on the website enabled citizens with an opportunity to provide input on stormwater issues from flooding to illicit discharges. The system is easily accessible and frequently used by the public; however, only one citizen took advantage of it for stormwater related complaints in PY3. We typically get direct emails and phone calls from residents that view our website and get contact information. During PY3 we had 235 contacts specifically for stormwater related items logged in our database.

IV. PUBLIC INVOLVEMENT / PARTICIPATION (MCM#2)

The City promotes public involvement in stormwater related matters whenever possible, as it is viewed as another component of the City's education and outreach activities. Each year the City of Falls Church provides opportunities for the public to be involved with implementation of the stormwater management program and to report possible stormwater pollution incidents. Among these are the following:

City Council (MCM#2 *BMP A*) – In PY3 the City Council discussed stormwater funding and approval of contracts for stormwater projects during work sessions and regular meetings. Staff also provided an overall report on the progress of the stormwater management program and the stormwater utility fee. Additionally, the City Council proclaimed May 2016 Watershed and Floodplain Awareness Month and June 2-12, 2016 as Chesapeake Bay Awareness Week. A list of the City Council's meetings and above mentioned reports are provided in Appendix B.

Citizen engagement (MCM#2 *BMP B*) – On May 7, 2014 the City's Request Tracker on the website enabled citizens with an opportunity to provide input on stormwater issues from flooding to illicit discharges. The system is easily accessible and frequently used by the public; however, only one citizen took advantage of it for stormwater related complaints in PY3.

Environmental Services Council (ESC) (MCM#2 *BMP C*) – The ESC, a citizen advisory board to City Council, lists watershed quality as one of its primary areas of focus. The group continues to have the opportunity to comment on large development projects and to make recommendations for development concessions such as green roofs, water retention features, green space, and

landscaping improvements. The agendas for the one meeting held in PY3 that pertaining to the MS4 Program Plan is provided in Appendix B.

Habitat restoration (MCM#2 *BMP D*) – The Falls Church Habitat Restoration Team, a subgroup of the ESC, along with the City’s Urban Forestry Division hosted six habitat restoration events in PY3. The volunteers engaged in removing non-native invasive plants as well as planting native plants. The task group also hosted a native plant sale to promote the importance of planting native trees and shrubs. Approximately 6,800 square feet of invasive species (English Ivy, Bush Honeysuckle, Wineberry, Multi-flora Rose, Garlic Mustard, and Bamboo) were removed across four City parks. We also restored 12,000 sq.ft. of park by planting 919 herbaceous and 313 woody plants in Howard E. Herman Stream Valley Park

Neighborhood Tree Program (NTP) (MCM#2 *BMP E*) – The NTP was initiated by the Village Preservation and Improvement Society (VPIS) in 2000 as a response to the decreasing number of City street trees. The 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 in the City. In PY3 the City continued to support the program financially and promote NTP events using staff time and resources, which resulted in the NTP engaging approximately 50 volunteers and planting 54 trees.

Promote city-wide clean-up events (MCM#2 *BMP F*) – Each year the City holds two clean-up events (Fall 2015 and Spring 2016). In PY3 the City had 82 volunteers (40 in the fall, 42 in the spring) that picked up a total of 24 bags of recyclables and 46 bags of trash. More information on the City’s program can be found here:

<http://www.fallschurchva.gov/940/Environmental-Volunteer-Opportunities>

Provide MS4 Plan on City website and in hard copy at City Hall (MCM#2 *BMP G*) – The latest versions of the MS4 Program Plan and annual reports can be found online:

<http://www.fallschurchva.gov/262/Yearly-Permits>

Public Education and Outreach Plan (MCM#2 *BMP H*) – The City’s Public Education and Outreach Table is included in Appendix B. The table shows our current and future activities for the current permit cycle. The City’s goal is to reach 20% of the population. In PY3, the City was most successful with its advertising in the local paper and through the Northern Virginia Clean Waters Partners ad campaign.

Rain Barrel Workshops – In cooperation with Arlington County, Arlingtonians for a Clean Environment, Fairfax County, and Northern Virginia Soil and Water Conservation District, City of Alexandria, and the Reston Association, the City participated in several “Build-your-own” workshops and distribution events.

V. ILLICIT DISCHARGE DETECTION / ELIMINATION (MCM#3)

The City currently takes a proactive stance when dealing with illicit discharges. In PY1 the City adopted Chapter 35, Stormwater, which contains a section for the definition and enforcement of Illicit Discharges. The Code gives the City clear authority to investigate complaints and address issues quickly. In an effort to limit illicit discharges, each year the City of Falls Church proactively performs activities to target specific audiences. During PY3 the City did so in the following ways:

Citizen engagement (MCM#3 *BMP A*) – On May 7, 2014 the City’s Request Tracker on the website enabled citizens with an opportunity to provide input on stormwater issues from flooding to illicit discharges. The system is easily accessible and frequently used by the public; however, no citizens took advantage of it for stormwater related complaints in PY2.

Storm drain map updates (MCM#3 *BMP B*) – In PY1, the City continued to use the storm drain mapping provided by the United States Army Corps of Engineers, as noted in the last annual report. The map, which covers the entire city, exists in a GIS format created from a comprehensive physical survey of the City’s storm system. It identifies sub-drainage areas within the city limits that either drain into Tripp’s Run or Four Mile Run. As DPW staff performs general maintenance to the storm drainage system they are flagging inconsistencies in the mapping. Our engineering inspectors then locate the structures with a handheld GPS data collector that has sub-meter accuracy. No outfalls were added to our inventory in this permit cycle.

Notification of Interconnection (MCM#3 *BMP C*) – This was not performed in PY3 because there were no changes to outfalls in the City’s stormwater conveyance system.

IDDE Program (MCM#3 *BMP D*) – The City operates an Illicit Discharge Detection and Elimination (IDDE) Program. In PY1 the City began reviewing the document with an eye to comply with the new General Permit requirements. The City’s engineering consultant GKY and Associates found the document needed to be updated and recommended a complete revision to streamline it. In PY2 the IDDE Standard Operating Procedures Manual, or simply the IDDE Manual, was finalized as our main program document.

Outfall Screening (MCM#3 BMP D) – Each year DPW staff performs a streamwalk to locate, inspect and characterize the outfalls in the City's streams. The process was first performed in 2007 as a pilot program to monitor, investigate and correct illicit discharges in the City. The methodology used in the initial baseline and outlined in the manual, "Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments" by the Center for Watershed Protection (CWP), was used during the PY3 assessment.

31 outfalls were screened during dry weather. All outfalls with flow were screened for visual indicators, and those with flow for pH, temperature, and chlorine. The City acquired a Hach colorimeter for PY3 for use in chlorine testing.

As follow-up to our PY2 finding of outfall E2731 as suspect, the City identified several problems in that watershed during PY3. IDDE incidents 15_008, 15_009, and 15_010 are all upstream of outfall E2731. In PY2 a car wash operation at Enterprise Car Rental in this watershed was cited for illicit discharge but received a DEQ permit (#VAG750239), for that operation. The City again rated this outfall as suspect in PY3 and will continue to monitor upstream areas contributing to this outfall to further reduce possible illicit discharges.

Illicit discharge investigations were conducted on 16 occasions in PY3, up from 8 in PY2. This increase is in part due to a focus on residential construction sites as sources of illicit discharge. A summary of these investigations, including date of suspected discharge, how the investigation was resolved, the resolution, and the date closed is included in Appendix E.

Targeted Outreach (MCM#3 BMP E) – In PY3, DPW staff distributed a letter and poster to all local automotive businesses. The purpose was to educate them about possible/common sources of pollution stemming from the automotive industry. Included with the letter was a poster entitled "Good Cleaning Practices" along with a flier entitled "Stormwater Pollution Prevention" for each employee to read over. The flier was provided in both English and Spanish. Copies of the letter, poster and flier can be viewed in Appendix A.

Illicit Discharge Code (MCM#3 BMP F) – The new stormwater ordinance containing illicit discharges language was adopted on March 24, 2014. A copy of the ordinance was provided in the PY1 annual report. No update.

VI. CONSTRUCTION SITE STORMWATER RUNOFF CONTROL (MCM#4)

Erosion and Sediment Control Program (MCM#4 BMP A) – In January 2007, the Virginia Department of Conservation and Recreation (DCR) conducted a

review of the City's Erosion and Sediment Control (ESC) program to gauge compliance with Virginia DCR standards. The review found that the City met the minimum standards of effectiveness in controlling erosion, sediment deposition, and nonagricultural runoff and is "consistent" with Virginia Erosion and Sediment Control Law and Regulations.

In PY1, DEQ approved the City's Virginia Stormwater Management Program (VSMP). As part of the application process the City had to demonstrate different aspects of its program as it relates to this MCM. A copy of the VSMP application package can be made available if needed. By the end of PY4 the City intends on combining the elements of the construction site stormwater runoff control program, post-construction, and illicit discharge program into a single document called the Falls Church Stormwater Management Handbook.

In PY3, City staff oversaw 65 active construction sites with a land disturbance plans totaling 18.49 acres. 1391 inspections were logged in the Erosion and Sediment Control Inspection Database. The City provided 30 written warnings, and issued 6 Notices to Comply during the last year. Compliance was typically reached using verbal and written warnings. In PY3 City staff applied our fee structure to greater effect. Both Erosion and Sediment Control violations and Illicit Discharge fees were used as compliance tools. In total, 6 fees were issued for E&S violations or sediment-laden illicit discharge.

Construction site SOP (MCM#4 *BMP B*) – The City developed a Construction Site Stormwater Runoff Control Program Operating Procedure document in PY2. No change in PY3. The City will incorporate this document into a single document called the Falls Church Stormwater Management Handbook in PY4.

Citizen engagement (MCM#4 *BMP C*) – On May 7, 2014 the City's Request Tracker on the website enabled citizens with an opportunity to provide input on erosion and sediment control issues. The system is easily accessible and frequently used by the public; however, only one citizen took advantage of it for stormwater related complaints in PY3. We did however receive several emails and phone calls from residents concerning erosion and sediment control on single-family home construction sites.

VII. POST-CONSTRUCTION STORMWATER MANAGEMENT (MCM#5)

Chesapeake Bay Preservation Ordinance (MCM#5 *BMP A*) – The City of Falls Church continues to implement the provisions of the Chesapeake Bay Preservation Overlay District (CBPOD) Ordinance, specifically as they relate to the MS4 Program Plan post-construction stormwater management. The City also maintains a highly rated, consistent Chesapeake Bay Preservation

Ordinance as required under the Virginia Chesapeake Bay Preservation Area Designation and Management Regulations.

In 2014, DEQ approved the City's VSMP. As part of the application process the City had to demonstrate different aspects of its program as it relates to this MCM. By the end of PY4 the City intends on combining the elements of the construction site stormwater runoff control program, post-construction, and illicit discharge program into a single document called the Falls Church Stormwater Management Handbook.

Stormwater Facilities (MCM#5 *BMP B, C*) – The review process for new developments and redevelopments remains integrated into the building permit process and is permitted under the City's Stormwater Management Permit. A permit is required as part of a grading plan or a site plan when land disturbance exceeds 2,500 square feet or is located in the Resource Protection Area. Where required by City Code, stormwater Best Management Practice (BMP) facilities are installed and approved by City staff. Prior to construction, the City requires a signed and recorded maintenance agreement for these facilities. A Microsoft Access database is used to track pertinent information about these facilities, such as the type of facility, location, watershed, and area treated. A list of the new BMPs for PY3 are provided in Appendix D.

In PY3, City staff oversaw 33 new land disturbance plans totaling 6.11 acres. 17 new BMPs came online during PY3. 10 facilities treating 0.54 acres drain to Tripp's Run (PL-26) and 7 facilities treat 8.21 acres draining to Four Mile Run (PL-25).

Stormwater Facility Inspections (MCM#5 *BMP D, E*) – In PY3 the City continued inspections of stormwater BMP/facility assessments and enforcement actions. The inspection team, comprised of two City inspectors, conducted 102 BMP inspections during the past year. In PY3 the City inspected all City-owned and operated facilities, including those of Falls Church City Public Schools. A summary memo from the lead inspector is provided in Appendix E.

BMP Inspection Policies and Procedures (MCM#5 *BMP F*) – Efforts to revise the Stormwater Management Facility Inspection Standard Operating Procedure Manual are complete. The new manual, including template enforcement letters, was implemented in PY3. By the end of PY4 the City intends on merging this document with the Falls Church Stormwater Management Handbook.

VIII. POLLUTION PREVENTION / GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS (MCM#6)

The City continued to maintain and revise, as needed, the Operation and Maintenance Program in PY3. The ultimate goal of this program is to prevent/reduce pollutant runoff from municipal operations through education, specific training, and program analysis. The City performed the following activities in PY3 to achieve this goal:

Street Sweeping (MCM#6 BMP A) – The City continued its street-sweeping contract in PY3. Street sweeping was performed twice along streets in commercial and residential corridors as stipulated in the permit. The City also requested additional street sweeping on an as needed basis. Sweeping accounted for 227.5 tons of sediment and debris being removed from the streets. A copy of the City's street sweeping logs is provided in Appendix F.

Leaf Collection – The Operations Division vacuums leaves from all residential streets within the City each year, from mid-October to the end of December. This practice is a cost-effective way of removing organic material that may otherwise accumulate on streets and wash into the storm drain system. The collected leaves are ground into leaf mulch and delivered back to residents for use on their properties. The leaf mulch provides a beneficial way for residents to improve soil quality and reduce water use.

Training (MCM#6 BMP B) – Employees in the Engineering Division, Operations Division and Urban Forestry Division of Public Works and maintenance crews with Recreation and Parks received pollution prevention training in June of 2015. The topic this year was revised from operational activities to PCBs. This was done because it is part of the recently submitted TMDL Action Plan for PCBs. A slideshow was shown to staff and followed with discussion. The presentation and a list of attendees are provided in Appendix G.

Additionally, employees receive regular on-the-job training to prevent pollution or contamination from entering the storm water based on the job functions they are assigned. For example, crews responsible for sewer line breaks are trained to properly contain and cleanup the contaminated area.

The City has three employees trained to perform solid waste code inspections. These inspectors are responsible for the enforcement of the City's Solid Waste Code, Chapter 13. Operation's street crews and residents report potential code violations and inspectors are responsible for inspection, notifying the responsible party, and ensuring correction. A solid waste code log is used to track violations.

Fairfax County Health department is contracted by the City of Falls Church to respond to solid waste complaints that include a health component (such as rats or mosquitoes). The Arlington County Fire Department and the City of Falls Church Volunteer Fire Department respond to hazardous material spills.

A copy of the updated Training Schedule and Program is provided in Appendix G. A copy of training modules will follow in future annual reports as they are provided as part of the City's training program.

Facilities Assessment and SOPs (MCM#6 *BMP C, D, E*) – In PY1 the City investigated its facilities to document those considered high-priority as outlined by the new general permit. Our consultant identified two sites as potentially meeting the criteria: the City Property Yard and the City's Remote Storage Yard. The City's consultant GKY then further prepared a SWPPP for the two sites. A copy of the site visit report and draft SWPPP was provided in a previous report. No change.

In PY3, DPW staff continued implementing the recommendations from the SWPPP. At this time the City has a contract in place to construct a new 50'x60' Salt and Sand Shed before the first snow of 2016 winter.

(MCM#6 *BMP F, BMP G*) No updates were required for these items in PY3.