



# CITY OF FALLS CHURCH

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September 28, 2018

Anna M. Tuthill  
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 – Permit 3/Program Year 5

Dear Ms. Tuthill:

The City of Falls Church, Virginia is submitting the enclosed Annual Report for Permit 3/Program Year 5 (P3/Y5) in accordance with the Virginia Department of Environmental Quality (DEQ) approved MS4 Program Plan requirements dated July 1, 2013.

The City's P3/Y5 Annual Report provides a summary of activities performed between July 1, 2017 and June 30, 2018, 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) 248-5331 or by email at [mwhitfield@fallschurchva.gov](mailto:mwhitfield@fallschurchva.gov).

Sincerely,

Michael J. Whitfield, CCM  
Director, Department of Public Works



Municipal Separate Storm Sewer System (MS4)  
Permit Number VAR040065

Permit Three/Year Five  
Annual Report

September 28, 2018

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

# CITY OF FALLS CHURCH

## CITY COUNCIL MEMBERS

David Tarter – Mayor  
Marybeth Connelly – Vice Mayor  
David F. Snyder  
Phil Duncan  
Dan Sze  
Letty Hardi  
Ross Litkenhous

## 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 (City) received authorization as an operator of a small municipal separate storm sewer system (MS4) to discharge to surface waters within the boundaries of the Commonwealth of Virginia under the Virginia Pollutant Discharge Elimination System (VPDES) MS4 General Permit (MS4 General Permit). The MS4 General Permit expired June 30, 2018, but was administratively continued by the Virginia Department of Environmental Quality (DEQ) until October 30, 2018. The MS4 General Permit requires the City to adhere to an approved MS4 Program Plan. This report covers the requirements of the City's MS4 Program Plan, which was most recently updated on October 1, 2017 and is included as Appendix A to this annual report.

This report is submitted by the City, Permit Number VAR040065, for the reporting period of July 1, 2017 – June 30, 2018 or Permit Three/Year Five (P3/Y5).

The City is required to submit an annual report to remain in compliance with the MS4 General Permit. This annual 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 (6) Minimum Control Measures (MCMs) identified in the City's 2017 MS4 Program Plan. Tasks required by the MS4 General Permit in P3/Y5 and contained in this annual report are annotated with a BMP shown in italics, for example (*BMP A*), and each corresponds to the MS4 Program Plan. This report places an emphasis on the accomplishments made in P3/Y5, 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.

On April 6, 2018, the City hosted Anna Tuthill from the DEQ Northern Regional Office for a MS4 General Permit compliance audit. The audit lasted one (1) full day. The purpose of the audit was to assess the City's compliance with the MS4 General Permit, the MS4 program developed and implemented to meet the requirements of that permit, and its effectiveness. The City received DEQ's Audit report on May 29, 2018 that summarized the City's performance during the audit. The Audit report provided one (1) Corrective Action which required the City to conduct an evaluation to determine if the ball fields at George Mason High School met the requirements for the development and implementation of a Nutrient Management Plan (NMP). An evaluation was completed and a NMP was developed by the City for the ball fields and the NMP was provided to DEQ. The Audit report also provided seven (7) recommendations. The City reviewed the recommendations and has implemented them where applicable.

## II. PROGRAM ADMINISTRATION

**Program Plan Updates (Program Administration *BMP A*)** – The administration of the City’s MS4 Program Plan is an important aspect of the plan itself. Throughout the life of the permit, the plan was a dynamic document and it will continue to be during the next permit cycle. The City updated and, where necessary, provided additional schedules to implement BMPs. The process was ongoing from one permit year to the next. To that extent, the City updated the MS4 Program Plan for P3/Y5 to include TMDL action plan implementation. The most recent MS4 Program Plan Amended October 1, 2017) is provided in Appendix A. The City will continue to implement the P3/Y5 MS4 Program Plan until the plan is updated in accordance with the reissued permit that becomes effective on November 1, 2018. The reissued permit requires that the City update the MS4 Program Plan within six (6) months of the effective date.

**Total Maximum Daily Load (TMDL) Action Plan Implementation (Program Administration *BMP B*)** – The City is subject to the Chesapeake Bay TMDL and three (3) local TMDLs as outlined below:

- PCB TMDL for the Potomac River;
- Fecal Coliform TMDL for Four Mile Run Watershed; and
- Fecal Coliform TMDL for Hunting Creek, Cameron Run, and Holmes Run Watersheds.

### ***Chesapeake Bay TMDL***

As required by Section I C of the MS4 General Permit, the P3/Y2 Annual Report included a Chesapeake Bay TMDL Action Plan for the City of Falls Church. The TMDL Action Plan outlines how the City will achieve the first 5-year milestone of 5% reduction in Pollutants of Concern (POCs).

### **P3/Y5 (FY18) Accomplishments**

During the P3/Y5 (FY18) reporting period, the City continued to address required POC reductions in response to the Chesapeake Bay TMDL for Nitrogen, Phosphorus and Sediment as follows:

- Continued implementation of its VESCP to address POC loads from Transitional Sources;
- Continued implementation of its VSMP to address POC loads from New Sources;
- Continued implementation of its Thomas Jefferson Elementary School NMP for 1.299 acres;
- Developed and initiated implementation of its George Mason High School NMP for 4.94 acres; and

- Initiated a study to determine the potential for creating public/private partnerships with non-profit organizations to implement stormwater management on their properties.

Because of the City's pollutant reduction efforts in previous reporting periods, POC loads to the Chesapeake Bay exceeded the 5% reduction requirement by 236.35 lbs. of nitrogen, 130.97 lbs. of phosphorus, and 76,653.49 lbs. of sediment for the P3/Y5 (FY18) reporting period.

### **P4Y1 (FY19) Proposed Activities**

The City proposes to implement the following during the P4/Y1 (FY19) reporting period:

- Continued implementation of its VESCP;
- Continued implementation of its VSMP program;
- Completion of the study to determine the potential for creating public/private partnerships with non-profit organizations to implement stormwater management on their properties;
- Evaluation of four (four) City-owned properties for potential stormwater retrofit opportunities; and
- Evaluation and update of the Chesapeake Bay TMDL Action Plan in a manner compliant with the 2018 MS4 General Permit (P4).

### ***Local TMDL Action Plans***

In response to the two (2) local TMDLs provided above, the City has prepared the following local TMDL Actions Plans:

- Polychlorinated Biphenyl (PCB) TMDL Action Plan for Four Mile Run; and
- Bacteria TMDL Action Plan for the Four Mile Run Watershed and the Holmes Run Watershed. Note: This Bacteria TMDL Action Plan addresses both the Four Mile Run Bacteria TMDL and the Holmes Run Bacteria TMDL.

### **Polychlorinated Biphenyl (PCB) TMDL Action Plan for Four Mile Run**

For the PCB TMDL Action Plan, the City conducted a desktop evaluation of all City owned or operated property within the area subject to this action plan to ascertain whether there are potentially significant sources of PCBs; however, it was concluded that the City does not own or operate any properties that represent a potentially significant source of PCBs.

**P3/Y5 (FY18) Accomplishments**

During the P3/Y5 (FY18) reporting period, the City maintained PCB awareness in its employee training materials. Information specific to employee training can be found in MCM 6 BMP discussions.

**P4/Y1 (FY19) Proposed Activities**

The City proposes to implement the following during the P4/Y1 (FY19) reporting period:

- Continued implementation of its employee training program; and
- Evaluation and update of PCB TMDL for the Potomac River Action Plan in a manner compliant with the 2018 MS4 General Permit (P4).

**Bacteria TMDL Action Plan for the Four Mile Run Watershed and the Holmes Run Watershed****P3/Y5 (FY18) Accomplishments**

The Bacteria TMDLs for Hunting Creek, Cameron Run and Holmes Run Watersheds states that there are no known septic tanks in the City of Falls Church. As such, bacteria contributions from human sources are currently being managed. To minimize contribution from the City's approximately 47-miles of sanitary sewer system, the City's Public Works Department maintains an annual sewer maintenance program. The Public Works Department also implements a capital improvement program designed to ensure that approximately three (3) miles of sanitary sewer are rehabilitated annually using Cured-In-Place Pipe methods. These pollutant reduction activities represent a significant effort by the City to reduce bacteria discharges to receiving waters that are outside of the City MS4 program.

To further reduce the City's bacterial contribution to the impaired waters identified in the two (2) TMDLs, the City also:

- Maintained Section 4.41 of the City Code which requires immediate removal of dog excrement from any property other than the dog owner's property;
- Maintained a web page for submitting concerns regarding storm sewer issues and illicit discharges;
- Continued membership in the Northern Virginia Clean Water Partners program to provide an enhanced regional outreach program that includes pet waste management; and,
- Continued its illicit discharge detection and elimination program.

Specifics regarding specific pollutant reduction activities are discussed with the appropriate BMP included in the Annual Report.

#### **P4/Y1 (FY19) Proposed Activities**

The City proposes to implement the following during the P4/Y1 (FY19) reporting period:

- Continued prohibition of allowing dog excrement to remain on public and private properties (other than the dog owner's property);
- Continued implementation of its illicit discharge detection and elimination program;
- Continued implementation of its public outreach program; and,
- Evaluation and update of both the Fecal Coliform TMDL Development for Four Mile Run, Virginia and the Bacteria TMDLs for Hunting Creek, Cameron Run, and Holmes Run Watersheds in a manner compliant with the 2018 MS4 General Permit (P4).

#### ***Roles and Responsibilities***

There were no changes to the City's roles and responsibilities in P3/Y5. The City does not rely on any other government entities to satisfy permit obligations.

### **III. PUBLIC EDUCATION AND OUTREACH (MCM#1)**

Each year the City 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. Public education and outreach activities conducted in P3/Y5 were based upon the three (3) high-priority water quality issues outlined in the City's Public Education Outreach Table: bacteria, illicit discharge, and household waste. The City's Education and Outreach Table, included in Appendix B, also shows which high-priority water quality issue each activity addresses.

The City's 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 P3/Y5. Among these are the following:

Watershed and Floodplain Awareness Month – The City's Mayor proclaimed May 2018 "Watershed Awareness Month". This year a stormwater engineer 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 April 22, 2018 as Earth Day and May 20 through 26, 2018 as Public Works Week for employees

whose vision is “working together to sustain and enhance our community’s infrastructure and provide a safe, green, and clean environment”. The Mayor’s proclamations are provided in Appendix C.

**Local Newspapers (MCM#1 BMP A)** – In P3/Y5, DPW staff placed four (4) articles on watershed protection in the *Falls Church News-Press* (total circulation of 10,000 in the greater Falls Church area).

- Summer Shutdown: How to Properly Drain Pool and Spa Water (September 2017);
- Scoop the Poop: A Homeowner’s Guide to a Healthy Watershed (June 2018);
- Greener Grass for the Lawn Care Enthusiast (June 2018); and
- Only Rain Down the Drain (June 2018).

In addition, the City published an article regarding the discharge of pool water around Labor Day (2017), early in the P3/Y5 schedule, to address a growing concern about closing pools at the end of the summer. All articles published in P3/Y5 are provided in Appendix B. A summary of the articles, including information regarding priority issue, audience, etc., is provided in the MS4 Permit Year 5 – Education and Outreach Table in Appendix B.

**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 42,768,486 household impressions in P3/Y5. The City estimates that 1% or 42,768 of these impressions targeted City residents resulting in more than 20% of our target audience being reached. A copy of the NVCWP Annual Report can be found in Appendix B.

**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 web pages. The new web pages 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 the materials can be found using our shortcut link, <http://www.fallschurchva.gov/173/Stormwater>. During P3/Y5, there were 712 page views to the English stormwater web page and 4,270 page views to the

Spanish stormwater web page (one of the top 20 viewed pages on the City's website overall last year).

**Pet Waste Outreach (MCM#1 BMP E)** – DPW developed a postcard specifically targeting pet owners to educate them on proper management of pet waste for the protection of water quality. It was mailed to approximately 1,300 citizens who hold a dog license. The same publication continued to be made available throughout City Hall and on the City's website in P3/Y5. A copy of the postcard is included in Appendix B.

**Citizen engagement (MCM#1 BMP F)** – Starting on May 7, 2014, a Request Tracker on the City's 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. Two (2) citizens took advantage of it for stormwater-related complaints in P3/Y5. We typically get direct emails and phone calls from residents that view our website and get contact information.

#### **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 the 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 P3/Y5 the City Council discussed stormwater funding and approval of contracts for stormwater projects during work sessions and regular meetings. The City Council also proclaimed May 2018 Watershed and Floodplain Awareness Month and April 22, 2018 as Earth Day and May 20 through 26, 2018 as Public Works Week. The approved proclamations are provided in Appendix C.

**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. Two (2) citizens took advantage of it for stormwater-related complaints in P3/Y5.

**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 agenda for the one (1) meeting held in P3/Y5 pertaining to the MS4 Program is provided in Appendix C.

**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 ten (10) habitat restoration events in P3/Y5. 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. 221 citizens spent over 500 hours participating in the habitat restoration events to remove invasive species (English Ivy, Japanese Honeysuckle, and Creeping Euonymus) within four (4) City parks. Over 3,500 plantings were installed. The flyers for these events are provided in Appendix C.

**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 P3/Y5 the City continued to support the program financially and promote NTP events using staff time and resources, which resulted in the NTP engaging approximately 55 volunteers and planting 39 trees. In addition, the NTP initiated an educational labeling effort which has resulted in the mounting of 350 or so labels on various tree species.

**Promote city-wide clean-up events (MCM#2 BMP F)** – Each year the City holds two (2) clean-up events. The events for P3/Y5 occurred in October 2017 and April 2018. In P3/Y5 the City had 166 volunteers (56 in the fall, 110 in the spring) that picked up a total of 54 bags of recyclables and trash. An example of the flyer can be found in Appendix C. More information on the City’s program can be found here:

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

The City discontinued the Recycling Extravaganza & Household Hazardous Waste Disposal Day as recycling is available at the City Yard year-round and heavily used.

**Provide MS4 Program 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 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 P3/Y5, the City was most successful with its advertising in the local paper and through the NVCWP ad campaign. A copy of the NVCWP annual report can be found in Appendix B.

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

The City currently takes a proactive stance when dealing with illicit discharges. In P3/Y1 the City adopted Code of Ordinance 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 proactively performs activities to target specific audiences. During P3/Y5 the City did so in the following ways:

**Citizen Engagement (MCM#3 BMP A)** – Starting on May 7, 2014, the Request Tracker on the City’s 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 illicit discharge-related complaints in P3/Y5.

**Storm Drain Map Updates (MCM#3 BMP B)** – In P3/Y1, 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.

The City did not make any changes to its outfall inventory in P3/Y5. All outfalls were screened during dry weather in P3/Y5. The complete MS4 Storm Sewer Map and the MS4 Outfall Data Table are provided in Appendix D.

**Notification of Interconnection (MCM#3 BMP C)** – The City contacted Arlington County and Fairfax County on March 30, 2018 notifying them of changes to outfalls in the City’s stormwater conveyance system that were identified in P3/Y4. A copy of the letter sent to both municipalities is provided in Appendix D.

**Illicit Discharge Detection and Elimination (IDDE) Program (MCM#3 BMP D)** – The City operates an Illicit Discharge Detection and Elimination (IDDE)

Program. Written procedures to detect, identify, and address unauthorized non-stormwater discharges are provided in the Illicit Discharge Detection and Elimination (IDDE) Standard Operating Procedures Manual (*Second Edition, January 2015*).

**Outfall Screening (MCM#3 BMP D)** – 50 outfalls were screened during dry weather in P3/Y5. All outfalls with flow were screened for visual indicators. If dry weather flow was observed, characteristics of the flow were noted, and water quality grab samples were collected to perform the following in-field analyses: temperature, conductivity, pH, turbidity, ammonia, and total chlorine. A summary of the outfall screening results is provided in Appendix E.

During outfall screening, outfalls were categorized as “illicit” if flow was present and there was visual evidence of illicit discharge. In P3/Y5, one (1) outfall was categorized as “illicit”, six (6) outfalls were categorized as “suspect”, and 43 outfalls were categorized as “clear”. Due to the timing of field data collection and annual reporting timeline, dry weather screening follow-up on the one (1) illicit and six (6) “suspect” outfalls will be completed and reported on in P3/Y5.

**Targeted Outreach (MCM#3 BMP E)** – In P3/Y5, DPW staff distributed a letter and poster to all twenty-one (21) 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 B.

**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 P3/Y1 annual report. No updates were made to the ordinance during P3/Y5.

## **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 (E&C) 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 P3/Y1, 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. The City previously reported that by the end of P3/Y5, the City intended on merging the elements of the construction site stormwater runoff control program, post-construction, and IDDE program into a single document called the Falls Church Stormwater Management Handbook. The creation of this document was delayed due to staff workload but is underway. The document should be complete by the effective date of the reissued MS4 General Permit (November 1, 2018).

In P3/Y5, City staff oversaw 54 active construction sites with land disturbance totaling 13.9 acres. 1,281 inspections were logged in the Erosion and Sediment Control Inspection Database. The City provided 64 written warnings and issued 31 Notices to Comply during the reporting period. Compliance was typically reached using verbal and written warnings. In total, three (3) 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 P3/Y2. No changes were made to this document in P3/Y5. The City is in the process of incorporating this document into a single document called the Falls Church Stormwater Management Handbook.

**Citizen Engagement (MCM#4 BMP C)** – Starting on May 7, 2014, the Request Tracker on the City’s 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, no citizens took advantage of it for E&S related complaints in P3/Y5.

## **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. The City was audited by DEQ in March 2017. A report detailing the results, dated October 2, 2017, was provided to the City. DEQ recommended that the City of Falls Church address the three (3) conditions contained in the report. The City is working with DEQ to address the recommendations. The City considers itself still in compliance with the 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. The City is in the process of merging 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 (RPA). Where required by City Code, stormwater 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 P3/Y5 is provided in Appendix F.

In P3/Y5, City staff oversaw 54 new land disturbance plans totaling 13.9 acres. Six (6) new BMPs came online during P3/Y5. Both facilities drain to Tripp’s Run (PL-26) and treat a total of 0.77 acres.

Due to the small size of the development/redevelopment projects within the City, many developers and owners choose to purchase nutrient credits to satisfy runoff reduction requirements.

**Stormwater Facility Inspections (MCM#5 BMP D, E)** – In P3/Y5 the City continued inspections of stormwater BMP/facility assessments and enforcement actions. During P3/Y5, the City inspected 44 privately-owned BMPs and 20 City-owned BMPs including those of Falls Church City Public Schools. Nine (9) of the City’s BMPs were not inspected as the BMPs are expected to be removed from the City’s inventory due to redevelopment of the site. A summary of the BMP inspections is provided in Appendix G.

Due to the timing of field inspections and annual reporting timeline, BMP follow-up and maintenance will be completed and reported in P3/Y5.

The City intends on continuing to bolster follow-up efforts on issues identified during inspections in future permit years.

**BMP Inspection Policies and Procedures (MCM#5 BMP F)** – Written procedures for BMP inspection policies and procedures, including template enforcement letters, are provided in the Stormwater Management (SWM) Facility Inspection Standard Operating Procedure (SOP) Manual (*February 2016*). The City is in the process of 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 P3/Y5. 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 P3/Y5 to achieve this goal:

**Street Sweeping (MCM#6 BMP A)** – The City continued its street-sweeping contract in P3/Y5. 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 records are available upon request.

**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)** – The City provides annual training on pollution prevention and good housekeeping topics in accordance with the City's Training Schedule and Program.

In P3/Y5, City employees in the Development Services and Public Works received pollution prevention training on June 28, 2018. The topics covered during the P3/Y5 training were Land Disturbance and Erosion & Sediment Control. A slideshow was shown to staff and followed with discussion. The presentation and a list of attendees are provided in Appendix H.

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

Solid waste code inspections and enforcement are conducted by the solid waste coordinator. The coordinator is responsible for the enforcement of the City's Solid Waste Code, Chapter 34. 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.

**Facilities Assessment and SOPs (MCM#6 BMP C, D, E)** – In P3/Y1 the City investigated its facilities to document those considered high-priority as outlined by the new general permit. Two (2) facilities, the City Property Yard and the City's Remote Storage Yard, were determined to meet the definition of a high priority municipal facility requiring a Stormwater Pollution Prevention Plan (SWPPP). A draft SWPPP was prepared in P3/Y1. In P3/Y4, the SWPPP was updated to include new development (e.g., the 50'x60' Salt and Sand Shed). No updates were required in P3/Y5 and the SWPPP is fully implemented. A copy of the SWPPP is housed on-site at the City Property Yard.

**(MCM#6 BMP F)** – In P3/Y1 the City investigated sites for the need of a nutrient management plan (NMP). Only one (1) site, Thomas Jefferson Elementary School (TJES) with 3.1 acres of managed turf, required a NMP based on the conditions outlined in the MS4 General Permit. A draft NMP for TJES and a NMP SOP was developed in P3/Y1.

The City began coordination with Falls Church City Public Schools and Recreation and Parks in P3/Y4 for NMP implementation. An update to the NMP was completed in P3/Y5 with full implementation. In addition, an evaluation of the ball fields at George Mason High School was conducted to determine if a NMP was required. Subsequently, the City prepared a NMP for the fields and initiated implementation of the plan.

**(MCM#6 BMP G)** – SOPs for the reduction of potential stormwater pollution and proper waste materials for City facility were developed in P3/Y1. No updates were required for these SOPs in P3/Y5.

## **IX. SUMMARY OF ACTIVITIES PLANNED FOR PERMIT YEAR**

During P4/Y1, the City will continue to implement the activities identified in the current MS4 Program Plan, relating to public outreach and participation, public involvement, IDDE, construction site stormwater runoff control, post-construction stormwater management, good housekeeping for municipal operations, and TMDL specific projects. Within six (6) months after the

effective date of the new permit (November 1, 2018), the City will update the MS4 Program Plan to meet the requirements of the reissued permit.

**X. RESULTS OF INFORMATION COLLECTED AND ANALYZED**

There are currently no requirements for monitoring or data analysis in the MS4 General Permit; therefore, no additional information outside the normal outfall investigations and IDDE response operations was performed in P3/Y5.

APPENDIX A – MS4 Program Plan (Amended October 1, 2017)



**Virginia Stormwater Management Program MS4 Program Plan  
City of Falls Church, Virginia  
July 1, 2013  
Amended October 1, 2017**

**Introduction**

On July 1, 2013, the City of Falls Church was granted coverage under Virginia's General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s) through the acceptance of the City's Registration Statement and accompanying stormwater management plan by the Virginia Department of Environmental Quality. The City's current Program Plan was initially an extension of the July 2009 Program Plan but has been updated to meet the scheduled requirements in Table 1 of 9VAC25-890-40. The current General Permit is set to expire on June 30, 2018.

The General Permit requires the City to address six minimum control measures designed to ensure the elimination of stormwater pollution to the maximum extent practicable (MEP). The six minimum control measures include:

- ◆ Public Education and Outreach on Stormwater Impacts;
- ◆ Public Involvement/Participation;
- ◆ Illicit Discharge Detection and Elimination;
- ◆ Construction Site Stormwater Runoff Control;
- ◆ Post-Construction Stormwater Management in New Development and Redevelopment; and
- ◆ Pollution Prevention/Good Housekeeping for Municipal Operations.

The City's approved plan addresses the six minimum control measures, as required, with a series of best management practices (BMPs), along with implementation timelines, measurable goals, responsible entity(ies) for implementation, and reporting requirements. Over past permit years, the City has successfully implemented numerous BMPs as part of its ongoing stormwater management program, as documented in the annual reports submitted to the permitting authorities.

This document represents the City's plan to comply with existing requirements and the required updates listed in 9VAC25-890-40 and are being submitted with the City's Annual Report for continued coverage under the current General Permit.

For each minimum control measure, the City has identified a series of BMPs, including the necessary documents, responsible party(ies), the objective/expected results, measurable goals, schedules and timelines for implementation, and the method utilized to determine the BMP's effectiveness. This document is organized into seven sections corresponding to the requirements for submission. The first section details the administrative BMPs of reevaluating the program once the reissued General Permit becomes effective. The next six sections describe the BMP regimen for each of the six minimum control measures.

## Program Administration

The City of Falls Church, Virginia (the City) will update and where necessary provide additional schedules to implement its MS4 Program and MS4 Program Plan including its best management practices (BMPs) and measurable goals in order to meet any new requirements included in the new General Permit for Discharges from Small Municipal Separate Storm Sewer Systems.

The City defines its MS4 Program Plan as its Registration Statement for Coverage under the General Permit for Discharges from Small Municipal Separate Storm Sewer Systems, approved by DEQ on July 1, 2013 and all documents, policies, procedures specified directly and those documents, policies, procedures necessary to implement all specified programs listed in the registration statement. The City realizes this is an ongoing process that must be evaluated and maintained throughout the permit cycle.

**BMP A.** Update the City's MS4 Program Plan and prepare annual reports for submittal as required.

**Necessary Documents:** Updated Copy of this MS4 Program Plan, Annual Reports

**Responsible Party:** The City's MS4 Program is administered through the Department of Public Works. The Director is responsible for developing the updated MS4 Program Plan.

**Objective/Expected Results:** To maintain a consistent, compliant, and effective MS4 stormwater management program that considers the City's stormwater quality, level of service to City residents and businesses, and adheres to the City's environmental expectations.

**Measurable Goals:**

1. Annually review the MS4 Program Plan for program compliance and appropriateness of BMPs. Update as needed.
2. Submit an updated copy of this MS4 Program Plan to the Virginia Department of Environmental Quality (DEQ) in compliance with the schedule included in the General Permit.
3. Submit an annual report for the reporting period of July 1 through June 30 to DEQ by the following October 1. Each report shall include updates to the MS4 Program Plan completed during the reporting cycle.
4. Maintain records of documents pertaining to MS4 Program Plans for at least three years. Copies of such records will be made available to the public upon specific request. A copy of the most current MS4 Plan and supplemental annual reports will be posted on the City's website.

**Schedule and Evaluation:** Ongoing

**Items Needed for the Annual Report:**

1. Summary cover letter discussing current status of MS4 Program and, if needed, modifications to the MS4 Program Plan as required
2. Updated MS4 Program Plan, if needed

**Method Utilized to Determine Effectiveness:** Effectiveness will be determined by the outcomes of the assessment and the diagnosis of any gaps in the City's MS4 program as a result of annual self-evaluation. The City will also rely on Virginia DEQ review and approval of the MS4 Annual Report for feedback and confirmation of the City's intended actions in support of its MS4 Program Plan. In addition, the City will assess citizen feedback on its stormwater management program to determine whether the program is achieving what the City has proposed based on the BMP menu in the MS4 Program Plan.

**BMP B.** Implement applicable Total Maximum Daily Load (TMDL) action plans.

**Necessary Documents:** Updated TMDL action plans.

1. Chesapeake Bay TMDL Action Plan.
2. Polychlorinated Biphenyl (PCB) TMDL Action Plan for Four Mile Run.
3. Bacteria TMDL Action Plan for the Four Mile Run Watershed and the Holmes Run Watershed.

**Responsible Party:** TMDL action plan implementation is administered through the Department of Public Works. The Director is responsible for developing the updated TMDL action plans.

**Objective/Expected Results:** To maintain compliance with the TMDL action plans.

**Measurable Goals:**

1. Annually review TMDL action plan progress for program compliance and appropriateness of BMPs. Update as needed.

2. Submit any updates of the action plans to DEQ in compliance with the schedule included in the General Permit.
3. Submit information in the annual report for the reporting period of July 1 through June 30 to DEQ by the following October 1. Each report shall include updates to the progress made in action plan implementation during the reporting cycle.
4. Maintain records of documents pertaining to MS4 action plans for at least three years. Copies of such records will be made available to the public upon specific request.

**Schedule and Evaluation:** Ongoing

**Items Needed for the Annual Report:**

1. Discussion of current status of action plan implementation and, if needed, modifications to the TMDL action plans as required.
2. Updated TMDL action plans, if needed.

**Method Utilized to Determine Effectiveness:** Effectiveness will be determined by evaluating the reduction in pollutants identified in the wasteload allocations as described in TMDL action plans.

<h2>MCM#1: Public Education and Outreach on Stormwater Impacts</h2>
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**BMP A.** Draft and publish stormwater management/water quality-related articles in the Falls Church News-Press or locally distributed publication, with at least one article covering the hazards associated with illegal discharges, improper disposal of pet waste, and one article encouraging stormwater retrofits.

**Necessary Documents:** Articles for publication

**Responsible Party:** Department of Public Works

**Objective/Expected Results:** To inform the City's citizens and businesses on stormwater management/water quality issues and provide options demonstrating steps they can take to improve water quality in the City via print media.

**Schedule and Evaluation:** Beginning in PY1, the City of Falls Church will draft seasonal articles on water quality and/or stormwater management for publication in the Falls Church News-Press or locally distributed publication. The topics of these articles will track with the City's three high-priority water quality issue and may change as the City continues to evaluate topics and effectiveness.

**Measurable Goals:** In each permit year, the City will draft at least three articles for publication in the Falls Church News-Press or locally distributed publication.

**Items to be reported in annual report:** Title and subject of the articles published, including date of publication, the estimated number people reached, and an estimated percentage of the target audience reached to be included in an updated Education and Outreach Table.

**Method Utilized to Determine Effectiveness:** The City will track the distribution of the print media messages (i.e. document which articles ran in which publications and when) and document any noted changes recognizable inside the context of the MS4 program.

**BMP B.** Participate in the Northern Virginia Clean Water Partners (NVCWP) advertising campaign.

**Necessary Documents:** None.

**Responsible Party:** Department of Public Works

**Objective/Expected Results:** To inform the City's residents on stormwater management/water quality issues and provide options demonstrating steps they can take to improve water quality via cable television ads, promotional items, a website (onlyrain.org), print materials, and internet banner ads.

**Schedule and Evaluation:** Beginning in PY3, the City of Falls Church will participate in the campaign.

**Measurable Goals:** In each permit year, the City will provide funding for the ad campaign.

**Items to be reported in annual report:** Copy of the NVCWP Annual Report.

**Method Utilized to Determine Effectiveness:** The NVCWP performs an analysis on effectiveness of the campaign as part of the program.

**BMP C.** The City of Falls Church will post downloadable stormwater management and water quality information on the City's Internet web site (<http://www.fallschurchva.gov>). A priority will be given to the development and posting of materials with specifically targeted messages.

**Necessary Documents:** None.

**Responsible Party:** Department of Public Works, Engineering Division

**Objective/Expected Results:** To inform the City's constituents on stormwater management/water quality issues and provide options demonstrating steps they can take to improve water quality in the City via Internet media.

**Schedule and Evaluation:** Beginning PY1, ongoing through the permit period.

**Measurable Goals:** By the end of PY1, the City will have posted downloadable information on stormwater management and water quality on the City's Internet web site.

**Items to be reported in annual report:** Roster of materials posted, the number of website views, and an estimated percentage of the target audience reached to be included in an updated Education and Outreach Table.

**Method Utilized to Determine Effectiveness:** The City will develop targeted messages to address particular pollutants of concern or groups/industries whose activities/behavior may hinder surface water quality. The City will track the distribution of the messages (i.e. document web hits) and document any noted changes recognizable inside the context of the MS4 program.

**BMP D.** In conjunction with BMP C above, the City of Falls Church will include stormwater management and water quality information on the City's Internet web site (<http://www.fallschurchva.gov>) in a second language. A priority will be given to the development and posting of materials with specifically targeted messages.

**Necessary Documents:** None.

**Responsible Party:** Department of Public Works, Engineering Division

**Objective/Expected Results:** To inform the City's constituents on stormwater management/water quality issues and provide options demonstrating steps they can take to improve water quality in the City via Internet media.

**Schedule and Evaluation:** Beginning PY1, ongoing through the permit period.

**Measurable Goals:** By the end of PY1, the City will have developed and posted downloadable information on stormwater management and water quality on the City's Internet web site in a second language.

**Items to be reported in annual report:** Roster of materials posted, the number of website views, and an estimated percentage of the target audience reached to be included in an updated Education and Outreach Table.

**Method Utilized to Determine Effectiveness:** The City will develop targeted messages to address particular pollutants of concern or groups/industries whose activities/behavior may hinder surface water quality. The City will track the distribution of the messages (i.e. document web hits) and document any noted changes recognizable inside the context of the MS4 program.

**BMP E.** The City will develop targeted outreach material for pet owners on proper management of pet waste for the protection of water quality.

**Necessary Documents:** Document for publication

**Responsible Party:** Department of Public Works

**Objective/Expected Results:** To inform the City's pet owners on stormwater management/water quality issues and provide options demonstrating steps they can take to improve water quality in the City.

**Schedule and Evaluation:** Beginning in PY1, the City of Falls Church will develop one brochure for pet owners on proper management of pet waste for the protection of water quality and provide this material in both print and electronic format for posting to the City's Internet web site.

**Measurable Goals:** Develop and publish one brochure for pet owners on proper management of pet waste for the protection of water quality annually.

**Items to be reported in annual report:** Title of the brochure published, including date of publication, number of residents materials mailed to, and the percentage of the target audience reached to be included in an updated Education and Outreach Table.

**Method Utilized to Determine Effectiveness:** The City will track the distribution of the print publications (i.e. document the number of brochures distributed and where they were made available) and document any noted City policy or procedure changes recognizable inside the context of the MS4 program.

**BMP F.** Provide an opportunity for ongoing citizen input on stormwater management.

**Necessary Documents:** Report of water quality/stormwater management related inquiries via the City website.

**Responsible Party:** Department of Public Works, Office of Communications; City Manager's Office

**Objective/Expected Results:** Provide citizens access to the City of Falls Church Request Tracker (<http://www.fallschurchva.gov/requesttracker.aspx>) as an avenue to provide input on the City's MS4 Program.

**Schedule and Evaluation:** Ongoing

**Measurable Goals:** The City of Falls Church Request Tracker provides an opportunity for citizens to provide comments and feedback on issues and/or concerns. The City will document the water quality/stormwater management related inquiries received and report each year's activity in the annual report.

**Items to be reported in annual report:** Updated table of relevant inquiries/comments on water quality/stormwater management related concerns.

**Method Utilized to Determine Effectiveness:** The City will track the receipt of any public comments and inputs on stormwater management via Request Tracker to determine the effectiveness of this outreach mechanism and others listed in the Program Plan.

## **MCM#2: Public Involvement/Participation**

**BMP A.** Follow public notice requirements for the City Council's meeting(s) regarding the implementation of the City's Phase II General Permit.

**Necessary Documents:** Public Notice of upcoming meetings.

**Responsible Party:** Department of Public Works, City Clerk's Office

**Objective/Expected Results:** To inform the City's citizens and businesses of the City's MS4 program and the components crafted in the program plan and to provide an opportunity for public input on the MS4 Program Plan.

**Schedule and Evaluation:** Ongoing

**Measurable Goals:** Provide public notice as required by the City Code.

**Items to be reported in annual report:** A table of City Council meetings held including the topic(s) of discussion.

**Method Utilized to Determine Effectiveness:** The City will track the receipt of any public comments, inputs and suggestions provided on the MS4 Program Plan via public hearings to determine the effectiveness of this outreach mechanism.

**BMP B.** Provide an opportunity for ongoing citizen input on stormwater management.

**Necessary Documents:** Report of water quality/stormwater management related inquiries via the City website.

**Responsible Party:** Department of Public Works, Office of Communications; City Manager's Office

**Objective/Expected Results:** Provide citizens access to the City of Falls Church Request Tracker (<http://www.fallschurchva.gov/requesttracker.aspx>) as an avenue to provide input on the City's MS4 Program.

**Schedule and Evaluation:** Ongoing

**Measurable Goals:** The City of Falls Church Request Tracker provides an opportunity for citizens to provide comments and feedback on issues and/or concerns. The City will document the water quality/stormwater management related inquiries received and report each year's activity in the annual report.

**Items to be reported in annual report:** Updated table of relevant inquiries/comments on water quality/stormwater management related concerns.

**Method Utilized to Determine Effectiveness:** The City will track the receipt of any public comments and inputs on stormwater management via Request Tracker to determine the effectiveness of this outreach mechanism and others listed in the Program Plan.

**BMP C.** Provide stormwater management/water quality informational updates to the citizen-based Environmental Services Council (ESC) and solicit input on the MS4 Program Plan and the Annual Reports from the ESC.

**Necessary Documents:** Report of water quality/stormwater management related topics addressed with the ESC.

**Responsible Party:** Department of Public Works

**Objective/Expected Results:** Provide MS4 Program Plan and Annual Report information to a citizen-based advisory council and solicit input on the Program Plan from the same council on a regular basis to ensure citizen input into the program.

**Schedule and Evaluation:** Ongoing, provide at least one briefing annually.

**Measurable Goals:** The City of Falls Church Environmental Services Council is a standing commission comprised of nine (9) citizens, who meet monthly to provide policy input to the City Council on Environmental issues, including stormwater. The City will document the water quality/stormwater management related briefings that staff provide to the ESC.

**Items to be reported in annual report:** List of water quality/stormwater management topics discussed with the ESC.

**Method Utilized to Determine Effectiveness:** The City will track the receipt of any comments, inputs and suggestions provided on the MS4 Program Plan and/or Annual Reports via the ESC to determine the effectiveness of this outreach mechanism.

**BMP D.** Schedule and hold Habitat Restoration Events in City parks and public right-of-ways in or near stream corridors and flood plains to remove harmful invasive species and replant with native species for the purpose of stormwater control, erosion control and habitat restoration.

**Necessary Documents:** Public notices for Events

**Responsible Party:** Department of Public Works

**Objective/Expected Results:** Provide a hands-on public involvement experience for the citizens of the City that allows for an educational opportunity for participants in the areas of environmental stewardship, with an emphasis on stormwater control, erosion control, and habitat restoration.

**Schedule and Evaluation:** Beginning in PY1, the City of Falls Church will hold at least two Habitat Restoration Events to include public participants.

**Measurable Goals:** The City will hold at least two Habitat Restoration Events annually.

**Items to be reported in annual report:** In each permit year, for each of the two events, the City will report the area of invasive plant removal and the number of participants.

**Method Utilized to Determine Effectiveness:** Effectiveness of this BMP will be measured by how many citizens, civic groups, etc. participate in the event.

**BMP E.** Promote Village Preservation and Improvement Society (VPIS) Neighborhood Tree Program planting events

**Necessary Documents:** Public notices for Events

**Responsible Party:** Department of Public Works

**Objective/Expected Results:** Promote a hands-on public involvement experience for the citizens of the City that allows for an educational opportunity for participants in the areas of environmental stewardship, with an emphasis on revegetation of the urban canopy and habitat restoration. City staff will attend to discuss the importance of trees to stormwater with public participants.

**Schedule and Evaluation:** Beginning in PY1, the City of Falls Church will promote at least one Neighborhood Tree Program planting event.

**Measurable Goals:** In each permit year the City will promote and attend planting events.

**Items to be reported in annual report:** Notification of the event, the number of trees planted, and the number of participants.

**Method Utilized to Determine Effectiveness:** Effectiveness of this BMP will be measured by how many citizens, civic groups, etc. participate in the event.

**BMP F.** Promote City-Wide Cleanups

**Necessary Documents:** Public notices for Events, tracking number of volunteers, and amount of debris collected

**Responsible Party:** Department of Public Works

**Objective/Expected Results:** Encourage and promote adopt a spot groups and citizens of the City to participate in the Fall and Spring City-Wide Cleanup. Cleanups remove litter from roadways, streambeds, and parks throughout the City as well as unwanted invasive species in a number of our City Parks. City staff attends and discusses the importance of properly disposing of refuse and recycling.

**Schedule and Evaluation:** Beginning in PY1, the City of Falls Church will promote two City-wide cleanups annually.

**Measurable Goals:** In each permit year the City will promote and attend cleanup events.

**Items to be reported in annual report:** Notification of the event, the amount of debris removed from the watershed, and the number of participants.

**Method Utilized to Determine Effectiveness:** Effectiveness of this BMP will be measured by how many citizens, civic groups, etc. participate in the event and the amount of debris removed.

**BMP G.** Provide the City's MS4 Program Plan on the City's Internet web site and provide hard copies of the MS4 Program Plan in select public buildings.

**Necessary Documents:** City of Falls Church MS4 Program Plan

**Responsible Party:** Department of Public Works

**Objective/Expected Results:** Provide citizens and City constituents with the opportunity to become more familiar with the City's MS4 Program Plan and increase awareness of the City's efforts to improve water quality.

**Schedule and Evaluation:** Ongoing, the City of Falls Church will post the MS4 Program Plan on its Internet web site (<http://www.fallschurchva.gov>) and will provide hard copies of the plan for viewing at the City Hall building.

**Measurable Goals:** Provide the MS4 Program Plan as indicated.

**Items to be reported in annual report:** Roster of materials posted to be included in an updated Education and Outreach Table.

**Method Utilized to Determine Effectiveness:** The City will track the distribution of the MS4 Program Plan via the Internet (i.e. document web hits) and document any comments and/or suggestions generated by publication of the document received via written or electronic communications.

**BMP H.** Develop and maintain a Public Education and Outreach Plan

**Necessary Documents:** Public Education and Outreach Plan

**Responsible Party:** Department of Public Works

**Objective/Expected Results:** Beginning in PY2, maintain a plan that focuses on the City's three high-priority water quality issues and works to reach at least 20% of the target audience with relevant messages and materials

**Schedule and Evaluation:** Ongoing, the City will evaluate and update the plan annually to meet its objective

**Measurable Goals:** The City will annually present outreach on the three high-priority water quality issues

**Items to be reported in annual report:** Table of outreach materials utilized and methods by which they were distributed

**Method Utilized to Determine Effectiveness:** The City will evaluate and determine if 20% of the target audience is being reached

### **MCM#3: Illicit Discharge Detection and Elimination**

**BMP A.** Promote, publicize, and facilitate public reporting of illicit discharges.

**Necessary Documents:** Outreach materials for the City's website.

**Responsible Party:** Department of Public Works, Office of Communications

**Objective/Expected Results:** Promote the City's Request Tracker system in the community so residents can easily report illicit discharges.

**Schedule and Evaluation:** Ongoing

**Measurable Goals:** The City of Falls Church Request Tracker provides an opportunity for citizens to provide comments and feedback on issues and/or concerns via the website. The City will promote the service via the website and social media and then document the water quality/stormwater management related inquiries received and report each year's activity in the annual report.

**Items to be reported in annual report:** Updated table of relevant inquiries/comments on water quality/stormwater management related concerns.

**Method Utilized to Determine Effectiveness:** The City will track the receipt of any public comments and inputs on stormwater management via Request Tracker to determine the effectiveness of this outreach mechanism and others listed in the Program Plan.

**BMP B.** Complete an updated City storm drain map showing the City's storm water outfalls and State waters with HUCs and impairments to which those storm water outfalls discharge. Maintain the acreage and land use of watersheds for each outfall.

**Necessary Documents:** Updated maps.

**Responsible Party:** Department of Public Works, Engineering Division

**Objective/Expected Results:** Document the City's MS4 outfalls and locate them geographically.

**Schedule and Evaluation:** Annually, update storm drain maps to reflect new construction, modifications and field observations.

**Measurable Goals:** Completed mapping by the end of PY2. Afterwards update annually.

**Items to be reported in annual report:** Updates completed with new map and table.

**Method Utilized to Determine Effectiveness:** The City will rely on Virginia DEQ review of the MS4 outfall map and associated statistics gathered for feedback and confirmation of this component's compliance with the General Permit.

**BMP C.** Notify in writing the downstream MS4 of any known physical interconnection

**Necessary Documents:** Updated stormwater mapping

**Responsible Party:** Department of Public Works

**Objective/Expected Results:** Sharing of information between local MS4s for potential collaborative efforts.

**Schedule and Evaluation:** Ongoing

**Measurable Goals:** By the end of PY2, send written notification of known physical interconnections. Afterward, send written notification immediately after an update to stormwater mapping that contains a newly found interconnection.

**Items to be reported in annual report:** A copy of the letter to interconnected MS4s when applicable.

**Method Utilized to Determine Effectiveness:** The City will rely on Virginia DEQ review of the MS4 outfall map and associated statistics gathered for feedback and confirmation of this component's compliance with the General Permit

**BMP D.** Develop and implement a program for illicit discharge detection that includes written procedures to detect, identify, and address unauthorized nonstormwater discharges.

**Necessary Documents:** IDDE Manual and SOP; Table of observed outfalls in City streams, updated once per year.

**Responsible Party:** Department of Public Works, Engineering Division

**Objective/Expected Results:** Develop and implement a new program to identify potential illicit discharges into the City's MS4.

**Schedule and Evaluation:** By end of PY2, revise/update the existing IDDE Manual to comply with the new MS4 Permit requirements. Continue ongoing outfall inspections of the City's open channel stream reaches to examine the outfalls discharging directly to the stream

**Measurable Goals:** By the end of PY2 complete revisions to IDDE Manual and SOP. Annually conduct a stream walk of open channel streams to examine outfalls discharging directly to those streams.

**Items to be reported in annual report:** Updated Manual and SOP. Updated table of observed outfalls in City streams and a summary of the outcomes of any suspected illicit discharge investigations.

**Method Utilized to Determine Effectiveness:** The City will evaluate the number of potential illicit discharges identified each year and review how each was addressed.

**BMP E.** Develop targeted outreach materials for industries located in the City of Falls Church that are particularly susceptible to illicit discharges to the storm sewer system.

**Necessary Documents:** City IDDE evaluation noting industries of concern for illicit discharges. Printed outreach materials.

**Responsible Party:** Department of Public Works, Engineering Division

**Objective/Expected Results:** To inform the City's industries on the legal and environmental issues surrounding illicit discharges into the City's MS4 and to provide options demonstrating steps they can take to avoid illicit discharges in the City via print media.

**Schedule and Evaluation:** Develop a new printed outreach tool in PY2 for the automotive industry. Work with the Office of the Commissioner of Revenue to develop a good address list for the chosen industry.

**Measurable Goals:** By the end of PY2, develop, print, and disburse printed outreach materials to automotive industries located in the City of Falls Church.

**Items to be reported in annual report:** Copy of disbursement list for outreach materials.

**Method Utilized to Determine Effectiveness:** The City will evaluate the list of recipients of the targeted illicit discharge materials against those potential illicit discharges identified in BMP D. Where necessary, the City may then further refine the illicit discharge message's targeting.

**BMP F.** Adopt and evaluate City Code that clearly prohibits illicit discharges to the City's storm sewer system.

**Necessary Documents:** City Code

**Responsible Party:** Department of Public Works

**Objective/Expected Results:** To establish specific language in the City Code that prohibits illicit discharges to the City's storm sewer system and provides for civil and/or criminal remedies and enforcement of same.

**Schedule and Evaluation:** Complete Code amendment process by the conclusion of PY1.

**Measurable Goals:** By the end of PY1, the City will amend the City Code to clearly prohibit illicit discharges to the City's storm sewer system and provide for civil and/or criminal penalties and City enforcement capabilities for violation of the Code section.

**Items to be reported in annual report:** Copy of the amended Code section.

**Method Utilized to Determine Effectiveness:** The City will evaluate the number of potential illicit discharges identified each year and report on how each was addressed as required in the General Permit.

#### **MCM#4: Construction Site Stormwater Runoff Control**

**BMP A.** Maintain a consistently rated Erosion and Sediment (E&S) Control Program.

**Necessary Documents:** City Code; Notice of consistency from the Virginia Department of Environmental Quality.

**Responsible Party:** Department of Public Works, Engineering Division

**Objective/Expected Results:** To effectively manage erosion and sediment control on new and re-development projects disturbing 2,500 square feet or more of land or any land disturbance in the Resource Protection Area in order to protect the City's surface water quality.

**Schedule and Evaluation:** Beginning in PY1 and continuing throughout the permit cycle

**Measurable Goals:** The City will enforce Chapter 35 of the City Code with respect to E&S and maintain a consistently-rated Erosion and Sediment Control program. Track land disturbance, subsequent inspections, and enforcement actions.

**Items to be reported in annual report:** Consistency status with documentation will be noted in each annual report. Land disturbance reports, acres disturbed, number of inspections, and a summary of enforcement actions.

**Method Utilized to Determine Effectiveness:** Documentation received from DEQ through the agency's periodic review of the City's E&S program.

**BMP B.** Develop written policies and procedures for construction site stormwater runoff control

**Necessary Documents:** Falls Church Stormwater Management Handbook

**Responsible Party:** Department of Public Works, Engineering Division

**Objective/Expected Results:** To review existing City policies and procedures and then consolidate into a single document.

**Schedule and Evaluation:** Complete by the end of PY2.

**Measurable Goals:** The City will revise existing documents and combine into the Falls Church Stormwater Management Handbook by the end of PY2.

**Items to be reported in annual report:** A copy of the Falls Church Stormwater Management Handbook

**Method Utilized to Determine Effectiveness:** The City will rely on Virginia DEQ review of the handbook for feedback and confirmation of this component's compliance with the General Permit

**BMP C.** Promote, publicize, and facilitate public reporting of erosion and sediment concerns.

**Necessary Documents:** Outreach materials for the City's website.

**Responsible Party:** Department of Public Works, Office of Communications

**Objective/Expected Results:** Promote the City's Request Tracker system in the community so residents can easily report concerns regarding potential water quality and compliance issues.

**Schedule and Evaluation:** Ongoing

**Measurable Goals:** The City of Falls Church Request Tracker provides an opportunity for citizens to provide comments and feedback on issues and/or concerns via the website. The City will promote the service via the website and social media and then document the water quality/stormwater management related inquiries received and report each year's activity in the annual report.

**Items to be reported in annual report:** Updated table of relevant inquiries/comments on water quality/stormwater management related concerns.

**Method Utilized to Determine Effectiveness:** The City will track the receipt of any public comments and inputs on stormwater management via Request Tracker to determine the effectiveness of this outreach mechanism and others listed in the Program Plan.

### **MCM#5: Post-Construction Stormwater Management in New Development and Redevelopment**

**BMP A.** Maintain a consistent rated Chesapeake Bay Preservation Program.

**Necessary Documents:** City Code; Notice of consistency from the Virginia Department of Environmental Quality.

**Responsible Party:** Department of Public Works

**Objective/Expected Results:** To effectively manage Chesapeake Bay Preservation regulations on new and re-development projects disturbing 2,500 square feet or more of land or any land disturbance in the Resource Protection Area in order to protect the City's surface water quality.

**Schedule and Evaluation:** Beginning in PY1 and continuing throughout the permit cycle

**Measurable Goals:** The City will enforce Chapter 35 of the City Code with respect to the Chesapeake Bay Preservation Program.

**Items to be reported in annual report:** Consistency status with documentation will be noted in each annual report.

**Method Utilized to Determine Effectiveness:** Documentation received from DEQ through the agency's periodic review of the City's Chesapeake Bay Preservation Area program.

**BMP B.** Maintain an inventory of all known stormwater management facilities

**Necessary Documents:** Spreadsheet with inventory of stormwater management facilities located in the City of Falls Church.

**Responsible Party:** Department of Public Works

**Objective/Expected Results:** Identify, geographically locate, and track all known stormwater management facilities and stormwater BMPs in the City so as to administer the requirements that ensure their proper operation and maintenance.

**Schedule and Evaluation:** Ongoing

**Measurable Goals:** The City will document the number of stormwater quality BMPs located in the City of Falls Church

**Items to be reported in annual report:** Updated list of current BMPs in the City.

**Method Utilized to Determine Effectiveness:** Implementation of the City's facility assessment program will determine BMP effectiveness.

**BMP C.** Require Stormwater BMP agreements are entered into and executed prior to issuing building permits where BMPs are required to meet the Chesapeake Bay Act requirements.

**Necessary Documents:** Spreadsheet with inventory of stormwater quality BMPs located in the City of Falls Church.

**Responsible Party:** Department of Public Works

**Objective/Expected Results:** Implementation will ensure that stormwater BMP owners are conducting appropriate maintenance on their facilities to ensure provision of stormwater quality treatment for all land disturbing projects greater than 2,500 square feet.

**Schedule and Evaluation:** Ongoing

**Measurable Goals:** The City will require 100% of new stormwater quality BMPs located in the City of Falls Church to have maintenance agreements.

**Items to be reported in annual report:** Updated list of current BMPs in the City.

**Method Utilized to Determine Effectiveness:** Documentation of BMPs implemented on each developed or re-developed parcel.

**BMP D.** Require adequate long-term operation and maintenance by the owner of stormwater management facilities

**Necessary Documents:** Spreadsheet with inventory of stormwater quality BMPs located in the City of Falls Church.

**Responsible Party:** Department of Public Works, Engineering Division.

**Objective/Expected Results:** Implementation will ensure that stormwater BMP owners are conducting appropriate maintenance on their facilities. The City will review existing City BMP inspection policies and procedures and then consolidate into a single document.

**Schedule and Evaluation:** Complete by the end of PY2

**Measurable Goals:** The City will revise existing documents and combine into the Falls Church Stormwater Management Handbook by the end of PY2. The City will continue to inspect all facilities at least once per permit cycle.

**Items to be reported in annual report:** Summary of stormwater management facilities inspected and enforcement actions.

**Method Utilized to Determine Effectiveness:** Documentation of maintenance activities performed and/or enforcement actions initiated by the City on each managed facility.

**BMP E.** Require adequate long-term operation and maintenance by operator-owned stormwater management facilities

**Necessary Documents:** Spreadsheet with inventory of stormwater quality BMPs owned by the City of Falls Church.

**Responsible Party:** Department of Public Works, Engineering Division.

**Objective/Expected Results:** Implementation will ensure that the City is conducting appropriate maintenance on their facilities annually. The City will review existing City BMP inspection policies and procedures and then consolidate into a single document.

**Schedule and Evaluation:** Complete by the end of PY2

**Measurable Goals:** The City will revise existing documents and combine into the Falls Church Stormwater Management Handbook by the end of PY2. The City will continue to inspect their facilities annually.

**Items to be reported in annual report:** Summary of stormwater management facilities inspected and enforcement actions.

**Method Utilized to Determine Effectiveness:** Documentation of maintenance activities performed and/or enforcement actions initiated by the City on each managed facility.

**BMP F.** Develop written policies and procedures for construction site stormwater runoff control

**Necessary Documents:** Falls Church Stormwater Management Handbook  
**Responsible Party:** Department of Public Works, Engineering Division  
**Objective/Expected Results:** To review existing City policies and procedures and then consolidate into a single document.  
**Schedule and Evaluation:** Complete by the end of PY2.  
**Measurable Goals:** The City will revise existing documents and combine into the Falls Church Stormwater Management Handbook by the end of PY2.  
**Items to be reported in annual report:** A copy of the Falls Church Stormwater Management Handbook  
**Method Utilized to Determine Effectiveness:** The City will rely on Virginia DEQ review of the handbook for feedback and confirmation of this component's compliance with the General Permit

## **MCM#6: Pollution Prevention/Good Housekeeping for Municipal Operations**

**BMP A.** Conduct street sweeping for City streets to remove potential pollutants.

**Necessary Documents:** Municipal Pollution Prevention Activities Table

**Responsible Party:** Department of Public Works

**Objective/Expected Results:** To remove pollutants from roadways and parking areas that may otherwise be introduced into the City's MS4 during rainfall events.

**Schedule and Evaluation:** Beginning in PY1, the City of Falls Church will sweep City streets up to twice per year.

**Measurable Goals:** By the end of PY1, initiate biannual street sweeping for City streets.

**Items to be reported in annual report:** Documentation of street sweeping material removed each year will be reported in a Municipal Pollution Prevention Activities Table.

**Method Utilized to Determine Effectiveness:** Documentation of street sweeping materials removed each year. The quantity of materials removed will be calculated by multiplying the number of loads times the weight of the first load.

**BMP B.** Incorporate stormwater quality management information into ongoing employee training/safety programs. Document all water quality training activities.

**Necessary Documents:** Training Schedule and Program; Municipal Pollution Prevention Activities Table

**Responsible Party:** Department of Public Works

**Objective/Expected Results:** 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.

**Schedule and Evaluation:** Beginning in PY1, the City of Falls Church will provide water quality protection/pollution prevention training for all City operations employees whose job assignments have the potential to impact stormwater.

**Measurable Goals:** By the end of PY1, develop a Training Schedule and Program.

**Items to be reported in annual report:** Summary of training provided, including roster of training attendees.

**Method Utilized to Determine Effectiveness:** Documentation of training provided for City employees and tracking of any water quality compromising events caused by City staff will inform effectiveness and guide future training.

**BMP C.** Identify high-priority, City-owned and operated facilities with a specific emphasis on illicit discharges.

**Necessary Documents:** Facilities Assessment study

**Responsible Party:** Department of Public Works

**Objective/Expected Results:** Evaluate stormwater pollution potential posed by City-owned and operated facilities with respect to the new General Permit requirements

**Schedule and Evaluation:** Beginning in PY1, the City of Falls Church will conduct a City-owned and operated facilities assessment to document current practices, procedures, and program elements for stormwater pollution prevention in order to determine if the facility is a high-priority.

**Measurable Goals:** Identify high-priority City-owned and operated facilities by the end of PY1.  
**Items to be reported in annual report:** Overview of findings from the Facilities Assessment study.  
**Method Utilized to Determine Effectiveness:** Noted results of the City's investigation and eventual implementation of next steps.

**BMP D.** Develop and implement a Stormwater Pollution Prevention Plan (SWPPP) for high-priority, City-owned and operated facilities

**Necessary Documents:** Facilities Assessment study

**Responsible Party:** Department of Public Works

**Objective/Expected Results:** Evaluate stormwater pollution potential posed by City-owned and operated facilities with a specific emphasis on illicit discharges.

**Schedule and Evaluation:** Beginning in PY3, the City of Falls Church will conduct a high-priority, City-owned and operated facilities assessment to document current practices, procedures, and program elements for stormwater pollution prevention.

**Measurable Goals:** Complete and implement the SWPPP by the end of PY4.

**Items to be reported in annual report:** Final SWPPP report.

**Method Utilized to Determine Effectiveness:** Noted results of the City's assessment and eventual implementation of any necessary, remedial actions.

**BMP E.** Identify City-owned and operated facilities requiring nutrient management plans.

**Necessary Documents:** Nutrient Management Plan Study

**Responsible Party:** Department of Public Works

**Objective/Expected Results:** Identify City-owned and operated facilities with respect to the new General Permit requirements concerning nutrient management.

**Schedule and Evaluation:** Beginning in PY1, the City of Falls Church will conduct a City-owned and operated facilities study for nutrient management.

**Measurable Goals:** Identify high-priority City-owned and operated facilities by the end of PY1.

**Items to be reported in annual report:** Summary of findings from the study, including location and total acreage requiring a nutrient management plan.

**Method Utilized to Determine Effectiveness:** Noted results of the City's investigation and eventual implementation of next steps.

**BMP F.** Develop and implement a Nutrient Management Plan (NMP) for sites identified in BMP E directly above.

**Necessary Documents:** Nutrient Management Plan

**Responsible Party:** Department of Public Works

**Objective/Expected Results:** Evaluate stormwater pollution potential posed by City-owned and operated facilities with a specific emphasis on nutrient management.

**Schedule and Evaluation:** Beginning in PY4, the City of Falls Church will conduct a City-owned and operated facilities study for nutrient management.

**Measurable Goals:** Complete and implement the NMP by the end of PY5.

**Items to be reported in annual report:** Final NMP report.

**Method Utilized to Determine Effectiveness:** Noted results of the City's assessment and eventual implementation of any necessary, remedial actions.

**BMP G.** Maintain City Standard Operating Procedures (SOP) for the reduction of potential stormwater pollution and proper removal of waste materials.

**Necessary Documents:** Falls Church SOPs for Good Housekeeping

**Responsible Party:** Department of Public Works

**Objective/Expected Results:** Ensure that City SOPs are consistent with the need to reduce stormwater pollution potential and properly remove waste materials to the maximum extent practicable and that City employees are trained in the proper execution of these SOP.

**Schedule and Evaluation:** Ongoing. SOPs will be updated or added based on the final recommendations from the City's SWPPP to ensure proper procedures are in place.

**Measurable Goals:** By the end of PY4, evaluate and revise City SOPs upon completion of the SWPPP.

**Items to be reported in annual report:** Table outlining any SOP adjustments noted to City operations policies as noted during the review.

**Method Utilized to Determine Effectiveness:** Review of, and implementation of, City SOPs that ensure stormwater pollution potential reduction and proper waste disposal to the maximum extent practicable and that City employees are trained on the proper implementation of the SOPs outlined above.

APPENDIX B – Outreach Materials

- Education and Outreach Table
- Pet Waste Postcard
- Falls Church News-Press: Summer Shutdown: How to Properly Drain Pool and Spa Water (September 2017)
- Falls Church News-Press: Scoop the Poop: A Homeowner's Guide to a Healthy Watershed (June 2018)
- Falls Church News-Press: Greener Grass for the Lawn Care Enthusiast (June 2018)
- Falls Church News-Press: Only Rain Down the Drain (June 2018)
- Northern Virginia Clean Water Partners Annual Report 2018
- Automotive Mailer (June 2018)

**MS4 Permit Year 5 - Education and Outreach Table (Compiled September 28, 2018)**

Activity	Priority Issue(s) Addressed	Audience	Frequency	Documents	Impressions	Total impact in PY5	Comments	>20% Target Audience Reached	MCM - BMP	Activity Status
Falls Church News Press	Bacteria Illicit Discharge Nutrients	Residents	Annual	3 Articles	10,000 per paper	30,000 impressions / or 3,000 in city	Impact area exceeds City limits (assume 10% )	Yes	MCM#1 - BMP A	Completed in PY5
Website Materials	Bacteria Illicit Discharge Household waste	Residents	Ongoing	Website Material	Varies	712 page views	-	Yes	MCM#1 BMP C, BMP D	Completed in PY5
Website in Spanish	Illicit Discharge	Residents	Ongoing	Website Material	Varies	1,525 page views	-	Yes	MCM#1 BMP C, BMP D	Completed in PY5
Scoop the Poop Outreach	Bacteria	Dog owners	Annual	Postcard	Varies	1,300 dog owners	Sent to every licensed dog owner in the City	Yes	MCM#1 - BMP E	Completed in PY5
Automotive IDDE	Illicit Discharge	Businesses	Annual	Letter and Poster	Varies	21 businesses	Sent to every automotive business in the City	Yes	MCM#3 - BMP E	Completed in PY5
Food Waste Disposal	Illicit Discharge	Businesses	As-needed	Letter and Poster	Varies	Not tracked due to frequency of outreach	Food waste outreach is done almost weekly in various formats.	Yes	MCM#3 - BMP E	Completed in PY5
Pool Outreach	Illicit Discharge	Residents	Annual	Letter and Poster	Varies	30,000 impressions / or 3,000 in city	Impact area exceeds City limits (assume 10% )	Yes	MCM#3 - BMP E	Completed in PY5
Clean Waters Partners	Bacteria Illicit Discharge Household waste	Residents	Annual	Radio and TV ads	Varies	42,768,4866 impressions / or 42,768 in city	Impact area exceeds City limits (assume 1%)	Yes	MCM#1 - BMP B	Completed in PY5

# KNOW WHAT'S YUCKIER THAN PICKING UP DOG POOP?



**PLEASE  
PICK UP  
MY POOP.**

**C**leaning up pet waste is good for your health and the environment! Seriously. Pet waste left on the ground, especially near streets and sidewalks, gets washed into storm drains and drainage ditches which flow to your local waterway...without being treated! Bacteria, parasites, and viruses found in pet waste can be harmful to water quality and human health. Not only is picking up after your pooch the neighborly thing to do, it's the healthy thing to do...for you and the environment!

## **Stepping in it.**

Know what's even more disgusting than that? Swimming in, fishing from or treating our drinking water from sources that have dog poop in them!

Please pick up after your pooch.



**Visit the Northern Virginia Clean Water Partners web site at [www.onlyrain.org](http://www.onlyrain.org)**



# CITY OF FALLS CHURCH

Department of Public Works  
300 Park Avenue  
Suite 100W  
Falls Church, VA 22046

*The City of Falls Church is committed to the letter and spirit of the Americans with Disability Act. To request a reasonable accommodation for any type of disability call 703-248-5030. (TTY 771)*



# Summer Shutdown:

## How to Properly Drain Pool and Spa Water

Water from swimming pools and spas should never be discharged directly into the storm drain system. In Falls Church the storm drains run into freshwater streams which join the Potomac River and flow into the Chesapeake Bay. Swimming pool and spa water can have devastating effects on the health of our waterways if not disposed of properly. Disinfectants, algacides, cleaning chemicals and low oxygen levels can kill fish and other aquatic life, and draining large volumes of water quickly can cause stream bank erosion.

Before you drain your pool or spa, you need to make the water safe:

1. Remove or filter out debris, including dirt, leaves, sticks and algae.
2. Wait about 10 days to allow chlorine or bromine from treatment chemicals to dissipate, or use chemical removal agents. Always use a test kit to ensure no chlorine or bromine remains.
3. Allow heated water to cool for at least 10 days.
4. Adjust the water's pH to 7 (neutral) using appropriate buffering compounds. Check with a test kit.

After these preparation steps have been completed:

EITHER, preferably,

1. Drain the water into the sanitary sewer system by running it slowly into a household drain such as a bathtub, floor drain or private lateral cleanout. Do not attempt this if your home has a septic system. Note that the sanitary sewer or a licensed sewage handling service are the only options for draining saltwater pools;

OR, if you do not have an appropriate household drain,

2. Discharge the water slowly over a vegetated (grass) area of your yard over the course of several rain-free days to allow the water to soak into the ground and reduce the amount that goes into the storm drain.

Do not discharge saltwater or any water that is cloudy, dirty or contains wash water from swimming pool cleaning activities into a storm drain or stream.

Following these guidelines not only protects our waterways and the Chesapeake Bay, it protects you from possible enforcement action and civil penalties from local, state and federal authorities. If you use a pool company, make sure they know the rules too – you could be held liable for the results of their actions. If you see someone doing it wrong, please call the City immediately on the number below. We need to work together to protect the Bay.

For further information, please contact Jason Widstrom, P.E., Principal Engineer with the Department of Public Works at 703-248-5350 (TTY 711) or via email at

[jwidstrom@fallschurchva.gov](mailto:jwidstrom@fallschurchva.gov).

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# Scoop the Poop:

## A Homeowner's Guide to a Healthy Watershed

The City of Falls Church occupies 2.2 square miles. More than half of the City drains to a stream called Tripp's Run and the remaining area of the City goes to Four Mile Run. Both streams ultimately drain to the Potomac River and the Chesapeake Bay.

These streams are classified as impaired, or not supporting federal and state swimmable and fishable goals, by the Commonwealth of Virginia for bacteria (Four Mile Run for fecal coliform and Tripp's Run for e. coli). This status subjects these watersheds to regulation under the federal Clean Water Act. As a result, the City of Falls Church is required to mitigate its share of stormwater pollution. One way you can help is by cleaning up pet waste. Bacteria, parasites, and viruses found in pet waste can be harmful to water quality and human health.

Here are the top 10 reasons to scoop the poop:

1. Stormwater carries pet waste and other pollutants directly into waterways.
2. Animal waste adds nitrogen to the water. Excess nitrogen depletes the oxygen in water necessary for beneficial underwater grasses, wildlife and fish.
3. Animal waste may contain harmful organisms such as Giardia, Salmonella and E. coli that can be transmitted to humans and other animals by ingesting contaminated water.
4. Roundworms and hookworms deposited by infected animals can live in the soil for long periods of time and be transmitted to other animals and humans.
5. It's the law! Many urban and suburban areas require you to pick up after your pet. Even if there is no restriction, cleaning up after your pet is always the right thing to do.
6. Joining the growing number of responsible pet owners may encourage hotel managers to accept pets when you are traveling and help keep fees to a minimum.
7. No one likes to step in pet waste and spread it into homes, cars and businesses.
8. Scooping on a daily basis and applying lime will help prevent odors.
9. It's easy to clean up by carrying plastic baggies and paper towels in your pocket. The baggies can be secured and thrown away in the garbage.
10. Your neighbors will appreciate your good manners.

For further information concerning Stormwater runoff and pollutants, please contact Jason Widstrom, P.E., Civil Engineer with the Department of Public Works at 703-248-5350 (TTY 711) or via email at [jwidstrom@fallschurchva.gov](mailto:jwidstrom@fallschurchva.gov).

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## Greener Grass for the Lawn Care Enthusiast

Want to be where the grass is always greener? Here's how you can keep your lawn healthy while minimizing maintenance and protecting our streams and waterways.

Like any other living thing, grass needs food and water. Get it right and you can have a healthy green lawn. Overdo it and you can end up wasting water, mowing too frequently and letting expensive fertilizer go down the drain.

Infrequent deep watering is best for a healthy lawn. Use a timer and a sprinkler or irrigation system to water your lawn before dawn to avoid water loss to evaporation and reduce susceptibility to disease. Be sure to adjust sprinkler locations to suit the slope, shape and absorption capacity of your lawn. At least once a month, adjust the timer as the weather changes.

Before you spend money and time applying fertilizer or lime, get a soil test. A simple \$10 test from Virginia Cooperative Extension (VCE) will tell you what's needed. Pick up a sample box and Soil Test Form at the Master Gardeners Plant Clinic table at the Farmer's Market on Saturday morning. For \$40, they'll do an on-site assessment and soil test for you – check out the Master Gardeners Home Turf program at <http://fairfaxgardening.org/home-turf/>.

If your test results show treatment might be beneficial, don't forget to calculate your lawn area and calibrate your spreader. These are important steps to avoid overfeeding and fertilizer runoff. VCE has publications to help at <http://pubs.ext.vt.edu/>. If you do apply fertilizer, brush or blow any stray pellets from the driveway and street back onto the grass. Do the same with stray clippings when you mow. This will make sure your grass gets the benefit and chemicals and grass clippings don't contaminate your local streams and waterways.

Avoid combined fertilizers and pesticides. Just as you don't take medications you don't need, don't treat your lawn with pesticides unless there's a problem. Use the Master Gardeners Clinic for free, unbiased diagnosis and treatment advice. Take photographs and samples, and be ready to tell them about your current maintenance routine. If you do need to apply insecticide or fungicide, be sure to read and follow the directions on the product label carefully.

The best way to keep your lawn healthy is to treat it right, and you can't do that if you don't know what's wrong.

For further information, please contact Kate Walker, Environmental Programs Coordinator in Gage House or via email at [kwalker@fallschurchva.gov](mailto:kwalker@fallschurchva.gov).

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## Greener Grass for the Lawn Care Enthusiast

Having a spectacularly beautiful lawn can take quite a bit of effort. If testing and measuring and calculating, then watering and feeding and mowing sounds like way too much work to maintain your dog's bathroom, here are some ways to make it easy on yourself:

- **Have less lawn.** Trees and other plantings generally need less maintenance than grass, and can help you manage water flow on your property. Learn about the City's new RainSmart grants to help with water management landscaping costs at <http://www.vpis.org/environment/rainsmart-program/>.
- **Cut it long.** Most grasses can be maintained at 3" high, so adjust your mower accordingly. Short grass is more susceptible to weed invasion and drought, especially in the summer. Allow the lawn to grow one inch longer again before mowing.
- **Use a mulching lawn mower.** Leaving clippings on your lawn returns nutrients to the soil and improves its ability to absorb and hold moisture. Less work for you!
- **Add flowers.** Sow clover seed in your lawn for a beautiful sprinkling of white in the green and a natural source of nitrogen that reduces fertilizer needs.
- **Use an electric lawnmower.** Cut down on soil and air pollution around your home by using an electric lawnmower. Make the lawn small enough and you could even get in your steps with a people-powered push reel mower.
- **Pick up after your pooch.** Don't leave the dog's doings on the lawn – bag it and bin it. They'll burn the grass and the remnants will get washed into our streams when it rains. And anyway it's gross – bacteria, disease, smells. Yuck!

Simple stuff. Now just sit back, relax, and watch the grass grow!

For further information, please contact Kate Walker, Environmental Programs Coordinator in Gage House or via email at [kwalker@fallschurchva.gov](mailto:kwalker@fallschurchva.gov).

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With the sudden showers of the past few weeks, you may have seen stencils appearing around the City with pictures of fish and messages like “Your river starts here,” and “Only rain down the drain”. So what’s it all about?

Whatever collects in our streets and gutters gets washed into the drain by rain. Then what happens? It doesn’t get filtered. It doesn’t get treated. It doesn’t become someone else’s problem. Stormwater runoff from our sidewalks and streets carries trash, debris and chemical pollutants from vehicle exhausts, leaks and careless contamination directly into the streams that run through our public parks. From there it runs untreated to the Potomac River and out to the Chesapeake Bay.

Those beautiful waterways with their popular recreation spots can hide some unpleasant secrets. The water quality, especially after heavy rains, is sometimes so bad it poisons or even kills fish, shellfish and vegetation and can make it inadvisable for people to go in the water.

One fix is easy. We can keep trash out of the streams by disposing of it in streetside bins or at home. Simple!

It’s harder to deal with the chemicals. No one can remove them once they’re there, so we need to stop them getting into the water in the first place. Try combining trips to drive less, reducing air pollution. If you keep your vehicle well-maintained, you can avoid fluid leaks. And for your next car or truck, you might want to consider choosing an electric, hybrid or low-emissions model. And of course, you should never pour any kind of chemicals, like paint, oil, garden chemical or detergents, down a storm drain.

Our streams and rivers, and the Chesapeake Bay, are wonderful assets. Please do what you can to help protect them.

# Northern Virginia Regional Commission

Documentation of reaching desired targets for “Only Rain” Campaign.

Advertising during period of July 1, 2017 through July 1, 2018

August 16, 2018



Prepared by:

Tatiana Jennings, Client Solutions Specialist  
Patrick Castro, Advertising Research Manager  
Amy Wood, Local Sales Manager

# NORTHERN VIRGINIA REGIONAL COMMISSION

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This document provides support that 20% of each target audience has been reached by the advertising campaign enacted by the Northern Virginia Regional Commission.

This is the fifth year that the Northern Virginia Regional Commission “Clean Water Partners” have partnered with Comcast Spotlight to target localities in Virginia. In support of the “Only Rain” campaign, we have targeted localities in the following counties:

- Alexandria
- Arlington
- Fairfax County
- Fairfax City
- Falls Church
- Loudoun County
- Stafford County

In targeting these areas, the Potomac geographic super zone, Alexandria trade zone, Fairfax County-Reston trade zone and the Fairfax North, South and West trade zones were used to reach target customers for three segments of residential customers:

- Homeowners/Lawn Care (fertilizers)
- Dog Owners (dog waste)
- Do-It-Yourselfers (Automotive & Home Improvement)

In this campaign, English Language Networks, Spanish Language Networks and the digital platforms Xfinity.com, Premium Digital TV and Premium Digital Video were used to further reach customers within these segments across each locality. For high impact placement, unique opportunities such as Home Page Takeovers, Live Sports and Premium programming were incorporated. However, due to limitations of data, only the English-language networks and Xfinity.com are included for in-depth analysis.

Please note that Dumfries receives coverage from the Potomac super zone, but is not included in the analysis due to a limitation of data.

We will be referencing the 2017 analysis provided to the Northern Virginia Regional Commission as “the 2017 study.” Additionally, the 2017 points of analysis have been included in the appendix.

# Northern Virginia Regional Commission

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## Trade Zone Definitions:

The Alexandria trade zone represents Comcast households in the independent city of Alexandria.

The Fairfax County trade zone represents Cox Cable households in the county of Fairfax and independent cities of Fairfax City and Falls Church. This trade zone additionally represents Comcast households in the city of Reston. As of April 30th 2018, the Fairfax County Zone was dismantled and divided into three (3) separate zones: Fairfax North, Fairfax South and Fairfax West.

Originally, the Fairfax North, Fairfax South and Fairfax West trade zones were comprised exclusively of all Verizon FiOS homes in Fairfax. As of April 30th, 2018, this trade zone was redefined to include the Cox Cable Households (formerly known as the Fairfax County trade zone) to ensure reach into 100% of cable homes in Fairfax County, Fairfax City and Falls Church. In addition, the combining of both Cox and FiOS Households allows for a more seamless buying experience for Spotlight customers who seek to reach full coverage in each of the three (3) zones that make up Fairfax County.

The Potomac Super Zone represents all Verizon FiOS households across the Greater Washington DC Region (Universe Estimate = 787,567 Nielsen TV HHs as of June 2018). This differs from the Verizon FiOS homes offered in the Fairfax North, South and West trade zones in that the network offerings are expanded. For this analysis, we are limiting our scope of data to the counties/independent cities of Arlington, Fairfax County, Fairfax City, Falls Church, Loudoun and Stafford.

# Northern Virginia Regional Commission

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2. Selection of Advertising Properties
3. Overall Campaign Delivery
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5. Summary
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# Northern Virginia Regional Commission

## Advertising Response for Target Groups

Similar to the analysis provided in previous years (2014-2017), an evaluation of advertising response was provided for each of the three targeted attribute groups in support of the “Only Rain” campaign. While not specific to waste disposal, these attribute groups should represent overall behavior by advertising medium.

The survey questions are from Ad-ology/AudienceSCAN® (a nationwide syndicated data service by SalesFuel) and are phrased: “Where have you seen/heard an ad in the past 12 months that led you to take action?”\*\*

“Take action” is defined as: clicking on a banner ad, doing an Internet search, going to the advertiser's website, buying the product advertised, or calling/visiting the advertiser.

As the exact target attribute is not available, the most similarly defined attributes were used.

For Dog Waste: “Dog Owners” was used

For Lawn Care: “Yard Care + Landscaping Enthusiasts” was used (\*\*New for 2018\*\*)

For Home Care: “Do-It-Yourselfers – Home Improvement” was used (\*\*New for 2018\*\*)

For Auto Care: “Do-It-Yourselfers – Automotive” was used (\*\*New in 2018)

Media	Dog Owners		Yard Care + Landscaping Enthusiasts		Do-It-Yourselfers – Home Improvement		Do-It-Yourselfers - Automotive	
	Audience %	Rank	Audience %	Rank	Audience %	Rank	Audience %	Rank
Television (over-the-air, online, mobile or tablet)	63.2%	1	62.5%	1	67.1%	1	68.9%	1
Ads/Coupons in your mailbox	59.1%	2	61.9%	2	65.0%	2	61.6%	2
Sponsored search result (like on Google, Yahoo or Bing)	51.0%	4	49.1%	3	54.8%	3	57.1%	3
Ad on a social network	52.3%	3	43.9%	6	50.1%	5	53.4%	8
Emailed ad or newsletter	48.3%	5	47.9%	4	52.7%	4	53.7%	5
Newspaper (print, online, mobile or tablet)	47.3%	6	47.7%	5	50.3%	6	53.7%	5
Daily Deals (Groupon, LivingSocial, etc.)	46.5%	7	43.7%	7	49.6%	7	50.9%	9
Mobile smartphone app/text msg.	44.8%	9	36.6%	10	43.2%	10	50.1%	10
Radio (over-the-air, online, mobile or tablet)	44.3%	10	40.5%	8	45.1%	9	53.5%	7
Internet banner ad	45.1%	8	40.2%	9	46.1%	8	54.5%	4

# Northern Virginia Regional Commission

## Selection of advertising properties (networks/platforms)

With television media and internet display and video advertising being among the advertising solutions that Comcast Spotlight offers our clients, we analyzed the four (4) target attributes noted previously using the Scarborough Research syndicated data set for the Washington DC DMA (February 2017 - February 2018 survey period). In conjunction with pricing this provides guidance on the networks to use. For Dog Waste, we used the attribute of “Own a Dog.” We limited the analysis to the geographic scope identified by Clean Water Partners. This analysis is to show the selected properties helped achieve the target goal of 20% by attribute.

County Of Residence: Alexandria City, VA OR Arlington, VA OR Fairfax City, VA OR Fairfax, VA OR Falls Church City, VA OR Loudoun, VA OR Stafford, VA

TARGET	A18+ Intab 2018
Lifestyle Characteristics: Own a Dog	554
Leisure Activities Past 12 Months: Lawn Care	924
Unpaid/ Personal Labor: Anti-Freeze/Coolant OR Oil Filter/Oil Change	201
Past 12 Months: Unpaid Auto Repairs (Anti-Freeze/Coolant, Oil) OR Shopped/Bought at Hardware Store AND performed Home Improvement Repairs (Exterior Paint, Landscaping)	419

SOURCE: Washington, D.C.-Syndicated-MRI/Mosaic, Fe17-Fe18, Scarborough

The above survey respondents in tabulation (“Intab”) are considered significant and therefore can be used for analysis.

Network	Lifestyle Characteristics			Leisure Activities Past 12 Months			Past 12 Months:			Auto Repairs Past Year: Unpaid Labor		
	A18+ Reach	Reach %	Index	A18+ Reach	Reach %	Index	A18+ Reach	Reach %	Index	A18+ Reach	Reach %	Index
	<b>Own a Dog</b>			<b>Lawn Care</b>			<b>Unpaid Auto Repairs (Anti-Freeze/Coolant, Oil) OR Shopped/Bought at Hardware Store AND performed Home Improvement Repairs (Exterior Paint, Landscaping)</b>			<b>Anti-Freeze/Coolant OR Oil Filter/Oil Change</b>		
AEN –TV	81,187	16.4%	116	105,982	14.6%	103	66,783	19.3%	136	20,205	12.6%	89
AMC –TV	52,326	10.6%	86	81,199	11.2%	91	44,608	12.9%	104	18,364	11.4%	93
APL –TV	34,423	7.0%	154	60,868	8.4%	103	31,659	9.1%	112	8,037	5.0%	61
CC-TV	47,846	9.7%	114	54,763	7.5%	89	29,468	8.5%	101	9,103	5.7%	67
CMDY-TV	60,211	12.2%	110	91,231	12.6%	114	33,510	9.7%	88	16,928	10.5%	95
CMT –TV	23,891	4.8%	136	26,696	3.7%	104	18,191	5.3%	148	7,317	4.5%	128
CNN-TV	112,371	22.7%	98	191,166	26.3%	97	103,339	29.8%	110	19,113	11.9%	44
DISC-TV	59,803	12.1%	78	120,283	16.6%	107	63,341	18.3%	118	19,055	11.8%	76
DIY –TV	25,303	5.1%	117	36,890	5.1%	116	28,850	8.3%	190	4,681	2.9%	66
ESPN-TV	108,065	21.8%	98	195,443	26.9	121	38,996	11.3%	248	35,583	22.1%	100

FBN-TV	34,580	7.0%	85	54,951	7.6%	167	38,996	11.3%	248	16,603	10.3%	228
FRFM-TV	35,967	7.3%	129	41,117	5.7%	101	19,328	5.6%	99	5,755	3.6%	64
FS1 -TV	41,152	8.4%	104	68,595	9.4%	118	24,172	7.0%	87	15,878	9.9%	123
FX -TV	81,187	16.4%	116	96,222	13.3%	100	50,980	14.7%	111	10,411	6.5%	49
GOLF-TV	7,328	1.5%	48	23,795	3.3%	106	17,202	5.0%	160	327	.2%	7
HALL-TV	42,165	8.5%	70	74,235	10.2%	84	49,090	14.2%	117	10,601	6.6%	54
HGTV-TV	126,837	25.6%	126	204,856	28.2%	139	125,545	36.3%	179	40,674	25.3%	125
HIST-TV	79,276	16.0%	90	169,334	23.3%	131	72,265	20.9%	117	22,567	14.0%	79
HLN -TV	11,135	2.2%	101	11,793	1.6%	73	9,719	2.8%	126	3,049	1.9%	85
MASN-TV	41,947	8.5%	159	60,280	8.3%	156	43,170	12.5%	234	1,973	1.2%	23
MNBC-TV	51,082	10.3%	80	103,394	14.2%	111	58,325	16.8%	131	8,006	5.0%	39
NBCS-TV	23,000	4.6%	110	41,079	5.7%	134	33,944	9.8%	231	522	.3%	8
NFLN-TV	33,715	6.8%	85	48,473	6.7%	83	33,944	9.8%	231	19,429	12.1%	150
NGC -TV	43,073	8.7%	70	84,443	11.6%	93	44,080	12.7%	102	9,822	6.1%	49
NICK-TV	11,686	2.4%	46	29,766	4.1%	80	6,798	2.0%	39	12,939	8.0%	158
NSWA-TV	31,823	6.4%	147	32,336	4.5%	102	28,116	8.1%	185	6,738	4.2%	96
SYFY-TV	24,157	4.9%	50	45,449	6.3%	64	26,862	7.8%	79	7,864	4.9%	50
TBSC-TV	62,920	12.7%	90	119,577	16.5%	117	65,630	19.0%	134	17,612	10.9%	77
TRU -TV	37,448	7.6%	157	31,923	4.4%	54	17,423	5.0%	104	8,354	5.2%	108
TWC-TV	30,533	6.2%	52	77,994	10.7%	91	32,099	9.3%	78	11,127	6.9%	58
USA -TV	60,458	12.2%	86	97,650	13.4%	95	65,633	19.0%	134	19,186	11.9%	84
XFINITY/Comcast	68,921	13.9%	64	45,862	6.3%	185	42,388	12.2%	57	32,411	20.1%	93

SOURCE: Washington, D.C.-Syndicated-MRI/Mosaic, Fe17-Fe18, Scarborough

These 36 television networks and online digital properties were used to reach NVRC’s desired targeted groups. These commercials did not air on each network simultaneously, and differed by trade zone and by month.

The Spanish language networks of Galavision (GALA), CNN en Español (CNNE), ESPN Deportes (ESPD), FOX Deportes (FOX), and History en Español (HSTE) were utilized to target the Hispanic audiences within the target localities.

Additionally, Premium Digital Video (PDV) was utilized in conjunction with Xfinity.com, and Verizon.net to reach the target audiences. PDV, a video ad network, provides another opportunity to reach all audiences regardless of Internet Service Provider. Spanish language networks and PDV were excluded from this analysis.

The networks selected for the campaign either over-index or provide a large number of targeted viewers, who were reached at least one time. If a network indexes over 100 for an attribute, it suggests that the network is more likely to deliver that audience attribute compared to the general population. The Index is treated as an indicator of value and helps ensure that the campaign will deliver its message to a more qualified audience.

For television networks, the question is positioned as “viewed network past 7 days.” For Xfinity.com the question is positioned as “visited website/app past 30 days.” The data is collected via self-reporting by 5,775 respondents and is therefore treated as suggestive and statistically significant, compared to the 5,785 total intab respondents in the prior year survey.

**Summary of Network Selections by Zone**

NETWORKS BY ZONE							
Potomac	Fairfax County (COX)	Fairfax North	Fairfax South	Fairfax West	Alexandria	Loudoun	Arlington
AMC	AEN	AEN	AEN	AEN	APL	AMC	AMC
APL	AMC	AMC	AMC	AMC	CMDY	APL	APL
CC	APL	APL	APL	APL	CNN	CMDY	CMDY
CMDY	CMDY	CMDY	CMDY	CMDY	CNNE	CNNE	CNNE
CMT	CNN	CNN	CNN	CNN	DISC	CNN	CNN
CNNE	CNNE	CNNE	CNNE	CNNE	DIY	DISC	DIY
DIY	DISC	DISC	DISC	DISC	ESPND	DIY	ESPD
ESPD	DISC	DIY	DIY	DIY	ESPN	ESPD	ESPN
FBN	ESPD	ESPD	ESPD	ESPD	FBN	ESPN	FBN
FOXD	ESPN	ESPN	ESPN	ESPN	FOXD	FBN	FOXD
FS1	FOXD	FRFM	FRFM	FRFM	FRFM	FS1	FS1
GALA	FS1	FS1	FS1	FS1	FS1	FX	FX
GOLF	GALA	FX	FX	FX	FX	GALA	GALA
HALL	GOLF	GALA	GALA	GALA	GALA	GOLF	GOLF
HLN	HALL	HALL	HALL	GOLF	GOLF	HGTV	HGTV
NGC	HGTV	HGTV	HGTV	HALL	HALL	HIST	HIST
SYFY	HIST	HIST	HIST	HGTV	HGTV	HLN	HSTE
TRU	HLN	HLN	HLN	HIST	HIST	MASN	HLN
	HSTE	HSTE	HSTE	HLN	HLN	MNBC	MASN
	MASN	MASN	MASN	HSTE	HSTE	NBCS	MNBC
	MNBC	MNBC	MNBC	MASN	MNBC	NFLN	NBCS
	NBCS	NBCS	NBCS	MNBC	NBCS	NICK	NFLN
	NFLN	NFLN	NFLN	NBCS	NFLN	NSWA	NICK
	NGC	NGC	NGC	NICK	NICK	TRU	NSWA
	NICK	NSWA	NSWA	NFLN	NSWA	TWC	TRU
	NSWA	SYFY	SYFY	NGC	TRU	USA	TWC
	SYFY	TRU	TRU	NSWA	TWC		USA
	TBSC	TWC	TWC	SYFY	USA		
	TRU	USA	USA	TRU			
	TWC	USA	USA	TWC			
				USA			

# Northern Virginia Regional Commission

## Overall Campaign Delivery

In order to understand performance, the overall number of television homes that viewed a commercial (household impressions) and the number of persons who were exposed to the digital display (person impressions) was analyzed for the period of July 1, 2017 to July 1, 2018.

The television impressions of Adults 18+ are taken from Nielsen's sample estimates for the Washington DC DMA or television marketplace. Since the estimates are derived from a sample, Spanish language networks did not have enough coverage area from which audience estimates could be provided with statistical significance. Therefore this analysis is limited to the English language networks for each zone as well as for internet banner advertisements.

### Multiscreen Campaign Summary (07.1.17 – 07.1.18)

Multiscreen Campaign Summary	Total Ads	Total Impressions
8 Geographic TV Ad Zones + Geo-Targeted Digital Ad Impressions to Specific Northern VA Territories		
31 Targeted TV Networks	16,185	4,333,169
5 Spanish Language Networks	1,737	966,191
Online Impression	n/a	1,222,561
<b>TOTALS</b>	<b>17,922</b>	<b>6,521,921</b>

TV Networks & Spanish Networks Source: Nielsen Company –Washington DC Live+SD data extrapolated through Strata CablePost. Strata uses its NuMath methodology to derive zone based estimates

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## Total Spots and Adults 18+ Impressions by Network

Network	Total Spots	Total A18+ Impressions
AEN	256	42,733
AMC	203	101,575
APL	633	280,118
CC	197	63,647
CMDY	531	62,693
CMT	213	161,824
CNN	223	1,207,488
CNNE	328	756,631
DISC	176	37,217
DIY	474	121,163
ESPD	343	55,672
ESPN	225	118,508
FBN	390	107,620
FOXD	333	76,596
FRFM	326	34,385
FS1	407	36,868
FX	215	46,241
GALA	490	63,700
GOLF	417	41,545
HALL	137	135,404
HGTV	518	232,259
HIST	328	79,540
HLN	582	133,698
HSTE	243	13,592
MASN	4,557	183,713
MNBC	325	345,333
NBCS	1,031	58,739
NFLN	419	69,237
NGC	115	46,964
NICK	337	56,846
NSWA	766	55,961
SYFY	95	62,636
TBSC	57	17,601
TRU	1,195	169,472
TWC	504	105,586
USA	333	116,555
<b>Grand Total</b>	<b>17,922</b>	<b>5,299,360</b>

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## Ad Zone Total Spots and HH Impressions by Network

<b>ALEXANDRIA</b>		
<b>Network</b>	<b>Total TV Spots</b>	<b>A18+ IMPs</b>
APL	86	8,821
CMDY	85	7,579
CNN	33	15,251
CNNE	107	3,442
DISC	37	5,512
DIY	72	3,172
ESPD	109	444
ESPN	35	13,723
FBN	82	2,854
FOXD	109	709
FRFM	72	6,613
FS1	85	5,950
FX	32	3,637
GALA	133	2,903
GOLF	84	2,475
HALL	38	8,518
HGTV	81	25,216
HIST	70	10,930
HLN	80	4,242
HSTE	114	1,595
MASN	654	23,616
MNBC	60	28,735
NBCS	88	4,359
NFLN	79	7,414
NICK	84	12,176
NSWA	99	3,816
TRU	166	3,358
TWC	114	22,685
USA	81	24,464
<b>Grand Total</b>	<b>2,969</b>	<b>264,209</b>

<b>ARLINGTON</b>		
<b>Network</b>	<b>Total TV Spots</b>	<b>A18+ IMPs</b>
AMC	36	5,403
APL	149	10,866
CMDY	10	1,315
CNN	35	25,194
CNNE	7	86
DIY	72	3,321
ESPD	13	65
ESPN	37	20,372
FBN	84	3,897
FS1	86	5,577
FOXD	10	
FX	32	6,271
GALA	40	487
GOLF	78	2,490
HGTV	75	40,107
HIST	34	7,730
HLN	103	3,525
HSTE	14	534
MASN	598	29,802
MNBC	48	48,115
NFLN	50	10,011
NICK	82	9,277
NSWA	143	11,878
TRU	164	3,984
TWC	114	15,187
USA	48	18,647
<b>Grand Total</b>	<b>2,225</b>	<b>290,335</b>

<b>FFX COUNTY (COX)</b>		
<b>Network</b>	<b>Total TV Spots</b>	<b>A18+ IMPs</b>
AEN	98	20,957
AMC	20	4,215
APL	90	18,135
CMDY	95	13,718
CNN	20	19,616
CNNE	92	10,813
DISC	19	3,373
DIY	93	7,518
ESPD	94	1,178
ESPN	18	12,098
FOXD	96	1,903
FS1	70	10,133
FX	18	4,543
GALA	119	11,565
GOLF	75	5,134
HALL	19	8,488
HGTV	62	33,368
HIST	91	29,502
HLN	99	11,434
HSTE	99	4,878
MASN	433	15,607
MNBC	21	25,671
NBCS	110	12,089
NFLN	49	4,395
NGC	24	2,775
NICK	81	25,770
NSWA	98	12,311
SYFY	5	713
TBSC	51	17,069
TRU	205	10,533
TWC	98	45,194
<b>Grand Total</b>	<b>2,568</b>	<b>404,696</b>

<b>Fairfax North - South - West (Combined)</b>		
<b>Network</b>	<b>Total TV Spots</b>	<b>A18+ IMPs</b>
AEN	158	21,776
AMC	109	36,229
APL	52	4,783
CMDY	332	34,497
CNN	104	1,122,224
CNNE	9	1,228
DISC	84	20,185
DIY	35	1,422
ESPD	11	928
ESPN	99	50,031
FRFM	254	27,772
FOXD	9	
FS1	71	6,909
FX	100	23,000
GALA	44	2,001
GOLF	1	
HALL	42	6,001
HGTV	223	97,818
HIST	97	23,396
HLN	75	3,189
HSTE	16	6,585
MASN	2,330	99,124
MNBC	164	197,988
NBCS	667	29,810
NFLN	164	31,231
NGC	56	2,116
NSWA	333	20,427
SYFY	52	3,352
TRU	159	2,197
TWC	57	7,940
USA	160	53,251
<b>Grand Total</b>	<b>6,079</b>	<b>1,939,461</b>

<b>LOUDOUN</b>		
<b>Network</b>	<b>Total TV Spots</b>	<b>A18+ IMPs</b>
AMC	36	7,181
APL	109	5,055
CMDY	7	1,547
CNN	31	25,203
CNNE	7	53
DISC	36	8,147
DIY	74	1,943
ESPD	9	39
ESPN	36	22,284
FBN	81	2,822
FS1	88	7,563
FX	33	8,790
GALA	40	351
GOLF	79	1,680
HGTV	77	35,750
HIST	36	7,982
HLN	78	2,357
MASN	542	15,564
MNBC	32	44,824
NBCS	103	6,287
NFLN	77	16,186
NICK	84	8,104
NSWA	93	7,529
TRU	176	2,565
TWC	113	14,580
USA	44	20,193
<b>Grand Total</b>	<b>2,121</b>	<b>274,579</b>

<b>POTOMAC</b>		
<b>Network</b>	<b>Total TV Spots</b>	<b>A18+ IMPs</b>
AMC	2	48,547
APL	127	218,836
CC	191	63,647
CMDY	2	4,037
CMT	190	159,767
CNNE	99	722,948
DIY	127	103,787
ESPD	99	45,315
FBN	127	92,725
FOXD	99	73,984
FS1	1	736
GALA	91	37,484
GOLF	93	29,766
HALL	32	100,802
HLN	127	94,149
NGC	33	42,073
SYFY	33	53,539
TRU	127	101,240
<b>Grand Total</b>	<b>1,600</b>	<b>1,993,382</b>

Nielsen Company –Washington DC Live+SD data extrapolated through Strata CablePost. Strata uses its NuMath methodology to derive zone based estimates

# Northern Virginia Regional Commission

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For the English language TV networks, 16,185 total “:30” second commercials (or combined “:15” second commercials) aired, resulting in roughly 4.3 million Adult 18+ Television-based Impressions delivered during this campaign when Auto-Fill spots are included. These figures should also be treated as suggestive as they are derived from the Nielsen television sample for the entire Washington DC TV market for the period of July 1, 2017 through July 1, 2018. Additionally, 1,737 “:30” second commercials on Spanish language networks for a total of 17,922 commercial units. It should be noted that the significant decrease in total commercials compared to 2017 is a direct result of the restructuring of the Fairfax County Zone into three distinct hyper-targeted Zones: Fairfax North, Fairfax South and Fairfax West.

During the 2017-18 campaign, the digital products of Spotlight’s ERN (Extended Reach Network) were added to the media mix, allowing online display insertion on Verizon.net, in addition to the online advertising on Xfinity.com and Premium Digital Video (PDV) and Premium Digital Television (PDTV). Unlike television, digital impressions have return path data, which provides more accurate measurement than Nielsen’s rating, which are based on viewership estimates.

Overall, more than 1.2 million digital impressions were delivered via geographic targeting to Northern Virginia across multiple platforms and product types. For all product types, the digital platforms outperformed the guaranteed number of impressions by month, resulting in a delivery of 109.79% of the impression goal.

## Online Advertising Key Metrics:

- Display Banner Ads received 596 clicks-thru to your website; this equates to a click-thru rate (CTR) of 0.08%, which is greater than the National Average CTR of 0.03%.
- Online Video Ads (Premium Digital Video and Premium Digital Television) were delivered 375,821 times and 98% of viewers watched your Video Ad in its entirety.
- Visitors spent 232,144 total minutes (3,869 hours) of engagement with your video content.
- Over the course of 48 total hours, your two (2) 24-Hour Sign-In Page Take-Overs delivered 132,404 total impressions.

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## Digital Campaign Delivery by Product

July 2017 thru June 2018				
Comcast Spotlight Digital Portfolio	Impressions Ordered	Impressions Delivered	Over/Under Delivery	Percentage of Impression Goal
<b>TOTALS</b>	<b>1,113,579</b>	<b>1,222,561</b>	<b>111,982</b>	<b>109.79%</b>

July 2017 – June 2018				
Digital Product	Impressions Ordered	Impressions Delivered	Over/Under Delivery	Percentage of Impression Goal
Display/In-Banner Video	645,831	717,385	71,554	111.08%
Premium Digital Video (PDV)	250,248	257,691	7,443	102.97%
Premium Digital Television (PDTV)	117,500	118,130	629	100.54%
<b>TOTALS</b>	<b>1,013,579</b>	<b>1,093,206</b>	<b>79,627</b>	

Unique Digital Opportunities				
24-Hour Takeover (Display & IBV)	Estimated Impression Delivery	Actual Impressions Delivered	Over/Under Delivery	Viewed Minutes
May 15, 2018	50,000	71,049	21,049	146.25
May 24, 2018	50,000	61,355	11,335	143.91
<b>TOTALS</b>	<b>100,000</b>	<b>132,355</b>	<b>32,384</b>	<b>290.16</b>

# Northern Virginia Regional Commission

## Campaign Performance –20% reach of target group

To understand the delivery of the overall campaign we created target logic to properly identify the audience we reach, using the below zone definitions and networks within. For the campaign delivery, the base for the calculation of reach is the adult population for the combined geographies in Northern Virginia. This was based on the actual delivery of the networks in each zone. For reporting purposes, we provided this as one estimate.

Overall, more than 20% of each of the three attribute groups was reached at least one time through the utilization of the networks selected. With the inclusion of digital products of delivered across the Xfinity Internet Service Provider, the campaign’s overall reach increases to over 75% of each targeted attribute groups.

County Of Residence: Alexandria City, VA OR Arlington, VA OR Fairfax City, VA OR Fairfax, VA OR Falls Church City, VA OR Loudoun, VA OR Stafford, VA

	Dog Owners		Personal Yard Care/Landscaping Enthusiasts		Personal Car Maintenance/ Restoration		Do-It-Yourselfers	
	Reach	% Reach	Reach	% Reach	Reach	% Reach	Reach	% Reach
<b>Population of Target</b>	<b>495,209</b>	<b>100%</b>	<b>726,099</b>	<b>100%</b>	<b>160,886</b>	<b>100%</b>	<b>462,724</b>	<b>100%</b>
2017-18 NVRC Campaign (Television Only)	374,519	75.6%	566,078	78.0%	105,463	65.6%	357,786	77.3%
2017-18 NVRC Campaign (TV & Online)	395,081	<b>79.8%</b>	591,772	<b>81.5%</b>	121,726	<b>75.7%</b>	379,478	<b>82.0%</b>

SOURCE: Washington, D.C.-Syndicated-MRI/Mosaic, Feb17-Feb18, Scarborough

# Northern Virginia Regional Commission

## Summary

Through use of Comcast Spotlight's targeted media offerings; the data strongly supports the Clean Water Partners goal of reaching a minimum 20% of each target attribute among the defined geographies in Northern Virginia. This period evaluation indicates year-over-year growth in reach among all target attributes, with the exception of the Pet Waste group, which declined slightly by only 3.6 percentage points.

With the inclusion of the Spanish language networks and online display and video advertising, reach among your target attributes experienced additional growth. However, that impact cannot be quantified in this analysis due to limited available data.

While these results appear favorable for the attainment of goals, these are derived from samples and therefore have variance associated with the findings.

Attribute	2014 Study	2015 Study	2016 Study	2017 Study	2018 Study (Current)
Pet Waste (dog waste)	32.8%	53.4%	84.7%	83.4%	<b>79.8%</b>
Lawn Care (fertilizers)	31.9%	48.3%	86.1%	78.9%	<b>81.5%</b>
Personal Auto Care (oils and lubricants)	35.9%	45.3%	83.8%	74.6%	<b>75.7%</b>
Do-It-Yourselfers	n/a	n/a	n/a	79.5%	<b>82.0%</b>

SOURCE: Washington, D.C.-Syndicated-MRI/Mosaic, Feb17-Feb18, Scarborough

# Northern Virginia Regional Commission

## Appendix

### 1. 2016-2017 Advertising Response

Media	Dog Owners		Personal Yard Care/Landscaping Enthusiasts		Personal Car Maintenance /Restoration		Do-It-Yourselfers	
	Audience %	Rank	Audience %	Rank	Audience %	Rank	Audience %	Rank
Television (over-the-air, online, mobile or tablet)	65.1%	1	62.9%	2	71.6%	1	66.9%	2
Ads/Coupons in your mailbox	63.7%	2	66.4%	1	69.1%	2	69.3%	1
Sponsored search result (like on Google, Yahoo or Bing)	54.8%	3	51%	4	62.5%	3	56.1%	3
Ad on a social network	54%	4	45.5%	7	57.2%	7	51.3%	7
Emailed ad or newsletter	52.8%	5	51.3%	3	57.9%	6	56.0%	4
Newspaper (print, online, mobile or tablet)	50.6%	6	50.9%	5	58.8%	4	53.1%	5
Daily Deals (Groupon, LivingSocial, etc.)	50.2%	7	47.1%	6	53.9%	9	51.7%	6
Mobile smartphone app/text msg.	49.6%	8	N/A	N/A	53.4%	10	N/A	N/A
Radio (over-the-air, online, mobile or tablet)	48.8%	9	43.5%	9	57.9%	5	47.5%	9
Internet banner ad	47.7%	10	41.8%	10	55.6%	8	47.1%	10

## 2. 2016-17 Selection of Advertising Properties

TARGET	A18+ Intab 2016
Lifestyle Characteristics: Own a Dog	531
Household Activities: Lawn Care	916
Unpaid/ Personal Labor: Anti-Freeze/Coolant OR Oil Filter/Oil Change	237
Past 12 Months: Unpaid Auto Repairs (Anti-Freeze/Coolant, Oil) OR Shopped/Bought at Hardware Store AND performed Home Improvement Repairs (Exterior Paint, Landscaping)	1,640

SOURCE: Scarborough Research- Washington DC DMA (Base Adults 18+), March 2015-March 2016 survey period.

Network	Lifestyle Characteristics			Leisure Activities Past 12 Months			Auto Repairs Past Year: Unpaid Labor			Past 12 Months: Unpaid Auto Repairs (Anti-Freeze/Coolant, Oil) OR Shopped/Bought at Hardware Store AND performed Home Improvement Repairs (Exterior Paint, Landscaping)		
	A18+ Reach	Reach %	Index	A18+ Reach	Reach %	Index	A18+ Reach	Reach %	Index	A18+ Reach	Reach %	Index
AEN-TV	72,732	15.9%	83	117,347	16.3%	85	28,817	13.1%	68	184,619	13.4%	70
AMC-TV	75,677	16.6%	110	106,930	14.8%	99	33,198	15.1%	101	178,056	13%	86
APL-TV	48,185	10.6%	105	36,967	5.1%	51	5,336	2.4%	24	82,921	6.0%	60
BRVO-TV	50,882	11.1%	120	60,134	8.3%	90	16,997	7.8%	84	125,823	9.2%	99
CC-TV	33,764	7.4%	70	59,068	8.2%	77	12,465	5.7%	54	102,846	7.5%	71
CMDY-TV	54,649	12%	87	90,623	12.6	91	25,115	11.5	83	176,802	12.9%	93
CMT-TV	16,758	3.7%	90	19,122	2.6%	65	6,962	3.2%	78	35,911	2.6%	64
CNBC-TV	31,225	6.8%	91	74,029	10.3%	137	10,720	4.9%	65	104,800	7.6%	102
COX.COM	29,494	6.5%	154	66,130	9.2%	219	16,223	7.8%	226	126,580	9.2%	220
CSNM-TV	36,283	7.9%	131	53,617	7.4%	123	9,763	4.5%	74	79,247	5.8%	95
DIY-TV	24,523	5.4%	113	46,210	6.4%	135	20,626	9.4%	198	61,476	4.5%	94
ENT-TV	41,838	9.2%	135	40,380	5.6%	83	11,793	5.4%	80	99,167	7.2%	107
FBN-TV	23,232	5.1%	99	49,722	6.9%	134	12,065	5.5%	107	76,149	5.5%	108
FRFM-TV	21,368	4.7%	95	27,977	3.9%	78	5,451	2.5%	50	44,265	3.2%	65
FS1-TV	39,918	8.7%	106	84,436	11.7%	142	10,185	4.6%	56	122,248	8.9%	108
FX-TV	84,307	18.5	130	122,952	17%	120	35,371	16.1%	113	198,683	14.5%	102
GOLF-TV				38,157						55,916	4.1%	120
	16,350	3.6%	106		5.3%	156	6,218	2.8	84			
HALL-TV	46,549	10.2%	84	94,563	13.1%	108	15,143	6.9%	57	132,321	9.6%	79
HGTV-TV	125,478	27.5%	154	159,355	22.1%	123	58,753	26.8	150	293,446	21.4%	119

HIST-TV	126,233	27.6%	136	177,483	24.6%	121	48,040	21.9%	108	255,677	18.6	91
HLN –TV	6,814	1.5%	77	9,267	1.3%	67		%		16,062	1.2%	61
LMN –TV	17,757	3.9%	53	38,043	5.3%	71	9,259	4.2%	57	62,402	4.5%	62
MASN-TV	30,777	6.7%	99	61,251	8.5%	125	10,074	4.6%	68	96,457	7.0%	103
MNBC-TV	65,840	14.4%	121	108,493	15%	126	19,699	9.0%	75	178,654	13%	109
MTV2-TV	10,833	2.4%	95	12,870	1.8%	71	5,811	2.6%	106	15,181	1.1%	44
NBCS-TV	17,764	3.9%	119	29,384	4.1%	124	6,023	2.7%	84	57,127	4.2%	127
NGC –TV	73,133	16%	121	89,058	12.3%	93	29,081	13.3%	100	149,059	10.8%	82
NICK-TV	11,579	2.5%	47	21,018	2.9%	54	4,683	2.1%	40	34,826	2.5%	47
OWN -TV	5,770	1.3%	16	31,507	4.4%	54	3,115	1.4%	18	60,521	4.4%	54
OXYG-TV	10,074	2.2%	33	27,251	3.8%	57	7,125	3.2%	49	40,750	3.0%	45
SPK –TV	33,608	7.4%	81	70,779	9.8%	108	14,926	6.8%	75	87,202	6.3%	70
SYFY-TV	50,533	11.1%	107	77,919	10.8%	105	26,004	11.9%	115	110,239	8.0%	78
TBSC-TV	81,663	17.9%	104	159,213	22%	128	25,822	11.8%	68	229,442	16.7%	97
TOON-TV	12,777	2.8%	52	22,632	3.1%	59	5,811	2.6%	50	63,838	4.6%	87
TRU –TV	22,334	4.9%	87	26,613	3.7%	65	7,091	3.2%	57	50,022	3.6%	64
TVL –TV	27,776	6.1%	91	38,967	5.4%	80	10,247	4.7%	70	60,154	4.4%	65
TWC-TV	30,423	6.7%	47	78,191	10.8%	76	13,927	6.4%	45	135,624	9.9%	69
USA –TV	68,599	15%	82	153,533	21.3%	116	51,563	23.5%	128	223,379	16.3%	88
XFINITY/ Comcast	67,988	16.4%	67	90,093	13.3%	54	42,016	20.1%	82	274,784	20%	69

SOURCE: Washington, D.C.-Syndicated-MRI/Mosaic, Ap16-Fe17, Scarborough

### 3. 2016-17 Overall Advertising Delivery

#### Television

Network	Total Spots	Total A18+ Impressions
AEN	1,896	1,375,070
AMC	624	578,566
APL	9,023	4,403,536
BRVO	240	163,294
CC	2,784	328,320
CMDY	3,376	990,882
CMT	2,104	533,399
CNBC	4	1,674
CSNM	14,112	1,914,505
DIY	6,672	1,338,545
DXD	447	96,312
ENT	627	367,966
FBN	4,488	632,934
FRFM	3,328	2,677,382
FS1	2,509	439,246
FX	483	443,382
GOLF	5,428	529,836
HALL	2,166	3,516,544
HGTV	2,352	2,438,355
HIST	1,120	472,736
HLN	8,793	1,781,351
LMN	384	293,972
MASN	12,448	4,154,385
MNBC	52	21,936
MTV2	387	92,339
NBCS	7,640	2,658,929
NFLN	2,800	709,786
NGC	381	277,363
NICK	3,280	2,219,931
OWN	1,017	875,635
OXYG	384	181,736
SPK	633	569,676
SYFY	384	283,916
TBSC	336	177,093
TOON	312	508,461
TRU	5,752	927,366
TVL	384	391,035
TWC	3,128	1,078,992
USA	2,491	2,322,100
<b>Grand Total</b>	<b>114,769</b>	<b>42,768,486</b>

## Digital

July 2016 thru June 2017			
Comcast Spotlight Digital Portfolio	Impressions Ordered	Impressions Delivered	Over/Under Delivery
<b>TOTALS</b>	<b>1,323,854</b>	<b>2,090,152</b>	<b>766,298</b>
2016 (July - Dec)			
Digital Product	Impressions Ordered	Impressions Delivered	Over/Under Delivery
Display/In-Banner Video	440,000	493,236	53,236
Premium Digital Video	180,000	185,126	5,126
<b>TOTALS</b>	<b>620,000</b>	<b>678,362</b>	<b>58,362</b>
2017 (Jan - Jun)			
Digital Product	Impressions Ordered	Impressions Delivered	Over/Under Delivery
Display/In-Banner Video	456,669	1,098,372	641,703
Premium Digital Video	147,185	151,559	4,374
<b>TOTALS</b>	<b>603,854</b>	<b>1,249,931</b>	<b>646,077</b>
Unique Digital Opportunities			
24-Hour Takeover (Display & IBV)	Estimated Impression Delivery	Actual Impressions Delivered	Over/Under Delivery
Apr-17	50,000	79,314	29,314
May-17	50,000	82,545	32,545
<b>TOTALS</b>	<b>100,000</b>	<b>161,859</b>	<b>61,859</b>

### 4. Campaign Performance

County Of Residence: Alexandria City, VA OR Arlington, VA OR Fairfax City, VA OR Fairfax, VA OR Falls Church City, VA OR Loudoun, VA OR Stafford, VA

	Dog Owners		Personal Yard Care/Landscaping Enthusiasts		Personal Car Maintenance/Restoration		Do-It-Yourselfers	
	Reach	% Reach	Reach	% Reach	Reach	% Reach	Reach	% Reach
<i>Population of Target</i>	456,578	100.0%	722,068	100.0%	219,285	100.0%	1,081,663	100.0%
2016-17 NVRC Campaign (Television Only)	367,058	80.4%	542,731	75.2%	149,843	68.3%	820,056	75.8%
2016-17 NVRC Campaign (TV & Online)	380,710	83.4%	569,581	78.9%	163,537	74.6%	859,972	79.5%

Scarborough Research- Washington DC DMA (Base adults 18+), Apr'16-Feb'17 survey period



# CITY OF FALLS CHURCH

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June 5, 2018

Subject: Automotive Industry Outreach Material

Dear Automotive Industry Facility Manager:

The City of Falls Church Department of Public Works is providing the following informational materials to establishments that are engaged in the automotive industry. This letter is a small part of the City's effort to educate public and private businesses about the common types of illicit discharges that plague our environment. Please take a moment to check out the following website provided by the EPA for Best Workplace Practices for Automotive Repair and Fleet Maintenance.

<https://www.epa.gov/saferchoice/best-workplace-practices-automotive-repair-and-fleet-maintenance>

The website covers general good housekeeping practices for automotive businesses and address items such are hazardous waste disposal, leaks and spills, material storage, dumpster management, and vehicle maintenance.

Please share the provided information with your staff. If you have any questions about the City's stormwater program or require technical assistance on how you can improve your workplace to prevent illicit discharges please contact the City's Civil Engineer, Jason Widstrom, at 703-248-5026 or via email at [jwidstrom@fallschurchva.gov](mailto:jwidstrom@fallschurchva.gov).

Sincerely,

Jason Widstrom, P.E.  
Civil Engineer

# GOOD CLEANING PRACTICES

## AUTOMOBILE REPAIR INDUSTRY



### PROPER STORAGE OF HAZARDOUS WASTE

Keep your liquid waste segregated. Many fluids can be recycled via hazardous waste disposal companies if they are not mixed. Store all materials under cover with spill containment or inside to prevent contamination of rainwater runoff. Mantenga los desechos líquidos separados. Varios líquidos pueden ser reciclados por compañías que se especializan en desechos tóxicos si no están mezclados. Guarda y cubre todos los materiales dentro de un lugar para prevenir la contaminación del desagüe.



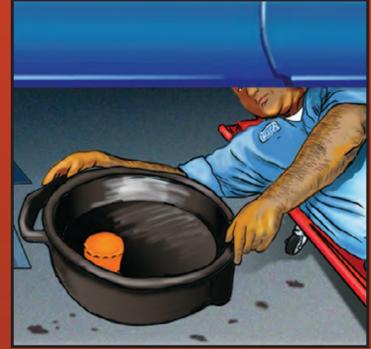
### CLEANING AUTO PARTS

Scrape parts with a wire brush or use a bake oven rather than liquid cleaners. Arrange drip pans, drying racks and drain boards so that fluids are directed back into the sink or the fluid holding tank. Do not wash parts or equipment in a parking lot, driveway or street. Limpie las partes de un cepillo de alambres o use un limpiador de hornos en vez de usar limpiadores líquidos. Arregle las graderas, perchas para secar y tables de escurrir para que los líquidos sean dirigidos al lavadero o recipientes para guardar líquidos. No lave las partes de auto o herramientas en el estacionamiento, la cochera o la calle.



### METAL GRINDING & POLISHING

Keep a bin under your lathe or grinder to capture metal filings. Send uncontaminated filings to a scrap metal recycler for reclamation. Store metal filings in a covered container or indoors. Mantenga un recipiente debajo de las maquinarias de tornos o amoladoras para coleccionar desechos de metal. Mande los desechos de metal a un centro de reciclaje de metales. Guarde los desechos de metal en un recipiente cubierto o dentro del local.



### PREVENTING LEAKS & SPILLS

Place drip pans underneath to capture fluids. Use absorbent cleaning agents instead of water to clean work areas. Utilice caserolas para el goteo de líquidos. Use limpiadores absorbentes en lugar de agua para limpiar el área de trabajo.



### CLEANING UP SPILLS IMMEDIATELY

Follow your hazardous materials response plan, as filed with your local fire department or other hazardous materials authority. Be sure that all employees are aware of the plan and are capable of implementing each phase of the plan. Use dry methods for spill cleanup (sweeping, absorbent materials, etc.). Siga su plan de como deshacerse de materiales tóxicos, como esta indicado en el departamento de bomberos local u otras autoridades de materiales tóxicos. Asegúrese que todos los empleados estén informados y sean capaces de aplicar cada fase del plan. Use métodos secos para limpiar derramamientos (barriendo, materiales absorbentes, etc.).



### PROPER DISPOSAL OF HAZARDOUS WASTE

Recycle solvents, oil and used filters, anti-freeze, batteries, lubricants and metal filings collected from grinding/polishing auto parts. Contact a licensed hazardous waste hauler to dispose of saturated absorbents. Recicle solventes, aceite de motor y filtros de aceite usados, anti-congelante, baterias, lubricantes, y desechos de metal y partes de auto pulidas. Llame a un colector de desechos tóxicos para disponer de absorbentes saturados.

To report illegal dumping or spills. Para reportar actividades ilegales.

City of Falls Church Police Non-Emergency Number

**(703) 248-5053**



CITY OF **FALLS CHURCH**

Poster Courtesy of San Bernardino County, CA



The City of Falls Church is committed to the letter and spirit of the Americans with Disabilities Act. To request a reasonable accommodation for any type of disability, call 703-248-5027 (TTY 711). For more information call 703-248-5178.

## APPENDIX C – Public Participation

- City Council Proclamations
  - May 2018 – Mayor’s Proclamation
    - Watershed and Floodplain Awareness Month
  - April 22, 2018 – Mayor’s Proclamation
    - Earth Day
  - May 20 through May 26 – Mayor’s Proclamation
    - Public Works Week
- Environmental Services Council
  - June 21, 2018 Agenda
- Habitat Restoration Schedule of Events (Fall 2017 and Spring 2018)
- Neighborhood Tree Program Tree Planting Sign-in Sheets
  - October 28, 2017
  - April 21, 2018
- City-wide Clean-up and Litter Pickup Event Details

*City of Falls Church*

Meeting Date: 05-14-18	Title: PROCLAMATION DECLARING MAY 2018 AS WATERSHED AND FLOODPLAIN AWARENESS MONTH	Agenda No.:  6 (c) (5)	
Originating Dept. Head: Mike Whitfield, Director of Public Works 703-248-5331 MJW 05-03-2018 Jason Widstrom, PE, Civil Engineer 703-248-5026 JW 05-03-18		Disposition by Council:	
City Manager: F. Wyatt Shields 703-248-5004	City Attorney: Carol McCoskrie 703-248-5010	CFO: Kiran Bawa 703-248-5092	City Clerk Celeste Heath 703-248-5014

**PROCLAMATION**

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WHEREAS, the streams and tributaries that flow above and below the ground through the City of Falls Church are part of an interconnected watershed system that carries water from rooftops, yards, streets, and parking lots into the Potomac River and the Chesapeake Bay; and

WHEREAS, the City of Falls Church is committed to improving and protecting these precious waters as habitat for plant and animal life, as a recreational resource, and as drinking water, both now and in the future; and

WHEREAS, there are currently 213 commercial and residential properties in the Falls Church City portion of the Tripps Run and Four Mile Run floodplains; and

WHEREAS, the City participates in the National Flood Insurance Program’s Community Rating System, which recognizes and encourages community floodplain management and through which flood insurance rates may be reduced to reflect the reduced flood risk resulting from community activities that meet targeted goals; and

WHEREAS, the City provides opportunities to residents, businesses, schools, churches, and organizations to participate in watershed and floodplain education efforts; and

WHEREAS, many city residents have responded by participating in programs that serve to raise awareness about what individuals can do on their properties, in their homes, and through their transportation choices to improve water quality and minimize their impact on the floodplain; and

WHEREAS, the City has undertaken a city-wide comprehensive effort to examine our watershed and to develop a plan for improving it and recognizes the importance of increasing public awareness of watershed and floodplain protection,

NOW, THEREFORE, I, DAVID TARTER, Mayor of the City of Falls Church, Virginia, do hereby proclaim May 2018 as

**WATERSHED AND FLOODPLAIN AWARENESS MONTH**

in the City of Falls Church and urge all citizens to recognize the importance of this observance and to participate in watershed and floodplain protection activities.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the Seal of the City of Falls Church, Virginia, to be affixed this 14th day of May 2018.

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David Tarter, Mayor

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**City of Falls Church**

Meeting Date: 04-09-18	Title: PROCLAMATION DESIGNATING APRIL 22, 2018 AS EARTH DAY	Agenda No.: 6(b)
Proposed Motion: None.		
Originating Dept. Head: Wyatt Shields, City Manager 703.248.5004		Disposition by Council:

**PROCLAMATION**

WHEREAS, pollution and the need to take action to reduce it is recognized as a global priority; and

WHEREAS, our vision for the City of Falls Church incorporates environmental sustainability, including clean, safe, streams as a core value; and

WHEREAS, Earth Day is an international and local symbolic event to raise awareness about pollution issues, and to encourage businesses, individuals, and governments to take actions to reduce pollution; and

WHEREAS, Earth Day in 2018 will focus on mobilizing the world to end plastic pollution; and

WHEREAS, the City of Falls Church is member of the Northern Virginia Clean Water Partners group of local governments, schools and universities, water and sanitary sewer authorities, businesses, the Northern Virginia Regional Commission, and the Virginia Coastal Management Program, which share a goal to keep Northern Virginia residents healthy and safe by reducing pollution from stormwater runoff that reaches local creeks and rivers; and

WHEREAS, for Earth Day 2018, Clean Water Partners will lead a campaign to raise public awareness about the environmental impacts of storm water pollution, using stencils and an eco-friendly rain resistant spray to create motivational messages that will appear when sidewalk surfaces are wet;

NOW, THEREFORE, I, DAVID TARTER, Mayor of the City of Falls Church, Virginia, do hereby proclaim April 22, 2018 as

**EARTH DAY**

in the City of Falls Church and encourage residents, businesses, and organizations to be reminded by such messages when they appear around the City to commit to actions to reduce their use of plastics, such as using reusable grocery bags and water bottles, and to ensure that any plastic items they do use are reused or recycled.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the Seal of the City of Falls Church, Virginia to be affixed this 9<sup>th</sup> day of April 2018.

\_\_\_\_\_  
David Tarter, Mayor

**City of Falls Church**

Meeting Date: 05-14-18	Title: PROCLAMATION DECLARING MAY 20 -26, 2018 AS PUBLIC WORKS WEEK	Agenda No.: 6 (c) (1)
Proposed Motion: N/A		
Originating Dept. Head: Michael J. Whitfield, Director Department of Public Works 703.248.5331 <b>MJW 05-01-2018</b>		Disposition by Council: Karin U. Battle Public Resources Mgr. Dept. of Public Works <b>KUB 05-01-2018</b>

**PROCLAMATION**

WHEREAS, the Department of Public Works manages the infrastructure, facilities, and services essential to the City of Falls Church as a sustainable and resilient community; and

WHEREAS, the City’s Public Works professionals provide a wide range of programs, project management, and services including those related to city streets and sidewalks, traffic signals, stormwater management, sewers, environmental services, signage, public buildings, fleet maintenance, urban forestry and green spaces, snow removal, leaf collection, and recycling and solid waste collection; and

WHEREAS, Public Works staff provide expertise in engineering, geospatial information systems, grants administration, procurement, contracts, construction management, and implementation of the City’s Capital Improvements Program; and

WHEREAS, these dynamic services are dependent upon the dedicated efforts of Public Works employees whose vision is: **“Working together to sustain and enhance our community’s infrastructure and provide a safe, green, and clean environment”**; and

WHEREAS, the support of an informed citizenry is of fundamental importance to encouraging those responsible for sustaining the City’s infrastructure; and

WHEREAS, the year 2018 marks the 58th annual National Public Works Week, sponsored by the American Public Works Association; and

WHEREAS, this year’s theme for National Public Works Week is **The Power of Public Works**, in recognition of the powerful impact which public works has on citizens’ lives and it invites the public to celebrate the quiet dedication and indispensable influence of public works employees;

NOW THEREFORE, I, DAVID TARTER, Mayor of the City of Falls Church, Virginia, do hereby proclaim the week of May 20-26, 2018 as

**PUBLIC WORKS WEEK**

in the City of Falls Church and urge citizens to join in recognizing the dynamic and essential contributions of the City’s Public Works staff.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the Seal of the City of Falls Church, Virginia, to be affixed this 14<sup>th</sup> day of May 2018.

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David Tarter, Mayor

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## **Environmental Sustainability Council**

**Thursday, June 21, 7:30 - 9:30 pm; Thomas Jefferson Elementary School Library (Media Room)**

### **Agenda**

- 1. Call to Order** (Minutes for this meeting: Jon Ward)
- 2. Public Comments**
- 3. Approval of Minutes** (April 19 and May 17, 2018)
- 4. New sustainability initiatives in Falls Church**
  - **FCCPS Extended Day Care Program Zero Waste Day** (Brannon McLaughlin, FCCPS EDCP Assistant to the Day Care Director)
  - **HEAL / Urban Agriculture committee** (Carly Aubrey, Planner, City of Falls Church)
- 5. Stormwater update** (Jason Widstrom, Stormwater Utility Program and Engineering Contact)
- 6. Prep for legislative agenda: proposed solar legislation** (Tim Stevens, Chair ETS)
- 7. Ongoing business**
  - Comprehensive plan update, Kate Walker
  - Development projects (WFC, Founders Row)
  - Student participation
  - Subcommittee reports (HRG, ETG, ETS)
- 8. ESC officer elections**
- 9. Information items**
- 10. Next meeting**
  - Thursday, July 19, Thomas Jefferson Elementary School Library (Media Room)

**Staff Liaison:**

Kate Walker  
City of Falls Church  
300 Park Avenue Suite 300 West  
Falls Church, VA 22046  
Email: [kwalker@fallschurchva.gov](mailto:kwalker@fallschurchva.gov)  
Phone: (703) 248-5297

# Falls Church Habitat Restoration

*Restoring natural ecosystems in the City of Falls Church*



Join the City of Falls Church Habitat Restoration Team in restoring the local ecosystem in city parks. We will be removing damaging invasive plants as well as planting natives that benefit our local birds and butterflies.

## Fall 2017 Schedule of Events:

Date	Location	Time
September 9	Cherry Hill Park (planting and removal event)	9am-1pm
September 30	Isaac Crossman Park (planting event)	10am-1pm
October 21	Isaac Crossman Park (planting event )	10am-1pm
October 28	Howard Herman Park (removal event)	10am-Noon
November 4	Isaac Crossman Park (removal event)	10am-Noon

## Event Locations:

Cherry Hill Park – From West Street head east on Broad Street/Rt. 7. Turn left onto Little Falls Street. Turn left into the Community Center entrance – parking is in the rear. We will be working in the more woody sections of the park either near or behind the basketball court or along the fence line between Park and Great Falls.

Crossman Park – From the intersection of rt. 7 and rt. 29, head north on rt. 29. Turn right on to East Columbia Street then take a left onto Van Buren Street. Enter park from Van Buren Street where the playground is located. You can also walk-in from North Washington Street using the Gresham Place Street. Street parking available on Van Buren.

Howard Herman Park - From West Street head east on Broad Street/Rt. 7. Turn right onto South Virginia Avenue then right again to stay on South Virginia Avenue. Then a right onto Rollins, the street dead-ends at the Park. Enter from the end of Rollins Street. You can also enter behind TJ Elementary School across the bridge or at a walk-in entrance near the Byron (Plaka Grill and Penzey's Spice Building) off of West Broad Street.



More information on the park locations can be found on the Falls Church Rec & Park website: <http://www.fallschurchva.gov/511/Parks>

For restoration event or Native Plant sale information:  
contact Melissa Teates, 703-538-6961 or [melanite@verizon.net](mailto:melanite@verizon.net).

The City of Falls Church is committed to the letter and spirit of the Americans with Disabilities Act. To request a reasonable accommodation for any type of disability call 703-248-5016 (TTY 711)

# Falls Church Habitat Restoration

*Restoring natural ecosystems in the City of Falls Church*



Join the City of Falls Church Habitat Restoration Team in restoring the local ecosystem in city parks. We will be removing damaging invasive plants as well as planting natives that benefit our local birds and butterflies.

## Spring 2018 Schedule of Events:

Date	Location	Time
March 17, 2018	Howard Herman Stream Valley Park (invasive removal)	10am-Noon
April 14, 2018	Cavalier Trail Park (planting trees, shrubs & perennials)	9am-Noon
April 28, 2018	Isaac Crossman Park (planting trees, shrubs & perennials)	9am-Noon
May 12, 2018	Isaac Crossman Park (planting trees, shrubs & perennials/invasive removal)	9am-Noon
May 13, 2018	Native Plant Sale Pick-Up (see below for contact)	11am-1pm

### Event Locations:

Cavalier Trail Park - From the intersection of rt. 7 and rt. 29, head south on rt. 29. Turn right onto Maple Street then make an immediate left into the Cavalier Trail Park parking lot.

Crossman Park – From the intersection of rt. 7 and rt. 29, head north on rt. 29. Turn right on to East Columbia Street then take a left onto Van Buren Street. Enter park from Van Buren Street where the playground is located. You can also walk-in from North Washington Street using the Gresham Place Street. Street parking available on Van Buren.

Howard Herman Park - From West Street head east on Broad Street/Rt. 7. Turn right onto South Virginia Avenue then right again to stay on South Virginia Avenue. Then a right onto Rollins, the street dead-ends at the Park. Enter from the end of Rollins Street. You can also enter behind TJ Elementary School across the bridge or at a walk-in entrance near the Byron (Plaka Grill and Penzey's Spice Building) off of West Broad Street.



More information on the park locations can be found on the Falls Church Rec & Park website: <http://www.fallschurchva.gov/511/Parks>

For Native Plant sale information: contact Melissa Teates, 703-538-6961 or [melanite@verizon.net](mailto:melanite@verizon.net). For Habitat Restoration info please contact: [HabitatRestoration@fallschurchva.gov](mailto:HabitatRestoration@fallschurchva.gov) Jeremy Edwards 571-238-5178 or Charles Prince 571-238-6306

The City of Falls Church is committed to the letter and spirit of the Americans with Disabilities Act. To request a reasonable accommodation for any type of disability call 703-248-5016 (TTY 711)

**City of Falls Church  
Neighborhood Tree Planting and Mulching Waiver**

On Saturday, October 28, 2017, volunteers from the City of Falls Church community will plant trees as part of the Neighborhood Tree Program (NTP). Volunteers will be grouped into work teams for assignment to designated sites.

Tree planting can be strenuous work and participants should ask for assistance when necessary. For their protection, participants are also advised to wear appropriate clothing, such as sturdy pants, shoes, and gloves. In addition, all sites are adjacent to roadways, and volunteers are advised to be wary of motor vehicle traffic.

The City of Falls Church does not carry insurance to cover this type of event and cannot assume liability in the case of accident or injury.

We, the undersigned, have read the above statement and understand that the City of Falls Church cannot assume responsibility for accident or injury that may occur during this Neighborhood Tree Program Planting (NTP) event. We thus waive any claim against the City, and release its officers and employees from any claims or charges arising out of our/our children's participation in the Neighborhood Tree Program (NTP) planting event. We agree to make every effort to follow/advise our children of the safety requirements suggested and to follow additional safety instructions as outlined by the event coordinator.

Name (please print)	Signature	Date	Email
Selwyn Heminway		10/28	selwyn.heminway@gmail.com
Rebecca Hough		10/28	becca.hough@gmail.com
Emily Graffum		10/28	eagraffum@gmail.com
Lauren Carchaino		10/28	lauren.maker30@gmail.com
Jo Allen		10/28	jo.allen.ts@gmail.com
Lipin - Lu		10/28	linlinly21@gmail.com
Sophie Pittaluga		10/28	pittalugasophie@gmail.com
TJ Roche		10/28	tjroche@gmail.com
Tom Akins		11/28	TOMAKINS@GMAIL.COM
GRACE AKINS		"	"
MARGARET AKINS		"	"

**City of Falls Church  
Neighborhood Tree Planting and Mulching Waiver**

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Name (please print)	Signature	Date	Email
Athena Kullman	<i>Athena Kullman</i>	10/28	athens.coolman@gmail.com
Howard Fiddy	<i>Howard Fiddy</i>	10/28	howard.fiddy@gmail.com
GRANT FIDDY	<i>GRANT FIDDY</i>	10/28	''
Vicky Tappas	<i>Vicky Tappas</i>	10/28	onwaves1@gmail.com
Kent Lancelos	<i>Kent Lancelos</i>	10/28	lcenjlanclos@gmail.com
Sean Young	<i>Sean Young</i>	10/28	Spy003@icloud.com
Naomi Goodwin	<i>Naomi Goodwin</i>	10/28	sygnite@yahoo.com
Seth Hummer	<i>Seth Hummer</i>		
Keith Clouston	<i>Keith Clouston</i>		
Dave Tarter	<i>Dave Tarter</i>		
Jerry Barlett	<i>Jerry Barlett</i>		
Kim	<i>Kim</i>		

**City of Falls Church  
Neighborhood Tree Program Tree Planting and Mulching Waiver**

On Saturday, April 21, 2018 volunteers from the City of Falls Church community will plant trees as part of the Neighborhood Tree Program (NTP). Volunteers will be grouped into work teams for assignment to designated sites.

Tree mulching can be strenuous work and participants should ask for assistance when necessary. For their protection, participants are also advised to wear appropriate clothing, such as sturdy pants, shoes, and gloves. In addition, all sites are adjacent to roadways, and volunteers are advised to be wary of motor vehicle traffic.

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Name (please print)	Signature	Date	Email
Audrey Loucks	<i>Audrey Loucks</i>	4/21/18	ajloucks15@gmail.com
Andrea Loucks	<i>Alyssa</i>	4/21/2018	abede11@yahoo.com
William Schwegel	<i>William Schwegel</i>	4/21/2018	schwegel@fallschurchva.gov
The Akus x 5	<i>Caroline Akus</i>	4/21/18	jenniferrakus@gmail.com
JACK BIGGS	<i>JACK BIGGS</i>	4/21/18	
Tara Clinton	<i>Tara Clinton</i>	4/21/18	telinfallschurchva.gov
Jerry Barnett	<i>Jerry Barnett</i>	4/21/18	jerwin@all
Vicky Trappas	<i>Vicky Trappas</i>	4/21/18	onwaves@aol.com
Tim Stevens	<i>Tim Stevens</i>	4/21/18	TKS505@verizon.net
Eric Volckert	<i>Eric Volckert</i>	4/21/18	Eric.V10@hotmail.com
Hans, Kenton + Seraphina Schweifel	<i>Hans Schweifel</i>	4/21/18	
Siddhik, Radhika Tripathi	<i>Siddhik Tripathi</i>	4/21/18	

30 volunteers

### City of Falls Church Neighborhood Tree Program Tree Planting and Mulching Waiver

On Saturday, April 21, 2018 volunteers from the City of Falls Church community will plant trees as part of the Neighborhood Tree Program (NTP). Volunteers will be grouped into work teams for assignment to designated sites.

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Name (please print)	Signature	Date	Email
Oliver Wang	<i>Oliver Wang</i>	4/21/18	wangoliver97@gmail.com
May Zhang	<i>May Zhang</i>	4/21/18	meizhang2@gmail.com
Alex Hollis	<i>Alex Hollis</i>	4/21/18	alexhollis2000@gmail.com
Selwyn Hemingway	<i>Selwyn Hemingway</i>	4/21/18	selwyn.hemingway@gmail.com
Jana Folgar	<i>Jana Folgar</i>		
SPAIN			
Larry Bushaw	<i>Larry Bushaw</i>		
Ketha Thurston	<i>Ketha Thurston</i>		
Kim			
Curt Westercord	<i>Curt Westercord</i>		
Emily Grogan	<i>Emily Grogan</i>		
Jo Folgar	<i>Jo Folgar</i>		

## Event Details



### Community Clean-Up & Litter Pickup

**Saturday, October 14, 2017**

Clean up the City and keep litter out of our waterways. Great for individuals, groups, and families.

Clean up the City of Falls Church and keep litter out of our waterways. Citizens or groups can request any area of town to clean up or be assigned an area of town the day of. Registration required so organizers can provide the correct number of supplies. Help keep our community clean!

**Date:** October 14, 2017

**Time:** 10:00 AM - 12:00 PM

**Location:** Community Center

**Address:** 223 Little Falls St.  
Kenneth R. Burnett Building  
Falls Church, VA 22046

**Contact:** 703-248-5456 (TTY 711)

**Email:** [cmcgough@fallschurchva.gov](mailto:cmcgough@fallschurchva.gov)  
(mailto:cmcgough@fallschurchva.gov)

**Link:** [Webpage \(/volunteer\)](#)

**ADA:** Yes



## Event Details



### Community Clean-Up & Litter Pickup

**Saturday, April 14, 2018**

Clean up the City and keep litter out of our waterways. Great for individuals, groups, and families.

Clean up the City of Falls Church and keep litter out of our waterways. This volunteer opportunity is perfect for community groups, church groups, families, and individuals who want to help clean up The Little City.

Volunteers should meet at the Community Center (223 Little Falls St.) at 10:00 A.M. where they can either request or be assigned to a specific work area. All work will be done outdoors, so volunteers should wear comfortable clothes that can get dirty and closed toe shoes. The City will provide trash pickers, trash bags, recycling bags, gloves, and reflective vests for volunteers to wear. No registration required.

**Date:** April 14, 2018

**Time:** 10:00 AM - 12:00 PM

**Location:** Community Center

**Address:** 223 Little Falls St.  
Kenneth R. Burnett Building  
Falls Church, VA 22046

**Contact:** 703-248-5456 (TTY 711)

**Email:** [cmcgough@fallschurchva.gov](mailto:cmcgough@fallschurchva.gov)  
(mailto:cmcgough@fallschurchva.gov)

**Link:** [Webpage \(/volunteer\)](#)

**ADA:** Yes



APPENDIX D – MS4 Storm Sewer Map and MS4 Outfall Data Information Table

- MS4 Storm Sewer Map
- MS4 Outfall Data Information Table
- Written Notices to Downstream MS4s of Known Physical Interconnection
  - Arlington County (March 30, 2018)
  - Fairfax County (March 30, 2018)



**MS4 Permit Year 4 - MS4 Outfall Data Information Table (Compiled September 30, 2017)**

Outfall ID	MS4 Acreage Served	Receiving Water	HUC12	Applicable TMDL(s)
J3270	5.9	Tripps Run	20700100302	Chesapeake Bay TMDL; Potomac River PCB TMDL; Hunting Creek, Cameron Run, and Holmes Run Watersheds Bacteria TMDL
K1282	75.8	Tripps Run	20700100302	Chesapeake Bay TMDL; Potomac River PCB TMDL; Hunting Creek, Cameron Run, and Holmes Run Watersheds Bacteria TMDL
U0801	0.9	Tripps Run	20700100302	Chesapeake Bay TMDL; Potomac River PCB TMDL; Hunting Creek, Cameron Run, and Holmes Run Watersheds Bacteria TMDL
T0701	8.9	Tripps Run	20700100302	Chesapeake Bay TMDL; Potomac River PCB TMDL; Hunting Creek, Cameron Run, and Holmes Run Watersheds Bacteria TMDL
S1711	114.2	Tripps Run	20700100302	Chesapeake Bay TMDL; Potomac River PCB TMDL; Hunting Creek, Cameron Run, and Holmes Run Watersheds Bacteria TMDL
Q1030	3.6	Tripps Run	20700100302	Chesapeake Bay TMDL; Potomac River PCB TMDL; Hunting Creek, Cameron Run, and Holmes Run Watersheds Bacteria TMDL
R1613	2.9	Tripps Run	20700100302	Chesapeake Bay TMDL; Potomac River PCB TMDL; Hunting Creek, Cameron Run, and Holmes Run Watersheds Bacteria TMDL
Y2701	39.6	Tripps Run	20700100302	Chesapeake Bay TMDL; Potomac River PCB TMDL; Hunting Creek, Cameron Run, and Holmes Run Watersheds Bacteria TMDL
O1170	383.3	Tripps Run	20700100302	Chesapeake Bay TMDL; Potomac River PCB TMDL; Hunting Creek, Cameron Run, and Holmes Run Watersheds Bacteria TMDL
P0100	9.1	Tripps Run	20700100302	Chesapeake Bay TMDL; Potomac River PCB TMDL; Hunting Creek, Cameron Run, and Holmes Run Watersheds Bacteria TMDL
Z0500	2.4	Tripps Run	20700100302	Chesapeake Bay TMDL; Potomac River PCB TMDL; Hunting Creek, Cameron Run, and Holmes Run Watersheds Bacteria TMDL
X1131	16.2	Tripps Run	20700100302	Chesapeake Bay TMDL; Potomac River PCB TMDL; Hunting Creek, Cameron Run, and Holmes Run Watersheds Bacteria TMDL
R1511	49.4	Tripps Run	20700100302	Chesapeake Bay TMDL; Potomac River PCB TMDL; Hunting Creek, Cameron Run, and Holmes Run Watersheds Bacteria TMDL
E2731	121.8	Tripps Run	20700100302	Chesapeake Bay TMDL; Potomac River PCB TMDL; Hunting Creek, Cameron Run, and Holmes Run Watersheds Bacteria TMDL
C2260	52.8	Tripps Run	20700100302	Chesapeake Bay TMDL; Potomac River PCB TMDL; Hunting Creek, Cameron Run, and Holmes Run Watersheds Bacteria TMDL
H2031	4.3	Tripps Run	20700100302	Chesapeake Bay TMDL; Potomac River PCB TMDL; Hunting Creek, Cameron Run, and Holmes Run Watersheds Bacteria TMDL
G2572	45.3	Tripps Run	20700100302	Chesapeake Bay TMDL; Potomac River PCB TMDL; Hunting Creek, Cameron Run, and Holmes Run Watersheds Bacteria TMDL
O1170	4.4	Tripps Run	20700100302	Chesapeake Bay TMDL; Potomac River PCB TMDL; Hunting Creek, Cameron Run, and Holmes Run Watersheds Bacteria TMDL
J1531	57.7	Tripps Run	20700100302	Chesapeake Bay TMDL; Potomac River PCB TMDL; Hunting Creek, Cameron Run, and Holmes Run Watersheds Bacteria TMDL
J3200	19.5	Tripps Run	20700100302	Chesapeake Bay TMDL; Potomac River PCB TMDL; Hunting Creek, Cameron Run, and Holmes Run Watersheds Bacteria TMDL
U0311	8.4	Tripps Run	20700100302	Chesapeake Bay TMDL; Potomac River PCB TMDL; Hunting Creek, Cameron Run, and Holmes Run Watersheds Bacteria TMDL
I2011	5.3	Tripps Run	20700100302	Chesapeake Bay TMDL; Potomac River PCB TMDL; Hunting Creek, Cameron Run, and Holmes Run Watersheds Bacteria TMDL
V0100	7.3	Tripps Run	20700100302	Chesapeake Bay TMDL; Potomac River PCB TMDL; Hunting Creek, Cameron Run, and Holmes Run Watersheds Bacteria TMDL
U0701	0.6	Tripps Run	20700100302	Chesapeake Bay TMDL; Potomac River PCB TMDL; Hunting Creek, Cameron Run, and Holmes Run Watersheds Bacteria TMDL
Z3000	1.1	Tripps Run	20700100302	Chesapeake Bay TMDL; Potomac River PCB TMDL; Hunting Creek, Cameron Run, and Holmes Run Watersheds Bacteria TMDL
Z2000	1.1	Tripps Run	20700100302	Chesapeake Bay TMDL; Potomac River PCB TMDL; Hunting Creek, Cameron Run, and Holmes Run Watersheds Bacteria TMDL
X5000	1.0	Tripps Run	20700100302	Chesapeake Bay TMDL; Potomac River PCB TMDL; Hunting Creek, Cameron Run, and Holmes Run Watersheds Bacteria TMDL
Z4000	0.6	Tripps Run	20700100302	Chesapeake Bay TMDL; Potomac River PCB TMDL; Hunting Creek, Cameron Run, and Holmes Run Watersheds Bacteria TMDL
H1440	46.5	Four Mile Run	20700100301	Chesapeake Bay TMDL; Potomac River PCB TMDL; Four Mile Run Fecal Coliform TMDL
X2093	13.6	Four Mile Run	20700100301	Chesapeake Bay TMDL; Potomac River PCB TMDL; Four Mile Run Fecal Coliform TMDL
X2192	31.7	Four Mile Run	20700100301	Chesapeake Bay TMDL; Potomac River PCB TMDL; Four Mile Run Fecal Coliform TMDL
J2113	20.2	Four Mile Run	20700100301	Chesapeake Bay TMDL; Potomac River PCB TMDL; Four Mile Run Fecal Coliform TMDL
A0121	1.4	Four Mile Run	20700100301	Chesapeake Bay TMDL; Potomac River PCB TMDL; Four Mile Run Fecal Coliform TMDL
A5101	119.0	Four Mile Run	20700100301	Chesapeake Bay TMDL; Potomac River PCB TMDL; Four Mile Run Fecal Coliform TMDL
E1192	1.4	Four Mile Run	20700100301	Chesapeake Bay TMDL; Potomac River PCB TMDL; Four Mile Run Fecal Coliform TMDL
E1094	1.8	Four Mile Run	20700100301	Chesapeake Bay TMDL; Potomac River PCB TMDL; Four Mile Run Fecal Coliform TMDL
E1082	15.6	Four Mile Run	20700100301	Chesapeake Bay TMDL; Potomac River PCB TMDL; Four Mile Run Fecal Coliform TMDL
B8101	45.6	Four Mile Run	20700100301	Chesapeake Bay TMDL; Potomac River PCB TMDL; Four Mile Run Fecal Coliform TMDL
F1366	13.6	Four Mile Run	20700100301	Chesapeake Bay TMDL; Potomac River PCB TMDL; Four Mile Run Fecal Coliform TMDL
F1331	35.7	Four Mile Run	20700100301	Chesapeake Bay TMDL; Potomac River PCB TMDL; Four Mile Run Fecal Coliform TMDL
I3020	10.4	Four Mile Run	20700100301	Chesapeake Bay TMDL; Potomac River PCB TMDL; Four Mile Run Fecal Coliform TMDL
G1541	71.0	Four Mile Run	20700100301	Chesapeake Bay TMDL; Potomac River PCB TMDL; Four Mile Run Fecal Coliform TMDL
E4040	1.5	Four Mile Run	20700100301	Chesapeake Bay TMDL; Potomac River PCB TMDL; Four Mile Run Fecal Coliform TMDL
E1097	0.2	Four Mile Run	20700100301	Chesapeake Bay TMDL; Potomac River PCB TMDL; Four Mile Run Fecal Coliform TMDL
E1193	1.4	Four Mile Run	20700100301	Chesapeake Bay TMDL; Potomac River PCB TMDL; Four Mile Run Fecal Coliform TMDL
C1040	2.7	Four Mile Run	20700100301	Chesapeake Bay TMDL; Potomac River PCB TMDL; Four Mile Run Fecal Coliform TMDL
N2200	5.9	Four Mile Run	20700100301	Chesapeake Bay TMDL; Potomac River PCB TMDL; Four Mile Run Fecal Coliform TMDL
Z1000	7.8	Four Mile Run	20700100301	Chesapeake Bay TMDL; Potomac River PCB TMDL; Four Mile Run Fecal Coliform TMDL
I3010	0.1	Four Mile Run	20700100301	Chesapeake Bay TMDL; Potomac River PCB TMDL; Four Mile Run Fecal Coliform TMDL
J4000	18.4	Pimmit Run	20700100103	Chesapeake Bay TMDL; Potomac River PCB TMD
AA001	22.3	Pimmit Run	20700100103	Chesapeake Bay TMDL; Potomac River PCB TMD



# CITY OF FALLS CHURCH

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March 30, 2018

Jason Papacosma, Watershed Programs Manager  
Arlington County Dept. of Environmental Services  
Utilities and Environmental Policy Division  
2100 Clarendon Blvd., Suite 705  
Arlington, VA 22201

Dear Jason Papacosma:

Pursuant to 9VAC25-890, Virginia's Municipal Separate Storm Sewer System (MS4) Management Program, the purpose of this letter is to notify you, as a downstream regulated MS4s which the City of Falls Church's system is physically interconnected with, of our recently updated outfall map showing existing outfalls and stormwater infrastructure that may impact a shared water body.

The City of Falls Church is within the Four Mile Run watershed (HUC Code: PL25). Stormwater runoff from approximately 0.79 square miles of land characterized as suburban residential and commercial is conveyed through a series of pipes and open streams and ultimately into Arlington County via Four Mile Run. The enclosed map demonstrates the locations of the interconnections.

If you have any concerns or questions about the connections please don't hesitate to contact me. I can be reached at 571-238-4557 or via email at [jwidstrom@fallschurchva.gov](mailto:jwidstrom@fallschurchva.gov).

Sincerely,

Jason Widstrom, P.E.  
Engineering Manager  
Department of Public Works

Enc.



# CITY OF FALLS CHURCH

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March 30, 2018

Emily Burton  
MS4 Program Manager  
Fairfax County Department of Public Works & Environmental Services (DPWES)  
12000 Government Center Parkway, Suite 449, Fairfax, Virginia 22035

Dear Emily Burton:

Pursuant to 9VAC25-890, Virginia's Municipal Separate Storm Sewer System (MS4) Management Program, the purpose of this letter is to notify you, as a downstream regulated MS4s which the City of Falls Church's system is physically interconnected with, of our recently updated outfall map showing existing outfalls and stormwater infrastructure that may impact a shared water body.

The City of Falls Church is within the Cameron Run watershed (PL26) and Pimmit Run watershed (PL24). Stormwater runoff from approximately 1.44 square miles of land characterized as suburban residential and commercial is conveyed through a series of pipes and concrete trapezoidal channels and ultimately into Fairfax County via Tripp's Run. The enclosed map demonstrates the locations of the interconnections.

If you have any concerns or questions about the connections please don't hesitate to contact me. I can be reached at 571-238-4557 or via email at [jwidstrom@fallschurchva.gov](mailto:jwidstrom@fallschurchva.gov).

Sincerely,

Jason Widstrom, P.E.  
Engineering Manager  
Department of Public Works

Enc.

APPENDIX E – Dry Weather Screening Results (P3/Y5)

**FISCAL YEAR 2018 (PERMIT 3/YEAR 5) CITY OF FALLS CHURCH DRY WEATHER SCREENING RESULTS**

OUTFALL ID	SCREENING DATE	FLOW?	SAMPLES COLLECTED?	PARAMETERS FAILED	INVESTIGATION OUTCOME (SUSPECT / CLEAR)	RECOMMENDED FOLLOW-UP	COMMENTS
Z4000	6/27/2018	Yes	Yes	Conductivity/Ammonia/Chlorine	Illicit	Investigation	Flow traced to power washing at upstream Node Z4003 on near Broad St.
C2260	6/7/2018	Yes	No	N/A	Suspect	Investigation	Unable to access the outfall due to vegetation, flow at the upstream node. Flow traced to apparent groundwater and a small PVC pipe at Node C2040. Not enough flow to sample. Previously investigated and observed flow at different node.
H1440	5/29/2018	Yes	Yes	Chlorine	Suspect	Investigation	Erosion and undermining at the outfall. Flow traced to a residential drain. Intermittent flow present at the drain.
T0701	6/27/2018	Yes	Yes	Chlorine	Suspect	Investigation	Flow traced to ponded water at Node T0201. Upstream node was dry. Deemed suspect based on failed Chlorine test and chemical odor.
U0801	6/27/2018	Yes	Yes	Conductivity	Suspect	Investigation	Flow traced to Node U0804, discharging from an unmapped pipe. Flow at U0804 was heavy for approximately one minute, then returned to light flow.
X2093	6/7/2018	Yes	Yes	Conductivity/Ammonia	Suspect	Investigation	Samples were collected at the upstream node. Moisture indicates recent flow. Based on failed Ammonia field test, outfall was deemed suspect.
Z1000	6/7/2018	Yes	No	N/A	Suspect	Investigation	Unable to access the outfall due to fencing. Trickle of flow present from unmapped PVC pipe at upstream Node Z1001. Upstream node was dry in the direction of mapped nodes.
A0121	5/29/2018	No	No	None	Clear	None	
A5101	5/29/2018	No	No	None	Clear	None	
AA001	6/29/2018	Yes	No	None	Clear	None	Unable to access outfall due to traffic (safety concerns). Screened first accessible upstream node. Flow at the upstream node traced to apparent groundwater.
B8101	5/29/2018	No	No	None	Clear	None	
C1040	5/29/2018	No	No	None	Clear	None	Unable to access outfall due to vegetation. Upstream node is dry.
E1082	5/29/2018	No	No	None	Clear	None	Ponded water at the outfall. Upstream node wet but not flowing.
E1094	5/29/2018	No	No	None	Clear	None	
E1097	5/29/2018	No	No	None	Clear	None	Outfall is partially buried in sediment.
E1192	5/29/2018	No	No	None	Clear	None	Wet but not flowing.
E1193	5/29/2018	Yes	Yes	Conductivity	Clear	None	Undermining and erosion downstream. Small amount of staining in the pipe. No flow at upstream node. All field tests passed except conductivity, therefore the flow was deemed clear based on best professional judgement.
E2731	6/27/2018	Yes	Yes	Conductivity	Clear	None	Unable to access the outfall due to fencing, upstream node was screened and flow was present from two directions, traced to apparent groundwater. All field tests passed except conductivity, cleared based on best professional judgement.
E4040	5/29/2018	No	No	None	Clear	None	Ponded water at the outfall, no flow at upstream node.
F1331	6/7/2018	Yes	Yes	Chlorine	Clear	None	Unable to access the outfall due to fencing. Flow at upstream node. Flow traced to the dewatering of a landscaped pond at 123 N Fairfax Street. All field tests passed except Chlorine, cleared based on best professional judgement.
F1366	5/29/2018	Yes	Yes	Chlorine	Clear	None	Flow traced to natural conveyance channel upstream of F1350.
G1541	5/29/2018	Yes	Yes	None	Clear	None	Flow appears to be natural conveyance based on GIS/Aerial imagery. All field tests passed except Chlorine, therefore the flow was deemed clear based on best professional judgement. Recommend removal from outfall inventory.
G2572	6/7/2018	Yes	Yes	Conductivity	Clear	None	Unable to access outfall due to fencing. Flow at upstream node. Flow traced to groundwater at Node G2541 and between Nodes G2500 and G2492.
H2031	6/7/2018	No	No	N/A	Clear	None	Channel heavily eroded.
I2011	6/7/2018	No	No	N/A	Clear	None	Outfall in construction zone, two upstream nodes are dry.
I3010	5/29/2018	No	No	N/A	Clear	None	Outfall and all upstream nodes in construction zone.
I3020	5/29/2018	No	No	N/A	Clear	None	Outfall in construction zone, upstream node is dry.
J1531	6/29/2018	Yes	Yes	Conductivity	Clear	None	Apparent groundwater. Potential contamination from leaking motor oil storage, pooled under parked vehicles near grate inlets at 1117 W Broad St. All field tests passed except conductivity, cleared based on best professional judgement.
J2113	6/7/2018	Yes	No	None	Clear	None	Flow originates from apparent groundwater at Node J3120. Seepage was observed from sidewalks cracks, draining to curb inlet. Not enough flow to sample.
J3200	6/29/2018	No	No	N/A	Clear	None	Unable to access outfall due to overgrown vegetation. Upstream node is dry.
J3270	6/29/2018	No	No	N/A	Clear	None	Unable to access outfall due to overgrown vegetation. Upstream node is dry.
J4000	6/29/2018	No	No	N/A	Clear	None	Unable to access outfall due to traffic (safety concerns). Upstream node is dry.
K1282	6/27/2018	Yes	Yes	Conductivity	Clear	None	Flow appears to be natural conveyance based on GIS/Aerial imagery. All field tests passed except conductivity, therefore the flow was deemed clear based on best professional judgement. Recommend removal from outfall inventory.
N2200	5/29/2018	No	No	N/A	Clear	None	Outfall at blind connection, and splits to two upstream nodes. Upstream nodes were dry.
O1170	6/27/2018	No	No	N/A	Clear	None	
P0100	6/27/2018	Yes	Yes	None	Clear	None	Flow traced to apparent groundwater between Nodes P0101 and P0100. All field tests passed except conductivity, therefore the flow was deemed clear based on best professional judgement.
Q1030	6/29/2018	No	No	N/A	Clear	None	
R1511	6/27/2018	Yes	Yes	Conductivity	Clear	None	Flow traced to apparent groundwater at Node R1440. All field tests passed except conductivity, therefore the flow was deemed clear based on best professional judgement.
R1613	6/27/2018	Yes	Yes	Conductivity	Clear	None	Flow appears to come from upstream detention pond (Facility R1612). All field tests passed except conductivity, therefore the flow was deemed clear based on best professional judgement.
S1711	6/27/2018	Yes	Yes	Conductivity	Clear	None	Flow traced to unmapped pipe northeast of W. Broad St. Appears to be natural conveyance based on Aerial/GIS. All field tests passed except conductivity, cleared based on best professional judgement. Recommend removal from outfall inventory.
U0311	6/29/2018	No	No	N/A	Clear	None	Wet but not flowing. Not enough flow to sample.
U0701	6/27/2018	No	No	N/A	Clear	None	
V0100	6/27/2018	No	No	N/A	Clear	None	
X1131	6/27/2018	No	No	N/A	Clear	None	Wet but not flowing. Not enough flow to sample.
X2192	6/7/2018	Yes	Yes	None	Clear	None	Unable to access the outfall due to fencing. Flow at upstream node.
X5000	6/27/2018	No	No	N/A	Clear	None	
Y2701	6/7/2018	Yes	Yes	Conductivity	Clear	None	
Z0500	6/7/2018	No	No	N/A	Clear	None	
Z2000	6/7/2018	No	No	N/A	Clear	None	Small trickle of apparent groundwater from beneath the pipe.
Z3000	6/7/2018	No	No	N/A	Clear	None	

APPENDIX F – BMP Database (New Additions)

**MS4 Permit Year 5 - New Additions to the BMP Database (Compiled September 28, 2018)**

ID	PLAN	LocAddr	CBPO Release BMP Type	HUC6	VAHU6	Acres Treated	Impervious Acres Treated	Pervious Acres Treated	Ownership Type	Online Date	BMP Agreement Exists?	Most Recent Inspection
205	20160913	309 Sycamore Street	Permeable Pavement w/o Sand, Veg. - C/D Soils, Underdrain	Tripps Run	PL-26	0.03	0.03	0	Private	7/11/2018	Yes	N/A
206	20160913	309 Sycamore Street	Infiltration Trench	Tripps Run	PL-26	0.04	0.04	0	Private	7/11/2018	Yes	N/A
211	W Westmoreland and Bioretention	124 W. Westmoreland Road	Bioretention, Underdrain, C/D Soils	Tripps Run	PL-26	0.44	0.28	0.16	City	2/1/2018	No	N/A
212	20141292	205 Park Avenue	Dry Detention Ponds & Hydrodynamic	Tripps Run	PL-26	0.11	0.07	0.04	Private	5/25/2018	Yes	N/A
213	20151384	102 W. Rosemary Lane	Infiltration Trench	Tripps Run	PL-26	0.08	0.06	0.02	Private	1/16/2018	Yes	N/A
214	Cavalier Trail Park	430 S. Maple Avenue	Bioretention, Underdrain, C/D Soils	Tripps Run	PL-26	0.07	0.07	0	City	2/1/2018	No	N/A

APPENDIX G – BMP Inspection Summary

**MS4 Permit Year 5 - BMP Inspection Summary (Public Facilities)**

ID	Address	CBPO Release BMP Type	Ownership Type	Last Inspection Date	Functional?	2018 Comments
142	Lincoln Park (509 Great Falls St)	Bioretention	City	5/21/2018	Yes	
143	Berman Park (237 Irving St)	Bioretention	City	5/21/2018	Yes	
144	Crossman Park (1800 N Van Buren St)	Bioretention	City	5/21/2018	Yes	
145	407 LINCOLN AVE	Bioretention	City	5/21/2018	Yes	
147	Property Yard (217 Gordon RD)	4 Cisterns	City	5/21/2018	Yes	
148	601 S OAK ST (TJES)	4 Cisterns	FCCPS	5/21/2018	No	
149	601 S OAK ST (TJES)	Raingarden	FCCPS	5/21/2018	Yes	
150	601 S OAK ST (TJES)	Raingarden	FCCPS	5/21/2018	Yes	
151	Buxton & Tyson Drive	Raingarden	City	5/21/2018	Yes	
153	Property Yard (217 Gordon RD)	Filtterra	City	5/21/2018	Yes	
158	Berman Park (237 Irving St)	Raingarden	City	5/21/2018	Yes	
159	601 S OAK ST (TJES)	Bioretention	FCCPS	5/21/2018	Yes	
160	601S OAK ST (TJES)	Bioretention	FCCPS	5/21/2018	Yes	
161	601 S OAK ST (TJES)	Porous Pavement	FCCPS	5/21/2018	Yes	
162	601 S OAK ST (TJES)	UG Detention	FCCPS	5/21/2018	Yes	
163	201 N CHERRY ST	StormFilter	FCCPS	5/21/2018	Yes	
164	201 N CHERRY ST	UG Detention	City	5/21/2018	Yes	
165	Lincoln Park (509 Great Falls St)	Raingarden	City	5/21/2018	Yes	
202	223 LITTLE FALLS ST	Filtering Practices	City	5/21/2018	Yes	
203	223 LITTLE FALLS ST	UG Detention	City	5/21/2018	Yes	

**MS4 Permit Year 5 - BMP Inspection Summary (Private Facilities)**

BMP ID	BMP Plan	Date of Previous Inspection	BMP Type	Ownership Type	Inspection Date	Functional?	Comment(s)
2	GP-156	5/2/2013	Cistern	Private	9/7/2017	Yes	
4	GP-157a	5/1/2013	Porous Pavement	Private	9/1/2017	Yes	
6	GP-160	4/30/2013	Cistern	Private	11/15/2017	Yes	
7	GP-160a	4/30/2013	Cistern	Private	11/15/2017	Yes	
10	GP-164a	5/1/2013	Cistern	Private	9/1/2017	No	
11	GP-164b	5/1/2013	Cistern	Private	9/1/2017	Yes	
12	GP-290	4/19/2013	Cistern	Private	9/1/2017	Yes	
20	GP-174	5/3/2013	Infiltration Trench	Private	9/1/2017	Yes	
23	N/A	5/3/2013	N/A	Private	N/A	N/A	Does Not Exist
26	GP-181	5/3/2013	Cistern	Private	11/14/2017	Yes	
27	GP-183	5/1/2013	Porous Pavement	Private	9/1/2017	Yes	
28	GP-183a	5/1/2013	Porous Pavement	Private	9/1/2017	No	
31	GP-186	5/3/2013	Infiltration Trench	Private	9/7/2017	No	
33	GP-188	5/3/2013	Infiltration Trench	Private	9/1/2017	Yes	
35	GP-190	5/3/2013	Cistern	Private	9/1/2017	Yes	
38	GP-194	4/30/2013	Infiltration Trench	Private	9/5/2017	No	
39	GP-195	5/2/2013	Infiltration Trench	Private	9/1/2017	No	
43	GP-202	5/2/2013	Cistern	Private	9/5/2017	No	
45	GP-204	5/2/2013	Cistern	Private	9/5/2017	No	
53	GP-216	5/2/2013	Cistern	Private	9/1/2017	Yes	
57	GP-220	5/2/2013	Cistern	Private	11/14/2017	Yes	
62	GP-226	5/2/2013	Cistern	Private	9/7/2017	Yes	
90	GP-262	4/30/2013	Cistern	Private	9/5/2017	Yes	
92	GP-182	5/2/2013	Infiltration Trench	Private	9/5/2017	Yes	
96	SP050191 - The Read Building	5/2/2013	Bioretention	Private	9/5/2017 &	No	
97	SP20061096 - Flower Building	5/2/2013	StormFilter	Private	9/5/2017	Yes	
101	GP-158	4/30/2013	Porous Pavement	Private	9/5/2017	Yes	
103	GP-257	5/1/2013	Porous Pavement	Private	9/5/2017	Yes	
104	SP20090057 - BJ's	4/30/2013	Tree Filter	Private	9/7/2017	No	
105	SP20040170 -Spectrum, 444 W Broad	5/2/2013	Underground Detention	Private	11/14/2017	Yes	
112	GP-250	4/30/2013	Infiltration Trench	Private	9/5/2017	No	
113	GP-260	5/2/2013	Infiltration Trench	Private	9/5/2017	Yes	
115	GP-272	5/1/2013	Infiltration Trench	Private	9/7/2017	Yes	
116	GP-279	5/2/2013	Bioretention	Private	9/7/2017	Yes	
117	GP-264	5/2/2013	Porous Pavement	Private	9/7/2017	Yes	
119	GP-289	4/2/2013	Porous Pavement	Private	11/14/2017	Yes	
121	GP-287	6/12/2013	Cistern	Private	11/14/2017	No	
123	GP-290	4/19/2013	Bioretention	Private	9/7/2017	No	
124	GP-299	4/12/2013	Cistern	Private	11/14/2017	Yes	
125	GP-281	5/1/2013	Infiltration Trench	Private	9/7/2017	Yes	
126	GP-260	5/2/2013	Infiltration Trench	Private	9/5/2017	Yes	
131	20130205 - Taco Bell	6/29/2013	Contech CDS Unit	Private	9/7/2017	Yes	
175	SP20090057 - BJ's	4/30/2013	Bioswale	Private	9/7/2017	Yes	
272	N/A	5/1/2013	N/A	Private	N/A	N/A	Does Not Exist

## APPENDIX H – Employee Training

- Employee Training Schedule and Program – Final (6/26/2016)
- Lunch N' Learn Log in Sheet
- DPW Lunch N' Learn Presentation (June 2018)
  - Land Disturbance & E&S Controls

Employee Training Schedule and Program – Final (6/2016)

Frequency	Date	Training	Internal Trainer	External Trainer	Staff
Year 1	June 2014	1. Good House Keeping	X		Public Works
Year 2	June 2015	1. Illicit Discharge Recognition and Reporting 2. Spill Response Procedures	X		Public Works, Recreation and Parks
Year 3	June 2016	1. PCBs 2. Fleet and Facility Operations	X		Public Works
Year 4	June 2017	1. Parks and Grounds Operations and Maintenance 2. Street, Parking and Drainage Operations and Maintenance	X		Recreation and Parks and School Maintenance
Year 5	June 2018	1. Land Disturbance	X		Development Service, Public Works

# Lunch N Learn Log in Sheet

Topic- Land Disturbance and E&S  
June 28, 2018



Jeremy Edwards

Printed Name	Signature
1. Jonathan Brown	
2. Joe Dowling	
3. Alkida Ruzi	
4. Sam Strubling	
5. JP Se Lucio Argento	
6. SAM LUTEN	
7. Walter Ovando	
8. Michael A Lane	
9. Carly Aubrey	
10. Brian Benson	
11. Dave McCord	
12. MARCOLO OSERIO	
13. Kate Reich	
14. Charles Prince	
15. RICHIE LEGER	
16. Colin Griffith	
17. JOHN FOOTER	
18. Eddie Sanjines	
19. Jonathan Horneman	
20. Lionel Millard	
21. Mike Whitfield	
22. Lonnie Marguetti	
23. Beck Hodge	
24. Eric Jauer	
25. Greg Grayson	

HERAY HOLLAND  
KATLYN ALGAN  
KATLYN ERADAN



26.	Robert Dahl	Robert Dahl
27.	Kathy Crandall	Kathy Crandall
28.	Jason Wickstrom	Jason Wickstrom
29.		
30.		
31.		
32.		
33.		
34.		
35.		



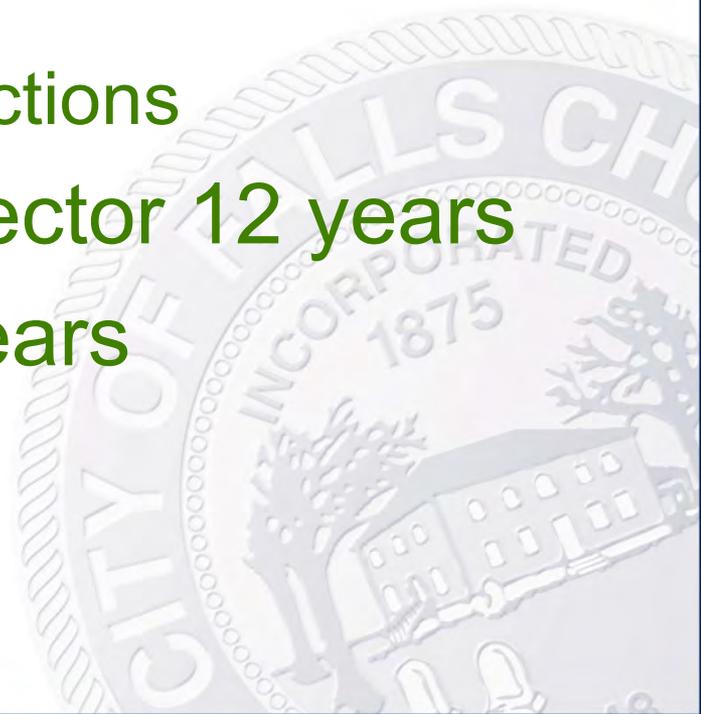
**DPW Lunch N' Learn  
June, 2018**

**Land Disturbance &  
E&S Controls**



# Matt Brown

- Permitting Manager
  - Right of Way work
  - Erosion & Sediment Inspections
- Erosion & Sediment Inspector 12 years
- City of Falls Church 11 years



# Definitions

- **Land Disturbance** - Any land change on private or public land that may result in soil erosion from water or wind and the movement of sediments into state waters or onto lands
- **E&S** - Erosion & Sediment
- **DEQ** – (Virginia) Department of Environmental Quality

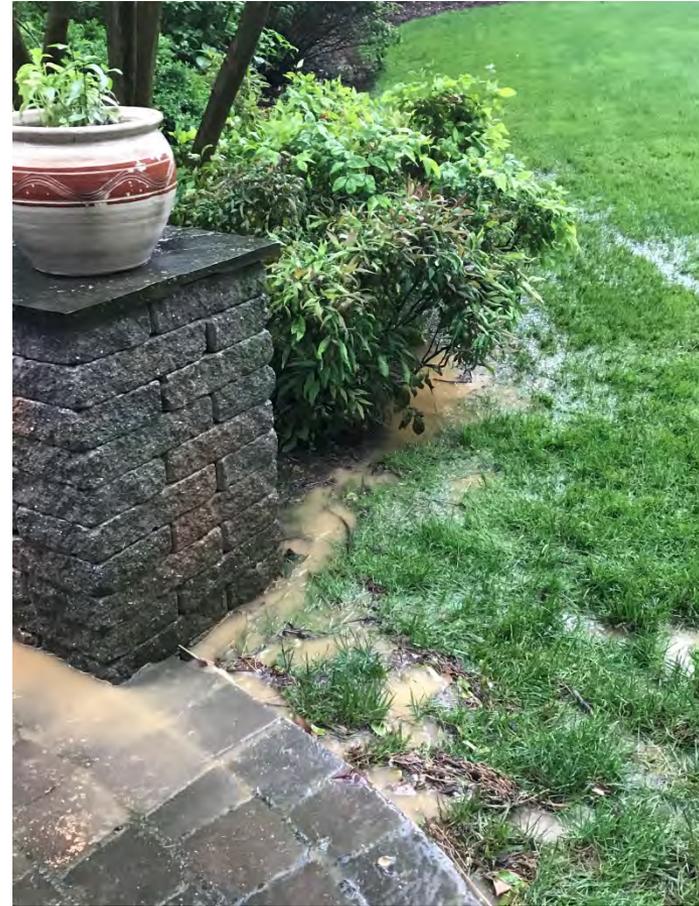


# Why Do We Have E&S Controls?

- DEQ implements the state Erosion and Sediment Control program to help prevent destruction of property and natural resources caused by soil erosion, sedimentation and nonagricultural runoff from regulated land-disturbing activities.
- Erosion caused by excessive water runoff is one of the most severe types of erosion in developing areas.

# Sediment Runoff

- Private Properties



# Sediment Runoff

- Stormwater System

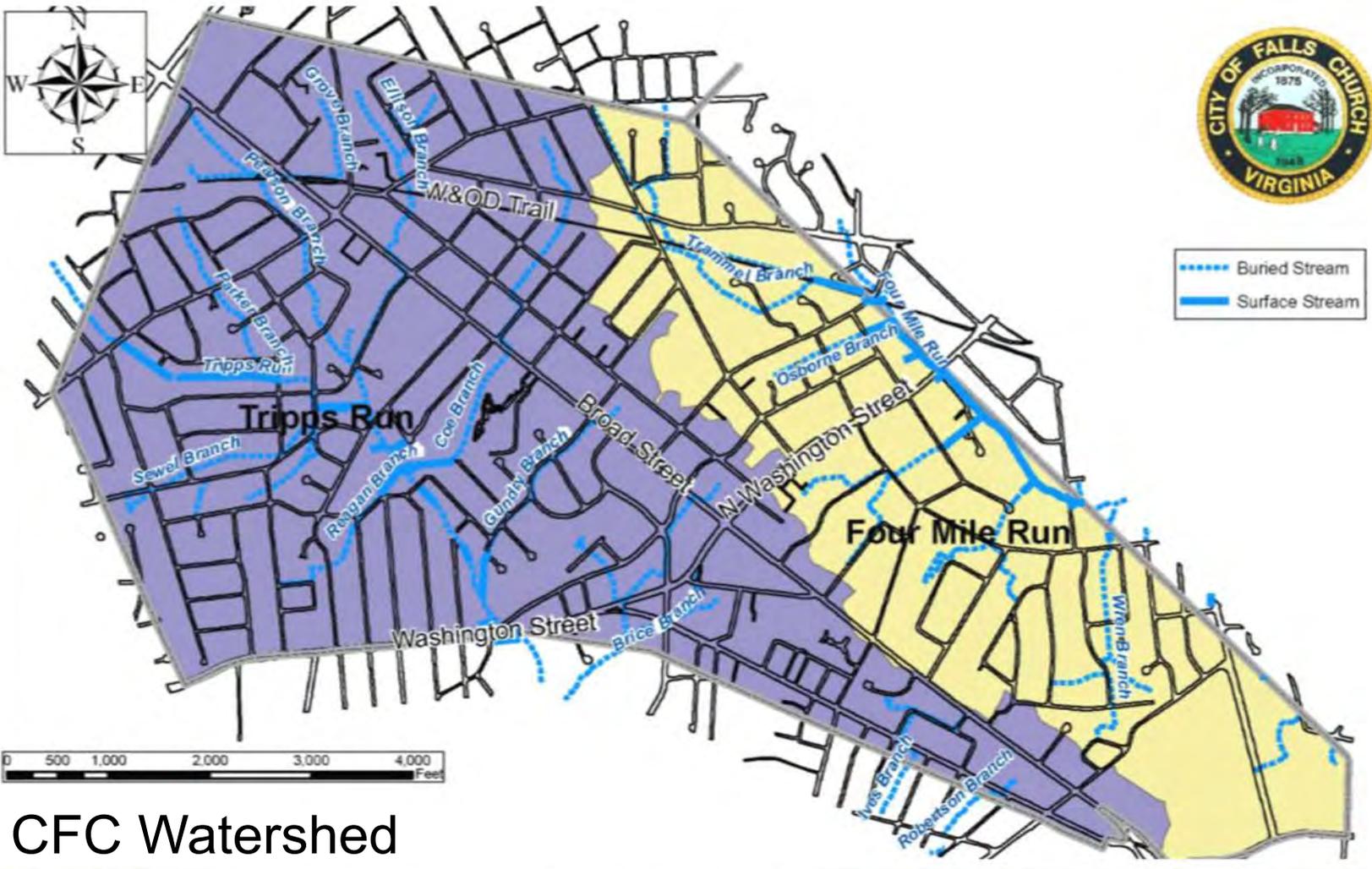


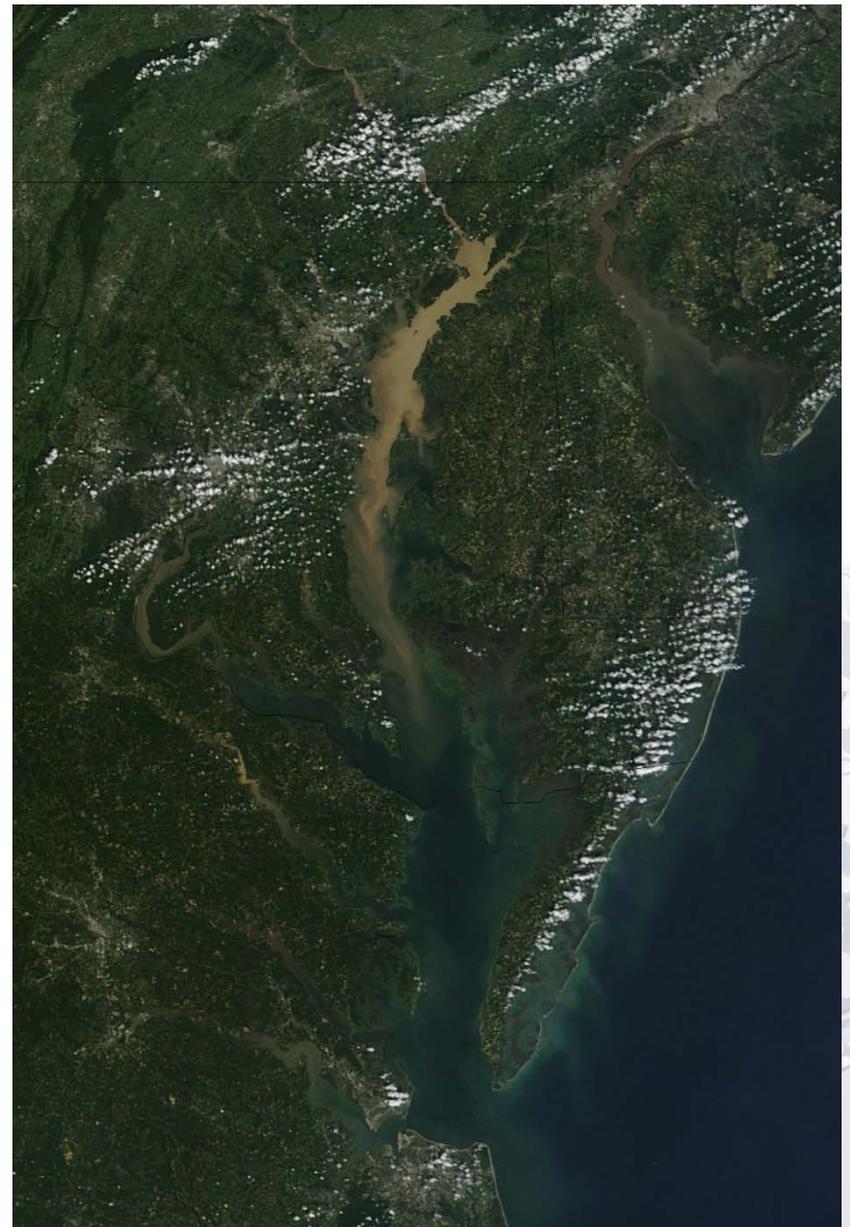
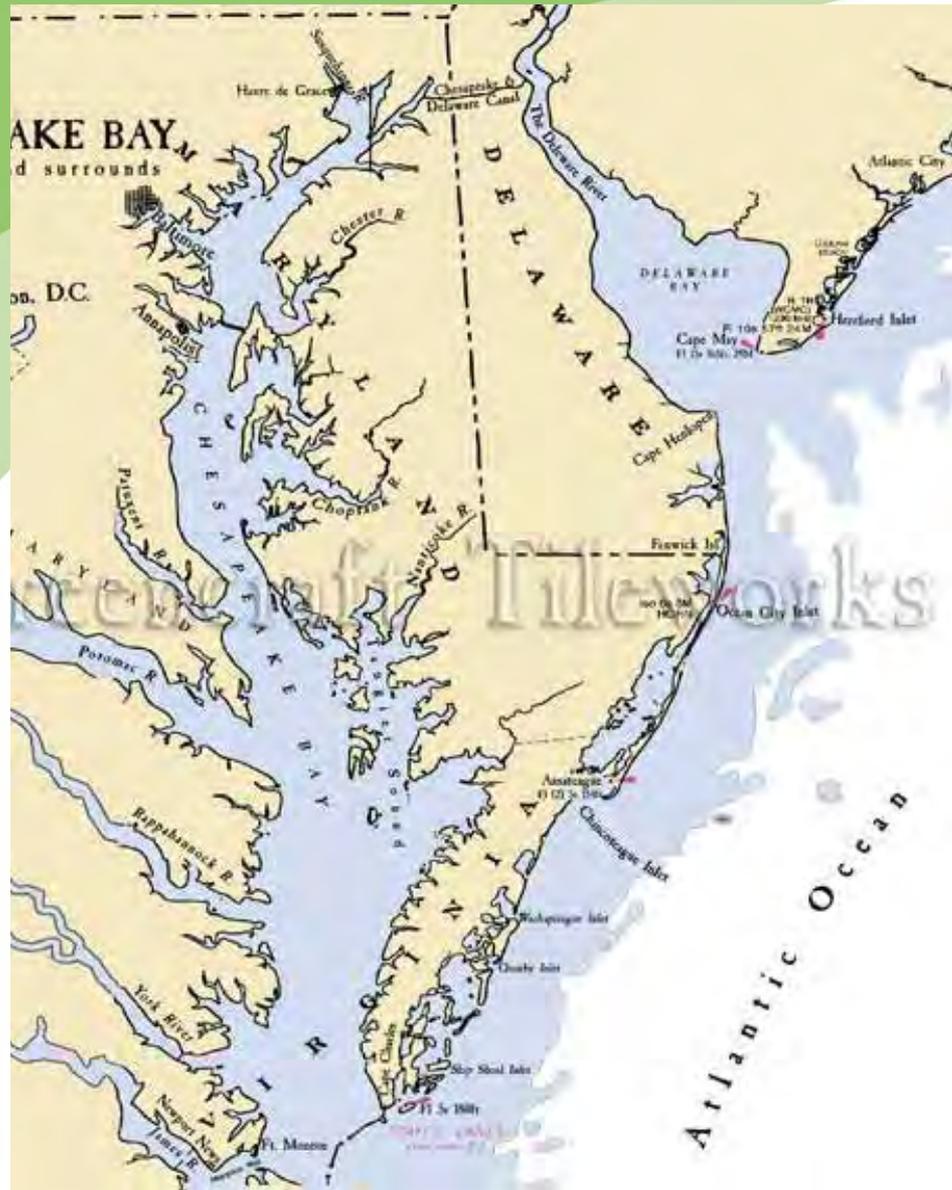


- ..... Buried Stream
- Surface Stream



# CFC Watershed







# When are E&S controls required?

- Grading plan – land disturbance will equal or exceed 2,500sf
- RPA – any land disturbance next to a stream
- Anytime DPW decides it's necessary



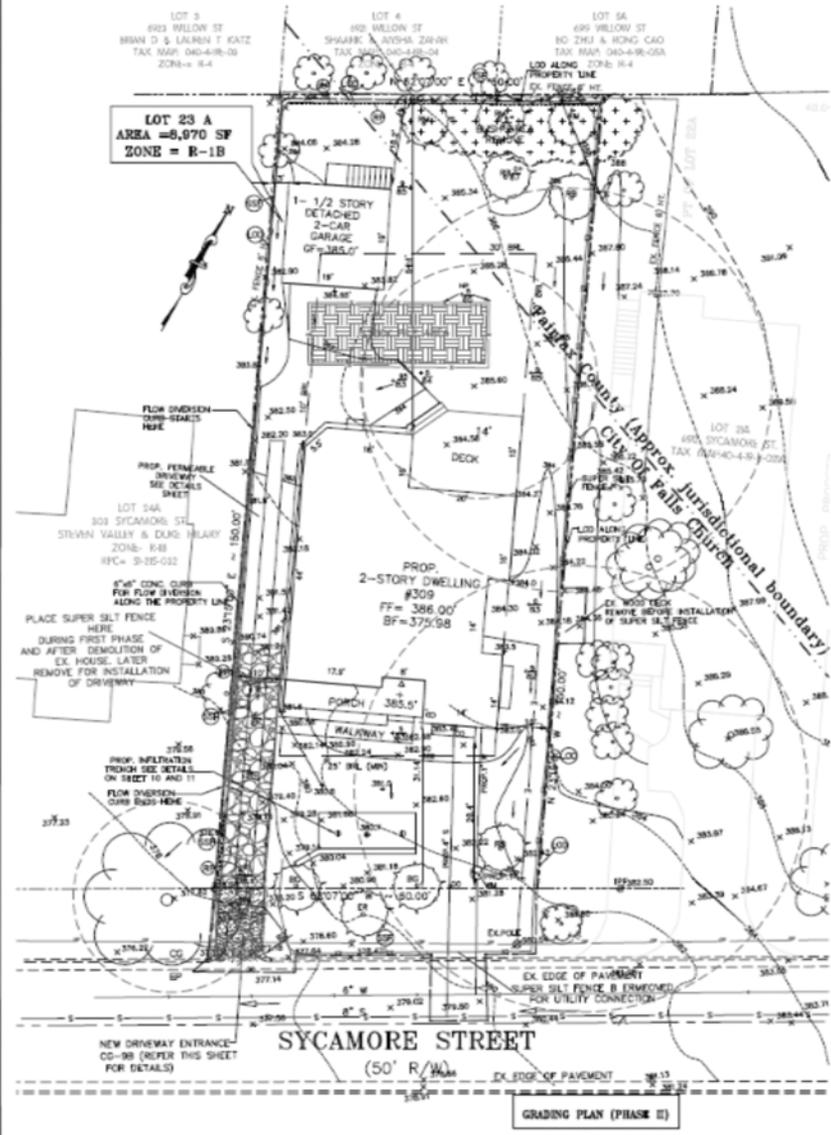


## Application for Grading Plan Review

Date \_\_\_\_\_ Site Address \_\_\_\_\_ Land Disturbance (sq. ft.) \_\_\_\_\_

APPLICANT/OWNER INFORMATION (required)		CONTRACTOR INFORMATION	
➤ Name		Name	
Company		Company	
➤ Street		Street	
➤ City	➤ State	➤ Zip Code	City State Zip Code
➤ Contact Person		Contact Person	
➤ Telephone #		Telephone #	
➤ E-mail Address		E-mail Address	
REQUIRED MATERIALS (all of the following must be submitted as part of Initial Submission)		LOCATED ON SHEET(S) #	APPLICANT INITIAL
➤ 1. Existing conditions, topographic survey, boundary survey			
➤ 2. Proposed improvements, proposed contours			
➤ 3. Limits of clearing, erosion and sediment control measures			
➤ 4. Lot coverage calculations			
➤ 5. Stormwater management calculations, drainage divide drawing			
➤ 6. Landscape Conservation Plan			
➤ 7. Responsible Land Disturber information			
➤ 8. Electronic Plan Set (by email or on media)		<del>XXXX</del>	
EROSION AND SEDIMENT CONTROL BOND		BOND AMOUNT CALCULATED	
Calculate E&S Bond: \$750.00 + \$0.40 per SF land disturbance		\$	
NOTICE TO APPLICANT REGARDING ADMINISTRATIVE FEES & BONDS			
<p><b>By signing below and submitting this Application, the Applicant acknowledges the following fees and bonds:</b></p> <ul style="list-style-type: none"> <li>▪ <b>Grading Plan Review Fee:</b> <ul style="list-style-type: none"> <li>▪ \$ 1,760.00 for disturbed area less than ½ acre</li> <li>▪ \$ 3,080.00 for disturbed area ½ acre or greater</li> </ul> </li> <li>▪ <i>The applicable Review Fee includes: Erosion and Sediment Fee, SMRT meeting, Bond Management Fee for all bonds, Inspections, Tree and Landscape Review Requirements, Original Application/Plan Submission fee and First Re-Submission (in response to Staff Comments on the Original Submission)</i></li> <li>▪ <b>Additional Resubmission Fee for 3<sup>rd</sup> and subsequent submissions: 50% of original fee plus 10% tech fee</b> Payment is due at the time of filing</li> <li>▪ <b>Erosion and Sediment Control Bond:</b> Must be posted prior to permit issuance under this grading plan and is subject to DPW approval</li> <li>▪ <b>Existing Tree Bond:</b> Exact amount to be determined by City Arborist, Department of Public Works</li> <li>▪ <b>New Landscape Bond:</b> Exact amount to be determined by City Arborist, Department of Public Works</li> <li>▪ <b>ROW Permit:</b> Separate application required for ROW work.</li> <li>▪ <b>ROW Bond:</b> Bond set by engineer upon ROW Work Permit approval (minimum \$2,500.00)</li> </ul>			
Signature of Applicant: _____		Date: _____	
PRINTED NAME: _____			
<p><b>The City of Falls Church is committed to the letter and spirit of the Americans with Disabilities Act.</b>  <b>This document will be made available in alternate format upon request. Call 703 248-5350 (TTY 711).</b></p>			





**DRIVEWAY ENTRANCE NOTES:**

- 1. THE EXISTING DRIVEWAY ENTRANCE WILL BE USED FOR DEMOLITION AND CONSTRUCTION OF A NEW HOUSE.
- 2. THE EX. DRIVEWAY REMAINS AND REPLACE NEW CO-90 DRIVEWAY ENTRANCE. SEE DETAIL SHEET 5. ANY DAMAGE CAUSED BY THIS DEMOLITION TO THE PUBLIC PROPERTIES SHALL BE REPAIR AND RESTORE PER CITY OR BEST STANDARDS.

**GRADING NOTES:**

- 1. IF GRADING ACTIVITIES RESULT IN OFF-SITE LOT ENHANCEMENT, LAND DISTURBER ACTIVITIES WILL BE AVOIDED. A FIELD OF PROTECTION FROM THE IMPACTED PROPERTY OWNER IS PROVIDED AND INCORPORATED IN THE PLANS.

**CONSTRUCTION NOTES:**

- 1. ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF 100' AND CITY OF FALLS CHURCH STANDARDS AND SPECIFICATIONS.
- 2. NO DOWNSLOPE OR CONCENTRATED FLOW TO BE DIRECTED STRAIGHT TO THE ADJACENT LOTS.
- 3. ALL FLOODING TO BE SET A MINIMUM OF 30" BELOW FINAL GRADE IN ORDER TO PROVIDE ADEQUATE FLOOD PROTECTION.
- 4. ALL ROOF OUTLETS REQUIRE SCREENING.
- 5. SEDIMENT TRAPPED INTO THE STREETS MUST BE SWEEP UP AND REMOVED DAILY.
- 6. ALL LEAKY PIPES ARE PVC SCHEDULE 40.
- 7. ALL UTILITIES CONNECTIONS TO THE PROPOSED NEW HOUSE WILL BE DONE AS PER CITY STANDARDS AND SPECIFICATIONS.

**PERMANENT STABILIZATION**

PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENuded AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SEEDING AND MULCHING ARE TO BE APPLIED WITHIN SEVEN (7) DAYS TO DENuded AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL NOT BE WORKED OUT FOR SEVEN OR MORE CALENDAR DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT EXPOSURE FOR MORE THAN ONE YEAR.

- 1) STABILIZATION OF DENuded AREAS AND STOOPLES DURING THE CONSTRUCTION PERIOD. DURING CONSTRUCTION OF THE PROJECT SOIL STOOPLES SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT-TRAPPING MEASURED SLOTTED FILTER TO PREVENT SOIL LOSS. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOOPLES ON SITE AS WELL AS SOIL TRANSPORTED FROM THE PROJECT SITE.
- 2) ESTABLISHMENT OF PERMANENT VEGETATION. A PERMANENT AND APPROPRIATE VEGETATION COVER SHALL BE ESTABLISHED ON DENuded AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GRASSING ORDER IS AWARDED BY THE OFFICE OF DIRECTOR IS UNIFORM DIGNITY TO CONTROL SOIL EROSION SATISFACTORILY AND TO SURVIVE SEVERE WEATHER CONDITIONS.
- 3) PROTECTION OF ADJACENT PROPERTIES ADJACENT TO THE SITE OF A LAND DISTURBANCE SHALL BE PROTECTED FROM SEDIMENT DEPOSITION. THIS MAY BE ACCOMPLISHED BY PREPARING A WELL VEGETATED BUFFER STRIP AROUND THE LOWER PERIMETER OF THE LAND DISTURBANCE BY INSTALLING PERIMETER CONTROLS SUCH AS SILT FENCE, ERIE, SEDIMENT BARRIERS OR BY A COMBINATION OF SUCH MEASURES.
- 4) VEGETATION BUFFER STRIPS MAY BE USED ALONE ONLY WHERE HUNGRY IN SHEET FLOW IS EXPECTED. BUFFER STRIPS SHOULD BE AT LEAST TWENTY (20) FEET IN WIDTH. IF ANY TIME IT IS FOUND THAT A VEGETATED BUFFER STRIP ALONE IS INADEQUATE IN STOPPING SEDIMENT MOVEMENT ONTO ADJACENT PROPERTY, ADDITIONAL PERIMETER CONTROLS MUST BE PROVIDED.

**WATER AND SEWER CONNECTIONS NOTES:**

- 1. PRIOR TO THE START OF CONSTRUCTION FOR THE PROPOSED SANITARY LATERAL, CONTACT THE CITY OF FALLS CHURCH DEPARTMENT OF PUBLIC WORKS AT 753-2600-5353 TO COMPLETE THE CONNECTION TO THE SANITARY MAIN.
- 2. THE OWNER SHALL SUBMIT AN APPLICATION FOR WATER SERVICE TO THE PUBLIC WATER DEPARTMENT WITH PROCEEDINGS OF THE APPLICATION. THE CITY SHALL BE RESPONSIBLE FOR INSTALLATION OF THE WATER SERVICE LATERAL BETWEEN THE WATER MAIN AND METER.
- 3. NO OFF-SITE AREA SHALL BE DISTURBED FOR WATER AND SEWER CONNECTION WITH OUT WRITTEN APPROVAL FROM THE DEPARTMENT.
- 4. THE PROPOSED CHANGING WELL UTILIZE THE EXISTING DOMESTIC WATER SERVICE AND SANITARY LATERAL IF SEEMED ADEQUATE BASED ON A FIELD INSPECTION. THE EXISTING WATER METER WILL BE RETAINED AS SHOWN ON THE PLANS. CONTRACTOR IS INSTRUCTED TO LOCATE THE EXISTING WATER SERVICE AND SANITARY LATERAL GRADIES PRIOR TO BEGINNING CONSTRUCTION AND REPORT ANY IRREGULARITIES TO MAIN ENGINEER. CONTRACTOR MUST FIELD VERIFY THE LOCATION OF EXISTING SEWER TAP PRIOR TO START OF CONSTRUCTION.
- 5. THE NEW DWELLING IS PROPOSED TO BE CONNECTED TO THE EXISTING SEWER LATERAL AS SHOWN ON THE PLANS. THE NEW SEWER FEEDER LATERAL IS PROVIDED WITH CLEAN-OUTS. DRAINAGE FLOW IS DESIRABLE TO THE EXTENT POSSIBLE. IF NOT EJECTOR PUMP SHOULD BE PROVIDED FOR BASEMENT FLOODING. IT IS CONTRACTORS RESPONSIBILITY TO LOCATE THE EXACT LOCATION AND INVERT ELEVATION OF THE EXISTING SEWER LATERAL.
- 6. THE WATER LATERAL CONNECTIONS TO THE PUBLIC MAIN WITHIN THE SAME. THE NEW BUILDING WILL BE CONNECTED BY 1" WATER LINE FROM THE RELATED WATER METER AS SHOWN ON THE PLANS.

**GENERAL NOTES:**

- 1. CONTACT CITY OF FALLS CHURCH E & S INSPECTOR FOR AN INSPECTION OF THE FOLLOWING WORK ITEMS:
- 2. FOR FINAL INSPECTION OF ALL E & S CONTROLS PRIOR TO COMMENCEMENT OF DEMOLITION, GRADING OR CONSTRUCTION ACTIVITY.
- 3. WHEN PROJECT IS AT FINAL GRADE AND PRIOR TO PERMANENT STABILIZATION.
- 4. BEFORE REMOVING ANY E & S CONTROLS.
- 5. THE CITY'S SOIL ENGINEER WILL REQUIRE THE OWNER TO REPLACE ANY SECTION OF BROKEN CURB AND GUTTER SIDEWALK AND PAVED STREET SURFACE.
- 6. THE CITY OF FALLS CHURCH E & S INSPECTORS MAY REQUEST ADDITIONAL SOIL CONTROLS DRAINAGE AND/OR IN THE CITY RIGHT-OF-WAY AS NEEDED.
- 7. COVER SOIL STOCKPILES BY TRAP OR SILT FENCING AROUND THE PERIMETER OF THE STOCKPILE AREA.
- 8. TRASH AND OTHER DEBRIS MUST BE REMOVED FROM THE SITE DAILY OR ACCUMULATED IN A COVERED DEBRIS MOUND.
- 9. DESIGNATE ONE AREA FOR VEHICLES AND EQUIPMENT TO DRY AND EXIT THE SITE.

ZONING REQUIREMENTS PER SEC. 20-7 R-1B, WILSON HEIGHTS RESIDENTIAL DISTRICT

CATEGORIES	PERMITTED	PROHIBITED
MINIMUM LOT AREA	7,500 SF	6,000 SF
MINIMUM LOT WIDTH	20 FT	15 FT
MAX. LOT COVERAGE BY BUILDING	20%	24.9%
MAXIMUM BUILDING HEIGHT	30.0 FT	30.0 FT
MAX. ALLOWABLE IMPERVIOUS AREA	35.0%	24.63%

SEE DETAILS ON SHEET 6.

FOOTPRINT OF THE HOUSE - 1,860 SF  
FOOTPRINT OF THE DETACHED GARAGE - 361 SF  
% COVER BY MAIN BUILDING = 2,223/6,070 (36.6%) < 25.0%

**WALL CHECK PLAT NOTES:**  
WALL CHECK PLAT IS NEEDED NECESSARY. THE OCCUPANCY PERMIT WILL NOT BE ISSUED UNTIL THE RETAINING PLAT IS SUBMITTED TO DEPARTMENT OF ZONING AND THE STRUCTURE IS VERIFIED AS COMPLIANT WITH THE ZONING ORDINANCE.

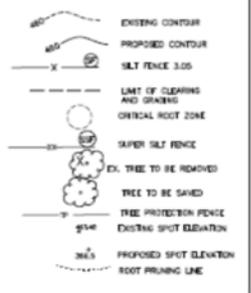
**RESPONSIBLE LAND DISTURBER CERTIFICATION**  
*Effective July 1, 2001.*

Amendments to the Virginia Erosion, Sediment Control Law, 10.1-563 and 10.1-566 of the code of Virginia  
**OWNER/DEVELOPER/ INFORMATION**  
PROJECT NAME: 309 SYCAMORE ST. PROJECT ID: # 91-215-031  
DISTRICT/CITY OF FALLS CHURCH PARCEL ID: # 91-215-031  
OWNER/DEVELOPER/ PERMITTEE: ASR DESIGNERS HOME LLC  
6712 WITTEN AVENUE, WOODHALL, VA 22091

**RESPONSIBLE LAND DISTURBER INFORMATION**

CERTIFICATE/USE/ISSUE NAME: AMANDA S PANDHARA  
TYPE OF CERTIFICATE: FLD LIC NO: 040003705  
SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

**PHASE II LEGENDS**



**GRAPHIC SCALE**



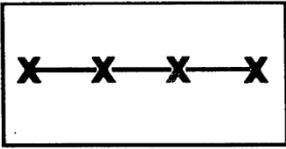
**Inova** Engineering Consultants, Inc.  
(Engineers, Surveyors, Planners)  
20150 Raccoon Run  
Suite 1000, Fairfax, VA 22031  
Phone: (703) 655-3800  
E-mail: inovae@inova.com

**CITY OF FALLS CHURCH**  
PLANNING DEPARTMENT

**SITE GRADING PLAN**  
**E&S CONTROL PLAN - PHASE II**  
**ELLISON HEIGHTS, BLK E LOT 22A**  
**309 SYCAMORE STREET**  
**CITY OF FALLS CHURCH, VIRGINIA 22046**

NO.	DATE	DESCRIPTION	BY
1	3-20-2017	DESIGN FOR CITY COMMENTS	MLP
2	3-20-2017	REVISION FOR CITY COMMENTS	MLP

PARCEL ID: 91-215-031  
DESIGN BY: MLP  
DRAWN BY: MLP  
CHECKED BY: MLP  
DATE: 3-20-2017  
SCALE: 1"=10'  
SHEET: 2 OF 11



# SILT FENCE



## Definition

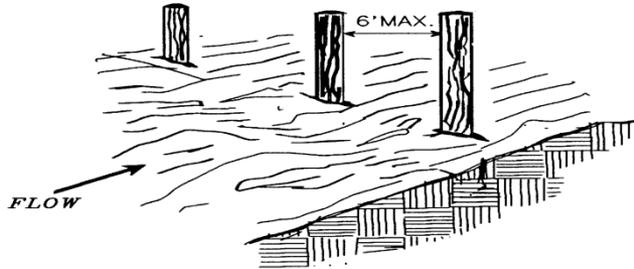
A temporary sediment barrier consisting of a synthetic filter fabric stretched across and attached to supporting posts and entrenched.

## Purposes

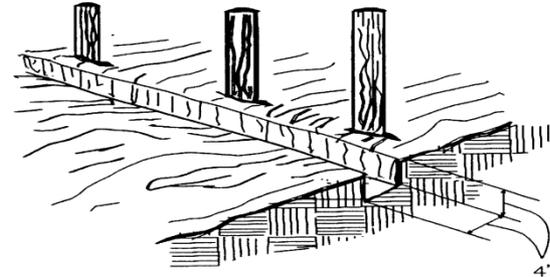
1. To intercept and detain small amounts of sediment from disturbed areas during construction operations in order to prevent sediment from leaving the site.
2. To decrease the velocity of sheet flows and low-to-moderate level channel flows.

## CONSTRUCTION OF A SILT FENCE (WITHOUT WIRE SUPPORT)

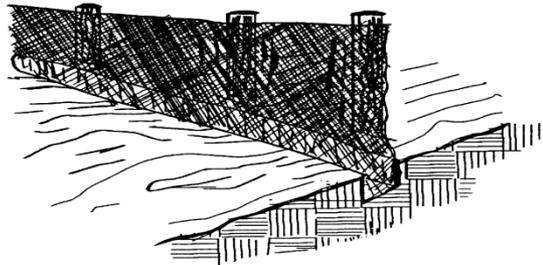
1. SET THE STAKES.



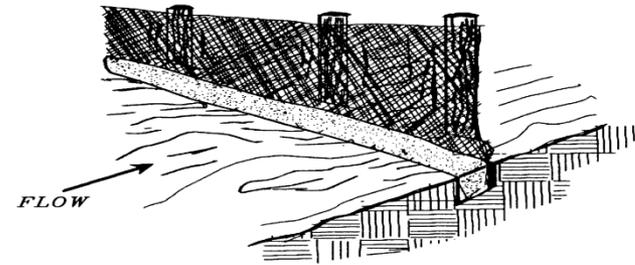
2. EXCAVATE A 4" X 4" TRENCH UPSLOPE ALONG THE LINE OF STAKES.



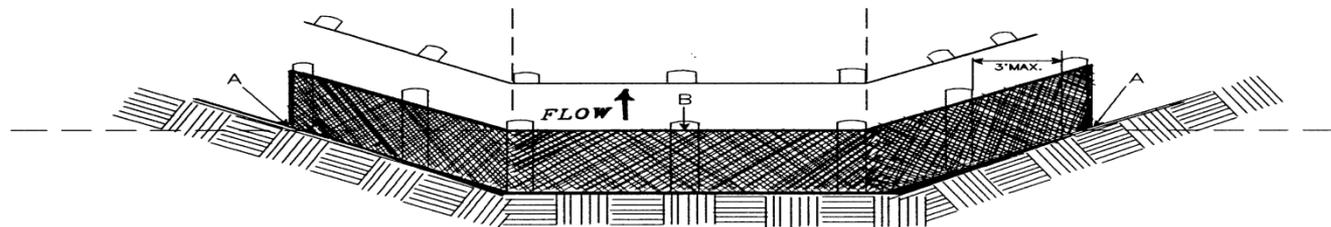
3. STAPLE FILTER MATERIAL TO STAKES AND EXTEND IT INTO THE TRENCH.



4. BACKFILL AND COMPACT THE EXCAVATED SOIL.



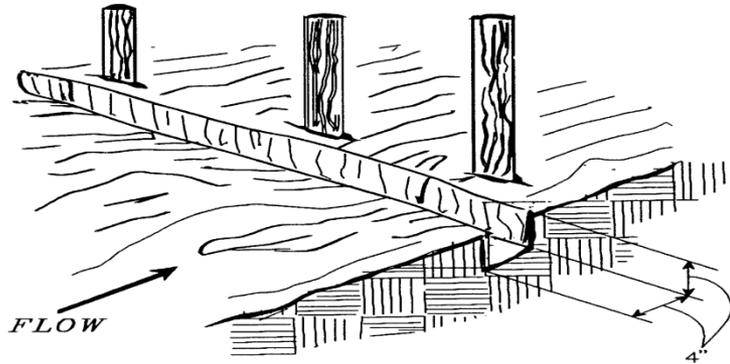
SHEET FLOW INSTALLATION  
(PERSPECTIVE VIEW)



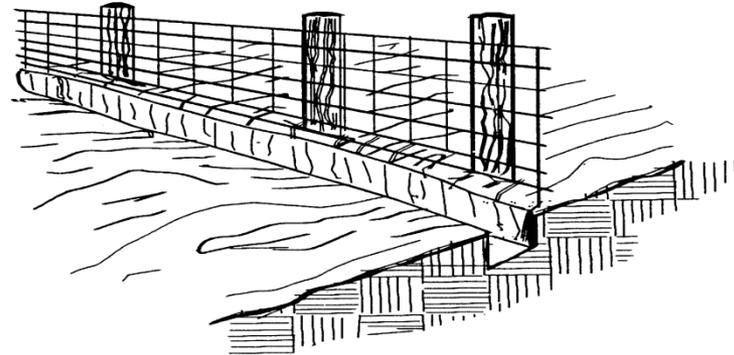
POINTS A SHOULD BE HIGHER THAN POINT B.  
DRAINAGEWAY INSTALLATION  
(FRONT ELEVATION)

# CONSTRUCTION OF A SILT FENCE (WITH WIRE SUPPORT)

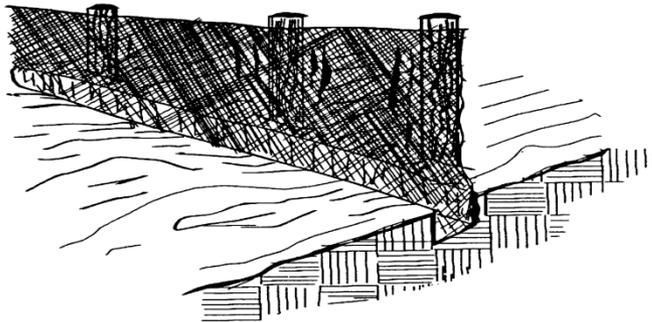
1. SET POSTS AND EXCAVATE A 4"X4" TRENCH UPSLOPE ALONG THE LINE OF POSTS.



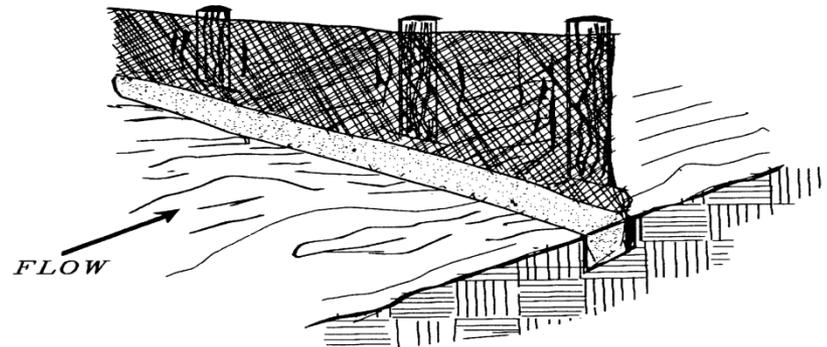
2. STAPLE WIRE FENCING TO THE POSTS.



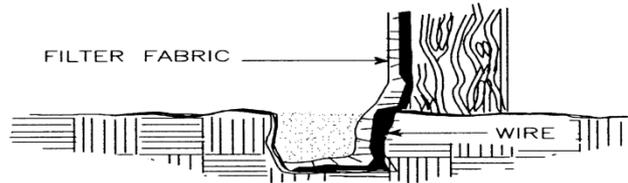
3. ATTACH THE FILTER FABRIC TO THE WIRE FENCE AND EXTEND IT INTO THE TRENCH.



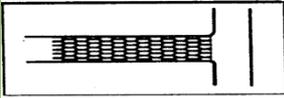
4. BACKFILL AND COMPACT THE EXCAVATED SOIL.



EXTENSION OF FABRIC AND WIRE INTO THE TRENCH.



# TEMPORARY STONE CONSTRUCTION ENTRANCE



## Definition

A stabilized stone pad with a filter fabric underliner located at points of vehicular ingress and egress on a construction site.

## Purpose

To reduce the amount of mud transported onto paved public roads by motor vehicles or runoff.

## Conditions Where Practice Applies

Wherever traffic will be leaving a construction site and move directly onto a public road or other paved area.

## Design Criteria

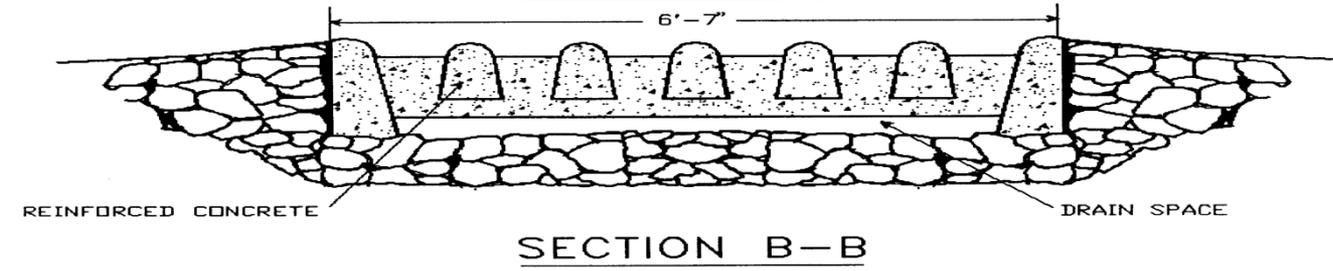
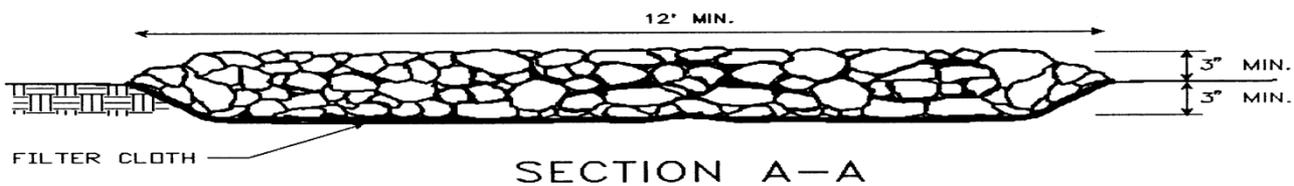
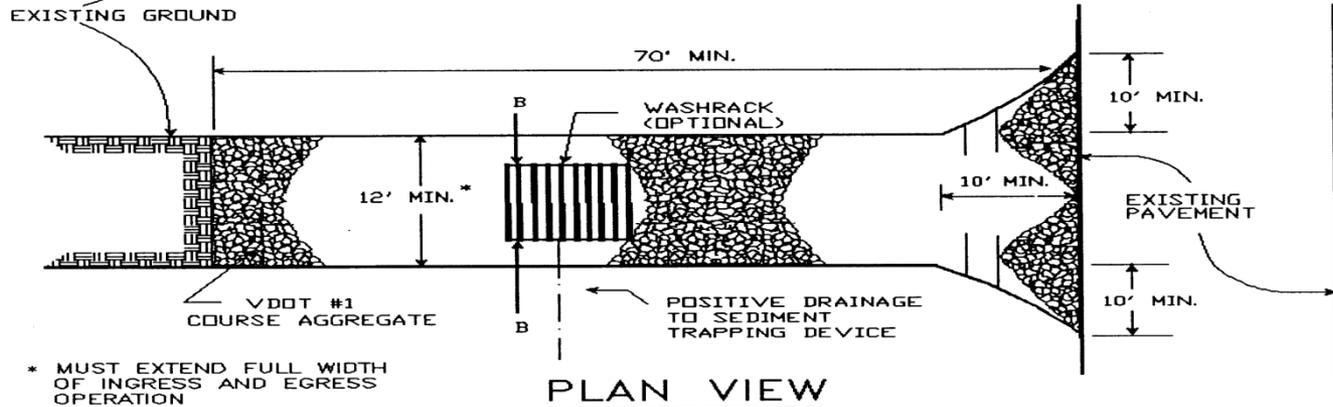
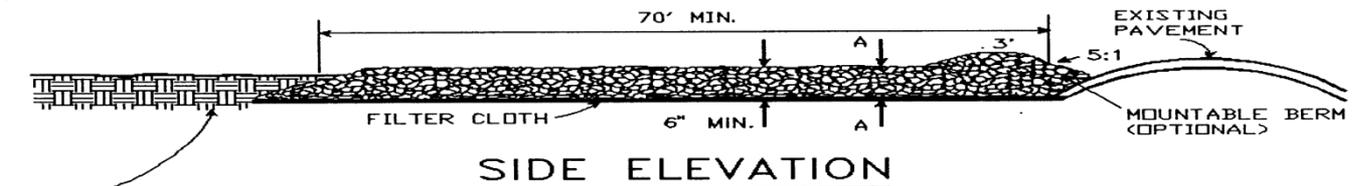
### Aggregate Size

VDOT #1 Coarse Aggregate (2- to 3-inch stone) should be used.

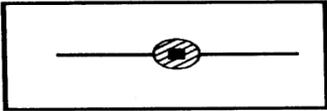
### Entrance Dimensions

The aggregate layer must be at least 6 inches thick; a minimum three inches of aggregate should be placed in a cut section to give the entrance added stability and to help secure filter cloth separator. It must extend the full width of the vehicular ingress and egress area and have a minimum 12-foot width. The length of the entrance must be at least 70 feet (see Plate 3.02-1).

# STONE CONSTRUCTION ENTRANCE



# STORM DRAIN INLET PROTECTION



## Definition

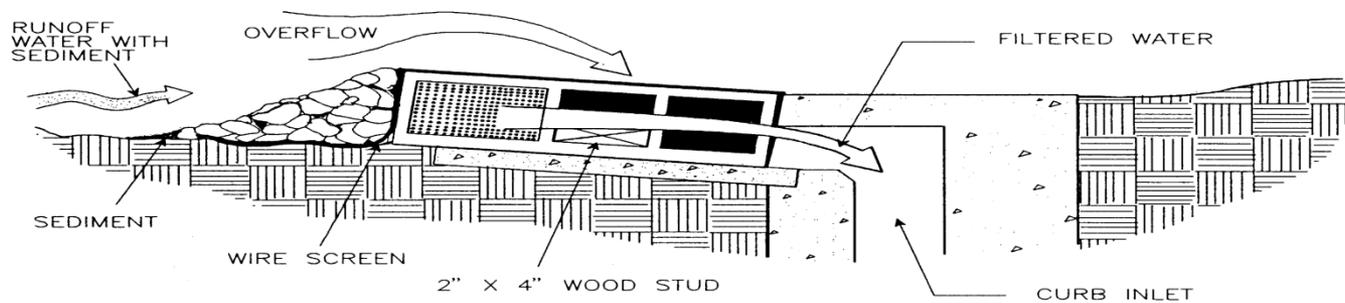
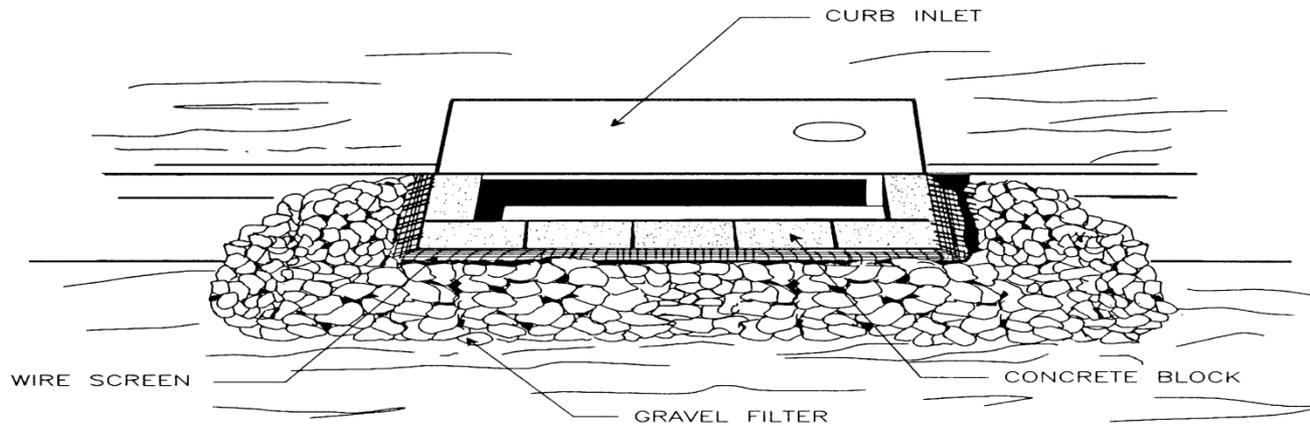
A sediment filter or an excavated impounding area around a storm drain drop inlet or curb inlet.

## Purpose

To prevent sediment from entering storm drainage systems prior to permanent stabilization of the disturbed area.



# BLOCK & GRAVEL CURB INLET SEDIMENT FILTER

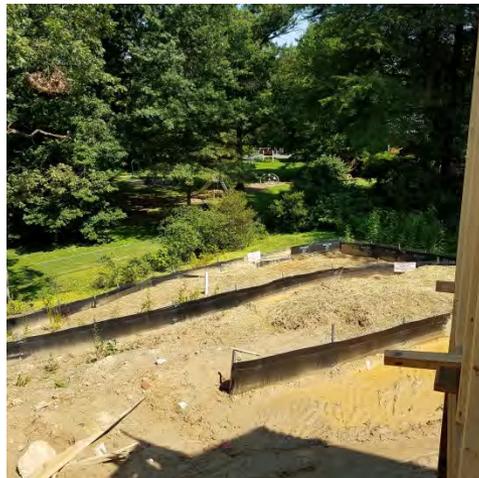


## SPECIAL APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE AN OVERFLOW CAPABILITY IS NECESSARY TO PREVENT EXCESSIVE PONDING IN FRONT OF THE STRUCTURE.

\* GRAVEL SHALL BE VDOT #3, #357 OR #5 COARSE AGGREGATE

# Inspections



# Pre Construction



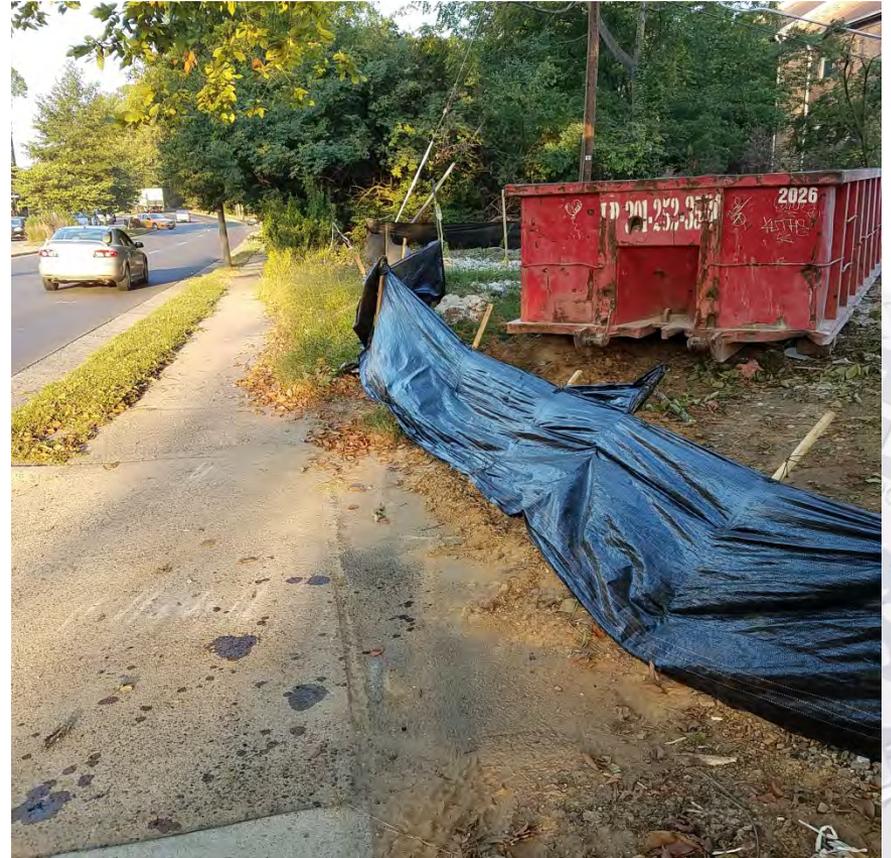
# Silt Fence

## GOOD



# Silt Fence

## BAD

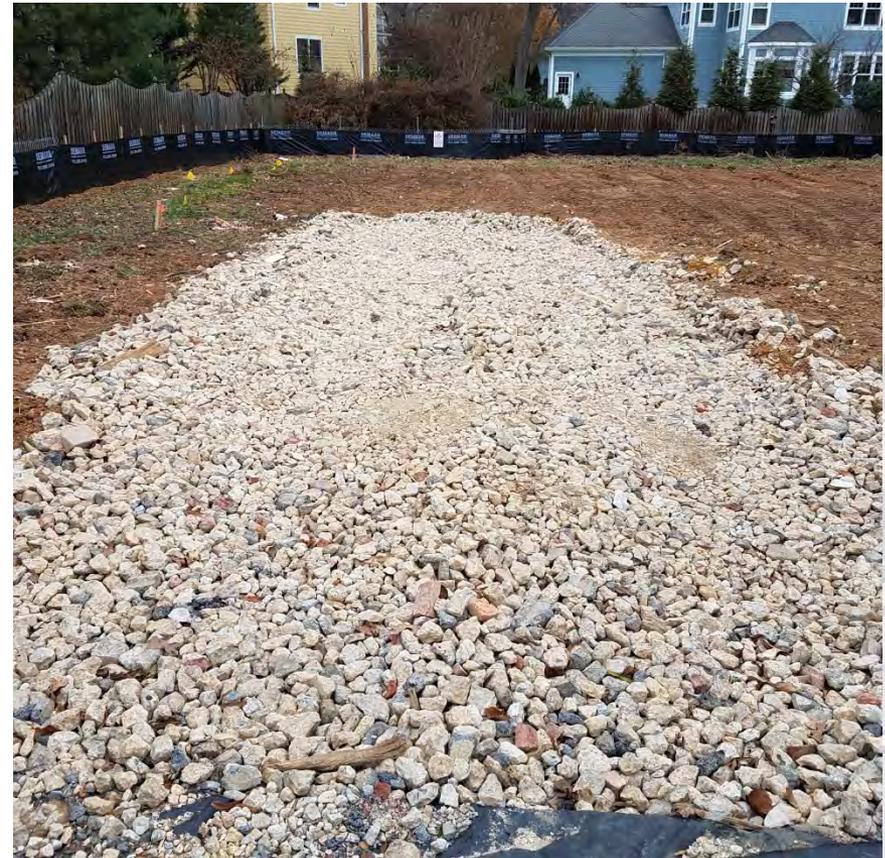


# Construction Entrance

GOOD



BAD



# Inlet Protection GOOD



# Inlet Protection

## BAD



# Demolition



# Excavation











# Foundation



# Framing



# Framing



# Building

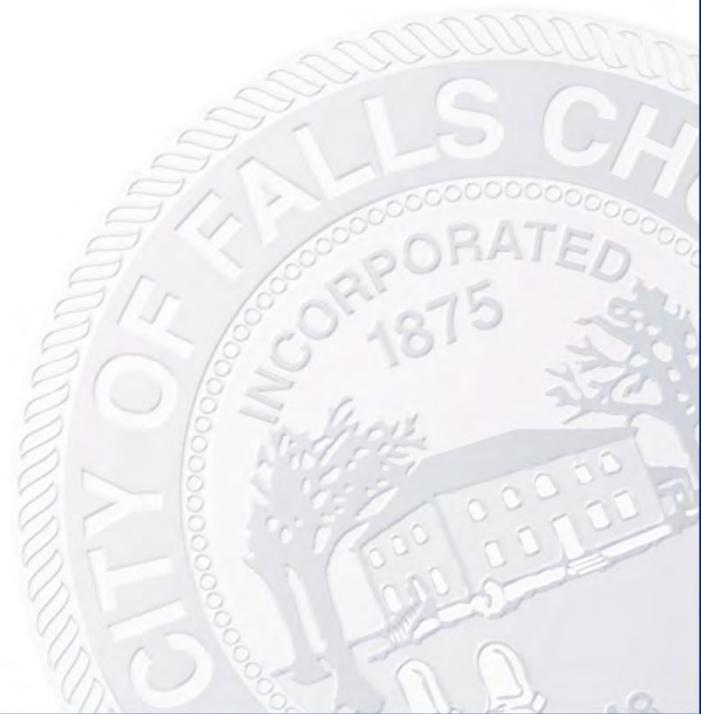


# Final Grade & Stabilization



# Enforcement

- Inspection Report
- Notice To Comply
- Fee(s)
- Stop Work Order







## Erosion & Sediment Control Notice to Comply

EROSION & SEDIMENT CONTROL INFORMATION			
Location		E&S Permit #	Date of Notification
		20171011	May 31, 2018
Date of Violation	Time of Violation	Inspector	
5-30-18	1:00pm	Matt Brown	
Date of Previous Warning	Notice Delivered To Owner/Developer		
5-24-18			

### INSPECTION CHECKLIST

**WARNING** (Action Required) This notice follows an inspection report on May 24 citing similar concerns.

All sediment runoff on 1214 Ellison must be removed without runoff entering any drains.

An additional layer of silt fencing must be installed per the inspection report on the right side of the property.

Re-inspection will occur at 12:00 pm on Friday, June 1, 2018. Fees will be assessed at that time if the aforementioned actions have not taken place and if the site is not compliant with the E&S portion of the grading plan and the Virginia Erosion and Sediment Control Handbook.

In the event any deadlines are not met, the City will issue a fee for each violation until corrections are complete. Should violations continue the City may utilize the Erosion and Sediment Control Bond to contract any required work. The City may also issue a Stop Work Order for this site until all violations are corrected. Questions may be directed to the Department of Public Works at 703-248-5350 (TTY 711).

### VIOLATIONS

- |   |   |
|---|---|
| <input type="checkbox"/> Land disturbance without a permit (\$1,000.00/day) | <input type="checkbox"/> MS-11 Conveyance channel pipes protection                      |
| <input type="checkbox"/> MS-1* Permanent /Temporary stabilization required  | <input type="checkbox"/> MS-12 Work in watercourse, protection required                 |
| <input type="checkbox"/> MS-2 Stabilize stock piles                         | <input type="checkbox"/> MS-13 Temporary stream crossing                                |
| <input type="checkbox"/> MS-3 Permanent vegetation established              | <input type="checkbox"/> MS-14 Fed./State regulations – watercourse                     |
| <input type="checkbox"/> MS-4 Sediment trapping measures required           | <input type="checkbox"/> MS-15 Bed and Bank stabilization                               |
| <input type="checkbox"/> MS-5 Stabilization of earthen structures           | <input type="checkbox"/> MS-16 Underground utility work                                 |
| <input type="checkbox"/> MS-6 Sediment traps/basins constructed/maintained  | <input type="checkbox"/> MS-17 Construction entrance                                    |
| <input type="checkbox"/> MS-7 Slope stabilization                           | <input type="checkbox"/> MS-18A Removal of temporary control measures                   |
| <input type="checkbox"/> MS-8 Temporary flume, channel, etc.                | <input checked="" type="checkbox"/> MS-18B Control structure repairs & sediment removal |
| <input type="checkbox"/> MS-9 Slope face seeps require protection           | <input checked="" type="checkbox"/> MS-19 Downstream properties & waterways protected   |
| <input type="checkbox"/> MS-10 Storm sewer inlet protection                 |   |

Each violation incurs fees in accordance with City code §15-36

The City of Falls Church is committed to the letter and spirit of the Americans with Disabilities Act. This document will be made available in alternate format upon request. Call 703-248-5080 (TTY 711).

\* Refers to the Minimum Standards of the Virginia Erosion and Sediment Control Regulations (4VAC50-30-40).





Department of Public Works  
**MISCELLANEOUS FEE ASSESSMENT  
 FY2018**

Date: June 5, 2018

TO: Robert Galpin

The following fee(s)\* are hereby assessed and payable **within 30 days**.

Fees are payable to "The City of Falls Church" at the Development Services/Permits Counter

- City Hall, Room 300 West (Third Floor), 300 Park Avenue, Falls Church, VA 22046
- 8:00 am - 4:00 pm, Monday – Friday except Holidays.
- Bring this letter with you.

Description	Allowable Fee Per Code	Fee Assessed
<b>EROSION &amp; SEDIMENT CONTROL</b>		
▪ <b>Erosion &amp; Sediment Control Violations:</b> (Maximum Assessment \$10,000)		
1 <sup>st</sup> Violation - Penalty per Day # Days: _____	CC: ESV01 \$500/day	
2 <sup>nd</sup> Violation - Penalty per day # Days: _____	CC: ESV02 \$750/day	
3 <sup>rd</sup> Violation - Penalty per day # Days: <u>3</u>	CC: ESV03 \$1000/day	\$1,000
<b>STORMWATER</b>		
▪ <b>Illicit Discharge, Residential</b>	CC: SWV01 \$ 500	
▪ <b>Illicit Discharge, Commercial/Mixed Use/Non-residential</b>	CC: SWV02 \$1,000	
<b>URBAN FORESTRY</b>		
▪ <b>Damage to Public Trees</b> , Fee per Inch DBH	CC: UFPV01 \$ 250	
▪ <b>Damage to Streetscape Irrigation</b>	CC: UFPV02 \$ 300 + cost of repair	
▪ <b>Landscape Installation and Protection:</b>		
Bond Management Fee	CC: UFBMF \$ 250	
New Landscape Inspection (< \$12,000 Bond Amount)	CC: UFLI1 \$ 150	
New Landscape Inspection (>\$12,000 Bond Amount)	CC: UFLI2 \$ 400	
Existing Tree Inspection (< \$12,000 Bond Amount)	CC: UFTI1 \$ 150	

Department of Public Works • 300 Park Avenue • Suite 100 West • Falls Church, VA 22046  
 Phone 703-248-5350 • Fax 703-248-5336 • www.fallschurchva.gov

Existing Tree Inspection (> \$12,000 Bond Amount)	CC: UFTI2	\$ 400	
▪ <b>Plant Tree on City Property</b>	CC: UFTC	\$ 50	
▪ <b>Tree Contractor, Unlicensed, Observed Working in City</b>	CC: UFP03	\$ 500	
▪ <b>Tree Preservation Violations:</b>			
1 <sup>st</sup> Offense	CC: UFPV04	\$ 350	
2 <sup>nd</sup> Offense	CC: UFPV05	\$ 450	
3 <sup>rd</sup> or subsequent Offense	CC: UFPV06	\$1,000	
Tree Preservation Grading Plan Tree Removal	CC: UFPV04	\$ 1,000	
<b>TOTAL FEES ASSESSED &amp; DUE</b>		<b>\$ 1000</b>	

\*All Fees listed in the above table are effective as of 08/01/2013 and are established by City Code, Article III, Chapter 15.

**STAFF NOTES / Additional Information / Description:**

Per previous inspections, sediment runoff in front of the site needs to be swept and shoveled out of the gutters.

Re-inspection will occur on June 6 at 12:00pm. A stop work order will be issued until all violations are resolved and all E&S control measures are in place according to the approved grading plan.

- Additional Memorandum attached
- Photograph(s) attached

**AUTHORIZING SIGNATURES:**

SIGNED:

Matt Brown  
 Matt Brown/Permitting Manager

6-5-18  
 Date

APPROVED BY:

Mike Whitfield  
 Mike Whitfield, CCM, Director  
 Department of Public Works

6/5/18  
 Date

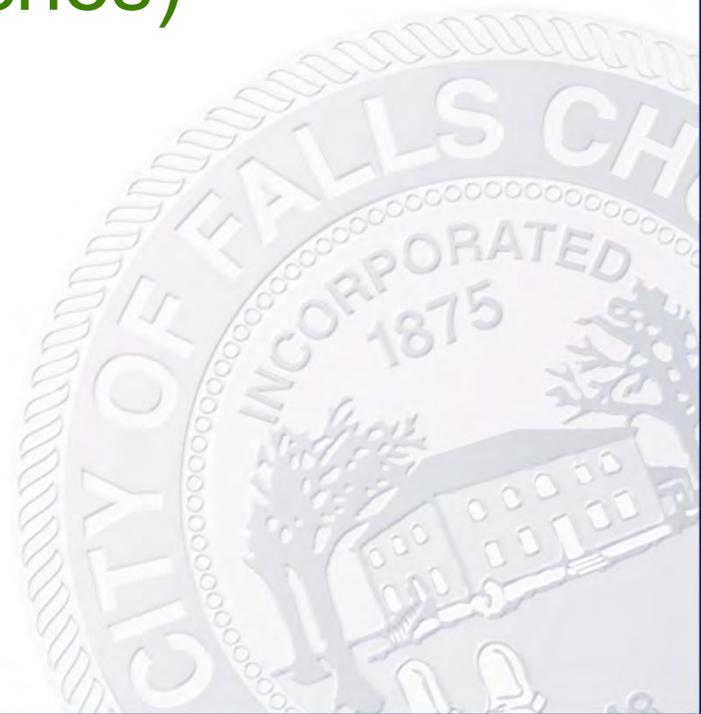
Department of Public Works • 300 Park Avenue • Suite 100 West • Falls Church, VA 22046  
 Phone 703-248-5350 • Fax 703-248-5336 • www.fallschurchva.gov

# E&S Inspection Schedule

- 48 business hours after runoff producing event ( $\geq$  .25 inches)

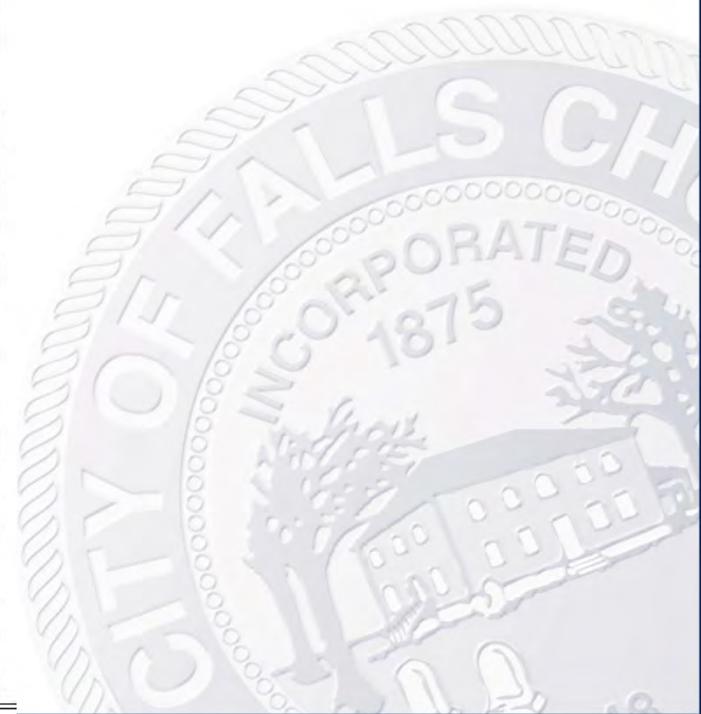
OR

- Every 2 weeks
- 24 active sites



**Daily Sum Precipitation, total, inches**

DATE	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018
1	0.00 <sup>A</sup>	0.00 <sup>A</sup>	0.09 <sup>A</sup>	0.00 <sup>A</sup>	0.00 <sup>P</sup>	0.03 <sup>P</sup>
2	0.00 <sup>A</sup>	0.06 <sup>A</sup>	0.00 <sup>A</sup>	0.03 <sup>P</sup>	0.00 <sup>P</sup>	0.13 <sup>P</sup>
3	0.00 <sup>A</sup>	0.00 <sup>A</sup>	0.00 <sup>A</sup>	0.00 <sup>P</sup>	0.00 <sup>P</sup>	1.82 <sup>P</sup>
4	0.00 <sup>A</sup>	1.16 <sup>A</sup>	0.00 <sup>A</sup>	0.00 <sup>P</sup>	0.03 <sup>P</sup>	0.00 <sup>P</sup>
5	0.00 <sup>A</sup>	0.00 <sup>A</sup>	0.00 <sup>A</sup>	0.00 <sup>P</sup>	0.00 <sup>P</sup>	0.00 <sup>P</sup>
6	0.00 <sup>A</sup>	0.00 <sup>A</sup>	0.11 <sup>A</sup>	0.00 <sup>P</sup>	0.00 <sup>P</sup>	0.00 <sup>P</sup>
7	0.00 <sup>A</sup>	0.47 <sup>A</sup>	0.20 <sup>A</sup>	0.00 <sup>P</sup>	0.00 <sup>P</sup>	0.00 <sup>P</sup>
8	0.04 <sup>A</sup>	0.00 <sup>A</sup>	0.00 <sup>A</sup>	0.00 <sup>P</sup>	0.00 <sup>P</sup>	0.00 <sup>P</sup>
9	0.01 <sup>A</sup>	0.00 <sup>A</sup>	0.00 <sup>A</sup>	0.01 <sup>P</sup>	0.00 <sup>P</sup>	0.12 <sup>P</sup>
10	0.00 <sup>A</sup>	0.96 <sup>A</sup>	0.00 <sup>A</sup>	0.00 <sup>P</sup>	0.00 <sup>P</sup>	0.00 <sup>P</sup>
11	0.00 <sup>A</sup>	0.99 <sup>A</sup>	0.00 <sup>A</sup>	0.00 <sup>P</sup>	0.00 <sup>P</sup>	0.60 <sup>P</sup>
12	0.35 <sup>A</sup>	0.12 <sup>A</sup>	0.00 <sup>A</sup>	0.00 <sup>P</sup>	0.16 <sup>P</sup>	0.00 <sup>P</sup>
13	0.12 <sup>A</sup>	0.00 <sup>A</sup>	0.00 <sup>A</sup>	0.00 <sup>P</sup>	0.51 <sup>P</sup>	0.01 <sup>P</sup>
14	0.00 <sup>A</sup>	0.03 <sup>A</sup>	0.00 <sup>A</sup>	0.00 <sup>P</sup>	1.31 <sup>P</sup>	0.00 <sup>P</sup>
15	0.00 <sup>A</sup>	0.01 <sup>A</sup>	0.00 <sup>A</sup>	0.24 <sup>P</sup>	0.50 <sup>P</sup>	0.00 <sup>P</sup>
16	0.00 <sup>A</sup>	0.06 <sup>A</sup>	0.00 <sup>A</sup>	1.74 <sup>P</sup>	0.92 <sup>P</sup>	0.00 <sup>P</sup>
17	0.00 <sup>A</sup>	0.30 <sup>A</sup>	0.00 <sup>A</sup>	0.00 <sup>P</sup>	0.72 <sup>P</sup>	0.00 <sup>P</sup>
18	0.00 <sup>A</sup>	0.11 <sup>A</sup>	0.00 <sup>A</sup>	0.00 <sup>P</sup>	1.12 <sup>P</sup>	0.00 <sup>P</sup>
19	0.00 <sup>A</sup>	0.03 <sup>A</sup>	0.00 <sup>A</sup>	0.03 <sup>P</sup>	0.81 <sup>P</sup>	1.48 <sup>P</sup>
20	0.00 <sup>A</sup>	0.00 <sup>A</sup>	0.93 <sup>A</sup>	0.00 <sup>P</sup>	0.01 <sup>P</sup>	0.17 <sup>P</sup>
21	0.00 <sup>A</sup>	0.00 <sup>A</sup>	0.47 <sup>A</sup>	0.00 <sup>P</sup>	0.00 <sup>P</sup>	0.01 <sup>P</sup>
22	0.00 <sup>A</sup>	0.05 <sup>A</sup>	0.01 <sup>A</sup>	0.00 <sup>P</sup>	0.82 <sup>P</sup>	0.63 <sup>P</sup>
23	0.08 <sup>A</sup>	0.01 <sup>A</sup>	0.00 <sup>A</sup>	0.00 <sup>P</sup>	0.00 <sup>P</sup>	0.08 <sup>P</sup>
24	0.00 <sup>A</sup>	0.15 <sup>A</sup>	0.00 <sup>A</sup>	0.50 <sup>P</sup>	0.00 <sup>P</sup>	0.18 <sup>P</sup>
25	0.00 <sup>A</sup>	0.15 <sup>A</sup>	0.00 <sup>A</sup>	0.26 <sup>P</sup>	0.00 <sup>P</sup>	0.00 <sup>P</sup>
26	0.00 <sup>A</sup>	0.00 <sup>A</sup>	0.00 <sup>A</sup>	0.00 <sup>P</sup>	0.38 <sup>P</sup>	0.00 <sup>P</sup>
27	0.00 <sup>A</sup>	0.00 <sup>A</sup>	0.01 <sup>A</sup>	0.92 <sup>P</sup>	0.00 <sup>P</sup>	0.03 <sup>P</sup>
28	0.15 <sup>A</sup>	0.00 <sup>A</sup>	0.09 <sup>A</sup>	0.02 <sup>P</sup>	0.05 <sup>P</sup>	
29	0.00 <sup>A</sup>		0.00 <sup>A</sup>	0.00 <sup>P</sup>	0.00 <sup>P</sup>	
30	0.00 <sup>A</sup>		0.00 <sup>A</sup>	0.00 <sup>P</sup>	0.02 <sup>P</sup>	
31	0.00 <sup>A</sup>		0.00 <sup>A</sup>		1.31 <sup>P</sup>	
<b>COUNT</b>	<b>31</b>	<b>28</b>	<b>31</b>	<b>30</b>	<b>31</b>	<b>27</b>
<b>MAX</b>	<b>0.35</b>	<b>1.16</b>	<b>0.93</b>	<b>1.74</b>	<b>1.31</b>	<b>1.82</b>
<b>MIN</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>



**Inspection Log**

Project Location: 1000 E. Broad St (24 Hour F) Photos: \_\_\_\_\_

Inspector: Matt Brown Inspection Report: \_\_\_\_\_

Date: 4/20/2012 Comments: Stockpile is much lower. To be monitored over the weekend and covered before rain.

Time: 2:00 PM

Weather: Clear  Verbal/Email Notification

Stage: Clearing  IR Issued

Condition: Good  NTC Issued

MS Violation

Minimum Standards

<input type="checkbox"/> MS1 - Permanent or temporary stabilization	<input type="checkbox"/> MS11 - Proper channel lining
<input type="checkbox"/> MS2 - Stabilization of stockpiles	<input type="checkbox"/> MS12 - Watercourse work without nonerodable materials
<input type="checkbox"/> MS3 - Permanent vegetative cover	<input type="checkbox"/> MS13 - Temporary vehicle stream crossing
<input type="checkbox"/> MS4 - Sediment basins and barriers in place	<input type="checkbox"/> MS14 - Crossing watercourse
<input type="checkbox"/> MS5 - Stabilization of dikes and diversions	<input type="checkbox"/> MS15 - Stabilization of watercourse bed and banks
<input type="checkbox"/> MS6 - Properly size basins and traps	<input type="checkbox"/> MS16 - Underground utilities
<input type="checkbox"/> MS7 - Cut and fill slopes stabilization	<input type="checkbox"/> MS17 - Construction entrance
<input type="checkbox"/> MS8 - Concentrated runoff on slopes	<input type="checkbox"/> MS18 - Removal of ES measures
<input type="checkbox"/> MS9 - Slope roughening	<input type="checkbox"/> MS19 - Concentrated stormwater runoff off-site
<input type="checkbox"/> MS10 - Inlet protection	

Erosion and Sediment Control Measures Installed

Construction Entrance <input checked="" type="checkbox"/>	Temporary Seeding <input type="checkbox"/>
Silt Fence <input checked="" type="checkbox"/>	Check Dam <input type="checkbox"/>
Tree Protection <input type="checkbox"/>	Sediment Trap <input type="checkbox"/>
Inlet Protection <input checked="" type="checkbox"/>	Sediment Basin <input type="checkbox"/>
Culvert Inlet Protection <input type="checkbox"/>	Slope Drain <input type="checkbox"/>
Outlet Protection <input type="checkbox"/>	Diversion Dike <input checked="" type="checkbox"/>
Permenant Seeding <input type="checkbox"/>	Sodding <input type="checkbox"/>
Blankets/Matting <input type="checkbox"/>	Riprap <input type="checkbox"/>

Save Record



# See something? Say something!



[mbrown@fallschurchva.gov](mailto:mbrown@fallschurchva.gov)

# Questions?

Jason Widstrom – PE, CFM  
Engineering Manager

Kim Callahan – PE  
Project Manager

