



DUMFRIES, VIRGINIA

Virginia's Oldest Continuously Chartered Town
CHARTERED 1749 INCORPORATED 1961

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10 November 2014

Virginia Department of Environmental Quality

Northern Regional Office

13901 Crown Court

Woodbridge, Virginia 22193

RE: Virginia MS4 General Permit Annual Report

General Permit Registration Number VAR040117

To Whom It May Concern:

The Town of Dumfries is pleased to submit our MS4 General Permit Annual Report. Please contact me with any questions or comments you may have at (703) 221-3400. We appreciate your patience and understanding.

Sincerely,

Richard Paul West

Director of Public Works

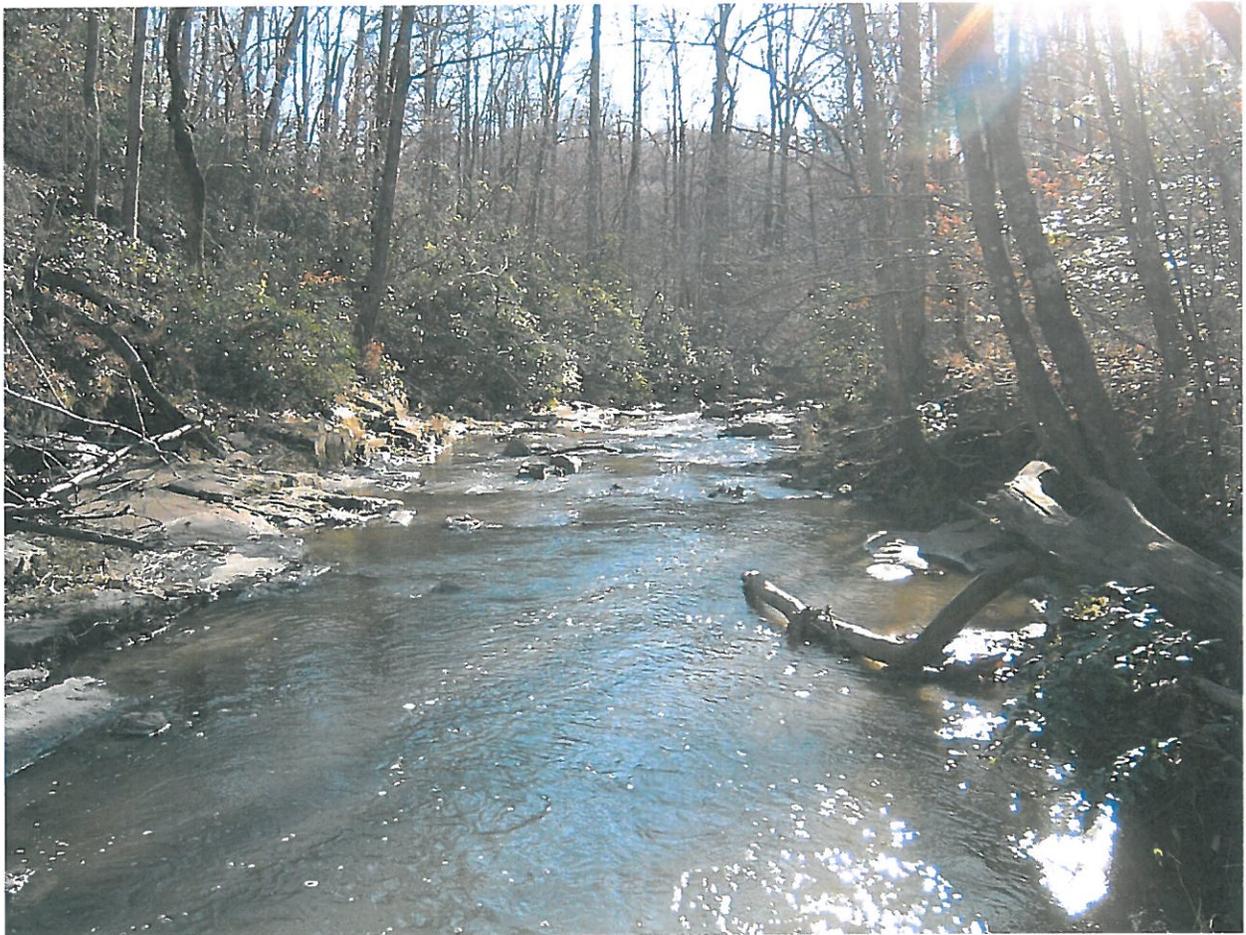


Town of Dumfries, Virginia

MS4 Annual Report

Reporting Period: July 1, 2013-June 30, 2014

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



Town of Dumfries

MS4 Annual Report

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Background Information

<p>Introduction: The Town of Dumfries comprises approximately 1.6 square miles of urban mixed use land development located approximately 25 miles south of Washington, D.C. The sole watershed area, Quantico Creek, discharges into the Potomac River.</p> <p>This report addresses items of the Town of Dumfries MS4 Program pertinent to the Virginia General Permit for Discharges from Small Municipal Storm Sewer Systems.</p>
<p>Name: Town of Dumfries Municipal Separate Storm Sewer System</p>
<p>Permit Number: VAR040117</p>
<p>Reporting Period: July 1, 2013-June 30, 2014</p>
<p>Modifications of Department Roles and Responsibilities: MS4 Coordinator now oversees MS4 Program under the guidance of Public Works Director.</p>
<p>New Outfalls and Associated Acreage: None</p>

Certification Statement

MS4 Owner: Town of Dumfries

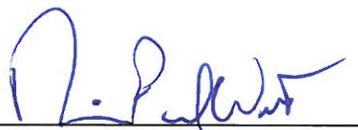
Permit Number: VAR040117

Certification:

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

Print Name: Richard Paul West

Title: Director of Public Works

Signature: 

Date: 10 Nov 2014

Status of Compliance

Minimum Control Measure #1: Education & Outreach on Stormwater Impacts

<p>BMP 1.1: List of Education and Outreach Activities Conducted During Reporting Period: Continued to work with the Northern Virginia Clean Water Partners (Appendix A)</p>
<p>BMP 1.2: List of Education and Outreach Activities To Be Conducted During Next Reporting Period: New Public Education and Outreach Program will be developed to meet new requirements.</p>

Minimum Control Measure #2: Public Involvement/Participation

<p>BMP 2.1: Maintaining Updated MS4 Program Plan The Town of Dumfries' MS4 Program Plan is consistently updated. The Program Plan was made available to the public and no comments were received.</p>				
<p>BMP 2.2: Public Participation Events The Town of Dumfries participated in two Public Participation events. They are listed below:</p> <table border="1"> <tr> <td>Potomac River Watershed Cleanup</td> <td>April 5th, 2014</td> </tr> <tr> <td>JROTC Drain Markers</td> <td>April 5th, 2014</td> </tr> </table>	Potomac River Watershed Cleanup	April 5 th , 2014	JROTC Drain Markers	April 5 th , 2014
Potomac River Watershed Cleanup	April 5 th , 2014			
JROTC Drain Markers	April 5 th , 2014			

Minimum Control Measure #3: Illicit Discharge Detection & Elimination

<p>BMP 3.1: Storm Drain System, Outfalls, and Information Map The storm sewer map has been consistently updated when necessary.</p>
<p>BMP 3.2: Maintenance of BMP Tracking System The Town maintained its log of all known BMPs installed in the town after January 2003. No additional BMPs were entered into the tracking system during the reporting period.</p>
<p>BMP 3.3: Bacteria Sampling and Testing Bacteria sampling and testing continued through the reporting year. (Appendix B)</p>

Minimum Control Measure #4: Construction Site Stormwater Runoff Control

<p>BMP 4.1: Ordinance and other legal authorities to require Erosion & Sediment Controls The Town, through the Director of Public Works, maintained an erosion and sediment control Program consistent with Virginia Regulations. The Director of Public Works is a Certified Combined Administrator.</p>
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<p>BMP 4.2: Inspections and Tracking of Land Disturbance Activities As of July 1st, 2013, the Town conducted all inspections of land-disturbing activities.</p>
<p>BMP 4.3: Require VSMP Permit for Land Disturbing Activities The town required all land disturbing activities encompassing areas of over 2,500 square feet to secure a VSMP storm water permit, through the Town's MS4 Permit Program, for the activity.</p>

<p>Regulated Land-Disturbing Activities</p>
<p><i>Project Name:</i> Canon Ridge Subdivision Lot 1 <i>Total Acres Disturbed:</i> 0.49 acres</p>
<p><i>Project Name:</i> Canon Ridge Subdivision Lot 2 <i>Total Acres Disturbed:</i> 0.49 acres</p>
<p><i>Project Name:</i> Metts Subdivision Lot 6 <i>Total Acres Disturbed:</i> 0.49</p>
<p><i>Project Name:</i> Metts Subdivision Lot 7 <i>Total Acres Disturbed:</i> 0.62</p>
<p><i>Project Name:</i> Dumfries Elementary School Parking Expansion <i>Total Acres Disturbed:</i> 2.02</p>
<p><i>Project Name:</i> Danforth Homes The Point <i>Total Acres Disturbed:</i> 1.49</p>

Minimum Control Measure #5: Post-Construction Stormwater Management in New Development & Redevelopment

<p>BMP 5.1: Reporting of New BMP Installations and Maintenance Agreements No new BMPs were installed in FY 2014, therefore no new maintenance agreements were entered into. Land disturbance activities in FY2013 continue through FY 2014; BMP maintenance agreements will be implemented as BMPs are accepted by the town.</p>

Minimum Control Measure #6: Pollution Prevention & Good Housekeeping

<p>BMP 6.1: Street Sweeping 390 miles of street were swept, based on all streets being swept monthly and roughly half of the streets being swept twice a month, depending on the weather.</p>
<p>BMP 6.2: Litter Pickup The maintenance crew provided litter pickup throughout the town on a weekly basis, weather permitting.</p>
<p>BMP 6.3: Snow and Ice Removal The maintenance crew was instructed in proper snow removal and ice control application to provide environmentally conscientious winter road maintenance.</p>

Information Collected and Analyzed

Bacteria sampling was performed. (Appendix B)

BMP Modifications

No modifications were made as permit extension was granted. Modifications will be made in accordance with new program plans to meet updated permit requirements.

Notice of External Assistance

The Town participates in the Northern Virginia Clean Water Partners Regional Stormwater Education Campaign to produce radio ads and other public education & outreach efforts. (Appendix A)

Proposed Programs

The Town has no proposed programs which would require approval status pursuant to Section II C of the General Permit.

Section I B 9 Requirements

The Town has no WLAs currently assigned.

Illicit Discharges Reported

There were no illicit discharges reported during this period.

Permanent Stormwater Management Facilities

See Appendix C

Agreements

There were no new or terminated signed agreements between the Town and any applicable third parties.

Written Comments

There were no public comments regarding either the MS4 Program Plan or any modifications during the reporting period.

APPENDIX A: Regional Stormwater Education Program



MS4 General Permit Annual Report



Northern Virginia Clean Water Partners

2014 Summary

WORKING TOGETHER FOR HEALTHY STREAMS AND RIVERS

Polluted stormwater runoff is the number one cause of poor water quality in streams and rivers in Northern Virginia. As stormwater runs off city streets, suburban yards and parking lots, it picks up pesticides and fertilizer from lawns, bacteria from pet waste, as well as petroleum and oil from driveways and parking lots. Don't forget about the sediment from construction sites or the litter and cigarette butts from the sidewalk.

To reduce the impacts of stormwater pollution, the Northern Virginia Clean Water Partners aims to change human behaviors in our cities and neighborhoods through a public awareness and education campaign.

The Northern Virginia Clean Water Partners is comprised of a multi-disciplined group of local governments, drinking water and sanitation authorities, and individual businesses working together to address the common issues surrounding pollution prevention, stormwater management, and source water protection. "Only Rain Down the Storm Drain" is the motto of the partnership.

The primary goal of the partnership is to reduce stormwater-related pollution from entering local waterways.

To meet this goal, the Partners work together to:

- 👤 Educate the region's residents on simple ways to reduce pollution around their homes;
- 👤 Monitor changes in behavior through surveys and other data collection techniques; and
- 👤 Pilot new cost-effective opportunities for public outreach and education.

Members include stormwater program managers, Municipal Separate Storm Sewer System (MS4) Permit managers, communication directors, public information officers, water quality compliance specialists, and environmental planners.

Membership is voluntary and each member pays annual dues to fund the program. The partnership provides a cost-effective means to meet mandatory state and federal stormwater requirements. By working together the partners are able to leverage their available funds to develop and place bilingual educational products with common

messages and themes, thereby extending their individual reach.

Regional Stormwater Education Campaign

The Annual Regional Stormwater Education Campaign was initiated in 2003 to assist localities in leveraging funds to achieve common goals regarding stormwater education and outreach and promote consistent messages for high priority water quality issues.

The 2014 campaign satisfied MS4 (Municipal Separate Storm Sewer System) Phase I and Phase II permit requirements for stormwater education and documenting changes in behavior.

For more information visit www.onlyrain.org



About the Partnership

The Northern Virginia Clean Water Partners is open to any water and sewer district, municipal government agency or school system in and around Northern Virginia.



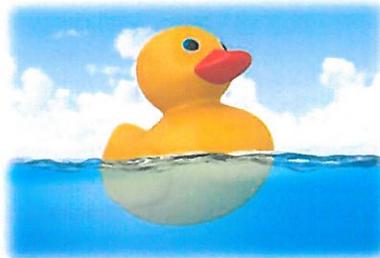
2014 Northern Virginia Clean Water Partners

Fairfax County | Arlington County | Loudoun County | Stafford County | Fairfax Water | City of Alexandria | Loudoun Water | City of Fairfax | Town of Herndon | City of Falls Church | Town of Leesburg | Town of Vienna | Town of Dumfries | Doody Calls | Northern Virginia Regional Commission | Virginia Coastal Zone Management Program | George Mason University | Northern Virginia Community College | Fairfax County Public Schools | Arlington County Public Schools



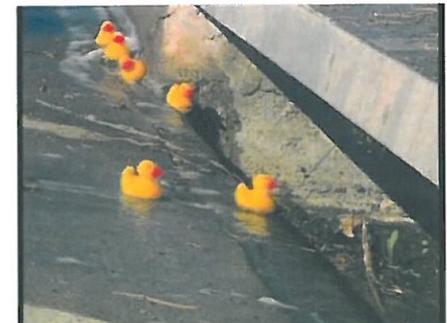
2014 Campaign Overview

In 2014, the Northern Virginia Clean Water Partners used television, print, internet advertising and the Only Rain Down the Storm Drain website to distribute messages linked to specific stormwater problems, such as proper pet waste disposal, over fertilization of lawns and gardens and proper disposal of motor oil. In addition to the multi-channel media campaign, educational events hosted throughout the Northern Virginia region also raised awareness and encouraged positive behavior change in residents. The television and internet ads featured the well known national symbol of non-point source pollution; the rubber ducky.

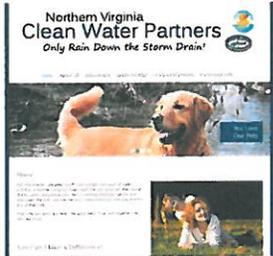


Throughout the campaign year, the Partners made the following efforts to educate the public and promote awareness of stormwater pollution:

- 🦆 From January 2014 through July 2014, four Public Service Announcements featuring messages on the importance of picking up pet waste and general household stormwater pollution reduction measures aired on twelve popular cable TV channels, including three Spanish speaking channels a total of 3,502 times.



- The campaign also featured banner ads on the Xfinity.com website that promote the same messages as the cable TV ads.
- The internet banner ads resulted in over 300 click thrus to the www.onlyrain.org website.



- Conducted an online poll survey of 500 Northern Virginia residents to determine the effectiveness of the ads, to reveal any changes in behavior, and to aid in directing the future efforts of the campaign.



- Distributed 10,000 pet waste bag dispensers at various community events to promote awareness of proper disposal of pet waste.
- Renovated and updated the Northern Virginia Clean Water Partners website with a new modern theme, current information about stormwater pollution prevention, and links to local websites.➤

2014 Accomplishments

3,193,924 Total household television impressions*

527,863 Total internet banner ad impressions*

10,000 Dog waste bag dispensers distributed at community events

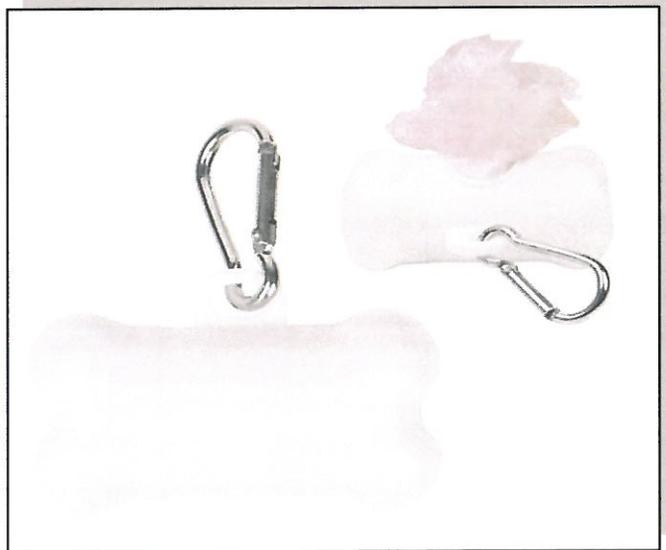
3,502 Number of times the ads aired on television from January – July 2014

300 Visits to the www.onlyrain.org website

500 Online Annual Survey Responses

3 New Partners

**Impressions are the number of times an ad appeared on a single television or computer screen.*





Main cause of water pollution...

For the fourth year in a row, the majority of survey respondents stated fertilizers and pesticides as the number one cause of pollution in local streams, the Potomac River and Chesapeake Bay.



Where stormwater goes...

Over 90 percent of Northern Virginia residents surveyed stated that stormwater goes to the Potomac River, the Chesapeake Bay, or to local streams and rivers.



93%

Stated the actions of individuals are important in protecting water quality in local streams, the Potomac River, and the Chesapeake Bay is important.



70%

Would be more likely to take actions to reduce the amounts of pollutants they personally put into storm drains, after learning that polluted water runoff is the number one cause of local water pollution.



95%

Believe it is important for local governments to spend more money on protecting water quality.

Annual Survey Highlights

To assist in determining the effectiveness of the campaign at increasing awareness and changing behaviors, after each campaign year, the Partners conduct an online annual survey of 500 Northern Virginia residents.

Findings in the 2014 survey include:

- 🐾 15 percent of the respondents recalled hearing or seeing advertisements on the internet or on TV about reducing water pollution.
- 🐾 Of those who recalled the ads, seven percent state they now pick up their pet waste more often, seven percent state that they are more careful with motor oil, and 18 percent state they fertilize fewer times per year.
- 🐾 The number of respondents choosing runoff from streets and parking lots as the number one source of pollution has remained steady over the past four years.
- 🐾 42 percent of respondents knew they live in the Potomac River watershed, up from 38 percent in 2011.
- 🐾 Interestingly, 81 percent of people surveyed reported that they always pick up after their pet, as compared with 30 percent in previous surveys.
- 🐾 When shown the Only Rain Down the Storm Drain logo, over half of the respondents recognized the logo.
- 🐾 86 percent of respondents were familiar with rain barrels, and 66 percent stated they already have a rain barrel or are interested in getting one
- 🐾 36 percent of respondents were familiar with rain gardens, with 62 percent already having a rain garden or interested in installing one.
- 🐾 More than half of the respondents (54%) prefer to receive information from online sources. Newspaper (19%) and television (17%) were the next two preferred information sources.

Understanding Behaviors

In addition to capturing responses to questions regarding the effectiveness of the campaign, this year's survey honed in on the current behaviors of Northern Virginia residents as they relate to pet waste management, lawn care, and motor oil disposal. Responses to these questions support the development of future messages and targeted promotion.

The most important reason dog owners are motivated to pick up their pet's waste is because "It's what good neighbors do". The number of respondents choosing "It causes water pollution" as the most important reason to pick up has risen from 13 percent in 2011 to 20 percent in 2014.

A third of the lawn and garden owners fertilize their lawns two or more times per year; an equal number never fertilize their lawns. Among those who fertilize once a year, 13 percent fertilize in the spring and only eight percent fertilize in the fall. This suggests that there is room to educate more residents of Northern Virginia that fertilizing in the fall is better for local waterways than fertilizing in the spring.

About half of the respondents reported using an herbicide to treat weeds in their lawn or garden.

To better understand behavior related to the application of fertilizer, three new questions about fertilizer were added to the 2013 survey. Among those who fertilize their lawn, 69 percent have never had or were not sure if their soil had been tested for fertility or pH and four-in-ten reported using a slow release N fertilizer. When asked where they get information to decide when and how much fertilizer to apply the top three most commonly selected responses were "Follow directions on the bag" (52%), followed by "Lawn service conducts the applications" (31%), and then "Eyeball it based on size of lawn" (7%).

The majority of respondents take their vehicle to a service station to change their oil (85%) or take used oil to a gas station or hazmat facility for recycling (10%). Only two percent of Northern Virginians reported storing used motor oil in their garage, placing it in the trash or dumping it down the storm drain.

Only Rain Down the Drain

www.onlyrain.org

2014 Northern Virginia Clean Water Partners

Fairfax County | Arlington County | Loudoun County | Stafford County | Fairfax Water |
City of Alexandria | Loudoun Water | City of Fairfax |
Town of Herndon | City of Falls Church | Town of Leesburg | Town of Vienna |
Town of Dumfries | Doody Calls | Northern Virginia Regional Commission | George Mason
University | Virginia Coastal Zone Management Program | Northern Virginia Community College |
Fairfax County Public Schools | Arlington County Public Schools



Summary prepared by NVRC on behalf of the Partners

For more information contact:
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3060 Williams Drive, Suite 510
Fairfax, VA 22031
cmiles@novaregion.org



APPENDIX B: Bacteria Sampling



MS4 General Permit Annual Report

Coliscan Sampling Results

Site	D1	D2	D3	D4	Rainfall past 24 Hours (")
Lat	38.56861	38.56775	38.56586	38.5661	
Long	-77.33592	-77.33481	-77.329	-77.32437	
E coli Colony Forming Units per 100 mL					
7/1/2013	125	100	950	775	0.53
7/17/2013	175	125	325	850	none
8/5/2013	25	50	50	50	none
8/19/2013	200	350	150	100	0.84
9/2/2013	20	20	20	20	0.1
9/7/2013	25	50	300	275	none
10/11/2013	1950	1750	3200	3050	0.9
10/28/2013	20	20	20	25	none
11/17/2013	50	20	25	20	0.3
12/15/2013	50	50	75	175	0.3
12/29/2013	1200	750	1125	975	1.31
1/15/2014	50	20	75	25	0.2
1/26/2014	20	20	20	20	0.02
2/1/2014	20	20	20	20	none
2/17/2014	20	25	20	20	none
3/16/2014	20	20	25	75	none
3/29/2014	50	20	100	25	0.22
4/14/2014	25	20	20	50	0.16
4/15/2014	950	650	925	975	0.67
4/29/2014	100	75	150	600	0.38
4/30/2014	350	20	325	375	2.6
5/21/2014	75	75	25	25	0.02
6/3/2014	50	25	50	20	none
6/14/2014	75	75	200	250	0.56
6/22/2014	20	20	25	25	0.16

APPENDIX C: Permanent Stormwater Management Facilities



MS4 General Permit Annual Report

Permanent Stormwater Management Facilities

LOCATION	BMP TYPE	VAHU6	IMPAIRED WATER	ACRES TREATED
17565 Old Stagecoach Road	Stormwater Management Pond	PL52	Quantico Creek	1.6533
17640 Overlook Road	Stormwater Management Pond	PL52	Quantico Creek	0.3799
17569 Summerduck Road	Stormwater Management Pond	PL52	Quantico Creek	0.8012
17445 Jefferson Davis Highway	Stormwater Management Pond	PL52	Quantico Creek	1.9919
17335 Jefferson Davis Highway	Stormwater Management Pond	PL52	Quantico Creek	2.8172
3731 Greentree Lane	Stormwater Management Pond	PL52	Quantico Creek	54.0492
3730 Greentree Lane	Stormwater Management Pond	PL52	Quantico Creek	24.9661
17975-95 Main Street	Manufactured BMP System -- Stormceptor	PL52	Quantico Creek	1.0800
2525 Pointe Center Court	Manufactured BMP System -- Stormceptor	PL52	Quantico Creek	1.7950
17944 Main Street	Bioretention Facility	PL52	Quantico Creek	0.6177
17865 Main Street	Manufactured BMP System -- Stormceptor	PL52	Quantico Creek	0.5630
17484 Jefferson Davis Highway	Manufactured BMP System -- Stormceptor	PL52	Quantico Creek	1.9785
17950 Dr. David Cline Lane	Infiltration Trench	PL52	Quantico Creek	0.2366