



DUMFRIES, VIRGINIA

Virginia's Oldest Continuously Chartered Town
CHARTERED 1749 INCORPORATED 1961

17755 Main Street
Dumfries, Virginia 22026-2386
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www.dumfriesva.gov

01October 2012

Department of Conservation and Recreation
Stormwater Management
203 Governor Street, Suite 206
Richmond, VA 23219

Attn: Doug Fritz
Stormwater Permits Manager

RE: VSMP MS4 General Permit Annual Report
General Permit Registration Number VAR040117

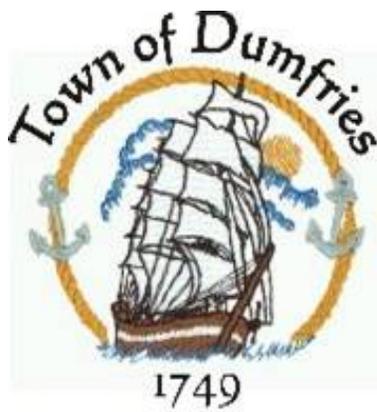
Mr. Fritz:

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

Sincerely,

Richard Paul West
Assistant Director of Public Works

Town of Dumfries



MS4 General Permit Annual Report

Report Period July 1, 2011 – June 30, 2012

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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.

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.

BACKGROUND INFORMATION

Name: Town of Dumfries Municipal Separate Storm Sewer System

Permit Number: VAR040117

Reporting Period: July 1, 2011 – June 30 2012

Modifications: None

New Outfalls and
Associated Acreage: None

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: Assistant Director of Public Works

Signature:  Date: 01 October 2012

STATUS OF COMPLIANCE

Public Education and Outreach on Stormwater Impacts:

- ⊕ Continued to work with the Northern Virginia Clean Water Partners (Appendix A)
 - aired two radio ads on three radio stations a total of 236 times. The ads reached approximately 54,563 Northern Virginia residents, resulting in over 200 visits to the www.onlyrain.org website
 - highlighted the issue of pet waste through the Northern Virginia Dog Blog
 - supported the Metro DC Lawn and Garden Blog
 - ran an online ad campaign on the topic of fertilizer reduction
- ⊕ Submitted a total of six newsletter articles for the Fourth Quarter 2011 and Second Quarter 2012 editions of *The Dumfries* Charter, which is distributed to 3,061 town residents and businesses.

Public Involvement and Participation:

- ⊕ The Town participated in the 25th Annual Alice Ferguson Foundation Potomac River Watershed Cleanup, working in Quantico Creek within the town limits. Thirty-one volunteers participated in removing 13 tires, car bumpers and other car parts, boat motors, signs, housing material and other debris in excess of 800 pounds from Quantico Creek and its tributaries. Seventy-two bags of trash and 65 bags of recyclable material was also picked up and properly disposed.
- ⊕ The MS4 Program Plan was made available to the public during the budget review process. No comments were received regarding the plan.

Illicit Discharge Detection and Elimination:

- ⊕ The storm sewer map was digitized from Corps of Engineer reports and field confirmation was initiated.
- ⊕ The Town maintained its log of all known permanent BMPs installed in the Town after January 2003. No additional BMPs entered into the Town's tracking system during the reporting period.
- ⊕ Bacteria sampling and testing was initiated in June 2012. Four sites along Quantico Creek within the town are being sampled by students from Rippon

Middle School, with reports reported to Public Works and the Virginia Department of Environmental Quality.

Construction Site Stormwater Runoff Control:

- ⊕ The Town, through the Director of Public Works, maintained an erosion and sediment Control Program consistent with Virginia Regulations. Both the Director of Public Works and the Assistant Director of Public Works are Certified Combined Administrators.
- ⊕ The town executed a Memorandum of Understanding with the Prince William Soil & Water Conservation District to assist in erosion and sediment control inspections.
- ⊕ 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.

Post-Construction Stormwater Management:

- ⊕ No new BMPs were installed in FY 2012, therefore no new maintenance agreements were entered into. Land disturbance activities in FY2012 continue through FY 2013; BMP maintenance agreements will be implemented as BMPs are accepted by the town.

Pollution Prevention and Good Housekeeping:

- ⊕ 390 lane 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.
- ⊕ The maintenance crew provided litter pickup throughout the town on a weekly basis, weather permitting.
- ⊕ The maintenance crew was instructed in proper street sweeper maintenance to provide optimum sweeping performance.

INFORMATION COLLECTED AND ANALYZED

- ⊕ Bacteria sampling was performed (Appendix B).

PLANNED STORMWATER ACTIVITIES DURING THE NEXT REPORTING PERIOD

See Appendix C.

BMP MODIFICATIONS

See Appendix C.

NOTICE OF EXTERNAL ASSISTANCE

The Town MS4 Program is under the supervision of the Town of Dumfries Department of Public Works; other Town departments provide assistance (see Appendix C). The Town participates in the Northern Virginia Clean Water Partners Regional Storm Water Education Campaign to produce radio ads and other public outreach/education efforts.

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

There were no illicit discharges during the reporting period.

LAND DISTURBANCE

Regulated land-disturbing activity within the Town during the reporting period:

⊕ Ginn Memorial Park	2.39 acres
⊕ Grace Church	2.21 acres
⊕ McDonald's	1.04 acres
⊕ Danforth Homes – The Point	1.49 acres

PERMANENT STORMWATER MANAGEMENT FACILITIES

See Appendix D.

AGREEMENTS

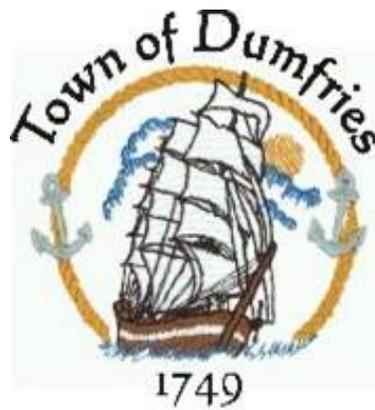
There were no new or terminated signed agreements between the Town and any applicable third parties.

WRITTEN COMMENTS

There were no public comment periods regarding either the MS4 Program Plan or modifications to the Plan.

APPENDIX A

Regional Stormwater Education Campaign



MS4 General Permit Annual Report

Report Period July 1, 2011 – June 30, 2012

Regional Stormwater Education Campaign

In 2012, the Town of Dumfries continued to support the [Northern Virginia Clean Water Partners](#), which enables Northern Virginia jurisdictions to pool outreach funds to conduct a regional stormwater education campaign. In recent years, the campaign has expanded to include online advertising through social networking sites and search engines, in addition to radio advertising. While the use of radio advertising has been effective in the early years of the campaign, the audience for traditional media outlets has decreased in recent years.

In April 2012, two radio ads featuring messages on the importance of picking up pet waste and general household stormwater pollution reduction measures aired on three popular radio stations, including one Spanish speaking station a total of 236 times. These ads reached approximately 54,563 Northern Virginia residents and resulted in over 200 visits to the www.onlyrain.org website.

Since July of 2011, campaign ads have appeared on Google, Facebook, and YouTube advertisements appeared over 8 million times, resulting in over 60,000 visits to the campaign web sites.

For the FY12 campaign, the campaign Partners continued to highlight the issue of pet waste with the [Northern Virginia Dog Blog](#). The Dog Blog features interesting articles about dogs; the message about picking up pet waste is woven into the articles a specific number of times per month. With support from the advertisements, contests, and great writing and reader engagement, the Northern Virginia Dog Blog reach 1,835 subscribers. An essay contest was also run on the Blog, receiving 11 entries and resulting in 10,360 votes for the different essays, all of which included a message about the importance of picking up after your dog. Many comments have been received on the Dog Blog site and 300 site visitors completed a poll question on the Blog. (<http://www.northern-virginia-dog-blog.com/>). The OnlyRain web site (www.onlyrain.org), which was created in 2009, was enhanced for the 2011 campaign.

The Clean Water Partners also support a related Blog, the [Metro DC Lawn and Garden Blog](#), which features messaging about reducing pollution and runoff through green gardening activities. For FY12, the Lawn and Garden Blog reached 2,712 subscribers, and hosted a Green Garden photo contest with 19 photo entries and 929 votes for the photographs.

An online ad campaign was run in the spring of 2012 on the topic of reducing fertilizer use. The campaign messages alternatives to spring fertilizing, such as Fertilize in the Fall, Mow High, and Mulch Lawn Clippings. The featured banners ads are below. These banner ads received over 3 million impressions, and resulted in 1,170 clicks to a web page featuring green lawn care information.

Fertilize in the Fall for a Healthy Lawn and Community

Get more green lawn TIPS here:
gardening.mwcog.org



Mow High for a Healthy Lawn and Community

Get more green lawn TIPS here:
gardening.mwcog.org



Mulch Clippings for a Healthy Lawn and Community

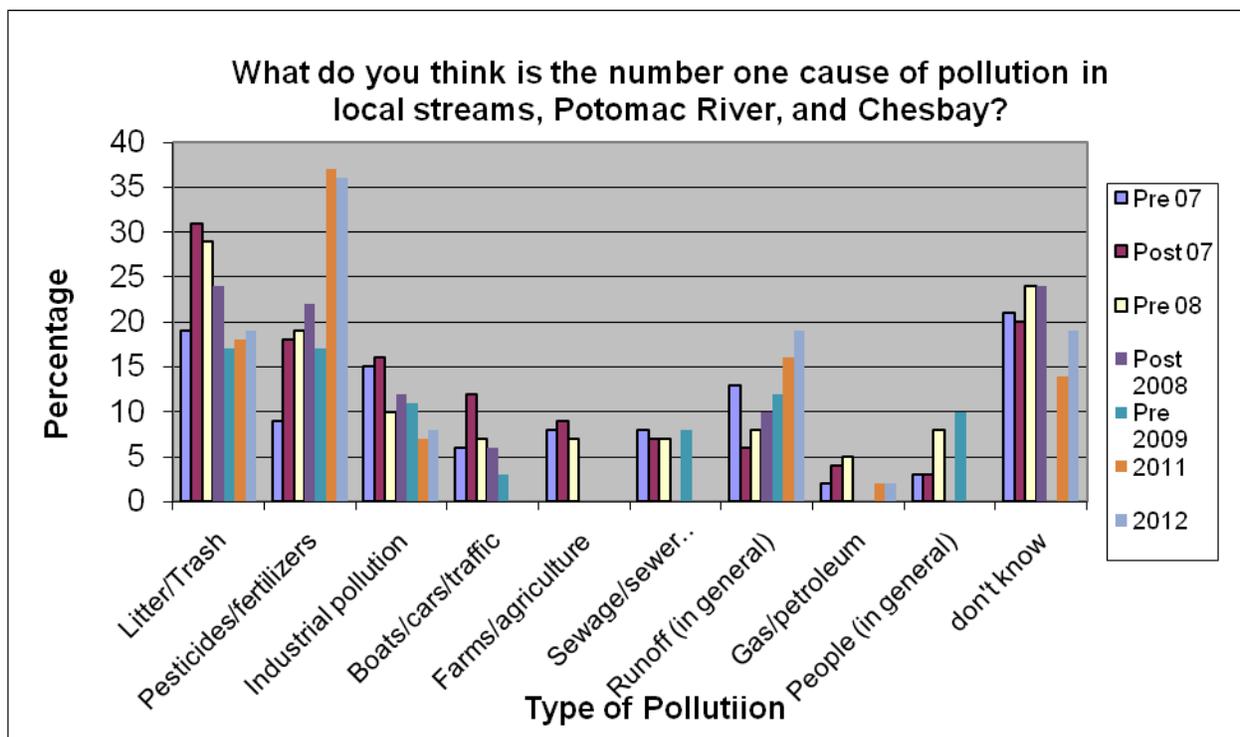
Get more green lawn TIPS here:
gardening.mwcog.org



During the summer of 2012, a survey was conducted of 500 northern Virginia residents to measure the effectiveness of the campaign. One-fourth of the respondents recalled hearing or seeing advertisements on the internet or on the radio, as compared with one-third in FY11. Of those respondents who recalled the ads, six percent state they now pick up their pet waste more often, 15 percent state that they are more careful with fertilizer, and seven percent fertilize fewer times per year.

Other interesting findings in the 2012 survey include:

- Respondents selected **fertilizers and pesticides** and **runoff** as the main causes of pollution in the Potomac River and Chesapeake Bay for the second year in a row.
- The number of respondents choosing **litter or industrial pollution** as the number one source of pollution decreased as compared with previous surveys.
- 42 percent **of respondents knew they live in Potomac River watershed**, up from 39% in 2011.
- Interestingly, almost **77 percent of people surveyed reported that they always pick up after their pet**, as compared with 30 percent in previous surveys.
- Over 90 percent of residents surveyed stated that **stormwater goes into the Potomac River or the Chesapeake Bay**, or to local streams and rivers.



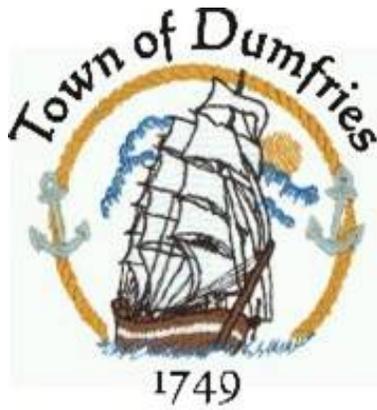
Over the last five years, survey results show that the majority of Northern Virginia residents are supportive of local governments' spending on protecting water quality. Consistently in all surveys, residents indicate that the role of individuals is important in protecting water quality. Most residents indicate that they take their vehicles to a service station to change their oil or they recycle their used motor oil. Similarly, most Northern Virginia residents pick up after their pets because they see it as the right thing to do. For both of these activities, water quality concerns do not appear to be the motivating factor for residents. The reasons for doing the correct behaviors revolve around convenience and being good neighbors.

The fact that respondents selected fertilizer and pesticides as the number one cause of water pollution is revealing, since over a third of the survey respondents stated that they fertilize their property two or more times per year. It appears there is still a gap between what people perceive as a source of pollution, and the actions they are willing to take on their own property. In the 2012 survey, there was a slight decrease in the number of people fertilizing in the spring, and a slight increase in fall fertilizing. Perhaps efforts to make good lawn care practices more convenient, coupled with the idea that Bayfriendly lawns are what good neighbors do, will continue this trend.

The total cost of the 2012 campaign is \$105,000. The campaign is funded and sponsored by 11 local governments and three independent sanitary and drinking water authorities, Doody Calls, the Northern Virginia Regional Commission, Metropolitan Washington Council of Governments, and the Virginia Coastal Zone Management Program. Doody Calls joined as the Northern Virginia Clean Water Partners first business representative, donating \$1,000 worth of service and contributing in-kind to the effort. Responses to the survey suggest that public support remains strong for local government programs that improve the quality of water in local and regional streams and rivers and the Chesapeake Bay.

APPENDIX B

Coliscan Sampling



MS4 General Permit Annual Report

Report Period July 1, 2011 – June 30, 2012

Richard West

From: Becky Payne [PAYNEBL@pwcs.edu]
Sent: Thursday, June 14, 2012 9:33 AM
To: James (DEQ) Beckley; Kelly Jimenez
Cc: rwest@dumfriesva.gov; Angels Nature; Becky Payne
Subject: Coliscan
Attachments: Sample 1 008.jpg; Sample 1 005.jpg; Sample 1 006.jpg; Sample 1 007.jpg

Dear Mr Beckly,

We have completed our first Coliscan testing. We have looked at the results and we would like you to look at them as well to verify our data. The testing was done following .39 inches of rainfall. The locations and data as are followed:

D1- West of I 95 Pass: 2 colonies/10 count

D2- East of I 95 Pass: 14 colonies/70 count

D3- Dumfries Bridge: 10 colonies/50 count

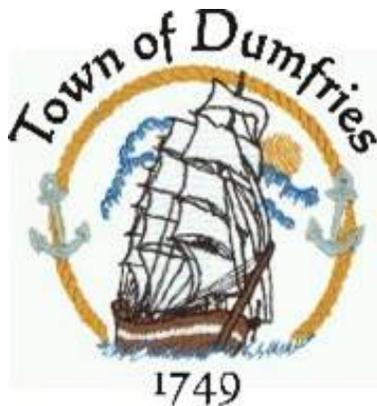
D4- Town Limit Bridge: 9 colonies/45 count

Attached are pictures of our petri dishes.

APPENDIX C

Description of

Best Management Practices



MS4 General Permit Annual Report

Report Period July 1, 2011 – June 30, 2012

**TOWN OF DUMFRIES NPDES PHASE II STORMWATER PERMIT
STORMWATER PROGRAM
DESCRIPTION OF BEST MANAGEMENT PRACTICES**

PUBLIC EDUCATION and OUTREACH on STORMWATER IMPACTS						
BMP	PROGRAM TASK	MEASURABLE GOAL/ANTICIPATED ACHIEVEMENT	YEAR 4	YEAR 5	LEAD RESPONSIBILITY	SUPPORT
1.1 Increased Household Knowledge	The town of Dumfries will participate in the Northern Virginia Clean Water Partners Regional Storm Water Education Campaign for each calendar year.	To produce 5 radio ads to air on 5 radio stations totalling 500 times a year.	Q4	Q4	Department of Public Works	Northern Virginia Regional Commission
1.2 Increased public employee, business, and general public knowledge	Publish Public Works news article semiannually. Each article will address stormwater issues such as recycling, yard waste collection, and hazardous waste handling.	Publish 2 articles each year.	Q2	Q2	Department of Public Works	
1.3 Increased community involvement in effort	The Town will continue to include instructions for the proper disposal of hazardous waste in the quarterly news letter.	Publish 4 newsletter articles a year with hazardous waste removal instructions and conservation strategies.	Q4	Q4	Department of Public Works	
1.4 Diverse strategies to target a variety of audiences	Add a section to the newsletter that pertains to stormwater issues targeted at children.	Publish 2 newsletter articles a year beginning with permit year 2.	Q2	Q2	Department of Public Works	
1.5 Strategies to target local groups most affected	Publish Public Works newsletter articles focused on Stormwater issues for commercial, industrial, and institutions.	Publish 2 newsletter articles a year beginning with permit year 3.	Q2	Q2	Department of Public Works	

**TOWN OF DUMFRIES NPDES PHASE II STORMWATER PERMIT
STORMWATER PROGRAM
DESCRIPTION OF BEST MANAGEMENT PRACTICES**

PUBLIC INVOLVEMENT and PARTICIPATION						
BMP	PROGRAM TASK	MEASURABLE GOAL/ANTICIPATED ACHIEVMENT	YEAR 4	YEAR 5	LEAD RESPONSIBILITY	SUPPORT
2.1 Local activities aimed at public participation	Annual Potomac River Watershed Cleanup	To have a minimum of 25 volunteers to clean trash and other debris from Quantico Creek	Q3	Q3	Department of Public Works	Alice Ferguson Foundations
2.2 Promote the availability and community input of the Town of Dumfires MS-4 Program	Allow the MS-4 Program to be viewed by the community and open to any modifications.	To have the Plan available each year for public review during the town's budget public hearings.	Q1	Q1	Department of Public Works	
2.3 Provide access to or copies of the annual report to the public.	The Town will make the MS-4 annual report available on the Town's website.	The Town will make its annual report available online during plan year 3.	Q4	Q4	Department of Public Works	

**TOWN OF DUMFRIES NPDES PHASE II STORMWATER PERMIT
STORMWATER PROGRAM
DESCRIPTION OF BEST MANAGEMENT PRACTICES**

ILLCIT DISCHARGE DETECTION and ELIMINATION						
BMP	PROGRAM TASK	MEASURABLE GOAL/ANTICIPATED ACHIEVMENT	YEAR 4	YEAR 5	LEAD RESPONSIBILITY	SUPPORT
3.1 Eliminate illicit discharges	Establish a Stormwatcher database to track the number of illicit discharges identified during dry weather monitoring.	Tracking database to be established during plan year 4.	Q4	Q4	Department of Public Works	
3.2 Eliminate illicit discharges	Establish a Stormwater Line for residents to call in illegal dumping report spills, BMP issues, and construction site complaints.	Stormwater Line to be established during plan year 4.	Q4	Q4	Department of Public Works	
3.3 Eliminate illicit discharges	The Town will perform dry weather inspections of 20% of its outfalls annually for illicit discharges and the general conditions of the outfall.	Dry weather discharge inspection report and outfall condition report during plan year 4.	Q4	Q4	Department of Public Works	
3.4 Updated storm sewer system map	Maintain the existing storm sewer system map which shows all known outfalls within the Town	Update storm sewer map upon receiving record plans for all new development.	Ongoing		Department of Public Works	
3.5 Eliminate illicit discharges	The Town of Dumfries will maintain a log of all permanent known BMPs installed in the Town after January 2003	Database to be maintained throughout the duration of permit coverage	Q4	Q4	Department of Public Works	

CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

**TOWN OF DUMFRIES NPDES PHASE II STORMWATER PERMIT
STORMWATER PROGRAM
DESCRIPTION OF BEST MANAGEMENT PRACTICES**

BMP	PROGRAM TASK	MEASURABLE GOAL/ANTICIPATED ACHIEVMENT	YEAR	YEAR	LEAD RESPONSIBILITY	SUPPORT
			4	5		
4.1 Maintain Designation and Management Regulations	The Town is to maintain a plan consistent with the DCR Virginia Erosion and Sediment Control Regulations.	To fully comply with the DCR program elements.			Department of Public Works	Virginia Erosion and Sediment Control Program
4.2 Requirement for Construction to have a VSMP permit	The Town requires all land disturbing activity encompassing areas of over 2,500 square feet to secure a VSMP stormwater permit for the activity.	Ensure developer obtains the VSMP permit prior to land disturbing activity for an area over 2,500 square feet.			Department of Public Works	Chesapeake Bay Preservation Act
4.3 Maintain Designation and Management Regulations	Review ordinances annually to ensure compliance with any and all changes to the Erosion and Sediment Control Law	To maintain fully compliant with DCR program elements.			Department of Public Works	Virginia Erosion and Sediment Control Program

POST-CONSTRUCTION STORMWATER MANAGEMENT
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**TOWN OF DUMFRIES NPDES PHASE II STORMWATER PERMIT
STORMWATER PROGRAM
DESCRIPTION OF BEST MANAGEMENT PRACTICES**

BMP	PROGRAM TASK	MEASURABLE GOAL/ANTICIPATED ACHIEVMENT	YEAR 4	YEAR 5	LEAD RESPONSIBILITY	SUPPORT
5.1 Maintenance Agreements	The Town will enter into maintenance agreements with BMP owners to ensure the BMP is maintained to the standard in which it was designed.	The Town will continue to implement agreements with BMP owners.			Department of Public Works	Chesapeake Bay Preservation Act

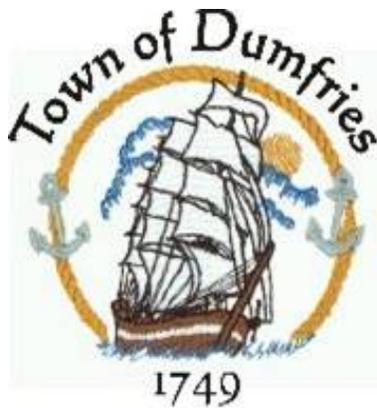
POLLUTION PREVENTION and GOOD HOUSEKEEPING

**TOWN OF DUMFRIES NPDES PHASE II STORMWATER PERMIT
STORMWATER PROGRAM
DESCRIPTION OF BEST MANAGEMENT PRACTICES**

BMP	PROGRAM TASK	MEASURABLE GOAL/ANTICIPATED ACHIEVMENT	YEAR		LEAD RESPONSIBILITY	SUPPORT
			4	5		
6.1 Operation and Maintenance Programs	Maintain a training program for all Public Works employees. Topics are to include but are not limited to the following: Identification of pollutant discharges into the Town's outfalls, proper storage and application of fertilizers, waste disposal procedures, and snow removal chemical application	Maintain a database for all training attended.			Department of Public Works	
6.2 Operation and Maintenance Programs	The Town will continue to sweep all Town streets two times annually.	Street sweeping logs will be maintained showing dates and total lane miles of roadway swept.			Department of Public Works	
6.3 Operation and Maintenance Programs	The Town will participate as a partner in the NOVA Clean Water Partners Regional Storm Water Education Campaign sponsored and administered by the Northern Virginia Regional Commission	Town to maintain agendas and minutes of meetings			Department of Public Works	NOVA Clean Water Partners Regional Storm Water Education Campaign

APPENDIX D

**Permanent Stormwater
Management Facilities**



MS4 General Permit Annual Report

Report Period July 1, 2011 – June 30, 2012

**TOWN OF DUMFRIES NPDES PHASE II STORMWATER PERMIT
STORMWATER PROGRAM
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