

**VSMP GENERAL PERMIT FOR SMALL MUNICIPAL
SEPARATE STORM SEWER SYSTEMS
PERMIT NUMBER: VAR040053**

**Permit Year 1 Annual Report
Reporting Period: July 1, 2008-June 30, 2009**



Submitted October 1, 2009

City of Winchester, Virginia
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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.

Robert Noe
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Interim City Manager
Title

Signature

Date

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- Appendix B Public Outreach Material
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- Appendix E Stormwater Management Facilities Database, Inspection and Maintenance Summary (with CD)
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- Appendix G Training Materials

1.0 Introduction

This annual report was prepared by the Public Services Department, City of Winchester, Virginia, in accordance with Section II E of the General Permit (VAR04) for Discharges of Stormwater From Small Municipal Separate Storm Sewer Systems (MS4), effective July 9, 2008. As required under the new permit, the City of Winchester reviewed its existing MS4 Program and revised the Program to meet the conditions in the new General Permit. The City of Winchester, Virginia, Program Plan, dated January 8, 2009, was prepared and implemented by the City to meet the following goals:

- Reduce the discharge of pollutants to the “maximum extent practicable”;
- Protect water quality; and
- Satisfy the appropriate water quality requirements of the Clean Water Act.

The Program addresses the six minimum control measures identified in the General Permit to reduce pollutants. For each of the minimum control measures listed below, the City identified Best Management Practices (BMPs), measurable goals, schedules, and responsible parties:

- Public Outreach and Education
- Public Participation and Involvement
- Illegal Discharge Detection and Elimination
- Construction Site Runoff Control
- Post-Construction Stormwater Management in New Development and Redevelopment
- Pollution Prevention and Good Housekeeping

This Program is the basis for the information presented in this annual report. A copy of the Program is included in Appendix A.

This annual report covers the period from July 1, 2008 through June 30, 2009.

The requirements for the annual report, as outlined in Section II E of the General Permit, are as follows:

- a) Background Information: Name and permit number of the program submitting the annual report, annual report permit year, modifications to any operator’s department’s roles and responsibilities, number of new MS4 outfalls and associated acreage by Hydrologic Unit Code (HUC) added during the permit year, and signed certification;
- b) Status of compliance with permit conditions, an assessment of the appropriateness of the identified BMPs and progress towards achieving the identified measurable goals for each of the minimum control measures;
- c) Results of information collected and analyzed, including monitoring data, if any during the reporting period;
- d) A summary of the stormwater activities the operator plans to undertake during the next reporting cycle;

- e) A change in the identified BMPs or measurable goals for any of the minimum control measures including steps to be taken to address any deficiencies;
- f) Notice that the operator is relying on another government entity to satisfy some of the permit obligations (if applicable);
- g) The approval status of any program pursuant to Section II C (if appropriate), or the progress towards achieving full approval of these programs;
- h) Information required pursuant to Section I B 9;
- i) The number of illicit discharges identified and the narrative on how they were controlled or eliminated pursuant to Section II B 3(f);
- j) Regulated land-disturbing activities data tracked under Section II 4 c;
- k) All known permanent stormwater management facility data tracked under Section II B5(b)(6) submitted in a database format as shown in the June 29, 2009, letter from Virginia Department of Conservation and Recreation (DCR) to the City of Winchester;
- l) A list of any new or terminated signed agreements between the operator and any applicable third parties where the operator has entered into an agreement in order to implement minimum control measures or portions of minimum control measures; and
- m) Copies of any written comments received during a public comment period regarding the MS4 Program Plan or any modifications.

1.1 Background Information

This report is submitted by the Public Services Department, City of Winchester, Virginia, in accordance with General Permit Number VAR040053, for Permit Year 1. There have been no changes to the City's roles and responsibilities since the Program was finalized on January 8, 2009. No new MS4 outfalls were added in the City during this reporting year.

Each of the remaining reporting requirements is addressed in the following sections.

2.0 Status of Compliance with Year 1 Permit Conditions (July 1, 2008-June 30, 2009)

As part of the City's Program, BMPs, implementation schedules, and measurements of effectiveness of the goal in reducing pollutants were identified. This section of the annual report contains information on ongoing and completed activities within this reporting period for each of the minimum control measures identified in the General Permit and the measures adopted by the City in their Program. Table 1 provides a summary of the BMPs that are conducted on an annual basis during this permit cycle, and those that were initiated and/or completed within this reporting period. In the following sections, detailed information on the goals of a particular minimum control measure and progress made towards achieving the designated goals can be found.

Table 1- Permit Year 1 BMPs

Minimum Control Measure	BMP
<i>Public Education and Outreach</i>	BMP 1.1: Continue airing TV Programs focused on stormwater
<i>Public Education and Outreach</i>	BMP 1.2: Continue disseminating stormwater information to the general public
<i>Public Education and Outreach</i>	BMP 1.3: Continue administrating stormwater compliant hotline
<i>Public Education and Outreach</i>	BMP 1.4: Update and maintain stormwater information posted on City's website
<i>Public Education and Outreach</i>	BMP 1.5: Initiate formal program for presentations at elementary and high schools
<i>Public Involvement/Participation</i>	BMP 2.1: Continue encouraging participation in Adopt-A-Stream Program
<i>Illicit Discharge Detection and Elimination</i>	BMP 3.1: Continue hazardous spill response program and household hazardous waste collection
<i>Illicit Discharge Detection and Elimination</i>	BMP 3.2: Implement inspections of storm sewers within the City's five sub-watersheds; Abrams Creek for Permit Year 1
<i>Illicit Discharge Detection and Elimination</i>	BMP 3.3: Continue enforcement of illicit connections, as needed, according to the City's Water Protection Ordinance
<i>Illicit Discharge Detection and Elimination</i>	BMP 3.4: Continue administering stormwater complaint hotline to identify illicit connections
<i>Construction Site Stormwater Runoff Control</i>	BMP 4.1: Continue program to require construction site operators to control waste
<i>Construction Site Stormwater Runoff Control</i>	BMP 4.2: Continue maintaining DCR Erosion and Sediment Control plan review, inspection, and administration certification for a minimum of two City employees
<i>Construction Site Stormwater Runoff Control</i>	BMP 4.3: Continue enforcement of erosion and sediment control as well as stormwater management and water quality
<i>Construction Site Stormwater Runoff Control</i>	BMP 4.4: Continue administering stormwater complaint hotline to identify problems at construction sites
<i>Construction Site Stormwater Runoff Control</i>	BMP 4.5: Continue tracking regulated land disturbing activities
<i>Post-construction Stormwater Management in New Development and Redevelopment</i>	BMP 5.1: Continue enforcement of erosion and sediment control as well as stormwater management and water quality

Minimum Control Measure	BMP
<i>Post-construction Stormwater Management in New Development and Redevelopment</i>	BMP 5.2: Continue requiring BMP maintenance agreements for all privately owned water quality and quantity BMPs.
<i>Pollution Prevention/Good Housekeeping for Municipal Operators</i>	BMP 6.1: Continue implementing City Yards Storm Water Pollution Prevention (SWP3) and update every 3 years
<i>Pollution Prevention/Good Housekeeping for Municipal Operators</i>	BMP 6.2: Continue use of salt storage building and vehicle washing facility at City Yards
<i>Pollution Prevention/Good Housekeeping for Municipal Operators</i>	BMP 6.3: Continue training of City employees on Environmental Management Systems (EMS)
<i>Pollution Prevention/Good Housekeeping for Municipal Operators</i>	BMP 6.4: Continue street sweeping program and track amount of litter and debris removed

2.1 Public Education and Outreach on Stormwater Impacts

The public education and outreach component was developed and incorporated into the City’s Program to meet the programmatic component requirements of the General Permit. Table 2 describes the tasks, measurable goals, and status of the Public Education and Outreach on Stormwater Impacts BMPs. The objective of this component is to address the following goals:

- Distribute educational materials;
- Conduct outreach activities to the community to teach them about the impacts of stormwater discharges on water bodies; and
- Explain how to reduce pollutants in stormwater runoff.

Table 2- Public Education and Outreach on Stormwater Impacts BMPs

BMP	Task	Measurable Goal	Status
1.1	Continue airing TV Programs focused on stormwater	The City will air the television show “After the Storm” at least four times a year	Completed for Permit Year 1
1.2	Continue disseminating information to general public	Estimate number of brochures distributed at the Wellness Festival and Earth Day Activities	Completed for Permit Year 1; ongoing activity

BMP	Task	Measurable Goal	Status
1.3	Continue administrating stormwater compliant hotline	Number of calls received and the number of resolved and unresolved complaints	Completed for Permit Year 1; ongoing activity
1.4	Update and maintain stormwater information posted on City's website	Number of responses to the posting including calls to the stormwater complaint hotline, participation in the Adopt-A-Stream Program, and hits to the City's website	Completed for Permit Year 1; ongoing activity
1.5	Initiate formal program for presentations at elementary and high schools	Number of responses to letters sent to targeted schools and number of schools that participate in the program	Completed for Permit Year 1; ongoing activity

2.1.1 BMP 1.1: The City aired the television show, "After the Storm," daily from February 1, 2009 to June 30, 2009. This program was freely available to the vast majority of the City's individuals, households, public employees and businesses and provided specific knowledge about the steps that can be taken to reduce stormwater pollution. The show highlights three case studies where polluted runoff threatens watersheds highly valued for recreation, commercial fisheries and navigation, and drinking water. Insight is provided into the problems as well as solutions to today's water quality challenges. "After the Storm" also explains simple things people can do to protect their local watershed. Notice of the airing of the show was included in the City's bi-weekly citizen newsletter. In future years, the City will provide a link on the City's website to the web video of "After the Storm" so citizens may view it there.

2.1.2 BMP 1.2: The City participated in two community events, the Wellness Festival on February 28, 2009, and an Earth Day Celebration on April 18, 2009. Approximately 100 informational brochures were distributed at these events. The informational brochures relayed information about the City's stormwater complaint hotline and the City's Adopt-A-Stream Program, as well as other stormwater pollution information. Outreach material to promote the stormwater complaint hotline and the Adopt-A-Stream Program is included in Appendix B.

2.1.3 BMP 1.3: The City has established a stormwater complaint hotline. The hotline is promoted to the public by being posted on the City's website at www.winchesterva.gov/engineering/stormwater.php. In addition, utility bill inserts providing information about the stormwater complaint hotline were sent to citizens in the December 2007 to January 2008 utility bills. During this reporting period, no calls were received on the hotline. The City will continue to provide the hotline because it provides

a valuable way to address any stormwater issues from the public. Outreach material to promote the stormwater complaint hotline is included in Appendix B.

2.1.4 BMP 1.4: The City has posted stormwater information on their website at <http://www.winchesterva.gov/engineering/stormwater.php>. Although no calls were received to the stormwater complaint hotline, three organizations participated in the Adopt-A-Stream Program during the reporting period and there have been 212 “hits” or visits to the website.

2.1.5 BMP 1.5: The City Engineer contacted several schools and introduced the Watershed and Stormwater Educational Opportunities Program that is available to them as part of the City’s formal program for stormwater presentations at schools. The letter offered educational talks on stormwater and related issues, including water pollution, water conservation, the water cycle and watersheds. The schools contacted were:

- Frederick Douglass Elementary
- John Kerr Elementary
- Virginia Avenue-Charlotte DeHart Elementary
- Quarles Elementary

There were no responses from the schools within the reporting period. The City will continue to pursue opportunities with the schools to promote stormwater management and related issues. A copy of the letter sent to the schools is included in Appendix C.

2.2 Public Involvement/Participation

The objective of this control measure is to promote the availability of the MS4 Program to the public for review and comment, provide access to the annual stormwater report, and to promote participation in activities that will increase public participation, reduce stormwater pollutants, and improve water quality.

The City continues to encourage public involvement/participation in stormwater management activities through its formal Adopt-A-Stream Program. During this reporting period, the City sponsored a themed art contest to promote the Adopt-A-Stream Program. The City created a flyer announcing the contest. The contest was open to children in kindergarten through fifth grade. They were asked to submit artwork that demonstrated the theme “*Helping Preserve the City’s Precious Water Resources through an Adopt-A-Stream Program.*” Seven finalists were chosen by a panel of City staff from the many entries and a single winner was awarded. The winner received recognition in the *Winchester Star* newspaper and the City’s website, a \$50 cash prize, and the winning artwork was transferred to the back of the City of Winchester’s Adopt-A-Stream Program t-shirts. These t-shirts are provided to all Adopt-A-Stream volunteers. The Program and contest represents methods in which the City is working with the citizens of Winchester to protect its streams and ponds.

The City also conducted Rain Barrel Workshops in May and June 2009. At these workshops, the City and residents constructed 50 rain barrels for citizens to use in their yards to help reduce residential runoff and educate homeowners on the benefits of stormwater conservation.

A pet waste flyer was also designed and distributed by the City of Winchester. This tri-fold brochure described the impacts pet waste can have on waterbodies, the city code pertaining to pet waste, and how pet owners can lessen pet waste impacts.

The citizens can also contact the City staff regarding stormwater concerns or complaints through the City's stormwater complaint hotline.

Copies of the Adopt-A-Stream Program flyer, art contest flyer, pet waste brochure, and stormwater complaint hotline flyer are included in Appendix B.

Table 3 describes the task, measurable goal, and status of the Public Involvement/Participation BMPs.

Table 3- Public Involvement/Participation BMPs

BMP	Task	Measurable Goal	Status
2.1	Continue encouraging participation in Adopt-A-Stream Program	Adoption of five or more stream segments in the five year permit cycle	Completed for permit year 1; ongoing program

2.2.1 BMP 2.1: The City has posted information about the Adopt-A-Stream Program on their website at <http://www.winchesterva.gov/engineering/adoptastream.php>. Included on this website is an invitation to join the Program and a flyer detailing the steps to join the Program. During the reporting period for Permit Year 1, two organizations participated in the Adopt-A-Stream Program as noted in Table 4. Three stream segments were adopted, two of which were cleaned up during the reporting period.

Table 4- Summary of Adopt-A-Stream Participation

Participant	Stream Segment	Date of Clean Up	Bags of Debris Collected
City of Winchester EXCELL Academy	Town Run	October 16, 2008	26
O'Sullivan Films	Abrams Creek	April 23, 2009	15

2.3 Illicit Discharge Detection and Elimination

The goal of this minimum control measure is to develop, implement, and enforce a program to detect and eliminate illicit discharges into regulated small MS4s. To meet this goal, operators of

a regulated small MS4 must develop and maintain an updated storm sewer map, develop and implement procedures to detect illicit discharges and to monitor outfalls, and notify any downstream regulated MS4 of physical interconnections. The tasks, measurable goals, and status of the Illicit Discharge Detection and Elimination BMPs are described in Table 5.

The City updates the storm sewer map on a continuous basis with the receipt of “as-built” plans. A copy of the most recent storm sewer map is included in Appendix D.

Table 5- Illicit Discharge Detection and Elimination BMPs

BMP	Task	Measurable Goal	Status
3.1	Continue hazardous spill response program and two household hazardous waste collection days per month	Participation in the program and amount of waste collected during events	Completed for permit year 1; ongoing program
3.2	Implement inspections of storm sewers within the City’s Abrams Creek sub-watershed.	Inspect Abrams Creek and present findings, including information on any illicit connections identified and follow-up actions completed or planned	Completed for permit year 1; ongoing program
3.3	Continue enforcement of illicit connections, as needed, according to the City’s Water Protection Ordinance	Track the number of calls to the stormwater complaint hotline (and/or emergency number) that address illicit connections. Track the number of illicit connections investigated and follow-up actions completed or planned.	Completed for permit year 1; ongoing program
3.4	Continue administering stormwater complaint hotline to identify illicit connections	Track the response to the stormwater complaint hotline, including number of calls received, number of illicit connections identified and follow- up actions	Completed for permit year 1; ongoing program

2.3.1 BMP 3.1: The City collaborates with Frederick County on a joint hazardous spill response program and a household hazardous waste collection program. Household hazardous waste such as insecticides, pesticides, pool chemicals, antifreeze, transmission fluid, car batteries, fluorescent and compact light tubes, paints, thinners, solvents and household cleaners are collected from residents for proper disposal. Several of the items collected are sent off for recycling. These collections are held on the first and third Wednesdays of each month from noon to 6 p.m. at the citizens' convenience center at the landfill. These centers offer Frederick County and Winchester residents drop-off

collection of household refuse and recyclables at no charge. Citizens' convenience sites are located throughout the County.

These sites include:

- Albin: Located on Indian Hollow Road (Route 679) just off of North Frederick Pike
- Greenwood: Located at the intersection of Greenwood and Senseny roads behind the fire hall
- Clear brook: Located on Martinsburg Pike at Clear brook Park
- Gainesboro: Located on Gainesboro Road (Route 684) off of North Frederick Pike
- Shawnee land: Located on Bowman's Lane (Route 613)
- Round Hill: Located just off of McFarland Road (Route 817) along Northwestern Pike
- Middletown: Located on Valley Pike at the Middletown truck scales
- Double Toll Gate: Located on Front Royal Pike, just south of the Route 340 intersection
- Regional Landfill: Located on Landfill Road off of Sulphur Spring Road (Route 655); 2.2 miles from the intersection of Millwood Pike and Sulphur Spring Road

Approximately 20,200 pounds of material were collected during the reporting period.

More information on household hazardous waste disposal is available on Frederick County's website at:

http://www.co.frederick.va.us/public_works/recycling_landfill/solid_waste.aspx

2.3.2 BMP 3.2: The City conducted dry weather inspections of Abrams Creek between April and September 2008. The inspection found three channel modifications, 52 outfalls, 26 stream crossings, two utility crossings, and two areas of excessive trash and debris. No illicit discharges were found. As a follow-up to the inspection, the areas of excessive trash and debris are on the public works list of projects to clean up. These clean-ups are scheduled for Fall 2009.

2.3.3 BMP 3.3: There were no illicit connection related calls to the stormwater complaint hotline, or by other means during this reporting cycle. Therefore, no illicit connections were investigated and there are no follow-up actions completed or planned.

2.3.4 BMP 3.4: The stormwater complaint hotline was established for citizens to report problems with stormwater issues (such as flooding and erosion or water pollution), maintenance issues (such as clogged inlets or problems at stormwater ponds), and/or erosion and sediment control (such as failing silt fences at construction sites). It was also developed for people to call in suspected stormwater abuses, such as the illegal dumping of materials. Information on this hotline was distributed in the form of a flyer insert in resident utility bills in December 2007 through January 2008 and was posted to the City's

website at <http://www.winchesterva.gov/engineering/stormwater>. There were no illicit connection related calls to the stormwater complaint hotline during this reporting cycle. Therefore, no illicit connections were investigated and there are no follow-up actions completed or planned.

2.4 Construction Site Stormwater Runoff Control

The goal of this minimum control measure is to develop, implement, and enforce procedures to reduce pollutants in any stormwater runoff from construction activities that result in a land disturbance of greater than or equal to one acre. Table 6 describes the tasks, measurable goals, and status of the Construction Site Stormwater Runoff Control BMPs.

Table 6- Construction Site Stormwater Runoff Control BMPs

BMP	Task	Measurable Goal	Status
4.1	Continue program to require construction site operators to control waste	Percentage and number of construction sites that meet compliance requirements with first and follow-up, as needed, site inspections	Completed for permit year 1; ongoing program
4.2	Continue maintaining DCR Erosion and Sediment Control plan review, inspection, and administration certification for a minimum of two City employees	The City will maintain two employees who are certified or describe action taken if the number drops below two.	Completed for permit year 1; ongoing program
4.3	Continue enforcement of erosion and sediment control as well as stormwater management and water quality	Number of plans reviewed, number approved, and number requiring a Virginia Pollutant Discharge Elimination System (VPDES) permit	Completed for permit year 1; ongoing program
4.4	Continue administering stormwater complaint hotline to identify problems at construction sites	Track the number of complaints received from the stormwater complaint hotline that are associated with construction site problems	Completed for permit year 1; ongoing program
4.5	Continue tracking regulated land disturbing activities	Track the total number of regulated disturbing activities and total disturbed acreage for the reporting period	Completed for permit year 1; ongoing program

2.4.1 BMP 4.1: The City’s Water Protection Ordinance provides requirements for construction site operators to control waste. This task was measured by the percentage and number of construction sites that met compliance requirements with first and follow-up, as needed, site inspections. For this reporting cycle, 95% of construction sites

inspected met the City's requirement for controlling waste upon their first inspection. 99% of construction sites inspected met the City's requirement for controlling waste upon their second inspection. During this reporting cycle, one construction site out of 60 permitted was shut down due to noncompliance.

2.4.2 BMP 4.2: The City currently has two employees who maintain Virginia DCR Erosion and Sediment Control plan review, inspection, and administration certification. In addition, a third employee is in the process of obtaining this certification.

2.4.3 BMP 4.3: The City monitors all construction activities occurring within the City limits and relies on its erosion and sediment control program as regulated under the Virginia Erosion and Sediment Control Law and attendant regulations and on its stormwater management program as regulated under the Stormwater Management Act.

Within this reporting cycle:

- 37 construction plans were reviewed and approved by the City; and
- 6 of these plans required a VPDES permit.

During this reporting period, the City maintained an affirmative status of "consistent" from DCR. This status is posted on DCR's website at http://www.dcr.virginia.gov/soil_and_water/eslpr.shtml.

2.4.4 BMP 4.4: During this reporting cycle, no complaints were received from the stormwater complaint hotline associated with construction site problems.

2.4.5 BMP 4.5: The land disturbing activities were tracked as plans and notifications were received. During this reporting period:

- 29 land disturbing activities were reported; and
- 21.99 acres were disturbed.

2.5 Post-construction Stormwater Management in New Development and Redevelopment

The goal of this minimum control measure is to develop and implement procedures for the inspection and maintenance of permanent structural and non-structural BMPs for both City-maintained and privately-maintained facilities. The tasks, measurable goals, and status of the Post-Construction Stormwater Management BMPs are described in Table 7.

Table 7- Post-Construction Stormwater Management BMPs

BMP	Task	Measurable Goal	Status
5.1	Continue enforcement of erosion and sediment control as well as stormwater management and water quality	Track the type and number of BMPs installed, HUC of the BMPs, water body the BMP discharges to, number of acres treated to the nearest tenth of an acre, and inspection and maintenance schedules.	Completed for permit year 1; ongoing program
5.2	Continue requiring BMP maintenance agreements for all privately owned water quality and quantity BMPs.	The number of BMPs inspected, the number in compliance with operation and maintenance requirements, and the number taking action to correct deficiencies	Ongoing program

2.5.1 BMP 5.1: All site plans are reviewed for water quality calculations and must show compliance with the State stormwater management regulations regarding the phosphorus reductions required for development and redevelopment projects.

Appendix E contains an inventory of the known structural BMPs that discharge to the regulated small MS4. This information includes the project name, the applicant, whether the applicant is public or private, the tax map number, the property owner, the property contact information, the ID number, date received, date signed by engineer, date signed by city attorney, date recorded, instrument number, BMP type, HUC, water body, acres treated, status, whether it is maintained and inspected, last inspection date, and maintenance schedule.

2.5.2 BMP 5.2: BMP maintenance agreements are required for all privately owned water quality and water quantity BMPs. The City maintains a log of executed maintenance agreements and is working on implementation of a program to notify all property owners of required inspections on an annual basis. The implementation will be completed at the end of Permit Year 2 at which time inspections by the City will begin. Appendix E contains the log of executed maintenance agreements.

2.6 Pollution Prevention/Good Housekeeping for Municipal Operations

The goal of this minimum control measure is to develop, implement, evaluate, and modify an operation, maintenance, and training program for municipal operations. This goal includes updating SWP3s for City facilities, training City staff, and developing storm water pollution prevention protocols for City contractors. The tasks, measurable goals, and status of the Pollution Prevention/Good Housekeeping BMPs are described in Table 8.

Table 8- Pollution Prevention/Good Housekeeping BMPs

BMP	Task	Measurable Goal	Status
6.1	Continue implementing City Yards SWP3 and update every 3 years	Quarterly visual monitoring, annual facility inspection, and updated SWP3	Underway; ongoing program
6.2	Continue use of salt storage building and vehicle washing facility at City Yards	Monthly City Yards inspection to observe that salt and vehicle washing are contained with the respective facilities and corrective measures taken if needed.	Completed for permit year 1; ongoing program
6.3	Continue training of City employees on EMS	Train all employees	Completed for permit year 1; ongoing program
6.4	Continue street sweeping program and track amount of litter and debris removed	Report miles of streets swept annually during the reporting period	Completed for permit year 1; ongoing program

2.6.1 BMP 6.1: The City Yards, the storage and maintenance facility for heavy equipment and materials for the Public Works Department, has a SWP3 in place. The plan outlines planned improvements that will eliminate potential sources of pollution and provides recommendations to improve the water quality of runoff from the site. Standard Operating Procedures are included as part of the SWP3. The SWP3 is reviewed and updated every three years. The update to the SWP3 is in process and will be submitted to DCR on October 1, 2009. A copy of the SWP3 is included in Appendix F.

2.6.2 BMP 6.2: The City operates and maintains salt storage and vehicle washing facility. The facility is in use as planned and designed.

2.6.3 BMP 6.3: The City requires all employees to attend a short training session on EMS to raise the awareness among employees of environmental impacts around them. During this reporting period, sixty-nine employees participated in EMS training. A copy of the presentation given to employees is contained in Appendix G.

2.6.4 BMP 6.4: City streets are swept on a regular basis to remove pollutants and improve appearance. 7,500 miles of street were swept during this reporting period.

3.0 Results of Information Collected and Analyzed

There are no requirements for monitoring or data analysis as part of this Program.

4.0 Summary of New Stormwater Activities Planned for Permit Year 2

Table 9 outlines the BMPs planned for each of the minimum control measures for Permit Year 2 and their status.

Table 9- New MS4 Stormwater Activities for Permit Year 2

Minimum Control Measure	BMP	Planned Activity	Comment
Public Involvement/ Participation	BMP 2.2. Post MS4 Permit and revisions to City's Website	Coordinate with City website personnel to post MS4 Permit and revisions to City's website	Will be conducted in Permit Year 2 as planned.
Illicit Discharge Detection and Elimination	BMP 3.1 Inspections of storm sewers within City's five watersheds	Inspection of Town Run	Will be conducted in Permit Year 2 as planned.

In addition, the City will continue with the following activities initiated in Permit Year 1:

- BMP 1.2: Disseminating information to the general public;
- BMP 1.3: Administering the stormwater compliant hotline;
- BMP 1.4: Updating and maintaining stormwater information posted on City's website;
- BMP 1.5: Initiating the formal program for presentations at elementary and high schools;
- BMP 2.1: Encouraging participation in Adopt-A-Stream Program;
- BMP 3.1: Conducting hazardous spill response program and two household hazardous waste collection days per month;
- BMP 3.2: Implementing inspections of storm sewers within the City's sub-watersheds;
- BMP 3.3: Enforcing the prohibition of illicit connections, as needed, according to the City's Water Protection Ordinance;
- BMP 3.4: Administering stormwater complaint hotline to identify illicit connections;
- BMP 4.1: Conducting program to require construction site operators to control waste;
- BMP 4.2: Maintaining DCR Erosion and Sediment Control Plan review, inspection, and administration certification for a minimum of two City employees;

- BMP 4.3: Enforcing erosion and sediment control as well as stormwater management and water quality;
- BMP 4.4: Administering stormwater complaint hotline to identify problems at construction sites;
- BMP 4.5: Tracking regulated land disturbing activities;
- BMP 5.1: Enforcing erosion and sediment control as well as stormwater management and water quality;
- BMP 5.2: Requiring BMP maintenance agreements for all privately owned water quality and quantity BMPs;
- BMP 6.1: Conducting monitoring and annual inspections of the City Yards;
- BMP 6.2: Using of salt storage building and vehicle washing facility at City Yards as designed;
- BMP 6.3: Training of City employees on EMS; and
- BMP 6.4: Street sweeping program and track amount of litter and debris removed.

5.0 Changes in Identified BMPs or Measurable Goals

BMP 1.1, Continue Airing TV Programs focused on Stormwater, will be discontinued. The City plans to make this material available to citizens through a different medium. In future years, the City will provide a link on the City's website to the web video of "After the Storm" where citizens may view it.

6.0 Reliance on Other Government Entities

The City of Winchester does not rely on other government entities to meet the requirements of the VSMP General Permit.

7.0 Approval Status of Qualifying Local Programs

The Virginia Soil and Water Conservation Board evaluated the City's Erosion and Sediment Control Program in accordance with requirements of §10.1-561(E) of the Virginia Erosion and Sediment Control Law and 4VAC50-30-90(B) of Virginia Erosion and Sediment Control Regulations, and found the program to be consistent with the laws and regulations on September 20, 2007.

8.0 Total Maximum Daily Loads (TMDLs) with Waste Load Allocations (WLAs)

A TMDL, as defined by the Environmental Protection Agency, is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that load among the various sources of that pollutant. Pollutant sources are characterized as either point sources that receive a WLA, or nonpoint sources that receive a load allocation. Each state is responsible for developing TMDLs for all impaired waters within their jurisdiction. Currently, there are no new implementation plans being developed for waterways within the MS4 permit area for the City of Winchester. The City will participate in any the development of any implementation plans in the future.

8.1 WLAs

Within the City of Winchester, TMDLs were developed and approved by the Virginia Soil and Water Conservation Board. As stated in the Virginia Stormwater Management Program (VSMP) Permit Registration Statement, dated January 8, 2009, the TMDLs WLAs are:

- 443 ton/year of sediment to Abrams Creek;
- 269.2 ton/year of sediment to the Lower Opequon Creek; and
- 19.4×10^{12} cfu/year of bacteria to Abrams Creek.

These loads represent a contributing drainage area that exceeds the City's designated MS4. The City reserves the right to revisit these loads prior to the January 2010 TMDL WLA update.

The City has also taken action to address fecal coliform pollutant with a goose eradication program. The City contacted federal agents who ran the program on June 27, 2008. More than 200 geese from the Wilkins Lake area were removed, thus reducing the pollutant loading in this area.

In January 2009, the City adopted an ordinance that included language on migratory and nonmigratory waterfowl. The purpose of the ordinance is to control the feeding and baiting of migratory and nonmigratory waterfowl in order to protect the public health and property and the water quality of lakes, ponds, rivers and streams in Winchester. The intent of the ordinance is to reduce the amount of fecal matter from waterfowl deposited in the water and on the adjacent shoreline and waterfront property caused in part by the feeding and baiting of these fowl by the public.

During this reporting cycle, the City has initiated several BMPs to address the identified WLAs in the TMDLs as required under the General Permit. Detailed information on the evaluation techniques and the measurements of success can be found in Section 2.0 of this report. Table 10 describes the activities, water body/reach, and pollutant of concern to address the identified WLAs in the TMDLs.

Table 10- BMPs to Address Pollutants

BMPs/Activities	Water Body/Reach	Pollutant(s) of Concern
Maintain stormwater complaint hotline to receive reports of bacterial contamination	Abrams Creek	Fecal Coliform
Sweep city streets on a regular basis to remove sediment and debris	Abrams Creek Lower Opequon Creek	Sediment
Continue program to require construction site operators to control waste	Abrams Creek Lower Opequon Creek	Sediment

BMPs/Activities	Water Body/Reach	Pollutant(s) of Concern
Review all site plans for water quality calculations and show compliance with the State stormwater management regulations regarding the phosphorus reductions required for development and redevelopment projects.	Abrams Creek Lower Opequon Creek	Sediment
<p>The following stormwater management facilities that improve water quality and are consistent with their respective Implementation Plans have been reviewed and approved by the City:</p> <ul style="list-style-type: none"> • Rain Gardens (7 facilities) • Filtera Units (7 facilities) • Sand Filter & WQ Pond (1 facility – reviewed not yet built) • Porous Pavement (1 facility - reviewed not yet built) • Grass Filter Strip (1 facility) • Infiltration Gallery (4 facilities) • Downstream Defenders & Infiltration Ponds (1 facility) 	Abrams Creek Lower Opequon Creek	Fecal Coliform Sediment

8.2 Stormwater Discharges and Pollutant Loadings

Section I B(9)(b) of the General Permit calls for an estimate of the volume of stormwater discharged and quantity of WLA pollutant.

The annual volume of stormwater was derived using the Simple Method approach for the five watersheds for which the City contributes as shown in Table 11. The volume of runoff represented in the table below uses readily available Geographic Information System data to derive the percent impervious cover and does not subtract portions of the City that are permitted under separate National Pollution Discharge Elimination Systems permits (e.g. Virginia Department of Transportation MS4 Permit). These volumes are subject to revision as additional information is made available and processed.

Table 11- Annual Stormwater Volume

Description	Discharge to Impaired Waters?	Area (acres)	Impervious (%)	Runoff Coefficient	Runoff Volume (ft ³)
MS4 to Redbud Run	Yes	167	42	0.428	10,041,020
MS4 to Town Run	Yes	2,068	33	0.347	100,808,604
MS4 to Abrams Creek (excluding Town Run)	Yes	2,450	41	0.419	144,210,771
MS4 to Buffalo Lick Run	No	789	33	0.347	38,461,310
MS4 to Hoge Run	No	422	29	0.311	18,437,007
Total		5,896			311,958,711

As stated in Section 8.1, the WLAs for Abrams Run and Lower Opequon Creek are not limited to the City. The City will revisit these loads prior to the January 2010 TMDL WLA update.

9.0 Identification of Illicit Discharges

In accordance with Section II B(3)(f), Illicit Discharge Detection and Elimination, the City is required to track the number of illicit discharges identified and how they were controlled or eliminated. The City identifies illicit discharges through its stormwater complaint hotline. During this reporting period, no illicit discharges were reported and therefore no follow up activity was needed.

10.0 Land Disturbing Activities

In accordance with Section II B(4)(c), Construction Site Stormwater Runoff Control, of the General Permit, the City must track regulated land-disturbing activities for the reporting period. During this reporting period, a total of 29 land-disturbing activities were recorded for a total disturbance of 21.99 acres.

11.0 Stormwater Management Facilities

In accordance with Section II B(5)(b)(6), Post-construction Stormwater Management in New Development and Redevelopment, the City must track all known permanent stormwater management facilities that discharge to the regulated MS4. Table 12 contains the required information for this reporting period for as-built facilities and Table 13 provides information on

stormwater facilities that are under construction. This information is also included in Appendix E.

Table 12- Stormwater Management Facilities

Facility	Type	HUC	Impaired receiving waters	Acres Treated
Aiken Strip Mall	SWM Pond	PU16	Opequon Creek - Sulphur Spring Run	6.0
All Points Warehouse	SWM Pond	PU16	Opequon Creek - Sulphur Spring Run	8.8
Allston Mews	SWM Pond	PU16	Opequon Creek - Sulphur Spring Run	1.5
Amherst St. CVS	SWM Pond	PU17	Abrams Creek	43.5
Battle Park Estates	SWM Pond	PU16	Opequon Creek - Sulphur Spring Run	35.6
Berryville Ave. CVS	Underground Detention	PU17	Abrams Creek	1.1
Burke Center	SWM Pond	PU17	Abrams Creek	7.1
CDS/Zickefoose	SWM Pond	PU16	Opequon Creek - Sulphur Spring Run	1.2
Cedar Creek Grade	Filtterra Units	PU17	Abrams Creek	2.7
Cottages at Willow Lawn	SWM Pond	PU17	Abrams Creek	40.6
Dermatology Associates	SWM Pond	PU17	Abrams Creek	5.2
Eagles	SWM Pond	PU17	Abrams Creek	0.9
Fort Braddock Heights	SWM Pond	PU17	Abrams Creek	6.7
Frederick Douglas School	SWM Pond	PU16	Opequon Creek - Sulphur Spring Run	78.9
Friendship Fire Hall	SWM Pond	PU17	Abrams Creek	50.5
Ft. Collier Rd. Food Lion	SWM Pond	PU17	Abrams Creek	20.2
Grand Piano	SWM Pond	PU17	Abrams Creek	7.0
Henkel-Harris	SWM Pond	PU16	Opequon Creek - Sulphur Spring Run	30.1
Hilton Garden Inn	Underground Detention	PU17	Abrams Creek	5.5
Hirschberg Office Building	SWM Pond	PU17	Abrams Creek	1.1
Hope Drive Subdivision	SWM Pond	PU17	Abrams Creek	66.0

Facility	Type	HUC	Impaired receiving waters	Acres Treated
John Handley High School	Underground Detention	PU17	Abrams Creek	8.2
Limestone Court	SWM Pond	PU17	Abrams Creek	18.3
Lowes	SWM Pond	PU17	Abrams Creek	11.6
McKinley Office Building	SWM Pond	PU17	Abrams Creek	0.6
Molden Office Building	SWM Pond	PU16	Opequon Creek - Sulphur Spring Run	58.0
Molden Office Building	SWM Pond	PU17	Abrams Creek	3.4
North City Apartments	SWM Pond	PU18	Opequon Creek - Redbud Run	2.0
Panera	Filtterra Units & Water Quality Basins	PU16	Opequon Creek - Sulphur Spring Run	1.5
Park Place	SWM Pond	PU17	Abrams Creek	33.1
Orchard Terrace	SWM Pond	PU18	Opequon Creek - Redbud Run	6.4
Pemberton Village	SWM Pond	PU17	Abrams Creek	36.1
Peppertree Apartments	SWM Pond	PU17	Abrams Creek	2.0
Robinson School	SWM Pond	PU17	Abrams Creek	25.2
Rolling Hills	SWM Pond	PU16	Opequon Creek - Sulphur Spring Run	4.5
Sacred Heart	SWM Pond	PU17	Abrams Creek	5.1
Selma Medical	SWM Pond	PU17	Abrams Creek	7.5
Shawnee Fire Department	SWM Pond	PU17	Abrams Creek	20.3
Sheffield Court	SWM Pond	PU16	Opequon Creek - Sulphur Spring Run	3.4
Shenandoah Valley National Bank	SWM Pond	PU17	Abrams Creek	2.9
Sorrel Court	SWM Pond	PU16	Opequon Creek - Sulphur Spring Run	4.8
Stonecrest Village	SWM Pond	PU16	Opequon Creek - Sulphur Spring Run	87.0
Summerfield Apartments	SWM Pond	PU17	Abrams Creek	5.4
SU Student Center Addendum	Pervious Pavement	PU17	Abrams Creek	0.4
Target	SWM Pond	PU17	Abrams Creek	8.5

Facility	Type	HUC	Impaired receiving waters	Acres Treated
TGI Friday's & Glaize PVR	Downstream Defenders & Infiltration Ponds	PU16	Opequon Creek - Sulphur Spring Run	2.9
Timberlake Office Building	Filtrerra Units	PU17	Abrams Creek	0.5
Valley Ave. Food Lion	SWM Pond	PU17	Abrams Creek	20.7
Visions	Infiltration Gallery	PU18	Opequon Creek - Redbud Run	1.6
Wal-Mart	SWM Pond	PU17	Abrams Creek	19.4
War Memorial Building	Rain Garden	PU17	Abrams Creek	0.5
Westridge Section 1	SWM Pond	PU17	Abrams Creek	9.2
Westridge Section 2	SWM Pond	PU17	Abrams Creek	15.1
Whittier Ponding Basin	SWM Pond	PU17	Abrams Creek	124.7
Winchester Medical Center	SWM Pond	PU17	Abrams Creek	171
Wingate Drive	Infiltration Gallery	PU17	Abrams Creek	5.5

Table 13- Stormwater Management Facilities Under Construction

Facility	Type	HUC	Impaired receiving waters	Acres Treated
Cameron Street Parking Garage	Filtrerra Units	PU17	Abrams Creek	0.2
Islamic Society of Winchester	Pervious Pavement	PU17	Abrams Creek	NA
Craun Property	Raingardens	PU17	Abrams Creek	NA
East Tevis Street Extension	Sand Filter & WQ Pond	PU17	Abrams Creek	76
Elite Settlements	Porous Pavement	PU17	Abrams Creek	0.1
FCPS Admin Annex	Raingarden & Infiltration Swale	PU17	Abrams Creek	0.2

Facility	Type	HUC	Impaired receiving waters	Acres Treated
Harvest Drive Medical	Filtterra Units & Infiltration Pavers	PU17	Abrams Creek	7.1
HN Funkhouser	SWM Pond & Grass Swale	PU17	Abrams Creek	1.9
Linden Heights Animal Hospital	Rain Garden	PU 17	Abrams Creek	1.34
Madison Center	Rain Garden & Underground Storage	PU17	Abrams Creek	2.6
Meddent Center	Rain Garden	PU17	Abrams Creek	0.4
Rubbermaid Pallet Storage	Grass Filter Strip	PU16	Opequon Creek - Sulphur Spring Run	3.2
SMD Properties	SWM Pond	PU16	Opequon Creek - Sulphur Spring Run	0.5
South Valley Plaza	Filtterra Units	PU16	Opequon Creek - Sulphur Spring Run	3.1
St. James Place	Rain Garden	PU17	Abrams Creek	0.4
Stutzman Body Shop	Infiltration Gallery	PU16	Opequon Creek - Sulphur Spring Run	1.1
The Corners I and II	Infiltration Gallery	PU17	Abrams Creek	3.1
Whitacre Property	Filtterra Unit	PU17	Abrams Creek	NA

12.0 Reliance on Any Applicable Third Parties

The City of Winchester does not rely on third parties to meet the requirements of the VSMP General Permit.

13.0 Public Comment Period for MS4 Program

A formal Public Comment Period for the Program was not initiated by the City. The Program is available on the City's website and comments are welcome at any time from the public. To date, no written comments have been received.