



Municipal Separate Storm Sewer System (MS4)  
Program Plan  
For  
General Permit No. VAR040135  
July 1, 2015 through June 30, 2016

This plan is submitted in accordance with 9VAC25-890-30 and 9VAC25-890-40 as part of registration statement for permit coverage to discharge stormwater to surface waters of the Commonwealth of Virginia consistent with the VAR04 General Permit, effective July 1, 2013.

Submitted: November 4, 2016

## **1.0 PROGRAM PLAN STRUCTURE**

The City of Radford's Program Plan is structured to serve as a stand-alone document that, when implemented, meets the requirements of the VAR04 *General Virginia Pollutant Discharge Elimination System (VPDES) Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4s)*, referred to in the remainder of this Plan as the General Permit. The Plan is intended to be subject to modifications as part of an iterative process that seeks to improve the effectiveness of best management practices (BMPs) and therefore may change from time to time.

### **1.1 Minimum Control Measures**

The General Permit requires the City's Program Plan to include BMPs to address the requirements of six minimum control measures (MCMs) described in Section II of the General Permit. The MCMs are summarized as:

- MCM 1: Public Education and Outreach on Stormwater Impacts
- MCM 2: Public Involvement and Participation
- MCM 3: Illicit Discharge Detection and Elimination
- MCM 4: Construction Site Stormwater Runoff Control
- MCM 5: Post-construction Stormwater Management
- MCM 6: Pollution Prevention/Good Housekeeping for Operations

### **1.2 Annual Reporting**

The City of Radford will submit an Annual Report to the Department of Environmental Quality (DEQ) by October 1<sup>st</sup> of each year with the reporting period spanning from July 1<sup>st</sup> through June 30<sup>th</sup>.

The following is a list of the six minimum control measures along with specific BMP's proposed by the City of Radford to be implemented as part of the MS4 program requirements:

## **Minimum Control Measure #1**

### **Public Education and Outreach**

#### **Program requirements:**

- Increase knowledge of citizens about the steps they can take to reduce stormwater pollution with emphasis on reducing impacts to impaired waters and other local water pollution concerns;
- Increase knowledge of citizens about hazards associated with illegal discharges and improper disposal of waste
- Implement strategies that are targeted toward audiences (commercial, industrial and institutional entities) most likely to have significant stormwater impacts

## **Minimum Control Measure #2**

### **Public Involvement and Participation**

#### **Program requirements:**

- Maintain an updated MS4 Program Plan with updates occurring, as a minimum, once per year in conjunction with an annual report. The updated Program Plan and annual report shall be posted on the City's website within 30 days of submittal.
- Provide for the public availability of the MS4 Program Plan for public review and comment.
- Participate in local activities aimed at increasing public involvement in reducing impacts to stormwater and improving water quality.

❖ **The City of Radford has chosen to combine MCMs 1&2 under this Program Plan.**

### **BMP 2.1 – Public Involvement and Education**

**Description:** The City will continue to raise awareness and enforce current policies requiring pet owners to clean up after their animals while in public parks and on their private property. The City will begin to educate citizens on nutrient management for their private landscapes, as well as on leaf composting and collection.

**Schedule and Evaluation:** The City will continue to implement current policies during the permit cycle. The City will continue to educate citizens on how to properly clean up after their animals at home and in the public parks. Methods include a publication on the City's website, at local veterinarian offices, at the Treasurer's office (to be handed out during pet licensing) and place in various City offices. The Parks and Recreation Department will continue to monitor doggie spots and refill bags at pet waste stations, located at various locations throughout Radford. The City will create a nutrient management guide for citizens, taking information from the City's Nutrient Management Plan. The City will also develop a publication regarding leaf collection and composting. Both publications will be placed on Radford's Stormwater management website, Library, Recreation Center, and City Administration building during the upcoming plan year.

**Responsible Party:** Public Information Department and Parks and Recreation Department

**Necessary Documents:** Pet waste literature handed out during licensing process, website, veterinarian offices, and placed in City buildings. Nutrient Management and Leaf Collection publications to be placed on the website.

**Measurable Goals:** The City will gather information about the effectiveness of current Pet Waste Management policies and develop ways to improve the policies and increase awareness. The City will gather information on the effectiveness of nutrient management and leaf collection publications.

**Items to be included in Annual Report:** Copies of updated written policies and literature.

### **BMP 2.2 – Identify high priority water quality issues**

**Description:** The City has identified 3 issues affecting water quality that will be considered high priorities. These issues are: yard waste, road salt storage and stream bank remediation. Programs have been in place to deal with these issues. However, the City will formalize and strengthen efforts to address each issue. These efforts will include identifying the group having the most impact on each, continuing to develop relevant outreach materials and develop activities to raise awareness.

**Schedule and Evaluation:** The City will continue to implement the programs in place while evaluating the effectiveness of the programs. Needed improvements will be identified and strategies to implement the improvements will be formulated. SOP's have been developed and implemented.

**Responsible Party:** Engineering Department

**Necessary Documents:** Written policies and procedures

**Measurable Goals:** The City will continue to evaluate the effectiveness of the current programs and develop ways to improve and increase awareness, while monitoring the newly created SOP's.

**Items to be included in the Annual Report:** Written copies of the SOP's and written narrative describing the results of the evaluation and improvements that were identified.

### **BMP 2.3 – Drain Marking Program**

**Description:** The City will continue its program to mark inlets and storm drains. The inventory of storm drain locations will identify the drains most easily accessible to the public and that may be vulnerable to illicit dumping. All drains will be marked and mapped.

**Schedule and Evaluation:** The drain marking program runs parallel with the mapping of the City's storm network. Currently all known curb inlets (1,339) have been marked and mapped. 40% of grate inlets remain to be marked this year

**Responsible Party:** Engineering Department, GIS Department

**Necessary documents:** Storm drain and Outfall Inventory

**Measurable Goals:** Completion of the storm drain inventory and identifying the most vulnerable drains.

**Items to be included in the Annual Report:** Outfall Inventory and Storm Drain Map

**BMP 2.4 – Enhance City website to include stormwater related information**

**Description:** The City’s website will be enhanced to make stormwater related information available to the General Public. Included will be links to the relevant sections of the Virginia DEQ and EPA websites. Also included will be links to the City’s relevant ordinances and the MS4 Program Plan and annual reports.

**Schedule and Evaluation:** The City website will continue to be maintained with the most current MS4 documentation.

**Responsible Party:** Engineering Department/Public Information Department

**Necessary Documents:** Local Ordinances, Public Education Materials, MS4 Program Plan, Annual Reports

**Measurable Goals:** An up to date and relevant website.

**Items to be included in the Annual Report:** A summary of the updates and/or changes to the website.

**BMP 2.5 – Annual Clean Up Events**

**Description:** The City and its partner organizations will sponsor clean up events that encourage the public to engage in cleaning up the streams, river and roadways within the City Limits. Emphasis is placed on removing foreign debris, litter, etc. Events will be publicized through various media in order to have as much participation as possible.

**Schedule and Evaluation:** These are activities that the City and its partner organizations have been sponsoring for a number of years. These will continue, but with an increased emphasis. The City will continue to increase awareness of events in order to improve participation. Events include a regional river clean up event, a Pathways cleanup event, and renewing of Radford’s Adopt-A-Spot Program.

**Responsible Party:** Public Information Department

**Necessary Documents:** Website, News releases, social media postings

**Measurable Goals:** At least one stream clean-up event per year

**Items to be included in the Annual Report:** A summary of the stream clean-up events and its accomplishments

## **Minimum Control Measure #3**

### **Illicit Discharge Detection and Elimination**

**Permit requirements:** Implement, through ordinance, a program to detect, identify and address unauthorized non-stormwater discharges to the small MS4. In addition, the City will maintain an accurate mapping of the storm sewer system including the location of all MS4 outfalls.

#### **BMP 3.1 – Implement Stormwater Ordinance**

**Description:** The City implemented a Stormwater Ordinance that prohibits illegal and illicit dumping of non-stormwater discharges. The ordinance addresses detection, identification of source of discharge, mechanisms to eliminate discharges, and tracking. The ordinance facilitates public reporting of illicit discharges.

**Schedule and Evaluation:** Radford City Council adopted a Stormwater ordinance, Ordinance 1681 on July 11, 2016. Enforcement of Ordinance 1681 began on July 11, 2016.

**Responsible Party:** Engineering Department and City Administration

**Necessary Documents:** Ordinance 1681

**Measurable Goals:** Continued enforcement of Ordinance 1681

**Items to be included in the Annual Report:** A summary of number of outfalls screened during the period, screening results, and details of follow-up actions, if any taken at this time. Summaries of any investigations of suspected illicit discharges will also be included.

#### **BMP 3.2 – Protect Sensitive Areas by use of City Code**

**Description:** The City has adopted by Ordinance two “overlay districts” (Floodplain Overlay District and Riverfront Corridor Overlay District) within the City Code that protects areas within the floodplain and adjacent to the New River. (Division 15 and 16 of Chapter 120.1: Zoning)

**Schedule and Evaluation:** The City will continue to enforce these ordinances during the years of the permit cycle.

**Responsible Party:** City Administration, Engineering Department and Zoning Department

**Necessary Documents:** Zoning Overlay Districts defined in City Code

**Measurable Goals:** Enforce ordinance sections that control development in sensitive areas

**Items to be included in the Annual Report:** Copies of the Overlay Districts with any changes highlighted.

## **Minimum Control Measure #4**

### **Construction Site Runoff Control**

**Program requirements:** Implement, by ordinance, procedures to reduce pollutants generated by runoff from construction activities that result in land disturbance of areas greater than 5,000 square feet. The local ordinance may require an erosion and sediment control plan for areas less than the minimum. In addition, the local ordinance may allow for an agreement in lieu of a plan for individual residential development meeting certain criteria.

#### **BMP 4.1 – Erosion and Sediment Control Ordinance**

**Description:** Adopt and maintain an ordinance in the City Code that requires compliance with the Virginia Erosion and Sediment Control regulations.

**Schedule and Evaluation:** The City has an Erosion and Sediment Control ordinance (Chapter 31, Articles 1 & 2) that is in compliance with the Virginia Erosion & Sediment Control regulations, requires a permit prior to beginning land disturbance, provides for inspection of land disturbing activities by the City and details available enforcement options.

**Responsible Party:** Engineering Department

**Necessary Documents:** Erosion & Sediment Control ordinance, Land Disturbance Permit

**Measurable Goals:** Enforce the ordinance

**Items to be included in the Annual Report:** Number of plans approved, total number of construction sites observed, number of acres disturbed, number of inspections conducted, summary of enforcement actions taken.

#### **BMP 4.2 – City Staff Training**

**Description:** The City staff that is involved in implementing the E&S Control Ordinance will maintain the appropriate VA DEQ certifications.

**Schedule and Evaluation:** The City will maintain a database of the certifications required of City employees. The database includes the type of certification, name of employee, expiration date of current certifications.

**Responsible Party:** Engineering Department

**Necessary Documents:** Copies of certification documentation

**Measurable Goals:** All appropriate staff will maintain required certifications

**Items to be included in the Annual Report:** Total number of certified employees along with the certifications for each.

## **Minimum Control Measure #5**

### **Post Construction Stormwater Management**

**Permit requirements:** Develop and enforce a program to reduce the volume and improve quality of post-construction runoff from development with land disturbance defined as large construction activities or small activities in 4VAC50-60-10.

#### **BMP 5.1 – Adopt a Stormwater Ordinance to control impacts of runoff**

**Description:** The City's Stormwater Ordinance addresses both post-construction stormwater management and illicit discharges. The ordinance complies with the Virginia Stormwater Management Program regulations.

**Schedule and Evaluation:** The city implemented Ordinance 1681 on July 11, 2016 and enforcement began immediately.

**Responsible Party:** City Engineering Department and City Administration

**Necessary Documents:** Ordinance 1681

Measurable Goal: Enforce Ordinance 1681

**Items to be included in the Annual Report:** A copy of the Stormwater Ordinance and a summary of progress for implementation.

## **Minimum Control Measure #6**

### **Pollution Prevention/Good Housekeeping**

**Program requirements:** Develop and implement a program to prevent and reduce pollutant runoff from municipal operations into the storm sewer system.

#### **BMP 6.1 – Employee Training**

**Description:** The City will implement an employee training program designed to raise awareness within city employees of stormwater management practices as it relates to specific tasks and assignments.

**Schedule and Evaluation:** The City has developed SOP's for employees to follow and use to guide them in pollution prevention/good housekeeping. A certified consultant will be scheduled to train all employees in pollution prevention/good housekeeping this year.

**Responsible Party:** Engineering Department and City Administration

**Necessary Documents:** Training materials and documentation of attendance at training sessions.

**Measurable Goals:** Each employee will participate in at least one training session per year.

**Items to be included in the Annual Report:** Number of employees attending training along with dates of attendance.

#### **BMP 6.2 – Controls for reducing the discharge of pollutants from City-owned facilities and property.**

**Description:** The City will continue to evaluate its operations and facilities for ways to reduce discharge of pollutants. This evaluation will include identifying potential sources of pollution, identifying and prioritizing problem areas, and determining methods to address and correct the problems. Some of these methods might include employee training, spill prevention plans, SWPPPs, implementing new procedures, etc.

**Schedule and Evaluation:** Evaluation will be ongoing throughout the permit cycle. 50% of SWPPPs will be developed the coming year.

**Responsible Party:** All City Departments

**Necessary Documents:** SWPPPs, spill prevention plans, operating procedures

**Measurable Goals:** Continue program through the years of the permit cycle.

**Items to be included in the Annual Report:** Status of evaluations, new procedures implements, updated SWPPS, training records.

**BMP 6.3 – Reduce the amount of solid waste from City-owned facilities by encouraging employees to recycle waste.**

**Description:** The City has an active recycling program that encourages City employees to participate. This program will continue and be evaluated for ways to improve and expand the program.

**Schedule and Evaluation:** The City will continue to recycle all categories of waste during all years of the permit cycle.

**Responsible Party:** Public Works Department

**Necessary Documents:** Recycling Program Plan, tonnage reports

**Measurable Goals:** Continue program, including training, through the years of the permit cycle.

**Items to be included in the Annual Report:** Tonnages reports of recycled material.