

**City of Richmond**  
**Municipal Separate Storm Sewer System**  
**Program Plan for the**  
**July 9, 2008– July 8, 2013 Permit Term**

Prepared for

**City of Richmond Department of Public Utilities**

730 East Broad Street

Richmond, Virginia 23219

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<b>ACRONYMS AND ABBREVIATIONS .....</b>	<b>3</b>
<b>INTRODUCTION .....</b>	<b>4</b>
1.0    PROGRAM MANAGEMENT .....	5
<b>1. PUBLIC EDUCATION AND OUTREACH.....</b>	<b>8</b>
1.1    STORMWATER PUBLIC EDUCATION .....	8
<b>2. PUBLIC INVOLVEMENT/PARTICIPATION.....</b>	<b>13</b>
2.1    STORMWATER PUBLIC INVOLVEMENT .....	13
2.2    INDUSTRIAL PRE-TREATMENT PERMIT HOLDERS AWARD CEREMONY .....	15
<b>3. ILLICIT DISCHARGE DETECTION AND ELIMINATION .....</b>	<b>16</b>
3.1    STORM SEWER SYSTEM INVENTORY .....	16
3.2    ILLICIT DISCHARGE DETECTION AND ELIMINATION .....	18
3.3    DPU INSPECTOR TRAINING AND EDUCATION PROGRAM .....	19
<b>4. CONSTRUCTION SITE RUNOFF .....</b>	<b>20</b>
4.1    EROSION AND SEDIMENT CONTROL PROGRAM .....	21
4.2    EROSION AND SEDIMENT CONTROL DESIGN STANDARDS .....	22
4.3    EROSION AND SEDIMENT CONTROL INSPECTION AND ENFORCEMENT .....	23
<b>5. POST-CONSTRUCTION STORMWATER MANAGEMENT .....</b>	<b>24</b>
5.1    STORMWATER MANAGEMENT REQUIREMENTS.....	25
5.2    STRUCTURAL BMP INVENTORY .....	26
5.3    BMP INSPECTION AND MAINTENANCE .....	28
<b>6. POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS .....</b>	<b>30</b>
6.1    STORMWATER MANAGEMENT AT CITY FACILITIES.....	30
6.2    EMPLOYEE POLLUTION PREVENTION TRAINING AND EDUCATION.....	31

## Acronyms and Abbreviations

Bay	Chesapeake Bay
BMP	Best management practice
CAPS	Community Assisted Public Safety
CSS	Combined Sewer System
DCD	Richmond Department of Community Development
DCR	Virginia Department of Conservation and Recreation
DIT	Richmond Department of Information Technology
DPU	Richmond Department of Public Utilities
DPW	Richmond Department of Public Works
EPA	United States Environmental Protection Agency
GIS	Geographic information systems
GPS	Global Positioning System
HAZMAT	Hazardous Materials Safety Unit of the Fire Department
HUC	Hydrologic unit code
IPP	Industrial Pretreatment Program
MOU	Memorandum of Understanding
MS4	Municipal separate storm sewer system
Parks&Rec	Richmond Department of Parks, Recreation & Community Facilities
RMA	Resource Management Area
Schools	Richmond Public School System
TMDL	Total maximum daily load
VAHU6	Virginia 6 <sup>th</sup> order hydrologic units
VSMP	Virginia Stormwater Management Program

## Introduction

This stormwater management program plan was developed for the City of Richmond in accordance with the VSMP General Permit Registration Statement for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems DCR02 for the permit term July 9, 2008 to July 8, 2013. The purpose of the permit is to reduce the discharge of pollutants from the MS4.

The following MS4 Program Plan is a management tool for the City to comply with the six minimum control measures of the general permit. Sections 1 through 6 describe the proposed BMPs to comply with the corresponding minimum control measures:

1. Public Education and Outreach
2. Public Involvement/Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Runoff
5. Post-Construction Stormwater Management
6. Pollution Prevention/Good Housekeeping for Municipal Operations

A description of the BMP, roles and responsibilities, policies and procedures, measurable goals, and schedules are provided for each BMP. The City will use the MS4 annual report to evaluate and revise as necessary any BMPs and measurable goals proposed for the corresponding fiscal year.

The City of Richmond operates and maintains an MS4 and a combined sewer system (CSS). The CSS covers approximately one-third of the City and is located in the central portion of the City. The MS4 serves approximately 26,000 acres of the City. Although the stormwater general permit does not cover the CSS, several BMPs are proposed city-wide to maintain a consistent message and promote the reduction of pollutants discharging to the MS4. The City of Richmond MS4 discharges to the following VAHU6 codes and corresponding receiving waters:

JM85: James River – East Branch Tuckahoe Creek  
JM86: James River – Little Westham Creek  
JL19: Chickahominy River – Powwhite Creek  
JL18: Upham Brook  
JL02: Falling Creek  
JL01: James River – Almond Creek

The impaired waters within the City limits are:

Broad Rock Creek (E. coli)  
Falling Creek Reservoir (E. coli)  
Goode Creek (E. coli)  
Gillies Creek (E. coli, pH)  
James River (E. coli, PCBs, Benthics, DO, Chlorophyll-a)  
Pocoshock Creek (E. coli)  
Powwhite Creek (E. coli, Benthics)  
Reedy Creek (E. coli, DO)  
Stony Run (E. coli)  
Upham Brook Watershed (all tributaries) (E. coli)  
Upham Brook (DO)

(This information was obtained from the DEQ 2008 Draft 303(d) list.)

## **1.0 Program Management**

### **Description**

The objective of this BMP is to provide an evaluation tool for the stormwater management program to be more effective in reducing nonpoint source pollution from the MS4. Each BMP will be evaluated for appropriateness and updated as necessary during the permit term. Additionally, each BMP will be evaluated and revised as needed to comply with the changes to the revised state stormwater regulations and TMDL implementation plans.

### **Roles and Responsibilities**

DPU is responsible for the administration of the stormwater management program. DPU is also responsible for maintaining the City's VSMP Permit and ensuring that the City complies with its requirements. However, other City departments such as DCD, CAPS, Richmond City Schools, DIT, HAZMAT and Parks&Rec have responsibilities for some of the MS4 program BMPs. The level of coordination and involvement between in-house departments varies depending on the roles and responsibilities. MOUs will be prepared to provide a clear description of roles and responsibilities for each department. The Chesapeake Club is a local government partnership and assists the City in implementing the public education and involvement requirements of the MS4 program. There are no co-permittees of the City's MS4 permit. An organization chart for the stormwater management program is below.

### **Contact**

Director  
Department of Public Utilities  
(804) 646-5200

### **Policies and Procedures**

The City is evaluating the feasibility of implementing a stormwater utility. The utility would provide a dedicated funding source to address flooding, drainage, and water quality issues. DPU will reevaluate the MS4 Program Plan as the stormwater utility progresses. Additionally, DPU has updated the MS4 Program Plan to comply with the requirements of the revised 2008 regulations: General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems regulations, 4VAC50-60 Part XV.

### **Recordkeeping and Reporting**

DPU is responsible for submitting the MS4 annual report to DCR to document the status of BMP implementation for the preceding fiscal year. The annual report will be prepared in accordance with the MS4 permit requirements and will be submitted by the October deadline. The annual report will include an evaluation of the effectiveness of each BMP and the proposed changes to the MS4 Program Plan.

### **Measurable Goal**

In permit year 1, the goal will be to evaluate the MS4 Program Plan for consistency with the legal, fiscal and programmatic requirements of a proposed stormwater utility. In permit years 2 through 5, the goal will be to continue to assess the MS4 Program Plan as DPU incorporates stormwater management and a stormwater utility into department responsibilities.

### **Schedule of Activities**

In permit year 1, DPU will update the MS4 Program Plan as needed for the stormwater utility. The updated MS4 Program Plan will be submitted in the first annual report.

In permit years 2 through 5, DPU will incorporate stormwater management into department responsibilities and assess the MS4 Program Plan to determine if proposed BMPs are effective in reducing pollution discharges from the MS4.

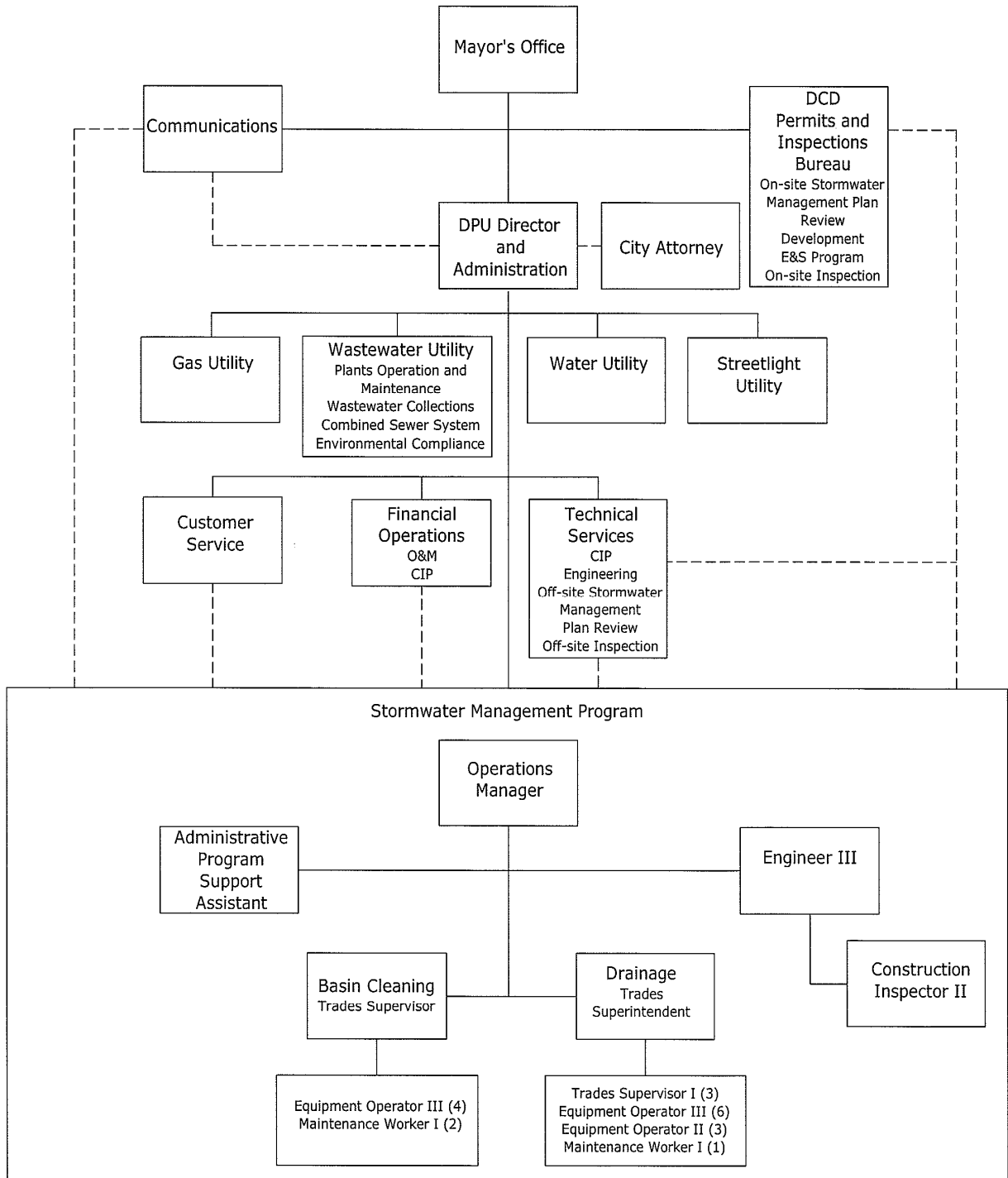
### **Evaluation Process**

The MS4 Program Plan identifies measurable goals and an evaluation process for each program BMP. The program BMPs will be evaluated by DPU to determine if the measurable goals are being met and, if not, adjustments to the MS4 Program Plan will be proposed to DCR in the annual report.

# City of Richmond Stormwater Management Program

## Tentative Organization Chart

Updated December 2008



# 1. Public Education and Outreach

## Permit Requirements

Implement a public education and outreach program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and the steps that the public can take to reduce pollutants in stormwater runoff, by specifically addressing the following:

- Increase individual and household knowledge of stormwater pollution, placing priority on reducing impacts to impaired waters and other local water pollution concerns;
- Increase public employee, business, and general public knowledge of impacts of illegal discharges and improper disposal of waste, including pertinent legal implications;
- Increase individual and group involvement in local water quality initiatives including the promotion of local restoration and clean up projects, programs, groups, meetings and other opportunities for public involvement;
- Employ sufficiently diverse strategies to target audiences specific to the area serviced by the regulated small MS4;
- Tailor the outreach program to address viewpoints and concerns of target audiences, particularly minority and disadvantaged audiences as well as special concerns relating to children; and
- Target strategies towards local groups of commercial, industrial, and institutional entities likely to have significant stormwater impacts.

## 1.1 Stormwater Public Education

### Description

DPU manages public education for stormwater management as well as the wastewater, water, and gas utilities. The objective of this BMP is to provide an educational resource for residents on stormwater runoff and how they can help improve the water quality of the receiving waters in the City.

### Roles and Responsibilities

DPU is responsible for the administration of most of the stormwater education and public outreach programs in the City. The Department of Parks, Recreation, and Community Facilities is co-responsible for the pet waste management program, and solely responsible for the James River SOL Field Trip program.

### Contact

Communications Manager  
Department of Public Utilities  
(804) 646-7323

## **Policies and Procedures**

The City employs the following programs/products to fulfill the objective of this BMP:

- a. Utility Talk: a quarterly utility bill insert
- b. Stormwater management newsletter
- c. Stormwater brochure
- d. Stormwater management website
- e. Chesapeake Club participation
- f. Utility mascot
- g. Pet waste program
- h. Educational Field Trips in the James River Park System

DPU currently distributes a quarterly utility bill insert titled Utility Talk and has developed a stormwater management newsletter and stormwater brochure to educate residents of the City. A link to the stormwater management webpage is available on the City of Richmond's DPU website to provide a description of stormwater management, explain how residents can affect stormwater quality, inform users on how pet waste can contaminate local bodies of water and provide information about the Stormwater Utility. Additionally, available on the website are downloadable forms of the stormwater brochure, the stormwater management newsletter, and the pet waste management poster. The pet waste program is a cooperative program with input and support from the City's DPU and Department of Parks, Recreation, and Community Facilities. The City's Department of Parks, Recreation, and Community Facilities runs educational programs through their James River SOL Field Trip program directed at school children and the general public to educate on watershed issues and other related environmental issues.

The City of Richmond's stormwater management website is:

[www.richmondgov.com/departments/publicutilities/stormwater.aspx](http://www.richmondgov.com/departments/publicutilities/stormwater.aspx)

## **Recordkeeping and Reporting**

The MS4 annual report will include samples of public education pieces distributed during the permit year.

## **Measurable Goal**

- Increase individual and household knowledge of stormwater pollution, placing priority on reducing impacts to impaired waters and other local water pollution concerns through the inception and publication of a bi-annual stormwater management newsletter, posting the newsletter on the City's stormwater management website, publishing information in an annual utility bill insert titled, "Utility Talk," the pet waste management program, the Utility mascot, and by sponsoring stream clean-ups.
- Increase public employee, business, and general public knowledge of impacts of illegal discharges and improper disposal of waste, including pertinent legal implications by inclusion of this specific topic on all educational information distributed by DPU.

- Increase individual and group involvement in local water quality initiatives including the promotion of local restoration and clean up projects, programs, groups, meetings and other opportunities for public involvement by continued support and involvement in the Chesapeake Club, stream clean-ups, the James River SOL Field Trips, and the Utility mascot.
- Employ sufficiently diverse strategies to target audiences specific to the area serviced by the regulated small MS4 through utilizing different media formats, i.e., website, newsletter, Utility mascot, the City's park system, the Chesapeake Club, and the large volume customer meeting.
- Tailor the outreach program to address viewpoints and concerns of target audiences, particularly minority and disadvantaged audiences as well as special concerns relating to children by the incorporation of stormwater management in the Utility Mascot's range of information, and by incorporating stormwater management into the James River SOL Field Trip program.
- Target strategies towards local groups of commercial, industrial, and institutional entities likely to have significant stormwater impacts by including a specific handout or incorporating a special lecture at DPU's annual large volume customer meeting.

### **Schedule of Activities**

DPU will utilize EPA's document: "Getting in Step: A Guide for Conducting Watershed Outreach Campaigns," to implement a schedule of activities to use the proposed BMP to fulfill the goals outlined above, as follows:

Permit Year	Objective
1	Identify and analyze the target audiences (Step 2 of the EPA guidance: “Getting in Step”), and maintain and stock pet waste dispenser units.
2	<p>Create and package the message (Step 3 of the EPA guidance: “Getting in Step”):</p> <ul style="list-style-type: none"> <li>• Develop the stormwater management newsletter;</li> <li>• Develop the <i>Utility Talk</i> utility bill insert;</li> <li>• Post online calendar or schedule of events of Chesapeake Club on DPU Stormwater Management website; and</li> </ul> <p>Maintain and stock pet waste dispenser units.</p>
3	<p>Distribute the message (Step 4 of the EPA guidance: “Getting in Step”):</p> <ul style="list-style-type: none"> <li>• Distribute the Stormwater Management Newsletter to target audiences established in Year 1, and post a link to the newsletter on the website;</li> <li>• Distribute the <i>Utility Talk</i> utility bill insert;</li> <li>• Incorporate Stormwater management component into Utility mascot’s program;</li> <li>• Continue James River SOL Field Trip program;</li> <li>• Incorporate stormwater component into DPU’s annual Large Volume Customer meeting; and</li> </ul> <p>Maintain and stock pet waste dispenser units.</p>
4	<p>Continue to distribute the message (Step 4 of the EPA guidance: “Getting in Step”):</p> <ul style="list-style-type: none"> <li>• Continue to distribute the Stormwater Management Newsletter to mailing list and target audiences established in Year 1, and post links to the newsletter on the website;</li> <li>• Continue to distribute the Utility Talk utility bill insert;</li> <li>• Continue to schedule events and outreach for the Utility mascot;</li> <li>• Continue James River SOL Field Trip program;</li> <li>• Continue to feature a stormwater component in the annual Large Volume Customer meeting;</li> <li>• Begin to compile evaluation statistics for renewal permit; and</li> </ul> <p>Maintain and stock pet waste dispenser units.</p>
5	<p>Evaluate the campaign (Step 5 of the EPA guidance: “Getting in Step”).</p> <ul style="list-style-type: none"> <li>• DPU and Parks&amp;Rec will evaluate resources, including staffing and budgeting, to ensure each department have adequate support to maintain a</li> </ul>

	<p>public outreach program</p> <ul style="list-style-type: none"><li>• DPU will review the website visitors for each permit year to evaluate the effectiveness of the newsletter and bill insert.</li><li>• Evaluate pet waste management campaign.</li></ul>
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### **Evaluation Process**

In permit year 4, DPU will begin to compile the evaluation statistics resulting from each BMP task and schedule of objectives, and in year 5 will determine the effectiveness of the newsletter, and the utility bill insert. Additionally, DPU and Parks&Rec will evaluate the resources, including staffing and budgeting to ensure both departments have adequate support to maintain a public education and outreach program.

## **2. Public Involvement/Participation**

### **Permit Requirements**

At a minimum, comply with applicable state, tribal, and local public notice requirements and identify, schedule, implement, evaluate and modify, as necessary, BMPs to meet the following public involvement/participation requirements:

- Promote availability of the operator's MS4 Program Plan and any modifications for public review and comment. Public notice shall be given by any method reasonably calculated to give actual notice of the action in question to the persons potentially affected by it, including press releases or any other forum or medium to elicit public participation. Provide access to or copies of the MS4 Program Plan or any modification upon request of interested parties in compliance with all applicable freedom of information regulations;
- Provide access to or copies of the annual report upon request of interested parties in compliance with all applicable freedom of information regulations; and
- Participate, through promotion, sponsorship, or other involvement, in local activities aimed at increasing public participation to reduce stormwater pollutant loads and improve water quality.

### **2.1 Stormwater Public Involvement**

#### **Description**

The objective of this BMP is to be a tool to promote public involvement in preventing pollution of stormwater runoff.

#### **Roles and Responsibilities**

DPU is responsible for the administration of the stormwater management website, participation in the Chesapeake Club, and the volunteer monitoring public outreach program in the City. The Department of Parks, Recreation, and Community Facilities is responsible for the coordination of stream clean-up efforts.

#### **Contact**

Communications Manager  
Department of Public Utilities  
(804) 646-7323

## **Policies and Procedures**

DPU maintains a stormwater management website to make information on the stormwater management program readily available for City residents. The website provides public education as well as copies of the MS4 program plan, annual reports, and stormwater utility information. The City also participates in the Chesapeake Club which is a partnership that promotes restoring and protecting the Bay through simple every day steps. The Chesapeake Club aims to increase public participation in reducing stormwater pollutant loads and improving water quality. During this permit term, DPU will begin coordinating volunteer monitoring of streams in the City to build awareness of pollution problems, increase the amount of water quality information available, and promote the stewardship of local waters. The Department of Parks, Recreation, and Community Facilities currently oversees and coordinates stream clean-up efforts throughout the City.

## **Recordkeeping and Reporting**

A summary of visitors to the stormwater management website and the Chesapeake Club activities will be included in the MS4 annual report. Once implemented, data collected by volunteer monitoring efforts will be organized and stored in the City's proposed Reference Library Database. A summary of stream clean-up efforts will be acquired by DPU from the Department of Parks, Recreation, and Community Facilities and included in the MS4 annual report.

## **Measurable Goal**

- Promote the availability of the City's MS4 Program Plan for public review and comment by posting the MS4 Program Plan and all annual reports on the website;
- Provide access to or copies of the MS4 Program Plan or any modifications upon request of interested parties in compliance with all applicable freedom of information regulations; and
- Provide access to or copies of the annual report upon request of interested parties in compliance with all applicable freedom of information regulations.

## **Schedule of Activities**

The website will be available to the public and maintained throughout the permit term. Updated and new materials will be posted on the website as they become available.

The City will continue participation in the Chesapeake Club throughout the permit term.

The City will continue to sponsor the stream clean-up initiatives throughout the permit term.

In permit years 1 and 2, DPU will establish protocols for the volunteer monitoring public outreach program and have it implemented by year 3.

In permit year 3, DPU will evaluate manpower resources to ensure the DPU is adequately staffed for the public outreach program.

## **Evaluation Process**

In permit year 4, DPU will review the number of visitors to the website and evaluate the results. Also in permit year 4, DPU will assess the volume of data collected through the volunteer monitoring program and evaluate the program's effectiveness.

## **2.2 Industrial Pre-treatment Permit Holders Award Ceremony**

### **Description**

DPU pretreatment program permit holders are inspected bi-annually for compliance. An awards ceremony is held every two years to recognize permit holders. The goal of the BMP is to recognize and award commercial and industrial pre-treatment permit holders who remain in compliance and who are environmental stewards.

### **Roles and Responsibilities**

DPU is responsible for maintaining and enforcing commercial and industrial pre-treatment permits.

### **Contact**

Environmental Compliance Officer  
Department of Public Utilities  
(804) 646-8940

### **Policies and Procedures**

DPU awards commercial and industrial pre-treatment permit holders who maintain permit compliance and demonstrate good housekeeping and environmental stewardship. An awards program is held every two years. The awards program encourages participation in pollution prevention at commercial and industrial facilities.

### **Recordkeeping and Reporting**

A summary of the pretreatment award program will be included in the MS4 annual report.

### **Measurable Goal**

The measurable goal will be to encourage participation in pollution prevention at commercial and industrial facilities that have pre-treatment permits. DPU will distribute awards to commercial and industrial companies that practice good housekeeping and maintain a record clear of illicit discharge violations.

### **Schedule of Activities**

In the full permit term, DPU will develop and implement the award program. The awards will be distributed every 2 years. During the award ceremonies, DPU will inform all companies present of any new or modified stormwater management regulations.

### **Evaluation Process**

In permit year 4, DPU will evaluate the number of companies attending the award ceremony and determine if this program is an efficient way of distributing stormwater management information.

## **3. Illicit Discharge Detection and Elimination**

### **Permit Requirements**

1. Develop, implement, and enforce a program to detect and eliminate illicit discharges, as defined at 4VAC50-60-1200, into the small MS4. (Review Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments);
2. Develop, if not already completed, and maintain an updated storm sewer system map, showing the location of all known outfalls of the regulated small MS4 including those physically interconnected to a regulated MS4, the associated surface waters and HUCs, and the names and locations of all surface waters that receive discharges from those outfalls. The operator shall also estimate the acreage within the regulated small MS4 discharging to each HUC and impaired water;
3. To the extent allowable under state, tribal, or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-stormwater discharges into the storm sewer system and implement appropriate enforcement procedures and actions;
4. Develop and implement a plan to detect and address non-stormwater discharges, including illegal dumping, to the system;
5. Prevent or minimize to the maximum extent practicable, the discharge of hazardous substances or oil in the stormwater discharge(s) from the regulated small MS4. In addition, the MS4 Program must be reviewed to identify measures to prevent the recurrence of such releases and to respond to such releases, and the program must be modified where appropriate. This permit does not relieve the operator or the responsible party(ies) of any reporting requirements of 40 CFR Part 110 (2001), 40 CFR Part 117 (2001) and 40 CFR Part 302 (2001) or § 62.1-44.34:19 of the Code of Virginia;
6. Track the number of illicit discharges identified, provide narrative on how they were controlled or eliminated, and submit the information in accordance with 4VAC50-60-1240 Section II E 3; and
7. Notify, in writing, any downstream regulated MS4 to which the small regulated MS4 is physically interconnected of the small regulated MS4s connection to that system.

### **3.1 Storm Sewer System Inventory**

#### **Description**

The City has a GIS inventory of the storm sewer system that includes pipes, ditches, outfalls, BMPs, and other storm sewer infrastructure. The objective of this BMP is to develop a method to update and maintain the City's storm sewer system GIS inventory.

#### **Roles and Responsibilities**

DPU is responsible for the storm sewer system GIS inventory and mapping of all storm sewer system outfalls.

## **Contacts**

Drafting Technician Supervisor  
Department of Public Utilities  
(804) 646-8534

## **Policies and Procedures**

The City began developing a storm sewer system GIS inventory during the first permit term. GPS was used to field locate storm sewer system outfalls in the City and the storm sewer system within a portion of the City that did not have adequate base mapping. Additionally, storm sewer base maps were digitized for the remaining portions of the City and incorporated into the GIS inventory. The responsibility for updating and maintaining the inventory was moved from DPW to DPU during 2007 and the storm sewer system GIS inventory was incorporated into DPU-maintained GIS data.

## **Recordkeeping and Reporting**

DPU will report on the progress of updating and maintaining the inventory in the MS4 annual report.

## **Measurable Goal**

In permit year 1, the goal will be to define the baseline inventory developed during the previous permit term and to develop a procedure to update and maintain the inventory within DPU. The procedure will include the collection of new storm sewer system installed within the right of way or City maintained drainage easements and a plan to field locate storm sewer systems in any portions of the City that were not collected in the inventory during the first permit term. Also in permit year 1, the goal will be to determine any downstream regulated MS4s to which this MS4 is interconnected. In permit years 2 and 3, the goal will be to field locate remaining storm sewer system. In permit year 4, the goal will be to notify any downstream regulated MS4s of the City's MS4 connection.

## **Schedule of Activities**

In permit year 1, DPU will define the baseline inventory developed during the previous permit term and will develop a procedure to update and maintain the storm sewer system inventory. Also in permit year 1, DPU will determine any downstream regulated MS4s to which the City's MS4 connects.

In permit years 2 and 3, DPU will field locate the remaining storm sewer system and implement the procedure developed in permit year 1.

In permit year 4, DPU will notify in writing any downstream regulated MS4s of the City's MS4 connection. In permit years 4 and 5, DPU will continue to update and maintain the storm sewer system inventory.

## **Evaluation Process**

This BMP will be evaluated yearly to determine the progress in updating and maintaining the storm sewer system inventory.

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

### **Description**

DPU has a process to inspect and reduce illicit discharges through the industrial pretreatment program and the CAPS program. The objective of this BMP is to reduce illicit discharges to the MS4.

### **Roles and Responsibilities**

DPU is responsible for identifying illicit discharges and controlling the source of the illicit discharge. The CAPS program and HAZMAT team assist with identifying illicit discharges. Additionally, HAZMAT will assist with response to illicit discharges if hazardous materials are found.

### **Contact**

Environmental Compliance Officer  
Department of Public Utilities  
(804) 646-8940

### **Policies and Procedures**

DPU enforces the Industrial Pretreatment Program. The pretreatment program regulates industrial and commercial discharges to the sanitary sewer at the source to provide protection of the wastewater treatment system from overload, pass through, or inhibition. The pretreatment program issues permits to ensure and enforce compliance. DPU inspects all permit holders bi-annually for compliance. The pretreatment program will incorporate stormwater management into the inspection process to identify and control any illicit discharges found during inspections.

DPU has a process to respond to reports of illicit discharges through the CAPS program. CAPS is a group of City departments that work together as a team with citizens to ensure that a problem property will stay a priority until a satisfactory resolution is reached. The CAPS program is the first level of response to reported illicit discharges.

### **Recordkeeping and Reporting**

Documentation of illicit discharge investigations and responses are recorded and kept on file. A summary of the illicit discharge investigations and responses will be provided in the MS4 annual report.

### **Measurable Goal**

In permit year 1, the goal will be to collect baseline chemical and biological information for all storm sewer outfalls, including flow measurements. In permit years 1 and 2, DPU will develop and present to City Council for adoption an illicit discharge ordinance to better define authority, regulation, and enforcement. In permit years 1 through 5 the goal will be to continue inspection and enforcement through the pretreatment permit program and continue collaboration with the CAPS program.

### **Schedule of Activities**

In permit year 1, DPU will develop a baseline data for all storm sewer system outfalls.

In permit years 1 and 2, DPU will develop and present to City Council for adoption an illicit discharge ordinance that clearly states its authority.

Throughout the permit term, DPU will continue to inspect and eliminate illicit discharges through the pretreatment program and the CAPS program.

### **Evaluation Process**

In permit year 4, the results of the illicit discharge investigations will be evaluated to determine if illicit discharge investigations are being performed adequately and if the source of the illicit discharge in each instance has been addressed. Additionally in permit year 4, illicit discharge investigation history will be evaluated for the need to provide public education.

## **3.3 DPU Inspector Training and Education Program**

### **Description**

DPU IPP inspectors conduct bi-annual inspections of the industrial pretreatment permit holders. The objective of this BMP is to make sure DPU inspectors are educated in the procedures of illicit discharge inspections and pollution prevention requirements.

### **Roles and Responsibilities**

DPU is responsible for performing illicit discharge inspections and permit inspections.

### **Contact**

Environmental Compliance Officer  
Department of Public Utilities  
(804) 646-8940

### **Policies and Procedures**

DPU IPP staff inspect all pretreatment permit holders bi-annually for compliance. A training manual and training program will be developed to support the incorporation of stormwater management into the inspection process.

### **Recordkeeping and Reporting**

Training records will be maintained by the City and a summary of training programs related to stormwater pollution prevention will be provided in the MS4 annual report.

### **Measurable Goal**

In permit years 1 and 2, the goal will be to develop a training program for DPU staff involved with the pretreatment program. The training program will include a training manual, stormwater pollution prevention guidance, and field GPS training. In permit years 3 through 5, the goal will be to implement the training program.

### **Schedule of Activities**

In permit years 1 and 2, DPU will develop a stormwater pollution prevention training program.

In permit years 3 through 5, DPU will implement the training program.

## Evaluation Process

In permit year 4, the results of the illicit discharge investigations will be evaluated to determine if illicit discharge investigations are being performed accurately and if additional training is needed.

# 4. Construction Site Runoff

## Permit Requirements

a. Develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to the small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre or equal to or greater than 2,500 square feet in all areas of the jurisdictions designated as subject to the Chesapeake Bay Preservation Area Designation and Management Regulations adopted pursuant to the Chesapeake Bay Preservation Act. Additionally, reduction of stormwater discharges from construction activity disturbing less than one acre must be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. If the Board waives requirements for stormwater discharges associated with small construction activity in accordance with the definition in 4VAC50-60-10, the permittee is not required to develop, implement, and/or enforce a program to reduce pollutant discharges from such sites.

The program must include the development and implementation of, at a minimum:

1. An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under state, tribal, or local law;
2. Requirements for construction site operators to implement appropriate erosion and sediment control best management practices as part of an erosion and sediment control plan that is consistent with the Erosion and Sediment Control Law and attendant regulations and other applicable requirements of state, tribal, or local law. Where determined appropriate by the operator, the operator shall encourage the use of structural and nonstructural techniques to create a design that has the goal of maintaining or replicating predevelopment runoff characteristics and site hydrology;
3. Requirements for construction site owners and operators to secure authorization to discharge stormwater from construction activities under a VSMP permit for construction activities that result in a land disturbance of greater than or equal to one acre or equal to or greater than 2,500 square feet in all areas of the jurisdictions designated as subject to the Chesapeake Bay Preservation Designation and Management Regulations adopted pursuant to the Chesapeake Bay Preservation Act. Additionally, stormwater discharges from construction activity disturbing less than one acre must secure authorization to discharge under a VSMP permit if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more;
4. Procedures for receipt and consideration of information submitted by the public;
5. Procedures for site inspection and enforcement of control measures;

b. Ensure that plan reviewers, inspectors, program administrators and construction site owners and operators obtain the appropriate certifications as required under the Erosion and Sediment Control Law;

c. Track regulated land disturbing activities and submit the following information for the reporting period with the annual report:

1. Total number of regulated land disturbing activities; and
2. Total disturbed acreage.

## **4.1 Erosion and Sediment Control Program**

### **Description**

DCD manages the City's erosion and sediment control program. The objective of this BMP is to continue to administer an erosion and sediment control program in accordance with the Virginia Erosion and Sediment Control Regulations, Section 4VAC50-30.

### **Roles and Responsibilities**

DCD is responsible for the administration of the erosion and sediment control program.

### **Contact**

Permits & Engineering Services Administrator  
Department of Community Development  
(804) 646-3697

### **Policies and Procedures**

DCD implements an erosion and sediment control program in accordance with the Virginia Erosion and Sediment Control Regulations, Section 4VAC50-30. Chapter 50 of the City of Richmond Code of Ordinances describes the requirements of the erosion and sediment control program. The erosion and sediment control program components including plan review, inspection, and enforcement are categorized by HUC code and are tracked in a City-maintained database called Cornerstone.

The proposed Virginia Stormwater Management Regulations will require the City to authorize coverage for land disturbance activities under the VSMP Construction Permit. The City will incorporate the VSMP Construction Permit program into their existing policies and procedures when the proposed regulations are adopted by the state.

### **Recordkeeping and Reporting**

The status of the erosion and sediment control program compliance with DCR requirements will be provided in the MS4 annual report. A summary of the number of erosion and sediment control plans reviewed and approved, land disturbance permits issued, the amount of acreage disturbed, the number of approved inspections, and the ratio of approved inspections versus land disturbance permits issued for each VAHU6 code will be provided in the MS4 annual report.

### **Measurable Goal**

In permit years 1 and 2 the goal will be to bring the erosion and sediment control program into compliance with DCR requirements by updating the City's erosion and sediment control ordinance. Additionally in permit years 1 and 2, the City will incorporate the VAHU6 codes into the Cornerstone database. In permit years 2 and 3, the goal will be to incorporate new program components and provide necessary training to prepare for the City administration of the VSMP Construction Permit. In permit years 3 through 5, the goal will be to review

manpower requirements to ensure the erosion and sediment control program is adequately staffed.

### **Schedule of Activities**

DCD will continue to administer the erosion and sediment control program in accordance with DCR requirements.

### **Evaluation Process**

In permit year 2, the City will evaluate the erosion and sediment control program and identify any modifications needed to administer the VSMP Construction Permit.

## **4.2 Erosion and Sediment Control Design Standards**

### **Description**

DCD reviews construction plans and erosion and sediment control plans for compliance with the City's erosion and sediment control ordinance. The objective of this BMP is to minimize the impact of land-disturbing activities on receiving waters.

### **Roles and Responsibilities**

DCD is responsible for the administration of the erosion and sediment control program.

### **Contact**

Permits & Engineering Services Administrator  
Department of Community Development  
(804) 646-3697

### **Policies and Procedures**

The City's erosion and sediment control ordinance describes the requirements for the erosion and sediment control plans.

### **Recordkeeping and Reporting**

The status of the erosion and sediment control program compliance with DCR requirements will be provided in the MS4 annual report. A summary of the number of erosion and sediment control plans reviewed and approved, land disturbance permits issued, the amount of acreage disturbed, the number of approved inspections, and the ratio of approved inspections versus land disturbance permits issued for each VAHU6 code will be provided in the MS4 annual report.

### **Measurable Goal**

A goal for the permit term will be to maintain DCR erosion and sediment control certifications for all plan review staff. In permit year 1 the goal will be to adopt a standard erosion and sediment control checklist for plan review. In permit year 2 the goal will be to make the checklist available on the DCD website.

### **Schedule of Activities**

DCD will continue to review erosion and sediment control plans in accordance with the City's erosion and sediment control ordinance.

## **Evaluation Process**

In permit year 4, the City will evaluate and compare the ratio of approved inspections versus the number of land disturbance permits issued during permit years 1 through 4 to determine if additional erosion and sediment control is needed on plans.

## **4.3 Erosion and Sediment Control Inspection and Enforcement**

### **Description**

DCD inspects all construction activities that have land disturbance permits. The objective of this BMP is to ensure compliance with land disturbance permits in order to minimize the impact of land-disturbing activities on receiving waters.

### **Roles and Responsibilities**

DCD is responsible for the inspection and enforcement of the erosion and sediment control program.

### **Contact**

Permits & Engineering Services Administrator  
Department of Community Development  
(804) 646-3697

### **Policies and Procedures**

The City's erosion and sediment control ordinance describes the procedures for inspection and enforcement. Inspections, enforcement, and penalties are implemented in accordance with the state erosion and sediment control regulations.

### **Recordkeeping and Reporting**

The status of the erosion and sediment control program compliance with DCR requirements will be provided in the MS4 annual report. A summary of the number of erosion and sediment control plans reviewed and approved, land disturbance permits issued, the amount of acreage disturbed, the number of approved inspections, and the ratio of approved inspections versus land disturbance permits issued for each VAHU6 code will be provided in the MS4 annual report.

### **Measurable Goal**

A goal for the permit term will be to maintain DCR erosion and sediment control certifications for all inspection staff. In permit year 1, the goal will be to evaluate the inspection frequency and determine if a revised inspection program is needed.

### **Schedule of Activities**

DCD will continue to inspect land disturbing activities in accordance with the City's erosion and sediment control ordinance.

## **Evaluation Process**

In permit year 4, the City will evaluate and compare the ratio of approved inspections versus the number of land disturbance permits issued during permit years 1 through 4 to determine if revisions to the inspection frequency or additional resources are necessary.

## 5. Post-construction Stormwater Management

### Permit Requirements

a. Develop, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre or equal to or greater than 2,500 square feet in all areas of the jurisdictions designated as subject to the Chesapeake Bay Preservation Area Designation and Management Regulations adopted pursuant to the Chesapeake Bay Preservation Act, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the small MS4. The program must ensure that controls are in place that would prevent or minimize water quality impacts.

b.

1. Develop and implement strategies which include a combination of structural and/or non-structural best management practices (BMPs) appropriate for your community. Where determined appropriate, the City shall encourage the use of structural and nonstructural design techniques to create a design that has the goal of maintaining or replicating predevelopment runoff characteristics and site hydrology;

2. Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under state, tribal, or local law;

3. Require construction site owners and operators to secure authorization to discharge stormwater from construction activities under a VSMP permit for new development and redevelopment projects that result in a land disturbance of greater than or equal to one acre or equal to or greater than 2,500 square feet in all areas of the jurisdictions designated as subject to the Chesapeake Bay Preservation Area Designation and Management Regulations adopted pursuant to the Chesapeake Bay Preservation Act. Additionally, stormwater discharges from construction activity disturbing less than one acre must secure authorization to discharge under a VSMP permit if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more;

4. Require adequate long-term operation and maintenance by the owner of structural stormwater management facilities through requiring the owner to develop a recorded inspection schedule and maintenance agreement or some other legal mechanism that achieves an equivalent objective. The operator shall additionally develop, through the maintenance agreement or other method, a mechanism for enforcement of maintenance responsibilities by the operator if they are neglected by the owner;

5. Conduct site inspection and enforcement measures consistent with the Virginia Stormwater Management Act and attendant regulations; and

4. Track all known permanent stormwater management facilities that discharge to the regulated small MS4 and submit the following information with the annual report:

a. type of structural stormwater management facility installed as defined in the Virginia Stormwater Management Handbook;

b. geographic location (Hydrologic Unit Code)

- c. where applicable, the impaired surface water that the stormwater management facility is discharging into; and
- d. number of acres treated.

## **5.1 Stormwater Management Requirements**

### **Description**

DCD requires structural BMPs for land development projects located within a RMA in accordance with the Chesapeake Bay Program. DCD, in cooperation with DPU, will develop and implement a stormwater management program to manage the VSMP Construction Permit authority once the proposed revisions to the state regulations, 4VAC50-60 Parts I, II, III, and XIII, are adopted. The objective of this BMP is to reduce the impacts of new development and redevelopment on receiving waters.

### **Roles and Responsibilities**

DCD, in cooperation with DPU, is responsible for stormwater management.

### **Contact**

Permits & Engineering Services Administrator  
Department of Community Development  
(804) 646-3697

### **Policies and Procedures**

DCD requires stormwater management for development projects that are within the RMA. Structural BMP design components are required in accordance with the State Stormwater Management Handbook. Responsibility for post-construction management of BMPs is transferred from DCD to DPU after a BMP is constructed and the site is stabilized.

The proposed Virginia Stormwater Management Regulations currently under development, 4VAC50-60 Parts I, II, III, and XIII, will delegate authority to the City to authorize coverage for land disturbance activities under the VSMP Construction Permit. Post construction stormwater management will be required for all land disturbance projects that apply for a VSMP Construction Permit. DPU, in cooperation with DCD, will need to develop a program to manage the VSMP Construction Permit authority once the proposed state regulations are effective. The program will include plan review, ordinance adoption, and post-construction inspections.

### **Recordkeeping and Reporting**

DPU's progress towards adopting the Virginia Stormwater Management Regulations will be documented in the MS4 annual report. Once the City has adopted the Virginia Stormwater Management Regulations, DPU will comply with the reporting requirements of the regulations.

### **Measurable Goal**

In permit years 1 through 5, the measurable goals will be to develop a stormwater management program, prepare and adopt a stormwater management ordinance and train staff on the new state regulation requirements. This goal will take effect once the new state regulations, 4VAC50-60 Parts I, II, III, and XIII, have become final.

## **Schedule of Activities**

DPU will implement the stormwater management program once the proposed regulations, 4VAC50-60 Parts I, II, III, and XIII, are effective.

## **Evaluation Process**

In permit year 4, the City will evaluate the VSMP Construction Permit program and determine if additional staffing, staff training or private contractor education is needed.

## **5.2 Stormwater Management Ordinance**

### **Description**

The city is in the process of developing a stormwater management ordinance to address post-construction runoff from new development and redevelopment to ensure compliance with the Virginia Stormwater Management Act. The ordinance will, at a minimum, provide technical criteria, procedures for submission and approval of plans, and will establish provisions and the authority for construction inspection, long term inspection and maintenance, enforcement, and fee structures. Additionally, the ordinance will encourage the use of Low Impact Development techniques to reduce peak flows managed by the small MS4 in an effort to maintain or replicate pre-development runoff characteristics and site hydrology.

### **Roles and Responsibilities**

DPU, DCD, DPW, Parks&Rec and General Services will work together to establish an implementation plan to coordinate roles and authorities as will be referenced in the stormwater management ordinance. Coordination between departments is needed because all City capital improvement projects will be regulated by the new ordinance.

### **Contact**

Permits & Engineering Services Administrator  
Department of Community Development  
(804) 646-3697

### **Policies and Procedures**

The stormwater management ordinance will comply with the proposed Virginia Stormwater Management Regulations currently under development, 4VAC50-60 Parts I, II, III, and XIII, which will delegate authority to the City to authorize coverage for land disturbance activities under the VSMP Construction Permit.

### **Recordkeeping and Reporting**

Progress on the ordinance status will be documented in the MS4 annual report.

### **Measurable Goal**

In permit year 1, the measurable goal will be to develop an implementation plan to determine the roles of authority and establish mechanisms to meet requirements of the proposed Virginia Stormwater Management Regulations. In permit years 2 and 3, the measurable goal will be to develop the ordinance or make changes to any existing ordinances to comply with the updated regulations. In permit year 4, the measurable goal

will be to introduce the proposed or updated ordinance to the Board for adoption into City Code.

### **Schedule of Activities**

DPU will continue to develop the stormwater management ordinance and present the final ordinance to the Board for adoption into City Code during the five-year permit term.

In permit years 1 and 2, DPU will create an implementation plan to delegate authority and establish mechanisms of enforcement to comply with the proposed Virginia Stormwater Management Regulations.

In permit year 3, DPU will either incorporate the updated Virginia Stormwater Management Regulations into the proposed stormwater management ordinance or, if the ordinance has already been adopted as part of the Stormwater Utility, make necessary updates to the existing ordinance.

In permit year 4, DPU will present the ordinance to City Council for adoption, if not already in the code, or update the existing ordinance to reflect changes required by the updated regulations.

### **Evaluation Process**

In permit year 5, DPU will evaluate the plan review process, the inspection and maintenance programs and records, and the fee structure to evaluate the effectiveness of the ordinance.

## **5.3 Structural BMP Inventory**

### **Description**

DPU maintains a database and GIS inventory of all certified structural BMPs. The objective of this BMP is to provide an inventory of all certified structural BMPs within the City.

### **Roles and Responsibilities**

DPU is responsible for maintaining and updating the BMP database and GIS inventory.

### **Contact**

Drafting Technician Supervisor  
Department of Public Utilities  
(804) 646-8534

### **Policies and Procedures**

DPU will incorporate new BMPs into the database once the construction plan as-built is certified and approved.

### **Recordkeeping and Reporting**

New BMPs entered into the database will be documented in the MS4 annual report. The database will be updated to include information on the type of facility, HUC, impaired surface to which the facility discharges (if applicable), and the number of acres treated by the facility.

## **Measurable Goal**

In permit year 1, the measurable goals will be to develop a method to evaluate the existing BMP database and GIS inventory for completeness and accuracy, and a method to ensure all data collected on new BMPs is complete and accurately stored in both the BMP database and the GIS inventory. In permit year 2, the measurable goal will be to evaluate the existing BMP database and coverage for completeness and accuracy using the method developed in permit year 1, and to begin to collect comprehensive data on all new BMPs. In permit years 3 through 5 the measurable goal will be to gather any missing data as determined in permit year 2, and to continue to collect comprehensive data on all new BMPs to ensure complete data sets in the future.

## **Schedule of Activities**

DPU will continue to maintain and update the BMP database and GIS inventory throughout the five-year permit term.

In permit year 1, DPU will develop a method to evaluate the BMP database and GIS coverage for completeness and accuracy. Additionally, in permit year 1, DPU will develop a procedure to collect the complete data required for all new BMPs in the GIS inventory, such data includes information on the type of facility, HUC, impaired surface to which the facility discharges (if applicable), and the number of acres treated by the facility, at a minimum.

In permit year 2, DPU will evaluate the existing BMP database and coverage for completeness and accuracy using the method developed in permit year 1.

In permit years 3 through 5, DPU will gather any missing data on existing BMPs as determined in permit year 2.

In permit years 2 through 5, DPU will begin to collect all necessary data for all new BMPs to be stored in both the BMP database and GIS inventory for future completeness and accuracy.

## **Evaluation Process**

In permit year 4, the City will utilize the BMP database information in evaluating City stormwater management programs.

## **5.4 BMP Inspection and Maintenance**

### **Description**

The City has a structural BMP inspection and maintenance plan for City-owned BMPs. Maintenance agreements are required for privately-owned BMPs constructed to comply with the Chesapeake Bay Program and for detention BMPs. The objective of this BMP is to provide an inspection and maintenance program to ensure proper function and maintenance of all structural BMPs in the City in an effort to protect receiving waters.

### **Roles and Responsibilities**

DPU is responsible for managing the BMP inspection and maintenance program.

### **Contact**

Deputy Director/Operations Manager

Department of Public Utilities  
(804) 646-5485

### **Policies and Procedures**

DPU will develop a program to regularly inspect and maintain City-owned BMPs and to ensure the regular inspection and maintenance of privately-owned BMPs. One requirement of the program will be the adoption of a stormwater management ordinance discussed in BMPs 5.1 and 5.2 to better define the authorization to enforce maintenance and inspection of BMPs. The program will utilize the BMP inventory identified in BMP 5.3 to develop inspection and maintenance schedules and identify maintenance needs.

### **Recordkeeping and Reporting**

The status of the BMP inspection and maintenance program will be documented in the MS4 annual report.

### **Measurable Goal**

In permit year 1, the goal will be to develop training for DPU staff responsible for BMP inspection and maintenance and subsequently implement the training in permit years 2 through 5. In permit year 3, the goal will be to develop an inspection program for all privately-owned BMPs. Additionally in permit years 1 through 5, the goal will be to have all BMPs in the City inspected at least once per the permit term.

### **Schedule of Activities**

DPU will continue to manage the BMP inspection and maintenance program throughout the five-year permit term.

In permit year 1, DPU will develop training for DPU staff responsible for BMP maintenance and inspection.

In permit years 2 through 5, DPU will implement the training.

In permit year 3, DPU will develop an inspection program for all privately-owned BMPs.

### **Evaluation Process**

In permit year 5, the amount of BMPs in the inventory will be compared to the amount of BMP inspections to determine if all of the BMPs in the City have been inspected at least once during the permit term.

## **6. Pollution Prevention/Good Housekeeping for Municipal Operations**

### **Permit Requirements**

Develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. Using training materials that are available from EPA, state, tribe, or other organizations, the program must include employee training to prevent and reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance. The operation and maintenance program shall meet the following requirements:

- Operations and maintenance programs including activities, schedules, and inspection procedures shall include provisions and controls to reduce pollutant discharges into the regulated small MS4 and receiving surface waters;
- Illicit discharges shall be eliminated from storage yards, fleet or maintenance shops, outdoor storage areas, rest areas, waste transfer stations, and other municipal facilities;
- Waste materials shall be disposed of properly;
- Materials that are soluble or erodible shall be protected from exposure to precipitation; and
- Materials, including but not limited to fertilizers and pesticides, that have the potential to pollute receiving surface waters shall be applied according to manufacturer's recommendations.

### **6.1 Stormwater Management at City Facilities**

#### **Description**

Satellite operation facilities exist for DPU, DPW, Parks&Rec, and Schools. The objective of this BMP is to prevent pollution at operation facilities from entering the MS4.

#### **Roles and Responsibilities**

DPU is responsible for stormwater management.

#### **Contact**

Environmental Compliance Officer  
Department of Public Utilities  
(804) 646-8940

#### **Policies and Procedures**

DPU manages the industrial pretreatment program. The pretreatment program regulates industrial and commercial discharges to the sanitary sewer at the source to provide protection of the wastewater treatment system from overload, pass through, or inhibition. The pretreatment program issues permits to ensure and enforce compliance. DPU inspects

all permit holders bi-annually for compliance. The pretreatment program will be a tool to manage stormwater pollution prevent at City facilities.

### **Recordkeeping and Reporting**

DPU will maintain records of permits issued for municipal facilities. The status of the permitted municipal facilities will be summarized in the MS4 annual report.

### **Measurable Goal**

Throughout the permit term, the City will identify and inventory all City and schools facilities, determine and issue permits for those facilities which should be permitted through the pretreatment program, and inspect such permitted facilities to meet the following measurable goals:

- Reduction of pollutant discharges into the regulated small MS4 and receiving surface waters;
- Elimination of illicit discharges from storage yards, fleet or maintenance shops, outdoor storage areas, rest areas, waster transfer stations, and other municipal facilities;
- Proper disposal of waste materials;
- Protection of soluble and/or erodible materials that from exposure to precipitation; and
- Application of potential pollutant materials, such as fertilizers and pesticides, according to manufacturer's recommendations.

### **Schedule of Activities**

In permit years 1 and 2, DPU will identify and inventory all City facilities including schools.

In permit year 2, DPU will determine which City facilities should be permitted and issue permits for those facilities.

In permit years 3 through 5, DPU will inspect permitted City facilities per the pretreatment permit program.

### **Evaluation Process**

DPU will inspect all City facilities in permit year 4 and determine if additional facilities should be permitted.

## **6.2 Employee Pollution Prevention Training and Education**

### **Description**

DPU will implement an employee training program for operations staff involved with vehicle maintenance and field activities that may impact the MS4. The objective of this BMP is to provide pollution prevention training to City employees to inform them of proper practices to reduce the potential of pollutants entering the MS4. The training program will specifically focus on reducing pollutant discharges, eliminating illicit discharges from maintenance facilities, proper disposal of waste materials, protection of soluble and/or erodible materials from exposure to precipitation, and applying potential pollutant materials such as herbicides and pesticides strictly according to manufacturer's recommendations.

### **Roles and Responsibilities**

DPU is responsible for training City employees in City facility stormwater pollution prevention.

### **Contact**

Environmental Compliance Officer  
Department of Public Utilities  
(804) 646-8940

### **Policies and Procedures**

DPU will develop an employee training program for operations staff involved with vehicle maintenance and field activities that may impact the MS4.

### **Recordkeeping and Reporting**

Training records are maintained by the City and a summary of employee training programs related to stormwater pollution prevention will be provided in the MS4 annual report.

### **Measurable Goal**

In permit years 1 and 2, the measurable goal will be to develop a training program for operations staff in stormwater pollution prevention. In permit years 3 through 5, the measurable goal will be to implement the training program for municipal staff in stormwater pollution prevention.

### **Schedule of Activities**

In permit years 1 and 2, DPU will develop a training program for municipal staff in stormwater pollution prevention.

In permit years 3 through 5, DPU will implement the developed training program for municipal staff in stormwater pollution prevention.

### **Evaluation Process**

The effectiveness of this BMP will be evaluated in year 4 and the training program will be modified if a need is found.