



**MS-4 Permit: VAR040119**

**Program Plan**

Permit Term: July 9, 2008 – July 8, 2013

Updated: October 1, 2011

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## **1.0 INTRODUCTION**

### **1.1 Program History**

The 1972 amendments to the Federal Water Pollution Control Act, also known as the Clean Water Act or CWA, provide the statutory basis for the National Pollution Discharge Elimination System (NPDES) permit program and the basic structure for regulating the discharge of pollutants from point sources to waters of the United States. Under Section 402 of the CWA the Environmental Protection Agency is the authorized agency to develop and implement the NPDES program. Therefore, Congress amended the Federal Water Pollution Control Act (CWA) to prohibit the discharge of any pollutant to waters of the United States from a point source unless the discharge is authorized by an NPDES permit. The NPDES program is designed to track point sources and require the implementation of the best management practices or controls necessary to minimize the discharge of pollutants. Initial efforts to improve water quality under the NPDES program primarily focused on reducing pollutants in industrial process wastewater and municipal sewage. These discharge sources were easily identified as responsible for poor water quality.

As pollution control measures for industrial process wastewater and municipal sewage were implemented and refined, it became increasingly evident that stormwater runoff was found to be a major cause of water quality impairment. In response to the 1987 Amendments to the Clean Water Act (CWA), the U.S. Environmental Protection Agency (EPA) developed Phase I of the NPDES Stormwater Program in 1990. The Phase I program addressed sources of stormwater runoff that had the greatest potential to impact water quality. Under Phase I, EPA required NPDES permit coverage for stormwater discharges from Medium and Large Municipal Separate Storm Sewer Systems with populations of 100,000 or more people, industrial activities, and construction activities that disturbed 5 or more acres.

In 1999, the EPA developed the Stormwater Phase II Final Rule which tightened the regulations that requires operators of regulated small municipal separate storm sewer systems (MS4s) to obtain a NPDES permit and develop a stormwater management program designed to prevent pollutants from being washed into the MS4 system during a storm even (or from being discharged directly into the MS4) and then discharged from the MS4 into local waterbodies. Virginia State University falls under the Phase II regulations as a small municipal storm sewer system operator. Based on 40 CFR 122.26(b)(8), the definition of a "municipal separate storm sewer" means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law)... including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the Clean Water Act that discharges into waters of the United States. (ii) Designed or used for collecting or conveying stormwater; (iii) Which is not a combined sewer; and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2."

### **1.2 Purpose**

The 2004 Virginia legislature unanimously passed House Bill 1177 transferring regulatory authority of the National Pollutant Discharge Elimination System (NPDES) programs related to municipal separate storm sewer systems (MS4s) and construction activities from the State Water Control Board to the Soil and Water Conservation Board and transferred oversight of these programs from the Department of Environmental Quality to the Department of Conservation and Recreation.

This transfer became effective JANUARY 29, 2005. As a result, DCR is responsible for the issuance, denial, revocation, termination and enforcement of NPDES permits for the control of stormwater discharges from MS4s and land disturbing activities under the Virginia Stormwater Management Program. The Department of Environmental Quality continues to manage the remaining NPDES program (<http://www.dcr.virginia.gov/sw/vsmp.htm#ms>).

Under the state governing agency, the Department of Conservation and Recreation, (DCR), has developed and coordinated the MS4 program as regulated under sections 4 VAC50-60-380 and 390. As a condition of the permit program, it is required that the permitted facility develops and implements their own stormwater management program. Therefore, the intent of this document is to support the stormwater management program to ensure compliance under the EPA's Phase II regulations.

## 2.0 BEST MANAGEMENT PRACTICES

### 2.1 Public education and outreach on stormwater impacts.

#### 2.1.1 Environmental Stewardship link on VSU website

**Program Description:** The students' awareness program is based upon information that is provided on the University Internet. Students, faculty and staff are expected to obey all environmental regulations. There is an Environmental Stewardship link (<http://www.vsu.edu/pages/658.asp>) on the Internet which provides access to several web sites providing detailed information about environmental laws and regulations, including public awareness about illicit discharges and improper disposal of waste. In the spirit of being responsible stewards of the environment, the Facilities Management Department operates VSU in accordance with all local, state and federal environmental laws and regulations.

**Schedule:** Link to be created by October 2011, and updated as necessary.

**Measurable Goals Addressed (from General Permit, 4VAC50-60-1240):**

- IIB.1.a. Increase individual and household knowledge about steps to reduce stormwater pollution.
- IIB.1.b. Increase general public knowledge about illicit discharges.

#### 2.1.2 Public Outreach

**Program Description:** Throughout each year, VSU incorporates stormwater runoff information into their existing outreach programs. Outreach activities are conducted and educational materials distributed describing impacts of stormwater discharges on water bodies, and describing the steps the public can take to reduce pollutants in stormwater runoff. These activities are specifically geared at reaching VSU's target audiences in the form of publications, conferences, workshops, professional training, and tours of the Randolph Farm.

**Schedule:** To be conducted throughout the permit term and reported on annually.

**Measurable Goals Addressed (from General Permit 4VAC50-60-1240):**

- IIB.1.a. Increase individual and household knowledge about steps to reduce stormwater pollution.
- IIB.1.b. Increase general public knowledge about illicit discharges.
- IIB.1.c. Increase public involvement in local water quality improvement initiatives.
- IIB.1.d. Diverse strategies to target audiences specific to VSU.
- IIB.1.e. Improve outreach programs to address views and concerns of target audiences.
- IIB.1.f. Target strategies towards local groups that have significant stormwater impacts.

#### 2.1.3 Campus Engineering Group oversight

**Program Description:** VSU has two engineering groups on campus: one group focuses on large Capital Projects, the other group focuses on smaller projects called Maintenance Reserve (MR) and Deferred Maintenance (DM) Projects. Both groups are managed by the Associate Vice President of Facilities and Capital Outlay. He ensures that projects are reviewed and approved by the Commonwealth of Virginia Bureau of Capital Outlay Management Office in

Richmond prior to starting. Once projects are underway the work is inspected daily by representatives from the Campus Engineering Group as well as by project field inspectors. Any non-conformity is brought to the attention of the Project Manager and the construction contractor for immediate correction.

**Schedule:** *To be conducted throughout the permit term and reported on annually.*

**Measurable Goals Addressed (from General Permit, 4VAC50-60-1240):**

- IIB.1.c. Increase public involvement in local water quality improvement initiatives.
- IIB.1.d. Diverse strategies to target audiences specific to VSU.
- IIB.1.f. Target strategies towards local groups that have significant stormwater impacts.

#### **2.1.4 Work Quality and Control Standards for Contractors**

**Program Description:** Contractors on campus are held to strict work quality and work control standards. The CPSM (Construction and Professional Services Manual) requires a pre-construction conference before any project is started. At the pre-construction conference the contractor is required to provide the name and certificate number of the Responsible Land Disturber for the project.

**Schedule:** *To be conducted throughout the permit term and reported on annually.*

**Measurable Goals Addressed (from General Permit, 4VAC50-60-1240):**

- IIB.1.c. Increase public involvement in local water quality improvement initiatives.
- IIB.1.f. Target strategies towards local groups that have significant stormwater impacts.

## **2.2 Public involvement/participation**

### **2.2.1 Program Plan and Annual Report Availability**

**Program Description:** Promote availability of VSU's Program Plan and any modifications for public review and comment by providing the location available for public viewing on the website. Provide access to the Annual Reports for interested parties at the public viewing location specified on the aforementioned website.

**Schedule:** *To be conducted throughout the permit term and reported on annually.*

**Measurable Goals Addressed (from General Permit, 4VAC50-60-1240):**

- IIB.2.a. Promote availability of VSU's Program Plan and any modifications for public review and comment.
- IIB.2.b. Provide access to annual report for interested parties.

### **2.2.2 Sponsorship of local activities (stream clean up and Randolph farm stuff)**

**Program Description:** Randolph Farm hosts numerous annual events such as field days, workshops, farm conferences, and professional training. Area school and civic groups visit the farm routinely.

**Schedule:** *To be conducted throughout the permit term and reported on annually.*

**Measurable Goals Addressed (from General Permit, 4VAC50-60-1240):**

- IIB.2.c. Participate in local activities to increase public participation to reduce stormwater pollutant loads and improve water quality.

## **2.3 Illicit discharge detection and elimination**

### **2.3.1 Storm system infrastructure map**

**Program Description:** Virginia State University has developed a storm sewer system map showing the location of all storm system attributes including streams, channels, culverts, pipes, manholes, catch basins, and outfalls and the name and location of all surface waters that receive discharges from those outfalls. Virginia State University will use the storm sewer system map in developing and implementing a plan to detect and address non-stormwater discharges, including illegal dumping, to the system.

The map will be maintained and updated to include any new structures or BMPs that will become part of the MS4. The map be used to define future corrective actions and infrastructure improvements as necessary to project the University from damage associated with storm and surface water on campus.

**Schedule:** The storm sewer map was developed in 2007 and will be updated upon the completion of current on-campus construction at the Gateway Dining and Events Center.

**Measurable Goals Addressed (from General Permit, 4VAC50-60-1240):**

- IIB.3.b. Complete and maintain a storm sewer map showing the location of all know outfalls of the regulated MS4.

### **2.3.2 Illicit discharge elimination program**

**Program Description:** VSU's program for detecting and eliminating illicit discharges is the responsibility of the Office of Facilities Management and includes field investigations, regulatory mechanisms/compliance documents, and reporting components.

Facilities Management employees routinely check for illicit discharges in the field while inspecting and maintaining campus facilities. Prohibition of non-storm water discharges on campus and ensuing compliance is dictated by several mechanisms, as specified in the following documents: the Spill Prevention and Control (SPCC) Plan, the Oil Discharge Contingency Plan (ODCP), the Virginia State University Safety Manual, the Continuity of Operations Plan (COOP), and the Heating Plan Emergency Action Plan. Examples of specified mechanisms include but are not limited to:

- a. Building system design. Process drains from HVAC systems, cooking areas, laboratories and boilers are all directed to the sanitary drainage system.
- b. Installation of double walled fuel tanks and/or use of spill containment dykes installed around fuel tanks.
- c. Use of refueling checklists prior to off-loading of fuel from delivery trucks to emergency diesel generators or at the heating plant. These checklists are an important component of the Spill Prevention Control and Countermeasures (SPCC) Plan and the Oil Discharge Contingency Plan (ODCP).
- d. Conducting routine daily inspections of all mechanical equipment rooms, cooling towers and other areas which operating using lubricants and chemicals. Equipment is checked for proper operation and preventive maintenance is scheduled using the CMMS.

Reporting of illicit discharges is accomplished by use of the Computerized Maintenance Management System (CMMS) which is used to track labor hours worked in connection

with spill control and spill clean-up activities, including dates/quantities of spills, types of response actions, consequences of repeat offenses, etc. Additional documentation is achieved by completing Emergency Action Checklists and reports describing each incidence. Appendix B of the VSU Spill Prevention Control and Countermeasures (SPCC) Plan includes copies of the Emergency Action Checklist.

**Schedule:** The CMMS is currently under development and expected to be completed in February 2011.

**Measurable Goals Addressed (from General Permit, 4VAC50-60-1240):**

- IIB.3.a. Develop, implement, and enforce a program to detect and eliminated illicit discharges.
- IIB.3.c. Prohibit non-stormwater discharges into the storm sewer system and implement enforcement procedures.
- IIB.3.d. Implement procedures to detect and address non-stormwater discharges to the regulated small MS4.
- IIB.3.e. Prevent or minimize the discharge of hazardous substances or oil in stormwater discharge(s) from the regulated small MS4.
- IIB.3.f. Track number of illicit discharges and provide narrative on how they were controlled or eliminated.

## 2.4 Construction site stormwater runoff control

### 2.4.1 Erosion and Sediment Control Program

**Program Description:** VSU revised campus Erosion and Sediment Control provisions in 2011 by establishing their own approved Erosion and Sediment Control Program. The Annual Standards and Specifications for Erosion and Sediment Control, 2011, documents all E&S procedures on campus, including program administration, plan review, submittal requirements, specifications, inspections, and enforcement.

**Schedule:** The standards and specifications document is required by VA DCR to be updated annually.

**Measurable Goals Addressed (from General Permit, 4VAC50-60-1240):**

- IIB.4.a. Develop, implement, and enforce procedures to reduce pollutants in stormwater runoff from construction activities.
- IIB.4.b. Ensure that plan reviewers, inspectors, program administrators and construction site owners and operators obtain the appropriate certifications.

### 2.4.2 VSMP Construction Permits Required

**Program Description:** The Construction Inspector is responsible for insuring the contractors have obtained coverage under the VSMP General Construction Permit, if required.

**Schedule:** Copies of the VSMP registration statements and tally of total number of regulated land-disturbing activities and associated acreage disturbed shall be included in the annual report.

**Measurable Goals Addressed (from General Permit, 4VAC50-60-1240):**

- IIB.4.c. Track regulated land-disturbing activities and submit information in the MS4 Annual Report.



## 2.5 Post-construction stormwater management in new development and redevelopment

### 2.5.1 Structural Best Management Practices

**Program Description:** All new and re-development projects at Virginia State University are required to be designed by registered Professional Engineers, as dictated by the Virginia Construction and Professional Services Manual, to ensure compliance with Virginia Stormwater Management regulations. Structural Best Management Practices shall be designed with the goal of replicating pre-development site hydrology, and controlling water quality and water quantity discharged from development sites as outlined in the 20/20 Vision Plan and VSU Master Plan.

VSMP permits for construction activities are required pursuant to Section 2.4.2 of this Program Plan. Maintenance and updates of the storm system infrastructure map, including the location of existing BMPs is included in Section 2.3.1 of this Program Plan.

**Schedule:** All new and existing structural BMP measures, as required by Virginia Stormwater Management regulations, are tracked in an excel database and will be reported on annually in the MS4 Annual Report. Specific information collected shall include: type of facility, geographic location, discharge to impaired surface water (if applicable), number of acres treated. VSMP registration statements for construction projects shall be included in the annual report pursuant to section 2.4.2 of this Program Plan.

**Measurable Goals Addressed (from General Permit, 4VAC50-60-1240):**

- IIB.5.a. Develop, implement, and enforce procedures to address stormwater runoff from new development and redevelopment projects to minimize water quality and quantity impacts.
- IIB.5.b(1). Encourage structural and non-structural design techniques to maintain pre-development site hydrology.
- IIB.5.b(2). Ensure compliance with the Virginia Stormwater Management Act.
- IIB.5.b(3). Require VSMP permits for discharges from construction activities.
- IIB.5.b(6). Track all known permanent stormwater management facilities for submittal to VA DCR.

### 2.5.2 Ensure Continued Effectiveness of Structural BMPs

**Program Description:** The Facilities Management group, through its Computerized Maintenance Management System, will provide scheduled inspections for all stormwater structures and follow up with maintenance, as needed.

**Schedule:** Inspection and maintenance activities will be conducted as needed on University stormwater management facilities and reported upon annually in the MS4 Annual Report.

**Measurable Goals Addressed (from General Permit, 4VAC50-60-1240):**

- IIB.5.b(4). Require adequate long-term operation and maintenance of structural stormwater management facilities.
- IIB.5.b(5). Conduct site inspections consistent with the Virginia Stormwater Management Act and attendant regulations.

## 2.6 Pollution prevention/good housekeeping for municipal operations

### **2.6.1 Campus-wide Pollution prevention and good housekeeping**

**Program Description:** Review and follow the current Continuity Plan in place; the following non-structural BMPs listed below have been or can be used campus wide:

- Good storage practice of chemicals;
- Waste Management;
- Vehicle and equipment washing in designated areas away from storm sewer or surface waters;
- Spill prevention and clean-up;
- Property maintenance;
- Spill prevention/good housekeeping training and education for employees and students;
- Eliminating improper discharges to storm drains;
- Proper procedure for shipping/receiving of materials;
- Promptly cleaning up vehicle leaks;
- Using a rag or absorbent material to properly dispose of automotive fluids;
- Regularly sweeping the parking lot and picking up litter.

**Schedule:** A summary of campus-wide pollution prevention and good housekeeping measures employed throughout the year will be reported upon annually in the MS4 Annual Report.

**Measurable Goals Addressed (from General Permit, 4VAC50-60-1240):**

- IIB.6.a-e. An operation and maintenance program to identify, implement, evaluate and modify BMPs to meet goals of pollution prevention/good housekeeping for municipal operations.

### **2.6.2 Nutrient Management Plan**

**Program Description:** Nutrients applied to any facilities, lands, fields, *etc.* are applied by a contractor with a Nutrient Management Plan and DCR agreement valid through April 1, 2012.

**Schedule:** Valid documentation will be provided in each Annual Report.

**Measurable Goals Addressed (from General Permit, 4VAC50-60-1240):**

- IIB.6.f. For state agencies with lands where nutrients are applied, nutrient management plans shall be developed and implemented in accordance with the requirements of §10.1-104.4 of the Code of Virginia.

### 3.0 EVALUATION AND ASSESSMENT OF STORMWATER PROGRAM PLAN

In accordance with Section II.E.2 of the MS4 permit, Virginia State University must evaluate program compliance, the appropriateness of the identified best management practices, and progress towards achieving the identified measurable goals.

Virginia State University must submit an annual report to DCR by the annual anniversaries of the date of coverage under this permit. The reports must include:

- a. The status of compliance with permit conditions, an assessment of the appropriateness of the identified best management practices and progress towards achieving the identified measurable goals for each of the minimum control measures;
- b. Results of information collected and analyzed, including monitoring data, if any, during the reporting period;
- c. A summary of the stormwater activities the permittee plans to undertake during the next reporting cycle;
- d. A change in any identified best management practices or measurable goals for any of the minimum control measures;
- e. Notice that the permittee is relying on another government entity to satisfy some of the permit obligations (if applicable), and
- f. The approval status of any qualifying local programs (if appropriate), or the progress towards achieving full approval of these programs.

As required by the MS4 permit to include it in the annual report the information listed below (items a through h) because Virginia State University is located within the Chesapeake Bay Watershed.

- a. Total number of regulated land disturbing activities on campus;
- b. Total disturbed acreage;
- c. Type of BMP installed;
- d. Geographic location (Hydrologic Unit Code);
- e. Waterbody the BMP is discharging into;
- f. Number of acres treated to the nearest one-tenth acre;
- g. Whether or not the BMP is inspected or maintained; and
- h. How often the BMP is maintained (quarterly, annually, etc.).

#### 4.0 REFERENCES

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## 5.0 APPENDICES

# APPENDIX A

## *General Permit No.: VAR04*

General Permit for Discharges of Stormwater from Small Municipal  
Separate Storm Sewer Systems

#### **4VAC50-60-1200. Definitions.**

The words and terms used in this part shall have the meanings defined in the Act and this chapter unless the context clearly indicates otherwise, except that for the purposes of this part:

"Date brought on line" means the date when the operator determines that a new stormwater management facility is properly functioning to meet its designed pollutant load reduction.

"MS4 Program Plan" means the completed registration statement and all approved additions, changes and modifications detailing the comprehensive program implemented by the operator under this permit to reduce the pollutants in the stormwater discharged from its municipal separate storm sewer system (MS4) that has been submitted and accepted by the department.

"Physically interconnected" means that a MS4 directly discharges to a second MS4.

#### **4VAC50-60-1210. Purpose; delegation of authority; effective date of the permit.**

A. This VSMP general permit regulation governs stormwater discharges from regulated small municipal separate storm sewer systems (regulated small MS4s) to surface waters of the Commonwealth of Virginia.

1. Unless the small MS4 qualifies for a waiver under subdivision 3 of this subsection, operators are regulated if they operate a small MS4, including but not limited to systems operated by federal, state, tribal, and local governments, including the Virginia Department of Transportation; and:

a. The small MS4 is located in an urbanized area as determined by the latest Decennial Census by the Bureau of the Census. If the small MS4 is not located entirely within an urbanized area, only the portion that is within the urbanized area is regulated; or

b. The small MS4 is designated by the board, including where the designation is pursuant to 40 CFR Part 123.35 (b)(3) or (b)(4) (2001), or is based upon a petition under 4VAC50-60-380 D.

2. A small MS4 may be the subject of a petition pursuant to 4VAC50-60-380 D to the board to require a VSMP permit for their discharge of stormwater. If the board determines that a small MS4 needs a permit and the operator applies for coverage under this general permit, the operator is required to comply with the requirements of Part XV (4VAC50-60-1180 et seq.) of this chapter.

3. The board may waive the requirements otherwise applicable to a regulated small MS4 if it meets the criteria of subdivision 4 or 5 of this subsection. If a waiver is received under this subsection, the operator may subsequently be required to seek coverage under a VSMP permit in accordance with 4VAC50-60-400 C if circumstances change. (See also 40 CFR Part 123.35 (b) (2001))

4. The board may waive permit coverage if the regulated small MS4 serves a population of less than 1,000 within the urbanized area and meets the following criteria:

a. The system is not contributing substantially to the pollutant loadings of a physically interconnected MS4 that is regulated by the VSMP stormwater program; and

b. Pollutants are discharged that have been identified as a cause of impairment of any water body to which the regulated small MS4 discharges but stormwater controls are not needed based on wasteload allocations that

are part of a State Water Control Board established and EPA approved "total maximum daily load" (TMDL) that addresses the pollutants of concern.

5. The board may waive permit coverage if the regulated small MS4 serves a population under 10,000 and meets the following criteria:

a. The State Water Control Board has evaluated all surface waters, including small streams, tributaries, lakes, and ponds, that receive a discharge from the regulated small MS4;

b. For all such waters, the board has determined that stormwater controls are not needed based on wasteload allocations that are part of a State Water Control Board established and EPA approved TMDL that addresses the pollutants of concern or, if a TMDL has not been developed and approved, an equivalent analysis that determines sources and allocations for the pollutants of concern;

c. For the purpose of this subdivision, the pollutants of concern include biochemical oxygen demand (BOD), sediment or a parameter that addresses sediment (such as total suspended solids, turbidity or siltation), pathogens, oil and grease, and any pollutant that has been identified as a cause of impairment of any water body that will receive a discharge from the regulated small MS4; and

d. The board has determined that future discharges from the regulated small MS4 do not have the potential to result in exceedances of water quality standards, including impairment of designated uses, or other significant water quality impacts, including habitat and biological impacts.

B. This general permit will become effective on July 9, 2008, and will expire five years from the effective date.

**4VAC50-60-1220. Authorization to discharge.**

A. Any operator governed by this general permit is hereby authorized to discharge stormwater from the regulated small MS4 to surface waters of the Commonwealth of Virginia provided that the operator files and receives acceptance of the registration statement of 4VAC50-60-1230 by the department and files the permit fees required by Part XIII (4VAC50-60-700 et seq.) of this chapter, and provided that the operator shall not have been required to obtain an individual permit according to 4VAC50-60-410 B.

B. The operator shall not be authorized by this general permit to discharge to state waters specifically named in other State Water Control Board or board regulations or policies that prohibit such discharges.

C. Nonstormwater discharges or flows into the regulated small MS4 are authorized by this permit and do not need to be addressed in the MS4 Program required under 4VAC50-60-1240, Section II B 3, if:

1. The nonstormwater discharges or flows are covered by a separate individual or general VPDES or VSMP permit for nonstormwater discharges;

2. The individual nonstormwater discharges or flows have been identified in writing by the Department of Environmental Quality as de minimis discharges that are not significant sources of pollutants to state waters and do not require a VPDES permit;

3. Nonstormwater discharges or flows in the following categories have not been identified by the operator, State Water Control Board, or by the board as significant contributors of pollutants to the regulated small MS4: water line flushing, landscape irrigation, diverted stream flows, rising ground waters,



uncontaminated ground water infiltration, uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, street wash water, and discharges or flows from fire fighting activities; or

4. The discharge of materials resulting from a spill is necessary to prevent loss of life, personal injury, or severe property damage. The operator shall take, or ensure that the responsible party takes, all reasonable steps to minimize or prevent any adverse effect on human health or the environment. This permit does not transfer liability for a spill itself from the party(ies) responsible for the spill to the operator nor relieve the party(ies) responsible for a spill from the reporting requirements of 40 CFR Part 117 and 40 CFR Part 302 (2001).

In the event the operator is unable to meet certain conditions of this permit due to circumstances beyond the operator's control, a written explanation of the circumstances that prevented permit compliance shall be submitted to the department in the annual report. Circumstances beyond the control of the operator may include abnormal climatic conditions; weather conditions that make certain requirements unsafe or impracticable; or unavoidable equipment failures caused by weather conditions or other conditions beyond the reasonable control of the operator (operator error is not a condition beyond the control of the operator). The failure to provide adequate program funding, staffing or equipment maintenance shall not be an acceptable explanation for failure to meet permit conditions. The board will determine, at its sole discretion, whether the reported information will result in an enforcement action.

D. Discharges that are excluded from obtaining a VSMP permit pursuant to 4VAC50-60-300 are exempted from the regulatory requirements of this permit.

E. Pursuant to 40 CFR Part 122.34 (c) (2001), for those portions of a regulated small MS4 that are covered under a VPDES permit for industrial stormwater discharges, the operator shall follow the conditions established under the VPDES permit. Upon termination of VPDES permit coverage, discharges from previously VPDES authorized outfalls shall meet the conditions of this permit provided it has been determined by the board that an individual MS4 permit is not required.

F. Stormwater discharges from specific MS4 outfalls that have been granted conditional exclusion for "no exposure" of industrial activities and materials to stormwater under the VPDES permitting program shall obtain coverage under this VSMP general permit. The Department of Environmental Quality is responsible for determining compliance with the conditional exclusion under the State Water Control Law and attendant regulations.

G. Receipt of this VSMP general permit does not relieve any operator of the responsibility to comply with any other applicable federal, state or local statute, ordinance or regulation.

**4VAC50-60-1230. Permit application (registration statement).**

A. Deadline for submitting a registration statement.

1. Operators of regulated small MS4s designated under 4VAC50-60-1210 A 1 b, that are applying for coverage under this VSMP general permit must submit a complete registration statement to the department within 180 days of notice of designation, unless the board grants a later date.

2. In order to continue uninterrupted coverage under the VSMP general permit, operators of regulated small MS4s shall submit a new registration statement at least 90 days before the expiration date of the existing permit, unless permission for a later date has been granted by the board. The board shall not grant permission for registration statements to be submitted later than the expiration date of the existing permit.

**B. Registration statement.**

The registration statement shall include the following information:

1. The name and location (county or city name) of the regulated small MS4 for which the registration statement is submitted;
2. The name, type (city, county, incorporated town, unincorporated town, college or university, local school board, military installation, transportation system, federal or state facility, or other), and address of the operator of the regulated small MS4;
3. The Hydrologic Unit Code(s) as identified in the most recent version of Virginia's 6th Order National Watershed Boundary Dataset (available online at [http://www.dcr.virginia.gov/soil\\_&\\_water/hu.shtml](http://www.dcr.virginia.gov/soil_&_water/hu.shtml)) currently receiving discharges or that have potential to receive discharges from the regulated small MS4;
4. The estimated drainage area, in acres, served by the regulated small MS4 directly discharging to any impaired receiving surface waters listed in the 2006 Virginia 305(b)/303(d) Water Quality Assessment Integrated Report, and a description of the land use for each such drainage area;
5. A listing of any TMDL wasteloads allocated to the regulated small MS4. This information may be found at: <http://www.deq.state.va.us/tmdl/develop.html>;
6. The name(s) of any regulated physically interconnected MS4s to which the regulated small MS4 discharges;
7. A copy of the MS4 Program Plan that includes:
  - a. A list of best management practices (BMPs) that the operator proposes to implement for each of the stormwater minimum control measures and their associated measurable goals pursuant to 4VAC50-60-1240, Section II B, that includes:
    - (1) A list of the existing policies, ordinances, schedules, inspection forms, written procedures, and other documents necessary for best management practice implementation; and
    - (2) The individuals, departments, divisions, or units responsible for implementing the best management practices;
  - b. The objective and expected results of each best management practice in meeting the measurable goals of the stormwater minimum control measures;
  - c. The implementation schedule including any interim milestones for the implementation of a proposed new best management practice; and
  - d. The method that will be utilized to determine the effectiveness of each best management practice and the MS4 Program as a whole;
8. A list of all existing 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;

9. The name, address, telephone number and email address of either the principal executive officer or ranking elected official as defined in 4VAC50-60-370;

10. The name, position title, address, telephone number and email address of any duly authorized representative as defined in 4VAC50-60-370; and

11. The following 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."

C. The registration statement shall be signed by the principal executive officer or ranking elected official in accordance with 4VAC50-60-370.

D. An operator may file its own registration statement, or the operator and other operators of regulated small MS4s may jointly submit a registration statement. If responsibilities for meeting the stormwater minimum control measures will be shared with other municipalities or governmental entities, the registration statement must describe which stormwater minimum control measures the operator will implement and identify the entities that will implement the other stormwater minimum control measures within the area served by the regulated small MS4.

E. Where to submit. The registration statement shall be submitted to :

Department of Conservation and Recreation  
Division of Soil and Water Conservation  
Stormwater Permitting  
203 Governor Street, Suite 206  
Richmond, VA 23219

**4VAC50-60-1240. General permit.**

Any operator whose registration statement is accepted by the department will receive coverage under the following permit and shall comply with the requirements therein and be subject to all applicable requirements of the Virginia Stormwater Management Act (Article 1.1 (§10.1-603.1 et seq.) of Chapter 6 of Title 10.1 of the Code of Virginia) and the Virginia Stormwater Management Program (VSMP) Permit Regulations (4VAC50-60).

General Permit No.: VAR04

Effective Date: July 9, 2008

Expiration Date: July 8, 2013

**GENERAL PERMIT FOR DISCHARGES OF STORMWATER FROM SMALL  
MUNICIPAL SEPARATE STORM SEWER SYSTEMS**

**AUTHORIZATION TO DISCHARGE UNDER THE VIRGINIA STORMWATER  
MANAGEMENT PROGRAM AND THE VIRGINIA STORMWATER MANAGEMENT ACT**

In compliance with the provisions of the Clean Water Act, as amended and pursuant to the Virginia Stormwater Management Act and regulations adopted pursuant thereto, this permit authorizes operators of small municipal separate storm sewer systems to discharge to surface waters within the boundaries of the Commonwealth of Virginia,

except those waters specifically named in State Water Control Board and Virginia Soil and Water Conservation Board regulations or policies which prohibit such discharges.

The authorized discharge shall be in accordance with this cover page, Section I—Discharge Authorization and Special Conditions, Section II—MS4 Program and Section III—Conditions Applicable To All VSMP Permits, as set forth herein. The operator shall utilize all legal authority provided by the laws and regulations of the Commonwealth of Virginia to control discharges to and from the MS4. This legal authority may be a combination of statute, ordinance, permit, contract, order or interjurisdictional agreements.

## SECTION I DISCHARGE AUTHORIZATION AND SPECIAL CONDITIONS

A. Coverage under this permit. During the period beginning with the date of coverage under this general permit and lasting until the expiration and reissuance of this permit, the operator is authorized to discharge in accordance with this permit from the small municipal separate storm sewer system identified in the registration statement into surface waters.

B. Special conditions. A total maximum daily load (TMDL) approved by the State Water Control Board may include a wasteload allocation to the regulated small MS4 that identifies the pollutant for which stormwater controls are necessary for the surface waters to meet water quality standards. The pollutant identified in a wasteload allocation as of the effective date of this permit must be addressed through the measurable goals of the MS4 Program Plan. A wasteload allocation does not establish that the operator of a regulated small MS4 is in or out of compliance with the conditions of this permit.

1. The operator shall update its MS4 Program Plan to include measurable goals, schedules, and strategies to ensure MS4 Program consistency with the assumptions of the TMDL WLA within 18 months of permit coverage; or, within 18 months of the effective date of any reopening of this permit to include wasteloads allocated to the regulated small MS4 after issuance of permit coverage.
2. The measurable goals, schedules, strategies, and other best management practices (BMPs), required in an updated MS4 Program Plan to assure MS4 Program consistency with an approved TMDL for the pollutant identified in a WLA are, at a minimum:
  - a. The operator shall develop a list of its current ordinances and legal authorities, BMPs, policies, plans, procedures and contracts implemented as part of the MS4 Program that are applicable to reducing the pollutant identified in a WLA.
  - b. The operator shall evaluate existing ordinances and legal authorities, BMPs, policies, plans, procedures and contracts of the existing MS4 Program to determine the effectiveness of the MS4 Program in addressing reductions of the pollutant identified in the WLA. The evaluation shall identify any weakness or limitation in the MS4 Program to reduce the pollutant identified in the WLA in a manner consistent with the TMDL.
  - c. The operator shall develop a schedule to implement procedures and strategies that address the MS4 Program weaknesses such as timetables to update existing ordinances and legal authorities within two years, BMPs, policies, plans, procedures and contracts to ensure consistency with the assumptions of the TMDL WLA. When possible, source elimination shall be prioritized over load reduction.

- d. The operator shall implement the schedule established in Section I B 2 c.
3. The operator shall integrate an awareness campaign into its existing public education and outreach program that promotes methods to eliminate and reduce discharges of the pollutant identified in the WLA. This may include additional employee training regarding the sources and methods to eliminate and minimize the discharge of the pollutant identified in the WLA.
4. The operator is encouraged to participate as a stakeholder in the development of any implementation plans developed to address the TMDL and shall incorporate applicable best management practices identified in the TMDL implementation plan in their MS4 Program Plan. The operator may choose to implement BMPs of equivalent design and efficiency instead of those identified in the TMDL implementation plan, provided that the rationale for any substituted BMP is provided and the substituted BMP is consistent with the TMDL and the WLA.
5. The operator shall develop and implement outfall reconnaissance procedures to identify potential sources of the pollutant identified in the WLA from anthropogenic activities. The operator shall conduct reconnaissance in accordance with the following:

- a. Should the operator have 250 or more total outfalls discharging to the surface water identified in the WLA, the operator shall perform reconnaissance on a minimum of 250 outfalls for each WLA assigned at least once during the five-year permit period and shall perform reconnaissance on a minimum of 35 outfalls per year.
- b. Should the operator have less than 250 total outfalls discharging to an identified surface water, the operator shall perform reconnaissance on all outfalls during the five-year permit period and shall annually conduct reconnaissance on a minimum of 15% of its known MS4 outfalls discharging to the surface water for which the WLA has been assigned.

The department recommends that the operator review the publication entitled "Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments," EPA cooperative agreement number X-82907801-0, for guidance in implementing its outfall reconnaissance procedures. The operator shall implement procedures designed to reduce the discharge of the pollutant in a manner consistent with the TMDL. Physically interconnected MS4s may coordinate outfall reconnaissance to meet the requirements of this subdivision.

6. The operator shall evaluate all properties owned or operated by the MS4 operator that are not covered under a separate VPDES permit for potential sources of the pollutant identified in the WLA. Within three years of the required date for updating the MS4 Program Plan, the operator shall conduct a site review and characterize the runoff for those properties where it determines that the pollutant identified in the WLA is currently stored, or has been transferred, transported or historically disposed of in a manner that would expose it to precipitation in accordance with the following schedule:
  - a. As a part of the site review, the operator shall collect a total of two samples from a representative outfall for each identified municipal property. One sample shall be taken during each of the following six-month periods: October through March, and April through September.



b. All collected samples shall be grab samples and collected within the first 30 minutes of a runoff producing event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previous measurable (greater than 0.1 inch rainfall) storm event. The required 72-hour storm event interval is waived where the preceding measurable storm event did not result in a measurable discharge from the property. The required 72-hour storm event interval may also be waived where the operator documents that less than a 72-hour interval is representative for local storm events during the season when sampling is being conducted. Analytical methods shall be conducted according to procedures approved under 40 CFR Part 136 or alternative methods approved by the Environmental Protection Agency (EPA). Where an approved 40 CFR Part 136 method does not exist, the operator must use a method consistent with the TMDL.

c. For properties where there is found to be a discharge of the pollutant identified in the WLA, the operator shall develop and implement a schedule to minimize the discharge of the pollutant identified in the WLA in a manner consistent with the approved TMDL.

7. The operator shall conduct an annual characterization that estimates the volume of stormwater discharged, in cubic feet, and the quantity of pollutant identified in the WLA, in a unit consistent with the WLA, discharged by the regulated small MS4.

8. As part of the annual evaluation, the operator shall update the MS4 Program Plan to include any new information regarding the TMDL in order to ensure consistency with the TMDL.

9. Along with reporting requirements in Section II E, the operator shall include the following with each annual report:

a. Copies of any updates to the MS4 Program Plan completed during the reporting cycle and any new information regarding the TMDL in order to evaluate its ability to assure the consistency of its discharge with the assumptions of the TMDL WLA.

b. The estimate of the volume of stormwater discharged, in cubic feet, and the quantity of pollutant identified in the WLA, in a unit consistent with the WLA discharged by the regulated small MS4 for each WLA.

## SECTION II

### MUNICIPAL SEPARATE STORM SEWER SYSTEM MANAGEMENT PROGRAM

A. The operator of a regulated small MS4 must develop, implement, and enforce a MS4 Program designed to reduce the discharge of pollutants from the regulated small MS4 to the maximum extent practicable (MEP), to protect water quality, to ensure compliance by the operator with water quality standards, and to satisfy the appropriate water quality requirements of the Clean Water Act and regulations. The MS4 Program must include the minimum control measures described in paragraph B of this section. Implementation of best management practices consistent with the provisions of an iterative MS4 Program required pursuant to this section constitutes compliance with the standard of reducing pollutants to the "maximum extent practicable" , protects water quality in the absence of a TMDL wasteload allocation , ensures compliance by the operator with water quality standards, and satisfies the appropriate water quality requirements of the Clean Water Act and regulations in the absence of a TMDL WLA. The requirements of this section and those special conditions set out in Section I B also apply where a WLA is applicable.

No later than January 9, 2009, the operator shall review its existing MS4 Program Plan and submit a schedule to develop and implement programs to meet the conditions established by this permit. For operators of regulated small MS4s that are applying for initial coverage under this general permit, the schedule to develop and implement the MS4 Program Plan shall be submitted with the completed registration statement.

B. Minimum control measures.

1. Public education and outreach on stormwater impacts. Implement a public education 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. The department recommends that the operator review the Environmental Protection Agency (EPA) publication entitled "Getting in Step: A Guide for Conducting Watershed Outreach Campaigns," publication number EPA 841-B-03-002, for guidance in developing a public education program.

The operator shall identify, schedule, implement, evaluate and modify, as necessary, BMPs to meet the following public education and outreach measurable goals:

- a. Increased individual and household knowledge about the steps that they can take to reduce stormwater pollution, placing priority on reducing impacts to impaired waters and other local water pollution concerns;
- b. Increased public employee, business, and general public knowledge of hazards associated with illegal discharges and improper disposal of waste, including pertinent legal implications;
- c. Increased individual and group involvement in local water quality improvement initiatives including the promotion of local restoration and clean up projects, programs, groups, meetings and other opportunities for public involvement;
- d. Diverse strategies to target audiences specific to the area serviced by the regulated small MS4;
- e. Improved outreach program to address viewpoints and concerns of target audiences, with a recommended focus on minorities, disadvantaged audiences and minors ; and
- f. Targeted strategies towards local groups of commercial, industrial, and institutional entities likely to have significant stormwater impacts.

2. Public involvement/participation.

The operator shall 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 measurable goals:

- a. Promote the 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 modifications ] upon request of interested parties in compliance with all applicable freedom of information regulations;

b. Provide access to or copies of the annual report upon request of interested parties in compliance with all applicable freedom of information regulations; and

c. Participate, through promotion, sponsorship, or other involvement, in local activities aimed at increasing public participation to reduce stormwater pollutant loads and improve water quality.

3. Illicit discharge detection and elimination. The MS4 Program shall:

a. Develop, implement and enforce a program to detect and eliminate illicit discharges, as defined at 4VAC50-60-10, into the regulated small MS4. The department recommends that the operator review the publication entitled "Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments," Environmental Protection Agency (EPA) cooperative agreement number X-82907801-0, for guidance in implementing and evaluating its illicit discharge detection and elimination program;

b. 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 impaired 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;

c. To the extent allowable under state, tribal or local law or other regulatory mechanism, effectively prohibit, through ordinance, or other regulatory mechanism, nonstormwater discharges into the storm sewer system and implement appropriate enforcement procedures and actions;

The following categories of nonstormwater discharges or flows (i.e., illicit discharges) must be addressed only if they are identified by the operator, the State Water Control Board, or by the board as significant contributors of pollutants to the regulated small MS4: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration, uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, street wash water, discharges or flows from fire fighting activities, and flows that have been identified in writing by the Department of Environmental Quality as de minimis discharges that are not significant sources of pollutants to state waters and not requiring a VPDES permit;

d. Develop and implement procedures to detect and address nonstormwater discharges, including illegal dumping, to the regulated small MS4;

e. 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 part(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;

f. Track the number of illicit discharges identified, provide narrative on how they were controlled or eliminated, and submit the information in accordance with Section II E 3; and

g. Notify, in writing, any downstream regulated MS4 to which the small regulated MS4 is physically interconnected of the small regulated MS4's connection to that system.

4. Construction site stormwater runoff control.

a. The operator shall develop, implement, and enforce procedures to reduce pollutants in any stormwater runoff to the regulated 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.

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

(1) An ordinance or other mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance with the Erosion and Sediment Control Law and attendant regulations, to the extent allowable under state, tribal, or local law. Such ordinances and other mechanisms shall be updated as necessary;

(2) Requirements for construction site owners and 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 design 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 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) Procedures for receipt and consideration of information submitted by the public; and

- (5) Procedures for site inspection and enforcement of control measures.
  - b. The operator shall 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. The operator shall track regulated land-disturbing activities and submit the following information in accordance with Section II E 3:
    - (1) Total number of regulated land-disturbing activities; and
    - (2) Total disturbed acreage.
5. Post-construction stormwater management in new development and redevelopment.
  - a. The operator shall develop, implement, and enforce procedures to address stormwater runoff to the regulated small MS4 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 regulated small MS4. The procedures must ensure that controls are in place that would prevent or minimize water quality and quantity impacts in accordance with this section.
  - b. The operator shall:
    - (1) Develop and implement strategies which include a combination of structural and/or nonstructural best management practices (BMPs) appropriate for the operator's community. Where determined appropriate by the operator, the operator 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, regulation, or other mechanism to address post-construction runoff from new development and redevelopment projects to ensure compliance with the Virginia Stormwater Management Act (§10.1-603.1 et seq. of the Code of Virginia) and attendant regulations, and to the extent allowable under state, tribal or local law. Such ordinances and other mechanisms shall be updated as necessary;
    - (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 to the extent allowable under state, tribal or local law or other legal mechanism . 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

(6) Track all known permanent stormwater management facilities that discharge to the regulated small MS4 and submit the following information in accordance with Section II E 3:

(a) Type of structural stormwater management facility installed as defined in the Virginia Stormwater Management Handbook;

(b) Geographic location (HUC);

(c) Where applicable, the impaired surface water that the stormwater management facility is discharging into; and

(d) Number of acres treated.

6. Pollution prevention/good housekeeping for municipal operations. Develop and implement an operation and maintenance program consistent with the MS4 Program Plan that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. Using training materials including those available from EPA, state, tribe, or other organizations, the program shall 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 MS4 maintenance. The operator is encouraged to review the Environmental Protection Agency's (EPA's) National Menu of Stormwater Best Management Practices for ideas and strategies to incorporate into its program. The menu can be accessed at <http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm>.

The operator shall identify, implement, evaluate and modify, as necessary, BMPs to meet the following pollution prevention/good housekeeping for municipal operations measurable goals:

a. Operation 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;

b. Illicit discharges shall be eliminated from storage yards, fleet or maintenance shops, outdoor storage areas, rest areas, waste transfer stations, and other municipal facilities;

c. Waste materials shall be disposed of properly;

d. Materials that are soluble or erodible shall be protected from exposure to precipitation;

e. 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; and

f. For state agencies with lands where nutrients are applied, nutrient management plans shall be developed and implemented in accordance with the requirements of §10.1-104.4 of the Code of Virginia.

C. If an existing program requires the implementation of one or more of the minimum control measures of Section II B, the operator, with the approval of the board, may follow that program's requirements rather than the requirements of Section II B. A program that may be considered includes, but is not limited to, a local, state or tribal program that imposes, at a minimum, the relevant requirements of Section II B.

The operator's MS4 Program Plan shall identify and fully describe any program that will be used to satisfy one or more of the minimum control measures of Section II B.

If the program the operator is using requires the approval of a third party, the program must be fully approved by the third party, or the operator must be working towards getting full approval. Documentation of the program's approval status, or the progress towards achieving full approval, must be included in the annual report required by Section II E 3 .

D. The operator may rely on another entity to satisfy the VSMP permit obligations to implement a minimum control measure if: (i) the other entity, in fact, implements the control measure; (ii) the particular control measure, or component thereof, is at least as stringent as the corresponding VSMP permit requirement; and (iii) the other entity agrees to implement the control measure on behalf of the operator. The agreement between the parties must be documented in writing and retained by the operator with the MS4 Program Plan for the duration of this permit.

In the annual reports that must be submitted under Section II E 3, the operator must specify that another entity is being relied on to satisfy some of the permit obligations.

If the operator is relying on another governmental entity regulated under 4VAC50-60-380 to satisfy all of the permit obligations, including the obligation to file periodic reports required by Section II E 3, the operator must note that fact in the registration statement, but is not required to file the periodic reports.

The operator remains responsible for compliance with the permit obligations if the other entity fails to implement the control measure (or component thereof).

#### E. Evaluation and assessment.

##### 1. Evaluation.

a. The operator must annually evaluate:

(1) Program compliance ;

(2) The appropriateness of the identified BMPs (as part of this evaluation, the operator shall evaluate the effectiveness of BMPs in addressing discharges into waters that are identified as impaired in the 2006 305(b)/303(d) Water Quality Assessment Integrated Report); and

(3) Progress towards achieving the identified measurable goals.

b. The operator must evaluate its MS4 Program once during the permit cycle using the "Municipal Stormwater Program Evaluation Guidance," Environmental Protection Agency EPA-833-R-07-003. Such information shall be utilized when reapplying for permit coverage. Results of this evaluation shall be kept on file and made available during audits and inspections.

2. Recordkeeping. The operator must keep records required by the NPDES permit for at least three years. These records must be submitted to the NPDES permitting authority only upon specific request. The operator must make the

records, including a description of the stormwater management program, available to the public at reasonable times during regular business hours.

3. Annual reports. The operator must submit an annual report for the reporting period of July 1 through June 30 to the department by the following October 1. The reports shall include:

a. Background Information.

(1) The name and permit number of the program submitting the annual report;

(2) The annual report permit year;

(3) Modifications to any operator's department's roles and responsibilities;

(4) Number of new MS4 outfalls and associated acreage by HUC added during the permit year; and

(5) Signed certification.

b. The status of compliance with permit conditions, an assessment of the appropriateness of the identified best management practices 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 any identified best management practices 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 programs 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 B 5 b (6) submitted in a database format to be prescribed by the department. Upon filing of this list, subsequent reports shall only include those new stormwater management facilities that have been brought online;

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.

F. Program Plan modifications. The board may require modifications to the MS4 Program Plan as needed to address adverse impacts on receiving surface water quality caused, or contributed to, by discharges from the regulated small MS4. Modifications

required by the board shall be made in writing and set forth the time schedule to develop and implement the modification. The operator may propose alternative program modifications and time schedules to meet the objective of the required modification. The board retains the authority to require any modifications it determines are necessary.

SECTION III  
CONDITIONS APPLICABLE TO ALL VSMP PERMITS

A. Monitoring.

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. Monitoring shall be conducted according to procedures approved under 40 CFR Part 136 (2001) or alternative methods approved by the U.S. Environmental Protection Agency, unless other procedures have been specified in this permit.
3. The operator shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will insure accuracy of measurements.

B. Records.

1. Monitoring records/reports shall include:
  - a. The date, exact place, and time of sampling or measurements;
  - b. The individual(s) who performed the sampling or measurements;
  - c. The date(s) and time(s) analyses were performed;
  - d. The individual(s) who performed the analyses;
  - e. The analytical techniques or methods used; and
  - f. The results of such analyses.
2. The operator shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the registration statement for this permit, for a period of at least three years from the date of the sample, measurement, report or request for coverage. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the operator, or as requested by the board.

C. Reporting monitoring results.

1. The operator shall submit the results of the monitoring required by this permit with the annual report unless another reporting schedule is specified elsewhere in this permit.
2. Monitoring results shall be reported on a Discharge Monitoring Report (DMR) ; on forms provided, approved or specified by the department ; or in any format provided the date, location, parameter, method, and result of the monitoring activity are included.
3. If the operator monitors any pollutant specifically addressed by this permit more frequently than required by this permit using test procedures approved under 40 CFR Part 136 (2001) or using other test procedures approved by the U.S. Environmental Protection Agency or using procedures specified in this permit, the results of this monitoring shall be included in the calculation and



reporting of the data submitted in the DMR or reporting form specified by the department.

4. Calculations for all limitations that require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

D. Duty to provide information. The operator shall furnish to the department, within a reasonable time, any information that the board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The board may require the operator to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from his discharge on the quality of surface waters, or such other information as may be necessary to accomplish the purposes of the CWA and Virginia Stormwater Management Act. The operator shall also furnish to the department upon request, copies of records required to be kept by this permit.

E. Compliance schedule reports. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

F. Unauthorized stormwater discharges.

]

Pursuant to §10.1-603.2:2 A of the Code of Virginia, except in compliance with a permit issued by the board, it shall be unlawful to cause a stormwater discharge from a MS4.

G. Reports of unauthorized discharges. Any operator of a regulated small MS4 who discharges or causes or allows a discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance or a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110 (2002), 40 CFR Part 117 (2002) or 40 CFR Part 302 (2002) that occurs during a 24-hour period into or upon surface waters ; or who discharges or causes or allows a discharge that may reasonably be expected to enter surface waters , shall notify the Department of Environmental Quality of the discharge immediately upon discovery of the discharge, but in no case later than within 24 hours after said discovery. A written report of the unauthorized discharge shall be submitted to the Department of Environmental Quality and the Department of Conservation and Recreation, within five days of discovery of the discharge. The written report shall contain:

1. A description of the nature and location of the discharge;
2. The cause of the discharge;
3. The date on which the discharge occurred;
4. The length of time that the discharge continued;
5. The volume of the discharge;
6. If the discharge is continuing, how long it is expected to continue;
7. If the discharge is continuing, what the expected total volume of the discharge will be; and
8. Any steps planned or taken to reduce, eliminate and prevent a recurrence of the present discharge or any future discharges not authorized by this permit.

Discharges reportable to the Department of Environmental Quality and the Department of Conservation and Recreation under the immediate reporting requirements of other regulations are exempted from this requirement.

H. Reports of unusual or extraordinary discharges. If any unusual or extraordinary discharge including a "bypass" or "upset," as defined herein, should occur from a facility and the discharge enters or could be expected to enter surface waters, the operator shall promptly notify, in no case later than within 24 hours, the Department of Environmental Quality and the Department of Conservation and Recreation by telephone after the discovery of the discharge. This notification shall provide all available details of the incident, including any adverse effects on aquatic life and the known number of fish killed. The operator shall reduce the report to writing and shall submit it to the Department of Environmental Quality and the Department of Conservation and Recreation within five days of discovery of the discharge in accordance with Section III I 2. Unusual and extraordinary discharges include but are not limited to any discharge resulting from:

1. Unusual spillage of materials resulting directly or indirectly from processing operations;
2. Breakdown of processing or accessory equipment;
3. Failure or taking out of service some or all of the facilities; and
4. Flooding or other acts of nature.

I. Reports of noncompliance. The operator shall report any noncompliance which may adversely affect surface waters or may endanger public health.

1. An oral report shall be provided within 24 hours to the Department of Environmental Quality and the Department of Conservation and Recreation from the time the operator becomes aware of the circumstances. The following shall be included as information which shall be reported within 24 hours under this paragraph:

- a. Any unanticipated bypass; and
- b. Any upset which causes a discharge to surface waters.

2. A written report shall be submitted within five days and shall contain:

- a. A description of the noncompliance and its cause;
- b. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
- c. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The board or its designee may waive the written report on a case-by-case basis for reports of noncompliance under Section III I if the oral report has been received within 24 hours and no adverse impact on surface waters has been reported.

3. The operator shall report all instances of noncompliance not reported under Sections III I 1 or 2, in writing, at the time the next monitoring reports are submitted. The reports shall contain the information listed in Section III I 2.

NOTE: The immediate (within 24 hours) reports required to be provided to the Department of Environmental Quality in Sections III G, H and I may be made to the appropriate Department of Environmental Quality's Regional Office Pollution Response Program as found at



<http://www.deq.virginia.gov/prep/homepage.html#>. Reports may be made by telephone or by fax. For reports outside normal working hours, leave a message and this shall fulfill the immediate reporting requirement. For emergencies, the Virginia Department of Emergency Services maintains a 24-hour telephone service at 1-800-468-8892.

4. Where the operator becomes aware of a failure to submit any relevant facts, or submittal of incorrect information in any report to the department or the Department of Environmental Quality, it shall promptly submit such facts or correct information.

J. Notice of planned changes.

1. The operator shall give notice to the department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

a. The operator plans an alteration or addition to any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:

(1) After promulgation of standards of performance under §306 of the Clean Water Act that are applicable to such source; or

(2) After proposal of standards of performance in accordance with §306 of the Clean Water Act that are applicable to such source, but only if the standards are promulgated in accordance with §306 within 120 days of their proposal;

b. The operator plans alteration or addition that would significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this permit; or

2. The operator shall give advance notice to the department of any planned changes in the permitted facility or activity; which may result in noncompliance with permit requirements.

K. Signatory requirements.

1. Registration statement. All registration statements shall be signed as follows:

a. For a corporation: by a responsible corporate officer. For the purpose of this subsection, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

c. For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this subsection, a principal executive officer of a public agency includes:

(1) The chief executive officer of the agency, or

(2) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

2. Reports, etc. All reports required by permits, and other information requested by the board shall be signed by a person described in Section III K 1, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described in Section III K 1;

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the operator. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

c. The written authorization is submitted to the department.

3. Changes to authorization. If an authorization under Section III K 2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Section III K 2 shall be submitted to the department prior to or together with any reports, or information to be signed by an authorized representative.

4. Certification. Any person signing a document under Sections III K 1 or 2 shall make the following 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."

L. Duty to comply. The operator shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Virginia Stormwater Management Act and the Clean Water Act, except that noncompliance with certain provisions of this permit may constitute a violation of the Virginia Stormwater Management Act but not the Clean Water Act. Permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

The operator shall comply with effluent standards or prohibitions established under §307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if this permit has not yet been modified to incorporate the requirement.

M. Duty to reapply. If the operator wishes to continue an activity regulated by this permit after the expiration date of this permit, the operator shall submit a new registration statement at least 90 days before the expiration date of the existing permit, unless permission for a later date has been granted by the board. The board shall not grant permission for registration statements to be submitted later than the expiration date of the existing permit.

N. Effect of a permit. This permit does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorize any injury to private property or invasion of personal rights, or any infringement of federal, state or local law or regulations.

O. State law. Nothing in this permit shall be construed to preclude the institution of any legal action under, or relieve the operator from any responsibilities, liabilities, or penalties established pursuant to any other state law or regulation or under authority preserved by §510 of the Clean Water Act. Except as provided in permit conditions on "bypassing" (Section III U), and "upset" (Section III V) nothing in this permit shall be construed to relieve the operator from civil and criminal penalties for noncompliance.

P. Oil and hazardous substance liability. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the operator from any responsibilities, liabilities, or penalties to which the operator is or may be subject under §§62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law or §311 of the Clean Water Act.

Q. Proper operation and maintenance. The operator shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) , which are installed or used by the operator to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes effective plant performance, adequate funding, adequate staffing, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems , which are installed by the operator only when the operation is necessary to achieve compliance with the conditions of this permit.

R. Disposal of solids or sludges. Solids, sludges or other pollutants removed in the course of treatment or management of pollutants shall be disposed of in a manner so as to prevent any pollutant from such materials from entering surface waters.

S. Duty to mitigate. The operator shall take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

T. Need to halt or reduce activity not a defense. It shall not be a defense for an operator in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

U. Bypass.

1. "Bypass," as defined in 4VAC50-60-10, means the intentional diversion of waste streams from any portion of a treatment facility. The operator may allow any bypass to occur that does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Sections III U 2 and U 3.

2. Notice.

a. Anticipated bypass. If the operator knows in advance of the need for a bypass, prior notice shall be submitted, if possible at least 10 days before the date of the bypass.

b. Unanticipated bypass. The operator shall submit notice of an unanticipated bypass as required in Section III I.

3. Prohibition of bypass.

a. Bypass is prohibited, and the board or its designee may take enforcement action against an operator for bypass, unless:

(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and

(3) The operator submitted notices as required under Section III U 2.

b. The board or its designee may approve an anticipated bypass, after considering its adverse effects, if the board or its designee determines that it will meet the three conditions listed above in Section III U 3 a.

V. Upset.

1. An upset, as defined in 4VAC50-60-10, constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of Section III V 2 are met. A determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is not a final administrative action subject to judicial review.

2. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

3. An operator who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An upset occurred and that the operator can identify the cause(s) of the upset;

b. The permitted facility was at the time being properly operated;

c. The operator submitted notice of the upset as required in Section III I; and

d. The operator complied with any remedial measures required under Section III S.

4. In any enforcement proceeding the operator seeking to establish the occurrence of an upset has the burden of proof.

W. Inspection and entry. The operator shall allow the department as the board's designee, or an authorized representative (including an authorized contractor acting as a representative of the administrator), upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the operator's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act and the Virginia Stormwater Management Act, any substances or parameters at any location.

For purposes of this subsection, the time for inspection shall be deemed reasonable during regular business hours, and whenever the facility is discharging. Nothing contained herein shall make an inspection unreasonable during an emergency.

X. Permit actions. Permits may be modified, revoked and reissued, or terminated for cause. The filing of a request by the operator for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Y. Transfer of permits.

1. Permits are not transferable to any person except after notice to the department. Except as provided in Section III Y 2, a permit may be transferred by the operator to a new owner or operator only if the permit has been modified or revoked and reissued, or a minor modification made, to identify the new operator and incorporate such other requirements as may be necessary under the Virginia Stormwater Management Act and the Clean Water Act.
2. As an alternative to transfers under Section III Y 1, this permit may be automatically transferred to a new operator if:
  - a. The current operator notifies the department at least two days in advance of the proposed transfer of the title to the facility or property;
  - b. The notice includes a written agreement between the existing and new operators containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
  - c. The board does not notify the existing operator and the proposed new operator of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Section III Y 2 b.

Z. Severability. The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

#### FORMS

Application Form 1-General Information, Consolidated Permits Program, EPA Form 3510-1 (August 1990) (DCR 199-149).

Department of Conservation and Recreation Permit Application Fee Form, (DCR 199-145) (09/04).

VSMP General Permit Registration Statement for Construction Activity Stormwater Discharges, (DCR01), (DCR 199-146) (09/04).

VSMP General Permit Notice of Termination for Construction Activity Stormwater Discharges, (DCR01), (DCR 199-147) (09/04).

VSMP General Permit Registration Statement for Stormwater Discharges From Small Municipal Separate Storm Sewer Systems (VAR04), (DCR 199-148) (07/08).

#### DOCUMENTS INCORPORATED BY REFERENCE

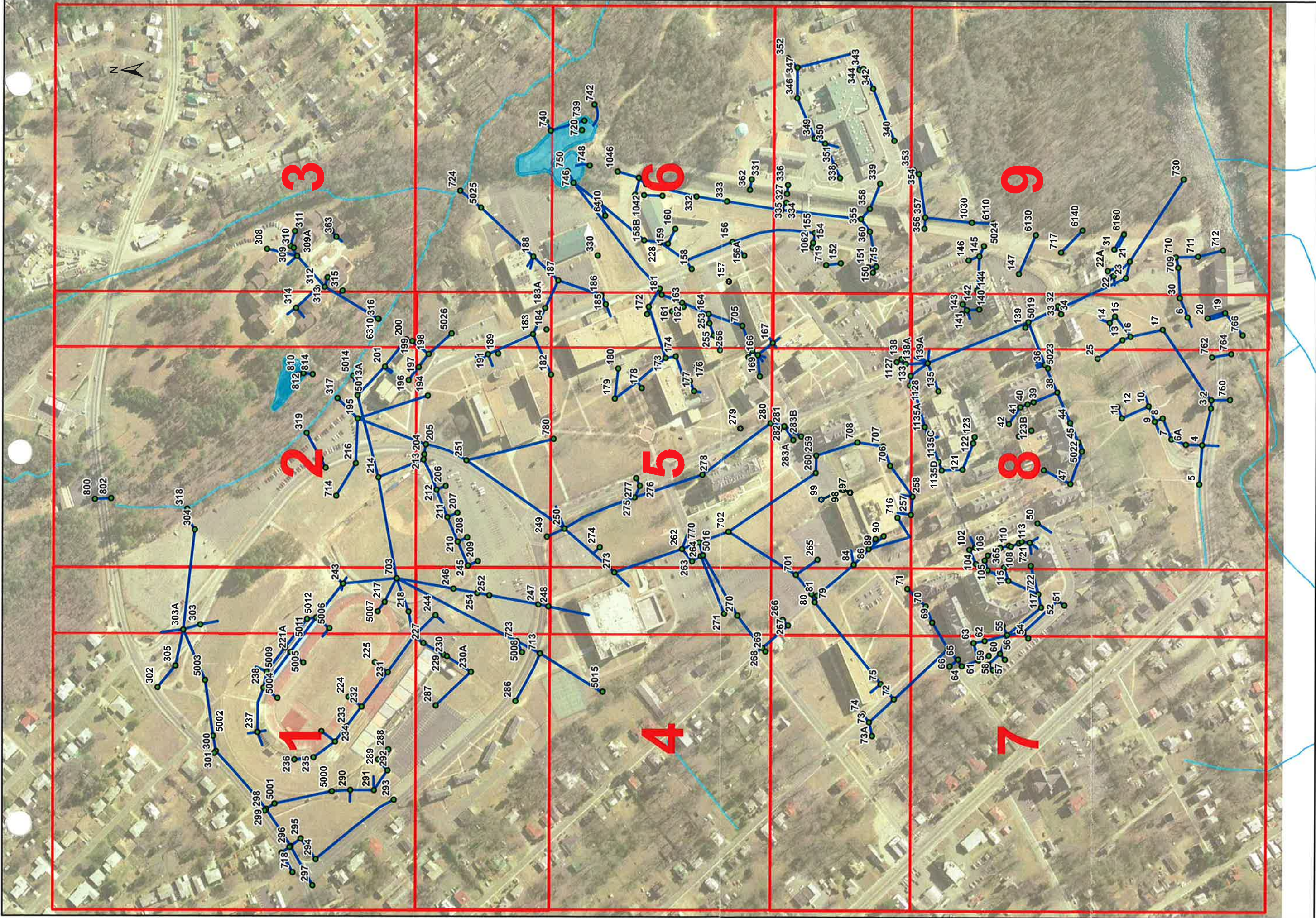
Illicit Discharge Detection and Elimination – A Guidance Manual for Program Development and Technical Assessments, EPA Cooperative Agreement X-82907801-0, October 2004, by Center for Watershed Protection and Robert Pitt, University of Alabama, available on the Internet at [http://www.cwp.org/idde\\_verify.htm](http://www.cwp.org/idde_verify.htm).

Getting in Step – A Guide for Conducting Watershed Outreach Campaigns, EPA-841-B-03-002, December 2003, U.S. Environmental Protection Agency, Office of Wetlands, Oceans, and Watersheds, available on the Internet at <http://www.epa.gov/owow/watershed/outreach/documents/getnstep.pdf>, or may be ordered from National Service Center for Environmental Publications, telephone 1-800-490-9198.

Municipal Stormwater Program Evaluation Guidance, EPA-833-R-07-003, January 2007 (field test version), U.S. Environmental Protection Agency, Office of Wastewater Management, available on the Internet at [http://cfpub.epa.gov/npdes/docs.cfm?program\\_id=6&view=allprog&sort=name#ms4\\_guidance](http://cfpub.epa.gov/npdes/docs.cfm?program_id=6&view=allprog&sort=name#ms4_guidance), or may be ordered from National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161, telephone 1-800-553-6847 or (703) 605-6000.

APPENDIX B  
*Storm Sewer Map*





Aerial Imagery @ 2002 Commonwealth of Virginia.

**Figure A-0. VSU Storm Sewer Map, 2007**

Virginia State University  
PC#212-16767-02

Infrastructure Repair Plan  
11656644



# APPENDIX C

## *General Permit No.: VAR10*

General Permit for Discharges of Stormwater from Construction  
Activities

General Permit No.: VAR10

Effective Date: July 1, 2009

Expiration Date: June 30, 2014

GENERAL PERMIT FOR DISCHARGES OF STORMWATER FROM  
CONSTRUCTION ACTIVITIES

AUTHORIZATION TO DISCHARGE UNDER THE VIRGINIA STORMWATER  
MANAGEMENT PROGRAM AND THE VIRGINIA STORMWATER  
MANAGEMENT ACT

In compliance with the provisions of the Clean Water Act, as amended, and pursuant to the Virginia Stormwater Management Act and attendant regulations, operators of construction activities covered by this permit with stormwater discharges are authorized to discharge to state waters, including discharges to a regulated MS4 system, within the boundaries of the Commonwealth of Virginia, except those specifically named in State Water Control Board and Virginia Soil and Water Conservation Board regulations that prohibit such discharges.

The authorized discharge shall be in accordance with this cover page, Section I—Discharge Authorization and Special Conditions, Section II—Stormwater Pollution Prevention Plan, and Section III—Conditions Applicable To All VSMP Permits as set forth herein.

SECTION I

DISCHARGE AUTHORIZATION AND SPECIAL CONDITIONS

A. Coverage under this permit.

1. During the period beginning with the date of coverage under this general permit and lasting until the permit's expiration date, the operator is authorized to discharge stormwater from construction activities.
2. This permit may also authorize stormwater discharges from support activities (e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, borrow areas) located on-site or off-site provided that:
  - a. The support activity is directly related to the construction site that is required to have VSMP permit coverage for discharges of stormwater associated with construction activity;
  - b. The support activity is not a commercial operation serving multiple unrelated construction projects by different operators, and does not operate beyond the completion of the construction activity at the last construction project it supports; and
  - c. Appropriate control measures are identified in a stormwater pollution prevention plan and implemented to address the discharges from the support activity areas.
3. There shall be no discharge of floating solids or visible foam that contravenes established standards or interferes directly or indirectly with designated uses of surface waters.

B. Limitation on coverage.

1. Post-construction discharges. This permit does not authorize stormwater discharges that originate from the site after construction activities have been completed and the site, including any temporary support activity site, has undergone final stabilization. Post-construction industrial stormwater discharges may need to be covered by a separate VPDES permit.
2. Discharges mixed with nonstormwater. This permit does not authorize discharges that are mixed with sources of nonstormwater, other than those discharges that are identified in Section I D 2 (Exceptions to prohibition of nonstormwater discharges) and are in compliance with Section II D 5 (Nonstormwater discharge management).
3. Discharges covered by another permit. This permit does not authorize stormwater discharges associated with construction activity that have been covered under an individual permit or required to obtain coverage under an alternative general permit.
4. TMDL limitation. Discharges to waters for which a wasteload allocation (WLA) for a pollutant has been established in a "total maximum daily load" (TMDL) approved by the State Water Control Board that would apply to stormwater discharges from a construction activity are not eligible for coverage under this permit unless the stormwater pollution prevention plan (SWPPP) developed by the operator is consistent with the requirements related to TMDLs contained in Section II D 6.
5. Impaired waters limitation. Discharges to waters that have been identified as impaired in the 2008 § 305(b)/303(d) Water Quality Assessment Integrated Report are not eligible for coverage under this permit unless the operator implements strategies and control measures consistent with Sections I H and II D 7.

C. Commingled discharges. Any discharge authorized by a different VSMP or VPDES permit may be commingled with discharges authorized by this permit.

D. Prohibition of nonstormwater discharges.

1. Except as provided in Sections I A 2, I C and I D 2, all discharges covered by this permit shall be composed entirely of stormwater associated with construction activity.
2. The following nonstormwater discharges from active construction sites are authorized by this permit provided the nonstormwater component of the discharge is in compliance with Section II D 5 (Nonstormwater discharges):
  - a. Discharges from fire fighting activities;
  - b. Fire hydrant flushings;
  - c. Waters used to wash vehicles where detergents are not used;
  - d. Water used to control dust;
  - e. Potable water sources, including uncontaminated waterline flushings;
  - f. Routine external building wash down which does not use detergents;

- g. Pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used;
- h. Uncontaminated air conditioning or compressor condensate;
- i. Uncontaminated ground water or spring water;
- j. Foundation or footing drains where flows are not contaminated with process materials such as solvents;
- k. Uncontaminated excavation dewatering, and
- l. Landscape irrigation.

E. Releases of hazardous substances or oil in excess of reportable quantities. The discharge of hazardous substances or oil in the stormwater discharges from the construction site shall be prevented or minimized in accordance with the stormwater pollution prevention plan for the site. This permit does not relieve the permittee of the reporting requirements of 40 CFR Part 110 (2002), 40 CFR Part 117 (2002) and 40 CFR Part 302 (2002) or § 62.1-44.34:19 of the Code of Virginia.

Where a release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110 (2002), 40 CFR Part 117 (2002), 40 CFR Part 302 (2002), or § 62.1-44.34.19 of the Code of Virginia occurs during a 24-hour period:

1. The operator is required to notify the Department of Environmental Quality and the permit-issuing authority in accordance with the requirements of Section III G as soon as he has knowledge of the discharge;
2. Where a release enters a municipal separate storm sewer system (MS4), the operator shall also notify the operator of the MS4; and
3. The stormwater pollution prevention plan required under Section II D of this permit must be reviewed by the operator to identify measures to prevent the reoccurrence of such releases and to respond to such releases, and the plan must be modified where appropriate within seven calendar days of knowledge of a release.

F. Spills. This permit does not authorize the discharge of hazardous substances or oil resulting from an on-site spill.

G. Termination of permit coverage. Coverage under this permit may be terminated in accordance with 4VAC50-60-1160.

H. Water quality protection.

1. The operator must select, install, implement and maintain control measures at the construction site that minimize pollutants in the discharge as necessary to ensure that the operator's discharge does not cause or contribute to an excursion above any applicable water quality standards.
2. If it is determined by the permit-issuing authority in consultation with the State Water Control Board at any time that the operator's stormwater discharges have reasonable potential to cause or contribute to an excursion above any applicable water quality standard, the permit-issuing authority shall require the operator to:

- a. Modify control measures in accordance with Section II C to adequately address the identified water quality concerns;
- b. Submit valid and verifiable data and information that are representative of ambient conditions and indicate that the receiving water is attaining water quality standards; or
- c. Cease discharges of pollutants from construction activity and submit an individual permit application according to 4VAC50-60-410 B 3.

All written responses required under this part must include a signed certification consistent with Section III K.

## SECTION II STORMWATER POLLUTION PREVENTION PLAN

### A. Stormwater Pollution Prevention Plan Framework.

1. A stormwater pollution prevention plan (SWPPP) shall be developed prior to submission of a registration statement and implemented for the construction activity covered by this permit. SWPPPs shall be prepared in accordance with good engineering practices.
2. The SWPPP shall:
  - a. Identify potential sources of pollutants that may reasonably be expected to affect the quality of stormwater discharges from the construction site;
  - b. Describe control measures that will be used to minimize pollutants in stormwater discharges from the construction site; and
  - c. Comply with the terms and conditions of this permit.
3. The SWPPP requirements of this general permit may be fulfilled by incorporating by reference other state or local plans such as (i) an erosion and sediment control (ESC) plan, (ii) an agreement in lieu of a plan as defined in 4VAC50-30-10, (iii) a stormwater management plan, (iv) a spill prevention control and countermeasure (SPCC) plan developed for the site under § 311 of the federal Clean Water Act or (v) best management practices (BMP) programs otherwise required for the facility provided that the incorporated plan meets or exceeds the SWPPP requirements of Section II D. If an erosion and sediment control plan for the land-disturbing activity is being incorporated by reference, the referenced plan must be approved by the locality in which the construction activity is to occur or by another appropriate plan approving authority authorized under the Virginia Erosion and Sediment Control Regulations (4VAC50-30) prior to the commencement of land disturbance.
4. All plans incorporated by reference into the SWPPP become enforceable under this permit. If a plan incorporated by reference does not contain all of the required elements of the SWPPP of Section II D, the operator must develop the missing elements and include them in the required SWPPP.
5. Once a definable area has been finally stabilized, the operator may mark this on the SWPPP and no further SWPPP or inspection requirements apply to that portion of the site (e.g., earth-disturbing activities around one of three buildings in

a complex are done and the area is finally stabilized; one mile of a roadway or pipeline project is done and finally stabilized, etc.).

6. The SWPPP shall identify all properties that are no longer under the control of the operator and the dates on which the operator no longer had control over each property.

7. The operator must implement the SWPPP as written and updated in accordance with Section II C from commencement of construction activity until final stabilization is complete.

B. Signature, SWPPP review and making SWPPPs available.

1. The SWPPP shall be signed in accordance with Section III K.

2. The SWPPP shall be retained, along with a copy of this permit, registration statement, and acknowledgement letter from the permit-issuing authority, at the construction site or other location easily accessible during normal business hours from the date of commencement of construction activity to the date of final stabilization. Operators with day-to-day operational control over SWPPP implementation shall have a copy of the SWPPP available at a central location on-site for the use of all operators and those identified as having responsibilities under the SWPPP whenever they are on the construction site. The SWPPP must be made available, in its entirety, to the department, the permit-issuing authority, and the operator of a municipal separate storm sewer system receiving discharges from the site for review at the time of an on-site inspection. If an on-site location is unavailable to store the SWPPP when no personnel are present, notice of the SWPPP's location must be posted near the main entrance at the construction site.

3. The operator shall make SWPPPs and all updates available upon request to the department; the permit-issuing authority; EPA; a state or local agency approving erosion and sediment control plans, grading plans, or stormwater management plans; local government officials; or the operator of a municipal separate storm sewer system receiving discharges from the site.

4. A sign or other notice must be posted conspicuously near the main entrance of the construction site. The sign or other notice must contain the following information:

a. A copy of the permit coverage letter than includes the registration number for the construction activity; and

b. The internet address at which a copy of the SWPPP may be found or the location of a hard copy of the SWPPP and name and telephone number of a contact person for scheduling viewing times.

For linear projects, the sign or other notice must be posted at a publicly accessible location near an active part of the construction project (e.g., where a pipeline project crosses a public road).

5. For discharges that commence on or after July 1, 2009 that have not previously held coverage under a VSMP or VPDES permit, the operator shall make the SWPPP available to the public for review. A copy of the SWPPP for each site shall be made available on the internet or in hard copy. The website address or contact person for access to the SWPPP shall be posted on the sign required by

subdivision B 4 of this section. If not provided electronically, access to the SWPPP may be arranged upon request at a time and at a publicly accessible location convenient to the operator or his designee but shall be no less than once per month and shall be during normal business hours. If a reproduced copy of the SWPPP is provided to the requestor, the requestor shall be responsible for the costs of reproduction. Information excluded from disclosure under applicable law shall not be required to be released Information not required to be contained within the SWPPP by this permit is not required to be released.]

C. Maintaining an updated SWPPP.

1. The operator shall amend the SWPPP whenever there is a change in design, construction, operation, or maintenance that has a significant effect on the discharge of pollutants to state waters and that has not been previously addressed in the SWPPP.

2. The SWPPP must be amended if during inspections or investigations by the operator's qualified personnel, or by local, state or federal officials, it is determined that the existing control measures are ineffective in minimizing pollutants in stormwater discharges from the construction site. Revisions to the SWPPP shall include additional or modified control measures designed to correct problems identified. If approval by a plan-approving authority is necessary for the control measure, revisions to the SWPPP shall be completed within seven calendar days of approval. Implementation of these additional or modified control measures must be accomplished as described in Section II D 3 b.

3. Revisions to the SWPPP must be dated and signed in accordance with Section III K 2, but are not required to be certified in accordance with Section III K 4.

4. The SWPPP must clearly identify the contractor(s) or subcontractor(s) that will implement and maintain each measure identified in the SWPPP. The SWPPP shall be revised to identify any new contractor that will implement a measure.

D. Stormwater pollution prevention plan contents. The SWPPP shall include the registration statement, this permit, and the following items:

1. Site and activity description. Each SWPPP shall provide the following information:

a. A narrative description of the nature of the construction activity, including the function of the project (e.g., low density residential, shopping mall, highway, etc.);

b. The intended sequence and timing of activities that disturb soils at the site (e.g., grubbing, excavation, grading, utilities and infrastructure installation);

c. A record of the dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated;

d. Estimates of the total area expected to be disturbed by excavation, grading, or other construction activities including off-site borrow and fill areas;

e. A description of any other potential pollutant sources, such as vehicle fueling, storage of fertilizers or chemicals, sanitary waste facilities, etc.;



- f. Identification of the nearest receiving waters at or near the construction site that will receive discharges from disturbed areas of the project;
- g. The location and description of any discharge associated with industrial activity other than construction at the site. This includes stormwater discharges from dedicated asphalt plants and dedicated concrete plants that are covered by this permit;
- h. A legible general location map (e.g., USGS quadrangle map, a portion of a city or county map, or other map) with sufficient detail to identify the location of the construction activity and surface waters within one mile of the construction activity; and
- i. A legible site map identifying:
  - (1) Directions of stormwater flow and approximate slopes anticipated after major grading activities;
  - (2) Areas of soil disturbance and areas of the site which will not be disturbed;
  - (3) Locations of major structural and nonstructural control measures identified in the SWPPP, including those that will be permanent after construction activities have been completed;
  - (4) Locations where stabilization practices are expected to occur;
  - (5) Locations of surface waters;
  - (6) Locations where concentrated stormwater discharges;
  - (7) Locations of off-site material, waste, borrow or equipment storage areas covered by the SWPPP;
  - (8) Locations of other potential pollutant sources, such as vehicle fueling, storage of chemicals, concrete wash-out areas, sanitary waste facilities, including those temporarily placed on the construction site, etc.; and
  - (9) Areas where final stabilization has been accomplished.

2. Controls to minimize pollutants. The SWPPP shall include a description of all control measures that will be implemented as part of the construction activity to minimize pollutants in stormwater discharges. For each major activity identified in the project description, the SWPPP shall clearly describe appropriate control measures, the general sequencing during the construction process in which the control measures will be implemented, and which operator is responsible for the control measure's implementation.

- a. Erosion and sediment controls.
  - (1) An erosion and sediment control plan or an agreement in lieu of a plan shall be approved by the appropriate plan-approving authority for the land-disturbing activity in accordance with the Virginia Erosion and Sediment Control Law (§ 10.1-560 et seq.) and regulations (4VAC50-30). Where applicable, a plan shall be developed in accordance with board-approved annual general erosion and sediment control specifications.
  - (2) All control measures required by the plan shall be designed, installed, and maintained in accordance with good engineering practices and the minimum



standards of the Virginia Erosion and Sediment Control Law (§ 10.1-560 et seq. of the Code of Virginia) and regulations (4VAC50-30).

b. Management practices.

(1) Plans should ensure that existing vegetation is preserved where possible and that disturbed portions of the site are stabilized.

(2) All control measures must be properly selected, installed, and maintained in accordance with good engineering practices and, where applicable, manufacturer specifications. If periodic inspections or other information indicates a control has been used inappropriately or incorrectly, the operator must replace or modify the control for site situations as soon as practicable and update the SWPPP in accordance with Section II C.

(3) If sediment escapes the construction site, off-site accumulations of sediment must be removed as soon as practicable to minimize off-site impacts. If approval by a plan-approving authority is necessary, control measures shall be implemented to minimize pollutants in stormwater discharges until such approvals can be obtained.

(4) Construction debris and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source in stormwater discharges.

(5) Litter exposed to stormwater shall be prevented from becoming a pollutant source in stormwater discharges and the construction site shall be policed daily to control litter.

c. Stormwater management.

(1) The operator shall ensure compliance with the requirements of 4VAC50-60-1180 through 4VAC50-60-1190 of the Virginia Stormwater Management Regulations, including but not limited to water quality and quantity requirements. The SWPPP shall include a description of, and all necessary calculations supporting, all post-construction stormwater management measures that will be installed prior to the completion of the construction process to control pollutants in stormwater discharges after construction operations have been completed. Structural measures should be placed on upland soils to the degree possible. Such measures must be designed and installed in accordance with applicable local, state, and federal requirements, and any necessary permits must be obtained.

(2) Control measures contained in Part II of the Virginia Stormwater Management Regulations, 4VAC50-60-1184, or on the Virginia BMP Clearinghouse may be utilized. Innovative or alternate control measures may be allowed by the department provided such measures effectively address water quality and quantity in accordance with the requirements of 4VAC50-60-1180 through 4VAC50-60-1190 and are not restricted by the locality.

(3) Where applicable, the SWPPP shall contain additional information related to participation in a regional stormwater management plan, including:

a. Type of regional facility or facilities to which the site contributes;

b. Geographic location of any regional facility to which the site contributes (county or city and Hydrologic Unit Code);

c. Geographic location of the site (county or city and Hydrologic Unit Code). Latitude and longitude may additionally be included if available; and

d. Number of acres treated by a regional facility.

(4) Where applicable, the SWPPP shall contain additional information related to nutrient offsets to be acquired in accordance with § 10.1-603.8:1 of the Code of Virginia, including:

a. Name of the broker from which offsets will be acquired;

b. Geographic location (county or city and Hydrologic Unit Code) of the broker's offset generating facility;

c. Number of nutrient offsets to be acquired (lbs. per acre per year); and

d. Nutrient reductions to be achieved on site (lbs. per acre per year).

(5) Outflows from a stormwater management facility or stormwater conveyance system shall be discharged to an adequate channel as defined in the Virginia Erosion and Sediment Control Regulations (4VAC50-30). In addition, all control measures shall be employed in a manner that minimizes impacts on the physical, chemical and biological integrity of rivers, streams, and other state waters, is protective of water quality standards, and is consistent with Section II D 6 and D 7 and other applicable provisions of this permit.

d. Other controls.

(1) The SWPPP shall describe measures to prevent the discharge of solid materials, including building materials, garbage, and debris to state waters, except as authorized by a Clean Water Act § 404 permit.

(2) The SWPPP shall describe control measures used to comply with applicable state or local waste disposal, sanitary sewer or septic system regulations.

(3) The SWPPP shall include a description of construction and waste materials expected to be stored on-site with updates as appropriate. The SWPPP shall also include a description of controls including storage practices, to minimize exposure of the materials to stormwater, and for spill prevention and response.

(4) The SWPPP shall include a description of pollutant sources from off-site areas (including stormwater discharges from dedicated asphalt plants and dedicated concrete plants), and a description of control measures that will be implemented at those sites to minimize pollutant discharges.

e. Applicable state or local programs. The control measures implemented at the site shall be consistent with all applicable federal, state, or local requirements for erosion and sediment control and stormwater management. The SWPPP shall be updated as necessary to reflect any revisions to applicable federal, state or local requirements that affect the control measures implemented at the site.

3. Maintenance of controls.

a. All control measures must be properly maintained in effective operating condition in accordance with good engineering practices and, where applicable, manufacturer specifications. If site inspections required by Section II D 4 identify control measures that are not operating effectively, maintenance shall be performed as soon as practicable to maintain the continued effectiveness of stormwater controls.

b. If site inspections required by Section II D 4 identify existing control measures that need to be modified or if additional control measures are necessary for any reason, implementation shall be completed before the next anticipated storm event. If implementation before the next anticipated storm event is impracticable, the situation shall be documented in the SWPPP and alternative control measures shall be implemented as soon as practicable.

4. Inspections. The name and phone number of qualified personnel conducting inspections shall be included in the SWPPP.

a. Inspections shall be conducted (i) at least every seven calendar days; or (ii) at least once every 14 calendar days and within 48 hours following any runoff producing storm event. Where areas have been temporarily stabilized or runoff is unlikely due to winter conditions (e.g., the site is covered with snow or ice, or frozen ground exists) such inspections shall be conducted at least once every month.

b. Inspections must include all areas of the site disturbed by construction activity, off-site areas covered by the permit, and areas used for storage of materials that are exposed to precipitation, but does not need to include areas identified pursuant to Section II A 5. Inspectors must look for evidence of, or the potential for, pollutants entering a stormwater conveyance system. Control measures identified in the SWPPP shall be inspected for proper installation, maintenance, and operation. Discharge locations, where accessible, shall be inspected to ascertain whether control measures are effective in minimizing impacts to receiving waters. Where discharge locations are inaccessible, nearby downstream locations shall be inspected to the extent that such inspections are practicable. Locations where vehicles enter or exit the site shall be inspected for evidence of off-site sediment tracking.

c. Utility line installation, pipeline construction, and other examples of long, narrow, linear construction activities may limit the access of inspection personnel to the areas described in Section II D 4 b. Inspection of these areas could require that vehicles compromise temporarily or even permanently stabilized areas, cause additional disturbance of soils, and increase the potential for erosion. In these circumstances, controls must be inspected on the same frequencies as other construction projects, but representative inspections may be performed. For representative inspections, personnel must inspect controls along the construction site for 0.25 miles above and below each access point where a roadway, undisturbed right-of-way, or other similar feature intersects the construction site and allows access to the areas described above. The conditions of the controls along each inspected 0.25-mile segment

may be considered as representative of the condition of controls along that reach extending from the end of the 0.25-mile segment to either the end of the next 0.25-mile segment, or to the end of the project, whichever occurs first. Inspection locations must be listed in the report required by Section II D 4 d.

d. A report summarizing the scope of the inspection, names and qualifications of personnel making the inspection, the dates of the inspection, major observations relating to the implementation of the SWPPP, and actions taken in accordance with Section II D 4 d of the permit shall be made and retained as part of the SWPPP in accordance with Section III B of this permit. Major observations should include:

- (1) The location(s) of discharges of sediment or other pollutants from the site;
- (2) Location(s) of control measures that need to be maintained;
- (3) Location(s) of control measures that failed to operate as designed or proved inadequate for a particular location;
- (4) Location(s) where additional control measures are needed that did not exist at the time of inspection;
- (5) Corrective action required including any changes to the SWPPP that are necessary and implementation dates;
- (6) An estimate of the amount of rainfall at the construction site (in inches) from the runoff producing storm event requiring the inspection, or if inspecting on a seven-day schedule, the amount of rainfall (in inches) since the previous inspection; and
- (7) Weather information and a description of any discharges occurring at the time of inspection.

A record of each inspection and of any actions taken in accordance with Section II must be retained by the operator as part of the SWPPP for at least three years from the date that permit coverage expires or is terminated. The inspection reports shall identify any incidents of noncompliance. Where a report does not identify any incidents of noncompliance, the report shall contain a certification that the facility is in compliance with the SWPPP and this permit. The report shall be signed in accordance with Section III K of this permit.

5. Nonstormwater discharge management. The SWPPP shall identify all allowable sources of nonstormwater discharges listed in Section I D 2 of this permit that are combined with stormwater discharges from the construction activity at the site, except for flows from fire fighting activities. The SWPPP shall identify and require the implementation of appropriate control measures for the nonstormwater components of the discharge.

6. Total maximum daily loads. A total maximum daily load (TMDL) approved by the State Water Control Board may include a wasteload allocation to the regulated construction activity that identifies the pollutant for which stormwater control measures are necessary for the surface waters to meet water quality standards. The pollutant identified in a wasteload allocation as of the effective date of this permit must be specified in the SWPPP. The SWPPP shall include strategies and control measures to ensure consistency with the assumptions and requirements of

the TMDL WLA that apply to the operator's discharge. In a situation where a TMDL has specified a general wasteload allocation applicable to construction stormwater discharges, but no specific requirements for construction sites have been identified in the TMDL, the operator shall consult with the state or federal TMDL authority to confirm that meeting permit requirements will be consistent with the approved TMDL. If the TMDL specifically precludes such discharges, the operator is not eligible for coverage under the general permit.

7. Impaired waters. In accordance with Section I H, control measures shall be protective of water quality standards for impaired waters identified as having impairments for pollutants that may be discharged from the construction activity in the 2008 § 305(b)/303(d) Water Quality Assessment Integrated Report .

### SECTION III CONDITIONS APPLICABLE TO ALL VSMP PERMITS

NOTE: Discharge monitoring is not required for this permit. If the operator chooses to monitor stormwater discharges or control measures, the operator must comply with the requirements of subsections A, B, and C, as appropriate.

#### A. Monitoring.

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitoring activity.
2. Monitoring shall be conducted according to procedures approved under 40 CFR Part 136 (2001) or alternative methods approved by the U.S. Environmental Protection Agency, unless other procedures have been specified in this permit.
3. The operator shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will ensure accuracy of measurements.

#### B. Records.

1. Monitoring records and reports shall include:
  - a. The date, exact place, and time of sampling or measurements;
  - b. The individual(s) who performed the sampling or measurements;
  - c. The date(s) and time(s) analyses were performed;
  - d. The individual(s) who performed the analyses;
  - e. The analytical techniques or methods used; and
  - f. The results of such analyses.
2. The operator shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the registration statement for this permit, for a period of at least three years from the date of the sample, measurement, report or request for coverage. This period of retention shall be extended automatically during the course of any unresolved litigation regarding

the regulated activity or regarding control standards applicable to the operator, or as requested by the board.

C. Reporting monitoring results.

1. The operator shall update the SWPPP to include the results of the monitoring as may be performed in accordance with this permit, unless another reporting schedule is specified elsewhere in this permit.
2. Monitoring results shall be reported on a discharge monitoring report (DMR); on forms provided, approved or specified by the department; or in any format provided that the date, location, parameter, method, and result of the monitoring activity are included.
3. If the operator monitors any pollutant specifically addressed by this permit more frequently than required by this permit using test procedures approved under 40 CFR Part 136 (2001) or using other test procedures approved by the U.S. Environmental Protection Agency or using procedures specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the department.
4. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

D. Duty to provide information. The operator shall furnish, within a reasonable time, any information which the board, department, or other permit-issuing authority may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The board, department, or other permit-issuing authority may require the operator to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from his discharge on the quality of state waters, or such other information as may be necessary to accomplish the purposes of the CWA and the Virginia Stormwater Management Act. The operator shall also furnish to the board, department, or other permit-issuing authority, upon request, copies of records required to be kept by this permit.

E. Compliance schedule reports. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

F. Unauthorized stormwater discharges. Pursuant to § 10.1-603.2:2 A of the Code of Virginia, except in compliance with a permit issued by the permit-issuing authority, it shall be unlawful to cause a stormwater discharge from a construction activity.

G. Reports of unauthorized discharges. Any operator who discharges or causes or allows a discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance or a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110 (2002), 40 CFR Part 117 (2002), or 40 CFR Part 302 (2002) that occurs during a 24-hour period into or upon state waters or who discharges or causes or allows a discharge that may reasonably be expected to enter state waters, shall notify the Department of Environmental Quality of the discharge immediately upon discovery of the discharge, but in no case later than within 24 hours after said discovery. A written report of the unauthorized discharge shall



be submitted to the department, the Department of Environmental Quality, and the permit-issuing authority within five days of discovery of the discharge. The written report shall contain:

1. A description of the nature and location of the discharge;
2. The cause of the discharge;
3. The date on which the discharge occurred;
4. The length of time that the discharge continued;
5. The volume of the discharge;
6. If the discharge is continuing, how long it is expected to continue;
7. If the discharge is continuing, what the expected total volume of the discharge will be; and
8. Any steps planned or taken to reduce, eliminate and prevent a recurrence of the present discharge or any future discharges not authorized by this permit.

Discharges reportable to the department, the Department of Environmental Quality, and the permit-issuing authority under the immediate reporting requirements of other regulations are exempted from this requirement.

H. Reports of unusual or extraordinary discharges. If any unusual or extraordinary discharge including a "bypass" or "upset", as defined herein, should occur from a facility and the discharge enters or could be expected to enter state waters, the operator shall promptly notify, in no case later than within 24 hours, the department, the Department of Environmental Quality, and the permit-issuing authority by telephone after the discovery of the discharge. This notification shall provide all available details of the incident, including any adverse effects on aquatic life and the known number of fish killed. The operator shall reduce the report to writing and shall submit it to the department, the Department of Environmental Quality, and the permit-issuing authority within five days of discovery of the discharge in accordance with Section III I 2. Unusual and extraordinary discharges include but are not limited to any discharge resulting from:

1. Unusual spillage of materials resulting directly or indirectly from processing operations;
2. Breakdown of processing or accessory equipment;
3. Failure or taking out of service of some or all of the facilities; and
4. Flooding or other acts of nature.

I. Reports of noncompliance. The operator shall report any noncompliance which may adversely affect state waters or may endanger public health.

1. An oral report to the department, the Department of Environmental Quality, and the permit-issuing authority shall be provided within 24 hours from the time the operator becomes aware of the circumstances. The following shall be included as information that shall be reported within 24 hours under this subdivision:

- a. Any unanticipated bypass; and
- b. Any upset that causes a discharge to state waters.

2. A written report shall be submitted within five days and shall contain:

- a. A description of the noncompliance and its cause;

b. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and

c. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The permit-issuing authority may waive the written report on a case-by-case basis for reports of noncompliance under Section III I if the oral report has been received within 24 hours and no adverse impact on state waters has been reported.

3. The operator shall report all instances of noncompliance not reported under Section III I 1 or 2 in writing as part of the SWPPP. The reports shall contain the information listed in Section III I 2.

NOTE: The reports required in Section III G, H and I shall be made to the department's Stormwater Program Section of the Division of Soil and Water Conservation, appropriate Department of Environmental Quality's Regional Office Pollution Response Program, and the permit-issuing authority. Reports may be made by telephone or by fax. For reports outside normal working hours, leaving a recorded message shall fulfill the immediate reporting requirement. For emergencies, the Virginia Department of Emergency Management maintains a 24-hour telephone service at 1-800-468-8892.

4. Where the operator becomes aware of a failure to submit any relevant facts, or submittal of incorrect information in any report, including a registration statement, to the department or the permit-issuing authority, the operator shall promptly submit such facts or correct information.

J. Notice of planned changes.

1. The operator shall give notice to the permit-issuing authority as soon as possible of any planned physical alterations or additions to the permitted facility or activity. Notice is required only when:

a. The operator plans an alteration or addition to any building, structure, facility, or installation that may meet one of the criteria for determining whether a facility is a new source in 4VAC50-60-420;

b. The operator plans an alteration or addition that would significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this permit; or

2. The operator shall give advance notice to the permit-issuing authority of any planned changes in the permitted facility or activity, which may result in noncompliance with permit requirements.

K. Signatory requirements.

1. Registration statement. All registration statements shall be signed as follows:

a. For a corporation: by a responsible corporate officer. For the purpose of this part, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy-making or decision-making



functions for the corporation; or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

c. For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this part, a principal executive officer of a public agency includes: (i) the chief executive officer of the agency or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

2. Reports, etc. All reports required by permits, including SWPPPs, and other information requested by the board, the department, or the permit-issuing authority shall be signed by a person described in Section III K 1 or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described in Section III K 1;

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the operator. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

c. The signed and dated written authorization is included in the SWPPP. A copy must be provided to the permit-issuing authority, if requested.

3. Changes to authorization. If an authorization under Section III K 2 is no longer accurate because a different individual or position has responsibility for the overall operation of the construction activity, a new authorization satisfying the requirements of Section III K 2 shall be submitted to the permit-issuing authority prior to or together with any reports or information to be signed by an authorized representative.

4. Certification. Any person signing a document under Section III K 1 or 2 shall make the following certification:

"I certify under penalty of law that I have read and understand this document and that this document and all attachments were prepared in accordance with a system

designed to assure that qualified personnel properly gathered and evaluated 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."

L. Duty to comply. The operator shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Virginia Stormwater Management Act and the Clean Water Act, except that noncompliance with certain provisions of this permit may constitute a violation of the Virginia Stormwater Management Act but not the Clean Water Act. Permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

The operator shall comply with effluent standards or prohibitions established under § 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if this permit has not yet been modified to incorporate the requirement.

M. Duty to reapply. If the operator wishes to continue an activity regulated by this permit after the expiration date of this permit, the operator shall submit a new registration statement at least 90 days before the expiration date of the existing permit, unless permission for a later date has been granted by the board. The board shall not grant permission for registration statements to be submitted later than the expiration date of the existing permit.

N. Effect of a permit. This permit does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorize any injury to private property or invasion of personal rights, or any infringement of federal, state or local law or regulations.

O. State law. Nothing in this permit shall be construed to preclude the institution of any legal action under, or relieve the operator from any responsibilities, liabilities, or penalties established pursuant to any other state law or regulation or under authority preserved by § 510 of the Clean Water Act. Except as provided in permit conditions on "bypassing" (Section III U) and "upset" (Section III V), nothing in this permit shall be construed to relieve the operator from civil and criminal penalties for noncompliance.

P. Oil and hazardous substance liability. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the operator from any responsibilities, liabilities, or penalties to which the operator is or may be subject under §§ 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law or § 311 of the Clean Water Act.

Q. Proper operation and maintenance. The operator shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances), which are installed or used by the operator to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes effective plant performance, adequate funding, adequate staffing, and adequate laboratory and

process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems, which are installed by the operator only when the operation is necessary to achieve compliance with the conditions of this permit.

R. Disposal of solids or sludges. Solids, sludges or other pollutants removed in the course of treatment or management of pollutants shall be disposed of in a manner so as to prevent any pollutant from such materials from entering state waters and in compliance with all applicable state and federal laws and regulations.

S. Duty to mitigate. The operator shall take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

T. Need to halt or reduce activity not a defense. It shall not be a defense for an operator in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

U. Bypass.

1. "Bypass", as defined in 4VAC50-60-10, means the intentional diversion of waste streams from any portion of a treatment facility. The operator may allow any bypass to occur that does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to ensure efficient operation. These bypasses are not subject to the provisions of Section III U 2 and 3 herein.

2. Notice.

a. Anticipated bypass. If the operator knows in advance of the need for a bypass, the operator shall submit prior notice to the department, if possible at least 10 days before the date of the bypass.

b. Unanticipated bypass. The operator shall submit notice of an unanticipated bypass as required in Section III I herein.

3. Prohibition of bypass.

a. Except as provided in Section III U 1, bypass is prohibited, and the permit-issuing authority may take enforcement action against an operator for bypass unless:

(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage. Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production;

(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and

(3) The operator submitted notices as required under Section III U 2.

- b. The permit-issuing authority may approve an anticipated bypass, after considering its adverse effects, if the permit-issuing authority determines that it will meet the three conditions listed in Section III U 3 a.

#### V. Upset.

1. An upset, as defined in 4VAC50-60-10, means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the operator. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
2. An upset constitutes an affirmative defense to an action brought for noncompliance with technology-based permit effluent limitations if the requirements of Section III V 2 herein are met. A determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is not a final administrative action subject to judicial review.
3. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.
4. An operator who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that:
  - a. An upset occurred and that the operator can identify the cause(s) of the upset;
  - b. The permitted facility was at the time being properly operated;
  - c. The operator submitted notice of the upset as required in Section III I herein; and
  - d. The operator complied with any remedial measures required under Section III S herein.
5. In any enforcement proceeding, the operator seeking to establish the occurrence of an upset has the burden of proof.

W. Inspection and entry. The operator shall allow the department as the board's designee, the permit-issuing authority, EPA, or an authorized representative of either entity (including an authorized contractor), upon presentation of credentials and other documents as may be required by law to:

1. Enter upon the operator's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect and photograph at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor at reasonable times, for the purposes of ensuring permit compliance or as otherwise authorized by the Clean Water Act or the Virginia Stormwater Management Act, any substances or parameters at any location.

For purposes of this section, the time for inspection shall be deemed reasonable during regular business hours, and whenever the facility is discharging. Nothing contained herein shall make an inspection unreasonable during an emergency.

X. Permit actions. Permits may be modified, revoked and reissued, or terminated for cause. The filing of a request by the operator for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Y. Transfer of permits.

1. Permits are not transferable to any person except after notice to the permit-issuing authority. Except as provided in Section III Y 2, a permit may be transferred by the operator to a new operator only if the permit has been modified or revoked and reissued, or a minor modification made, to identify the new operator and incorporate such other requirements as may be necessary under the Virginia Stormwater Management Act and the Clean Water Act.

2. As an alternative to transfers under Section III Y 1, this permit may be automatically transferred to a new operator if:

a. The current operator notifies the permit-issuing authority at least 30 days in advance of the proposed transfer of the title to the facility or property;

b. The notice includes a written agreement between the existing and new operators containing a specific date for transfer of permit responsibility, coverage, and liability between them; and

c. The permit-issuing authority does not notify the existing operator and the proposed new operator of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Section III Y 2 b.

3. For ongoing construction activity involving a change of operator, the new operator shall accept and maintain the existing SWPPP, or prepare and implement a new SWPPP prior to taking over operations at the site.

Z. Severability. The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

#### **4VAC50-60-1180. Applicability.**

Operators receiving coverage under this general permit shall remain subject to the water quality and quantity criteria set forth in 4VAC50-60-1182 through 4VAC50-60-1190, which specify technical criteria for every land-disturbing activity regulated by this general permit.

**4VAC50-60-1182. General.**

A. Determination of flooding and channel erosion impacts to receiving streams due to land-disturbing activities shall be measured at each point of discharge from the land disturbance and such determination shall include any runoff from the balance of the watershed that also contributes to that point of discharge.

B. The specified design storms shall be defined as either a 24-hour storm using the rainfall distribution recommended by the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) when using NRCS methods or as the storm of critical duration that produces the greatest required storage volume at the site when using a design method such as the Modified Rational Method.

C. For purposes of computing runoff, all pervious lands in the site shall be assumed prior to development to be in good condition (if the lands are pastures, lawns, or parks), with good cover (if the lands are woods), or with conservation treatment (if the lands are cultivated); regardless of conditions existing at the time of computation.

D. Construction of stormwater management facilities or modifications to channels shall comply with all applicable laws and regulations. Evidence of approval of all necessary permits shall be presented.

E. Impounding structures that are not covered by the Impounding Structure Regulations (4VAC50-20) shall be engineered for structural integrity during the 100-year storm event.

F. Predevelopment and postdevelopment runoff rates shall be verified by calculations that are consistent with good engineering practices.

G. Outflows from a stormwater management facility or stormwater conveyance system, shall be discharged to an adequate channel.

H. Proposed residential, commercial, or industrial subdivisions shall apply these stormwater management criteria to the land disturbance as a whole. Individual lots in new subdivisions shall not be considered separate land-disturbing activities, but rather the entire subdivision shall be considered a single land development project. Hydrologic parameters shall reflect the ultimate land disturbance and shall be used in all engineering calculations.

I. All stormwater management facilities shall have an inspection and maintenance plan that identifies the owner and the responsible party for carrying out the inspection and maintenance plan.

J. Construction of stormwater management impoundment structures within a Federal Emergency Management Agency (FEMA) designated 100-year floodplain shall be avoided to the extent possible. When this is unavoidable, all stormwater management facility construction shall be in compliance with all applicable regulations under the National Flood Insurance Program, 44 CFR Part 59.

K. Natural channel characteristics shall be preserved to the maximum extent practicable.

L. Land-disturbing activities shall comply with the Virginia Erosion and Sediment Control Law (§ 10.1-560 et seq. of the Code of Virginia) and attendant regulations.



M. Flood control and stormwater management facilities that drain or treat water from multiple development projects or from a significant portion of a watershed may be allowed in Resource Protection Areas defined in the Chesapeake Bay Preservation Act, provided that (i) the local government has conclusively established that the location of the facility within the Resource Protection Area is the optimum location; (ii) the size of the facility is the minimum necessary to provide necessary flood control, stormwater treatment, or both; and (iii) the facility must be consistent with a stormwater management program that has been approved by the board, the Chesapeake Bay Local Assistance Board, or the Board of Conservation and Recreation.

#### **4VAC50-60-1184. Water quality.**

A. Compliance with the water quality criteria may be achieved by applying the performance-based criteria or the technology-based criteria to either the site or a planning area.

B. Performance-based criteria. For land-disturbing activities, the calculated postdevelopment nonpoint source pollutant runoff load shall be compared to the calculated predevelopment load based upon the average land cover condition or the existing site condition. A BMP shall be located, designed, and maintained to achieve the target pollutant removal efficiencies specified in Table 1 of this section to effectively reduce the pollutant load to the required level based upon the following four applicable land development situations for which the performance criteria apply:

1. Situation 1 consists of land-disturbing activities where the existing percent impervious cover is less than or equal to the average land cover condition and the proposed improvements will create a total percent impervious cover that is less than the average land cover condition.

Requirement: No reduction in the after disturbance pollutant discharge is required.

2. Situation 2 consists of land-disturbing activities where the existing percent impervious cover is less than or equal to the average land cover condition and the proposed improvements will create a total percent impervious cover that is greater than the average land cover condition.

Requirement: The pollutant discharge after disturbance shall not exceed the existing pollutant discharge based on the average land cover condition.

3. Situation 3 consists of land-disturbing activities where the existing percent impervious cover is greater than the average land cover condition.

Requirement: The pollutant discharge after disturbance shall not exceed (i) the pollutant discharge based on existing conditions less 10% or (ii) the pollutant discharge based on the average land cover condition, whichever is greater.

4. Situation 4 consists of land-disturbing activities where the existing percent impervious cover is served by an existing stormwater management BMP that addresses water quality.

Requirement: The pollutant discharge after disturbance shall not exceed the existing pollutant discharge based on the existing percent impervious cover while

served by the existing BMP. The existing BMP shall be shown to have been designed and constructed in accordance with proper design standards and specifications, and to be in proper functioning condition.

C. Technology-based criteria. For land-disturbing activities, the postdeveloped stormwater runoff from the impervious cover shall be treated by an appropriate BMP as required by the postdeveloped condition percent impervious cover as specified in Table 1 of this section. The selected BMP shall be located, designed, and maintained to perform at the target pollutant removal efficiency specified in Table 1. Design standards and specifications for the BMPs in Table 1 that meet the required target pollutant removal efficiency will be available at the department.

Table 1\*

Water Quality BMP*	Target Phosphorus Removal Efficiency	Percent Impervious Cover
Vegetated filter strip	10%	16-21%
Grassed Swale	15%	
Constructed wetlands	20%	22-37%
Extended detention (2 x WQ Vol)	35%	
Retention basin I (3 x WQ Vol)	40%	
Bioretention basin	50%	38-66%
Bioretention filter	50%	
Extended detention-enhanced	50%	
Retention basin II (4 x WQ Vol)	50%	
Infiltration (1 x WQ Vol)	50%	
Sand filter	65%	67-100%
Infiltration (2 x WQ Vol)	65%	
Retention basin III (4 x WQ Vol with aquatic bench)	65%	

\*Innovative or alternate BMPs not included in this table may be allowed at the discretion of the local program administrator or the department. Innovative or alternate BMPs not included in this table that target appropriate nonpoint source pollution other than phosphorous may be allowed at the discretion of the local program administrator or the department.



#### **4VAC50-60-1186. Stream channel erosion.**

A. Properties and receiving waterways downstream of any land-disturbing activity shall be protected from erosion and damage due to changes in runoff rate of flow and hydrologic characteristics, including but not limited to, changes in volume, velocity, frequency, duration, and peak flow rate of stormwater runoff in accordance with the minimum design standards set out in this section.

B. The permit-issuing authority shall require compliance with subdivision 19 of 4VAC50-30-40 of the Erosion and Sediment Control Regulations, promulgated pursuant to Article 4 (§ 10.1-560 et seq.) of Chapter 5 of Title 10.1 of the Code of Virginia.

C. The permit-issuing authority may determine that some watersheds or receiving stream systems require enhanced criteria in order to address the increased frequency of bankfull flow conditions (top of bank) brought on by land-disturbing activities. Therefore, in lieu of the reduction of the two-year post-developed peak rate of runoff as required in subsection B of this section, the land development project being considered shall provide 24-hour extended detention of the runoff generated by the one-year, 24-hour duration storm.

D. In addition to subsections B and C of this section, permit-issuing authorities, by local ordinance may, or the board by state regulation may, adopt more stringent channel analysis criteria or design standards to ensure that the natural level of channel erosion, to the maximum extent practicable, will not increase due to the land-disturbing activities. These criteria may include, but are not limited to, the following:

1. Criteria and procedures for channel analysis and classification.
2. Procedures for channel data collection.
3. Criteria and procedures for the determination of the magnitude and frequency of natural sediment transport loads.
4. Criteria for the selection of proposed natural or manmade channel linings.

#### **4VAC50-60-1188. Flooding.**

A. Downstream properties and waterways shall be protected from damages from localized flooding due to changes in runoff rate of flow and hydrologic characteristics, including but not limited to, changes in volume, velocity, frequency, duration, and peak flow rate of stormwater runoff in accordance with the minimum design standards set out in this section.

B. The 10-year postdeveloped peak rate of runoff from the development site shall not exceed the 10-year predeveloped peak rate of runoff.

C. In lieu of subsection B of this section, localities may, by ordinance, adopt alternate design criteria based upon geographic, land use, topographic, geologic factors or other downstream conveyance factors as appropriate.

D. Linear development projects shall not be required to control post-developed stormwater runoff for flooding, except in accordance with a watershed or regional stormwater management plan.

**4VAC50-60-1190. Regional (watershed-wide) stormwater management plans.**

This section enables localities to develop regional stormwater management plans. State agencies intending to develop large tracts of land such as campuses or prison compounds are encouraged to develop regional plans where practical.

The objective of a regional stormwater management plan is to address the stormwater management concerns in a given watershed with greater economy and efficiency by installing regional stormwater management facilities versus individual, site-specific facilities. The result will be fewer stormwater management facilities to design, build and maintain in the affected watershed. It is also anticipated that regional stormwater management facilities will not only help mitigate the impacts of new development, but may also provide for the remediation of erosion, flooding or water quality problems caused by existing development within the given watershed.

If developed, a regional plan shall, at a minimum, address the following:

1. The specific stormwater management issues within the targeted watersheds.
2. The technical criteria in 4VAC50-60-1180 through 4VAC50-60-1188 as needed based on subdivision 1 of this section.
3. The implications of any local comprehensive plans, zoning requirements, local ordinances pursuant to the Chesapeake Bay Preservation Area Designation and Management Regulations adopted pursuant to the Chesapeake Bay Preservation Act, and other planning documents.
4. Opportunities for financing a watershed plan through cost sharing with neighboring agencies or localities, implementation of regional stormwater utility fees, etc.
5. Maintenance of the selected stormwater management facilities.
6. Future expansion of the selected stormwater management facilities in the event that development exceeds the anticipated level.

## APPENDIX D

### *Appomattox TMDL Information*

- (1) Watershed Profile
- (2) 2010 Impaired Waters List
- (3) Table ES.1.1 from Appomattox TMDL  
(Waste Load Allocations for the Appomattox River watershed)



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# Appomattox Watershed -- 02080207

## Appomattox

### Watershed Profile

Watershed Name: Appomattox  
 USGS Cataloging Unit: 02080207  
 VA 3rd Congressional District  
 VA 4th Congressional District  
 VA 5th Congressional District  
 VA 7th Congressional District



[Citizen-based Groups at work in this watershed](#)  
 (Provided by [Adopt your Watershed](#))

[Water quality monitoring data from this watershed](#)  
 (Provided by STORET)

[Environmental Websites Involving this Watershed](#)

### Assessments of Watershed Health

[Impaired Water for this watershed](#)

*Assessed Waters by Watershed*  
[Virginia](#)



### Information provided by the United States Geological Survey (USGS) [EXIT Disclaimer](#)

[Stream Flow](#) (Source: USGS)

[Science in Your Watershed](#)

[Water use data \(1985-2000\)](#): Information about the amount of water used and how it is used.

[Selected USGS Abstracts](#)

### Places Involving this Watershed

*Counties:*

[Amelia](#)  
[Appomattox](#)  
[Buckingham](#)  
[Charlotte](#)  
[Chesterfield](#)  
[Cumberland](#)  
[Dinwiddie](#)

[Lunenburg](#)  
[Nottoway](#)  
[Powhatan](#)  
[Prince Edward](#)  
[Prince George](#)  
[Colonial Heights](#)  
[Hopewell](#)  
[Petersburg](#)

[http://cfpub.epa.gov/surf/huc.cfm?huc\\_code=02080207](http://cfpub.epa.gov/surf/huc.cfm?huc_code=02080207)  
Last updated on Wednesday, September 28, 2011

*National Estuary Programs:*

None

*States:*

[Virginia](#)

*Other Watersheds Upstream:*

None

*Other Watersheds Downstream:*

[Lower James](#)

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[Causes of Impairment](#)  
[Cumulative TMDLs by Pollutant](#)

[Virginia State Report](#)

**For More Information:**

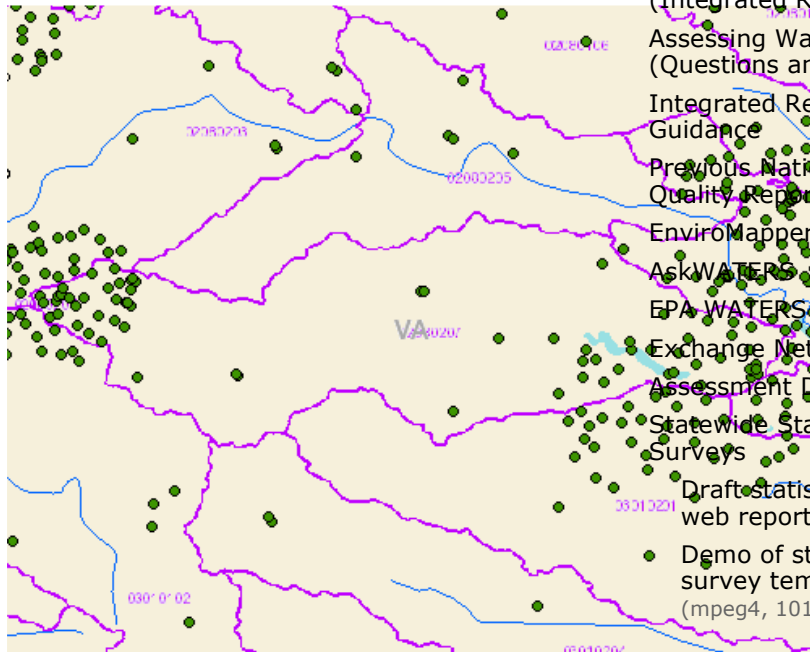
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### Frequent Questions

## Virginia, Appomattox Watershed



- [About This Database \(Integrated Report\)](#)
- [Assessing Water Quality \(Questions and Answers\)](#)
- [Integrated Reporting Guidance](#)
- [Previous National Water Quality Reports](#)
- [EnviroMapper for Water](#)
- [Ask WATERS](#)
- [EPA WATERS Homepage](#)
- [Exchange Network](#)
- [Assessment Database](#)
- [Statewide Statistical Surveys](#)
- [Draft statistical survey web report](#)
- [Demo of statistical survey template \(mpeg4, 101MB zipped\)](#)

Click on the watershed for an interactive map

### Search for a waterbody within Appomattox

Enter Waterbody Name:

## Listed Waters for Reporting Year 2010 Virginia, Appomattox Watershed

[Description of this table](#)

**NOTE:** Click on the underlined "Waterbody Name" to view a Waterbody report.

<a href="#">Waterbody Name</a>	<a href="#">Waterbody ID</a>	<a href="#">Location</a>	<a href="#">Waterbody Type</a>	<a href="#">Size</a>	<a href="#">Units</a>	<a href="#">State TMDL Development Status</a>
<a href="#">Appomattox River</a>	VAP-J15E_APP02A98	The Estuarine Portion Of The Appomattox River From The Start Of Pws At River Mile 6.49 To	Estuary	1.63	square miles	TMDL needed

		The Confluence With The James River. Apptf.				
<u>Appomattox River</u>	VAP-J15R_APP01A98	The Appomattox River From The Lake Chesdin Dam To The Fall Line At The Route 1/301 Bridge.	River	8.17	miles	TMDL needed
<u>Blackman Creek</u>	VAP-J16R_BCM01A04	Headwaters To Mouth Huc: 02080207	River	4.45	miles	TMDL needed
<u>Bland Creek</u>	VAP-J11R_BLO01A00	Bland Creek From Its Headwaters To The Confluence With Cellar Creek.	River	6.35	miles	TMDL needed
<u>Briery Creek</u>	VAC-J05R_BRI01A98	Briery Creek From The Briery Creek Lake Dam To The Confluence With The Bush River.	River	10.13	miles	TMDL needed
<u>Bush River</u>	VAC-J04R_BSR01B10	Bush River From Its Headwaters To The Confluence With Mountain Creek.	River	10.82	miles	TMDL needed
<u>Carbell Swamp - Lower</u>	VAT-G14R_CRL02A08	Upstream Tributary To The Northwest Branch Of Lake Prince (Near Holly Grove Church), Including Confluent Trib. At Station Originating From The Nw. Begins At Branch & Joyner Millpond Downstream To Joining Lake Prince.	River	1.33	miles	TMDL needed

		Within Pws For City Of Norfolk.				
<u>Carbell Swamp - Upper</u>	VAT-G14R_CRL01A08	Upper Portion Of Swamp. Upstream Tributary To The Northwest Branch Of Lake Prince (Near Holly Grove Church). Entire Watershed Is Portion Of Pws For City Of Norfolk.	River	2.55	miles	TMDL needed
<u>Cattle Creek</u>	VAP-J14R_CCC01A06	Cattle Creek From Headwaters To The Limit With Lake Chesdin	River	2.16	miles	TMDL needed
<u>Cellar Creek</u>	VAP-J11R_CLR01B10	From The Confluence Of Bland Creek To The Mouth At Deep Creek	River	2.71	miles	TMDL needed
<u>Church Branch</u>	VAP-J17R_CUR01A08	From Headwaters To The Mouth At Franks Branch	River	2.56	miles	TMDL needed
<u>Crane Creek</u>	VAC-J01R_CNE01A10	Crane Creek From Its Headwaters To Its Mouth On Vaughans Creek	River	4.94	miles	TMDL needed
<u>Franks Branch</u>	VAP-J17R_FNK01A00	Franks Branch From The Headwaters To The Mouth At Swift Creek.	River	10.04	miles	TMDL needed
<u>Goodes Creek</u>	VAP-J10R_GOC01A08	From The Dam Of The Pond Located At Approximately 2.73 Miles From The Mouth To The Appomattox	River	2.72	miles	TMDL needed
<u>Goodwin Lake</u>	VAC-J03L_XEP01A06	Prince Edward And Goodwin Lake State Park	Reservoir	13.45	acres	TMDL needed
<u>Horsepen Branch</u>	VAP-J12R_HOI01A00	Horsepen Branch From Its	River	4.37	miles	TMDL needed



		Headwaters To The Confluence With The Appomattox River.				
<u>Lake Nottoway (Lee Lake)</u>	VAP-J11L_LDJ01A98	Extent Of Backwater For Lake Nottoway (Lee Lake)	Reservoir	188	acres	TMDL needed
<u>Long Swamp</u>	VAP-J17R_LNS01A10	From Its Headwater To The Mouth At Swift Creek	River	3.65	miles	TMDL needed
<u>Lower Appomattox River/Ashton Creek</u>	VAP-J15E_APP01A98	The Estuarine Appomattox River From The Fall Line To River Mile 6.49. Apptf.	Estuary	.94	square miles	TMDL needed
<u>Mountain Creek</u>	VAC-J04R_MTC01A10	Mountain Creek From Its Headwaters To Its Mouth On Bush River.	River	8.72	miles	TMDL needed
<u>Nuttree Branch</u>	VAP-J17R_NUT01A06	Nuttree Branch From Headwaters To Mouth At Swift Creek.	River	5.31	miles	TMDL needed
<u>Old Town Creek</u>	VAP-J15R_OTC01B08	Headwaters To The Confluence Of Big Branch	River	6.61	miles	TMDL needed
<u>Oldtown Creek</u>	VAP-J15R_OTC01A00	Oldtown Creek From The Confluence With Big Branch To The Fall Line.	River	3.57	miles	TMDL needed
<u>Second Branch</u>	VAP-J17R_SEC01B06	Second Branch From Headwaters Downstream To Confluence With Mann Creek	River	5.84	miles	TMDL needed
<u>Stoney Creek</u>	VAP-J14R_STY01A08	Headwaters To Lake Chesdin	River	2.22	miles	TMDL needed
<u>Swift Creek</u>	VAP-J17R_SFT01B98	Swift Creek From The Swift Creek Lake Dam Downstream To The Confluence	River	7.09	miles	TMDL needed

		With Licking Creek.				
<u>Swift Creek</u>	VAP-J17R_SFT02A00	Swift Creek From Reedy Branch To The Limit Of Swift Creek Lake.	River	2.79	miles	TMDL needed
<u>Swift Creek</u>	VAP-J17E_SFT01D04	Tidal Swift Creek From The Confluence With Timsbury Creek Downstream To The Mouth At The Appomattox River Apptf.	Estuary	.0866	square miles	TMDL needed
<u>Swift Creek</u>	VAP-J17E_SFT01D04	Tidal Swift Creek From The Confluence With Timsbury Creek Downstream To The Mouth At The Appomattox River Apptf.	River	.09	miles	TMDL needed
<u>Swift Creek</u>	VAP-J17R_SFT01A00	Swift Creek From The Swift Creek Reservoir Dam Downstream To The Confluence With Reedy Creek.	River	3.66	miles	TMDL needed
<u>Swift Creek Lake</u>	VAP-J17L_SFT01A98	Swift Creek Lake	Reservoir	102.42	acres	TMDL needed
<u>Timsbury Creek</u>	VAP-J17R_TBY01A06	Timsbury Creek From Headwaters To Mouth At Swift Creek.	River	6.65	miles	TMDL needed
<u>Unsegmented Portion In J17e Watershed</u>	VAP-J17E_ZZZ02A02	Unsegmented Portion Of J17e Watershed Huc: 02080207 Apptf	Estuary	.05	square miles	TMDL needed
<u>Ut To Appomattox River</u>	VAP-J10R_XUE01A06	Headwaters To The Mouth	River	1.49	miles	TMDL needed
<u>Winticomack Creek</u>	VAP-J12R_WTK02A00	Winticomack Creek From The	River	3.96	miles	TMDL needed

		Confluence With Long Branch To The Confluence With The Appomattox River.		
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### Causes of Impairment for Reporting Year 2010

#### Virginia, Appomattox

[Description of this table](#)

<b>NOTE:</b> Click on the underlined "Cause of Impairment" value to see a listing of those waters with that cause of impairment.			
<a href="#">Cause of Impairment</a>	Size of Assessed Waters with Listed Causes of Impairment		
	<a href="#">Rivers and Streams (Miles)</a>	<a href="#">Lakes, Reservoirs, and Ponds (Acres)</a>	<a href="#">Bays and Estuaries (Square Miles)</a>
<a href="#">pH</a>	68.2		
<a href="#">Fecal Coliform</a>	20.6		
<a href="#">Dissolved Oxygen</a>	57.8	275.9	
<a href="#">Aquatic Plants (Macrophytes)</a>			2.7
<a href="#">Benthic Macroinvertebrates Bioassessments</a>	56.6		
<a href="#">Escherichia Coli (E. Coli)</a>	394.5		2.1
<a href="#">PCB(s) in Fish Tissue</a>	7.5		2.6

### Cumulative TMDLs by Pollutant

#### Virginia, Appomattox Watershed

This chart includes TMDLs since October 1, 1995.

[Description of this table](#)

<b>NOTE:</b> Click on the underlined "Number of TMDLs Completed" value to see a listing of those approved TMDLs for the pollutant.		
<a href="#">Pollutant</a>	<a href="#">Number of TMDLs Completed</a>	<a href="#">Number of Causes of Impairment Addressed</a>
<a href="#">Escherichia Coli (E. Coli)</a>	19	19
<a href="#">Ammonia</a>	2	2
<a href="#">Nitrogen, Total</a>	2	2
<a href="#">Organic Enrichment</a>	1	1
<a href="#">Zinc</a>	1	1

**Total: 25 TMDLs; 25 Causes of Impairment**

[http://oaspub.epa.gov/tmdl/attains\\_watershed.control?p\\_huc=02080207&p\\_cycle=&p\\_report\\_type=T](http://oaspub.epa.gov/tmdl/attains_watershed.control?p_huc=02080207&p_cycle=&p_report_type=T)

Last updated on Wednesday, September 28, 2011

**Search TMDL Documents**

[Full Text Search of TMDL Documents](#)

**Table ES.1.1 Average annual E. coli loads (cfu/year) modeled after TMDL allocation in the Appomattox River watershed impairments.**

Impairment	WLA (cfu/year)	LA (cfu/year)	MOS	TMDL (cfu/year)
Angola Creek (1)	0.00E+00	6.76E+12		6.76E+12
Angola Creek (2)	0.00E+00	1.80E+13		1.80E+13
Appomattox River (1)	4.74E+12	6.86E+14		6.90E+14
<i>Chesterfield</i> --VA0088609	6.64E+09			
VAG402047	1.75E+09			
VAG404002	1.75E+09			
VAG404107	1.75E+09			
VAG404129	1.75E+09			
VAG404140	1.75E+09			
VAG404161	1.75E+09			
VA0083135	4.18E+12			
VAG407199	1.75E+09			
VAG407198	1.75E+09			
VAG404092	1.75E+09			
VA0057088	0.00E+00			
VA0089206	0.00E+00			
VA0086681	5.24E+11			
VA0020222	1.15E+10			
VA0089931	0.00E+00			
Appomattox River (2)	1.07E+13	5.90E+14		6.01E+14
<i>Chesterfield</i> --VA0088609	2.07E+11			
<i>Colonial Heights</i> --VAR040009	1.74E+10			
<i>Petersburg</i> --VAR040013	1.31E+11			
VAG402047	1.75E+09			
VAG404002	1.75E+09			
VAG404107	1.75E+09			
VAG404129	1.75E+09			
VAG404140	1.75E+09			
VAG404161	1.75E+09			
VA0083135	4.18E+12			
VAG407199	1.75E+09			
VAG407198	1.75E+09			
VAG404092	1.75E+09			
VA0057088	0.00E+00			
VA0089206	0.00E+00			
VA0086681	5.24E+11			
VA0020222	1.15E+10			
VA0089931	0.00E+00			
VA0020303	8.71E+11			
VA0090131	0.00E+00			
VA0023540	2.62E+10			
VA0005819	4.70E+12			
VA0059099	0.00E+00			
VA0089516	0.00E+00			

Implicit

**Table ES.1.1 Average annual E. coli loads (cfu/year) modeled after TMDL allocation in the Appomattox River watershed impairments. (Continued)**

Impairment	WLA (cfu/year)	LA (cfu/year)	MOS	TMDL (cfu/year)
Appomattox River (3)-tidal	6.87E+13	7.22E+14		7.91E+14
<i>Chesterfield --VA0088609</i>	1.14E+13			
<i>Colonial Heights --VAR040009</i>	2.49E+12			
<i>Hopewell -- VAR040015</i>	1.44E+12			
<i>Petersburg --VAR040013</i>	1.76E+12			
<i>VAG402047</i>	1.75E+09			
<i>VAG404002</i>	1.75E+09			
<i>VAG404107</i>	1.75E+09			
<i>VAG404129</i>	1.75E+09			
<i>VAG404140</i>	1.75E+09			
<i>VAG404161</i>	1.75E+09			
<i>VA0083135</i>	4.18E+12			
<i>VAG407199</i>	1.75E+09			
<i>VAG407198</i>	1.75E+09			
<i>VAG404092</i>	1.75E+09			
<i>VA0057088</i>	0.00E+00			
<i>VA0089206</i>	0.00E+00			
<i>VA0086681</i>	5.24E+11			
<i>VA0020222</i>	1.15E+10			
<i>VA0089931</i>	0.00E+00			
<i>VA0020303</i>	8.71E+11			
<i>VA0090131</i>	0.00E+00			
<i>VA0023540</i>	2.62E+10			
<i>VA0005819</i>	4.70E+12			
<i>VA0059099</i>	0.00E+00			
<i>VA0089516</i>	0.00E+00			
<i>VA0025437</i>	4.01E+13			
<i>VA0028258</i>	6.81E+10			
<i>VA0059161</i>	8.73E+11			
<i>VA0006254</i>	1.05E+10			
<i>VA0023426</i>	9.59E+10			
<i>VA0020206</i>	1.67E+10			
<i>VA0027561</i>	1.75E+10			
<i>VA0090344</i>	6.99E+10			
Briery Creek	3.50E+09	3.84E+13		3.84E+13
<i>VAG407198</i>	1.75E+09			
<i>VAG404092</i>	1.75E+09			
Bush River (1)	3.50E+09	9.03E+13		9.03E+13
<i>VAG407198</i>	1.75E+09			
<i>VAG404092</i>	1.75E+09			
Bush River (2)	3.50E+09	1.10E+14		1.10E+14
<i>VAG407198</i>	1.75E+09			
<i>VAG404092</i>	1.75E+09			

*Implicit*



**Table ES.1.1 Average annual E. coli loads (cfu/year) modeled after TMDL allocation in the Appomattox River watershed impairments. (Continued)**

Impairment	WLA (cfu/year)	LA (cfu/year)	MOS	TMDL (cfu/year)
Deep Creek (FC)	8.71E+11	1.06E+14		1.06E+14
VA0020303	8.71E+11			
VA0090131	0.00E+00			
Flat Creek	5.24E+11	8.75E+13		8.80E+13
VA0086681	5.24E+11			
Horsepen Creek	0.00E+00	4.44E+12		4.44E+12
Little Sandy Creek	0.00E+00	1.62E+12		1.62E+12
Nibbs Creek	5.24E+11	1.23E+13		1.29E+13
VA0086681	5.24E+11			
Saylers Creek	0.00E+00	1.40E+13		1.40E+13
Spring Creek	0.00E+00	2.08E+13		2.08E+13
Swift Creek (1)	8.37E+09	2.01E+13		2.01E+13
Chesterfield --VA0088609	8.37E+09			
Swift Creek (2)	3.07E+11	8.39E+13		8.42E+13
Chesterfield --VA0088609	1.84E+11			
VA0006254	1.05E+10			
VA0023426	9.59E+10			
VA0020206	1.67E+10			
Swift Creek (3)	4.59E+11	1.28E+14		1.29E+14
Chesterfield --VA0088609	2.38E+11			
Colonial Heights --VAR040009	1.03E+10			
VA0006254	1.05E+10			
VA0023426	9.59E+10			
VA0020206	1.67E+10			
VA0027561	1.75E+10			
VA0090344	6.99E+10			
West Creek	0.00E+00	3.91E+13		3.91E+13
VA0090131	0.00E+00			

Implicit

### **Recommendations for TMDL Implementation**

The goal of this TMDL is to establish a three-step path that will lead to attainment of water quality standards. The first step in this process is to develop TMDLs that will result in meeting water quality standards. Virginia's 1997 Water Quality Monitoring,