



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

Street address: 629 East Main Street, Richmond, Virginia 23219

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[www.deq.virginia.gov](http://www.deq.virginia.gov)

Molly Joseph Ward  
Secretary of Natural Resources

David K. Paylor  
Director

April 1, 2015

(804) 698-4000  
1-800-592-5482

Mr. John A. Vithoulkas  
County Manager  
Henrico County  
P.O. Box 90775  
Henrico, Virginia 23273-0775

**CERTIFIED MAIL  
RETURN RECEIPT REQUESTED**

Transmitted electronically: [manager@henrico.us](mailto:manager@henrico.us)

RE: Virginia Stormwater Management Program (VSMP) Permit Reissuance  
Municipal Separate Storm Sewer System (MS4) Permit No. VA0088617  
Henrico County

Dear Mr. Vithoulkas:

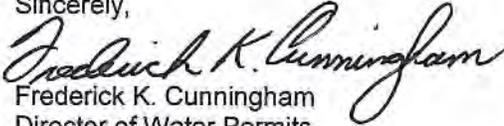
Your Virginia Stormwater Management Program (VSMP) MS4 permit is enclosed. This permit supersedes the previous permit VA0088617 issued to Henrico County. As indicated in the fact sheet, the permit has changed; please read the permit carefully because you are responsible for meeting all permit conditions.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have thirty days after the service of this permit which to appeal this decision by filing a notice of appeal in accordance with the Rules of the Supreme Court of Virginia with the Director, Department of Environmental Quality. In the event that this decision is served on you by mail, three days are added to that period.

Alternatively, any owner under §62.1-44.15:44 of the Storm Water Control Law aggrieved by any action of the State Water Control Board taken without a formal hearing, or by inaction of the Board, may demand in writing a formal hearing of such owner's grievance, provided a petition requesting such hearing is filed with the Board. Said petition must meet the requirements set forth in 9VAC25-230-130 (Procedural Rule No. 1 – Petition for formal hearing). In cases involving actions of the Board, such petition must be filed within thirty days after notice of such action is mailed to such owner by certified mail.

If you have any questions about the permit, please call Ms. Jaime Bauer at (804) 698-4416 or [jaime.bauer@deq.virginia.gov](mailto:jaime.bauer@deq.virginia.gov).

Sincerely,

  
Frederick K. Cunningham  
Director of Water Permits

Enclosures: Permit  
Fact Sheet

cc: Jeff Perry, Engineering & Environmental Services Division Manager - ([per03@henrico.us](mailto:per03@henrico.us))  
Keith White, Senior Engineer - ([whi24@henrico.us](mailto:whi24@henrico.us))  
EPA-3WP12



**COMMONWEALTH of VIRGINIA**  
DEPARTMENT OF ENVIRONMENTAL QUALITY

Permit No.: VA0088617  
Effective Date: April 1, 2015  
Expiration Date: March 31, 2020

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

Pursuant to the Clean Water Act as amended and the Virginia Stormwater Management Act and regulations adopted pursuant thereto, the following owner is authorized to discharge in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in this state permit.

Permittee: Henrico County  
Facility Name: Henrico County Municipal Separate Storm Sewer System  
County Location: Henrico County is 244 square miles in area and is bordered by the James River and the City of Richmond to the south, Goochland County and Tuckahoe Creek to the west, the Chickahominy River and Hanover County to the north, and the counties of New Kent and Charles City to the east.

The owner is authorized to discharge from municipal-owned or operated storm sewer outfalls to the surface waters in the following watersheds:

Receiving Waters and Watersheds:	Stormwater from Henrico County discharges into fifteen 6 <sup>th</sup> order hydrologic units: James River-Almond Creek (JL01) James River Proctors Creek (JL03) Fourmile Creek (JL04) Turkey Island Creek (JL05) James River-Curles Creek (JL06) Chickahominy River-Grassy Swamp Creek (JL16) Chickahominy River-Stony Run (JL17) Upham Brook (JL18) Chickahominy River-Powwhite Creek (JL19) Chickahominy River-Higgins Swamp (JL20) White Oak Swamp (JL21) Chickahominy River-Toe Ink Swamp (JL22) Tuckahoe Creek (JM84) James River-East Branch Tuckahoe Creek (JM85) James River-Little Westham Creek (JM86)
River Basins:	James River – Lower and Middle
Sections:	1, 1o, 1p, 2, 4, 4a, 6, 9, 9a
Classes:	II, III, VII
Special Standards:	PWS, m, n, o, bb

The authorized discharge shall be in accordance with this cover page, Part I – Authorization, Effluent Limitations and Monitoring Requirements and Part II - Conditions Applicable To All VSMP MS4 Permits, as set forth herein.

*Fredrick K. Cunningham*  
Director of Water Permits, Department of Environmental Quality

4/1/2015  
Date

**PART I-AUTHORIZATION, EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

**A. DISCHARGES AUTHORIZED UNDER THIS STATE PERMIT**

**1. Authorized Discharges**

- a) This state permit authorizes the discharge of stormwater from all existing and new municipal separate stormwater point source discharges to surface waters from the Municipal Separate Storm Sewer System (MS4) owned or operated by the Henrico County in Virginia.
- b) The following discharges, whether discharged separately or commingled with municipal stormwater, are also authorized by this state permit for discharge through the MS4:
  - 1) Non-stormwater discharges and stormwater discharges associated with industrial activity (defined at 9 VAC 25-31-10) that are authorized by a separate Virginia Pollutant Discharge Elimination System (VPDES) permit;
  - 2) Discharges from construction activities that are regulated under the Virginia Stormwater Management Program (VSMP) (9 VAC 25-870 et seq.) and authorized by a separate VSMP authority permit or state permit; and
  - 3) The following non-stormwater discharges unless the State Water Control Board or the permittee determines the discharge to be a significant source of pollutants to surface waters:
    - (a) water line flushing;
    - (b) landscape irrigation;
    - (c) diverted stream flows;
    - (d) rising ground waters;
    - (e) uncontaminated ground water infiltration (as defined at 40 CFR Part 35.2005(20));
    - (f) uncontaminated pumped ground water;
    - (g) discharges from potable water sources;
    - (h) foundation drains;
    - (i) air conditioning condensation;
    - (j) irrigation water;
    - (k) springs;
    - (l) water from crawl space pumps;
    - (m) footing drains;
    - (n) lawn watering;
    - (o) individual residential car washing;

- (p) flows from riparian habitats and wetlands;
  - (q) dechlorinated swimming pool discharges;
  - (r) street wash water;
  - (s) discharges or flows from fire fighting activities; and
  - (t) other activities generating discharges identified by the Department as not requiring VPDES authorization.
- 4) Materials from a spill are not authorized unless the discharge of material resulting from a spill is necessary to prevent loss of life, personal injury, or severe property damage. The permittee shall take, or require the responsible party to take, all reasonable steps to minimize or prevent any adverse effect on human health or the environment in accordance with the permittee's program under Part I.B.2.f). (Spill Prevention and Response). This state permit does not transfer liability for a spill itself from the party(ies) responsible for the spill to the permittee nor relieve the party(ies) responsible for a spill from the reporting requirements of 40 CFR Part 117 and 40 CFR Part 302. The permittee is responsible for any reporting requirement listed under Part II.G of this state permit.

## **2. Permittee Responsibilities**

This state permit establishes the specific requirements applicable to the permittee for the term of this state permit. The permittee is responsible for compliance with this state permit. The permittee shall implement and update the MS4 Program Plan (as set forth in Part I.B) to ensure compliance with this state permit. The Department has determined that implementation of the MS4 Program Plan reduces the discharge of pollutants to the maximum extent practicable. Where wasteloads have been allocated for pollutant(s) of concern in an approved Total Maximum Daily Load (TMDL), the permittee shall implement the special conditions as set forth in Part I.D of this state permit. Compliance with the requirements of this state permit shall also constitute adequate progress for this permit term towards complying with the assumptions and requirements of the applicable TMDL wasteload allocations such that the discharge does not cause or contribute to violations of the water quality standards.

The permittee shall clearly define the roles and responsibilities of each of the permittee's departments, divisions or subdivisions in maintaining permit compliance. If the permittee relies on another party to implement portions of the MS4 Program Plan, both parties must document the agreement in writing. The agreement shall be retained by the permittee with the MS4 Program Plan. Roles and responsibilities shall be updated as necessary. Where the permittee relies on another party to implement a portion of this state permit, responsibility for compliance with this state permit shall remain with the permittee.

In the event the permittee is unable to meet conditions of this state permit due to circumstances beyond the permittee'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 permittee's control 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 permittee (operator error and failure to properly maintain equipment are not conditions beyond the control of the permittee). 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. In addition, the permittee must report noncompliance which may adversely affect surface waters or endanger public health in accordance with Part II.I.

**SPECIFIC REPORTING REQUIREMENTS:**

- **Each annual report shall include a current list of roles and responsibilities.**
- **Each annual report shall include a list of those circumstances of non-compliance outside of the permittee's control.**

3. **Legal Authority**

The permittee shall maintain and utilize its legal authority authorized by the Commonwealth of Virginia to control discharges to and from the MS4 in the manner established by the specific requirements of this state permit. The legal authority shall enable the permittee to:

- a) Control the contribution of pollutants to the MS4;
- b) Prohibit illicit discharges to the MS4;
- c) Control the discharge of spills and the dumping or disposal of materials other than stormwater (e.g. industrial and commercial wastes, trash, used motor vehicle fluids, leaf litter, grass clippings, animal wastes, etc.) into the MS4;
- d) Require compliance with conditions in ordinances, permits, contracts, inter-jurisdictional agreements, or orders; and
- e) Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with permit conditions including the prohibition on illicit discharges to the MS4.

The permittee shall review and update its ordinances and other legal authorities such as permits, orders, contracts, and inter-jurisdictional agreements as necessary to continue providing adequate legal authority to control discharges to and from the MS4.

4. **MS4 Program Resources**

The permittee shall submit to the Department a copy of each fiscal year's budget including its proposed capital and operation and maintenance expenditures necessary to accomplish the activities required by this state permit. The permittee shall describe its method of funding the stormwater program with the copy of the fiscal year budget.

**SPECIFIC REPORTING REQUIREMENTS:**

- **A copy of the fiscal year's budget including its proposed capital and operation and maintenance expenditures necessary to accomplish the activities required by this state permit shall be submitted with each annual report.**

5. **Permit Maintenance Fees**

Permit maintenance fees shall be paid in accordance with Part XIII of the VSMP regulations (9 VAC 25-870-700 et seq.).

**SPECIFIC REPORTING REQUIREMENTS:**

- **A statement regarding payment of the applicable MS4 permit maintenance fee, including check date and check number shall be included with each annual report. Note: Please do not include copies of checks or other bank records.**

**6. MS4 Program Plan**

The permittee shall maintain, implement and enforce an MS4 Program Plan accurately documenting the MS4 Program including all additions, changes and modifications. For the purposes of this state permit, the MS4 Program Plan is considered a single document, but may actually consist of separate documents (e.g., dry weather screening plans, wet weather monitoring plans, TMDL Action Plans, annual reports). Policies, ordinances, strategies, checklists, watershed plans and other documents may be incorporated by reference provided the latest revision date is included in the MS4 Program Plan and all documents are available upon request. Specific reference shall be made to any ordinance more stringent than the Virginia Stormwater Management Act (§62.1-44.15:24 et. seq) and VSMP regulations (9 VAC 25-870 et seq.), the Virginia Erosion and Sediment Control Law (§ 62.1-44.15:51 et seq.) and Regulations (9 VAC 25-840 et.seq.) and the Chesapeake Bay Preservation Act (§ 62.1-44.15:67 et seq.) and Chesapeake Bay Preservation Area Designation and Management Regulations (9 VAC 25-830 et. seq). The MS4 Program Plan is an enforceable part of this state permit.

Updates to the MS4 Program Plan shall be submitted to the Department for review and approval in accordance with the due dates established by this state permit. Updates to the MS4 Program Plan shall become effective and enforceable upon written approval from the Department.

The most recent MS4 Program Plan shall be posted on the permittee's website, and provided in another location easily accessible to the public.

**SPECIFIC REPORTING REQUIREMENTS:**

- **Utilizing the annual report due April 10, 2015 as a baseline, the permittee's annual report due March 31, 2016 submitted under this state permit shall include the necessary updates to describe implementation of this MS4 Program Plan and meet the conditions described in this section.**
- **NOTE: For purposes of the next permit cycle, the annual report due March 31, 2019 under this state permit will be considered the updated MS4 Program Plan to be reviewed as part of permit reissuance.**

**7. MS4 Program Review and Updates**

**MS4 Program Review:** The permittee will review the current MS4 Program Plan annually, in conjunction with the preparation of the annual report required under Part I.E of this state permit.

**a) *MS4 Program Updates and Modifications:***

Modifications to the MS4 Program Plan are expected throughout the life of this state permit as part of the iterative process to reduce pollutant loading and protect water quality. As such, modifications made in accordance with this state permit as a result of the iterative process do not require modification of this state permit unless the Department determines the changes meet the criteria referenced in 9 VAC 25-870-630 or 9 VAC 25-870-650.

Updates and modifications to the MS4 Program Plan may be made during the life of the permit in accordance with the following procedures:

- 1) Adding (but not eliminating or replacing) components, controls, or requirements to the MS4 Program Plan may be made by the permittee at any time. Additions shall be reported as part of the annual report.
- 2) Updates and modifications to specific standards and specifications, schedules, operating procedures, ordinances, manuals, checklists and other documents routinely evaluated and modified are authorized under this state permit provided that the updates and modifications are performed in a manner (i) that is consistent with the conditions of this state permit, (ii) that ensure public notice and participation requirements established in this state permit are followed, and (iii) that the updates and modifications are documented in the annual report.
- 3) Replacing, or eliminating without replacement, any ineffective or infeasible strategies, policies and Best Management Practices (BMPs) specifically identified in this state permit with alternate strategies, policies and BMPs may be requested at any time. Such requests shall include the following:
  - (a) An analysis of how and/or why the BMPs, strategies, or policies are ineffective or infeasible including information on whether the BMPs, strategies, or policies are cost prohibitive;
  - (b) Expectations on the effectiveness of the replacement BMPs, strategies, or policies;
  - (c) An analysis of how the replacement BMPs are expected to achieve the goals of the BMPs to be replaced;
  - (d) A schedule for implementing the replacement BMPs, strategies and policies; and
  - (e) An analysis of how the replacement strategies and policies are expected to improve the permittee's ability to meet the goals of the strategies and policies being replaced.

Requests or notifications shall be made in writing to the Department and signed in accordance with 9 VAC 25-870-370 of the VSMP regulations. Modification to the MS4 Program Plan shall become effective and enforceable upon written approval from the Department. Major modifications to the MS4 Program Plan as defined in 9 VAC 25-870-10 may require that the permit be reopened and modified pursuant to 9 VAC 25-870-630.

b) ***MS4 Program Updates Requested by the Department of Environmental Quality:***

In a manner and following procedures in accordance with the Virginia Administrative Processes Act, the VSMP regulations and other applicable State laws, statutes and regulations, the Department may request changes to the MS4 Program Plan to assure compliance with the statutory requirements of the Virginia Stormwater Management Act and associated regulations and to:

- 1) Address impacts on receiving water quality caused by discharges from the MS4;
- 2) Include more stringent requirements necessary to comply with new State or Federal statutory or regulatory requirements; or

- 3) Include such other conditions necessary to comply with State or Federal statutory or regulatory requirements.

Proposed changes requested by the Department shall be made in writing and set forth the basis for and objective of the modification as well as the proposed time schedule for the permittee to develop and implement the modification. The permittee may propose alternative program modifications and/or time schedules to meet the objective of the requested modification, but any such modifications are at the discretion of the Department.

**SPECIFIC REPORTING REQUIREMENTS:**

- **All modifications and proposed modifications shall be reported in accordance with this section of the permit.**

**B. STORMWATER MANAGEMENT**

The following subparts describe the requirements for the permittee to implement in its MS4 Program during this state permit term:

**1. Planning**

No later than 12-months after the effective date of this state permit, the permittee shall submit to the Department a stormwater retrofit project summary that includes potential stormwater management projects to be completed during the term of the permit. Projects addressing stormwater quantity may be included if there is a water quality benefit to the project. At a minimum, the permittee shall consider the following for each project in the summary: type of project or BMP, number of acres which the BMP treats, impervious and pervious acreage treated by the potential project, condition of the downstream channel, amount of total pollutant reduction, feasibility for implementation, and estimated cost of implementation. The summary shall include a prioritized list of the identified projects for consideration of implementation.

The permittee shall seek public participation in identifying potential stormwater management projects for completion. A copy of the summary shall be placed on the permittee's website no later than 30 days after it is submitted to the Department. Project statuses shall be updated on the website no less than once per year.

**SPECIFIC REPORTING REQUIREMENTS:**

- **No later than 12 months after the permit effective date, the permittee shall provide the stormwater management project summary as described in Part I.B.1.**
- **The permittee shall provide a current web link to the analysis no later than 12 months after the effective date of this state permit with each annual report.**

**2. MS4 Program Implementation**

a) ***Construction Site Runoff and Post Construction Runoff from Areas of New Development and Development on Prior Developed Lands***

- 1) The permittee shall implement a local erosion and sediment control program consistent with the Virginia Erosion and Sediment Control Law § 62.1-44.15:51 of the Code of Virginia and Virginia Erosion and Sediment Control Regulations 9 VAC 25-840 et seq. and a stormwater management program consistent with the Virginia Stormwater Management Act § 62.1-44.15:24 of the Code of Virginia and Virginia

Stormwater Management Program Regulations 9 VAC 25-870 et seq.

- 2) The permittee shall identify in the MS4 Program Plan all legal authorities for erosion and sediment control and stormwater management that are more stringent than those required under 9 VAC 25-840 et seq. and/or 9 VAC 25-870 et seq. that have been adopted in accordance with § 62.1-44.15:65 and/or § 62.1-44.15:33 of the Code of Virginia.

**SPECIFIC REPORTING REQUIREMENTS:**

- Each annual report shall contain the number of regulated land disturbing activities approved and the total number of acres disturbed.
- Each annual report shall contain the number of land disturbing activity inspections conducted and the number and type of each enforcement action taken.
- The annual report due March 31, 2016 shall include the permittee's strategy to address maintenance of stormwater management controls that are designed to treat stormwater runoff solely from the individual residential lot on which they are located.
- The annual report due March 31, 2016 shall include a list of all known land disturbing projects that qualify under the 'Grandfathering' provision of the VSMP regulations found at 9 VAC 25-870-48.
- Each annual report shall include a summary of actions taken by the permittee to implement Part I.B.2.a)1) and 2) of this state permit.

b) ***Retrofitting on Prior Developed Lands***

From the stormwater retrofit project summary list required in Part I.B.1, the permittee shall complete at least eight (8) projects no later than the expiration date of this state permit. Projects implemented to meet the requirements of Part I.D of this state permit (TMDL Action Plan and Implementation for the Chesapeake Bay Special Condition or TMDL Action Plans other than the Chesapeake Bay TMDL) may be used to meet the requirements of this special condition.

For retrofit projects that do not serve to meet the requirements of Part I.D, the permittee shall submit a summary of projects implemented during the reporting period with each annual report including type of land use being retrofitted, retrofit performed, completion date or anticipated completion date, total acreage retrofitted, total impervious and pervious acreage, and location by latitude and longitude (in decimal degrees).

**SPECIFIC REPORTING REQUIREMENTS:**

- Each annual report shall include a status update for those projects for which implementation began during the reporting period.

- c) ***Roadways*** Streets, roads, and parking lots maintained by the permittee shall continue to be operated and maintained in a manner to minimize discharge of pollutants, including those pollutants related to deicing or sanding activities.

- 1) No later than 12-months after the effective date of this state permit, the permittee shall develop and maintain an accurate list of permittee maintained roads, streets, and parking lots that includes the street name, the miles of roadway not treated by BMPs, and miles of roadway treated with BMPs.
- 2) No later than 36-months after the effective date of this state permit, the permittee shall develop and implement written protocols for permittee maintained road, street, and parking lot maintenance, equipment maintenance, and material storage designed to minimize pollutant discharge.
- 3) Materials utilized for deicing and sanding activities shall remain covered from precipitation until application.
- 4) The permittee shall not apply any deicing agent containing urea or other forms of nitrogen or phosphorus to parking lots, roadways, and sidewalks or other paved surfaces.

**SPECIFIC REPORTING REQUIREMENTS:**

- **The permittee shall include a copy of the written protocols identified in Part I.B.2.c)(2) with the annual report due March 31, 2019.**
- d) ***Pesticide, Herbicide, and Fertilizer Application*** The permittee shall continue to control the discharge of pollutants related to the storage and application of pesticides, herbicides, and fertilizers applied to permittee rights of way, parks, and other permittee property, as follows:
- 1) The permittee shall develop and implement turf and landscape nutrient management plans that have been developed by a certified nutrient management planner in accordance with § 10.1-104.2 of the Code of Virginia on all lands owned or operated by the MS4 permittee where nutrients are applied to a contiguous area greater than one acre in accordance with the following schedule:
    - (a) No later than 12-months after the effective date of this state permit the permittee shall identify all permittee lands where nutrients are applied to a contiguous area of more than one acre. A latitude and longitude shall be provided for each such piece of permittee land.
    - (b) The permittee shall develop and implement turf and landscape nutrient management plans on all permittee lands where nutrients are applied to a contiguous area of more than one acre. The following measurable goals are established for the development and implementation of turf and landscape nutrient management plans.
      - (1) No later than 24-months after the effective date of this state permit, not less than 15% of all identified acres will be covered by turf and landscape nutrient management plans.
      - (2) No later than 36-months after the effective date of this state permit, not less than 40% of all identified acres will be covered by turf and landscape nutrient management plans.
      - (3) No later than 48-months after the effective date of this state permit, not less than 75% of all identified acres will be covered by turf and landscape nutrient management plans.

- (c) The permittee shall annually track the following:
- (1) The total acreage of permittee lands upon which nutrients are applied and controlled using general County guidelines or standard operating procedures;
  - (2) The acreage of permittee lands where turf and landscape nutrient management plans are required; and
  - (3) The acreage of permittee lands covered by turf and landscape nutrient management plans that have been implemented.
- 2) The permittee shall continue to employ good housekeeping/pollution prevention measures in the application, storage, transport and disposal of pesticides, herbicides and fertilizers.
  - 3) The permittee may regulate the use, application, or storage of fertilizers pursuant to §3.2-3602 of the Code of Virginia.
  - 4) The permittee shall track the acreage of permittee lands managed under Integrated Pest Management Plans.

**SPECIFIC REPORTING REQUIREMENTS:**

- **The report due March 31, 2016 shall contain a list of all permittee lands and applicable acreage on which nutrients are applied to more than one contiguous acre.**
  - **Each annual report submitted after March 31, 2016 shall report on compliance with the turf and landscape nutrient management plan implementation schedule and include a list of the permittee's properties for which turf and landscape nutrient management plans have been implemented during the reporting year and the cumulative total of acreage under turf and landscape nutrient management plans.**
  - **Each annual report shall include the number of acres managed under Integrated Pest Management Plans.**
- e) ***Illicit Discharges and Improper Disposal*** Discharges to the MS4 not authorized by this state permit shall be effectively prohibited.
- 1) In accordance with Part I.A.1.b), certain non-stormwater discharges to the MS4 need not be addressed as illicit discharges or improper disposal. The MS4 Program Plan shall identify any non-stormwater discharges listed under Part I.A.1.b), where the permittee has imposed any conditions on the discharges to the MS4. The permittee shall prohibit, on a case-by-case basis, any individual non-stormwater discharge (or class of non-stormwater discharges) otherwise allowed under this paragraph that is determined to be contributing significant amounts of pollutants to the MS4.
  - 2) The permittee shall continue implementing a sanitary sewer inspection program to minimize the exfiltration from the sanitary system to the MS4.  
  
The permittee shall inspect a minimum of 300,000 linear feet of sanitary sewer annually.
  - 3) The permittee shall develop and implement a program to reduce the discharge of floatables (e.g. litter and other human-generated solid refuse).

- 4) The permittee shall prohibit the dumping or disposal of used motor vehicle fluids, household hazardous wastes, sanitary sewage, grass clippings, leaf litter, and animal wastes into the MS4. The permittee shall ensure the implementation of programs to collect used motor vehicle fluids (such as oil and antifreeze) and household hazardous waste materials for recycling, reuse, or proper disposal. Such programs shall be readily available to all private residents and shall be publicized and promoted on a regular basis not less than twice per year.
- 5) The permittee shall continue to implement a program to locate and eliminate illicit discharges and improper disposal into the MS4. This program shall include dry weather screening activities to locate portions of the MS4 with suspected illicit discharges and improper disposal, as described in Part I.B.2.l)(1) of this state permit.
- 6) The permittee shall require the elimination of illicit discharges and improper disposal practices within 30-days of discovery. Where elimination of an illicit discharge within 30-days is not possible, the permittee shall require an expeditious schedule for removal of the discharge. In the interim, the permittee shall require the operator of the illicit discharge to take all reasonable and prudent measures to minimize the discharge of pollutants to the MS4.

**SPECIFIC REPORTING REQUIREMENTS:**

- **Each annual report shall include a list of illicit discharges identified, the source, a description of follow-up activities and whether the illicit discharge has been eliminated.**
  - **Each annual report shall include the amount of linear feet of sanitary sewer inspected during the reporting year.**
  - **The initial annual report shall include a description of the procedures the permittee will implement to reduce floatables as required by Part I.B.2.e)3) above.**
  - **Each following annual report shall include a list of sites monitored, a summary of the monitoring protocols used, and a summary of the monitoring results and analyses.**
- f) ***Spill Prevention and Response*** The permittee shall continue to implement a program that coordinates with the fire department and other permittee operated departments to prevent, contain, and respond to spills that may discharge into the MS4. The spill response program may include a combination of spill response actions by the permittee (and/or another public or private entity), and legal requirements for private entities within the permittee's jurisdiction.

**SPECIFIC REPORTING REQUIREMENTS:**

- **Each annual report shall include a list of spills, the source (identified to the best of the permittee's ability), and a description of follow-up activities taken.**
- g) ***Industrial & High Risk Runoff*** The permittee shall implement a program to identify and control pollutants in stormwater discharges to the MS4 from industrial and high risk runoff facilities (e.g., municipal landfills; other treatment, storage, or disposal facilities for municipal waste; hazardous waste treatment, storage, disposal and recovery facilities;

facilities that are subject to EPCRA Title III, Section 313) and any other industrial or commercial discharges the permittee determines are contributing a significant pollutant loading to the MS4.

- 1) The permittee shall maintain, and update as necessary, a list of all known industrial and high-risk dischargers to the MS4. This list shall include VPDES industrial stormwater permits.
- 2) No later than 12-months after the effective date of this state permit, the permittee shall develop and implement a prioritized schedule and procedure to inspect outfalls of facilities with VPDES industrial stormwater permits at the point of connection to the MS4. Prioritization may be based on historical discharges, local water quality impairments, industrial category or other methods selected by the permittee. The permittee shall inspect all VPDES industrial stormwater permitted outfalls connected to its MS4 a minimum of once every five years.
- 3) The permittee shall review copies of discharge monitoring reports (DMRs) submitted to the permittee by VPDES industrial stormwater permitted facilities as part of the permittee's investigations of significant pollutant loadings. The permittee may conduct additional monitoring, or may require the facility to conduct additional monitoring, of any stormwater discharges it believes may be a source of significant pollutant loadings.
- 4) The permittee shall coordinate with the Department to report any non-VPDES permitted industrial facility from which the permittee has evidence that a significant pollutant load is entering the MS4 system. Inspections of facilities for which the permittee has evidence of significant pollutant loading may be carried out in conjunction with other permittee programs.
- 5) The permittee shall refer the following facilities to the Department of Environmental Quality, Piedmont Regional Office, for Department compliance review under the Virginia State Water Control Law:
  - (a) Facilities and operations having non-stormwater discharges that do not have coverage under an existing VPDES permit.
  - (b) Facilities and operations identified pursuant to 40 CFR Part 122.26(b)(14) with manufacturing, processing, or raw materials storage outside that do not have coverage under an existing VPDES industrial stormwater permit.
  - (c) Any VPDES industrial stormwater permit facility where there is evidence of significant pollutant loadings to the MS4.
  - (d) Facilities that do not submit signed copies of DMRs to the permittee as required under a VPDES industrial stormwater permit.
- 6) The permittee shall maintain a list of any industrial and/or commercial stormwater dischargers not regulated under the Virginia State Water Control Law that it determines may be contributing a significant pollutant loading to the MS4. This list may be individual discharges or categories of discharges.
  - (a) Outfalls from these facilities shall be included in the prioritized inspection schedule.
  - (b) The list shall include, but shall not be limited to, major automotive facilities such as repair shops, body shops, auto detailers, tire repair shops and service

stations.

- (c) The permittee shall require control measures as necessary and/or appropriate for stormwater discharges from these dischargers.

**SPECIFIC REPORTING REQUIREMENTS:**

- **The annual report due March 31, 2016 shall include a list of all known industrial and high risk dischargers including any non-VPDES regulated industrial and commercial stormwater dischargers determined by the permittee as contributing a significant pollutant load and that discharge to the MS4 system, a schedule of inspections and procedures for inspecting outfalls.**
  - **Each annual report shall include a report on implementation of the inspection schedule and include a list of the facilities and/or facility outfalls inspected during the reporting period.**
  - **Each annual report shall include a list of referrals to the Department.**
- h) ***Stormwater Infrastructure Management*** The permittee shall continue to maintain and implement programs to maintain the permittee's stormwater infrastructure and to update the accuracy and inventory of the storm sewer system.
- 1) For stormwater management (SWM) facilities and infrastructure maintained by the permittee including residential properties where SWM facilities, BMP and Storm Drainage Systems qualify for permittee maintenance (excluding apartments and mobile home parks), the following conditions apply:
- (a) The permittee shall provide for adequate long-term operation and maintenance of SWM facilities owned or operated by the permittee in accordance with written inspection and maintenance procedures included in the MS4 Program Plan.
  - (b) The permittee shall, at a minimum, inspect annually all SWM facilities owned or operated by the permittee. The permittee may choose to implement an alternative schedule to inspect these SWM facilities based on a risk assessment that includes facility type and expected maintenance needs provided that the alternative schedule is included in the MS4 Program Plan in accordance with plan modifications as listed in Part I.A.7.a) of this state permit.
  - (c) The permittee shall conduct maintenance on SWM facilities owned or operated by the permittee as necessary.
  - (d) The permittee shall continue its stormwater system inspection program and shall inspect no less than 15% of the MS4 annually and 100% of the system prior to the expiration of the permit such that all MS4 structures are inspected at least once during the term of the permit.
  - (e) The permittee shall dispose of all wastes and wastewaters collected during stormwater system cleaning in accordance with local, state, and federal laws and regulations.
  - (f) The permittee shall obtain any required state or federal permit(s) necessary to complete maintenance activities.

- 2) For SWM facilities not maintained by the permittee and that discharge into the MS4, the following conditions apply:
  - (a) The permittee shall continue to implement a program to ensure proper maintenance of each privately maintained SWM facility that discharges into the MS4 system as documented in the MS4 Program Plan.
    - (1) Beginning with the effective date of this state permit and in accordance with 9 VAC 25-870-112 B, maintenance agreements may be used but are not required for stormwater control measures that are designed to treat stormwater runoff solely from the individual residential lot on which they are located provided that the permittee has developed and implemented a strategy to address maintenance of such stormwater management controls. Should the permittee choose a strategy other than a maintenance agreement, such a strategy shall be provided in writing no later than 12 months after the effective date of this state permit and shall include periodic inspections, homeowner outreach and education, or other methods targeted at promoting the long term maintenance of such facilities.
    - (2) For SWM facilities that are privately maintained and for which maintenance agreements have been established between the permittee and the owner, the permittee shall inspect all privately maintained facilities no less than once per 5 years and conduct follow-up activities to ensure the required maintenance has been completed. Inspections may be conducted by the permittee or their designee as defined in 9 VAC 25-870-114.
    - (3) For SWM facilities that are privately maintained and for which maintenance agreements have not been established between the permittee and the owner, the permittee shall implement a pilot program consisting of the following:
      - (i) No later than 12-months after the effective date of the permit, the permittee shall develop draft procedures and policies that are designed to ensure that inspection and maintenance of privately maintained SWM facilities without maintenance agreements are being conducted. The draft procedures and policies should identify any expected limitations to the permittee's ability to implement these procedures and policies and should propose options to overcome these limitations;
      - (ii) No later than 15-months after the effective date of the permit, the permittee shall implement these draft procedures and policies including the proposed options identified in subsection Part I.B.2.h)2)a)(3)(i) above; and
      - (iii) No later than 36-months after the effective date of the permit, the permittee shall modify the draft policy and procedures required by Part I.B.2.h)2)a)(3)(i) for the inspection of privately maintained SWM facilities based on the findings of Part I.B.2.h)2)a)(3)(ii) and finalize the inspection procedures.
- 3) No later than 18 months after the effective date of this permit, the permittee shall map the MS4 service area and each MS4 outfall. The following information shall be tracked for each MS4 outfall:
  - (a) An individual identification number, local watershed, HUC 6 and receiving water;

- (b) The latitude and longitude in decimal degrees; and
  - (c) New outfalls shall be tracked upon their inclusion into the MS4.
- 4) No later than 24 months after the effective date of this state permit, the permittee shall identify the following for each local watershed, sixth order HUC and Chesapeake Bay Segment:
- (a) The number of impervious, pervious and total acres served by the MS4 as of June 30, 2009.
  - (b) The number of impervious, pervious and total acres treated by stormwater controls as of June 30, 2009.
- 5) No later than 54 months after the effective of this state permit, the permittee shall update each of the following:
- (a) The number of impervious, pervious and total acres served by the MS4 for each Henrico County local watershed, sixth order HUC and Chesapeake Bay segment.
  - (b) The number of impervious, pervious and total acres treated by stormwater controls.

**SPECIFIC REPORTING REQUIREMENTS:**

- **The permittee shall submit with the annual report due March 31, 2016 the written inspection and maintenance procedures.**
- **Each annual report shall include a progress report on efforts to repair failed storm sewer outfalls.**
- **Each annual report shall include a list of activities including inspections, maintenance, and repair of stormwater infrastructure operated by the permittee as required in Part I.B.2.h)1), including the total number of stormwater facilities operated by the permittee, the type and number of stormwater facilities inspected and maintained; the linear feet of storm sewer system owned and/or operated by the permittee, and the linear feet of storm sewer system inspected.**
- **Each annual report shall provide a summary of actions taken by the permittee to address failure of privately maintained SWM facilities owners to abide by maintenance agreements.**
- **Each annual report shall include a list of activities including inspections performed and notifications of needed maintenance and repair of stormwater facilities not operated by the permittee as required by Part I.B.2.h)2).**
- **The MS4 service area map including outfalls and information included in Part I.B.2.h)3) shall be submitted no later than 18 months after the effective date of this state permit. The information shall be submitted as an electronic file in one of the following formats: shapefile, geodatabase, .xls, .xlsx, .csv, .mdx, .dbf, delimited text, XML, or other file approved by the Department.**
- **The annual report due March 31, 2017 shall include the information included in Part I.B.2.h)4). The information shall be submitted in a format specified by the Department.**
- **The annual report due March 31, 2019 shall include an updated list of all information requested in Part I.B.2.h)5).**

- i) **County Facilities** Facilities owned or operated by the permittee shall be operated and maintained as follows:
- 1) Good Housekeeping
    - (a) The discharge of permittee vehicle wash water into the MS4 at permittee facilities without authorization from a separate VPDES permit shall be prohibited.
    - (b) The discharge of wastewater into the MS4 at permittee facilities without authorization by a separate VPDES permit shall be prohibited.
    - (c) The dumping of collected yard waste and grass clippings into the MS4 shall be prohibited.
    - (d) Fluids leaked from permittee vehicles shall be prevented from entering the storm sewer system. Leaked fluids shall be cleaned up and disposed of properly, as soon as possible but no later than 24-hours after discovery.
    - (e) No later than the expiration date of this state permit, the permittee shall install and maintain markings on all stormwater inlets located on high priority municipal facilities, as defined at Part I.F, and on permittee properties with greater than 2-acres of impervious surface.
  - 2) High Priority Municipal Facilities
    - (a) The permittee shall identify all high priority municipal facilities that do not require a separate VPDES industrial stormwater permit no later than 12-months after the effective date of this state permit;
    - (b) Within 12 months of state permit coverage, the operator shall identify which of the high priority municipal facilities have a high potential of discharging pollutants. High priority municipal facilities that have a high potential for discharging pollutants are those facilities identified in subsection (a) above that are not covered under a separate VPDES permit and which any of the following materials or activities occur and are expected to have exposure to stormwater resulting from rain, snow, snowmelt or runoff:
      - (1) Areas where residuals from using, storing or cleaning machinery or equipment remain and are exposed to stormwater;
      - (2) Materials or residuals on the ground or in stormwater inlets from spills or leaks;
      - (3) Material handling equipment (except adequately maintained vehicles);
      - (4) Materials or products that would be expected to be mobilized in stormwater runoff during loading/unloading or transporting activities (e.g., rock, salt, fill dirt);
      - (5) Materials or products stored outdoors (except final products intended for outside use where exposure to stormwater does not result in the discharge of pollutants);

- (6) Materials or products that would be expected to be mobilized in stormwater runoff contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers;
  - (7) Waste material except waste in covered, non-leaking containers (e.g., dumpsters);
  - (8) Application or disposal of process wastewater (unless otherwise permitted);  
or
  - (9) Particulate matter or visible deposits of residuals from roof stacks, vents or both not otherwise regulated (i.e., under an air quality control permit) and evident in the stormwater runoff.
- (c) The permittee shall develop and/or update and implement individual stormwater pollution prevention plans for each high-priority municipal facility identified under Part I.B.2.i)2)(b) no later than 36-months after the effective date of this state permit. Stormwater pollution prevention plans (SWPPP) shall include:
- (1) A site description that includes a site map identifying all outfalls, direction of flows, existing source controls, and receiving water bodies;
  - (2) A discussion and checklist of potential pollutants and pollutant sources;
  - (3) A discussion of all potential non-stormwater discharges;
  - (4) A maintenance schedule for all existing source controls;
  - (5) All policies and procedures implemented at the facility to ensure source reduction;
  - (6) An inspection schedule and checklist to ensure that all source reductions are continually implemented and all source controls are appropriately maintained. The date of each inspection and associated findings and follow-up shall be logged in each SWPPP;
  - (7) Appropriate training as required in Part I.B.2.k);
  - (8) Procedures to conduct an annual comprehensive site compliance evaluation;
  - (9) Procedures to conduct dry weather screening; and
  - (10) All modifications made as the result of any release or spill.
- (d) A copy of each SWPPP shall be kept at each high-priority municipal facility and be kept updated.

**SPECIFIC REPORTING REQUIREMENTS:**

- **The annual report due March 31, 2016 shall include a list of all high priority municipal facilities.**
- j) **Public Education/Participation** The permittee shall implement a public education program with the goal of increasing the stormwater knowledge of target audiences and changing

behavior to result in pollutant reductions. The permittee may fulfill all or part of the requirements of this state permit through regional outreach programs involving two or more MS4 localities.

- 1) The permittee shall identify, schedule, implement, evaluate and modify, as necessary, public outreach activities designed to meet the following public education and outreach goals:
  - (a) Promote, publicize, and facilitate public reporting of the presence of illicit discharges or improper disposal of materials into the MS4;
  - (b) Continue to promote 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;
  - (c) Develop an outreach program for public and private golf courses located within Henrico County that discharge to the permittee's MS4 that encourages implementation of integrated management practice (IMP) plans and techniques to reduce runoff of fertilizer and pesticides;
  - (d) Promote, publicize, and facilitate the proper management and disposal of used oil and household hazardous wastes;
  - (e) Promote and publicize the proper disposal of pet waste and household yard waste;
  - (f) Promote and publicize the use of the permittee's litter prevention program;
  - (g) Promote and publicize methods for residential car washing that minimize water quality impacts;
  - (h) Promote and publicize the proper use, application, and disposal of pesticides, herbicides, and fertilizers by public, commercial, and private applicators and distributors;
  - (i) Encourage private property owners to implement voluntary stormwater management techniques and/or retrofits; and
  - (j) Target strategies towards local groups of commercial, industrial, and institutional entities likely to have significant stormwater impacts.
- 2) The permittee shall post a copy of this state permit on its web page no later than 30-days after the effective date of this state permit and continue to retain a copy of the permit online for the duration of this state permit.
- 3) The permittee shall post copies of each annual report on its website no later than 30 days after the report submittal to the Department and continue to retain copies of the annual reports online for the duration of this state permit.
- 4) The permittee shall post the most current MS4 Program Plan on its website no later than 30 days after the effective date of this permit and maintain a current copy on the website. If the MS4 Program Plan is modified or revised, the updated plan shall be posted within 30 days of the revision(s). Copies of the most current MS4 Program Plan shall be made available for public review upon request of interested parties in compliance with all applicable open records requirements.

**SPECIFIC REPORTING REQUIREMENTS:**

- Each annual report shall include a list of permittee public outreach and education activities and the estimated number of individuals reached through the activities. An evaluation of program effectiveness, as outlined in the MS4 Program Plan with recommendations for future changes shall also be included.
  - Each annual report shall provide a summary of voluntary retrofits completed on private property used to demonstrate pollutant reduction requirements. Note that any voluntary project for which the permittee seeks to use for pollutant reduction requirements must be tracked and reported.
  - Each annual report shall provide a summary of voluntary stormwater management techniques encouraged on private property.
- k) **Training** The permittee shall conduct stormwater training for permittee employees. The training requirement may be fulfilled all or in part through regional training programs involving two or more MS4 localities; provided, however, that the permittee shall remain individually liable for its failure to comply with the training requirements in this state permit. The permittee shall determine the appropriate employees to receive the following types of training based on the specific topic for which training is to be provided:
- 1) The permittee shall provide biennial training to appropriate field personnel in the recognition and reporting of illicit discharges.
  - 2) The permittee shall provide biennial training to appropriate employees in good housekeeping and pollution prevention practices that are to be employed during road, street, and parking lot maintenance.
  - 3) The permittee shall provide biennial training to appropriate employees in good housekeeping and pollution prevention practices that are to be employed in and around permittee maintenance and public works facilities.
  - 4) The permittee shall ensure that employees, and require that contractors, who apply pesticides and herbicides are properly trained or certified per the Virginia Pesticide Control Act (§3.2-3900 et seq. of the Code of Virginia). The requirements of the Virginia Pesticide Control Act are established by the Virginia Pesticide Control Board.
  - 5) The permittee shall have a program to ensure that County plan reviewers, inspectors, program administrators and construction site operators (e.g. responsible land disturber) are trained and obtain the appropriate certifications to the extent required under the Virginia Erosion and Sediment Control Law and attendant regulations.
  - 6) The permittee shall have a program to ensure that the applicable County employees obtain the appropriate certifications as required under the Virginia Stormwater Management Act and its attendant regulations to implement the modified stormwater management design criteria.
  - 7) The permittee shall provide biennial training to applicable employees in good housekeeping and pollution prevention practices that are to be employed in and around county recreation facilities.

- 8) The appropriate emergency response employees shall have training in spill response. A summary of the training and/or certification program provided to emergency response employees shall be included in the first annual report.
- 9) Documentation shall be kept of all training events including the training date, number of employees attending the training, and the objective of the training event for a period of three years after each training event. Additionally, all events shall be listed in the annual report for the year in which the training event occurred.

**SPECIFIC REPORTING REQUIREMENTS:**

- **Each annual report shall include a list of training events, the date and the estimated number of individuals attending each event.**
  - **The annual report due March 31, 2016 shall include documentation of employee emergency spill response training and/or certification.**
- l) **Water Quality Screening Programs** The following screening programs shall be implemented in addition to the monitoring required by Part I.C:
- 1) **Dry Weather Screening Program:** The permittee shall continue ongoing efforts to detect the presence of illicit connections and unauthorized discharges to the permittee's MS4.
    - (a) The permittee shall continue to implement a program of dry weather screening in areas of concern as identified by the permittee including but not limited to: commercial car washes, car dealerships, pet kennels, restaurants, areas with a history of complaints, and areas upstream of sensitive ecosystems. The permittee shall screen at a minimum, 100 of the County's MS4 outfalls each year.
    - (b) Criteria for selection of outfalls to be screened as required by Part I.B.2.l)1)(a) above shall include but is not limited to the following:
      - (1) List of sites requiring further investigation, as previously identified;
      - (2) Age and density of development with the likelihood of illicit connections such as older residential, commercial and industrial areas;
      - (3) Outfalls representing the general land uses of Henrico County;
      - (4) Poorly maintained gas stations, service stations, and shopping centers;
      - (5) Presence of environmentally sensitive features downstream; and
      - (6) History of complaints received on illicit discharges.
  - 2) **Wet Weather Screening Program:** In addition to the monitoring required in Part I.C., the permittee shall continue to investigate, and address areas within their jurisdiction that are suspected to be contributing excessive levels of pollutants to the MS4. No later than 12 months after the effective date of this permit, the permittee shall develop written procedures for a wet weather screening program which shall include the standard operating procedure to be used for initial screening and follow-up purposes. The written procedures shall be incorporated as part of the MS4 Program Plan.

**SPECIFIC REPORTING REQUIREMENTS:**

- **Each annual report shall include the total number of outfalls included as part of the permittee's MS4, the number of outfalls screened during the reporting period, a list of locations upon which dry weather screening was conducted, the results, and any follow-up actions including maintenance and/or repair of infrastructure**

**or outfalls performed as a result of the dry weather screening.**

- **The annual report due March 31, 2016 shall include the written procedures for wet weather screening.**
  - **Each annual report shall include a list of locations upon which wet weather screening was conducted, the results, weather conditions at the time sample was collected to include date and approximate time of most recent storm event preceding sample collection, long term trends analyses, and any follow-up actions including maintenance and/or repair of infrastructure or outfalls performed as a result of the wet weather screening.**
- m) **Infrastructure Coordination** – The permittee shall coordinate with the Virginia Department of Transportation (VDOT) regarding issues of MS4 physical-interconnectivity as described below:
- 1) Annual Coordination Meeting – The permittee shall meet annually with VDOT for purposes of overall coordination on priority issues for the permittee's MS4 program plan (including operations and maintenance elements) and TMDL action planning relevant to the interconnectivity of the MS4s.
  - 2) Mapping – The permittee shall inform VDOT of the status of its mapping program, identifying any uncertainty regarding ownership or actual location of MS4 components associated with the physically-interconnected MS4s, and working to resolve such uncertainty. The permittee shall coordinate with VDOT to identify any areas within the permittee's municipal boundaries that drain to the VDOT MS4.
  - 3) Chesapeake Bay TMDL Action Plans – The permittee shall inform VDOT of the means, methods, and schedule by which the permittee will implement the reductions required by the Chesapeake Bay TMDL Special Condition (Part I.D.1) when those means and methods may impact the physically-interconnected MS4s. The parties are encouraged to cooperate with one another where the siting or design of best management practices (BMPs) may be accelerated or otherwise improved by mutual cooperation.  
  
The permittee shall coordinate with VDOT to identify any areas within the permittee's municipal boundaries that drain to the VDOT MS4 and are unaccounted for in the Chesapeake Bay TMDL Action Plan developed by VDOT or the permittee. The unaccounted areas shall be quantified (acres) in the Chesapeake Bay TMDL Action Plan submitted by the permittee.
  - 4) Other TMDL Action Plans – The permittee shall inform VDOT of TMDL Action Plans and major milestones implemented for other (i.e., non-Chesapeake Bay) TMDLs when those plans may impact the physically-interconnected MS4s. The parties are encouraged to cooperate with one another where the siting or design of BMPs may be accelerated or improved by mutual cooperation.
  - 5) Credit for TMDL Implementation – Permit specific BMP retrofit requirements shall not be double-counted in the calculation of load reductions. If the permittee undertakes the project, the permittee shall be entitled to full credit for the project, but may share credit with VDOT on mutually agreeable terms, which shall be in writing.
  - 6) Illicit Discharge Detection & Elimination – The permittee shall continue to be responsible for implementing a program for illicit discharge detection and elimination, including dry weather field screening, for the permittee's portion of the physically-

interconnected MS4. As part of the annual coordination meeting, described in item (1) above, the permittee shall coordinate with VDOT on the identification of high risk industrial facilities. The permittee shall establish procedures for notifying VDOT when an illicit discharge is identified in the VDOT MS4.

- 7) Water Quality Monitoring – The permittee shall conduct water quality monitoring as required by Part I.B.2.l) and Part I.C of this state permit. The permittee shall make available to VDOT all monitoring data collected from areas where the physically-interconnected MS4 discharges to the VDOT MS4 or received flow from the VDOT MS4. The permittee and VDOT are encouraged to cooperate with one another to establish a joint monitoring network.
- 8) Annual Reports – As part of its Annual Report, the permittee shall document coordination efforts with VDOT that occurred during the reporting year pursuant to requirements (1) through (7) above.

### C. MONITORING REQUIREMENTS

#### 1. **Biological Stream Monitoring**

The permittee shall continue to implement a biological stream monitoring program to evaluate the condition of select stream sites within the county as follows:

- a) Five (5) stream sites within the county shall be selected for monitoring during the term of this permit.
- b) Monitoring shall be conducted twice per year with one sample collected between July 1<sup>st</sup> and December 31<sup>st</sup> and one sample collected between January 1<sup>st</sup> and June 30<sup>th</sup> each year at each selected stream site.
- c) The permittee shall use a biological stream monitoring approach based on the “USEPA’s Rapid Bioassessment Protocols for Use in Streams and Wadeable Rivers” or other method approved by the Department, and shall include an assessment of the benthic macroinvertebrate community and habitat assessment.

#### **SPECIFIC REPORTING REQUIREMENTS:**

- **The annual report due March 31, 2016 shall include the list of sites to be monitored during the term of the state permit and monitoring protocols.**
- **Each annual report shall include a summary of the monitoring results, analyses, and an interpretation of that data with respect to long-term patterns/trends.**

#### 2. **In-Stream Monitoring**

The permittee shall continue to implement an in-stream monitoring program to evaluate the condition of select streams within the county as follows:

- a) Five (5) stream sites within the county shall be selected for monitoring during the term of this permit.
- b) Monitoring shall be conducted once per two months between January 1<sup>st</sup> and December 31<sup>st</sup> at each monitoring location.
- c) Monitoring shall be performed for the following parameters:

- 1) pH
  - 2) Dissolved Oxygen
  - 3) Temperature
  - 4) Total Suspended Solids
  - 5) Ammonia as Nitrogen
  - 6) Nitrate plus Nitrite Nitrogen
  - 7) Total Kjeldahl Nitrogen
  - 8) Total Nitrogen (calculated)
  - 9) Dissolved Phosphorus
  - 10) Total Phosphorus
  - 11) *Escherichia coli*
- d) Monitoring for the parameters listed in Part I.C.2.c) shall be in accordance with Part II.A of this state permit.
- e) The permittee may replace a sampling location with a new proposed location after 15 samples are collected and analyzed. Written notification of the monitoring plan revisions shall be given to the Department in writing and shall include a statistical analysis of the monitoring results, conclusions regarding the data, the proposed new monitoring location, and the reasoning for site location choice.

**SPECIFIC REPORTING REQUIREMENTS:**

- **The annual report due March 31, 2016 shall include the list of sites to be monitored during the term of the state permit and monitoring protocols.**
- **Beginning with the annual report due March 31, 2017, each annual report shall include a summary of the monitoring results and analyses and an interpretation of that data with respect to long-term patterns/trends.**

**3. Structural and Source Controls Compliance Monitoring and Tracking**

- a) The permittee shall maintain an updated electronic database of all known permittee and privately maintained stormwater management (SWM) facilities. The database shall include the following:
- 1) The SWM facility type, address, and latitude, and longitude (in decimal degrees);
  - 2) The total pervious and impervious acres treated;
  - 3) The date brought online (MMYYYY). If the date is unknown, the permittee shall use June 2005 as the date brought online for all previously existing SWM facilities;
  - 4) The hydrologic unit code (HUC 6) in which the SWM facility is located;
  - 5) The name of any impaired water segments within each HUC listed on the most recent 305(b)/303(d) Water Quality Assessment Integrated Report to which the SWM facility discharges;
  - 6) Whether the SWM facility is permittee or privately maintained;
  - 7) Whether the SWM facility discharges into the permittee's MS4;

- 8) Whether a maintenance agreement exists if the SWM is privately maintained; and
- 9) The date of last inspection by permittee authorities.

All SWM facilities brought online during each reporting year shall be submitted with the appropriate annual report as an electronic file in one of the following formats: shapefile, geodatabase, .xls, .xlsx, .csv, .mdx, .dbf, delimited text, XML, or other file approved by the Department.

No later than 36-months of the effective date of this state permit, the list shall be updated to include the required information for SWM facilities known to exist prior to the effective date of this state permit. The updated information shall be submitted with the fourth annual report.

- b) Facilities that solely provide peak flow control as required by the Henrico County Code are excluded from the requirements of this section. Inspection and maintenance requirements for these facilities shall be in accordance with all applicable state and local ordinances, regulations, and statutes.

#### **SPECIFIC REPORTING REQUIREMENTS:**

- **Each annual report shall include a copy of the updated database in electronic format.**
- **Each annual report shall include a summary of the program to ensure maintenance of private stormwater management facilities.**
- **Each annual report shall include a summary of the program to ensure maintenance of stormwater management facilities maintained by the permittee.**
- **The annual report due March 31, 2019 under this permit shall include an updated list of stormwater management facilities existing prior to the effective date of this permit.**

#### **D. TMDL ACTION PLAN AND IMPLEMENTATION**

##### **1. Chesapeake Bay Special Condition**

The Commonwealth in its Phase I and Phase II Chesapeake Bay TMDL Watershed Implementation Plans (WIP) committed to a phased approach for MS4s permittees to implement necessary reductions. This state permit is consistent with the Chesapeake Bay TMDL and the Virginia Phase I and II WIPs to meet the Level 2 (L2) scoping run for existing developed lands as it represents an implementation of 5% of L2 as specified in the 2010 Phase I WIP. Conditions of future permits will be consistent with the TMDL or WIP conditions in place at the time of permit issuance.

##### **a) Definitions**

The following definitions apply to this state permit for the purpose of the Special Condition for Discharges in the Chesapeake Bay Watershed:

- 1) "Existing Sources" means pervious and impervious urban land uses served by the MS4 as of June 30, 2009.
- 2) "New Sources" means pervious and impervious urban land uses served by the MS4

developed or redeveloped on or after July 1, 2009.

- 3) "Transitional Sources" means regulated land disturbing activities which are temporary in nature and discharge through the MS4.
- 4) "Pollutants of concern" or "POC" means total nitrogen, total phosphorus and total suspended solids.

**b) Chesapeake Bay Watershed TMDL Planning**

- 1) No later than 24-months after the effective date of this state permit, the permittee shall develop and submit to the Department for its review and acceptance an approvable phased Chesapeake Bay TMDL Action Plan that includes:
  - (a) A review of the current MS4 Program Plan including existing legal authorities and the permittee's ability to ensure compliance with this special condition.
  - (b) Identifies any new or modified legal authorities, such as ordinances, permits, orders, contracts and inter-jurisdictional agreements, implemented or needing to be implemented to meet the requirements of this special condition.
  - (c) The means and methods utilized to address discharges into the MS4 from new sources.
  - (d) An estimate of the annual POC loads discharged from the existing sources as of June 30, 2009 based on the 2009 progress run. The permittee shall utilize Table 1 and multiply the total existing acres served by the MS4 on June 30, 2009 and the 2009 Edge of Stream (EOS) Loading Rate.

<b>Table 1: Calculation Sheet for Estimating Existing Source Loads for the James River Basin</b> (Based on Chesapeake Bay Program Watershed Model Phase 5.3.2)				
<b>Subsource</b>	<b>Pollutant</b>	<b>Total Existing Acres Served by MS4 (6/30/09)</b>	<b>2009 EOS Loading Rate (lbs/ac/yr)</b>	<b>Estimated Total POC Load Based on 2009 Progress Run (lb/yr)</b>
Regulated Urban Impervious	Nitrogen		9.39	
Regulated Urban Pervious			6.99	
Regulated Urban Impervious	Phosphorus		1.76	
Regulated Urban Pervious			0.5	
Regulated Urban Impervious	Total Suspended Solids		676.94	
Regulated Urban Pervious			101.08	

- (e) A determination of the total pollutant load reductions necessary to reduce the annual POC existing loads using Table 2 by multiplying the *Total Existing Acres Served by MS4* by the *First Permit Cycle Required Reduction in Loading Rate*.

<b>Table 2: Calculation Sheet for Determining Total POC Reductions Required During this State Permit Cycle for the James River Basin</b> (Based on Chesapeake Bay Program Watershed Model Phase 5.3.2)				
<u>Subsource</u>	<u>Pollutant</u>	<u>Total Existing Acres Served by MS4 (6/30/09)</u>	<u>First Permit Cycle Required Reduction in Loading Rate (lbs/ac/yr)</u>	<u>Total Reduction Required During First Permit Cycle (lbs/yr)</u>
Regulated Urban Impervious	Nitrogen		0.04	
Regulated Urban Pervious			0.02	
Regulated Urban Impervious	Phosphorus		0.01	
Regulated Urban Pervious			0.002	
Regulated Urban Impervious	Total Suspended Solids		6.67	
Regulated Urban Pervious			0.44	

- (f) The means and methods, such as the management practices and retrofit programs that will be utilized to meet the required reductions identified in Part I.D.1.b)(1)(e) and a schedule to achieve those reductions. The schedule should include annual benchmarks to demonstrate the on-going progress in meeting the reductions.
- (g) The means and methods to offset the increased loads from new sources initiating construction between July 1, 2009 and June 30, 2014 that disturb one acre or greater as a result of the utilization of an average land cover condition greater than 16% impervious cover for the design of post development stormwater management facilities. The permittee shall utilize Table 3 to develop the equivalent pollutant load for nitrogen and total suspended solids. The permittee shall offset 5% of the calculated increased load from these new sources during the permit cycle.
- (h) The means and methods to offset the increased loads from grandfathered projects in accordance with 9 VAC 25-870-48, that disturb one acre or greater that begin construction after July 1, 2014 where the project utilized an average land cover condition greater than 16% impervious cover in the design of post development stormwater management facilities. The permittee shall utilize Table 3 to develop the equivalent pollutant load for nitrogen and total suspended solids.

<b>Table 3: Ratio of Phosphorus Loading Rate to Nitrogen and Total Suspended Solids Loading Rates for Chesapeake Bay Basins</b> (Based on Chesapeake Bay Program Watershed Model Phase 5.3.2)			
<u>Ratio of Phosphorus to Other POCs (Based on All Land Uses 2009 Progress Run)</u>	<u>Phosphorus Loading Rate (lbs/ac/yr)</u>	<u>Nitrogen Loading Rate (lbs/ac/yr)</u>	<u>Total Suspended Solids Loading Rate (lbs/ac/yr)</u>
James River Basin	1.0	5.2	420.9

- (i) A list of future projects and associated acreage that qualify as grandfathered in accordance with 9 VAC 25-870-48.
  - (j) An estimate of the expected cost to implement the necessary reductions during the permit cycle;
  - (k) An opportunity for receipt and consideration of public comment on the draft Chesapeake Bay TMDL Action Plan; and
  - (l) A list of all comments received as a result of public comment and any modifications made to the draft Chesapeake Bay TMDL Action Plan as a result of the public comments.
- 2) As part of development of the Chesapeake Bay TMDL Action Plan, the permittee shall consider use of the following:
- (a) Implementation of BMPs on unregulated lands provided the baseline reduction is subtracted from the total reduction prior to application of the reduction towards meeting the required reductions.
  - (b) Utilization of stream restoration projects provided the baseline reduction from the unregulated acreage treated by the stream restoration project is subtracted from the total reduction prior to application of the reduction towards meeting the required reductions.
  - (c) Establishment of a memorandum of understanding (MOU) with other MS4 permittees that discharge to the same or adjacent eight digit hydrologic unit within the same basin to implement BMPs collectively. The MOU shall include a mechanism for dividing the POC reductions created by BMP implementation between the cooperative MS4s.
  - (d) Utilization of any pollutant trading or offset program in accordance with §62.1-44.19:20 through 62.1-44.19:23 et seq. of the Code of Virginia governing trading and offsetting.
  - (e) A more stringent average land cover condition based on less than 16% impervious cover for new sources initiating construction between July 1, 2009, and June 30, 2014, and all grandfathered projects where allowed by law; and
  - (f) Any BMPs installed after June 30, 2009, as part of a retrofit program may be applied towards meeting the required load reductions provided any necessary baseline reductions are not included.
- 3) The permittee shall address any modification to the TMDL or watershed implementation plan that occurs during the term of this state permit as part of its permit reapplication as required in Part II.M of this state permit.
- 4) The Chesapeake Bay TMDL Action Plan shall become effective and enforceable upon written approval from the Department.
- c) **Chesapeake Bay TMDL Action Plan Implementation**
- 1) The permittee shall implement the TMDL action plan required in Part I.D.1.b)1) of this state permit according to the schedule therein. Compliance with this requirement represents adequate progress for this state permit term towards achieving TMDL wasteload allocations consistent with the assumptions and requirements of the TMDL.

- 2) For the purposes of this state permit, the implementation of the following represents implementation to the maximum extent practicable and demonstrates adequate progress:
  - (a) Implementation of turf and landscape nutrient management plans in accordance Part I.B.2.d);
  - (b) Implementation of construction site runoff controls in Part I.B.2.a) in accordance with this state permit shall address discharges from transitional sources;
  - (c) Implementation of the means and methods to address discharges from new sources in accordance with requirements in Part I.B.2.a) for post-construction runoff from areas of new development and development on prior developed lands to offset 5% of the total increase in POC loads between July 1, 2009 and June 30, 2014 required in Part I.D.1.b)1)(g) and to offset increases in the POC load from grandfathered projects initiating construction after July 1, 2014 prior to completion of the project as required in Part I.D.1.b)1)(h); and
  - (d) Implementation of means and methods sufficient to meet 5% required reductions of POC loads from existing sources defined in this state permit in accordance with the Chesapeake Bay TMDL Watershed Implementation Plan as required in Part I.D.1.b)1)(e).

**d) Annual Reporting Requirements**

- 1) In accordance with Part I D.1.b)1), the permittee shall submit the Chesapeake Bay TMDL Action Plan with the annual report due March 31, 2017.
- 2) Beginning with the annual report due March 31, 2018, each annual report shall included a list of control measures implemented during the reporting period and the cumulative progress toward meeting the compliance targets for total nitrogen, phosphorus, and total suspended soils.
- 3) Beginning with the annual report due March 31, 2018, each annual report shall include a list of control measures that were implemented during the reporting cycle and the estimated reduction achieved by the control. For stormwater management controls, the report shall include the information required in Part I.C.3.a) and shall include whether an existing stormwater management control was retrofitted, and if so, the existing stormwater management control type retrofit used.
- 4) Beginning with the annual report due March 31, 2018, each annual report shall include a list of control measures that are expected to be implemented during the next reporting period and the expected progress toward meeting the compliance targets for total nitrogen, total phosphorus, and total suspended solids.
- 5) The permittee shall include the following as part of its reapplication package due in accordance with Part II.M:
  - (a) Documentation that sufficient control measures have been implemented (or documentation detailing that implementation will be complete by the expiration date of this state permit) to meet the compliance target identified in this Special Condition. If temporary credits or offsets have been purchased in order to meet the compliance target, the list of temporary reductions utilized to meet the 5% reduction in this state permit and a schedule of implementation to ensure a permanent 5% reduction shall be provided;

- (b) A draft second phase Chesapeake Bay TMDL Action Plan designed to reduce the existing POC loads by an additional seven times the required reductions in loading rates using Table 2 of Part I.D.1.b) of this state permit unless alternative calculations have been provided by the Commonwealth;
- (c) An additional 35% reduction in new sources developed between 2009 and 2014 and for which the land use cover condition was greater than 16%; and
- (d) Accounting for any modification to the applicable loading rate provided to the permittee as a result of TMDL modification.

## 2. **TMDL Action Plans other than the Chesapeake Bay TMDL**

### a) TMDL Action Plan Development

The permittee shall maintain an updated MS4 Program Plan that includes TMDL Action Plans for pollutants in which wasteloads have been allocated to the MS4 in approved TMDLs. Approved TMDLs as of the effective date of this state permit are included in Attachment A of this state permit. TMDL Action Plans may be implemented in multiple phases over more than one permit cycle using the adaptive iterative approach provided adequate progress is made to reduce pollutant discharges in a manner that is consistent with the assumptions and requirements of the applicable TMDL. Progress shall be demonstrated by representative and adequate monitoring or other methods (e.g. modeling) as described in Part I.D.2.b)5) below. These TMDL Actions Plans shall identify the best management practices and other interim milestone activities to be implemented during the remaining term of this state permit. The plan shall include an estimated end date for achieving the applicable wasteload allocations and for planning purposes, a projection of BMPs and other implementation steps expected to address the WLA, outside of the permit term, as applicable.

- 1) No later than 24 months after the effective date of this state permit, the permittee shall submit to the Department TMDL Action Plans to address any new or modified requirements established under this Special Condition for pollutants identified in TMDL wasteload allocations approved prior to the effective date of this state permit.
- 2) The TMDL Action Plans shall become effective and enforceable upon written notification from the Department.
- 3) The TMDL Action Plans shall be incorporated by reference into this state permit.

### b) TMDL Action Plan content

The permittee shall:

- 1) Develop and maintain a list of its legal authorities such as ordinances, permits, order, specific contract language, and inter-jurisdictional agreements applicable to reducing the pollutant identified in a WLA;
- 2) Identify and maintain an updated list of all additional management practices, control techniques and system design and engineering methods, beyond those identified in Part I.B of this state permit, that have been implemented as part of the MS4 Program Plan that are applicable to reducing the pollutant identified in the WLA;
- 3) Enhance the public education and outreach and employee training programs to also promote methods to eliminate and reduce discharges of the pollutants identified in the WLA;

- 4) Assess all significant sources of pollutant(s) from facilities of concern owned or operated by the MS4 operator that are not covered under a separate VPDES industrial stormwater permit and identify all municipal facilities that may be a significant source of the identified pollutant. For the purpose of this assessment, a significant source of pollutant(s) from a facility of concern means a discharge where the expected pollutant loading is greater than the average pollutant loading for the land use identified in the TMDL. (For example, a significant source of pollutant from a facility of concern for a bacterial TMDL would be expected to be greater at a dog park than at other recreational facilities where dogs are prohibited);
  - 5) Develop and implement a method to assess TMDL Action Plans for their effectiveness in reducing the pollutants identified in the WLAs. The evaluation shall use any newly available information, representative and adequate water quality monitoring results, or modeling tools to estimate pollutant reductions for the pollutant(s) of concern from implementation of the MS4 Program Plan. Monitoring may include BMP, outfall, or in-stream monitoring, as appropriate, to estimate pollutant reductions. The permittee may conduct monitoring, utilize existing data, establish partnerships, or collaborate with other MS4 permittees or other third parties, as appropriate. This evaluation shall include assessment of the facilities identified in Part I.D.2.b)4) above. The methodology used for assessment shall be described in the TMDL Action Plan.
  - 6) Solicit public input on the draft TMDL Action Plan and consider public comments in development of the final TMDL Action Plan that is submitted to the Department for review and approval.
- c) This state permit shall be modified or alternatively revoked and reissued if any approved wasteload allocation procedure, pursuant to Section 303(d) of the Clean Water Act, imposes wasteload allocations, limits or conditions on the treatment works that are not consistent with the permit requirements.
  - d) Analytical methods for any monitoring 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 permittee shall use a method consistent with the TMDL.
  - e) The permittee is encouraged to participate as a stakeholder in the development of any TMDL implementation plans applicable to their discharge. The permittee may incorporate applicable best management practices identified in the TMDL implementation plan in the MS4 Program Plan.
  - f) Annual Reporting Requirements.
    - 1) The permittee shall submit the required TMDL Action Plans to the Department for review and acceptance with the annual report due March 31, 2017.
    - 2) Beginning with the annual report due March 31, 2018, the permittee shall report on the implementation of the TMDL Action Plans and associated evaluation including the results of any monitoring conducted as part of the evaluation.
  - g) The permittee shall identify the best management practices and other steps that will be implemented during the next permit term as part of the permittee's reapplication for coverage as required under Part II.M. The permittee shall also evaluate and modify the estimated end date for achieving the applicable wasteload based on information acquired during the permit cycle.

## E. Annual Reporting

1. The permittee shall submit the annual report to the Department in accordance with the following schedule:

Reporting Period	Annual Report Due Date
April 1, 2015 through December 31, 2015	March 31, 2016
January 1, 2016 through December 31, 2016	March 31, 2017
January 1, 2017 through December 31, 2017	March 31, 2018
January 1, 2018 through December 31, 2018	March 31, 2019
January 1, 2019 through December 31, 2019	March 31, 2020
January 1, 2020 through March 31, 2020	March 31, 2021

2. Each annual report shall include the following background Information:
  - a) The permittee and permit number of the program submitting the annual report;
  - b) Any modifications to the MS4 Program Plan as a result of the annual report;
  - c) The reporting dates for which the annual report is being submitted; and
  - d) Certification as per Part II.K.
3. A summary of the implementation of each of the components established under Part I.B. and an evaluation of the effectiveness of each component. Additionally, the annual report shall include a summary of progress toward development of new MS4 Program components developed in accordance with the due dates as specified in the permit. The permittee should attempt to limit any component's narrative summary to no longer than two-pages plus any necessary tables and figures.
4. A summary report of the monitoring programs listed under Part I.C
5. A summary of the implementation of each component listed under Part I.D.
6. The Specific Reporting Requirements identified in this state permit.

## F. Definitions

Definitions contained in the Virginia Stormwater Management Act, Part I (9 VAC 25-870-10) and Federal NPDES rules, 40 CFR Part 122, apply where a definition is not specified below. Unless otherwise specified in this state permit, additional definitions or words or phrases used in this state permit are as follows:

1. "Best management practice" or "BMP" means schedules of activities, prohibitions of practices, including both structural and nonstructural practices, maintenance procedures, and other management practices to prevent or reduce the pollution of surface waters and groundwater systems from the impacts of land-disturbing activities.
2. "Board" means the State Water Control Board.
3. "Date brought on line" means the date when the permittee determines that a new stormwater management facility is properly functioning to meet its designed pollutant load reduction.

4. "Department" means the Department of Environmental Quality.
5. "High priority municipal facility" means any facility owned and operated by the permittee or regulated under this state permit that includes composting facilities, equipment storage and maintenance facilities, materials storage yards, pesticide storage facilities, public works yards, recycling facilities, salt storage facilities, solid waste handling and transfer facilities, and vehicle storage and maintenance yards.
6. "Industrial land use" means land utilized in connection with manufacturing, processing, or raw materials storage at facilities identified under 40 CFR Part 122.26(b)(14).
7. "Maintenance" means maintenance on the MS4 and associated structural stormwater controls including, but not limited to, activities such as inspections of basins and ponds; repair and replacement of failed controls, mowing grass filter strips; regular removal of litter and debris from dry ponds, forebays and water quality inlets; periodic stabilization and revegetation of eroded areas; periodic removal and replacement of filter media from infiltration trenches and filtration ponds; periodic removal of trash and sediment; deep tilling of infiltration basins to maintain capacity; vacuuming or jet hosing of porous pavement or concrete grid pavements; and removal of litter and debris from wet weather conveyances.
8. "Permittee" means Henrico County.
9. "Physically interconnected" means that one MS4 is connected to a second MS4 in such a manner that it allows for direct discharges to the second system.
10. "Retrofit" means the modification of existing stormwater management facilities, as defined herein, including flood control structures, through construction and/or enhancement in order to address water quality improvements. Retrofit also means the installation or implementation of source reductions to provide water quality improvements on previously developed land where no stormwater source reductions previously existed.

## **PART II-CONDITIONS APPLICABLE TO ALL VSMP MS4 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 or alternative methods approved by the U.S. Environmental Protection Agency, unless other procedures have been specified in this state permit.
3. The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will ensure accuracy of measurements.
4. Samples taken as required by this state permit shall be analyzed in accordance with 1VAC30-45, Certification for Noncommercial Environmental Laboratories, or 1VAC30-46, Accreditation for Commercial Environmental Laboratories.

### **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 permittee 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 state permit; and records of all data used to complete the registration statement for this state permit, for a period of at least 3 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 permittee, or as requested by the Board.

#### **C. REPORTING MONITORING RESULTS**

1. The permittee shall submit the results of the monitoring required by this state permit with the annual report unless another reporting schedule is specified elsewhere in this state permit.
2. Monitoring results shall be reported on a Discharge Monitoring Report (DMR) or 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 permittee monitors any pollutant specifically addressed by this state permit more frequently than required by this state permit using test procedures approved under 40 CFR Part 136 or using other test procedures approved by the U.S. Environmental Protection Agency or using procedures specified in this state 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 state permit.

#### **D. DUTY TO PROVIDE INFORMATION**

The permittee 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 state permit or to determine compliance with this state permit. The Board may require the permittee to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from its discharge on the quality of surface waters, or such other information as may be necessary to accomplish the purposes of the Clean Water Act and Virginia Stormwater Management Act. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this state 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 state permit shall be submitted no later than 14 days following each schedule date.

## **F. UNAUTHORIZED STORMWATER DISCHARGES**

Pursuant to § 62.1-44.15:26 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 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, 40 CFR Part 117 or 40 CFR Part 302 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 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, 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 state permit.

Discharges reportable to the Department 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 "bypass" or "upset", as defined herein, should occur from a facility and the discharge enters or could be expected to enter surface waters, the permittee shall promptly notify, in no case later than 24 hours, the Department by telephone after the discovery of the discharge. This notification shall provide all available details of the incident, including any adverse affects on aquatic life and the known number of fish killed. The permittee shall produce a written report and submit it to the Department within five days of discovery of the discharge in accordance with Part II.1.2. 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 permittee 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 from the time the permittee 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 5 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 Part II.I if the oral report has been received within 24 hours and no adverse impact on surface waters has been reported.

3. The permittee shall report all instances of noncompliance not reported under Part II.I.2, in writing, at the time the next monitoring reports are submitted. The reports shall contain the information listed in Part II.2.

**NOTE: The immediate (within 24 hours) reports required in Parts II G, H and I may be made to the Department's Regional Office. Pollution Response Program as found at <http://deq.virginia.gov/Programs/PollutionResponsePreparedness.aspx>. 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. Whenever the permittee becomes aware of a failure to submit any relevant facts, or submitted incorrect information in any report to the Department, it shall promptly submit such facts or information.

## J. NOTICE OF PLANNED CHANGES

1. The permittee 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 permittee plans 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 Section 306 within 120 days of their proposal.
  - b) The permittee plans alteration or addition that would significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are not subject to effluent limitations in this state permit; or
2. The permittee 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. Permit Applications. All permit applications 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 environmental 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 Part II.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 Part II.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 Part II.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 Part II.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 Parts II.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 permittee shall comply with all conditions of this state 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 state 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 permittee 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 state permit has not yet been modified to incorporate the requirement.

#### **M. DUTY TO REAPPLY**

If the permittee wishes to continue an activity regulated by this state permit after the expiration date of this state permit, the permittee shall submit a completed EPA Form 1, an updated MS4 Program Plan including benchmarks and milestones for the next permit cycle and the second phase of the Chesapeake Bay TMDL action plan, at least 180 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 applications to be submitted later than the expiration date of the existing permit.

#### **N. EFFECT OF A PERMIT**

This state 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 state permit shall be construed to preclude the institution of any legal action under, or relieve the permittee 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" (Part II.U), and "upset" (Part II.V) nothing in this state permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

**P. OIL AND HAZARDOUS SUBSTANCE LIABILITY**

Nothing in this state permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Sections 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law or section 311 of the Clean Water Act.

**Q. PROPER OPERATION AND MAINTENANCE**

The permittee 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 permittee to achieve compliance with the conditions of this state 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 permittee only when the operation is necessary to achieve compliance with the conditions of this state 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 permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this state permit, which 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 a permittee 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 state permit.

**U. BYPASS**

1. "Bypass", as defined in 9 VAC 25-870-10, means the intentional diversion of waste streams from any portion of a treatment facility. The permittee may allow any bypass to occur which 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 Parts II.U.2 and U.3.
2. Notice
  - a) Anticipated Bypass. If the permittee knows in advance of the need for a bypass, prior notice shall be submitted, if possible at least ten days before the date of the bypass.
  - b) Unanticipated Bypass. The permittee shall submit notice of an unanticipated bypass as required in Part II.I.
3. Prohibition of bypass.
  - a) Bypass is prohibited, and the Board or its designee may take enforcement action

against a permittee 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 permittee submitted notices as required under Part II.U.2.
- b) The Board or its designee may approve an anticipated bypass, after considering its adverse effects, if the Board determines that it will meet the three conditions listed above in Part II.U.3 a.

#### **V. UPSET**

1. An upset, as defined in 9 VAC 25-870-10, constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of Part II.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 preventative maintenance, or careless or improper operation.
3. A permittee 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 permittee can identify the cause(s) of the upset;
  - b) The permitted facility was at the time being properly operated;
  - c) The permittee submitted notice of the upset as required in Part II.I; and
  - d) The permittee complied with any remedial measures required under Part II.S.
4. In any enforcement preceding the permittee seeking to establish the occurrence of an upset has the burden of proof.

#### **W. INSPECTION AND ENTRY**

The permittee shall allow the Director 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 permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this state permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this state permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this state 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 permittee 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 Part II.Y.2, a permit may be transferred by the permittee 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 permittee 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 Part II.Y.1., this state permit may be automatically transferred to a new permittee if:
  - a) The current permittee 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 permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
  - c) The Board does not notify the existing permittee and the proposed new permittee 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 Part II.Y.2.b.

#### **Z. SEVERABILITY**

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

## Attachment A: Applicable TMDL Wasteload Allocations

TMDL Report	EPA Approval Date	SWCB Approval Date	TMDL Watershed	Pollutant	WLA <sup>1</sup>	WLA Units	The WLA is aggregated between the Henrico County MS4 and these MS4 permittees:
Benthic TMDL Development, Chickahominy River, VA	11/7/2013	3/28/2014	Chickahominy River	Sediment	202.68	tons/year	VDOT MS4 (VAR040115)
E. coli TMDL Development for Chickahominy River and Tributaries, VA (A Nested TMDL Approach)	9/19/2012	3/25/2013	Chickahominy River and Tributaries	Escherichia coli	1.04E+11	cfu/year	VDOT MS4 (VAR040115)
Bacteria TMDL for Fourmile Creek, Henrico County, Virginia	9/20/2004	7/31/2008	Bailey Creek portion of Fourmile Creek Watershed	Escherichia coli	3.99E+10	cfu/year	
Bacteria TMDL for Tuckahoe Creek, Little Tuckahoe Creek, Anderson, Broad, Georges and Readers Branches, and Deep Run, Henrico, Goochland and Hanover Counties, Virginia	9/20/2004	7/31/2008	Tuckahoe Creek and Tributaries	Escherichia coli	1.05E+13	cfu/year	
Bacteria TMDL for White Oak Swamp, Henrico County, Virginia	9/20/2004	7/31/2008	White Oak Swamp	Escherichia coli	1.58E+12	cfu/year	
Bacterial Total Maximum Daily Load Development for the James River and Tributaries - City of Richmond	11/4/2010	6/29/2012	Almond Creek	Escherichia coli	1.18E+12	cfu/year	MS4 VDOT
			Gillies Creek	Escherichia coli	5.78E+11	cfu/year	MS4 VDOT
			James River (lower) Impaired	Escherichia coli	3.50E+13	cfu/year	MS4 VDOT
			James River (tidal)	Escherichia coli	1.36E+12	cfu/year	MS4 VDOT
			James River (upper) delisted	Escherichia coli	5.69E+12	cfu/year	MS4 VDOT
			James River (lower) delisted	Escherichia coli	4.74E+13	cfu/year	MS4 VDOT
Chesapeake Bay TMDL	12/29/2010		Chickahominy River oligohaline estuary	Total Nitrogen	25,385.25	lbs/year	All regulated stormwater permits
				Total Phosphorus	13,337.88	lbs/year	All regulated stormwater permits
				Total Suspended Solids	522,195.38	lbs/year	All regulated stormwater permits
			James River upper tidal freshwater estuary	Total Nitrogen	150,930.68	lbs/year	All regulated stormwater permits
				Total Phosphorus	20,531.88	lbs/year	All regulated stormwater permits
				Total Suspended Solids	4,435,348.87	lbs/year	All regulated stormwater permits
Total Maximum Daily Load Development for the Upham Brook Watershed	7/24/2008	4/28/2009	Upham Brook and Tributaries	E. coli	-	-	WLA to be addressed in TMDL IP