4/30/2019

MS4 Program Plan

Fort Monroe Authority

Permit Number VAR040130

Fort Monroe Authority
20 Ingalls Rd
Fort Monroe, VA 23651

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1. INTRODUCTION

This Municipal Separate Storm Sewer System (MS4) Program Plan ("Program Plan") is for the Fort Monroe property owned by the Commonwealth of Virginia ("Commonwealth") and managed by the Fort Monroe Authority (FMA). The Virginia Stormwater Program (VSMP) General Permit became effective on July 9, 2008 and ran for five year, being subsequently renewed. This Registration Statement and Program Plan were prepared to establish the basis for a permit for these lands to begin July 2014 under the new VSMP. This document is now being updated for the new permit cycle running from November 1, 2018 through October 31st, 2023. Updates include new property boundaries at the Fort due to ongoing land ownership changes and addition of information needed for compliance with the updated permit.

1.1 FACILITY DESCRIPTION

Fort Monroe consists of approximately 565 acres of which 108 are submerged and 85 are wetlands. Fort Monroe is located at the southeastern tip of the Virginia Lower peninsula between Hampton Roads to the southwest and the Chesapeake Bay to the east. Fort Monroe formerly served as U.S. Army Garrison Fort Monroe, a largely administrative post with few troop and industrial activities. In September 2011, the Army decommissioned Fort Monroe as an active Army base and transferred by quitclaim deed a portion of the lands at Fort Monroe to the Commonwealth of Virginia in June 2013 (~312.75 acres). The Fort Monroe Authority Act establishes the Fort Monroe Authority as responsible for the preservation, conservation, protection, and maintenance of the Commonwealth's real property interests at Fort Monroe and the renewal of Fort Monroe as a vibrant and thriving community. Established as a US Army coastal fortification in 1817, Fort Monroe is built on the site of earlier colonial-era forts at Old Point Comfort. Fort Monroe is a registered National Historic Landmark and in November 2011 the site was dedicated as the Fort Monroe National Monument with portions now being managed by the National Park Service.

1.2 GENERAL

Stormwater discharges from FMA property are regulated under the terms of Virginia Pollutant Discharge Elimination System (VPDES) General Permit for Discharges from Small Municipal Separate Storm Sewer System (General Permit No. VAR040130) (**Appendix A**). This Plan covers the Virginia Stormwater Management Program (VSMP) requirements for the Fort Monroe property. Fort Monroe is designated as small municipal separate storm sewer system (MS4) under the Virginia Department of Environmental Quality (DEQ) VSMP.

This Plan details a comprehensive program to minimize stormwater pollution by establishing best management practices (BMPs), measurable goals, and responsible parties to achieve compliance with the minimum control measures of the Phase II VSMP. The BMPs utilized to address each minimum control measure are described in this Plan. Operators of small MS4s covered under the general permit that continue to discharge must file a "General Permit Registration Statement for Stormwater Discharges from Small MS4s" (which is included in **Appendix B**) for continued coverage. A stormwater system map depicting the area to be covered by the general permit is included in **Appendix C**.

2. TOTAL MAXIMUM DAILY LOAD

The Chesapeake Bay total maximum daily load (TMDL) was published on December 29, 2010 based on the Watershed Implementation Plans (Phase I) submitted by the states that are contained in the Chesapeake Bay watershed. The TMDL is written for excessive nitrogen, phosphorus, and sediment. The TMDL established waste load allocations (WLA) for each of the subject pollutants for the major rivers and watersheds that discharge in the Chesapeake Bay. Virginia has written a Watershed Implementation Plan (Phase II) that includes WLAs for specific sections of the major rivers in the state that discharge to the Chesapeake Bay.

For compliance with the first permit cycle ending June 30, 2018, FMA utilized land conversion from impervious to managed turf that occurred due to the demolition of unneeded buildings on the property. This provided reductions above and beyond the 5% requirement in loading of the pollutants of concern (POCs), which are nitrogen, phosphorus and total suspended solids (TSS). These additional reductions will be credited toward the Phase II TMDL Action Plan reduction requirements.

The current permit requires FMA to reduce by an additional 35%, for a total reduction of 40% by the end of the permit cycle. FMA drafted a draft Phase II TMDL Action as part of their permit update and registration statement. The Draft Action Plan is on the above referenced environmental website and will continue to be updated as needed to achieve the 40% goal.

3. MINIMUM CONTROL MEASURES AND BEST MANAGEMENT PRACTICES

Fort Monroe Authority, as an operator of a small MS4, will develop, implement, and enforce a MS4 Program designed to reduce the discharge of pollutants in the storm water to the maximum extent practicable. This is done to protect water quality, to ensure compliance with water quality standards, and to satisfy the appropriate water quality regulations and requirements of the Clean Water Act.

The General Permit requires best management practices (BMPs) and measurable goals be established in six minimum control measures. These minimum control measures are;

1. Public education and outreach on stormwater impacts,
2. Public involvement/participation,
3. Illicit discharge detection and elimination,
4. Construction site stormwater runoff control,
5. Post-construction storm water management in new development and redevelopment, and,
6. Pollution prevention/good housekeeping for municipal operations.

BMPs are measures used to prevent or reduce the potential of pollution from any type of activity. BMPs are a very broad class of measures and may include processes, procedures, scheduling activities, prohibitions on practices, and other management practices to prevent or reduce stormwater pollution. In essence, they are anything that may be identified as a method, short of actual treatment, to reduce stormwater pollution.

The following sections outline the FMA BMPs and goals in the six minimum control measures as required in the General Permit. A summary schedule is provided at the end of this section.

3.1 PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS

The General Permit requires that the FMA implement a public education and outreach program to educate its citizens on high priority stormwater issues that have the potential to impact water quality. FMA has identified the following high priority issues to focus on for this permit cycle.

1. Disconnection of basement sump pumps from sanitary and conversion to stormwater discharge
2. Pet Waste / Bacteria
3. Floatable Reduction

3.1.1 Disconnection of Basement Sump Pumps

Issue Description:

Fort Monroe has a large number of basement sump pumps in residential housing. These pumps are currently connected to sanitary, but it is a goal of FMA to disconnect them from sanitary and divert them to stormwater drainage. As part of this FMA wishes to educate the residents on the importance of not storing yard chemicals, lawn equipment oil, or any other products in such a fashion that they may leak into the water being pumped into the stormwater system.

Target Audience:

The target audience for this priority issue consist of residents and leasers with basement sump pumps.

3.1.2 Pet Waste / Bacteria

Issue Description:

Fort Monroe is home to many residents with pets, as well as large numbers of tourists and nearby Hampton residents that utilize the property for recreation with their pets. The improper disposal of pet waste is an issue that occurs due to this. The improper disposal of pet waste can lead to high levels of bacteria in stormwater discharges and create impairment in local waterways.

Target Audience:

The target audience for this priority issue includes all residents and visitors to Fort Monroe.

3.1.3 Floatable Reduction

Issue Description:

As Fort Monroe is a tourist destination and National Monument, the reduction of human litter is a high priority action. If littering does occur, it often ends up in waterways as

floatables. These floatables can adversely affect marine life in addition to being a visual nuisance.

Target Audience:

The target audience for this priority issue includes all residents and visitors to Fort Monroe.

3.1.4 Communication Strategies and Timelines

Strategies

FMA will use traditional written materials and signage to communicate the above messages and importance of these items to their target audience.

Schedule

The Fort Monroe Authority, Operations, Communications and Heritage Assets departments are responsible for communicating these messages. The timeline for communicating the message will be timed as needed but will occur no less than once per year.

3.2 PUBLIC INVOLVEMENT AND PARTICIPATION

The FMA will use applicable state, and local public notice requirements to identify, schedule, implement, evaluate and modify, as necessary, BMPs to meet the following public involvement/participation goals.

3.2.1 MS4/Environmental Website

The FMA has established a website for environmental compliance. The webpage contains the documentation required under this permit including the following:

- MS4 Full Permit
- A copy of the MS4 Registration Statement
- MS4 Program Plan (this document)
- Annual Reports as required
- Methods for the public to provide input
- Methods to report issues, dischargers, and/or spills to the FMA
- Chesapeake Bay TMDL Action Plan

The current environmental website is located here: https://fortmonroe.org/about/the-fort-monroe-authority/environmental-remediation/

3.2.2 Public Involvement Activities

The following public involvement activities will be performed by Fort Monroe volunteers and FMA employees to address the public involvement and participation minimum control measure requirement. Records of public communications regarding stormwater will be kept and made available to the public, in compliance with all applicable freedom of information regulations.

3.2.2.1 Storm Drain Marking

FMA will continue to implement a storm drain marking program to educate residents, contractors, and visitors that only clean runoff should go down the drain. Involve FMA personnel and residents, on a volunteer basis, as available.

Measurable Goal

In Year 2, evaluate areas on Fort Monroe with high traffic and dense populations and implement storm drain marking in these identified areas. Hold two (2) storm drain marking events in each of permit years 2-5.

Reporting and Record Keeping

Record location, date, number of storm drains marked, and number of volunteer participants at each storm drain marking event.

Responsible Party

The Fort Monroe Authority, Operations and Heritage Assets departments.

3.2.2.2 Environmental Awareness Events

Host, promote, or establish two annual events in conjunction with the Chesapeake Bay Foundation or other interested environmental advocacy groups where Fort Monroe volunteers' pick-up trash and debris from property and shorelines (Clean the Bay Day, the Great American Cleanup and/or Earth Day will be used to increase awareness/participation of these outreach activities).

Measurable Goal

FMA will keep record of the weight and/or the total number of trash bags filled for each event. It will also track the number of participants for each event as well a the date.

Reporting and Record Keeping

Retain a copy of the event brochure, poster, or announcement. Track the type and number of participants.

Responsible Party

The Fort Monroe Authority, Operations and Heritage Assets departments.

3.3 ILLICIT DISCHARGE DETECTION AND ELIMINATION

Illicit discharges are those not made entirely of stormwater and are not otherwise allowed to be combined with stormwater runoff by the permit. Refer to Section 1.3 for a list of allowable non-stormwater discharges. Illicit discharge examples include vehicle wash water where detergents/degreasers are used, fuel spills, and industrial wastewater (cross-connections).

3.3.1 MS4 Mapping

The MS4 infrastructure has been mapped to the best of FMA's knowledge. The current MS4 map can be found as **Appendix C.** A table data table depicting information on outfalls is also available.

3.3.2 IDDE Procedures

FMA, in collaboration with their Public Works contractor, has developed IDDE procedures for surveying outfalls and detecting illicit discharges. FMA surveys and inspects outfalls annually and reports signs of illicit discharges. IDDE procedures can be found in **Appendix D**.

3.3.3 Stormwater Interconnections

FMA currently has no known interconnections to its MS4.

3.4 CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

Fort Monroe is located in a jurisdiction designated as subject to the Chesapeake Bay Preservation Area Designation and Management Regulations adopted pursuant to the Chesapeake Bay Preservation Act. As such, specific construction goals are required for construction site stormwater runoff controls.

The FMA is governed by a Board of Trustees with staff management of Commonwealth lands at Fort Monroe without police power ordinances. An Erosion and Sediment Control policy/construction permit requirement has been implemented that requires erosion and sediment controls on construction activities that result in land disturbance of greater than or equal to 2,500 square feet. This program is consistent with the Virginia Erosion and Sediment Control Regulations found at 9 VAC 25-850-10 et seq. and the approved Erosion and Sediment Control Annual Standards and Specifications filed with the Department each year.

FMA's Annual Standards and Specifications are found in **Appendix E**.

FMA certified staff review the Erosion and Sediment Control Plans submitted by construction contractors, or others, for adherence to the state Erosion and Sediment Control Law and the approved Fort Monroe Erosion and Sediment Control Annual Standards and Specifications.

FMA will maintain a copy of the Erosion and Sediment Control plan for each applicable construction activity and maintain log of all projects reviewed by Fort Monroe.

In addition, FMA trained staff provide oversight inspection for construction activities to ensure compliance with state standards for erosion and sediment control and the VSMP Construction General Permit Programs. Copies of all inspection forms and notes are retained for future reference.

Retain a copy of the completed inspection forms and any corrective actions.

3.5 POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

Fort Monroe is located in a jurisdiction designated as subject to the Chesapeake Bay Preservation Area Designation and Management Regulations adopted pursuant to the Chesapeake Bay Preservation Act (CBPA). As such, specific post-construction goals are required for post-construction runoff controls. In addition, Fort Monroe has adopted Stormwater Management Annual Standards and Specifications in accordance with the Virginia Stormwater Management Regulations (9 VAC 25-870 et seq.).

Currently FMA is not maintaining Stormwater Management Facility's, also knowns as Best Management Practices (BMPs), but as development occurs and this provision becomes applicable, this document will be updated with the required inspection and tracking procedures.

3.6 POLLUTION PREVENTION AND GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

3.6.1 Procedures for Operations & Maintenance Activities

An operation and maintenance (O&M) program consistent with the MS4 Program Plan will have the ultimate goal of preventing or reducing pollutant runoff from municipal operations. FMA contracts much of its Public Works and Landscaping Activities to outside contractors who are responsible for preventing illicit discharges and ensuring their compliance with this VPDES permit. Written procedures can be found in **Appendix F**.

3.6.2 High Priority Facilities

FMA has identified three high priority facilities as defined by the MS4 permit. They are:

1. Veolia / Public Works Service Yard
2. Marina
3. James River Landscaping Laydown Yard

FMA has an active Stormwater Pollution Prevention Plan (SWPPP) for the Veolia Facility and is working to determine if SWPPPs are required for the Marina and the James River yard.

3.6.3 Nutrient Management Plan

FMA has a current nutrient management plan for nutrients applied to the property. The updated plans are available upon request.

3.6.4 Environmental Awareness Training Program

FMA requires an Environmental Awareness training plan for municipal personnel, and contractors which will emphasize stormwater pollution prevention program goals. The training provides information on the requirements of any SWPPP that the employee

must conduct their operations in accordance with. Training programs are conducted either in person or online. Some training plans are still under development and will be updated as required. This document will be updated with specific details on training as they become available and are required.

4. EVALUATION AND ASSESSMENT

In order to ensure compliance with the MS4 Program Plan, the FMA will evaluate and assess, keep the required records, and submit annual reports to the DEQ.

4.1 EVALUATION AND ASSESSMENT

Evaluation and assessment of the MS4 program will be done on an annual basis. The FMA will evaluate;

- Program compliance.
- The appropriateness of the identified BMPs and their effectiveness in addressing discharges to impaired waters.
- Progress towards achieving the identified measurable goals.

4.2 RECORDKEEPING

Required records will be kept for at least three (3) years. Records will be made available to the public at reasonable times during regular business hours. Records to be retained include those needed for minimum control measure goals, written public comments regarding the MS4 Program Plan, illicit discharges found and corrected, land disturbing activities and acreage impacted, all stormwater monitoring data, and any other as listed in the General Permit.

4.3 ANNUAL REPORT

An annual report for the reporting period from July 1 through June 30 is due to DEQ by the following October 1. The annual report will contain the status of the MS4 in meeting the yearly goals set and whether the BMPs selected are appropriate and effective. It helps to ensure compliance with all provisions of the current program. The annual report will be submitted to DEQ by October 1st of each year and will be posted on the above reference MS4/Environmental website.

5. STORMWATER MONITORING

The FMA will collect a total of two stormwater samples from a representative outfall to be identified. One sample will be taken during each of the following six-month periods: October through March, and April through September. The samples will be analyzed for the WLA pollutant, when specified by the DEQ.

All collected samples will be grab samples and collected within the first 30 minutes of a runoff producing event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previous measureable (greater than 0.1 inch rainfall) storm event.

Monitoring records will include the;

- Date, exact place and time of sampling.
- Individual who performed the sampling.
- Dates and time analyses were performed.
- Individual who performed the analysis.
- Analytical technique used in the analysis.
- Analysis results

Monitoring records will be kept for at least three years from the time the sample was collected.

Appendix A

General VPDES Permit of Stormwater from Small Municipal Separate Storm Sewer Systems (VAR040130)

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

1111 E. Main Street, Suite 1400, Richmond, Virginia 23219
P.O. Box 1105, Richmond, Virginia 23218
(800) 592-5482
www.deq.virginia.gov

Matthew J. Strickler
Secretary of Natural Resources

David K. Paylor
Director
(804) 698-4000

November 1, 2018

G. Glen Oder
Executive Director
20 Ingalls Road
Fort Monroe, VA 23651

Transmitted electronically: G. Glen Oder via (goder@fortmonroe.org)

Re: General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems General Permit Number VAR040130, Fort Monroe Authority

Dear Permittee:

Department staff has reviewed your Registration Statement and determined that the referenced Municipal Storm Sewer System (MS4) is hereby covered under the General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems. The effective date of your coverage under this general permit is November 1, 2018, or the date of this letter, whichever is later. The enclosed copy of the general permit contains the applicable reporting requirements and other conditions of coverage.

Please submit future permit correspondence and your annual MS4 program reports to Matthew Fanghella of the DEQ Tidewater Regional Office at matthew.fanghella@deq.virginia.gov . The general permit will expire on October 31, 2023. The conditions of the permit require that you submit a new registration statement on or before August 3, 2023 if you wish to have continued coverage under the general permit.

If you have any questions about this letter or the general permit, please contact Matthew Fanghella at (757) 518-2013 or matthew.fanghella@deq.virginia.gov .

Sincerely,

Allan Brockenbrough II

Allan Brockenbrough II, P.E.
Manager, Office of VPDES Permits

Enc. General Permit VAR040130
Cc: Samantha Henderson, Fort Monroe Authority
Matthew Fanghella, DEQ

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

General Permit No.: VAR040130

Effective Date: November 1, 2018
Expiration Date: October 31, 2023

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

AUTHORIZATION TO DISCHARGE UNDER THE VIRGINIA STORMWATER MANAGEMENT PROGRAM REGULATIONS, VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM REGULATIONS, AND THE VIRGINIA STATE WATER CONTROL LAW

In compliance with the provisions of the Clean Water Act, as amended and pursuant to the State Water Control Law and regulations adopted pursuant thereto, permittees of small municipal separate storm sewer systems are authorized to discharge to surface waters within the boundaries of the Commonwealth of Virginia, except those waters specifically named in State Water Control Board regulations which prohibit such discharges.

The authorized discharge shall be in accordance with the registration statement filed with the department, this cover page, Part I - Discharge Authorization and Special Conditions, Part II - TMDL Special Conditions, and Part III - Conditions Applicable to All State and VPDES Permits, as set forth in this general permit.

Part I
Discharge Authorization and Special Conditions

A. Coverage under this state permit. During the period beginning with the date of coverage under this general permit and lasting until the expiration and reissuance of this state permit, the permittee is authorized to discharge stormwater and those authorized nonstormwater discharges described in 9VAC25-890-20 D in accordance with this state permit from the small municipal separate storm sewer system identified in the registration statement into surface waters within the boundaries of the Commonwealth of Virginia and consistent with 9VAC25-890-30.

B. The permittee shall develop, implement, and enforce a MS4 program designed to reduce the discharge of pollutants from the small MS4 to the maximum extent practicable (MEP) in accordance with this permit, to protect water quality, and to satisfy the appropriate water quality requirements of the State Water Control Law and its attendant regulations. The permittee shall utilize the legal authority provided by the laws and regulations of the Commonwealth of Virginia to control discharges to and from the MS4. This legal authority may be a combination of statute, ordinance, permit, policy, specific contract language, order, or interjurisdictional agreements. The MS4 program shall include the minimum control measures (MCM) described in Part I E. For the purposes of this permit term, implementation of MCMs in Part I E and the Chesapeake Bay and local TMDL requirements in Part II (as applicable) consistent with the provisions of an iterative MS4 program required pursuant to this general permit constitutes compliance with the standard of reducing pollutants to the "maximum extent practicable," provides adequate progress in meeting water quality standards, and satisfies the appropriate water quality requirements of the State Water Control Law and its attendant regulations.

C. The MS4 program plan.

1. The MS4 program plan shall include, at a minimum, the following written items:

   a. The roles and responsibilities of each of the permittee's divisions and departments in the implementation of the requirements of the permit tasked with ensuring that the permit requirements are met;

   b. If the permittee utilizes another entity to implement portions of the MS4 program, a copy of the written agreement. The description of each party's roles and responsibilities, including any written agreements with third parties, shall be updated as necessary;

   c. For each MCM in Part I E, the following information shall be included:

      (1) Each specific requirement as listed in Part I E for each MCM;

      (2) A description of the BMPs or strategies that the permittee anticipates will be implemented to demonstrate compliance with the permit conditions in Part I E;

(3) All standard operating procedures or policies necessary to implement the BMPs;

(4) The measurable goal by which each BMP or strategy will be evaluated; and

(5) The persons, positions, or departments responsible for implementing each BMP or strategy; and

d. A list of documents incorporated by reference including the version and date of the document being incorporated.

2. If the permittee is receiving initial coverage under this general VPDES permit for the discharge of stormwater, the permittee shall:

   a. No later than six months following the date of permit coverage, submit to the department a schedule for the development of each component of the MS4 program plan in accordance with Part I C 1 that does not exceed the expiration date of this permit; and

   b. Provide to the department a copy of the MS4 program plan upon completion of development.

3. If the permittee was previously covered under the General VPDES Permit for the Discharge of Stormwater from MS4 effective July 1, 2013, the permittee shall update the MS4 program plan to meet the requirements of this permit no later than six months after the effective date of this permit unless otherwise specified in another permit condition and shall post the most up-to-date version of MS4 program plan on the permittee's website or location where the MS4 program plan can be obtained as required by Part I E 2 within 30 days of updating the MS4 program plan. Until such time that the MS4 program plan is updated in accordance with Part I E, the permittee shall continue to implement the MS4 program plan in effect at the time that coverage is issued under this general permit.

4. Revisions to the MS4 program plan are expected throughout the life of this permit as part of the iterative process to reduce pollutant loading and protect water quality to the MEP. As such, revisions made in accordance with this permit as a result of the iterative process do not require modification of this permit. The permittee shall summarize revisions to the MS4 program plan as part of the annual report as described in Part I D 2.

5. The permittee may demonstrate compliance with one or more MCM in Part I E through implementation of separate statutory or regulatory programs provided that the permittee's MS4 program identifies and fully describes any program that will be used to satisfy one or more of the minimum control measures of Part I E. If the program that the permittee is using requires the approval of a third party, the program shall be fully approved by the third party, or the permittee shall be working toward getting full approval. Documentation of the program's approval status, or the progress toward achieving full approval, shall be included in the annual report required by

Part I D. The permittee shall remain responsible for compliance with the permit requirements if the other entity fails to implement one or more components of the control measures.

6. The permittee may rely on another entity to satisfy the permit requirements to implement a minimum control measure if:

   a. The other entity, in fact, implements the control measure;

   b. The particular control measure, or component thereof, is at least as stringent as the corresponding permit requirement;

   c. The other entity agrees to implement the control measure on behalf of the permittee; and

   d. The agreement between the parties is documented in writing and retained by the permittee with the MS4 program plan for as long as the agreement is active.

   The permittee shall remain responsible for compliance with requirements of the permit and shall document in the annual reports required in accordance with Part I D that another entity is being relied on to satisfy all or part of the state permit requirements. The permittee shall provide the information required in Part I D.

7. If the permittee relies on another governmental entity regulated under 9VAC25-870-380 to satisfy all of the state permit obligations, including the obligation to file periodic reports required by Part I D, the permittee must note that fact in the registration statement, but is not required to file the periodic reports. The permittee remains responsible for compliance with the state permit requirements if the other entity fails to implement the control measures or components thereof.

D. Annual reporting requirements.

1. The permittee shall submit an annual report to the department no later than October 1 of each year in a format as specified by the department. The report shall cover the previous year from July 1 to June 30.

2. The annual report shall include the following general information:

   a. The permittee, system name, and permit number;

   b. The reporting period for which the annual report is being submitted;

   c. A signed certification as per Part III K;

   d. Each annual reporting item as specified in an MCM in Part I E; and

   e. An evaluation of the MS4 program implementation, including a review of each MCM, to determine the MS4 program's effectiveness and whether or not changes to the MS4 program plan are necessary.

3. For permittees receiving initial coverage under this general VPDES permit for the discharge of stormwater, the annual report shall include a status update on each component of the MS4 program plan being developed. Once the MS4 program plan has been updated to include

implementation of a specific MCM in Part I E, the permittee shall follow the reporting requirements established in Part I D 2.

4. For those permittees with requirements established under Part II A, the annual report shall include a status report on the implementation of the Chesapeake Bay TMDL action plan in accordance with Part II A of this permit including any revisions to the plan.

5. For those permittees with requirements established under Part II B, the annual report shall include a status report on the implementation of the local TMDL action plans in accordance with Part II B including any revisions to the plan.

6. For the purposes of this permit, the MS4 program plan and annual report shall be maintained separately and submitted to the department as required by this permit as two separate documents.

E. Minimum control measures

1. Public education and outreach.

a. The permittee shall implement a public education and outreach program designed to:

(1) Increase the public's knowledge of how to reduce stormwater pollution, placing priority on reducing impacts to impaired waters and other local water pollution concerns;

(2) Increase the public's knowledge of hazards associated with illegal discharges and improper disposal of waste, including pertinent legal implications; and

(3) Implement a diverse program with strategies that are targeted toward individuals or groups most likely to have significant stormwater impacts.

b. The permittee shall identify no less than three high-priority stormwater issues to meet the goal of educating the public in accordance with Part I E 1 a. High-priority issues may include the following examples: Chesapeake Bay nutrients, pet wastes, local receiving water impairments, TMDLs, high-quality receiving waters, and illicit discharges from commercial sites.

c. The high-priority public education and outreach program, as a whole, shall:

(1) Clearly identify the high-priority stormwater issues;

(2) Explain the importance of the high-priority stormwater issues;

(3) Include measures or actions the public can take to minimize the impact of the high-priority stormwater issues; and

(4) Provide a contact and telephone number, website, or location where the public can find out more information.

d. The permittee shall use two or more of the strategies listed in Table 1 below per year to communicate to the public the high-priority stormwater issues identified in accordance with Part I E 1 b including how to reduce stormwater pollution.

Table 1 Strategies for Public Education and Outreach	
Strategies	Examples (provided as examples and are not meant to be all inclusive or limiting)
Traditional written materials	Informational brochures, newsletters, fact sheets, utility bill inserts, or recreational guides for targeted groups of citizens
Alternative materials	Bumper stickers, refrigerator magnets, t-shirts, or drink koozies
Signage	Temporary or permanent signage in public places or facilities, vehicle signage, bill boards, or storm drain stenciling
Media Materials	Information disseminated through electronic media, radio, televisions, movie theater, or newspaper
Speaking engagements	Presentations to school, church, industry, trade, special interest, or community groups
Curriculum materials	Materials developed for school-aged children, students at local colleges or universities, or extension classes offered to local citizens
Training materials	Materials developed to disseminate during workshops offered to local citizens, trade organization, or industrial officials

e. The permittee may coordinate its public education and outreach efforts with other MS4 permittees; however, each permittee shall be individually responsible for meeting all of its state permit requirements.

f. The MS4 program plan shall include:

(1) A list of the high-priority stormwater issues the permittee will communicate to the public as part of the public education and outreach program;

(2) The rationale for selection of each high-priority stormwater issue and an explanation of how each education or outreach strategy is intended to have a positive impact on stormwater discharges;

(3) Identification of the public audience to receive each high-priority stormwater message;

(4) The strategies from Table 1 of Part I E 1 d to be used to communicate each high-priority stormwater message; and

(5) The anticipated time periods the messages will be communicated or made available to the public.

g. The annual report shall include the following information:

(1) A list of the high-priority stormwater issues the permittee addressed in the public education and outreach program; and

(2) A list of the strategies used to communicate each high-priority stormwater issue.

2. Public involvement and participation.

a. The permittee shall develop and implement procedures for the following:

(1) The public to report potential illicit discharges, improper disposal, or spills to the MS4, complaints regarding land disturbing activities, or other potential stormwater pollution concerns;

(2) The public to provide input on the permittee's MS4 program plan;

(3) Receiving public input or complaints;

(4) Responding to public input received on the MS4 program plan or complaints; and

(5) Maintaining documentation of public input received on the MS4 program and associated MS4 program plan and the permittee's response.

b. No later than three months after this permit's effective date, the permittee shall develop and maintain a webpage dedicated to the MS4 program and stormwater pollution prevention. The following information shall be posted on this webpage:

(1) The effective MS4 permit and coverage letter;

(2) The most current MS4 program plan or location where the MS4 program plan can be obtained;

(3) The annual report for each year of the term covered by this permit no later than 30 days after submittal to the department;

(4) A mechanism for the public to report potential illicit discharges, improper disposal, or spills to the MS4, complaints regarding land disturbing activities, or other potential stormwater pollution concerns in accordance with Part I E 2 a (1); and

(5) (5) Methods for how the public can provide input on the permittee's MS4 program plan in accordance with Part I E 2 a (2).

c. The permittee shall implement no less than four activities per year from two or more of the categories listed in Table 2 below to provide an opportunity for public involvement to improve water quality and support local restoration and clean-up projects.

Table 2 Public Involvement Opportunities	
Public involvement opportunities	Examples (provided as example and are not meant to be all inclusive or limiting)
Monitoring	Establish or support citizen monitoring group
Restoration	Stream or watershed clean-up day, adopt-a-water way program,
Educational events	Booth at community fair, demonstration of stormwater control projects, presentation of stormwater materials to schools to meet applicable education Standards of Learning or curriculum requirements, watershed walks, participation on environmental advisory committees
Disposal or collection events	Household hazardous chemicals collection, vehicle fluids collection
Pollution prevention	Adopt-a-storm drain program, implement a storm drain marking program, promote use of residential stormwater BMPs, implement pet waste stations in public areas, adopt-a-street program.

d. The permittee may coordinate the public involvement opportunities listed in Table 2 with other MS4 permittees; however, each permittee shall be individually responsible for meeting all of the permit requirements.

e. The MS4 program plan shall include:

(1) The webpage address where mechanisms for the public to report (i) potential illicit discharges, improper disposal, or spills to the MS4, (ii) complaints regarding land disturbing activities, or (iii) other potential stormwater pollution concerns;

(2) The webpage address that contains the methods for how the public can provide input on the permittee's MS4 program; and

(3) A description of the public involvement activities to be implemented by the permittee, the anticipated time period the activities will occur, and a metric for each activity to determine if the activity is beneficial to water quality. An example of metrics may include the weight of trash collected from a stream cleanup, the number of participants in a hazardous waste collection event, etc.

f. The annual report shall include the following information:

(1) A summary of any public input on the MS4 program received (including stormwater complaints) and how the permittee responded;

(2) A webpage address to the permittee's MS4 program and stormwater website;

(3) A description of the public involvement activities implemented by the permittee;

(4) A report of the metric as defined for each activity and an evaluation as to whether or not the activity is beneficial to improving water quality; and

(5) The name of other MS4 permittees with whom the permittee collaborated in the public involvement opportunities.

3. Illicit discharge detection and elimination.

a. The permittee shall develop and maintain an accurate MS4 map and information table as follows:

(1) A map of the storm sewer system owned or operated by the permittee within the census urbanized area identified by the 2010 decennial census that includes, at a minimum:

(a) MS4 outfalls discharging to surface waters, except as follows:

(i) In cases where the outfall is located outside of the MS4 permittee's legal responsibility, the permittee may elect to map the known point of discharge location closest to the actual outfall; and

(ii) In cases where the MS4 outfall discharges to receiving water channelized underground, the permittee may elect to map the point downstream at which the receiving water emerges above ground as an outfall discharge location. If there are multiple outfalls discharging to an underground channelized receiving water, the map shall identify that an outfall discharge location represents more than one outfall. This is an option a permittee may choose to use and recognizes the difficulties in accessing outfalls to underground channelized stream conveyances for purposes of mapping, screening, or monitoring.

(b) A unique identifier for each mapped item required in Part I E 3;

(c) The name and location of receiving waters to which the MS4 outfall or point of discharge discharges;

(d) MS4 regulated service area; and

(e) stormwater management facilities owned or operated by the permittee.

(2) The permittee shall maintain an information table associated with the storm sewer system map that includes the following information for each outfall or point of discharge for those cases in which the permittee elects to map the known point of discharge in accordance with Part I E 3 a (1) (a):

(a) A unique identifier as specified on the storm sewer system map;

(b) The latitude and longitude of the outfall or point of discharge;

(c) The estimated regulated acreage draining to the outfall or point of discharge;

(d) The name of the receiving water;

(e) The 6th Order Hydrologic Unit Code of the receiving water;

(f) An indication as to whether the receiving water is listed as impaired in the Virginia 2016 305(b)/303(d) Water Quality Assessment Integrated Report;

(g) The predominant land use for each outfall discharging to an impaired water; and

(h) The name of any EPA approved TMDLs for which the permittee is assigned a wasteload allocation.

(3) No later than July 1, 2019, the permittee shall submit to DEQ a GIS-compatible shapefile of the permittee's MS4 map as described in Part I E 3 a. If the permittee does not have an MS4 map in a GIS format, the permittee shall provide the map as a PDF document.

(4) No later than October 1 of each year, the permittee shall update the storm sewer system map and outfall information table to include any new outfalls constructed or TMDLs approved or both during the immediate preceding reporting period.

(5) The permittee shall provide written notification to any downstream adjacent MS4 of any known physical interconnection established or discovered after the effective date of this permit.

b. The permittee shall prohibit, through ordinance, policy, standard operating procedures, or other legal mechanism, to the extent allowable under federal, state, or local law, regulations, or ordinances, unauthorized nonstormwater discharges into the storm sewer system. Nonstormwater discharges or flows identified in 9VAC25-890-20 D 3 shall only be addressed if they are identified by the permittee as a significant contributor of pollutants discharging to the MS4. Flows that have been identified by the department as de minimis discharges are not significant sources of pollutants to surface water.

c. The permittee shall maintain, implement, and enforce illicit discharge detection and elimination (IDDE) written procedures designed to detect, identify, and address unauthorized nonstormwater discharges, including illegal dumping, to the small MS4 to effectively eliminate the unauthorized discharge. Written procedures shall include:

(1) A description of the legal authorities, policies, standard operating procedures or other legal mechanisms available to the permittee to eliminate identified sources of ongoing illicit discharges including procedures for using legal enforcement authorities.

(2) Dry weather field screening protocols to detect, identify, and eliminate illicit discharges to the MS4. The protocol shall include:

(a) A prioritized schedule of field screening activities and rationale for prioritization determined by the permittee based on such criteria as age of the infrastructure, land use, historical illegal discharges, dumping or cross connections;

(b) If the total number of MS4 outfalls is equal to or less than 50, a schedule to screen all outfalls annually;

(c) If the total number of MS4 outfalls is greater than 50, a schedule to screen a minimum of 50 outfalls annually such that no more than 50% are screened in the previous 12-month period. The 50% criteria is not applicable if all outfalls have been screened in the previous three years; and

(d) A mechanism to track the following information:

(i) The unique outfall identifier;

(ii) Time since the last precipitation event;

(iii) The estimated quantity of the last precipitation event;

(iv) Site descriptions (e.g., conveyance type and dominant watershed land uses);

(v) Whether or not a discharge was observed; and

(vi) If a discharge was observed, the estimated discharge rate (e.g., width and depth of discharge flow rate) and visual characteristics of the discharge (e.g., odor, color, clarity, floatables, deposits or stains, vegetation condition, structural condition, and biology).

(3) A timeframe upon which to conduct an investigation to identify and locate the source of any observed unauthorized nonstormwater discharge. Priority of investigations shall be given to discharges of sanitary sewage and those believed to be a risk to human health and public safety. Discharges authorized under a separate VPDES or state permit require no further action under this permit.

(4) Methodologies to determine the source of all illicit discharges. If the permittee is unable to identify the source of an illicit discharge within six months of beginning the investigation then the permittee shall document that the source remains unidentified. If the observed discharge is intermittent, the permittee shall document that attempts to observe the discharge flowing were unsuccessful.

(5) Methodologies for conducting a follow-up investigation for illicit discharges that are continuous or that permittees expect to occur more frequently than a one-time discharge to verify that the discharge has been eliminated except as provided for in Part I E 3 c (4);

(6) A mechanism to track all illicit discharge investigations to document the following:

(a) The dates that the illicit discharge was initially observed, reported, or both;

(b) The results of the investigation, including the source, if identified;

(c) Any follow-up to the investigation;

(d) Resolution of the investigation; and

(e) The date that the investigation was closed.

d. The MS4 program plan shall include:

(1) The MS4 map and information table required by Part I E 3 a. The map and information table may be incorporated into the MS4 program plan by reference. The map shall be made available to the department within 14 days upon request;

(2) Copies of written notifications of new physical interconnections given by the permittee to other MS4s; and

(3) The IDDE procedures described in Part I E 3 c.

e. The annual report shall include:

(1) A confirmation statement that the MS4 map and information table have been updated to reflect any changes to the MS4 occurring on or before June 30 of the reporting year;

(2) The total number of outfalls screened during the reporting period as part of the dry weather screening program; and

(3) A list of illicit discharges to the MS4 including spills reaching the MS4 with information as follows:

(a) The source of illicit discharge;

(b) The dates that the discharge was observed, reported, or both;

(c) Whether the discharge was discovered by the permittee during dry weather screening, reported by the public, or other method (describe);

(d) How the investigation was resolved;

(e) A description of any follow-up activities; and

(f) The date the investigation was closed.

4. Construction site stormwater runoff control.

a. The permittee shall utilize its legal authority, such as ordinances, permits, orders, specific contract language, and interjurisdictional agreements, to address discharges entering the MS4 from regulated construction site stormwater runoff. The permittee shall control construction site stormwater runoff as follows:

(1) If the permittee is a city, county, or town that has adopted a Virginia Erosion and Sediment Control Program (VESCP), the permittee shall implement the VESCP consistent with the Virginia Erosion and Sediment Control Law (§ 62.1-44.15:51 et seq.

of the Code of Virginia) and Virginia Erosion and Sediment Control Regulations (9VAC25-840);

(2) If the permittee is a town that has not adopted a VESCP, implementation of a VESCP consistent with the Virginia Erosion and Sediment Control Law (§ 62.1-44:15:51 et seq. of the Code of Virginia) and Virginia Erosion and Sediment Control Regulations (9VAC25-840) by the surrounding county shall constitute compliance with Part I E 4 a; such town shall notify the surrounding county of erosion, sedimentation or other construction stormwater runoff problems;

(3) If the permittee is a state agency; public institution of higher education including community colleges, colleges, and universities; or federal entity and has developed standards and specifications in accordance with the Virginia Erosion and Sediment Control Law (§ 62.1-44.15:51 et seq. of the Code of Virginia) and Virginia Erosion and Sediment Control Regulations (9VAC25-840), the permittee shall implement the most recent department approved standards and specifications; or

(4) If the permittee is a state agency; public institution of higher education including community colleges, colleges, and universities; or federal entity and has not developed standards and specifications in accordance with the Virginia Erosion and Sediment Control Law (§ 62.1-44.15:51 et seq. of the Code of Virginia) and Virginia Erosion and Sediment Control Regulations (9VAC25-840), the permittee shall inspect all land disturbing activities as defined in § 62.1-44.15:51 of the Code of Virginia that result in the disturbance activities of 10,000 square feet or greater, or 2,500 square feet or greater in accordance with areas designated under the Chesapeake Bay Preservation Act, as follows:

(a) During or immediately following initial installation of erosion and sediment controls;

(b) At least once per every two-week period;

(c) Within 48 hours following any runoff producing storm event; and

(d) At the completion of the project prior to the release of any performance bond.

(5) If the permittee is a subdivision of a local government such as a school board or other local government body, the permittee shall inspect those projects resulting in a land disturbance as defined in § 62.1-44.15.51 of the Code of Virginia occurring on lands owned or operated by the permittee that result in the disturbance of 10,000 square feet or greater, 2,500 square feet or greater in accordance with areas designated under the Chesapeake Bay Preservation Act, or in accordance with more stringent thresholds established by the local government, as follows:

(a) During or immediately following initial installation of erosion and sediment controls;

(b) At least once per every two-week period;

(c) Within 48 hours following any runoff producing storm event; and

(d) At the completion of the project prior to the release of any performance bond.

b. The permittee shall require implementation of appropriate controls to prevent nonstormwater discharges to the MS4, such as wastewater, concrete washout, fuels and oils, and other illicit discharges identified during land disturbing activity inspections of the MS4. The discharge of nonstormwater discharges other than those identified in 9VAC25-890-20 D through the MS4 is not authorized by this state permit.

c. The permittee's MS4 program plan shall include:

(1) If the permittee implements a construction site stormwater runoff control program in accordance with Part I E 4 a (1), the local ordinance citations for the VESCP program;

(2) If the permittee implements a construction site stormwater runoff control program in accordance with Part I E 4 a (3):

(a) The most recently approved standards and specifications or if incorporated by reference, the location where the standards and specifications can be viewed; and

(b) A copy of the most recent standards and specifications approval letter from the department;

(3) A description of the legal authorities utilized to ensure compliance with Part I E 4 a to control construction site stormwater runoff control such as ordinances, permits, orders, specific contract language, policies, and interjurisdictional agreements;

(4) Written inspection procedures to ensure the erosion and sediment controls are properly implemented and all associated documents utilized during inspection including the inspection schedule;

(5) Written procedures for requiring compliance through corrective action or enforcement action to the extent allowable under federal, state, or local law, regulation, ordinance, or other legal mechanisms; and

(6) The roles and responsibilities of each of the permittee's departments, divisions, or subdivisions in implementing the construction site stormwater runoff control requirements in Part I E 4.

d. The annual report shall include the following:

(1) If the permittee implements a construction site stormwater runoff program in accordance with Part I E 4 a (3):

(a) A confirmation statement that land disturbing projects that occurred during the reporting period have been conducted in accordance with the current department approved standards and specifications for erosion and sediment control; and

(b) If one or more of the land disturbing projects were not conducted with the department approved standards and specifications, an explanation as to why the projects did not conform to the approved standards and specifications.

(2) Total number of inspections conducted; and

(3) The total number and type of enforcement actions implemented and the type of enforcement actions.

5. Post-construction stormwater management for new development and development on prior developed lands.

   a. The permittee shall address post-construction stormwater runoff that enters the MS4 from the following land disturbing activities by implementing a post-construction stormwater runoff management program as follows:

      (1) If the permittee is a city, county, or town, with an approved Virginia Stormwater Management Program (VSMP), the permittee shall implement the VSMP consistent with the Virginia Stormwater Management Act (§ 62.1-44.15:24 et seq. of the Code of Virginia) and VSMP Regulations (9VAC25-870) as well as develop an inspection and maintenance program in accordance with Parts I E 5 b and c;

      (2) If the permittee is a town that has not adopted a VSMP, implementation of a VSMP consistent with the Virginia Stormwater Management Act (§ 62.1-44.15:24 et seq. of the Code of Virginia) and VSMP Regulations (9VAC25-870) by the surrounding county shall constitute compliance with Part I E 5 a; such town shall notify the surrounding county of erosion, sedimentation, or other post-construction stormwater runoff problems and develop an inspection and maintenance program in accordance with Part I E 5 b and c;

      (3) If the permittee is a state agency; public institution of higher education including community colleges, colleges, and universities; or federal entity and has developed standards and specifications in accordance with the Virginia Stormwater Management Act (§ 62.1-44.15:24 et seq. of the Code of Virginia) and VSMP Regulations (9VAC25-870), the permittee shall implement the most recent department approved standards and specifications and develop an inspection and maintenance program in accordance with Part I E 5 b;

      (4) If the permittee is a state agency; public institution of higher education including community colleges, colleges, and universities; or federal entity and has not developed standards and specifications in accordance with the Virginia Stormwater Management Act (§ 62.1-44.15:24 et seq. of the Code of Virginia) and Virginia Stormwater Management Regulations (9VAC25-870) the permittee shall implement a post-construction stormwater runoff control program through compliance with 9VAC25-870 and with the implementation of a maintenance and inspection program consistent with Part I E 5 b; or

      (5) If the permittee is a subdivision of a local government such as a school board or other local government body, the permittee shall implement a post-construction stormwater runoff control program through compliance with 9VAC25-870 or in accordance with more stringent local requirements, if applicable, and with the implementation of a maintenance and inspection program consistent with Part I E 5 b.

b. The permittee shall implement an inspection and maintenance program for those stormwater management facilities owned or operated by the permittee that discharges to the MS4 as follows:

(1) The permittee shall develop and maintain written inspection and maintenance procedures in order to ensure adequate long-term operation and maintenance of its stormwater management facilities;

(2) The permittee shall inspect stormwater management facilities owned or operated by the permittee no less than once per year. The permittee may choose to implement an alternative schedule to inspect these stormwater management facilities based on facility type and expected maintenance needs provided that the alternative schedule and rationale is included in the MS4 program plan. The alternative inspection frequency shall be no less than once per five years; and

(3) If during the inspection of the stormwater management facility conducted in accordance with Part I E 5 b (2), it is determined that maintenance is required, the permittee shall conduct the maintenance in accordance with the written procedures developed under Part I E 5 b (1).

c. For those permittees described in Part I E 5 a (1) or (2), the permittee shall:

(1) Implement an inspection and enforcement program for stormwater management facilities not owned by the permittee (i.e., privately owned) that includes:

(a) An inspection frequency of no less than once per five years for all privately owned stormwater management facilities that discharge into the MS4; and

(b) Adequate long-term operation and maintenance by the owner of the stormwater management facility by requiring the owner to develop and record a maintenance agreement, including an inspection schedule to the extent allowable under state or local law or other legal mechanism;

(2) Utilize its legal authority for enforcement of the maintenance responsibilities if maintenance is neglected by the owner; and

(3) The permittee may develop and implement a progressive compliance and enforcement strategy provided that the strategy is included in the MS4 program plan.

d. The permittee shall maintain an electronic database or spreadsheet of all known permittee-owned or permittee-operated and privately owned stormwater management facilities that discharge into the MS4. The database shall also include all BMPs implemented by the permittee to meet the Chesapeake Bay TMDL load reduction as required in Part II A. A database shall include the following information as applicable:

(1) The stormwater management facility or BMP type;

(2) The stormwater management facility or BMPs location as latitude and longitude;

(3) The acres treated by the stormwater management facility or BMP, including total acres, pervious acres, and impervious acres;

(4) The date the facility was brought online (MM/YYYY). If the date brought online is not known, the permittee shall use June 30, 2005;

(5) The 6th Order Hydrologic Unit Code in which the stormwater management facility is located;

(6) Whether the stormwater management facility or BMP is owned or operated by the permittee or privately owned;

(7) Whether or not the stormwater management facility or BMP is part of the permittee's Chesapeake Bay TMDL action plan required in Part II A or local TMDL action plan required in Part II B, or both;

(8) If the stormwater management facility or BMP is privately owned, whether a maintenance agreement exists; and

(9) The date of the permittee's most recent inspection of the stormwater management facility or BMP.

e. The electronic database or spreadsheet shall be updated no later than 30 days after a new stormwater management facility is brought online, a new BMP is implemented to meet a TMDL load reduction as required in Part II, or discovered if it is an existing stormwater management facility.

f. The permittee shall use the DEQ Construction Stormwater Database or other application as specified by the department to report each stormwater management facility installed after July 1, 2014, to address the control of post-construction runoff from land disturbing activities for which the permittee is required to obtain a General VPDES Permit for Discharges of Stormwater from Construction Activities.

g. No later than October 1 of each year, the permittee shall electronically report the stormwater management facilities and BMPs implemented between July 1 and June 30 of each year using the DEQ BMP Warehouse and associated reporting template for any practices not reported in accordance with Part I E 5 f including stormwater management facilities installed to control post-development stormwater runoff from land disturbing activities less than one acre in accordance with the Chesapeake Bay Preservation Act regulations (9VAC25-830) and for which a General VPDES Permit for Discharges of Stormwater from Construction Activities was not required.

h. The MS4 program plan shall include:

(1) If the permittee implements a VSMP in accordance with Part I E 5 a (1) and (2):

(a) A copy of the VSMP approval letter issued by the department;

(b) Written inspection procedures and all associated documents utilized in the inspection of privately owned stormwater management facilities; and

(c) Written procedures for compliance and enforcement of inspection and maintenance requirements for privately owned BMPs.

(2) If the permittee implements a post-development stormwater runoff control program in accordance with Part I E 5 a (3):

(a) The most recently approved standards and specifications or if incorporated by reference, the location where the standards and specifications can be viewed; and

(b) A copy of the most recent standards and specifications approval letter from the department.

(3) A description of the legal authorities utilized to ensure compliance with Part I E 5 a for post-construction stormwater runoff control such as ordinances (provide citation as appropriate), permits, orders, specific contract language, and interjurisdictional agreements;

(4) Written inspection procedures and all associated documents utilized during inspection of stormwater management facilities owned or operated by the permittee;

(5) The roles and responsibilities of each of the permittee's departments, divisions, or subdivisions in implementing the post-construction stormwater runoff control program; and

(6) The stormwater management facility spreadsheet or database incorporated by reference and the location or webpage address where the spreadsheet or database can be reviewed.

i. The annual report shall include the following information:

(1) If the permittee implements a Virginia Stormwater Management Program in accordance with Part I E 5 a (1) and (2):

(a) The number of privately owned stormwater management facility inspections conducted; and

(b) The number of enforcement actions initiated by the permittee to ensure long-term maintenance of privately owned stormwater management facilities including the type of enforcement action;

(2) Total number of inspections conducted on stormwater management facilities owned or operated by the permittee;

(3) A description of the significant maintenance, repair, or retrofit activities performed on the stormwater management facilities owned or operated by the permittee to ensure it continues to perform as designed. This does not include routine activities such as grass mowing or trash collection;

(4) A confirmation statement that the permittee submitted stormwater management facility information through the Virginia Construction Stormwater General Permit database for

those land disturbing activities for which the permittee was required to obtain coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities in accordance with Part I E 5 f or a statement that the permittee did not complete any projects requiring coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities; and

(5) A confirmation statement that the permittee electronically reported BMPs using the DEQ BMP Warehouse in accordance with Part I E 5 g and the date on which the information was submitted.

6. Pollution prevention and good housekeeping for facilities owned or operated by the permittee within the MS4 service area.

   a. The permittee shall maintain and implement written procedures for those activities at facilities owned or operated by the permittee, such as road, street, and parking lot maintenance; equipment maintenance; and the application, storage, transport, and disposal of pesticides, herbicides, and fertilizers designed to:

      (1) Prevent illicit discharges;

      (2) Ensure the proper disposal of waste materials, including landscape wastes;

      (3) Prevent the discharge of wastewater or permittee vehicle wash water or both into the MS4 without authorization under a separate VPDES permit;

      (4) Require implementation of best management practices when discharging water pumped from utility construction and maintenance activities;

      (5) Minimize the pollutants in stormwater runoff from bulk storage areas (e.g., salt storage, topsoil stockpiles) through the use of best management practices;

      (6) Prevent pollutant discharge into the MS4 from leaking municipal automobiles and equipment; and

      (7) Ensure that the application of materials, including fertilizers and pesticides, is conducted in accordance with the manufacturer's recommendations.

   b. The written procedures established in accordance with Part I E 6 a shall be utilized as part of the employee training program at Part I E 6 m.

   c. Within 12 months of state permit coverage, the permittee shall identify which of the high-priority facilities have a high potential of discharging pollutants. The permittee shall maintain and implement a site specific stormwater pollution prevention plan (SWPPP) for each facility identified. High priority facilities that have a high potential for discharging pollutants are those facilities 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;

(4) Materials or products that would be expected to be mobilized in stormwater runoff during loading or 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, nonleaking 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.

d. Each SWPPP as required in Part I E 6 c shall include the following:

(1) A site description that includes a site map identifying all outfalls, direction of stormwater flows, existing source controls, and receiving water bodies;

(2) A description and checklist of the potential pollutants and pollutant sources;

(3) A description of all potential nonstormwater discharges;

(4) Written procedures designed to reduce and prevent pollutant discharge;

(5) A description of the applicable training as required in Part I E 6 m;

(6) Procedures to conduct an annual comprehensive site compliance evaluation;

(7) An inspection frequency of no less than once per year and maintenance requirements for site specific source controls. The date of each inspection and associated findings and follow-up shall be logged in each SWPPP; and

(8) A log of each unauthorized discharge, release, or spill incident reported in accordance with Part III G including the following information:

(a) Date of incident;

(b) Material discharged, released, or spilled; and

(c) Estimated quantity discharged, released or spilled .

e. No later than June 30 of each year, the permittee shall annually review any high-priority facility owned or operated by the permittee for which a SWPPP has not been developed to determine if the facility has a high potential to discharge pollutants as described in Part I E 6

c. If the facility is determined to be a high-priority facility with a high potential to discharge pollutants, the permittee shall develop a SWPPP meeting the requirements of Part I E 6 d no later than December 31 of that same year.

f. The permittee shall review the contents of any site specific SWPPP no later than 30 days after any unauthorized discharge, release, or spill reported in accordance with Part III G to determine if additional measures are necessary to prevent future unauthorized discharges, releases, or spills. If necessary, the SWPPP shall be updated no later than 90 days after the unauthorized discharge.

g. The SWPPP shall be kept at the high-priority facility with a high potential to discharge and utilized as part of staff training required in Part I E 6 m. The SWPPP and associated documents may be maintained as a hard copy or electronically as long as the documents are available to employees at the applicable site.

h. If activities change at a facility such that the facility no longer meets the criteria of a high-priority facility with a high potential to discharge pollutants as described in Part I E 6 c, the permittee may remove the facility from the list of high-priority facilities with a high potential to discharge pollutants.

i. The permittee shall maintain and implement turf and landscape nutrient management plans that have been developed by a certified turf and landscape nutrient management planner in accordance with § 10.1-104.2 of the Code of Virginia on all lands owned or operated by the permittee where nutrients are applied to a contiguous area greater than one acre. If nutrients are being applied to achieve final stabilization of a land disturbance project, application shall follow the manufacturer's recommendations.

j. Permittees with lands regulated under § 10.1-104.4 of the Code of Virginia, including state agencies, state colleges and universities, and other state government entities, shall continue to implement turf and landscape nutrient management plans in accordance with this statutory requirement.

k. 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.

l. The permittee shall require through the use of contract language, training, standard operating procedures, or other measures within the permittee's legal authority that contractors employed by the permittee and engaging in activities with the potential to discharge pollutants use appropriate control measures to minimize the discharge of pollutants to the MS4.

m. The permittee shall develop a training plan in writing for applicable staff that ensures the following:

(1) Field personnel receive training in the recognition and reporting of illicit discharges no less than once per 24 months;

(2) Employees performing road, street, and parking lot maintenance receive training in pollution prevention and good housekeeping associated with those activities no less than once per 24 months;

(3) Employees working in and around maintenance, public works, or recreational facilities receive training in good housekeeping and pollution prevention practices associated with those facilities no less than once per 24 months;

(4) Employees and contractors hired by the permittee who apply pesticides and herbicides are trained or certified in accordance with the Virginia Pesticide Control Act (§ 3.2-3900 et seq. of the Code of Virginia). Certification by the Virginia Department of Agriculture and Consumer Services (VCACS) Pesticide and Herbicide Applicator program shall constitute compliance with this requirement;

(5) Employees and contractors serving as plan reviewers, inspectors, program administrators, and construction site operators obtain the appropriate certifications as required under the Virginia Erosion and Sediment Control Law and its attendant regulations;

(6) Employees and contractors implementing the stormwater program obtain the appropriate certifications as required under the Virginia Stormwater Management Act and its attendant regulations; and

(7) Employees whose duties include emergency response have been trained in spill response. Training of emergency responders such as firefighters and law-enforcement officers on the handling of spill releases as part of a larger emergency response training shall satisfy this training requirement and be documented in the training plan.

n. The permittee shall maintain documentation of each training event conducted by the permittee to fulfill the requirements of Part I E 6 m for a minimum of three years after the training event. The documentation shall include the following information:

(1) The date of the training event;

(2) The number of employees attending the training event; and

(3) The objective of the training event.

o. The permittee may fulfill the training requirements in Part I E 6 m, in total or in part, through regional training programs involving two or more MS4 permittees; however, the permittee shall remain responsible for ensuring compliance with the training requirements.

p. The MS4 program plan shall include:

(1) The written procedures for the operations and maintenance activities as required by Part I E 6 a;

(2) A list of all high-priority facilities owned or operated by the permittee required in accordance with Part I E 6 c, and whether or not the facility has a high potential to discharge;

(3) A list of lands for which turf and landscape nutrient management plans are required in accordance with Part I E 6 i and j, including the following information:

(a) The total acreage on which nutrients are applied;

(b) The date of the most recently approved nutrient management plan for the property; and

(c) The location in which the individual turf and landscape nutrient management plan is located;

(4) A summary of mechanisms the permittee uses to ensure contractors working on behalf of the permittees implement the necessary good housekeeping and pollution prevention procedures, and stormwater pollution plans as appropriate; and

(5) The written training plan as required in Part I E 6 m.

q. The annual report shall include the following:

(1) A summary of any operational procedures developed or modified in accordance with Part I E 6 a during the reporting period;

(2) A summary of any new SWPPPs developed in accordance Part I E 6 c during the reporting period;

(3) A summary of any SWPPPs modified in accordance with Part I E 6 f or the rationale of any high priority facilities delisted in accordance with Part I E 6 h during the reporting period;

(4) A summary of any new turf and landscape nutrient management plans developed that includes:

(a) Location and the total acreage of each land area; and

(b) The date of the approved nutrient management plan; and

(5) A list of the training events conducted in accordance with Part I E 6 m, including the following information:

(a) The date of the training event;

(b) The number of employees who attended the training event; and

(c) The objective of the training event.

Part II
TMDL Special Conditions

A. Chesapeake Bay TMDL special condition.

1. The Commonwealth in its Phase I and Phase II Chesapeake Bay TMDL Watershed Implementation Plans (WIPs) committed to a phased approach for MS4s, affording MS4 permittees up to three full five-year permit cycles to implement necessary reductions. This permit is consistent with the Chesapeake Bay TMDL and the Virginia Phase I and Phase II WIPs to meet the Level 2 (L2) scoping run for existing developed lands as it represents an implementation of an additional 35% of L2 as specified in the 2010 Phase I and Phase II WIPs. In combination with the 5.0% reduction of L2 that has already been achieved, a total reduction at the end of this permit term of 40% of L2 will be achieved. Conditions of future permits will be consistent with the TMDL or WIP conditions in place at the time of permit issuance.

2. The following definitions apply to Part II of this state permit for the purpose of the Chesapeake Bay TMDL special condition for discharges in the Chesapeake Bay Watershed:

   "Existing sources" means pervious and impervious urban land uses served by the MS4 as of June 30, 2009.

   "New sources" means pervious and impervious urban land uses served by the MS4 developed or redeveloped on or after July 1, 2009.

   "Pollutants of concern" or "POC" means total nitrogen, total phosphorus, and total suspended solids.

   "Transitional sources" means regulated land disturbing activities that are temporary in nature and discharge through the MS4.

3. Reduction requirements. No later than the expiration date of this permit, the permittee shall reduce the load of total nitrogen, total phosphorus, and total suspended solids from existing developed lands served by the MS4 as of June 30, 2009, within the 2010 Census urbanized areas by at least 40% of the Level 2 (L2) Scoping Run Reductions. The 40% reduction is the sum of (i) the first phase reduction of 5.0% of the L2 Scoping Run Reductions based on the lands located within the 2000 Census urbanized areas required by June 30, 2018; (ii) the second phase reduction of at least 35% of the L2 Scoping Run based on lands within the 2000 Census urbanized areas required by June 30, 2023; and (iii) the reduction of at least 40% of the L2 Scoping Run , which shall only apply to the additional lands that were added by the 2010 expanded Census urbanized areas required by June 30, 2023. The required reduction shall be calculated using Tables 3a, 3b, 3c, and 3d below as applicable:

Table 3a
Calculation Sheet for Estimating Existing Source Loads and Reduction Requirements for the James River, Lynnhaven, and Little Creek Basins

		A	B	C	D	E	F	G
Pollutant	Subsource	Loading rate (lbs/ac/yr)[1]	Existing developed lands as of 6/30/09 served by the MS4 within the 2010 CUA (acres)[2]	Load(lbs/yr)[3]	Percentage of MS4 required Chesapeake Bay total L2 loading	Percentage of L2 required reduction by 6/30/2023	40% cumulative reduction Required by 6/30/2023 (lbs/yr)[4]	Sum of 40% cumulative reduction (lb/yr)[5]
Nitrogen	Regulated urban impervious	9.39			9%	40%		
	Regulated urban pervious	6.99			6%	40%		
Phosphorus	Regulated urban impervious	1.76			16%	40%		
	Regulated urban pervious	0.5			7.25%	40%		
Total suspended solids	Regulated urban impervious	676.94			20%	40%		
	Regulated urban pervious	101.08			8.75%	40%		

[1]Edge of stream loading rate based on the Chesapeake Bay Watershed Model Progress Run 5.3.2.

[2]To determine the existing developed acres required in Column B, permittees should first determine the extent of their regulated service area based on the 2010 Census urbanized area (CUA). Next, permittees will need to delineate the lands within the 2010 CUA served by the MS4 as pervious or impervious as of the baseline date of June 30, 2009.

[3]Column C = Column A x Column B.

[4]Column F = Column C x Column D x Column E.

[5]Column G = The sum of the subsource cumulative reduction required by 6/30/23 (lbs/yr) as calculated in Column F.

Table 3b
Calculation Sheet for Estimating Existing Source Loads and Reduction Requirements for the Potomac River Basin

		A	B	C	D	E	F	G
Pollutant	Subsource	Loading rate (lbs/ac/yr)[1]	Existing developed lands as of 6/30/09 served by the MS4 within the 2010 CUA (acres)[2]	Load (lbs/yr)[3]	Percentage of MS4 required Chesapeake Bay total L2 loading reduction	Percentage of L2 required reduction by	40% cumulative reduction required by 6/30/2023 (lbs/yr)[4]	Sum of 40% cumulative reduction (lb/yr)[5]
Nitrogen	Regulated urban impervious	16.86			9%	40%		
	Regulated urban pervious	10.07			6%	40%		
Phosphorus	Regulated Urban Impervious	1.62			16%	40%		
	Regulated urban pervious	0.41			7.25%	40%		
Total suspended solids	Regulated urban impervious	1171.32			20%	40%		
	Regulated urban pervious	175.8			8.75%	40%		

[1]Edge of stream loading rate based on the Chesapeake Bay Watershed Model Progress Run 5.3.2

[2]To determine the existing developed acres required in Column B, permittees should first determine the extent of their regulated service area based on the 2010 Census urbanized area (CUA). Next, permittees will need to delineate the lands within the 2010 CUA served by the MS4 as pervious or impervious as of the baseline date of June 30, 2009.

[3]Column C = Column A x Column B.

[4]Column F = Column C x Column D x Column E.

[5]Column G = The sum of the subsource cumulative reduction required by 6/30/23 (lbs/yr) as calculated in Column F.

Table 3c
Calculation Sheet for Estimating Existing Source Loads and Reduction Requirements for the Rappahannock River Basin

		A	B	C	D	E	F	G
Pollutant	Subsource	Loading rate (lbs/ac/yr)[1]	Existing developed lands as of 6/30/09 served by the MS4 within the 2010 CUA (acres)[2]	Load (lbs/yr)[3]	Percentage of MS4 required Chesapeake Bay total L2 loading reduction	Percentage of L2 required reduction by 6/30/2023	40% cumulative reduction Required by 6/30/2023 (lbs/yr)[4]	Sum of 40% cumulative reduction (lb/yr)[5]
Nitrogen	Regulated urban impervious	9.38			9%	40%		
	Regulated urban pervious	5.34			6%	40%		
Phosphorus	Regulated urban impervious	1.41			16%	40%		
	Regulated urban pervious	0.38			7.25%	40%		
Total suspended solids	Regulated urban impervious	423.97			20%	40%		
	Regulated urban pervious	56.01			8.75%	40%		

[1]Edge of stream loading rate based on the Chesapeake Bay Watershed Model Progress Run 5.3.2.

[2]To determine the existing developed acres required in Column B, permittees should first determine the extent of their regulated service area based on the 2010 Census urbanized area (CUA). Next, permittees will need to delineate the lands within the 2010 CUA served by the MS4 as pervious or impervious as of the baseline date of June 30, 2009.

[3]Column C = Column A x Column B.

[4]Column F = Column C x Column D x Column E.

[5]Column G = The sum of the subsource cumulative reduction required by 6/30/23 (lbs/yr) as calculated in Column F.

Table 3d
Calculation Sheet for Estimating Existing Source Loads and Reduction Requirements for the York River and Poquoson Coastal Basin

		A	B	C	D	E	F	G
Pollutant	Subsource	Loading rate (lbs/ac/yr)[1]	Existing developed lands as of 6/30/09 served by the MS4 within the 2010 CUA (acres)[2]	Load (lbs/yr)[3]	Percentage of MS4 required Chesapeake Bay total L2 loading reduction	Percentage of L2 required reduction by 6/30/2023	40% cumulative reduction required by 6/30/2023 (lbs/yr)[4]	Sum of 40% cumulative reduction (lb/yr)[5]
Nitrogen	Regulated urban impervious	7.31			9%	40%		
	Regulated urban pervious	7.65			6%	40%		
Phosphorus	Regulated urban impervious	1.51			16%	40%		
	Regulated urban pervious	0.51			7.25%	40%		
Total suspended solids	Regulated urban impervious	456.68			20%	40%		
	Regulated urban pervious	72.78			8.75%	40%		

[1]Edge of stream loading rate based on the Chesapeake Bay Watershed Model Progress Run 5.3.2.

[2]To determine the existing developed acres required in Column B, permittees should first determine the extent of their regulated service area based on the 2010 Census urbanized area (CUA). Next, permittees will need to delineate the lands within the 2010 CUA served by the MS4 as pervious or impervious as of the baseline date of June 30, 2009.

[3]Column C = Column A x Column B.

[4]Column F = Column C x Column D x Column E.

[5]Column G = The sum of the subsource cumulative reduction required by 6/30/23 (lbs/yr) as calculated in Column F.

4. No later than the expiration date of this permit, the permittee shall offset 40% of the increased loads from new sources initiating construction between July 1, 2009, and June 30, 2019, and designed in accordance with 9VAC25-870 Part II C (9VAC25-870-93 et seq.) if the following conditions apply:

   a. The activity disturbed one acre or greater; and

   b. The resulting total phosphorous load was greater than 0.45 lb/acre/year, which is equivalent to an average land cover condition of 16% impervious cover.

   The permittee shall utilize Table 4 of Part II A 5 to develop the equivalent pollutant load for nitrogen and total suspended solids for new sources meeting the requirements of this condition.

5. No later than the expiration date of this permit, the permittee shall offset the increased loads from projects grandfathered in accordance with 9VAC25-870-48 that begin construction after July 1, 2014, if the following conditions apply:

   a. The activity disturbs one acre or greater; and

   b. The resulting total phosphorous load was greater than 0.45 lb/acre/year, which is equivalent to an average land cover condition of 16% impervious cover.

   The permittee shall utilize Table 4 below to develop the equivalent pollutant load for nitrogen and total suspended solids for grandfathered sources meeting the requirements of this condition.

Table 4
Ratio of Phosphorus Loading Rate to Nitrogen and Total Suspended Solids Loading Rates for Chesapeake Bay Basins

Ratio of Phosphorus to Other POCs (Based on All Land Uses 2009 Progress Run)	Phosphorus Loading Rate (lbs/acre)	Nitrogen Loading Rate (lbs/acre)	Total Suspended Solids Loading Rate (lbs/acre)
James River Basin, Lynnhaven, and Little Creek Basins	1.0	5.2	420.9
Potomac River Basin	1.0	6.9	469.2
Rappahannock River Basin	1.0	6.7	320.9
York River Basin (including Poquoson Coastal Basin)	1.0	9.5	531.6

6. Reductions achieved in accordance with the General VPDES Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems effective July 1, 2013, shall be applied toward the total reduction requirements to demonstrate compliance with Part II A 3, A 4, and A 5.

7. Reductions shall be achieved in each river basin as calculated in Part II A 3 or for reductions in accordance with Part II A 4 and A 5 in the basin in which the new source or grandfathered project occurred.

8. Loading and reduction values greater than or equal to 10 pounds calculated in accordance with Part II A 3, A 4, and A 5 shall be calculated and reported to the nearest pound without regard to mathematical rules of precision. Loading and reduction values of less than 10 pounds reported in accordance with Part II A 3, A 4, and A 5 shall be calculated and reported to two significant digits.

9. Reductions required in Part II A 3, A 4, and A 5 shall be achieved through one or more of the following:

   a. BMPs approved by the Chesapeake Bay Program;

   b. BMPs approved by the department; or

   c. A trading program described in Part II A 10.

10. The permittee may acquire and use total nitrogen and total phosphorus credits in accordance with § 62.1-44.19:21 of the Code of Virginia and total suspended solids in accordance with § 62.1-44.19:21.1 of the Code of Virginia for purposes of compliance with the required reductions in Table 3a, Table 3b,Table c, Table 3d of Part II A 3; Part II A 4; and Part II A 5, provided the use of credits has been approved by the department. The exchange of credits is subject to the following requirements:

    a. The credits are generated and applied to a compliance obligation in the same calendar year;

    b. The credits are generated and applied to a compliance obligation in the same tributary;

    c. The credits are acquired no later than June 1 immediately following the calendar year in which the credits are applied;

    d. No later than June 1 immediately following the calendar year in which the credits are applied, the permittee certifies on an MS4 Nutrient Credit Acquisition Form that the permittee has acquired the credits;

    e. Total nitrogen and total phosphorus credits shall be either point source credits generated by point sources covered by the Watershed Permit for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Bay Watershed general permit issued pursuant to § 62.1-44.19:14 of the Code of Virginia, or nonpoint source credits certified pursuant to § 62.1-44.19:20 of the Code of Virginia;

    f. Sediment credits shall be derived from one of the following:

       (1) Implementation of BMP in a defined area outside of an MS4 service area, in which case the necessary baseline sediment reduction for such defined area shall be achieved prior to the permittee's use of additional reductions as credit; or

       (2) A point source wasteload allocation established by the Chesapeake Bay total maximum daily load, in which case the credit is the difference between the wasteload allocation specified as an annual mass load and any lower monitored annual mass load that is discharged as certified on an MS4 Sediment Credit Acquisition Form.

g. Sediment credits shall not be associated with phosphorus credits used for compliance with the stormwater nonpoint nutrient runoff water quality criteria established pursuant to § 62.1-44.15:28 of the Code of Virginia.

11. No later than 12 months after the permit effective date, the permittee shall submit an updated Chesapeake Bay TMDL action plan for the reductions required in Part II A 3, A 4, and A 5 that includes the following information:

a. Any new or modified legal authorities, such as ordinances, permits, policy, specific contract language, orders, and interjurisdictional agreements, implemented or needing to be implemented to meet the requirements of Part II A 3, A 4, and A 5.

b. The load and cumulative reduction calculations for each river basin calculated in accordance with Part II A 3, A 4, and A 5.

c. The total reductions achieved as of July 1, 2018, for each pollutant of concern in each river basin.

d. A list of BMPs implemented prior to July 1, 2018, to achieve reductions associated with the Chesapeake Bay TMDL including:

(1) The date of implementation; and

(2) The reductions achieved.

e. The BMPs to be implemented by the permittee prior to the expiration of this permit to meet the cumulative reductions calculated in Part II A 3, A 4, and A 5, including as applicable:

(1) Type of BMP;

(2) Project name;

(3) Location;

(4) Percent removal efficiency for each pollutant of concern; and

(5) Calculation of the reduction expected to be achieved by the BMP calculated and reported in accordance with the methodologies established in Part II A 8 for each pollutant of concern; and

f. A summary of any comments received as a result of public participation required in Part II A 12, the permittee's response, identification of any public meetings to address public concerns, and any revisions made to Chesapeake Bay TMDL action plan as a result of public participation.

12. Prior to submittal of the action plan required in Part II A 11, the permittee shall provide an opportunity for public comment on the additional BMPs proposed to meet the reductions not previously approved by the department in the first phase Chesapeake Bay TMDL action plan for no less than 15 days.

13. For each reporting period, the corresponding annual report shall include the following information:

a. A list of BMPs implemented during the reporting period but not reported to the DEQ BMP Warehouse in accordance with Part I E 5 g and the estimated reduction of pollutants of concern achieved by each and reported in pounds per year;

b. If the permittee acquired credits during the reporting period to meet all or a portion of the required reductions in Part II A 3, A 4, or A 5, a statement that credits were acquired;

c. The progress, using the final design efficiency of the BMPs, toward meeting the required cumulative reductions for total nitrogen, total phosphorus, and total suspended solids; and

d. A list of BMPs that are planned to be implemented during the next reporting period.

B. Local TMDL special condition.

1. The permittee shall develop a local TMDL action plan designed to reduce loadings for pollutants of concern if the permittee discharges the pollutants of concern to an impaired water for which a TMDL has been approved by the U.S. Environmental Protection Agency (EPA) as described in Part II B 1 a and 1 b:

   a. For TMDLs approved by the EPA prior to July 1, 2013, and in which an individual or aggregate wasteload has been allocated to the permittee, the permittee shall update the previously approved local TMDL action plans to meet the conditions of Part II B 3, B 4, B 5, B 6, and B 7 as applicable, no later than 18 months after the permit effective date and continue implementation of the action plan; and

   b. For TMDLs approved by EPA on or after July 1, 2013, and prior to June 30, 2018, and in which an individual or aggregate wasteload has been allocated to the permittee, the permittee shall develop and initiate implementation of action plans to meet the conditions of Part II B 3, B 4, B 5, B 6, and B 7 as applicable for each pollutant for which wasteloads have been allocated to the permittee's MS4 no later than 30 months after the permit effective date.

2. The permittee shall complete implementation of the TMDL action plans as soon as practicable. TMDL action plans may be implemented in multiple phases over more than one permit cycle using the adaptive iterative approach provided adequate progress is achieved in the implementation of BMPs designed to reduce pollutant discharges in a manner that is consistent with the assumptions and requirements of the applicable TMDL.

3. Each local TMDL action plan developed by the permittee shall include the following:

   a. The TMDL project name;

   b. The EPA approval date of the TMDL;

   c. The wasteload allocated to the permittee (individually or in aggregate), and the corresponding percent reduction, if applicable;

   d. Identification of the significant sources of the pollutants of concern discharging to the permittee's MS4 and that are not covered under a separate VPDES permit. For the purposes of this requirement, a significant source of pollutants means a discharge where the expected pollutant loading is greater than the average pollutant loading for the land use identified in the TMDL;

   e. The BMPs designed to reduce the pollutants of concern in accordance with Parts II B 4, B 5, and B 6;

   f. Any calculations required in accordance with Part II B 4, B 5, or B 6;

   g. For action plans developed in accordance with Part II B 4 and B 5, an outreach strategy to enhance the public's education (including employees) on methods to eliminate and reduce discharges of the pollutants; and

h. A schedule of anticipated actions planned for implementation during this permit term.

4. Bacterial TMDLs.

a. If the permittee is an approved VSMP authority, the permittee shall select and implement at least three of the strategies listed in Table 5 below designed to reduce the load of bacteria to the MS4. Selection of the strategies shall correspond to sources identified in Part II B 3 d.

b. If the permittee is not an approved VSMP authority, the permittee shall select at least one strategy listed in Table 5 below designed to reduce the load of bacteria to the MS4 relevant to sources of bacteria applicable within the MS4 regulated service area. Selection of the strategies shall correspond to sources identified in Part II B 3 d.

Table 5
Strategies for Bacteria Reduction Stormwater Control/Management Strategy

Source	Strategies (provided as an example and not meant to be all inclusive or limiting)
Domestic pets (dogs and cats)	Provide signage to pick up dog waste, providing pet waste bags and disposal containers. Adopt and enforce pet waste ordinances or policies, or leash laws or policies. Place dog parks away from environmentally sensitive areas. Maintain dog parks by removing disposed of pet waste bags and cleaning up other sources of bacteria. Protect riparian buffers and provide unmanicured vegetative buffers along streams to dissuade stream access.
Urban wildlife	Educate the public on how to reduce food sources accessible to urban wildlife (e.g., manage restaurant dumpsters and grease traps, residential garbage, feed pets indoors). Install storm drain inlet or outlet controls. Clean out storm drains to remove waste from wildlife. Implement and enforce urban trash management practices. Implement rooftop disconnection programs or site designs that minimize connections to reduce bacteria from rooftops Implement a program for removing animal carcasses from roadways and properly disposing of the same (either through proper storage or through transport to a licensed facility).

Illicit connections or illicit discharges to the MS4	Implement an enhanced dry weather screening and illicit discharge, detection, and elimination program beyond the requirements of Part I E 3 to identify and remove illicit connections and identify leaking sanitary sewer lines infiltrating to the MS4 and implement repairs. Implement a program to identify potentially failing septic systems. Educate the public on how to determine whether their septic system is failing. Implement septic tank inspection and maintenance program. Implement an educational program beyond any requirements in Part I E 1 though E 6 to explain to citizens why they should not dump materials into the MS4.
Dry weather urban flows (irrigations, carwashing,	Implement public education programs to reduce dry weather flows from storm sewers related to lawn and park irrigation practices, carwashing, powerwashing and other nonstormwater flows. Provide irrigation controller rebates.
powerwashing,	Implement and enforce ordinances or policies related to outdoor (etc.) water waste. Inspect commercial trash areas, grease traps, washdown practices, and enforce corresponding ordinances or policies.
Birds (Canadian geese, gulls, pigeons, etc.)	Identify areas with high bird populations and evaluate deterrents, population controls, habitat modifications and other measures that may reduce bird-associated bacteria loading. Prohibit feeding of birds.
Other sources	Enhance maintenance of stormwater management facilities owned or operated by the permittee. Enhance requirements for third parties to maintain stormwater management facilities. Develop BMPs for locating, transporting, and maintaining portable toilets used on permittee-owned sites. Educate third parties that use portable toilets on BMPs for use. Provide public education on appropriate recreational vehicle dumping practices.

5. Local sediment, phosphorus, and nitrogen TMDLs.

   a. The permittee shall reduce the loads associated with sediment, phosphorus, or nitrogen through implementation of one or more of the following:

      (1) One or more of the BMPs from the Virginia Stormwater BMP Clearinghouse listed in 9VAC25-870-65 or other approved BMPs found on the Virginia Stormwater BMP Clearinghouse website;

      (2) One or more BMPs approved by the Chesapeake Bay Program; or

(3) Land disturbance thresholds lower than Virginia's regulatory requirements for erosion and sediment control and post development stormwater management.

b. The permittee may meet the local TMDL requirements for sediment, phosphorus, or nitrogen through BMPs implemented to meet the requirements of the Chesapeake Bay TMDL in Part II A as long as the BMPs are implemented in the watershed for which local water quality is impaired.

c. The permittee shall calculate the anticipated load reduction achieved from each BMP and include the calculations in the action plan required in Part II B 3 f.

d. No later than 36 months after the effective date of this permit, the permittee shall submit to the department the anticipated end dates by which the permittee will meet each WLA for sediment, phosphorus, or nitrogen. The proposed end date may be developed in accordance with Part II B 2.

6. Polychlorinated biphenyl (PCB) TMDLs.

a. For each PCB TMDL action plan, the permittee shall include an inventory of potentially significant sources of PCBs owned or operated by the permittee that drains to the MS4 that includes the following information:

(1) Location of the potential source;

(2) Whether or not the potential source is from current site activities or activities previously conducted at the site that have been terminated (i.e. legacy activities); and

(3) A description of any measures being implemented or to be implemented to prevent exposure to stormwater and the discharge of PCBs from the site.

b. If at any time during the term of this permit, the permittee discovers a previously unidentified significant source of PCBs within the permittee's MS4 regulated service area, the permittee shall notify DEQ in writing within 30 days of discovery.

7. Prior to submittal of the action plan required in Part II B 1, the permittee shall provide an opportunity for public comment proposed to meet the local TMDL action plan requirements for no less than 15 days.

8. The MS4 program plan as required by Part I B of this permit shall incorporate each local TMDL action plan. Local TMDL action plans may be incorporated by reference into the MS4 program plan provided that the program plan includes the date of the most recent local TMDL action plan and identification of the location where a copy of the local TMDL action plan may be obtained.

9. For each reporting period, each annual report shall include a summary of actions conducted to implement each local TMDL action plan.

Part III
Conditions Applicable to All State and VPDES Permits

NOTE: Discharge monitoring is not required for compliance purposes by this general permit. If the operator chooses to monitor stormwater discharges for informational or screening purposes, the operator does not need to comply with the requirements of Parts III A, B, or C.

A. Monitoring.

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitoring activity.

2. Monitoring shall be conducted according to procedures approved under 40 CFR Part 136 or alternative methods approved by the U.S. Environmental Protection Agency, unless other procedures have been specified in this state permit. Analyses performed according to test procedures approved under 40 CFR Part 136 shall be performed by an environmental laboratory certified under regulations adopted by the Department of General Services (1VAC30-45 or 1VAC30-46).

3. The operator shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will ensure accuracy of measurements.

B. Records.

1. Monitoring records and reports shall include:

   a. The date, exact place, and time of sampling or measurements;

   b. The individuals who performed the sampling or measurements;

   c. The dates and times analyses were performed;

   d. The individuals who performed the analyses;

   e. The analytical techniques or methods used; and

   f. The results of such analyses.

2. The operator shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this state permit, and records of all data used to complete the registration statement for this state permit, for a period of at least three years from the date of the sample, measurement, report or request for coverage. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the operator, or as requested by the board.

C. Reporting monitoring results.

1. The operator shall submit the results of the monitoring as may be performed in accordance with 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); on forms provided, approved or specified by the department; or in any format provided that the date, location, parameter, method, and result of the monitoring activity are included.

3. If the operator monitors any pollutant specifically addressed by this 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 operator shall furnish 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, department, or EPA may require the operator to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from his discharge on the quality of surface waters, or such other information as may be necessary to accomplish the purposes of the CWA and Virginia Stormwater Management Act. The operator shall also furnish to the board, department, or EPA 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 § 62.1-44.5 of the Code of Virginia, except in compliance with a state permit issued by the department, it shall be unlawful to cause a stormwater discharge from a MS4.

G. Reports of unauthorized discharges. Any operator of a small MS4 who discharges or causes or allows a discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance or a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, 40 CFR Part 302, or § 62.1-44.34:19 of the Code of Virginia 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 a "bypass" (Part III U) or "upset," (Part III V), should occur from a facility and the discharge enters or could be expected to enter surface waters, the operator shall promptly notify, in no case later than within 24 hours, the department by telephone after the discovery of the discharge. This notification shall provide all available details of the incident, including any adverse effects on aquatic life and the known number of fish killed. The operator shall reduce the report to writing and shall submit it to the department within five days of discovery of the discharge in accordance with Part III I 2. Unusual and extraordinary discharges include any discharge resulting from:

1. Unusual spillage of materials resulting directly or indirectly from processing operations;

2. Breakdown of processing or accessory equipment;

3. Failure or taking out of service some or all of the facilities; and

4. Flooding or other acts of nature.

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

1. An oral report to the department shall be provided within 24 hours from the time the operator becomes aware of the circumstances. The following shall be included as information that shall be reported within 24 hours under this subdivision:

   a. Any unanticipated bypass; and

   b. Any upset that causes a discharge to surface waters.

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

   a. A description of the noncompliance and its cause;

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

   c. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The department may waive the written report on a case-by-case basis for reports of noncompliance under Part III I if the oral report has been received within 24 hours and no adverse impact on surface waters has been reported.

3. The operator shall report all instances of noncompliance not reported under Part III I 1 or 2, in writing, as part of the annual reports that are submitted. The reports shall contain the information listed in Part III I 2.

   NOTE: The reports required in Part III G, H, and I shall be made to the department. Reports may be made by telephone, email, or fax. For reports outside normal working hours, leaving a recorded message shall fulfill the immediate reporting requirement. For emergencies, the Virginia Department of Emergency Management maintains a 24-hour telephone service at 1-800-468-8892.

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

J. Notice of planned changes.

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

   a. The operator plans an alteration or addition to any building, structure, facility, or installation that may meet one of the criteria for determining whether a facility is a new source in 9VAC25-870-420:

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

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

K. Signatory requirements.

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

   a. For a corporation: by a responsible corporate officer. For the purpose of this chapter, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy-making or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for state 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 chapter, 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 and other information. All reports required by state permits, including annual reports, and other information requested by the board or department shall be signed by a person described in Part III K 1, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

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

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

   c. The signed and dated written authorization is submitted to the department.

3. Changes to authorization. If an authorization under Part III K 2 is no longer accurate because a different individual or position has responsibility for the overall operation of the MS4, a new authorization satisfying the requirements of Part III K 2 shall be submitted to the department prior to or together with any reports, or information to be signed by an authorized representative.

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

   "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

L. Duty to comply. The operator shall comply with all conditions of this state permit. Any state 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 state permit termination, revocation and reissuance, or modification; or denial of a state permit renewal application.

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

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

N. Effect of a state 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 operator from any responsibilities, liabilities, or penalties established pursuant to any other state law or regulation or under authority preserved by § 510 of the Clean Water Act. Except as provided in state permit conditions on "bypassing" (Part III U), and "upset" (Part III V) nothing in this state permit shall be construed to relieve the operator 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 operator from any responsibilities, liabilities, or penalties to which the operator is or may be subject under §§ 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law or § 311 of the Clean Water Act.

Q. Proper operation and maintenance. The operator shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances), which are installed or used by the operator to achieve compliance with the conditions of this 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 operator 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 and in compliance with all applicable state and federal laws and regulations.

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

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

U. Bypass.

1. "Bypass," as defined in 9VAC25-870-10, means the intentional diversion of waste streams from any portion of a treatment facility. The operator may allow any bypass to occur that does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to ensure efficient operation. These bypasses are not subject to the provisions of Part III U 2 and U 3.

2. Notice.

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

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

3. Prohibition of bypass.

   a. Except as provided in Part III U 1, bypass is prohibited, and the board or department may take enforcement action against an operator for bypass, unless:

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

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

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

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

V. Upset.

1. An "upset," as defined in 9VAC25-870-10, means an exceptional incident in which there is unintentional and temporary noncompliance with technology based state permit effluent limitations because of factors beyond the reasonable control of the operator. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

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

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

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

   a. An upset occurred and that the operator can identify the causes of the upset;

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

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

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

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

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

1. Enter upon the operator's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this 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 and photograph 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 ensuring 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. State permit actions. State permits may be modified, revoked and reissued, or terminated for cause. The filing of a request by the operator for a state permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any state permit condition.

Y. Transfer of state permits.

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

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

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

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

c. The department does not notify the existing operator and the proposed new operator of its intent to modify or revoke and reissue the state permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Part III 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.

Appendix B

Current Permit Registration Statement

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY GENERAL PERMIT REGISTRATION STATEMENT FOR STORMWATER DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS (VAR04)

Section I. General Information

A. Owner/Operator Information:

Name of Owner Applying for Permit Coverage: Fort Monroe Authority		
Mailing Address: 20 Ingalls Road		
City: Fort Monroe	State: VA	Zip Code: 23651
Phone Number: (757 - 637-7778		

B. Responsible Official *(Please note that for municipality, state, federal, and other public agencies, the responsible official is defined in 9VAC25-870-370 A.3 as either a principal executive officer or ranking elected official. A principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency)*

Name: G. Glenn Oder		
Title: Executive Director		
Mailing Address: 20 Ingalls Road		
City: Fort Monroe	State: VA	Zip Code: 23651
E-mail Address: goder@fortmonroe.org		
Phone Number: ( ) - (757) 637-7778		

C. MS4 Permit Contact

Name: Samantha Henderson		
Title: Archaeology and Environmental Coordinator		
Mailing Address: 20 Ingalls Road		
City: Fort Monroe	State: VA	Zip Code: 23651
E-mail Address: shenderson@fortmonroe.org		
Phone Number: ( ) - (757) 251-2756		

D. MS4 Maintenance Fee Contact

Name: Crystal DeAngelis		
Title: Deputy Director of Finance		
Mailing Address: 20 Ingalls Road		
City: Fort Monroe	State: VA	Zip Code: 23651
E-mail Address: cdeangelis@fortmonroe.org		
Phone Number: ( ) - (757) 251-2742		

E. Small MS4 Information

Name: Fort Monroe Authority		
MS4 Ownership Type: ☐City ☐County ☐Incorporated Town ☐Unincorporated Town ☐College or University		
☐Local School Board ☐Military Installation ☐Transportation System ☐Federal Facility ☒State Facility		
☐Other ( )		
Facility Address (applicable to state and federal entities only):		
Street: 20 Ingalls Road		
City: Fort Monroe	State: VA	Zip Code: 23651

F. List The Names Of Any Physically Interconnected MS4s To Which The Small MS4 Discharges

US Army- Fort Monroe VAR040042

Section II. Stormwater Discharge Information (attach additional sheets as necessary. Permittees may attach alternative tables or spreadsheets in lieu of completing the tables below, as long as all information required below is included)

A. Receiving Water Information: **Provide a list of all surface waters receiving discharges from the MS4**

Mill Creek
Chesapeake Bay
Hampton Roads Bay

B. Impaired Waters Information: List all surface waters receiving direct discharges from the MS4, that are listed in the 2016 Virginia 303(d)/305(b) Water Quality Assessment Integrated Report.

Mill Creek
Chesapeake Bay
Hampton Roads Bay

Section III. Storm Water Management Program Agreements (please attach additional sheets as necessary)

Agreements: *Attach a list of all existing signed agreements between the operator and any applicable third parties where the operator has entered into an agreement in order to implement minimum control measures or portions of minimum control measures*

Description of Agreement	Permit Requirement(s) Covered by the Agreement	Third Parties Participating in Agreement
Contract for Public Works	Maintenance of the Stormwater system, monitoring, and sampling	Veolia Water

Section IV. Draft Chesapeake Bay Total Maximum Daily Load (TMDL) Action Plan

Attach a copy of the draft second phase Chesapeake Bay TMDL Action Plan in accordance with Section I.C.5 of the General VPDES Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems effective July 1, 2013

Section V. Certification Statement and Signature

Read and sign the following certification statement below that is in accordance with 9 VAC 25-870-370 D:

"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."

Print Name: G. Glenn Oder

Title: Executive Director

Signature:

Date: 6/1/2018

For Department of Environmental Quality Use Only

Accepted Not Accepted

DEQ Reviewer:

Date:

Comments:

Appendix C

FMA Stormwater System Map and Outfall Table

Fort Monroe, VA MS4 Area Map

MS4 Outfall

Stormwater Pipe

MS4 Area

0 2 4 8 Miles

Data Sources: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community, Fort Monroe Authority

MS4 Outfall Informatin Table

Asset ID	Approximate Drainage Area (Acres)	Longitude (X)	Latitude (Y)	HUC	Receiving Water	TMDL	Predominant Land Use
SSOF_002	0.58	-76.311769	37.000238	JL58	Hampton Roads Bay	Chesapeake Bay TMDL	Public
SSOF_003	5.7	-76.309019	37.006171	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_004	23.24	-76.309533	37.004043	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_006	5.39	-76.313752	37.003184	JL58	Hampton Roads Bay	Chesapeake Bay TMDL	Public
SSOF_007	9.45	-76.310682	37.002386	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_008	9.61	-76.313890	37.005915	JL58	Hampton Roads Bay	Chesapeake Bay TMDL	Public
SSOF_009	14.15	-76.304006	37.004247	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_010	32.88	-76.304674	37.010090	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_011	16.26	-76.309174	37.009370	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_013	12.12	-76.312140	37.010680	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_014	13.91	-76.314192	37.007458	JL58	Hampton Roads Bay	Chesapeake Bay TMDL	Public
SSOF_015	4.64	-76.304682	37.002870	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_016	0.76	-76.306314	37.002270	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_017	3.09	-76.306797	37.002000	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_018	8.02	-76.308316	37.006306	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_019	0.96	-76.312777	37.010957	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_020	1.27	-76.314354	37.011573	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_021	0.45	-76.313579	37.004362	JL58	Hampton Roads Bay	Chesapeake Bay TMDL	Public
SSOF_022	0.93	-76.305710	37.002561	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_023	0.69	-76.313971	37.006505	JL58	Hampton Roads Bay	Chesapeake Bay TMDL	Public
SSOF_024	0.47	-76.313861	37.005821	JL58	Hampton Roads Bay	Chesapeake Bay TMDL	Public
SSOF_025	0.75	-76.314674	37.001671	JL58	Hampton Roads Bay	Chesapeake Bay TMDL	Public
SSOF_026	1.01	-76.314335	37.002923	JL58	Hampton Roads Bay	Chesapeake Bay TMDL	Public
SSOF_027	1.16	-76.314744	37.010446	JL58	Hampton Roads Bay	Chesapeake Bay TMDL	Public
SSOF_028	1.09	-76.313718	37.011327	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_029	0.25	-76.314011	37.006661	JL58	Hampton Roads Bay	Chesapeake Bay TMDL	Public
SSOF_030	1.57	-76.307699	37.001802	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_031	0.11	-76.307328	37.001883	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_032	0.31	-76.310439	37.003431	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_033	0.23	-76.309820	37.001966	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_034	0.93	-76.315196	37.011210	JL58	Hampton Roads Bay	Chesapeake Bay TMDL	Public
SSOF_041	2.06	-76.306189	37.001095	JL58	Hampton Roads Bay	Chesapeake Bay TMDL	Public
SSOF_042	0.57	-76.308448	37.000929	JL58	Hampton Roads Bay	Chesapeake Bay TMDL	Public
SSOF_043	3.82	-76.310806	37.000480	JL58	Hampton Roads Bay	Chesapeake Bay TMDL	Public
SSOF_044	4.76	-76.310318	37.003876	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_045	1.05	-76.310336	37.004549	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_046	3.41	-76.310425	37.005583	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_047	4.5	-76.310276	37.005897	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_049	0.02	-76.310676	37.002352	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_050	4.03	-76.309457	37.001803	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_051	5	-76.306351	37.002644	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_055	13.48	-76.305548	37.006254	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_056	0	-76.305526	37.006245	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_057	0	-76.305508	37.006232	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_058	5.57	-76.304822	37.003743	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_059	0.04	-76.304824	37.003741	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_060	0.56	-76.305408	37.002822	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_061	0.06	-76.307025	37.001951	JL58	Mill Creek	Chesapeake Bay TMDL	Public
SSOF_062	0.1	-76.304079	37.004180	JL58	Mill Creek	Chesapeake Bay TMDL	Public

Appendix D

Outfall Inspection Procedures

Stormwater Outfall Inspection Plan

May 4, 2015

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APPENDICES

Appendix – A: Outfall Inspection Form

1.0 ABBREVIATIONS and ACRONYMS

Abbreviation/ Acronym Term
BMP Best Management Practice
Board State Water Control Board
DEQ Virginia Department of Environmental Quality
ESC Erosion and Sediment Control
FMA Fort Monroe Authority
GIS Geographic Information System
LD Land Development
LID Low-Impact Development
MS4 Municipal Separate Storm Sewer System
SWM Stormwater Management
SWPPP Storm Water Pollution Prevention Plan
VESCL&R Virginia Erosion and Sediment Control Law and Regulations
VPDES Virginia Pollutant Discharge Elimination System
VSMP Virginia Stormwater Management Program
VSMPP Virginia Stormwater Management Program Permit for discharges from construction activities

2.0 INTRODUCTION

The Outfall Inspection and Field Screening Plan is an element of the Fort Monroe Authority (FMA) Illicit Discharge Detection and Elimination section of the MS4 Program Plan (Plan). The purpose of the Plan is to establish a comprehensive program to minimize stormwater pollution by establishing best management practices (BMPs), measurable goals, and responsible parties to achieve compliance with the minimum control measures. An illicit discharge is considered any unpermitted, non-storm water discharge that poses a risk to the receiving water. This Plan includes maintaining an outfall inventory and conducting dry weather inspections at the FMA's storm water discharge points.

3.0 OUTFALL INVENTORY

The inventory of outfalls at Fort Monroe are identified and maintained in the FMA GIS system. The data maintained in the GIS system will include the outfall identification number and basin designation. The inspection records of each basin shall be maintained at the FMA office and will be catalogued under the supervision of the FMA Environmental Coordinator.

3.1 Outfall Prioritization and Inspection Frequency The Outfall Inspection Form (Attachment A) includes common indicators of illicit discharges in Section 3 and 4. Section 5 identifies the outfall characterization based on those indicators. A characterization of "Potential" is selected with the presence of two or more indicators. A characterization of "Suspect" is selected with one or more indicators with a severity of 3. An "Obvious" characterization is selected when an illicit discharge is determined to exist. These characterizations are used to prioritize each outfall. The prioritization given to each outfall will be used to determine the frequency of the inspections for that site.

Priority Ranking	Ranking Criteria	Inspection Frequency
Low	No indicators of illicit discharge	Once per MS4 term
Medium	• Potential or suspect signs of discharge • Ranked high the previous inspection	Every two years
High	Obvious sign of illicit discharge	• Re-inspect within 45 days • If no signs of discharge, Done. • If illicit discharge continues: continue corrective actions (enforcement if necessary) until discharge ceases. Add inspections as needed during this process.

4.0 OUTFALL INSPECTION PREPARATION

Outfall inspectors will prepare for the outfall inspections by gathering location information about the outfalls and appropriate permissions.

4.1 Outfall Locations The most up to date list and map of outfalls will be compiled by the GIS technician and provided to the inspectors. The inspectors will compare the outfall mapping to other available Fort Monroe mapping to ensure accuracy and familiarity of the locations.

4.2 Select Inspection Date Inspectors will conduct inspections on dates and times that meet the following criteria:

- Dry Weather: No rain for greater than 24 hours and less than 0.1" of rainfall in the previous 72 hours.
- Low Tide: Inspections will be done within 90 minutes of low tide using the National Oceanographic and Atmospheric (NOAA) tide prediction tables.

By conducting inspections during dry weather, inspectors will be able to quickly identify any flows from the outfalls as potential illicit discharges. However, this may not be possible at many of the outfalls at Fort Monroe which are tidally influenced and continually remain at least partially submerged. Therefore, the inspector will attempt inspections during low tide in order to make better observations about potential flows. However, if the outfall remains at least partially submerged, the inspector will move inland along the drain line to other storm drain structures in order to detect dry weather flows. As applicable, the inspector will observe two storm drain structures upstream from the outfall. If tidal waters are present in the upstream structures as well, then it will be noted on the Outfall Inspection Form that dry weather discharges could not be observed. However, the discharge of pollutants in submerged outfalls may be noted in the form of sheen, odor, color, debris, and water clarity.

4.3 Equipment Requirements Table 2 below lists the required and optional equipment required to adequately inspect the outfall structures:

Table 2: Field Equipment List

Required	Optional
Outfall Inspection Forms	GPS Unit
Outfall Maps	Insect Repellent
Pens / Pencil / Clipboard	Shovel / Bush hook
Appropriate PPE (safety vest, steel toe shoes, etc.)	
Cell Phone with Camera (fully charged)	
Flashlight with batteries	
Measuring Tape (min 20' long)	
Knife	
Manhole hook and Magnetic Manhole Lid Lifter	
First Aid Kit	
Sample Containers	
Thermometer / Temperature gauge	
Digital Camera	

4.4 Safety Safety precautions should always be used while locating and inspecting outfalls. Inspectors should plan for and be aware of vehicular traffic during field investigations. Field personnel must wear safety vests at all times during the field investigations. Safety cones will be used to alert oncoming traffic of a stopped inspection vehicle. Additionally, inspectors are prohibited from entering the water to inspect submerged or partially submerged outfalls.

5.0 CONDUCTING OUTFALL INSPECTIONS

5.1 Outfall Observations Once an inspector has located an outfall, they will begin to document observations either on the Outfall Inspection Form or within their field notebook. First, the Outfall ID for the outfall should be written down and a photo taken of the number so that the inspector will be able to identify which photos correspond to each outfall when back in the office. Then, the inspector will begin to take photos of the outfall and surrounding area.

The inspector will make observations about the condition of the outfall, such as size, shape, and structural damage in order to ensure that the FMA GIS inventory and maps are correct and also that they are observing the correct outfall.

Then, the inspector will observe any obvious flows from the outfall. If there is no discharge or flow from the outfall and if there are no signs of previous illicit discharge (odors, discoloration, or stressed or dead vegetation, vegetation showing signs of excessive growth) then the inspector shall note this and move on to the next outfall.

If the outfall is submerged, the inspector will verify that the water is tidally related and observe the water for any odors, discoloration, or stressed or unusually vigorous vegetation, which are possible signs of illicit discharge.

The inspector will document all observations and note a flow rate for non-submerged "flowing" outfalls. The inspector may also consider obtaining a sample of the flow, if necessary. Then, if flow is present, the inspector will commence a search for the source.

5.2 SOURCE IDENTIFICATION Once a possible illicit discharge has been identified at an outfall, the inspectors will proceed upstream along the storm drain line. They will observe the surrounding area and each subsequent storm drain structure (e.g. manhole, inlet) until the source may be identified. Common types of illicit discharges are identified in the table below.

Table 3: Common Types of Illicit Discharge

Observations	Potential Pollutant	Potential Sources
• Brown, gray or reddish color • Turbid • Soil accumulation	Sediment	• Construction activities • Aggregate/soil stockpiles
• Gray or milky color • Basic pH (11+) • Stressed vegetation or wildlife	Concrete waste	• Construction activities
• Rainbow sheen • Petroleum odor	Petroleum products	• Fueling operations • Leaking vehicles • Maintenance operations • Broken or overflowing oil water separator
• Rainbow sheen • Rancid odor	Grease	• Broken grease trap • Improper kitchen disposal
• Bubbles or soapy appearance	Detergents	• Vehicle washing • Broken or overflowing oil water separator • Improper disposal of dishwasher waste • Uncontained hand or laundry washwater
• Excessive vegetation • Algae	Nutrients	• Construction activities • Fertilizer use
• Brown or Black color • Foul Odor • Flotables such as toilet paper, • Excessive vegetation	Sewage	• Improper sewage disposal • Leaking sewage vac truck

In the event that the inspectors are prevented from inspecting an outfall by a tenant or other third party that information should be noted on the Outfall Inspection Form and relayed to the FMA. The FMA may then pursue other measures to compel entry.

The following types of discharges are identified in the MS4 Plan as permitted and will therefore not be listed as illicit discharges:

- Water line flushing
- Landscape irrigation
- Diverted stream flows
- Rising ground water
- Uncontaminated ground water infiltration
- Uncontaminated pumped ground water
- Discharges from potable water sources
- Foundation drains
- Air conditioning condensation
- Irrigation water
- Springs
- Water from crawl space pumps
- Footing drains
- Lawn watering
- Individual residential car washing
- Flows from riparian habitats and wetlands
- Dechlorinated swimming pool discharges
- Street wash water
- Discharges or flows from firefighting activities
- De minimis flows, as identified in writing by the Department of Environmental Quality, as not being a significant source of pollutants to state waters and not requiring a VPDES permit.

6.0 DOCUMENTATION

All outfall inspections will be properly documented on the Outfall Inspection Form (Attachment A) either in the field or upon return to the office using field notes. Inspection photographs will also be included with the final version of the Outfall Inspection Forms. This information will be used to identify areas of Fort Monroe that have a higher risk of illicit discharge. Additionally, the data will be communicated in the annual report to the Department of Environmental Quality and will be maintained in the FMA files.

6.1 Outfall Inspection Form The Outfall Inspection Form (Attachment A) is divided into six sections to provide information on background data, outfall description, physical indicators for flowing or submerged outfalls, physical indicators for both flowing and non-flowing outfalls, overall outfall characterization, and non-illicit discharge concerns.

6.1.1 Section 1 Background Data Section 1 of the form includes fields to fill in the names of the field inspectors, the date, and the time of the inspection. The outfall ID field and basin number should be filled in according to the FMA maps. The receiving water field should include the name of the body of water in which the outfall is discharging (e.g. Mill Creek, James River, Chesapeake Bay or FM

Moat). The temperature at the time of inspection should be noted as well as the general weather conditions and tide level. Additionally, the rainfall amounts for the past 24 and 72 hours should be noted to allow differentiation between storm water flows and illicit discharge.

Photographs should be taken to demonstrate the condition of the outfall and archived with the inspection form. The land use should be documented in the area draining through the outfall. Significant industrial activities should be noted as well as specific tenants, if known.

6.1.2 Section 2 Outfall Description The basic characteristics of the outfall will be noted in Section 2 of the inspection form. The inspector must first determine the material of the pipe. Reinforced concrete pipe (RCP), polyvinyl chloride pipe (PVC), corrugated metal pipe (CMP), high density polyethylene pipe (HPDE), and steel are common pipe materials. These pipes may come in differing shapes including circular, elliptical, and box. Additionally, several outfalls may be found in the same outfall location; two pipes are considered a double and three pipes are considered a triple outfall. The dimensions of the pipe should be noted in inches on the form; the diameter of round and elliptical pipes should be noted and the length and width of box drain openings should be noted. Additionally, the inspector should identify whether the outfall is submerged with water or partially filled with sediment or marine growth. If a flow is present from the outfall, describe the flow rate.

6.1.3 Section 3 Physical Indicators for Flowing or Submerged Outfalls This section of the outfall inspection form records data about four sensory indicators associated with flowing or submerged outfalls, including odor, color, turbidity, and floatables. Sensory receptors employed by the inspector include sight and smell and are useful in detecting obvious discharges. The inspector must rate the indicator on a scale of 1 to 3 to determine the severity. This information can be helpful in determining the source of the discharge (Table 3).

When detecting an odor, the inspector should make an effort to ensure that the observed smell is from the outfall and not surrounding activities. The inspectors should be familiar with the odor of common illicit discharges such as sewage and petroleum products prior to conducting the inspection. An odor is ranked with a severity of 1 if the smell is faint or the crew cannot agree on its presence or origin. A score of two indicates a moderate odor within the pipe. An odor is ranked with a severity of 3 if the odor is observed a considerable distance from the outfall.

The color of the discharge should be assessed visually; this is best accomplished by filling a clear sample bottle with the discharge and observing it in the light. The inspectors should also look downstream of the plume of color associated with the outfall. This method should also be used to evaluate the turbidity of the water; which is defined as the measure of how easily light can penetrate through the sample bottle.

The last sensory indicator is the presence of any floatable materials in the discharge or surrounding waters. Common examples of floatables include sewage, sheen, and suds; trash and debris are not considered illicit discharges, but should be noted. If sewage is noted as a floatable, it should automatically be assigned a severity score of three. Petroleum sheens may be caused by both synthetic and natural processes; therefore, it is important to note that synthetic sheens are generally thick or have a swirl formation. Suds are rated based on their foaminess and staying power. A severity score of three is designated for thick foam that travels many feet before breaking up. Suds that break up quickly reflect water turbulence or wave action and are not considered an illicit discharge.

6.1.4 Section 4 Physical Indicators for Both Flowing and Non-Flowing Outfalls Section 4 of the Outfall Inspection Form examines physical indicators found at both flowing and non-flowing outfalls that can reveal the impact of past discharges. These physical indicators include outfall damage, outfall deposits or stains, abnormal vegetation growth, poor pool or surrounding water quality, and benthic growth on pipe surfaces. These physical indicators are not ranked according to their severity because they are often subtle, difficult to interpret, and could be caused by other sources. However, these physical indicators provide information about the history of discharges from the outfall and may be beneficial when determining the outfall's priority.

6.1.5 Section 5 Overall Outfall Characterization This section of the inspection form allows the inspector to draw conclusions about the observations they have made at the outfall. The first conclusion must be made to determine whether there is an illicit discharge present at the outfall. There are four categories the inspector can use to respond to this question. The first category is "unlikely," and is marked when the physical indicators point toward natural disturbance in the water such as a suds from wave action. The second category is "potential," and is marked when the inspector identifies two or more physical indicators of illicit discharge. The third category is "suspect," and is marked when the inspector identified one or more indicators with a severity of 3. The final category is "obvious," and is marked when the inspector is certain that there is an illicit discharge and that it is not a permitted discharge as listed in the MS4 VPDES

permit. The information gathered to this point will allow the inspector to determine the outfall priority.

6.1.6 Section 6 Non-Illicit Discharge Concerns Section 6 of the Outfall Inspection Form is used to note any unusual conditions near the outfall such as dumping, pipe failure, bank erosion or maintenance needs. While these conditions are not directly related to illicit discharge detection, the information will be beneficial to ensure that the drainage system remains operational.

In the General Comments portion of this section, the inspector should identify all upstream drain ID numbers that were inspected associated with the particular outfall and any observations for each of those drainage structures.

7.0 TRAINING

Inspector training is required to ensure that all personnel responsible for conducting outfall inspections are aware of the process and safety precautions required during the inspections.

7.1 Pre-Inspection Meeting An experienced inspector will hold a pre-inspection meeting with all parties involved in the upcoming outfall inspections. The meeting will include a review of this document, a discussion of the inspection schedule, safety procedures, outfall locations, and previous outfall inspection information where available. Inspectors must be familiar with the FMA's definition of illicit discharge and procedures for tracking the source of an illicit discharge. Training attendance will be documented on a sign-in sheet and provided to the FMA for record keeping.

APPENDIX A:

STORM DRAIN OUTFALL INSPECTION FORM

Fort Monroe Authority
151 Bernard Road
Fort Monroe, VA 23651

OUTFALL INSPECTION FORM

Section 1: Background Data

Outfall ID: _____ Basin: _____ Receiving Water: _____ Date: _____ Time: _____

Investigators: _____ Form Completed By: _____

Temperature: _____ Rainfall 24 hrs: _____ 72 hrs: _____ Tide Elev: _____ # of Photos: _____

Land Use in Drainage Area:
- ☐ *Industrial / Commercial*
- ☐ *Residential*
- ☐ *Open Space*

Notes (Tenants / Origin of Outfalls / Significant Basin information):
_____
_____

Section 2: Outfall Description

Material:
- ☐ *RCP*
- ☐ *PVC*
- ☐ *CMP*
- ☐ *HDPE*
- ☐ *Steel*
- ☐ *Other:* _____

Shape/Configuration:
- ☐ Circular
- ☐ Elliptical
- ☐ Other: _____
- ☐ Single
- ☐ Double

Dimensions: _____

Submerged %: _____
Sediment/Growth Level %: _____
Potential Illicit Discharge:
Yes/No: _____
Flow Description:
Yes/No: _____
If Yes, Amount: _____

Section 3: Physical Indicators for Flowing or Submerged Outfalls

Are physical indicators present in the flow or tidal water (Y / N). If No, skip to Section 4.

Indicator (Check if Present)	**Description** (Circle all that apply – Describe if Other)	**Relative Severity Index** (Circle 1, 2, or 3)
Odor	Sewage / Sulfide / Rancid / Petroleum / Sweet Other:	1 – Faint 2 – Easily Detected 3 – Noticeable from a Distance
Color	Clear / Brown / Gray / Yellow / Green / Orange / Red / Other:	1 – Faint 2 – Clearly Visible in Sample 3 – Clearly Visible in Outfall
Turbidity		1 – Slight Cloudiness 2 – Cloudy 3 – Opaque
Floatables (Not including Trash)	Sewage (toilet paper, etc) / Petroleum (sheen) / Suds / Other:	1 – Slight; Origin not obvious 2 – Some; Indications of origin 3 – Some; Origin clear

Section 4: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators present that are not related to flow (Y / N). If No, skip to Section 5.

Indicator (Check if Present)	**Description** (Circle all that apply – Describe if Other)	**Comments**
Outfall Damage	Spalling, Cracking or Chipping / Corrosion / Peeling Paint / Other:	
Deposits / Stains	Oily / Flow Line / Paint / Other:	
Abnormal Vegetation	Minor / Excessive / Inhibited	
Poor Pool Quality	Odors / Colors / Floatables / Sheen / Suds / Excessive Algae / Other:	
Pipe Benthic Growth	Mollusk / Algae / Sponge / Other:	

Section 5: Overall Outfall Characterization

Illicit Discharge Present?: ☐Unlikely ☐Potential (2+ indicators) ☐Suspect (1+ indicators index of 3) ☐Obvious

Outfall Prioritization: ☐Low ☐Medium ☐High

See Page 2 for Non-Illicit Discharge Concerns and General Comments

Fort Monroe Authority
151 Bernard Road
Fort Monroe, VA 23651

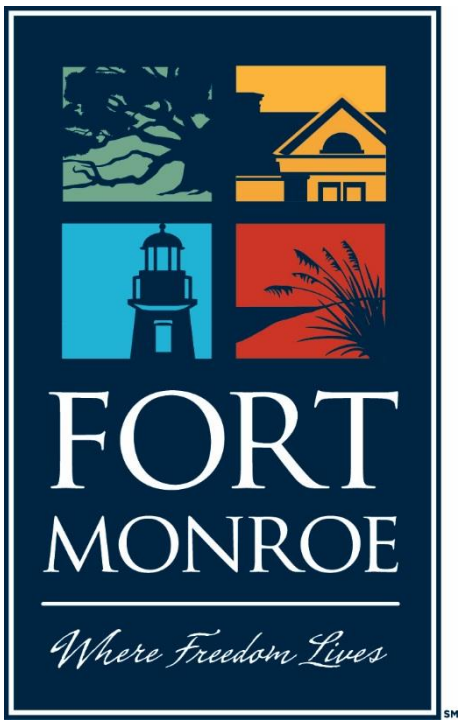
OUTFALL INSPECTION FORM

Section 6: Non Illicit Discharge Concerns (e.g. trash or needed infrastructure Repairs):

General Comments (Upstream inlets inspected, etc.)

Appendix E

Annual Standards and Specifications



FORT MONROE AUTHORITY

EROSION AND SEDIMENT CONTROL

ANNUAL STANDARDS AND SPECIFICATIONS UPDATE

September 2016

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INTRODUCTION

The Fort Monroe Authority (FMA) is responsible for managing the property of the former United States Army post located at Fort Monroe. The FMA is committed to the preservation, conservation, protection, and maintenance of the Commonwealth's real property interests at Fort Monroe and the renewal of Fort Monroe as a vibrant and thriving community.

To this end the FMA has prepared these Annual Standards and Specifications for Erosion and Sediment Control and Stormwater Management (ESC and SWM). This document is an integral component of the FMA's regulations for the design, construction, maintenance, and management of current and future property. The purpose of this document is to provide information regarding FMA's implementation of these programs in accordance with Virginia Erosion and Sediment Control Law (§10.1- 560 et. seq .), the Virginia Erosion and Sediment Control Regulations (9VAC25-840 et. seq.) , the Virginia Erosion and Sediment Control and Stormwater Management Certification Regulations (9VAC25-850 et. seq.), the Virginia Stormwater Management Act (§62.1-44.15 et. seq.), and the Virginia Stormwater Management Program (VSMP) Permit Regulations (9VAC25-870 et. seq.) as they relate to municipal separate storm sewer system (MS4) program compliance and the conduct of regulated land disturbance activities at Fort Monroe.

Fort Monroe Authority Annual Standards and Specifications for ESC & SWM shall apply to all plan design, construction, and maintenance activities undertaken by the FMA, either by its internal workforce or contracted to external entities, where such activities are regulated by the Virginia Erosion and Sediment Control Law and Regulations (VESCL&R) or the Virginia Stormwater Management Act and VSMP Permit Regulations. During any inspections of FMA's land disturbing activities by DEQ, EPA, and other applicable environmental agencies, compliance with the approved Fort Monroe Authority Annual Standards and Specifications for ESC & SWM (and all parts thereof), the VESCL&R, the Virginia Stormwater Management Act and the VSMP Permit Regulations will be required.

Fort Monroe Authority Annual Standards and Specifications for ESC & SWM are submitted to the Virginia Department of Environmental Quality for review and approval on an annual basis. The FMA shall ensure that project specific plans are developed and implemented in accordance with these Annual Standards and Specifications. This submittal constitutes the FMA's commitment to execute all provisions contained herein on our regulated land disturbing activities and land development projects. As such, this submittal will be made available and utilized as an operational guidance by all appropriate FMA and DEQ personnel. This submittal and errata information are available for download as PDF files at: http://www.FortMonroeAuthority.com

1.0 ABBREVIATIONS AND ACRONYMS

BMP Best Management practice

Board Virginia Soil and Water Conservation Board

DCR Virginia Department of Conservation and Recreation

ESC Erosion and Sediment Control

FMA Fort Monroe Authority

LD Land Development

LID Low-Impact Development

MS4 Municipal Small Storm Sewer System

SWM Stormwater Management

SWPPP Storm Water Pollution Protection Plan

VESCL&R Virginia Erosion and Sediment Control Law and Regulations

VSMP Virginia Stormwater Management Program

VSMPP Virginia Stormwater Management Program Permit for discharges from construction activities

2.0 ANNUAL STANDARDS AND SPECIFICATIONS ADMINISTRATION

2.1 Definitions

The Fort Monroe Authority Annual Standards and Specifications for ESC & SWM approved by DEQ are composed of general specifications. The general specifications for erosion and sediment control and storm water management that apply to the land disturbing activities include by reference the following:

Virginia Erosion and Sediment Control Law (§62.1-44.15:51et seq. as amended);

Virginia Erosion and Sediment Control Regulations (9VAC25-840 et seq. as amended);

Virginia Erosion and Sediment Control and Stormwater Management Certification Regulations (9VAC25-850 et seq. as amended);

Virginia Erosion and Sediment Control Handbook, 1992, as amended;

Virginia Stormwater Management Act (§ 62.1-44.15 et seq. as amended);

Virginia Stormwater Management Program Permit Regulations (9VAC25-870 et seq. as amended);

Virginia Stormwater Management Handbook, 1999, as amended;

The Virginia Stormwater Management BMP Clearinghouse standards and specifications found at http://www.vwrrc.vt.edu/swc/, as amended;

Technical Bulletins, as amended, on DEQ web site at www.deq.virginia.gov.

Any land-disturbing activity, as defined by *VESCL&R,* carried out by FMA shall comply with *Fort Monroe Authority Annual Standards and Specifications for ESC & SWM.*

Any land disturbing activity, as defined by *VESCL&R,* must be vetted through the FMA. A Project Screening Form, Appendix C, must always be completed and submitted with a construction schematic and location of the proposed work. Prior to starting a land-disturbing project, the project must have an approval issued by the FMA for the plan by way of a Land Disturbance Permit.

2.2 Site-Specific ESC Plans

Site specific ESC plans shall be prepared for all projects involving a regulated land-disturbing activity as defined in §62.1-44.15:51or when deemed necessary by the FMA if development is outside the purview of the VESCL&R but at the determination of the FMA poses potential environmental implications.

Site-specific ESC plans shall be submitted to the FMA for review. Prior to starting a land-disturbing project as defined in §62.1-44.15:51, the project must have an approval issued by the FMA for the plan by way of a Land Disturbance Permit.

2.3 Site-Specific SWM Plans

Site specific stormwater management plans shall be prepared and submitted to the FMA for review. Prior to starting a land disturbance project involving a regulated land-disturbing activity as defined in §62.1-44.15:31, the project must have an approval issued by the FMA for the plan by way of a Land Disturbance Permit.

2.4 Variance and Exception Requests

The FMA may request DEQ to grant a project specific variance or exception, in terms of ESC and SWM, respectively, to the approved Fort Monroe Authority Annual Standards and Specifications for ESC and SWM for a particular project. All requested variances and exceptions are to be considered unapproved until written approval from DEQ is received. Refer to Section 7.0 for more information on variances and exceptions.

3.0 ANNUAL STANDARDS AND SPECIFICATIONS PERSONNEL

The FMA shall be the plan approving authority for Fort Monroe Authority projects. The following is a breakdown in responsibilities and titles in regard to Fort Monroe Authority Annual Specifications for ESC and SWM in accordance with the *Eligibility Requirements (9VAC25-850-50)* Responsibilities may be combined in terms of staffing resources only if the person responsible for the task(s) is qualified per Section 2.1.3. The following titles are designated to ensure compliance with erosion and sediment control and stormwater management regulations on all Fort Monroe Authority projects.

"Certified Inspector" means an employee or agent of the Fort Monroe Authority program authority who: (i) holds a certificate of competence from the Board in the area of project inspection; or, (ii) is enrolled in the Board's training program for project inspection and successfully completes such program within one year after enrollment; and, (iii) shall be responsible to inspect as mandated by the VESCL&R erosion and sediment control measures to ensure proper installation in accordance with the permitted plan and record the state and effectiveness of such measures in an effort to maximize site erosion and sediment control; and, (iv) shall be responsible to inspect the construction and effectiveness of permanent stormwater management controls; and, (v) shall be responsible to verify that all required documents are available on-site for view/review, including but not limited to, land disturbance permit, permitted plans, inspections log, VSMP permits, SWPPP, etc.

"Inspection Certified Program Administrator" means an employee or agent of the FMA who: (i) holds a certificate of competence from the Board in the area of program administration and project inspection; or, (ii) is enrolled in the Board's training programs for the program administrator and project inspector and successfully completes such programs within one year after enrollment; and (iii) is currently a Certified Inspector; and, (iv) shall oversee all of the project inspectors; and, (v) shall assign inspection duties; and, (vi) shall ensure all inspections are completed as mandated by the VESCL&R; and, (vii) shall review and post completed inspection reports; and, (viii) shall assist in the certification/re-certification process of inspectors.

"Certified Plan Reviewer" means an employee or agent of the FMA program who: (i) holds a certificate of competence from the Board in the area of plan review; or, (ii) is enrolled in the Board's training program for project inspection and plan review and successfully completes such programs within one year after enrollment; or, (iii) for erosion and sediment control plan review only, is licensed as a professional engineer, architect, certified landscape architect, or land surveyor pursuant to Article 1 (§54.1-400 et seq.) of Chapter 4 or Title 54.1 of the Code of Virginia; and,
(iv) shall be responsible to review and permit erosion and sediment control and stormwater management plans; and, (v) shall be responsible to review and approve SWPPPs; and, (vi) can assume the role of inspector or assist with inspections when needed if that individual holds a certificate in project inspection.

"Plan Review Certified Program Administrator" means an employee or agent of the FMA who: (i) holds a certificate of competence from the Board in the area of program administration and plan review; or, (ii) is enrolled in the Board's training programs for the program administrator and plan reviewer and successfully completes such programs within one year after enrollment; and (iii) is currently a Certified Plan Reviewer; and, (iv) shall oversee all of the plan reviewers; and, (v) shall designate plan review assignments; and, (vi) shall ensure all reviews are completed in a timely manner; and, (vii) shall assist in the certification/recertification process of plan reviewers .

"Senior Combined Program Administrator" means an employee or agent of the FMA who : (i) holds a certificate of competence from the Board in the combined areas of program administration, plan review, and project inspection; or, (ii) is enrolled in the Board's training program for the program administrator, plan reviewer , and project inspector and successfully completes such program within one year after enrollment and obtains a passing score either on the combined administration examination administered by the DEQ or obtains passing scores in each of the areas of plan review, project inspection and program administration administered by the DEQ and who applies for a combined administration certification; and (iii) shall oversee all of the inspection and plan review personnel; and, (iv) shall designate the Inspection Administrator and Plan Review Administrator ; and, (v) shall directly communicate with the Contractor and DEQ when circumstances require disciplinary actions; and, (vi) shall update the Fort Monroe Authority Annual Standards and Specifications for Erosion and Sediment Control and Stormwater Management yearly; and, (vii) is the FMA's Permitting Authority.

“Certifications” shall be in accordance with the Virginia Erosion and Sediment Control and Stormwater Management Certification Regulations (9VAC25-850 et seq. as

amended)

4.0 ANNUAL STANDARDS AND SPECIFICATIONS IMPLEMENTATION

ESC and SWM plans shall comply with Fort Monroe Authority Annual Standards and Specifications for Erosion and Sediment Control and Stormwater Management, the Virginia Erosion and Sediment Control Law (§62.1-44.15:51et. seq.), the Virginia Stormwater Management Act (§62.1-44.15 et. seq.), associated ESC and SWM regulations, and the Virginia Stormwater Management Program Permit regulations (9VAC25-870 et. seq.) . Refer to Section 2.1 for more information on general specifications.

4.1 Submittals

ESC and SWM application, plans, narratives, and necessary attachments shall be submitted to the FMA for review and approval prior to any land- disturbing activities. Below are the typical submittals expected to be completed for each project, however, exact composition of submittals is project specific.

- Land Disturbance Application
- Stamped/Signed (by a licensed Professional Engineer) Civil Plans and Profiles
- Plan Review Checklist
- Stormwater Pollution Prevention Plan (SWPPP) if Required
- Copy of Completed VSMP Permit Application, if Required
- Stormwater Management and Erosion and Sediment Control Narratives/Schematics
- Vicinity Map
- Construction Schematic

The FMA shall determine the completeness of the stormwater management portion of the plan and shall notify applicant of any determination within 15 calendar days of receipt. The FMA shall have 60 days to review the plan and provide written comments after receipt of the plan. Prior to commencement of a land-disturbing project, the project must have received approval for the plan(s) from the FMA.

4.2 Plan Reviews

Plan reviews shall be conducted by qualified personnel. Plan reviews shall ensure compliance with the Fort Monroe Authority Annual Specifications for ESC and SWM. Re-submission should include (1) red-lined plan set of the first submission showing all to date revisions and at least (1) clean, updated plan set. When approved, at least (3)

unmarked, updated plan sets must be submitted and stamped by a licensed Professional Engineer. These plan sets are allocated as follows: (1) for Record, (1) for the Engineer, and (1) for the Contractor. Additional copies may be requested as needed. The FMA will review resubmitted plans and communicate approval or disapproval to the applicant within 45 days of receipt of resubmitted plans.

4.3 Bond / Letter of Credit

A Performance Bond and/or Letter of Credit will be required prior to the issuance of a Permit allowing land disturbance to commence. Generally the value of the Performance Bond / Letter of Credit will be equal to the cost estimate to install the E&SC measures for the project. The FMA reserves the right to evaluate each project and adjust the bonding amount as they deem necessary to preserve and protect the environment. (DOES FMA WANT TO INCLUDE PERMANENT STORMWATER E&S

4.4 Permit Issuance

Once the plans have been approved and the Performance Bond I Letter of Credit have been received by the FMA, a Land Disturbance Permit will be issued. The Land Disturbance Permit will cover the requirements of E&SC and SWM for the FMA only. The Contractor will be responsible for any other permits that may be required by the FMA or other government agencies having jurisdiction.

4.5 Inspections

The Certified lnspector(s) is responsible for ensuring that the construction and installation of all structural and non-structural controls are in accordance with the project's ESC and SWM plans and intention. In addition, if circumstances arise where the current plan is proven inadequate, the inspector is responsible to take the necessary steps to address and resolve the issue. Inspectors are responsible to complete and submit Inspection Reports as required by VESCL&R. Inspection Reports will eventually be posted on a website for public view. Refer to Section 6.0 for more information on inspections.

4.6 Changes and Amendments to Approved Plans

An approved plan may be changed by the FMA in the following cases (§62.1-44.15:55(C)):

(i) Where inspection has revealed the plan is inadequate to satisfy applicable regulations; or

(ii) Where the person responsible for carrying out the approved plan finds that

such plan is no longer effective due to field conditions and/or changes to the overall project scope. In such case, an amended plan, consistent with the requirements of this article, must be promptly proposed. Revisions to an approved ESC and SWM plan must be submitted in writing to the FMA. Revisions shall not be considered approved until written notice is provided. Revision must comply with the Fort Monroe Authority Annual Standards and Specifications for ESC and SWM. Exceptions maybe allowed in the event of an emergency.

4.7 Offsite Compliance Options

In order to meet required phosphorus nutrient reduction, offsite compliance options are available as needed in compliance with 9VAC25-870-69. Offsite compliance options include:

- Offsite controls utilized in accordance with a comprehensive stormwater management plan for the local watershed within which a project is located
- Nonpoint nutrient offset program (§62.1-44.15:35)
- Other offsite options must be approved by applicable state agency or state board

Operators are able to utilize offsite options under any of the following conditions:

- Less than five acres of land disturbance
- Post-construction phosphorus control requirement is less than 10 pounds per year
- At least 75% of phosphorus nutrient reductions are achieved on-site

5.0 ESC AND SWM PLAN REQUIREMENTS

Complete/Approved ESC and SWM plans shall be provided in the construction plans. Minimum Standards 1 through 18 (9VAC25-840-40) shall be listed in the construction plans. Construction sequence of operations shall be provided on the construction plans with staged implementation of erosion and sediment control measures for each phase. The area which may be disturbed in each phase shall be set forth in the construction plans.

Plans shall provide information on the maintenance of BMPs or reference the narrative section that contains the information. Permanent SWM BMPs shall have unique identifications and the identifications shall be referenced/used in all documentation, such as, but not limited to, SWPPP, narrative, construction plans, and calculations. Actual identifications shall be coordinated with the FMA.

Profiles shall be included for all closed and open storm systems. The profile shall

include the existing surface, final surface, proposed water elevations, pipes, pipe crossings, and hydraulic grade line. Surcharges shall be clearly indicated on the profile. Plans shall have included the amount of disturbed area listed per phase and the proposed net increase in impervious area.

SWM calculations must include all necessary calculations to prove the adequacy of existing and proposed conveyance, storage and BMP devices. The calculations should include, at a minimum, but are not limited to: ditch computations, stormwater routing, storm inlet computations, pipe capacity computations, BMP computations, pond routings and computations, etc. Proof of adequate outfall and adequacy of the receiving channel to the SWM treatment facility needs to be provided to the FMA.

Plans should also include a detailed landscape plan with a planting schedule. Landscape plans should adhere to Fort Monroe Authority Landscape Guidelines.

Suggested Sheets (actual sheets may vary accordingly):

-Cover Sheet (General Notes, Vicinity Map, Soils Map)
-General Construction Details (handicap ramp, cross-sections, sidewalk, etc.)
-Existing Conditions and Grading (2' contours)
-Existing Drainage Divides (include calculated areas, impervious areas, and C- values)
-Proposed Site Plan
-Proposed Grading Plan (1-2' contours and spot elevations@ high/low points)
-Proposed Drainage Divides (include calculated areas, impervious areas, and C- values)
-Phase 1 E&S w/ Drainage Divides
-Phase 2 E&S w/ Drainage Divides
-E&S/BMP/SWM Details
-Stormwater Pipe Profiles (include dimensioned utility crossings; V=1:5 H=1:25)
-Stormwater Calculations (ex. ditch comps, pipe comps, inlet comps, pond routings, etc.)
-Detailed Landscaping Plan (include planting schedule)

6.0 INSPECTIONS

Periodic inspections shall be conducted, at a minimum, every five days and within 48 hours of a rainfall event of 0.25 inches or greater. In addition, inspections shall be made during or immediately following initial installation of erosion and sediment controls and at the completion of the project. Completion of the project is defined as the achievement of final stabilization, not completion of construction.

6.1 Erosion and Sediment Control Inspections

The Land Disturbance Inspection Report, provided in Appendix D shall be used on each site inspection visit. All measures shown on the plan shall be inspected. All issues and non-compliant items shall be photographed and documented in the report. Critical areas that require continuous inspections shall also be identified on the site plan. Land Disturbance Inspection Reports shall specify the required corrective action for each issue or non-compliant item noted and a date by which all corrective actions must be completed. A copy of the Land Disturbance Inspection Report will be emailed to the project Contractor and archived by the FMA.

6.2 Stormwater Management Inspections

The Land Disturbance Inspection Report provided in Appendix D is also used to record SWM inspections and shall be filled out on each site inspection. All stormwater BMPs must be identified on the site plan. As previously addressed, identification of permanent BMPs shall be coordinated with the FMA. Refer to 5.0 for further information. Critical areas that require continuous inspections shall also be identified on the site plan. Photographs will be taken during the inspection and referenced within the report.

6.3 Project Close-Out

As previously stated, project completion is defined as the achievement of final stabilization. The Inspector will recommend to the Permitting Authority that final stabilization has been achieved. Once the Permitting Authority concurs, the permit will be closed-out. After which, the Permitting Authority may recommend that the Performance Bond / Letter of Credit be released. If deemed appropriate, the Performance Bond / Letter of Credit may be withheld as a performance guarantee for up to 60 days after achievement of final stabilization unless otherwise directed by the Contract.

6.4 Post-Construction Inspections

Post-construction (long-term) inspections shall be made by FMA in accordance with the manufacturer's and/or engineer's recommendation, the provisions of these standards and specifications, and the general specifications provided in Section 2.1. Complete

Fort Monroe inspections shall be conducted at least quarterly and at least once every five years for permanent BMPs.

6.5 Violations and Documentation

Violations shall be documented in the Land Disturbance Inspection Report, including photographs, descriptions, and necessary corrective actions. If a violation continues to be repeated, then a formal Notice to Comply will be issued. After issuance of a Notice to Comply, if no action has been taken in an attempt to fix the violation, a formal Notice of Non-Compliance will be issued, and DEQ notified. At the discretion of the Permitting Authority, the Land Disturbance Permit may be revoked and a Stop Work Order issued; at which time all land disturbing activity must cease until the violation(s) of the plan or permit has ceased, corrective action completed, and any related environmental or property damages abated. Alternatively, the FMA also has the option to contract with a 3rd party to install and maintain the Erosion and Sediment Control and/or Stormwater Management measures in accordance with the approved plan, complete any necessary corrective actions, and abate any related damages. Once the site is stabilized to the satisfaction of the Permitting Authority, site work may resume. All associated costs will be charged to the Contractor directly or recovered through the Performance Bond / Letter of Credit.

7.0 VARIANCES and EXCEPTIONS

Variances and exceptions to regulations must ensure protection of offsite properties and resources from damage. Economic hardship is not sufficient reason to request a variance or an exception from the requirements of this chapter.

For a variance to become part of the project specific ESC plans, a written variance request must be submitted to the FMA for review and approval by DEQ. This request must include an explanation of the reasons for requesting the variance and describe the specific site conditions necessitating the request. The request must also include a detailed description of the alternative ESC practice and justification that the practice meets the intent of the Minimum Standard for which the variance is sought. (Ref. 9VAC25-840-50)

7.1 Variance or Exception Request Policy and Procedures:

The design professional shall draft a letter of request to the FMA and shall be accompanied by complete details and documentation, including justification and impacts associated with the request. All requests shall be considered unapproved until written

approval from the FMA is received. All approved variances or exceptions shall be listed in the General Notes section of the ESC & SWM plans for land disturbing activities and included in the Narrative.

8.0 LAND-DISTURBING ACTIVITES:

8.1 Future Land-disturbing Activities

A list of regulated land-disturbing activities expected to soon be under contract is included in Appendix A. The list includes project location, estimated disturbed acreage, and approximate start and completion date for each project.

8.2 Current Land-disturbing Activities

A list of current permitted land-disturbing activities during the referenced time period is included in Appendix A. The list includes project location, project start and completion date, and actual disturbed area.

8.3 Project Tracking and Notification

The FMA shall use GIS to track regulated land-disturbing activities. The FMA will update the GIS map quarterly with project information as related to ESC and SWM. The GIS will be accessible through Microsoft Windows Explorer to DEQ. The FMA shall send an email notification to DEQ each time the website is updated.

8.4 Responsible Land Disturber

The FMA shall notify DEQ of the Responsible Land Disturber (RLD) at least two weeks in advance of land-disturbing activities. The information to be provided shall include the name, contact information and certification number of the RLD. Unless otherwise specified in the narrative, land disturbing activities shall be completed under the supervision of: Gary Miller, #6155, (757)-251-2746, gmiller@fmauthority.com

9.0 LONG-TERM MAINTENANCE:

Project plans shall contain information on long-term maintenance of BMPs. The FMA shall use GIS to track stormwater management facilities and associated watersheds. The FMA BMP GIS will be updated quarterly with information as related BMPs. The GIS will be accessible through a web browser to DEQ. Inspections will be conducted in accordance with section 6.0.

10.0 PROGRAM REVIEW and EVAULATION

10.1 DEQ'S Responsibilities

DEQ shall have sixty days in which to comment on any erosion and sediment control specifications submitted to it for review, and its comments shall be binding on the FMA and any private business hired by the FMA (§62.1-44.15:31) .

DEQ shall perform random site inspections to assure compliance with this article, the Erosion and Sediment Control Law and regulations adopted there under (§62.1-44.15:31)

10.2 The Fort Monroe Authority's Responsibilities

The FMA shall ensure compliance with the approved plan and annual standards and specifications (§62.1-44.15:56 and 62.1-44.15:31). The Contractor shall provide the Local District Office with a copy of the approved plan sheets (preferably- half size sheets) and narrative for each regulated land-disturbing activity by use of BCOM Form C0-5. The FMA shall provide DEQ with the appropriate information, in a timely manner, when requested.

Note: Due to technology, budget constraints, and the timing of the development of the FMA, the FMA is still developing its GIS capabilities. Therefore it is not ready for tracking the E&SC and SWM measures at this point. It is the goal of the FMA to implement such measures as soon as possible.

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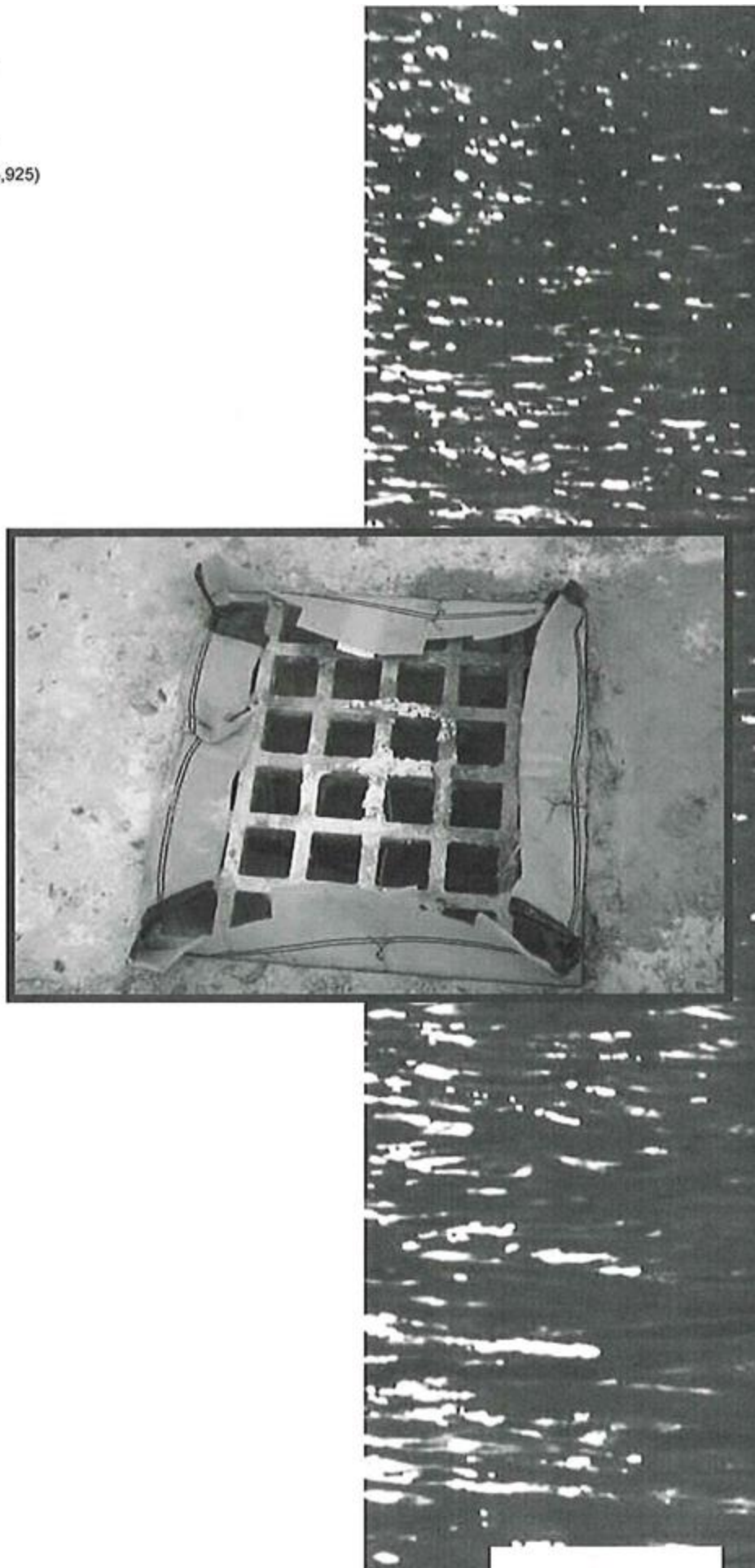
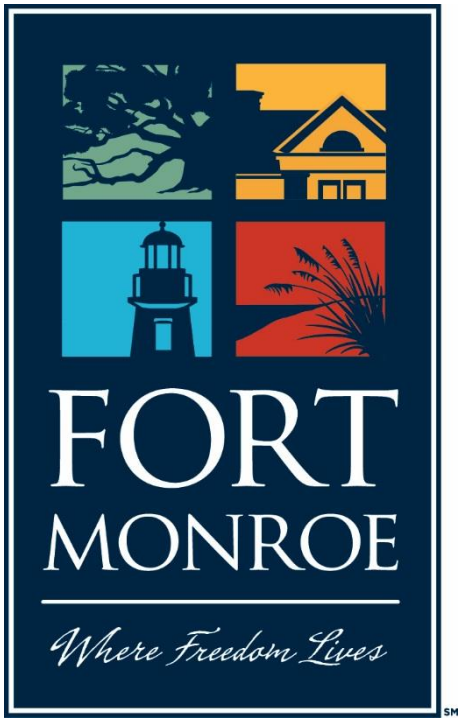


APPENDIX A.

There are currently no ongoing, land-disturbing activities requiring a permit at Fort Monroe.

Appendix F

Operations and Maintenance Procedures



MS4 STANDARD OPERATING PROCEDURES

September 2016

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1.0 MINOR BUILDING MAINTENANCE

1.1 Prep Work

Have AH Environmental perform LAMP tests. Once test results have been received OPCRES maintenance will proceed based on those results. Steps that are followed:

Wear proper PPE

Cover work area (ground, sidewalks, floors, etc.) with plastic and use of HEPA vacuum to catch loose debris.

Store for proper disposal following AH Environmental and EPA procedures and guidelines.

1.2 Painting

This section applies to the use and cleaning of water soluble paint (latex) as outlined in the Fort Monroe Material Standards and Specifications (FMMSS) memorandum. All other paints and stains will be used by a license contractor only and they will be responsible for following proper cleaning or disposal procedures.

Remove excess paint from tools back into paint can

Rinse with water all paint tools in mop sink located in maintenance shop

Excess paint will be stored in cabinet. Empty cans will be stored for bulk disposal at waste facility.

1.3 – Washing

Follow procedures as listed in Section One- Prep Work

No chemicals are used for exterior cleaning unless called for under strict guidance of the HPO. Most items are cleaned using clean water, pressure and “elbow grease”.

2.0 USE AND STORAGE OF HAZARDOUS MATERIALS

2.1 Use of Hazardous Materials

Hazardous materials will be used in accordance with all manufacturers instructions and all applicable regulations.

Examples of Hazardous Materials

- Cleaners
- Solvents
- Oils
- Fuels
- Paints

2.2 Storage of Hazardous Materials

Hazardous materials will be stored in accordance with all manufacturer's recommendations and applicable regulations. All materials will have Safety Data Sheets (SDS – formerly MSDS) sheets which will be maintained by the organization using/storing the materials. Materials will be stored indoors when possible and in all cases will be covered and kept away from Storm Drains.

2.3 Hazardous Material Spill Cleanup

Minor hazardous material cleanup will be completed by staff with appropriate training and while wearing proper PPE in accordance with EPA guidelines and at the direction of appropriate authorities. Large spills are handled by outside providers such as Petro Chem.

Examples of minor materials cleanup / disposal:

- Light bulbs are disposed in a controlled recycling box shipped to Veolia ES Technical Solutions, LLC
- Generator/Elevator/Vehicle Oil and Fuel spills are cleaned up using the appropriate spill kit. Spill kits are kept either at the specific location of generator or elevator or are stored in maintenance shops to be used where needed. Waste will be transported for disposal in accordance with all DOT and EPA regulations.

3.0 SMALL ENGINE REPAIR AND MAINTENANCE

3.1 Storage of Equipment

Where possible vehicles and equipment will be stored indoors. Indoor floor drains shall be covered or shall in other fashion not be allowed to discharge the storm drain system unless routed through a pretreatment facility such as an oil water separator.

3.2 Maintenance of Equipment

Vehicles and equipment will be maintained in proper working condition free from leaks or other discharges which could damage the environment.

Appropriate measures shall be taken during maintenance activities to prevent discharge of hazardous materials to the storm system. Drip pans and other containment shall be employed to capture discharged fluids and protect the storm system. All maintenance shall be performed indoors when possible. Disposal of waste materials shall be in accordance with all applicable regulations including SOP 2.0 Use and Storage of Hazardous Materials.

4.0 OUTSIDE EQUIPMENT STORAGE

Where possible vehicles and equipment will be stored indoors. Vehicles and Equipment that must be stored outside will not be placed in proximity to storm drains. Vehicle storage areas will be inspected regularly to ensure there is no leaking of fluids. Should leaks be found protect storm drains by creating berms or other appropriate measures and clean up spills in accordance with SOP 2.0 Use and Storage of Hazardous Materials.

5.0 VEHICLE WASHING

Vehicles and equipment shall be washed at commercial facilities when practical. If equipment is washed on site the runoff shall be contained and/or discharged through an oil water separator.

6.0 DUMPSTER MAINTENANCE

Routinely inspect dumpsters for damage and unlawful dumping of hazardous materials. If damage is observed trash contractor will be contacted to remove dumpster and any spilled material will be cleaned up in accordance with SOP 2.0 Use and Storage of Hazardous Materials.

7.0 STREET SWEEPING

Streets will be swept at a minimum of twice per month in order to reduce the amount of debris (trash and organics) that enters the storm system. This will be done using equipment designed for the task that does not create undue runoff into the storm water system. All debris collected will be disposed of in accordance with all applicable regulations.

8.0 WINTER ROAD WORK

8.1 Material Storage

Salt and other deicing chemicals will be stored inside if possible. If necessary to store outdoors it shall be covered to prevent rain runoff. The storage area will be away from storm drains. Any outdoor storage areas will be prevent runoff from entering the storm system by means of berms or other physical barriers.

8.2 De-icing and Snow removal

Only as much product will be used on the roads as is necessary to accomplish the task of melting the ice and clearing unsafe road conditions. Equipment will be maintained in accordance with manufacturers recommendations and in good working order to maintain efficiency of the operation and to prevent uneven spreading. Sand will be used in conjunction with or in lieu of salt whenever practical.

9.0 FIRE HYDRANT FLUSHING

Fire hydrant flushing will only be performed when necessary for the maintenance of the water distribution system. Individual fire hydrants will only be flushed as long as necessary to accomplish the goals of the flushing plan. Water from the flushing operations will be directed to paved surfaces to prevent erosion of soil. When necessary to discharge onto grass surfaces a diffuser will be utilized.

10.0 WATERLINE TESTING

When necessary to flush and test the waterlines they will only be flushed for as long as necessary to accomplish the goals of the testing procedure. Super chlorinated water will be run through a diffuser with appropriate dechlorination procedures in place.