City of Portsmouth

VPDES Permit No. VA0088668

Annual Report

Fiscal Year 2017
July 1, 2016 – June 30, 2017

Submitted by:

Youssef E. Khalil
Director of Public Works

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
TIDEWATER REGIONAL OFFICE
5636 Southern Boulevard, Virginia Beach, Virginia 23462
(757) 518-2000 Fax (757) 518-2009
www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

Maria R. Nold
Regional Director

Certification Statement and Requirements

As required by 9VAC25-870-370 B, all reports required by state permits, and other information requested by the board shall be signed by a responsible official or by a duly authorized representative of that person. A responsible official is:

1. For a corporation: by a responsible corporate officer. For the purpose of this section, 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 environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for state permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

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

3. For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, 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.

Duly Authorized Representatives

A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described above;

2. 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 company. A duly authorized representative may thus be either a named individual or any individual occupying a named position; and

3. The written authorization is submitted to the department.

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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.

_____
Responsible Official Signature Date

_____
Permit Number MS4 Name

In accordance with the current VPDES permit, the City of Portsmouth (the City) is submitting this annual report for the fiscal year 2017 (FY2017), which spans from July 1, 2016 through June 30, 2017. All information required by the permit has been collected and organized into the following format:

Part I – Authorization, Effluent Limitations and Monitoring Requirements

A.2 Permittee Responsibilities

A.4 MS4 Program Resources

A.6 MS4 Program Plan

A.7 MS4 Program Review and Updates

B.1 Planning

B.2 MS4 Program Implementation

a) Construction Site/Post Construction Site Runoff
b) Retrofitting on Prior Developed Lands
c) Roadways
d) Pesticide, Herbicide and Fertilizer Application
e) Illicit Discharges and Improper Disposal
f) Spill Prevention and Response
g) Industrial and High Risk Runoff
h) Stormwater Infrastructure Management
i) City Facilities
j) Public Education/Participation
k) Training
l) Dry Weather Screening Program
m) Infrastructure Coordination

C.1 In-System/Wet Weather Monitoring

C.2 Bacteria Monitoring

C.3 Structural and Source Controls Compliance Monitoring and Tracking

D.1 Chesapeake Bay TMDL Action Plan

D.2 TMDL Action Plans other than the Chesapeake Bay TMDL

Part I.A Discharges Authorized Under This State Permit

Part I.A.2
Permittee Responsibilities

"The permittee shall clearly define the roles and responsibilities of each of the permittee's departments, divisions or subdivisions in maintaining permit compliance."

The MS4 program plan describes the City's stormwater management strategy and the multiple City departments that will implement the program plan elements. The MS4 program roles and responsibilities and applicable permit sections are described in Table 1.

Table 1
City of Portsmouth MS4 Program Roles and Responsibilities

Department/Division	Roles and Responsibilities	Permit Section
Department of Engineering and Technical Services/Stormwater Compliance (SWC)	Evaluate non-stormwater discharges for compliance	I.A.1
	Implement and update the MS4 Program Plan; define the roles and responsibilities of City agencies; coordinate the implementation of the MS4 program; coordinate with DEQ on cases of non-compliance	I.A.2
	Review ordinances and recommend changes as necessary for permit compliance	I.A.3
	Provide MS4 program budget and funding information to DEQ	I.A.4
	Ensure permit maintenance fees are paid	I.A.5
	Maintain, implement, and enforce the MS4 Program Plan; document additions and post the MS4 Program Plan to the City website	I.A.6
	Review the MS4 Program Plan annually and update as needed	I.A.7
	Develop and submit the potential SWM project summary; post funded project information on the City website	I.B.1
	Implement erosion control and stormwater management programs in accordance with the regulations; report on more stringent requirements in City ordinances	I.B.2.a.
	Develop and implement stormwater retrofit projects on prior developed land	I.B.2.b.
	Develop and maintain a list of City maintained roadways treated and not treated by SWMFs	I.B.2.c.1.
	Develop and implement protocols for maintenance of roads, streets, and parking lots	I.B.2.c.2.
	Store deicing materials under cover	I.B.2.c.3.
	Do not apply deicing materials containing urea or other forms of nitrogen or phosphorus to parking lots, roadways, sidewalks, and other paved surfaces	I.B.2.c.4.
	Track acreage of lands managed under integrated pest management plans; evaluate compliance with the plans	I.B.2.d.3.

	Implement a program prohibiting non-permitted discharges to the MS4; track illicit discharges and pollution releases to the MS4	I.B.2.e.
	Document any non-stormwater discharges determined to be contributing significant amounts of pollutants to the MS4	I.B.2.e.1.
	Develop and implement a floatables reduction program	I.B.2.e.3.
	Prohibit the dumping or disposal of used motor vehicle fluids, household hazardous wastes, sanitary sewage, grass clippings, leaf litter, and animal wastes into the MS4 and implement used motor vehicle fluids and household hazardous waste material collection programs	I.B.2.e.4.
	Implement a program with dry weather screening to locate and eliminate illicit discharges and improper disposal into the MS4	I.B.2.e.5. I.B.2.e.6.
	Prevent, contain, and respond to non-emergency spills and provide spill response support to the Fire Department and other City Departments as requested	I.B.2.f.
	Implement an industrial and high risk runoff inspection program	I.B.2.g.
	Implement a stormwater infrastructure inspection and maintenance program for stormwater management (SWM) facilities and infrastructure maintained by the City	I.B.2.h.1.
	Implement an inspection program for privately-maintained SWM facilities to ensure they have proper maintenance	I.B.2.h.2.
	Oversee completion of the stormwater system mapping	I.B.2.h.3 I.B.2.h.4. I.B.2.h.5.
	Oversee implementation of good housekeeping procedures at City facilities	I.B.2.i.1.
	Ensure City employees receive training on procedures and protocols for good housekeeping, pollution prevention, and spill prevention and response	I.B.2.i.1.d.
	Implement a stormwater inlet marking program at high-priority City municipal facilities and at City properties with greater than 2 acres of impervious surface	I.B.2.i.1.e.
	Identify all non-VPDES permitted high-priority municipal facilities that require a SWPPP, develop SWPPPs, and oversee implementation of SWPPPs at each facility	I.B.2.i.2.
	Implement a stormwater public education program	I.B.2.j.1.
	Promote, publicize, and facilitate public reporting of the presence of illicit discharges or improper disposal of materials into the MS4.	I.B.2.j.1.a.
	Continue to promote individual and group involvement in local water quality improvement initiatives, including the promotion of local	I.B.2.j.1.b.

	restoration and clean-up projects, programs, groups, meetings, and other opportunities for public involvement.	
	Promote, publicize, and facilitate the proper management and disposal of used oil and household hazardous wastes.	I.B.2.j.1.d.
	Promote and publicize the proper disposal of pet waste and household yard waste.	I.B.2.j.1.e.
	Promote and publicize the use of the City's litter prevention program.	I.B.2.j.1.f.
	Promote and publicize methods for residential car washing that minimize water quality impacts.	I.B.2.j.1.g.
	Promote and publicize the proper use, application, and disposal of pesticides, herbicides, and fertilizers by public, commercial, and private applicators and distributors.	I.B.2.j.1.h.
	Encourage private property owners to implement voluntary SWM techniques and/or retrofits.	I.B.2.j.1.i.
	Target public education towards local groups of commercial, industrial, and institutional entities likely to have significant stormwater impacts.	I.B.2.j.1.j.
	Ensure the MS4 permit, annual reports, and MS4 Program Plan are posted on the City website	I.B.2.j.2. I.B.2.j.3. I.B.2.j.4.
	Implement a training program in illicit discharge recognition and reporting, good housekeeping, and pollution prevention; document and report on training	I.B.2.k.1. I.B.2.k.2. I.B.2.k.3. I.B.2.k.9.
	Ensure that employees and contractors who apply pesticides and herbicides are properly trained or certified per the Virginia Pesticide Control	I.B.2.k.4.
	Ensure that appropriate personnel have erosion and sediment control and stormwater management training and certifications	I.B.2.k.5. I.B.2.k.6.
	Implement dry weather screening program	I.B.2.l.
	Coordinate with VDOT annually on the MS4 program	I.B.2.m.
	Implement an in-system/wet weather monitoring program with HRPDC, HRSD, and USGS	I.C.1
	Continue to implement the Hoffler Creek bacteria monitoring program	I.C.2
	Maintain and update the database of SWM facilities	I.C.3
	Develop and implement the Chesapeake Bay TMDL Action Plan including annual submittal of data	I.D.1
	Develop and implement local TMDL Action Plans including annual submittal of data	I.D.2
	Submit the annual report to VDEQ.	I.E
City Manager	Oversee the enforcement of ordinances prohibiting the dumping or disposal of used motor vehicle fluids, household hazardous wastes, sanitary sewage, grass clippings, leaf litter, and animal wastes into the MS4	I.B.2.e.4.

Department of General Services (DGS)	Prohibit the dumping or disposal of used motor vehicle fluids, household hazardous wastes, sanitary sewage, grass clippings, leaf litter, and animal wastes into the MS4 and implement used motor vehicle fluids and household hazardous waste material collection programs	I.B.2.e.4.
	Prevent, contain, and respond to non-emergency spills and provide spill response support to the Fire Department and other City Departments as requested	I.B.2.f.
	Ensure City vehicle washing is conducted at the City's Vehicle Wash Building and commercial car washes	I.B.2.i.1.a.
	Prevent, contain, and respond to non-emergency spills and provide spill response support to the Fire Department and other City Departments as requested	I.B.2.f.
	Ensure City employees receive training on procedures and protocols for good housekeeping, pollution prevention, and spill prevention and response	I.B.2.i.1.d.
DGS/Property Management Division (PMD)	Implement a stormwater inlet marking program at high-priority City municipal facilities and at City properties with greater than 2 acres of impervious surface	I.B.2.i.1.e.
DGS/Waste Management Division (WMD)	Develop and implement a floatables reduction program	I.B.2.e.3.
	Prohibit the dumping or disposal of used motor vehicle fluids, household hazardous wastes, sanitary sewage, grass clippings, leaf litter, and animal wastes into the MS4 and implement used motor vehicle fluids and household hazardous waste material collection programs	I.B.2.e.4.
	Ensure City employees do not dump collected yard waste and grass clippings into the MS4	I.B.2.i.1.c.
	Continue to promote individual and group involvement in local water quality improvement initiatives, including the promotion of local restoration and clean-up projects, programs, groups, meetings, and other opportunities for public involvement.	I.B.2.j.1.b.
Department of Parks, Recreation and Leisure Services (PRLS)	Identify lands that require turf and landscape nutrient management plans; develop and implement nutrient management plans; track implementation of plans	I.B.2.d.1.
	Evaluate and implement good housekeeping/pollution prevention measures in the application, storage, transport, and disposal of pesticides, herbicides, and fertilizers	I.B.2.d.2.
	Track acreage of lands managed under integrated pest management plans; evaluate compliance with the plans	I.B.2.d.3.
	Prohibit the dumping or disposal of used motor vehicle fluids, household hazardous wastes, sanitary sewage, grass clippings, leaf litter, and animal wastes into the MS4 and implement used motor vehicle	I.B.2.e.4.

	fluids and household hazardous waste material collection programs	
	Implement a stormwater public education program	I.B.2.j.1.
	Continue to promote individual and group involvement in local water quality improvement initiatives, including the promotion of local restoration and clean-up projects, programs, groups, meetings, and other opportunities for public involvement.	I.B.2.j.1.b.
	Develop an outreach program for public and private golf courses located within the City that discharge to the permittee's MS4, which encourages implementation of integrated management practice plans and techniques to reduce runoff of fertilizer and pesticides.	I.B.2.j.1.c.
	Ensure that employees and contractors who apply pesticides and herbicides are properly trained or certified per the Virginia Pesticide Control	I.B.2.k.4.
	Provide training to employees in illicit discharge recognition and reporting, good housekeeping and pollution prevention practices	I.B.2.k.7.
Department of Public Utilities (DPU)	Continue to implement a sanitary sewer inspection program	I.B.2.e.2.
	Ensure all wastewater is sent to the sanitary sewer or collected by appropriate vendors	I.B.2.i.1.b.
	Ensure City employees receive training on procedures and protocols for good housekeeping, pollution prevention, and spill prevention and response	I.B.2.i.1.d.
Department of Public Works (DPW)	Ensure that employees and contractors who apply pesticides and herbicides are properly trained or certified per the Virginia Pesticide Control	I.B.2.k.4.
DPW/Streets and Highways Division (SHD)	Develop and implement protocols for maintenance of roads, streets, and parking lots	I.B.2.c.2.
	Store deicing materials under cover	I.B.2.c.3.
	Do not apply deicing materials containing urea or other forms of nitrogen or phosphorus to parking lots, roadways, sidewalks, and other paved surfaces	I.B.2.c.4.
Portsmouth Fire Department (PFD)	Provide spill response training to appropriate emergency response employees and report on training	I.B.2.k.8.
	Prevent, contain, and respond to non-emergency spills and provide spill response support to the Fire Department and other City Departments as requested	I.B.2.f.
	Prevent, contain, and respond to non-emergency spills and provide spill response support to the Fire Department and other City Departments as requested	I.B.2.f.
	Implement an industrial and high risk runoff inspection program	I.B.2.g.

Portsmouth Police Department	Provide spill response training to appropriate emergency response employees and report on training	I.B.2.k.8.
Portsmouth Public Schools (PPS)	Ensure City employees receive training on procedures and protocols for good housekeeping, pollution prevention, and spill prevention and response	I.B.2.i.1.d.

In addition to the programs implemented by City departments, the City also maintains an agreement with the Hampton Roads Planning District Commission (HRPDC) to implement portions of the MS4 permit. These programs pertain to the outreach elements in Section I.B.2.j.1.e-f. The HRPDC also coordinates the regional in-system monitoring program in Section I.C.1.

“In the event the permittee is unable to meet conditions of this state permit due to circumstances beyond the permittee’s control, a written explanation of the circumstances that prevented permit compliance shall be submitted to the Department in the annual report.”

The Public Utilities Department inspected 115,632 linear feet or 21.9 miles of sanitary sewer.
The Department of Public Utilities - Sewage Maintenance Division is responsible for inspections and cleaning. This division is operating at 53% vacancy. We have an annual services contract for sewer maintenance. Unfortunately, the contractor did not perform as expected and was consequently dismissed from the contract in FY2017. DPU has since remedied the non-performance issues by rectifying our procurement process requiring performance based bonds.

Part I.A.4
MS4 Program Resources

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

The City funds its stormwater management program using stormwater utility fees. The rate structure is the same for all properties in the City, and is based on the amount of impervious area on each. Impervious areas are surfaces that do not permit water to penetrate into the ground such as rooftops, concrete or bituminous parking lots, concrete sidewalks, etc. It is this impervious cover that contributes to stormwater runoff. Impervious area is measured in square feet and converted into Equivalent Residential Units (ERUs). The average impervious area for residential properties in the City of Portsmouth is 1,877 square feet, which has been set equivalent to one ERU. All residential properties are billed for one ERU. Commercial properties are billed for the actual amount of impervious cover, which is converted to ERUs. The billing rate for all properties in Portsmouth in FY 2017 was $9.25 per month per ERU.

PROJECTED STORMWATER REVENUE ***JULY 1, 2017 – JUNE 30, 2018***					
Type	***Quarter 1***	***Quarter 2***	***Quarter 3***	***Quarter 4***	***Total***
Residential	845,015.26	845,958.76	846,541.51	846,547.06	3,384,062.59
Exempt Res.	2,150.63	2,150.63	2,150.63	2,150.63	8,630.27
Commercial	672,955.36	672,711.16	672,711.16	672,902.63	2,691,280.31
Industrial	76,767.76	76,767.76	76,767.76	76,767.76	307,071.04
Exempt Comm.	248,776.97	248,804.72	248,804.72	249,001.75	995,388.16
Void	1,015.66	677.11	677.11	0.00	2,369.88
Total	**1,846,709.39**	**1,847,070.14**	**1,847,652.89**	**1,847,369.83**	**7,388,802.25**

*FY2017 Stormwater Budget**

Personnel services Includes labor, benefits, and equipment costs	$1,078,793.00
Contractual services Includes HRPDC, HRSD, consultants, and small contracted projects	$360,073.00
Materials and supplies Includes construction materials, tools, and uniforms	$133,198.00
Internal service charges Includes indirect costs, audit, IT, risk management, and telephone	$375,795.00
Vector Control	$416,695.00
Capital Equipment	$450,996.00
Capital outlay	$4,303,275.00
	$7,117,825.00

**Expenditures will be finalized when the budget audit is completed*

FY2018 Proposed Stormwater Budget

Personnel services Includes labor, benefits, and equipment costs	$1,333,390.00
Contractual services Includes HRPDC, HRSD, consultants, and small contracted projects	$396,057.00
Materials and supplies Includes construction materials, tools, and uniforms	$177,496.00
Internal service charges Includes indirect costs, audit, IT, risk management, and telephone	$378,473.00
Vector Control	$416,695.00
Capital Equipment	$451,000.00
Capital outlay	$6,1000,375.00
	$9,253,486.00

Part I.A.6
MS4 Program Plan

PERMIT COMPLIANCE

Municipal Separate Storm Sewer System (MS4) Program Plan

Prepared for

The City of Portsmouth

June 16, 2017

CH2M HILL
5701 Cleveland St

Suite 200

Virginia Beach, VA 23462

Contents

Section Page

Acronyms and Abbreviations ..... **v**

Background **1**

MS4 Program Plan **1**

Appendix

A City of Portsmouth MS4 Program Plan

Acronyms and Abbreviations

BMP	best management practices
CFR	Code of Federal Regulations
City	City of Portsmouth
DEQ	Department of Environmental Quality
DGS	Department of General Services
DMR	discharge monitoring report
DPU	Department of Public Utilities
EPCRA	Emergency Planning & Community Right-To-Know Act
ft^2	square feet
HHM	household hazardous materials
HRPDC	Hampton Roads Planning District Commission
HRSD	Hampton Roads Sanitation District
HUC	hydrologic unit code
ID	identification
KPB	Keep Portsmouth Beautiful
MS4	Municipal Separate Storm Sewer System

O&M	operations and maintenance
PFD	Portsmouth Fire Department
PRLS	Parks, Recreation, and Leisure Services
PY	permit year
SHD	State Health Department
SPCC	spill prevention, control and countermeasures
SWC	Stormwater Compliance
SWM	stormwater management
SWMF	Stormwater Management Facility
SWPPP	stormwater pollution prevention plans
TMDL	Total Maximum Daily Load
USGS	United States Geological Survey
VAC	Virginia Administrative Code
VDOT	Virginia Department of Transportation
VPDES	Virginia Pollutant Discharge Elimination System
VSMP	Virginia Stormwater Management Program
WMD	Waste Management Division

Background

The City of Portsmouth (City) was issued a major municipal permit (VA0088668) on June 2, 2016, and effective on July 1, 2016, for the discharge from the City Municipal Separate Storm Sewer System (MS4). The permit authorizes point source discharges of stormwater runoff and certain non-stormwater discharges from the MS4 operated or owned by the City, including the City schools. An MS4 is a conveyance or system of conveyances owned and/or operated by a public entity, which is designed or used to collect or convey stormwater runoff and is not part of a combined sewer system or publicly- owned treatment works. This can include streets, catch basins, curbs, gutters, ditches, manmade channels or storm drains that convey stormwater and ultimately discharge to receiving waters. The MS4 permit regulates the discharge from the municipally owned or operated storm sewer system, but not the municipality itself.

The MS4 outfalls addressed in the permit may discharge to tributaries of the Elizabeth River and do not drain the entire hydrologic unit code (HUC) acreage. The authorized discharges covered by the permit include discharges from all City MS4 outfalls including existing outfalls as well as any new outfalls constructed during the term of the permit. This document was developed as part of the permit requirements.

MS4 Program Plan

This report is the City's MS4 Program Plan, which documents the City's MS4 Program as it exists at the end of the first year of this permit cycle. This plan was prepared by the City of Portsmouth, Department of Public Works, Stormwater Compliance. The City reserves its full discretion to modify this plan in accordance with applicable laws (including Virginia Code Titles 15.2 and 62.1), applicable regulations, and the terms of this Permit.

This program plan is organized to directly reflect the requirements of the permit. The sections in the plan reflect the same section numbers/letters that are established in the permit.

Per Part I Section A.6 of the MS4, the City will maintain, implement, and enforce the MS4 Program Plan and accurately document the MS4 Program including all additions, changes, and modifications. Updates to the MS4 Program Plan will be submitted to the DEQ for review and approval in accordance with the due dates established by the permit. Updates to the MS4 Program Plan shall become effective and enforceable upon written approval from the Department. The City will post the MS4 Program Plan on the City website for easy accessibility to the public.

Appendix A
City of Portsmouth
MS4 Program Plan

Permit Requirement	Responsible Party	Program Plan Elements	Reporting Requirements
A. Discharges Authorized Under this State Permit			
2. Permittee Responsibilities			
This state permit establishes the specific requirements applicable to the permittee for the term of this state permit. The permittee is responsible for compliance with this state permit. The permittee shall implement and update the MS4 Program Plan (as set forth in Part I.B) to ensure compliance with this state permit.	SWC	Responsibilities and responsible agencies are described in this Program Plan.	Each annual report shall include a current list of roles and responsibilities (these are described and updated in the Program Plan). Each annual report shall include a list of those circumstances of noncompliance outside of the permittee's control.
Where wasteloads have been allocated for pollutant(s) of concern in an approved TMDL, the permittee shall implement the special conditions as set forth in Part I.D of this state permit.			
The permittee shall clearly define the roles and responsibilities of each of the permittee's departments, divisions, or subdivisions in maintaining permit compliance.			
In the event the permittee is unable to meet conditions of this state permit because of circumstances beyond the permittee's control, a written explanation of the circumstances that prevented permit compliance shall be submitted to the Department in the annual report.			
3. Legal Authority			
The permittee shall maintain and use its legal authority authorized by the Commonwealth of Virginia to control discharges to and from the MS4 in the manner established by the specific requirements of this state permit. The legal authority shall enable the permittee to do the following:			
a. Control the contribution of pollutants to the MS4.	SWC	The Stormwater Management Ordinance (Chapter 31.2), Erosion and Sediment Control Ordinance (Chapter 11), Water, Sewers and Sewage Disposal Ordinance (Chapter 38), Fire Prevention Code (Chapter 13), and Garbage and Refuse Code (Chapter 16) provide the authority to control pollutant discharges to the MS4. City of Portsmouth Code of Ordinances (https://www.municode.com/library/va/portsmouth/codes/code_of_ordinances)	
b. Prohibit illicit discharges to the MS4.	SWC	The Stormwater Management Ordinance (Chapter 31.2), Erosion and Sediment Control Ordinance (Chapter 11), Water, Sewers and Sewage Disposal Ordinance (Chapter 38), Fire Prevention Code (Chapter 13), and Garbage and Refuse Code (Chapter 16) provide the authority to prohibit illicit discharges and connections, as well as illegal dumping. City of Portsmouth Code of Ordinances (https://www.municode.com/library/va/portsmouth/codes/code_of_ordinances)	
c. Control the discharge of spills and the dumping or disposal of materials other than stormwater into the MS4.	SWC	The Stormwater Management Ordinance (Chapter 31.2), Erosion and Sediment Control Ordinance (Chapter 11), Water, Sewers and Sewage Disposal Ordinance (Chapter 38), Fire Prevention Code (Chapter 13), and Garbage and Refuse Code (Chapter 16) provide the authority to control the discharge of spills and the dumping or disposal of materials other than stormwater into the MS4. City of Portsmouth Code of Ordinances (https://www.municode.com/library/va/portsmouth/codes/code_of_ordinances)	
d. Require compliance with conditions in ordinances, permits, contracts, interjurisdictional agreements, or orders.	SWC	The City has the authority to require compliance related to implementing the permit requirements, including but not limited to: Conditions in ordinances (including permits and orders issued under ordinances): • The City has authority as authorized by state law and as stated in local ordinances, including options for escalating enforcement steps as appropriate in the City's exercise of its enforcement discretion as the regulator of covered third party activities. Local enforcement authority includes:	

Permit Requirement	Responsible Party	Program Plan Elements	Reporting Requirements
		– Stormwater Management Ordinance (Chapter 31.2): see § 31.2-21. Enforcement and § 31.2-23. Pollution of the Stormwater System. – Erosion and Sediment Control Ordinance (Chapter 11): see § 11-7. Violations, Penalties, Legal Remedies. – Water, Sewers, and Sewage Disposal Ordinance (Chapter 38): see § 38-2. Violations of Chapter. – Fire Prevention Code (Chapter 13): § 13-83. Enforcement and § 13-84. Violations. • City of Portsmouth Code of Ordinances. • Contracts and interjurisdictional agreements: – To the extent authorized by state law, the City has authority to enter and carry out contracts and, in event of breach of any contract by a counterparty, to enforce such contracts according to the provisions	
e. Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with permit conditions including the prohibition on illicit discharges to MS4.	SWC	The City has authority to conduct inspections and monitoring related to implementing the permit requirements, including but not limited to: • Stormwater Management Ordinance (Chapter 31.2): § 31.2-13. Monitoring and Inspections. • Erosion and Sediment Control Ordinance (Chapter 11): § 11-6. Monitoring, Reports and Inspections. • Water, Sewers and Sewage Disposal Ordinance (Chapter 38): § 38-53. Right of entry and access to premises. • Fire Prevention Code (Chapter 13): § 8.1-9. Investigation. • City Portsmouth Code of Ordinances	
4. MS4 Program Resources			
The permittee shall submit to the Department a copy of each fiscal year's budget including its proposed capital and O&M expenditures necessary to accomplish the activities required by this state permit. The permittee shall describe its method of funding the stormwater program with the copy of the fiscal year budget.	SWC	No program plan element associated with this requirement. See 'Reporting Requirements.'	A copy of the fiscal year's budget including its proposed capital and O&M expenditures necessary to accomplish the activities required by this state permit shall be submitted with each annual report.
5. Permit Maintenance Fees			
Permit maintenance fees shall be paid in accordance with Part XIII of the Virginia Stormwater Permitting Program regulations (4 VAC 50-60-700 et seq.).	SWC	Fees will be paid as required.	
6. MS4 Program Plan			
The permittee shall maintain, implement, and enforce an MS4 Program Plan accurately documenting the MS4 Program Plan including all additions, changes, and modifications. Updates to the MS4 Program Plan shall be submitted to the Department for review and approval in accordance with the due dates established by this state permit. Updates to the MS4 Program Plan shall become effective and enforceable upon written approval from the Department. Upon development, the most recent MS4 Program Plan shall be posted on the permittee's website, and/or provided in another location easily accessible to the public.	SWC	This document is the City's MS4 Program Plan, which has been developed to document the City's MS4 Program as it exists at the end of the 1st year of this permit cycle. The City reserves its full discretion to modify this plan in accordance with applicable laws (including Virginia Code Titles 15.2 and 62.1), applicable regulations, and the terms of this Permit.	Using the last annual report before this state permit effective date as a baseline, no later than 12 months after the permit effective date, the permittee shall submit to the Department for review and approval an updated MS4 Program Plan to describe implementation of this MS4 Program Plan and meet the conditions described in this section (see description at left).

Permit Requirement	Responsible Party	Program Plan Elements	Reporting Requirements
		After submission to DEQ and DEQ approval, the MS4 Program Plan will be posted to the City's website.	
7. MS4 Program Review and Updates			
The permittee will review the current MS4 Program annually, in conjunction with the preparation of the annual report required under Part I.E of this permit.	SWC	The MS4 Program will be reviewed annually and the MS4 Program Plan updated accordingly.	All modifications and proposed modifications shall be reported in accordance with this section of the permit.
B. Stormwater Management			
1. Planning			
No later than 12 months after the effective date of this state permit, the permittee shall submit to the Department a summary of potential SWM projects to be completed during the term of the permit. No later than 30 days following funding allocation for project development, the permittee shall identify and summarize the project on the permittee's website. Project status shall be updated on the website no less than once per year and no later than 30-days following project completion.	SWC	At a minimum, the SWM project summary sheet shall include the following for each project in the summary: type of project or SWMF, number of acres that the SWMF treats, impervious and pervious acreage treated by the potential project, condition of the downstream channel, amount of total pollutant reduction, feasibility for implementation, and estimated cost of implementation. The summary shall include a prioritized list of the identified projects for consideration of implementation. For any identified retrofit opportunities and stream restoration projects, subsequent decisions regarding whether and when to proceed will be determined at the City's discretion considering related provisions of this permit, such as the Prior Developed Land Retrofitting provision, TMDL Action Plans, accessibility, costs, and other relevant factors.	No later than 12 months after the permit effective date, the permittee shall provide the SWM project summary sheet. Each annual report shall include an updated project summary sheet. Each annual report shall include a current weblink to the project status page. Each annual report shall include a status update for those water quality projects for which implementation or construction occurred during the reporting year.
2. MS4 Program Implementation			
a. Construction Site Runoff and Post Construction Runoff from Areas of New Development and Development on Prior Developed Lands			
1) The permittee shall implement a local erosion and sediment control program consistent with the Virginia Erosion and Sediment Control Law and Virginia Erosion and Sediment Control Regulations, and a SWM program consistent with the Virginia Stormwater Management Act and Virginia Stormwater Management Program Regulations.	SWC	The Erosion and Sediment Control Ordinance (Chapter 11 of the City Code) requires an erosion and sediment control plan for clearing and grading activities equal to or greater than 2,500 square feet of land disturbance. Erosion and sediment control and inspection and enforcement activities are also tracked, along with VSMP permit activities, using the Tidemark work order system.	Each annual report shall contain the number of regulated land disturbing activities approved and the total number of acres disturbed. Each annual report shall contain the number of land disturbing activity inspections conducted and the number and type of each enforcement action taken. Each annual report shall include a list of land disturbing projects that qualify under the 'Grandfathering' provision of the VSMP regulations found at 9 VAC 25-870-48 that receive coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities during the reporting period. Each annual report shall include a summary of actions taken by the permittee to implement Part I.B.2.a)1) and 2) of this state permit.
2) The permittee shall identify in the MS4 Program Plan all legal authorities for erosion and sediment control and SWM that are more stringent than those required under 9 VAC 25 840 et seq. and/or 9 VAC 25-870 et		Disturbed areas outside the Resource Protection Area have a minimum disturbance of 2,500 ft^2 instead of the state required 10,000 ft^2	Each annual report shall include a summary of actions taken by the permittee to implement Part I.B.2.a)1) and 2) of this state permit.

Permit Requirement	Responsible Party	Program Plan Elements	Reporting Requirements
seq. that have been adopted in accordance with § 62.1-44.15:65 and/or § 62.1-44.15:33 of the Code of Virginia.			
b. Retrofitting on Prior Developed Lands			
From the SWM projects included in the summary required in Part I.B.1, the permittee shall complete no less than three projects no later than the expiration date of this state permit. Projects implemented to meet the requirements of Part I.D of this state permit (TMDL Action Plan and Implementation for the Chesapeake Bay Special Condition or TMDL Action Plans other than the Chesapeake Bay TMDL) may be used to meet the requirements of this special condition. For retrofit projects that do not serve to meet the requirements of Part I.D, the permittee shall submit a summary of projects implemented during the reporting period with each annual report including type of land use being retrofitted, retrofit performed, completion date or anticipated completion date, total acreage retrofitted, total impervious and pervious acreage, and location by latitude and longitude (in decimal degrees).	SWC	This requirement is being implemented in coordination with similar or overlapping planning and implementation requirements set forth in I.B.1 (Planning) and I.D.1 (TMDL Action Plan and Implementation).	Each annual report shall include a status update for those projects for which implementation began during the reporting period.
c. Roadways			
1) No later than 24 months after the effective date of this state permit, the permittee shall develop and maintain an accurate list of permittee maintained roads and streets that includes the street name, the miles of roadway not treated by BMPs, and miles of roadway treated with BMPs.	SWC	In PY1, a list will be developed of City maintained roads and streets that will include the street name, the miles of roadway not treated by SWMFs, and the miles of roadway treated with SWMFs.	Report status in annual report
2) No later than 36 months after the effective date of this state permit, the permittee shall develop and implement written protocols for permittee maintained road, street, and parking lot maintenance designed to minimize pollutant discharge.	SWC/SHD	Protocols to minimize pollutant discharges from City road, street, and parking lot maintenance will be developed and finalized by the end of PY3.	The City shall include a copy of the finalized maintenance protocols for City maintained road, street, and parking lots in the PY3 annual report.
3) Materials used for deicing activities shall remain covered from precipitation until application.	SWC/SHD	Deicing materials will be stored under cover.	
4) The permittee shall not apply any deicing agent containing urea or other forms of nitrogen or phosphorus to parking lots, roadways, and sidewalks or other paved surfaces.	SWC/SHD	The City will not use any deicing agent containing urea or other forms of nitrogen or phosphorus to parking lots, roadways, and sidewalks or other paved surfaces.	
d. Pesticide, Herbicide, and Fertilizer Application			
1) The permittee shall develop and implement turf and landscape nutrient management plans that have been developed by a certified nutrient management planner in accordance with § 10.1-104.2 of the Code of Virginia on all lands owned or operated by the MS4 permittee where nutrients are applied to a contiguous area greater than 1 acre in accordance with the following schedule:	PRLS	Program Plan elements developed in 2.d.1.a through 2.d.1.c.	See elements 2.d.1.a through 2.d.1.c.
a) No later than 12 months after the effective date of this state permit, the permittee shall identify all permittee lands where nutrients are applied to a contiguous area of more than 1 acre. A latitude and longitude shall be provided for each such piece of permittee land.	PRLS	The City will identify the lands and applicable acreage on which nutrients are applied within 12 months after the effective date of the state permit.	The PY1 annual report shall contain a list of all permittee lands, identified by latitude and longitude, and applicable acreage on which nutrients are applied to more than 1 contiguous acre.
b) The permittee shall develop and implement turf and landscape nutrient management plans on all permittee lands where nutrients are applied to a contiguous area of more than 1 acre. The following measurable goals are established for the development and implementation of turf and landscape nutrient management plans: 1) No later than 24 months after the effective date of this state permit, not less than 15 percent of all identified acres will be covered by turf and landscape nutrient management plans. 2) No later than 36 months after the effective date of this state permit, not less than 40 percent of all identified acres will be covered by turf and landscape nutrient management plans.	PRLS	A certified nutrient management planner will develop turf and landscape nutrient management plans on all City lands where nutrients are applied to a contiguous area of more than 1 acre to meet the permit milestones outlined in 2.d.1.b.1 through 2.d.1.b.3.	Each annual report shall report on compliance with the turf and landscape nutrient management plan implementation schedule. The annual report shall include a list of the City's properties identifying: • Properties on which turf and landscape nutrient management plans have been implemented. • Cumulative total of acreage under turf and landscape nutrient management plans.

Permit Requirement	Responsible Party	Program Plan Elements	Reporting Requirements
3) No later than 48 months after the effective date of this state permit, not less than 75 percent of all identified acres will be covered by turf and landscape nutrient management plans.			
c) The permittee shall annually track the following: 1) The total acreage of permittee lands upon which nutrients are applied and controlled using general City guidelines or standard operating procedures. 2) The acreage of permittee lands where turf and landscape nutrient management plans are required. 3) The acreage of permittee lands covered by turf and landscape nutrient management plans have been implemented.	PRLS	The City shall develop a nutrient management plan tracking template after 2.d.1.a has been completed and use the template to prepare the nutrient management plan tracking information for the annual report. This template will include a schedule of when each contiguous area will become compliant with 2.d.1.b.1 to 2.d.1.b. 3.	
2 The permittee shall continue to employ good housekeeping/pollution prevention measures in the application, storage, transport and disposal of pesticides, herbicides and fertilizers.	PRLS	The City will evaluate current practices of application, storage, transport, and disposal of pesticides, herbicides, and fertilizers within 24 months after the effective date of the state permit.	The PY1 annual report shall include details of use, application, or storage of fertilizers within the MS4 system.
3 The permittee shall track the acreage of permittee lands managed under integrated pest management plans.	PRLS SWC Mosquito Biologist	The City will identify any City integrated pest management plans currently in place within MS4 boundaries. Evaluate compliance of current practices within 24 months of the effective permit date.	Starting with PY2, each annual report shall include the number of acres managed under Integrated Pest Management Plans.
e. Illicit Discharges and Improper Disposal			
Discharges to the MS4 not authorized by this state permit shall be effectively prohibited.	SWC	Pollution discharges to the City's MS4 and surface waters are prohibited. Portsmouth City Code 26-5(c) states, it shall be unlawful for any person to discharge directly or indirectly into the storm sewer system or state waters, any substance likely, in the opinion of the City Manager, to have an adverse effect on the storm sewer system or state waters. City staff conduct illicit discharge response and follow-up, targeted screening, and enforcement actions. The Fire Department is the initial responder for most illicit discharge events, including spills, usually dispatched through the City's Emergency Communications Center. If the Fire Department Hazardous Materials Team determines the discharge consists of a hazardous substance or is intentionally discharged (environmental crime), additional follow-up through the Fire Marshal's office occurs. Nonhazardous discharges are referred to the appropriate agency (for example, sanitary sewage releases to DPU or HRSD and erosion/sediment control issues to SWC). Illicit discharges that do not fall into one of these categories are generally investigated jointly by SWC and the Fire Marshal's Office. SWC staff track illicit discharges and pollution releases to the City's MS4 and surface waters in the illicit discharge tracking spreadsheet. The database stores information on all reported incidences including receiving agency, location of discharge, discharge description, PFD/SWC response and follow-up actions, sampling, business contact information, enforcement actions, and incident status.	
1) In accordance with Part I.A.1.b), certain nonstormwater discharges to the MS4 need not be addressed as illicit discharges or improper disposal. The MS4 Program shall identify any non-stormwater discharges listed under Part I.A.1.b), where the permittee has imposed any conditions on the discharges to the MS4. The permittee shall prohibit, on a case-by-case basis, any individual non-stormwater discharge (or class of non-stormwater discharges) otherwise allowed under this paragraph that is determined to be contributing significant amounts of pollutants to the MS4.	SWC	Where it is determined that an individual nonstormwater discharge listed in Part I.A.1.b is contributing a significant amount of pollutants to the MS4, the City will take appropriate follow-up action(s) and notify the responsible party that the discharge must be ceased or altered in way that no longer contributes significant pollutant(s) to the MS4. Where necessary, enforcement measures outlined in Chapter 26-9 of the City Code as well as other applicable chapters of the code (Fire) may be taken to ensure corrective action is implemented (the discharge is ceased or it is not repeated (in the case of transient discharges).	Each annual report shall include a list of illicit discharges identified, the source, a description of follow-up activities and whether the illicit discharge has been eliminated.

Permit Requirement	Responsible Party	Program Plan Elements	Reporting Requirements
2) The permittee shall continue implementing a sanitary sewer inspection program to minimize the exfiltration from the sanitary system to the MS4. The permittee shall inspect a minimum of 119,000 linear feet of sanitary sewer annually.	DPU	The City maintains inspection and repair programs for the sanitary sewer system to maintain the integrity of the system. Inspection of the sanitary sewer system is done by sewershed and is tracked within a Geographic Information System database. A minimum of 119,000 linear feet will be inspected annually.	Each annual report shall include the amount of linear feet of sanitary sewer inspected during the reporting year.
3) The permittee shall develop and implement a program to reduce the discharge of floatables (for example, litter and other human-generated solid refuse).	SWC WMD	The City program will include regular refuse collection and recycling programs. It will also consider such elements as street sweeping, catch basin and SWMF cleaning, volunteer cleanups and public education. The City conducts education and outreach activities including Adopt a Spot, Keep Portsmouth Beautiful, and the Great American Cleanup. The City also participates in regional efforts via askHRGreen.org.	The initial annual report shall include a description of the procedures the permittee will implement to reduce floatables as required by Part I.B.2.e)3) including procedures to determine the floatables reduction program effectiveness. Each annual report after program development shall include a list of site surveyed for floatables, a summary of observations at each site, and a determination as to the effectiveness of the floatables reduction program.
4) The permittee shall prohibit the dumping or disposal of used motor vehicle fluids, household hazardous wastes, sanitary sewage, grass clippings, leaf litter, and animal wastes into the MS4. The permittee shall ensure the implementation of programs to collect used motor vehicle fluids (such as oil and antifreeze) and household hazardous waste materials for recycling, reuse, or proper disposal. Such programs shall be readily available to all private residents and shall be publicized and promoted on a regular basis not less than twice per year.	City Manager SWC DGS PRLS WMD	Pollution discharges to the City's MS4 and surface waters are prohibited. Portsmouth City Code 31.2-23 states that the following are prohibited acts: (1) It shall be unlawful for any person to put, or allow to be put, any process water, wastewater, filth, animal or vegetable matter, chips, shavings or any other substance in the stormwater system, or do any injury thereto, or in any manner pollute the stormwater system. (2) It shall be unlawful for any person to pour or discharge, or to permit to be poured or discharged, or to deposit, so that the same may be discharged, any gasoline, oil waste, antifreeze, or other fluids from vehicles or motor vehicles or equipment into any stormwater system. (3) It shall be unlawful for any commercial, industrial, or manufacturing entity to discharge process water or unpermitted discharge into any stormwater system. (4) It shall be unlawful for any person to throw, place or deposit, or cause to be thrown, placed or deposited, in any gutter, ditch, storm drain or other drainage area in the city anything that impedes or interferes with the free flow of stormwater therein. DGS/WMD manages the City's HHM program, which provides for the safe collection, transport and disposal of unwanted HHM material in an environmentally appropriate manner as part of a comprehensive strategy that promotes citizen awareness regarding proper handling of HHM; reduces the amount of HHM in the municipal solid waste stream, which ultimately is taken to combustors or landfills; limits the amount of HHM which is dumped down a drain and ultimately discharged to one of HRSD's wastewater treatment plants, or is dumped indiscriminately; and helps to reduce the risk of injuries to workers, the community, and the environment. The City hosts semiannual recycling events where residents can safely dispose of HHM, bikes, metal, shoes, clothing and other recyclable items. See website below for additional information: http://www.kpbva.org/	Each annual report will include a summary of the semiannual HHM recycling events.
5) The permittee shall continue to implement a program to locate and eliminate illicit discharges and improper disposal into the MS4. This program shall include dry weather screening activities to locate portions of the	SWC	The City will continue its Illicit Discharge Detection and Elimination program, which consists of storm sewer inspections, routine inspections, complaint response and follow-up, training and education about reporting illicit discharges, public outreach	

Permit Requirement	Responsible Party	Program Plan Elements	Reporting Requirements
MS4 with suspected illicit discharges and improper disposal, as described in Part I.B.2.l)(1) of this state permit.		and education on preventing stormwater pollution (see Part 1.B.2.k.1), and dry weather screenings. Follow-up "upstream" investigations will be conducted at outfalls that exhibit evidence of an illicit discharge. Sampling is also conducted when applicable during investigations of reported illicit discharges. When the source of the illicit discharge is identified, the City works with the responsible party to ensure the discharge is eliminated and/or not repeated.	
6) The permittee shall require the elimination of illicit discharges and improper disposal practices within 30-days of discovery. Where elimination of an illicit discharge within 30-days is not possible, the permittee shall require an expeditious schedule for removal of the discharge. In the interim, the permittee shall require the operator of the illicit discharge to take all reasonable and prudent measures to minimize the discharge of pollutants to the MS4.	SWC	When the City identifies the source of an illicit discharge and/or improper disposal practices, the responsible party is notified and required to eliminate the discharge (either immediately or within a specified time frame) and/or not repeat improper disposal practices. Enforcement action may be taken when a responsible party fails to comply with the conditions of the notification or repeats a practice they already received notification about. Enforcement provisions are provided in Section 31.2-23 of the Portsmouth City Code. If a discharge cannot be eliminated within 30 days, the responsible party shall take measures to minimize the discharge of pollutants to the MS4 until the discharge is eliminated.	
f. Spill Prevention and Response			
The permittee shall continue to implement a program that coordinates with the Fire Department and other City Departments to prevent, contain, and respond to spills that may discharge into the MS4. The spill response program may include a combination of spill response actions by the permittee (and/or another public or private entity), and legal requirements for private entities within the permittee's jurisdiction.	PFD SWC DGS	The Portsmouth Fire Department is the initial responder for most spills. The Hazardous Materials Team is dispatched through the City's Emergency Communications Center. The team employs practices (absorption, diking, damming) to contain spills and prevent materials from entering the storm drain system. The Fire Department Hazardous Materials Team works with the responsible parties to ensure proper clean up actions are taken and safety / traffic hazards are mitigated. Many of the City vehicles used for field operations are equipped with spill kits to handle small spills in the field. This will be expanded to police vehicles in the future. Spill kits have been installed at various locations throughout the Frederick Blvd Operations Center. During this permit term, additional spill kits will be installed at the DPU operations center. Spills kits are located at City fueling stations. The City will determine if a SPCC plan is needed for any City facility. A SPCC plan will be developed if one is required. Training on spill prevention and response is conducted on an annual basis for Operations Center employees. Additional information on training is included in Section L. Information on spills that enter the MS4 is included in the City's illicit discharge tracking spreadsheet.	Each annual report shall include a list of spills, that qualify for immediate reporting as required under Part II.G and H of this state permit, the source (identified to the best of the permittee's ability), and a description of follow-up activities taken.
g. Industrial and High Risk Runoff			
The permittee shall implement a program to identify and control pollutants in stormwater discharges to the MS4 from industrial and high risk runoff facilities (for example, municipal landfills; other treatment, storage, or disposal facilities for municipal waste; hazardous waste treatment, storage, disposal and recovery facilities; facilities that are subject to EPCRA Title III, Section 313) and any other industrial or commercial discharges the permittee determines are contributing a significant pollutant loading to the MS4.			
1) The permittee shall maintain, and update as necessary, a list of all known industrial and high-risk dischargers to the MS4. This list shall include VPDES industrial stormwater permits. Industrial facilities are defined as:	SWC	The City will develop a list of all known industrial and high-risk dischargers to the MS4 in PY1. The City will review DEQ's database of industrial stormwater general permits, multisector industrial permits that include stormwater, industrial facilities with no exposure certificates, and other regulated facilities and determine which entities discharge to the City's MS4.	The PY1 annual report shall include a list of all known industrial and high-risk dischargers including any non-VPDES regulated industrial and commercial stormwater dischargers determined by

Permit Requirement	Responsible Party	Program Plan Elements	Reporting Requirements
• A VPDES industrial stormwater permitted facility; an industrial stormwater facility granted no exposure certification by DEQ; and any other facility with a "storm water discharge associated with industrial activity," as the term is defined in 40 CFR 122.26(b)(14). • High-risk facilities are defined as: municipal landfills; other treatment, storage, or disposal facilities for municipal waste; hazardous waste treatment, storage, disposal and recovery facilities; and facilities that are subject to EPCRA Title III, Section 313.			the City as contributing a significant pollutant load and that discharge to the MS4. Updates to the list will be included as necessary in each annual report.
2) No later than 12 months after the effective date of this state permit, the permittee shall develop and implement a prioritized schedule and procedure to inspect outfalls of facilities with VPDES industrial stormwater permits at the point of connection to the MS4. Prioritization may be based on historical discharges, local water quality impairments, industrial category, or other methods selected by the permittee. The permittee shall inspect all VPDES industrial stormwater permitted outfalls connected to its MS4 a minimum of once every 5 years.	SWC PFD	The City will develop a prioritized schedule and procedure to inspect the point of connection to the MS4 for facilities with VPDES industrial stormwater permits. Outfalls of VPDES industrial stormwater permitted facilities that discharge to the City's MS4 will be inspected once during the permit term (once every 5 years).	The PY1 annual report shall include a prioritized schedule of inspections and procedures for inspecting outfalls. Each annual report thereafter shall report on implementation of the inspection schedule and include a list of the facilities and/or facility outfalls inspected during the reporting period.
3) The permittee shall review copies of DMRs submitted to the permittee by VPDES industrial stormwater permitted facilities as part of the permittee's investigations of significant pollutant loadings. The permittee may conduct additional monitoring, or may require the facility to conduct additional monitoring, of any stormwater discharges it believes may be a source of significant pollutant loadings.	SWC	The City will annually review, throughout the life of the permit, all DMRs submitted to the City by VPDES Industrial Stormwater General Permitted facilities that discharge to the MS4 to determine if there is any evidence of significant pollutant loading. The City may require the permit holder to conduct additional monitoring if any reported results are outside the specified range for designated water quality parameters.	The City shall refer any industrial facility to the DEQ Tidewater Regional Office where there is evidence of significant pollutant loading to the City's MS4 because of ongoing or regular exceedances of VPDES Permit effluent limitations.
4) The permittee shall coordinate with the Department to report any non-VPDES permitted industrial facility from which the permittee has evidence that a significant pollutant load is entering the MS4 system. Inspections of facilities for which the permittee has evidence of significant pollutant loading may be carried out in conjunction with other permittee programs.	SWC	This item is addressed in Item B.2.g.6.	
5) The permittee shall refer the following facilities to the DEQ, Tidewater Regional Office, for Department compliance review under the Virginia State Water Control Law: a) Facilities and operations having non-stormwater discharges that do not have coverage under an existing VPDES permit. b) Facilities and operations identified pursuant to 40 CFR Part 122.26(b)(14) with manufacturing, processing, or raw materials storage outside that do not have coverage under an existing VPDES industrial stormwater permit. c) Any VPDES industrial stormwater permit facility where there is evidence of significant pollutant loadings to the MS4. d) Facilities that do not submit signed copies of DMRs to the permittee as required under a VPDES industrial stormwater permit.	SWC	Any facilities identified during dry weather screening as having nonstormwater discharges that do not have coverage under an existing VPDES permit will be referred to the DEQ Tidewater Regional Office. Any facilities that are identified as having operations that fall under 40 CFR Part 122.26(b)(14) with manufacturing, processing, or raw materials storage outside, and do not have a permit will be referred to the DEQ Tidewater Regional Office as they are discovered during dry weather monitoring. Where DMRs show continued or regular exceedance of effluent limitations or benchmarks contained in a VPDES Industrial Stormwater General Permit, the City shall refer the permittee (facility) to DEQ Tidewater Regional Office annually as needed throughout the life of the permit. VPDES Industrial Stormwater General Permitted facilities that fail to submit signed copies of DMRs as required in their permit shall be also referred to the DEQ Tidewater Regional Office annually throughout the life of the permit.	Each annual report shall include a list of referrals to the DEQ.
6) The permittee shall maintain a list of any industrial and/or commercial stormwater dischargers not regulated under the Virginia State Water Control Law that it determines may be contributing a significant pollutant loading to the MS4. This list may be individual discharges or categories of discharges. a) Outfalls from these facilities shall be included in the prioritized inspection schedule. b) The list shall include, but shall not be limited to, major automotive facilities such as repair shops, body shops, auto detailers, tire repair shops and service stations.	SWC	The City will develop a list of non-VPDES industrial and commercial stormwater dischargers determined by the City as contributing a significant pollutant load and that discharge to the MS4, which will include, but not be limited to, major automotive facilities such as repair shops, body shops, auto detailers, tire repair shops and service stations. The outfalls where these facilities tie into the MS4 will be included on the prioritized schedule.	A list of any non-VPDES industrial and commercial stormwater dischargers determined by the City as contributing a significant pollutant load and that discharge to the MS4, a prioritized schedule of outfall inspections for the listed facilities, and outfall inspection procedures will be included in the PY1 annual report.

Permit Requirement	Responsible Party	Program Plan Elements	Reporting Requirements
c) The permittee shall require control measures as necessary and/or appropriate for stormwater discharges from these dischargers.		The City will work with facility owners, managers, or supervisors to ensure any required applicable control measures are implemented to prevent or minimize pollutant loads in stormwater discharges.	The City will submit in each annual report, a report on implementation of the inspection schedule and include a list of facilities and/or facility outfalls inspected during the reporting period.
h. Stormwater Infrastructure Management			
The permittee shall continue to implement programs to maintain the permittee's stormwater infrastructure and to update the accuracy and inventory of the storm sewer system.	SWC	The City will continue to perform maintenance for the storm sewer system and to update the accuracy and inventory of the storm sewer system.	
1) For SWM facilities and infrastructure maintained by the permittee including residential properties where SWM facilities and Storm Drainage Systems qualify for permittee maintenance (excluding apartments and mobile home parks), the following conditions apply: a) The permittee shall provide for adequate long-term O&M of SWM facilities owned or operated by the permittee in accordance with written inspection and maintenance procedures included in the MS4 Program Plan. b) The permittee shall, at a minimum, inspect annually all SWM facilities owned or operated by the permittee. The permittee may choose to implement an alternative schedule to inspect these SWM facilities based on a risk assessment that includes facility type and expected maintenance needs if the alternative schedule is included in the MS4 Program Plan in accordance with plan modifications as listed in Part I.A.7 of this state permit. c) The permittee shall conduct maintenance on SWM facilities owned or operated by the permittee as necessary. d) The permittee shall continue its storm sewer system inspection program and shall inspect no less than 15 percent of the MS4 annually. The permittee shall perform maintenance as necessary based on findings during the inspection. e) Visual inspections may be used to satisfy the inspection requirements Part I.B.2.)h)1)(d) above. The permittee may prioritize inspection locations based on re-occurring problems, illicit discharges, illegal dumping, citizen complaints, and other criteria as determined by the permittee. The criteria used to prioritize the inspections shall be documented in the MS4 Program Plan and updated as necessary. f) The permittee shall obtain any required state or federal permit(s) necessary to complete maintenance activities.	SWC	The City will continue stormwater infrastructure inspection, inventory, reinvestment, and rehabilitation programs. a) The City will develop written inspection and maintenance procedures in the first year of the permit. b) The City will annually inspect all SWM facilities that they own or operate. c) The City will conduct maintenance on SWM facilities that they own or operate as deemed necessary by the annual inspections or by SWMF-specific maintenance schedules. d) The City will inspect no less than 15 percent of the storm sewer system annually and perform maintenance as necessary based on findings during the inspection. e) The City will develop criteria for prioritizing inspections of the storm sewer system in PY1. f) The City will obtain any required state or federal permit(s) necessary to complete maintenance activities	The City shall submit the written inspection and maintenance procedures with the PY1 annual report. Each annual report shall include a summary of activities performed in support of the inspection and maintenance program required in Part I.B.2.h)1). The summary shall include the total number of drainage structures operated by the City; the total length of open conveyance that is part of the City's MS4; the total number of the drainage structures inspected and the total length of open conveyances inspected. In addition, the City shall maintain records documenting the inspection of drainage structures and open conveyances to include a list of drainage structures inspected, the date inspected, the type of structures, the location, and identified maintenance needs and when the maintenance was performed as required in Part I.B.2.h)1).
2) For SWM facilities not maintained by the permittee and that discharge into the MS4, the following conditions apply: a) The permittee shall continue to implement a program to ensure proper maintenance of each privately-maintained SWM facility that discharges into the MS4 system as documented in the MS4 Program Plan. (1) Beginning with the effective date of this state permit and in accordance with 9 VAC 25 870-112 B., maintenance agreements may be used but are not required for stormwater control measures that are designed to treat stormwater runoff solely from the individual residential lot on which they are located, if the permittee has developed and implemented a strategy to address maintenance of such SWM controls. Should the permittee choose a strategy other than a maintenance agreement, such a strategy shall be provided in writing no later than 12 months after the effective date of this state permit and shall include periodic inspections, homeowner outreach and education, or other methods targeted at promoting the long-term maintenance of such facilities. (2) For SWM facilities that are privately maintained and for which maintenance agreements have been established between the permittee and the owner, the permittee shall inspect all privately	SWC	1) Maintenance agreements are used to ensure proper maintenance of privately maintained SWM facilities and the agreements are recorded with the deed. 2) For SWM facilities that are privately maintained and for which maintenance agreements have been established between the permittee and the City, all privately-maintained facilities will be inspected no less than once per 5 years and follow up activities will be conducted as needed to ensure the required maintenance has been completed. 3) In PY1, the City will develop draft procedures to address maintenance of SWM controls located on individual residential lots. The City will implement the draft procedures and policies within 15 months after the effective date of the permit. The City will finalize the draft policy and procedures for the inspection of privately-maintained SWM facilities based on the findings of the pilot of the draft procedures no later than 36-months after the effective date of the permit.	The PY1 annual report shall include the City's strategy to address maintenance of SWM controls that are designed to treat stormwater runoff solely from the individual residential lot on which they are located. Each annual report shall provide a summary of actions taken by the City to address failure of privately-maintained SWM facilities owners to abide by maintenance agreements. Each annual report shall include a list of activities including inspections performed and notifications of needed maintenance and repair of stormwater facilities not operated by the City as required by Part I.B.2.h)2).

Permit Requirement	Responsible Party	Program Plan Elements	Reporting Requirements
maintained facilities no less than once per 5 years and conduct follow up activities to ensure the required maintenance has been completed. Inspections may be conducted by the permittee or their designee as defined in 9 VAC 25-870-114. (3) For SWM facilities that are privately maintained and for which maintenance agreements have not been established between the permittee and the owner, the permittee shall implement a pilot program consisting of the following: (i) No later than 12 months after the effective date of the permit, the permittee shall develop draft procedures and policies that are designed to ensure that inspection and maintenance of privately maintained SWM facilities without maintenance agreements are being conducted. The draft procedures and policies should identify any expected limitations to the permittee's ability to implement these procedures and policies and should propose options to overcome these limitations. (ii) No later than 15 months after the effective date of the permit, the permittee shall implement these draft procedures and policies including the proposed options identified in subsection Part I.B.2.h)2)a)(3)(i) above. (iii) No later than 36 months after the effective date of the permit, the permittee shall modify the draft policy and procedures required by Part I.B.2.h)2)a)(3)(i) for the inspection of privately maintained SWM facilities based on the findings of Part I.B.2.h)2)a)(3)(ii)and finalize the inspection procedures.			
3) No later than 18 months after the effective date of this permit, the permittee shall map the MS4 service area and each MS4 outfall. The following information shall be tracked for each MS4 outfall: a) An individual identification number, local watershed, sixth order HUC and receiving water. b) The latitude and longitude in decimal degrees. c) New outfalls upon their inclusion into the MS4.	SWC	All outfalls owned or operated by the City that discharge to surface waters will be identified and recorded in an electronic inventory file. Each outfall record will include an individual identification number, the local watershed, HUC, the receiving water, and the outfall latitude and longitude in decimal degrees. The City will delineate the MS4 boundaries and the outfall drainage areas in PY1. New outfalls will be incorporated into the outfall inventory and mapped from information on as-built plans provided by the party responsible for constructing the new outfall.	The MS4 service area map including outfalls and information included in Part I.B.2.h)3) shall be submitted no later than January 1, 2018. The information shall be submitted as an electronic file.
4) No later than 24 months after the effective date of this state permit, the permittee shall identify the following for each local watershed, sixth order HUC, and Chesapeake Bay Segment: a) The number of impervious, pervious, and total acres served by the MS4 as of June 30, 2009. b) The number of impervious, pervious, and total acres treated by stormwater controls as of June 30, 2009.	SWC	The City will use the MS4 service area and the City's 2009 land cover data to estimate the acres of pervious and impervious by local watershed, sixth order HUC, and Chesapeake Bay Segment in PY1 and PY2. The City will use the City's 2009 land cover data and SWMF drainage area delineations to identify the number of impervious, pervious and total acres treated by stormwater controls.	The PY2 annual report shall include for each local watershed, sixth order HUC, and Chesapeake Bay Segment of each of the following: a) The number of impervious, pervious, and total acres served by the MS4 for each City of Portsmouth local watershed, sixth order HUC, and Chesapeake Bay segment. b) The number of impervious, pervious, and total acres treated by stormwater controls.
5) No later than 54 months after the effective of this state permit, the permittee shall update each of the following: a) The number of impervious, pervious, and total acres served by the MS4 for each City of Portsmouth local watershed, sixth order HUC, and Chesapeake Bay segment. b) The number of impervious, pervious, and total acres treated by stormwater controls.	SWC	The City will use the MS4 service area and develop new land cover data to update the estimate for the acres of pervious and impervious by local watershed, sixth order HUC, and Chesapeake Bay Segment in PY4 and PY5. The City will use the updated land cover data described above and SWMF drainage area delineations, including the addition of new facilities, to identify the number of impervious, pervious, and total acres treated by stormwater controls	The PY5 annual report shall include for each local watershed, sixth order HUC, and Chesapeake Bay Segment updates of each of the following: a) The number of impervious, pervious, and total acres served by the MS4 for each City of Portsmouth local watershed, sixth order HUC, and Chesapeake Bay segment. b) The number of impervious, pervious, and total acres treated by stormwater controls.

Permit Requirement	Responsible Party	Program Plan Elements	Reporting Requirements
i. City Facilities			
1) Good Housekeeping			
a) The discharge of permittee vehicle wash water into the MS4 at permittee facilities without authorization from a separate VPDES permit shall be prohibited.	SWC DGS	City vehicle washing is conducted at the City of Portsmouth's Vehicle Wash Building and commercial car washes. Vehicle wash water is collected and sent to the sanitary sewer.	The City's Vehicle Wash Building will be included in the list of high-priority municipal facilities.
b) The discharge of wastewater into the MS4 at permittee facilities without authorization by a separate VPDES permit shall be prohibited.	DPU HRSD	All wastewater is sent to the sanitary sewer or collected by appropriate vendors.	
c) The dumping of collected yard waste and grass clippings into the MS4 shall be prohibited.	WMD	The City will develop a training module for City staff that will include information on proper disposal of grass clippings and yard waste into the MS4 in PY2. The City will ensure that City employees responsible for grounds maintenance receive appropriate annual training.	
d) Fluids leaked from municipal vehicles shall be prevented to the maximum extent practical from entering the storm sewer system. Leaked fluids shall be cleaned up and disposed of properly, as soon as possible but no later than 24 hours after discovery.	SWC DGS DPU PPS	Information on good housekeeping practices at and around City facilities is provided in SWPPPs, Spill Control and Countermeasures Plans, applicable standard operating protocols. Good housekeeping information is presented during annual pollution prevention and spill prevention and response employee training. The City will ensure that the appropriate City employees receive annual training for applicable standard operating protocols, pollution prevention, and spill prevention and response.	
e) No later than the expiration date of this state permit, the permittee shall install and maintain markings on all stormwater inlets located on high-priority municipal facilities, as defined at Part I.F, and on permittee properties with greater than 2 acres of impervious surface.	SWC DGS Properties Management Division	High priority municipal facilities, as defined at Part I.F, with greater than 2-acres of impervious surface will have markers installed at the storm inlets in PY3 and the markers will be inspected once per permit cycle for maintenance needs.	
2) High Priority Municipal Facilities			
a) No later than 12 months after the effective date of this state permit, the permittee shall identify all high-priority municipal facilities that do not require a separate VPDES industrial stormwater permit.	SWC	In PY1, the City will develop a list of all high-priority municipal facilities that do not require a separate VPDES industrial stormwater permit.	The PY1 annual report shall include a list of all high-priority municipal facilities
b) Within 12 months of state permit coverage, the operator shall identify which of the municipal high-priority facilities have a high potential of discharging pollutants. Municipal high-priority facilities that have a high potential for discharging pollutants are those facilities identified in subsection (a) above that are not covered under a separate VPDES permit and which any of the following materials or activities occur and are expected to have exposure to stormwater resulting from rain, snow, snowmelt or runoff: (1) Areas where residuals from using, storing or cleaning machinery or equipment remain and are exposed to stormwater. (2) Materials or residuals on the ground or in stormwater inlets from spills or leaks. (3) Material handling equipment (except adequately maintained vehicles). (4) Materials or products that would be expected to be mobilized in stormwater runoff during loading/unloading or transporting activities (for example, rock, salt, and 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 (for example, dumpsters).	SWC	During PY1, each of the high-priority municipal facilities identified in MS4 Action ID B.2.i.2 will be evaluated to identify which of these facilities have a high potential of discharging pollutants using the criteria found in Part I.B.2.i.2)b) of the MS4 permit. In PY1, the City will conduct a Pollution Prevention Assessment pilot study of the I.C. Norcom High School, the Churchland High School, and the Woodrow Wilson High School to determine if the facilities need to be classified as high-priority facilities.	The PY1 annual report shall include a list of all high-priority municipal facilities The City will add the high schools to the list of high-priority municipal facilities if deemed necessary during the assessment.

Permit Requirement	Responsible Party	Program Plan Elements	Reporting Requirements
(8) Application or disposal of process wastewater (unless otherwise permitted). (9) Particulate matter or visible deposits of residuals from roof stacks, vents or both not otherwise regulated (that is, under an air quality control permit) and evident in the stormwater runoff.			
c) The permittee shall develop and/or update and implement individual SWPPPs for each high-priority municipal facility identified under Part I.B.2.i)2)(b) no later than 36 months after the effective date of this state permit. SWPPP shall include: (1) A site description that includes a site map identifying all outfalls, direction of flows, existing source controls and receiving water bodies. (2) A discussion and checklist of potential pollutants and pollutant sources. (3) A discussion of all potential nonstormwater discharges (4) A maintenance schedule for all existing source controls. (5) All policies and procedures implemented at the facility to ensure source reduction. (6) An inspection schedule and checklist to ensure that all source reductions are continually implemented and all source controls are appropriately maintained. The date of each inspection and associated findings and follow-up shall be logged in each SWPPP (7) Appropriate training as required in Part I.B.2.k). (8) Procedures to conduct an annual comprehensive site compliance evaluation. (9) Procedures to conduct dry weather screening. (10) All modifications made as the result of any release or spill.	SWC	The City will continue to implement SWPPPs for each high-priority municipal facility identified as required in section 1.B.2.i.2.b during the first permit term. The SWPPPs will include the information (items 1-10) listed in section 1.B.2.i.2.c. The SWPPPs will be reviewed in PY3 and updated as necessary.	In PY3, the completion of each SWPPP review and update will be described. Each annual report will provide the dates of inspection for each high-priority municipal facility.
d) A copy of each SWPPP shall be kept at each high-priority municipal facility and be kept updated.	SWC	A copy of the high-priority municipal facility SWPPP will be kept at each facility requiring one.	See 2.c.
j. Public Education/Participation;			
The permittee shall implement a public education program with the goal of increasing the stormwater knowledge of target audiences and changing behavior to result in pollutant reductions. The permittee may fulfill all or part of the requirements of this state permit through regional outreach programs involving two or more MS4 localities.			
1) The permittee shall identify, schedule, implement, evaluate, and modify, as necessary, public outreach activities designed to meet the following public education and outreach goals:	SWC PRLS	Current practices of public education for each outreach goal outlined in J.1.a-J.1.j shall be collected and evaluated within 24 months of the effective permit date. The City shall submit a list of public outreach and education activities annually to be included in the annual report. An evaluation of the City's public outreach will be determined based on surrounding communities' knowledge of outreach goals collected through surveys at town meetings and other town forums, along with using online tools. The City will evaluate the existing public education and participation program to: • Determine topics already covered in the media. • Determine events used to provide education and allow participation. • Develop a public education and participation plan to include the required topics not being covered by the existing program. • Develop metrics to evaluate the effectiveness of the educational materials and participation activities. • Investigate different social media to determine how they can be used to promote stormwater messages.	Each annual report shall include a list of City public outreach and education activities and the estimated number of individuals reached through the activities. An evaluation of program effectiveness, as outlined in the MS4 Program Plan, with recommendations for future changes shall also be included.

Permit Requirement	Responsible Party	Program Plan Elements	Reporting Requirements
		• Explore the use of interactive maps on the City stormwater website for the public to gather information about MS4 Program Plan activities. This information will help educate citizens on how their stormwater utility fees are being used to manage stormwater in their neighborhood and City-wide. The public education and participation plan will provide steps for implementation of the recommended actions.	
a) Promote, publicize, and facilitate public reporting of the presence of illicit discharges or improper disposal of materials into the MS4.	SWC	Illicit discharge outreach and educational efforts will focus on the following audiences for the duration of this permit: • Contractors with construction sites in the City. • City staff working at City facilities most likely to have illicit discharges. The City will review their existing illicit discharge reporting system and develop a reporting system for illicit discharges or improper disposal of materials into the MS4 that do not already have a reporting system in place. A training program in the recognition and reporting of illicit discharges will be developed for City field personnel. The City will maintain their illicit discharge webpage on the City website and continue to receive tips on illicit discharges from the public.	Each annual report shall include a list of City public outreach and education activities and the estimated number of individuals reached through the activities. See k.1. for City staff training and documentation.
b) Continue to promote individual and group involvement in local water quality improvement initiatives, including the promotion of local restoration and clean-up projects, programs, groups, meetings, and other opportunities for public involvement.	All	Individual involvement in local restoration and cleanup initiatives is promoted through the City's partnership and financial support of the organization KPB. Examples of KPB involvement include: • Elizabeth River Project • Hoffler Creek Wildlife Foundation & Preserve	KPB meetings and activities tracked through KPB website (http://www.kpbva.org/) and their partner organization/site (http://askhrgreen.org/).
c) Develop an outreach program for public and private golf courses located within the City that discharge to the permittee's MS4, which encourages implementation of integrated management practice plans and techniques to reduce runoff of fertilizer and pesticides.	PRLS	The City will develop a list of private and public golf courses greater than 1 acre within 6 months of effective permit date and an outreach program within 24 months of the effective permit date for public and private golf courses within the area with greater than 1 acre of land.	List of public and private golf courses and outreach program efforts included in annual report.
d) Promote, publicize, and facilitate the proper management and disposal of used oil and household hazardous wastes.	SWC	The City will develop an informational website on proper management and disposal of used oil and household hazardous wastes within 24 months of the effective permit date. The City will advertise on this webpage a household hazardous waste collection day that occurs biannually.	Summary information will be provided in the PY2 to PY5 annual reports.
e) Promote and publicize the proper disposal of pet waste and household yard waste.	SWC	The City will develop an informational website on proper disposal of pet waste and household yard waste within 24 months of the effective permit date. The City will develop a strategy for disposal of pet and household yard waste and create a system to monitor the success of the strategy.	Summary information will be provided in the PY2 to PY5 annual reports.
f) Promote and publicize the use of the City's litter prevention program.	SWC	The City will post a link to the informational brochure on the City's litter prevention program on the City's website within 24 months of effective permit date.	Summary information will be provided in the PY2 to PY5 annual reports.
g) Promote and publicize methods for residential car washing that minimize water quality impacts.	SWC	The City will post a link to the informational brochure on the City's website to publicize methods for residential car washing that minimize water quality impacts within 24 months of effective permit date.	Summary information will be provided in the PY2 to PY5 annual reports.

Permit Requirement	Responsible Party	Program Plan Elements	Reporting Requirements
h) Promote and publicize the proper use, application, and disposal of pesticides, herbicides, and fertilizers by public, commercial, and private applicators and distributors.	SWC	The City will develop an informational website to proper use, application, and disposal of pesticides, herbicides, and fertilizers that minimize water quality impacts within 24 months of effective permit date.	Summary information will be provided in the PY2 to PY5 annual reports.
i) Encourage private property owners to implement voluntary SWM techniques and/or retrofits.	SWC	City representatives from SWC to attend town meetings annually to educate residents and discuss benefits of implementing voluntary stormwater techniques in the surrounding community. The City will add information or links to their website about voluntary stormwater techniques and retrofits.	Each annual report shall provide a summary of voluntary retrofits completed on private property used to demonstrate pollutant reduction requirements. Each annual report shall provide a summary of voluntary SWM techniques encouraged on private property.
j) Target strategies towards local groups of commercial, industrial, and institutional entities likely to have significant stormwater impacts.	SWC	The City will develop a list of local groups of commercial, industrial, and institutional entities likely to have significant stormwater impacts within 18 months of the effective permit date. The City will create target strategies within 24 months of the effective permit date.	List of local groups of commercial, industrial, and institutional entities in the PY2 annual report.
2) The permittee shall post a copy of this state permit on its website no later than 30 days after the effective date of this state permit and continue to retain a copy of the permit online for the duration of this state permit.	SWC	The state permit is posted on the City website.	The City website address for the permit will be provided in the second annual report.
3) The permittee shall post copies of each annual report on its website no later than 30 days after the report submittal to the Department and continue to retain copies of the annual reports online for the duration of this state permit.	SWC	The annual report is posted on the City website.	The City website address for the permit will be provided in the second annual report.
4) The permittee shall post the most current MS4 Program Plan on its website no later than 30 days after submittal of the MS4 Program Plan to DEQ and maintain a current copy on the website. If the MS4 Program Plan is modified or revised, the updated plan shall be posted within 30 days of the revision(s). Copies of the most current MS4 Program Plan shall be made available for public review upon request of interested parties in compliance with all applicable open records requirements.	SWC	After submission to DEQ and DEQ approval, the MS4 Program Plan will be posted to the City's website.	The City website address for the permit will be provided in the second annual report.
k. Training			
The permittee shall conduct stormwater training for permittee employees. The training requirement may be fulfilled all or in part through regional training programs involving two or more MS4 localities; provided, however, that the permittee shall remain individually liable for its failure to comply with the training requirements in this state permit. The permittee shall determine the appropriate employees to receive the following types of training based on the specific topic for which training is to be provided:			
1) The permittee shall provide biennial training to appropriate field personnel in the recognition and reporting of illicit discharges.	SWC	The City will provide biennial training in the recognition and reporting of illicit discharges to staff in facility maintenance, infrastructure, operations, and emergency response activities and to City construction managers.	Each annual report shall include a list of training events, the date, and the estimated number of individuals attending each event.
2) The permittee shall provide biennial training to appropriate employees in good housekeeping and pollution prevention practices that are to be employed during road, street, and parking lot maintenance.	SWC	The City will provide biennial training in good housekeeping and pollution prevention practices that are to be employed during road, street, and parking lot maintenance to City staff in infrastructure, operations, and facilities maintenance.	
3) The permittee shall provide biennial training to appropriate employees in good housekeeping and pollution prevention practices that are to be employed in and around permittee maintenance and public works facilities.	SWC	The City will provide biennial training in good housekeeping and pollution prevention practices that are to be employed in and around the City maintenance and public works facilities per each facilities' SWPPP. City staff to be trained include, but is not limited to, infrastructure, operations, streets and highways divisions, and facilities maintenance staff.	

Permit Requirement	Responsible Party	Program Plan Elements	Reporting Requirements
4) The permittee shall ensure that employees and contractors who apply pesticides and herbicides are properly trained or certified per the Virginia Pesticide Control Act (§3.2-3900 et seq. of the Code of Virginia). The requirements of the Virginia Pesticide Control Act are established by the Virginia Pesticide Control Board.	SWC DPW PRLS	PRLS ensures employees who apply pesticides and herbicides receive proper training and certification requirements per the Virginia Pesticide Control Act. Records are kept by PRLS.	Records are kept by the PRLS.
5) The permittee shall have a program to ensure that City plan reviewers, inspectors, program administrators, and construction site operators (for example, responsible land disturber) are trained and obtain the appropriate certifications to the extent required under the Virginia Erosion and Sediment Control Law and attendant regulations.	SWC	The City will verify that all City plan reviewers, inspectors, program administrators, and construction site operators either have received training, are scheduled for training, or have appropriate certifications. Staff needing training will attend sessions and take necessary exams for certification within 12 months. New staff without training will complete initial training sessions within 12 months of hire date.	Summary information will be provided in the annual reports.
6) The permittee shall have a program to ensure that the applicable City employees obtain the appropriate certifications as required under the Virginia Stormwater Management Act and its attendant regulations to implement the modified SWM design criteria.	SWC	The City will verify that all City plan reviewers, inspectors, program administrators, and construction site operators either have received training, are scheduled for training, or have appropriate certifications. Staff needing training will attend sessions and take necessary exams for certification within 12 months. New staff without training will complete initial training sessions within 12 months of hire date.	Summary information will be provided in the annual reports.
7) The permittee shall provide biennial training to applicable employees in good housekeeping and pollution prevention practices that are to be employed in and around permittee recreation facilities.	SWC PRLS	Applicable PRLS and SWC Facilities Management employees who conduct maintenance, repair, and custodial work at City recreational buildings (community and nature centers) and service park infrastructure will receive annual training that covers the following information: • Recognizing and reporting illicit discharges. • Good housekeeping and pollution prevention practices to be employed at recreational buildings (community and nature centers) and park infrastructure. • Training materials will be consistent with those used for employee training described in Part 2.k.1 through 2.k.3.	Each annual report shall include a list of training events, the date, and the estimated number of individuals attending each event.
8) The appropriate emergency response employees shall have training in spill response. A summary of the training and/or certification program provided to emergency response employees shall be included in the first annual report.	Portsmouth Police Department/ Portsmouth Fire Department	Portsmouth Police Department and Portsmouth Fire Department staff receives training on spill response. Fire Department personnel receive training on hazardous materials awareness and operations, including spill response. Fire Department emergency response personnel are trained and certified during recruit school to the Virginia State Hazardous Materials Operations Level. The curriculum covers spill response and includes diking, damming, and diverting techniques. Fire Department Hazardous Materials Technicians and Specialists are required to do training to maintain Virginia Department of Emergency Management certification, which will be reviewed within 12 months of the effective permit date police officers are required to take an online course about hazardous materials and spill response.	The PY1 annual report shall include documentation of employee emergency spill response training and/or certification.
9) Documentation shall be kept of all training events, including the training date, number of employees attending the training, and the objective of the training event for a period of 3 years after each training event. Additionally, all events shall be listed in the annual report for the year in which the training event occurred.	SWC	Training documentation is kept on file by the appropriate office and submitted annually to the City.	A list of training events will be provided in the MS4 annual report.
l. Dry Weather Screening Program			
The permittee shall continue ongoing efforts to detect the presence of illicit connections and unauthorized discharges to the permittee's MS4.			
1) The permittee shall continue to implement a program of dry weather screening in areas of concern as identified by the permittee including but not limited to: commercial car washes, car dealerships, pet kennels,	SWC	Annual dry weather screening will be conducted at a minimum of 75 stations in areas of concern including but not limited to: commercial car washes, car	Each annual report shall include the total number of stations included as part of the City's MS4, the

Permit Requirement	Responsible Party	Program Plan Elements	Reporting Requirements
restaurants, areas with a history of complaints, and areas upstream of sensitive ecosystems. The permittee shall screen at a minimum, 75 stations each year. If flowing water is detected, the permittee will investigate the source of the potential illicit discharge and document the steps taken to eliminate the discharge.		dealerships, pet kennels, restaurants, areas with a history of complaints, and areas upstream of sensitive ecosystems. If flowing water is detected, the City will investigate the source of the potential illicit discharge and document the steps taken to eliminate the discharge.	number of stations screened during the reporting period, a list of locations upon which dry weather screening was conducted, the results and any follow-up actions including a summary of each investigation conducted by the operator of any suspected illicit discharge. The summary shall include: (i) the date that the suspected discharge was observed; (ii) how the investigation was resolved, including any follow-up; and (iii) resolution of the investigation and the date the investigation was closed.
2) Criteria for selection of outfalls to be screened as required by Part I.B.2.l)1)(a) above shall include but is not limited to the following: a) List of sites requiring further investigation, as previously identified. b) Age and density of development with the likelihood of illicit connections such as older residential, commercial and industrial areas. c) Stations representing the general land uses of the City. d) Poorly maintained gas stations, service stations, and shopping centers. e) Presence of environmentally-sensitive features downstream. f) History of complaints received on illicit discharges.	SWC	The City will review and update its dry weather screening plan in PY2 to ensure consistency with the outfall selection criteria.	
m. Infrastructure Coordination			
The permittee shall coordinate with the VDOT regarding issues of MS4 physical-interconnectivity as described below:			
1) Annual coordination meeting	SWC	The City will meet annually with VDOT for purposes of overall coordination on priority issues for the City's MS4 Program Plan (including O&M elements) and TMDL action planning relevant to the interconnectivity of the MS4s.	Meeting dates and minutes to be reported in the annual report.
2) Mapping	SWC	The City will inform VDOT of the status of its mapping program, identifying any uncertainty regarding ownership or actual location of MS4 components associated with the physically-interconnected MS4s, and working to resolve such uncertainty. The City will coordinate with VDOT to identify any areas within the City's municipal boundaries that drain to the VDOT MS4. In coordination with roadways (Part B.2.c), and MS4 boundary determination, the City will determine the status of VDOT's current mapping program and identify areas of ownership uncertainty within the City's municipal boundary within 15 months of the effective permit date. The City shall schedule a meeting with VDOT to discuss findings and resolve ownership issues within 18 months of the effective permit date.	The status of the mapping program to be included in the PY1 annual report.
3) Chesapeake Bay TMDL Action Plans	SWC	The City will inform VDOT of the means, methods, and schedule by which the City will implement the reductions required by the Chesapeake Bay TMDL Special Condition (Part I.D.1) within 30 months of the effective permit date when those means and methods may impact the physically-interconnected MS4s. The parties are encouraged to cooperate with one another where the siting or design of BMPs may be accelerated or otherwise improved by mutual cooperation. The City will arrange meetings with VDOT to discussion these items.	Chesapeake Bay TMDL Action Plans is part of annual report. Reported information will be submitted in PY2 action plan.

Permit Requirement	Responsible Party	Program Plan Elements	Reporting Requirements
		The City will coordinate with VDOT to identify any areas within the City's municipal boundaries that drain to the VDOT MS4 within 15 months of the effective permit date and are unaccounted for in the Chesapeake Bay TMDL Action Plan developed by VDOT or the City. The unaccounted areas shall be quantified (acres) in the Chesapeake Bay TMDL Action Plan submitted by the City.	
4) Other TMDL Action Plans	SWC	The City shall inform VDOT of TMDL Action Plans and major milestones implemented for other (that is, non-Chesapeake Bay) TMDLs when those plans may impact the physically-interconnected MS4s within 30 months of the effective permit date. The parties are encouraged to cooperate with one another where the siting or design of BMPs may be accelerated or improved by mutual cooperation. The City will arrange meetings with VDOT to discussion these items.	Other TMDL Action Plans are part of the annual report. Reported information will be submitted in the PY2 action plan.
5) Credit for TMDL implementation	SWC	Permit-specific BMP retrofit requirements shall not be double-counted in the calculation of load reductions. If the City undertakes the project, the City shall be entitled to full credit for the project, but may share credit with VDOT on mutually agreeable terms, which shall be in writing. The City will be coordinating with VDOT on BMP retrofit projects.	
6) Illicit discharge detection and elimination	SWC	The City will continue to implement their illicit discharge detection and elimination program, including dry weather field screening (Part B.2.l), for the City's portion of the physically-interconnected MS4. As part of the annual coordination meeting, described in item 1 above, the City will coordinate with VDOT on the identification of high-risk industrial facilities and will establish procedures for notifying VDOT when an illicit discharge is identified in the VDOT MS4.	Illicit discharge and elimination, dry weather screening, and high-risk industrial facilities will be described in the annual report. The City and VDOT meeting agenda and minutes will be added to the annual report.
7) Water quality monitoring	SWC	The City will conduct water quality monitoring as required by Part I.B.2.l and Part I.C of this state permit annually. The City will annually make available to VDOT all monitoring data collected from areas where the physically-interconnected MS4 discharges to the VDOT MS4 or received flow from the VDOT MS4.	Water quality monitoring reports shall be delivered in each annual report.
8) Annual reports	SWC	As part of its annual report, the City will document coordination efforts with VDOT that occurred during the reporting year pursuant to requirements 1 through 7 above.	Annual reports shall be submitted a year after the effective permit date. Coordination efforts will be reported as a list and meeting minutes and agenda will be attached in annual report.
C. Monitoring Requirements			
1. In-system Monitoring/Wet Weather Monitoring			
The permittee shall develop and implement an in-system monitoring program to characterize the stormwater discharged to the MS4, identify pollutants of concern as well as determine the loading associated with various land uses as follows: a) Two stormwater monitoring sites within the City designated as part of the Hampton Roads Stormwater Monitoring Network shall be selected for monitoring during the term of this permit. b) Monitoring shall be conducted, at a minimum of once per quarter between January 1st and December 31st at each monitoring location. c) Monitoring shall be performed for the following parameters: 1) Temperature	SWC HRPDC HRSD USGS	The City will work with partner organizations (HRPDC, HRSD, USGS) to develop a monitoring protocol in PY1. The City will annually perform an analysis of the monitoring data.	The PY1 annual report shall include the list of sites to be monitored during the term of the state permit and monitoring protocols. Each annual report shall include a summary of the monitoring results and analysis and an interpretation of that data.

Permit Requirement	Responsible Party	Program Plan Elements	Reporting Requirements
2) Total Suspended Solids 3) Ammonia as Nitrogen 4) Nitrate plus Nitrite Nitrogen 5) Total Kjeldahl Nitrogen 6) Total Nitrogen (calculated) 7) Dissolved Phosphorus 8) Total Phosphorus d) Monitoring for the parameters listed in Part I.C.1.c) shall be in accordance with Part II.A. of this state permit except as follows 1) Orthophosphate: Filtering shall be performed upon acceptance of the sample by the laboratory 2) Orthophosphate: The maximum holding time of the sample is 28 days after immediate freezing; and 3) Preservation of Nitrate plus Nitrite, Ammonia as Nitrogen, Total Kjeldahl Nitrogen, and Total			
2. Bacteria Monitoring			
The permittee shall continue to implement the Hoffler Creek bacteria monitoring program to assess the overall health and evaluate long-term trends in Hoffler Creek relating to bacteria and evaluate the effectiveness of the upstream BMPs as follows: a) Monitoring shall be performed at no less than four sites for Hoffler Creek during the term of this permit. b) Samples shall be collected once per month during ebb tide. c) Monitoring shall be performed for the following parameters 1) Enterococci 2) Fecal Coliform d) Monitoring for the parameters listed in Part I.C.2.c) shall be in accordance with Part II.A. of this state		The City will develop a bacteria monitoring plan for Hoffler Creek in PY1. It will include monitoring locations, methodology, and monitoring protocols.	No later than 12 months after the effective date of this state permit, the City shall submit the list of sites to be monitored, the methodology and the monitoring protocols. The monitoring protocols shall be incorporated into the MS4 Program Plan. Each subsequent annual report shall include a summary of the monitoring results and analyses and an interpretation of that data with respect to long-term patterns and trends. Final results and analyses shall be submitted with the permit application for the reissuance of this state permit due 180 days before this permit's expiration date.
3. Structural and Source Controls Compliance Monitoring and Tracking			
a) The permittee shall maintain an updated electronic database of all known permittee and privately maintained SWM facilities. The database shall include the following: 1) The SWM facility type, address, and latitude, and longitude (in decimal degrees). 2) The total pervious and impervious acres treated. 3) The date brought online (MMYYYY). If the date is unknown, the permittee shall use June 2005 as the date brought online for all previously existing SWM facilities. 4) The HUC 6 in which the SWM facility is located. 5) The name of any impaired water segments within each HUC listed on the most recent 305(b)/303(d) Water Quality Assessment Integrated Report to which the SWM facility discharges. 6) Whether the SWM facility is permittee or privately maintained. 7) Whether the SWM facility discharges into the permittee's MS4. 8) Whether a maintenance agreement exists if the SWM is privately maintained.		The City of Portsmouth will update the SWM facility database annually. The City will continue to investigations into SWM facilities that may not have been included in the database and include any newly discovered SWM facilities in the annual database update. The known or estimated construction data of the SWM facilities will be included in the database. The City will update the list of quantity only SWM facilities in PY2.	Each annual report shall include a copy of the updated SWM facility database in electronic format. Each annual report shall include a summary of activities taken by the City to ensure maintenance of private SWM facilities and SWM facilities maintained by the City. The PY3 annual report shall include an updated list of SWM facilities existing before the effective date of this permit.

Permit Requirement	Responsible Party	Program Plan Elements	Reporting Requirements
9) The date of last inspection by permittee authorities. All SWM facilities brought online during each reporting year shall be submitted with the appropriate annual report, as an electronic file in one of the following formats: shapefile, geodatabase, .xls, .xlsx, .csv, .mdx, .dbf, delimited text, XML, or other file approved by the Department. No later than 36 months of the effective date of this state permit, the list shall be updated to include the required information for SWM facilities known to exist before the effective date of this state permit. The updated information shall be submitted with the third annual report of this permit.			
b) Facilities that solely provide peak flow control as required by the City of Portsmouth Code are excluded from the requirements of this section. Inspection and maintenance requirements for these facilities shall be in accordance with all applicable state and local ordinances, regulations, and statutes.		Facilities that solely provide peak flow control as required by the City of Portsmouth Code will be inspected and maintained in accordance with all applicable state and local ordinances, regulations, and statutes.	
D. TMDL Action Plan and Implementation			
1. Chesapeake Bay Special Condition			
No later than 24 months after the effective date of this state permit, the permittee shall develop and submit to the Department for its review and approval a phased Chesapeake Bay TMDL Action Plan.	SWC	The City will develop a Chesapeake Bay TMDL Action plan to DEQ by the end of PY2.	The City will submit the Chesapeake Bay TMDL Action Plan by the end of PY2. Each subsequent annual report shall include a list of control measures implemented during the reporting period and the cumulative progress toward meeting the compliance targets for total nitrogen, phosphorus, and total suspended soils. Each subsequent annual report shall include a list of control measures that were implemented during the reporting cycle and the estimated reduction achieved by the control. For SWM controls, the report shall include the information required in Part I.C.3.a) and shall include whether an existing SWM control was retrofitted, and if so, the existing SWM control type retrofit used. Each annual report shall include a list of control measures that are expected to be implemented during the next reporting period and the expected progress toward meeting the compliance targets for total nitrogen, total phosphorus, and total suspended solids. The City shall include the following as part of its reapplication package due in accordance with Part II.M: (a) Documentation that sufficient control measures have been implemented (or documentation detailing that implementation will be complete by the expiration date of this state permit) to meet the compliance target identified in this Special Condition. If temporary credits or offsets have been purchased to meet the compliance target, the list of temporary reductions used to meet the 5 percent reduction in this state

Permit Requirement	Responsible Party	Program Plan Elements	Reporting Requirements
			permit and a schedule of implementation to ensure a permanent 5 percent reduction shall be provided. (b) A draft second phase Chesapeake Bay TMDL Action Plan
2. TMDL Action Plans other than the Chesapeake Bay TMDL			
No later than 24 months after the effective date of this state permit, the permittee shall submit TMDL Action Plans to the Department to address any new or modified requirements established under this Special Condition for pollutants identified in TMDL wasteload allocations approved before the effective date of this state permit.	SWC	The City will develop and submit TMDL Action Plans to address any new or modified requirements established under this Special Condition for pollutants identified in TMDL wasteload allocations approved prior to the effective date of this state permit to DEQ by the end of PY2.	The City will submit the required TMDL Action Plans to the Department for review and acceptance with the appropriate annual report associated schedule identified in this permit. The permittee shall report on the implementation of the TMDL Action Plans and associated evaluation including the results of any monitoring conducted as part of the evaluation.
E. Annual Reporting			
The permittee shall submit the annual report to the Department, no later than October 1st of each year.	SWC	The City will submit an annual report to DEQ, no later than October 1st of each permitted year.	The report shall cover the previous fiscal year from July 1st to June 30th and include the following separate sections: 1. Background Information a) The permittee and permit number of the program submitting the annual report. b) Any modifications to the MS4 Program Plan as a result of the annual report. c) The reporting dates for which the annual report is being submitted. d) Certification as per Part II.K. 2. A summary of the implementation of each of the components established under Part I.B. and an evaluation of the effectiveness of each component. The permittee should attempt to limit any component's narrative summary to no longer than two pages, plus any necessary tables and figures. 3. A summary report of the monitoring programs listed under Part I.C. 4. A summary of the implementation of each component listed under Part I.D. 5. The Specific Reporting Requirements identified in VSMP MS4 permit.

Acronyms:

BMP = best management practices
CFR = *Code of Federal Regulations*

Permit Requirement	Responsible Party	Program Plan Elements	Reporting Requirements

City = City of Portsmouth
DEQ = Department of Environmental
Quality DGS = Department of
General Services
DMR = discharge monitoring
report DPU = Department of
Public Utilities
EPCRA = Emergency Planning & Community Right-
To-Know Act ft^2 = square feet
HHM = household hazardous materials

HRPDC = Hampton Roads Planning District
Commission HRSD = Hampton Roads
Sanitation District
HUC = hydrologic
unit code ID =
identification
KPB = Keep Portsmouth Beautiful

MS4 = Municipal Separate Storm
Sewer System O&M = operations and
maintenance
PFD = Portsmouth Fire Department

PRLS = Parks, Recreation, and Leisure
Services PY = permit year
SHD = State Health Department

SPCC = spill prevention, control and
countermeasures SWC = Stormwater
Compliance
SWM = stormwater management

SWMF = Stormwater Management
Facility SWPPP = stormwater pollution
prevention plans
TMDL = Total Maximum Daily
Load USGS = United States
Geological Survey VAC =
Virginia Administrative Code
VDOT = Virginia Department of Transportation

VPDES = Virginia Pollutant Discharge
Elimination System VSMP = Virginia
Stormwater Management Program WMD =
Waste Management Division

Part I.A.7
MS4 Program Review and Updates

"The permittee will review the current MS4 Program Plan annually…all modifications and proposed modifications shall be reported in accordance with this section of the permit."

There are no modifications or proposed modifications at this time.

Part I. B Stormwater Management

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

Part I.B.1
Planning

*"No later than 12 months after the permit effective date, the permittee shall provide the stormwater management project summary sheet (*submitted to the Department June 30, 2017*)."*

"Each annual report shall include an updated project summary sheet."

POTENTIAL STORMWATER MANAGEMENT RETROFITS FOR MS4 PERMIT COMPLIANCE

Prioritized by Estimated Cost/lb TP

Retrofit Project Name	Acres Treated	Impervious acreage treated by potential project	Pervious acreage treated by potential project	Condition of downstream channel	Total Phosphorus reduction (lbs)	Feasibility for implementation	Estimated cost of implementation	Estimated cost per pound of TP
Gust Lane Stream Restoration	626.55	238.09	388.46	poor	51.00	poor	$632,998	$12,412
Green Lake #3 level II wet pond	262.69	74.23	188.46	fair	71.09	fair	$941,558	$13,245
Victory Blvd. level II wet pond	46.84	32.76	14.08	fair	34.76	good	$493,000	$14,183
Lake Collins level II wet pond	92.64	52.60	40.04	fair	20.52	poor	$307,413	$14,981
Hidden Cove #3 level II wet pond	6.19	3.38	2.81	good	18.85	TBD	$297,396	$15,777
Beaton Dr. & Sykes Ct. wet pond	16.40	6.24	10.16	fair	8.42	good	$157,200	$18,670
Green Lake #2 level II wetlands	44.09	15.69	28.40	fair	12.55	fair	$240,458	$19,160
Beaton Dr. & Sykes Ct. wetland	16.40	4.20	12.20	fair	7.66	poor	$166,271	$21,706
Green Lake #3 dredging	262.69	74.23	188.46	fair	30.85	fair	$674,441	$21,862
Peachtree level II wet pond	91.57	36.72	54.85	fair	16.63	TBD	$387,423	$23,297
Green Lake #2 level II wet pond	44.09	15.69	28.40	fair	7.53	fair	$219,084	$29,095
Churchland wet swale	8.99	1.89	7.10	poor	4.71	good	$147,443	$31,304
South St. parking lot wetland	9.10	2.00	7.10	fair	3.62	fair	$120,859	$33,386
Long Point Lake level II wet pond	76.11	30.53	45.58	fair	13.82	fair	$462,338	$33,454
Lake Jean #1 level II wetlands	81.61	28.61	53.00	good	23.05	poor	$804,665	$34,910
Lake Jean #1 level II wet pond	81.61	28.61	53.00	good	13.83	poor	$527,798	$38,163
Churchland High bioretention	16.80	7.70	9.10	good	19.10	poor	$834,229	$43,677
Croatan Tr. constructed wetland	5.24	3.84	1.40	poor	3.06	poor	$143,491	$46,892
Lake Cavalier level II wet pond	325.00	156.50	168.50	good	65.27	poor	$3,158,828	$48,396
City Park parking bioretention	3.35	2.85	0.50	good	3.55	fair	$178,492	$50,279
Court St. , Green St.	5.40	5.00	0.40	good	6.48	good	$337,410	$52,069
Croatan Tr. Bioretention	5.24	3.84	1.40	poor	3.47	fair	$185,826	$53,552
Greenwood Dr. North pond	38.20	28.65	9.55	good	10.13	poor	$650,000	$64,166
nTelos Pond #1 level II wet pond	15.79	11.93	3.86	good	4.94	fair	$387,410	$78,423
Green Lake #1 level II wet pond	70.45	42.06	28.39	fair	16.10	poor	$1,367,257	$84,923

"Each annual report shall include a current web link to the project status page."

The City of Portsmouth Department of Engineering website will host the project status page when projects begin.

Web link: http://www.portsmouthva.gov/257/Engineering-Technical-Services

"Each annual report shall include a status update for those water quality projects for which implementation or construction occurred during the reporting year."

No projects listed on the Potential Stormwater Retrofits list began construction in FY2017.

Part I.B.2
MS4 Program Implementation:
Part I.B.2.a)
Construction site runoff and post construction runoff from areas of new development and development on prior developed lands

"Each annual report shall contain the number of regulated land disturbing activities approved and the total number of acres disturbed."

Land Disturbance Permits – FY2017

Project Type	*Number of Projects*	*Number of Permits*	*Acres of Disturbed Land*
Commercial/Industrial	11	11	33.57
Multi-Family Residential & Subdivisions	4	4	0.97
Demolitions (Commercial, Subdivisions, MFR)	0	0	0
Single Family Residential	134	134	15.06
Single Family Residential Demolitions	42	42	5.45
Right-of-Way	0	0	0.00
TOTAL	**191**	**191**	**55.05**

In FY2017, 191 Land Disturbance Permits were issued for 191 projects. These projects will disturb approximately 55.05 acres of land.

"Each annual report shall contain the number of land disturbing activity inspections conducted and the number and type of each enforcement action taken…"

Erosion and Sediment Control Inspections – FY2017

Project Type	*Number of Projects*	*Number of Inspections*
Commercial/Industrial	11	320
Multi-Family Residential	4	67
Subdivisions	0	96
Right-of-Way	42	42
Single Family Residential	134	2,422
Total	191	2,947

Erosion and Sediment Control Enforcement - FY2017

Project Type	*Notice to Comply*	*Stop Work Order*	*TOTAL*
Commercial/Industrial	9	10	19
Multi-Family Residential	2	0	2
Subdivisions	6	10	16
Right-of-Way	2	0	2
Single Family Residential	141	98	239
TOTAL	**160**	**118**	**278**

Enforcement actions are initiated as necessary. In FY2017, a total of 278 enforcement actions were taken, as summarized in the table above.

"Each annual report shall include a list of land disturbing projects that qualify under the 'Grandfathering' provision of the VSMP regulations…"

Name	**Address**
Grove Baptist Church Additions	5910 West Norfolk Road

"Each annual report shall include a summary of actions taken by the permittee to implement Part I.B.2.a)1) and 2) of this state permit."

The City has continued its program to maintain and monitor structural and nonstructural erosion and sediment control (E&SC) practices to reduce the amount of pollutants in stormwater runoff from construction sites. Site inspections are completed on all projects that disturb 2,500 square feet or more of land area, including demolition projects. Land Disturbance Permits must be obtained for all such projects and an approved *E&SC Plan* or an *Agreement-in-Lieu-of-a-Plan* must be obtained prior to any land disturbing activity.

Two full-time Erosion Control Specialists perform routine periodic inspections at all regulated job sites to ensure proper construction methods and proper installation and maintenance of erosion and sediment controls. Inspections are generally conducted once every two weeks and following any runoff-producing storm event. Following a repeat violation, inspections are conducted weekly until compliance is achieved. Owners, Contractors, and Responsible Land Disturbers are provided copies of inspection reports when violations occur. On-site meetings are conducted with the responsible parties when necessary, as well as pre-construction meetings before construction begins. The City of Portsmouth also conducts VSMP Inspections at all sites within the City that have land disturbance greater than an acre and that have Construction General Permit coverage.

The City developed a database to track all inspections and enforcement actions that is supported by a paper filing system. In FY2017, a total of 2,947 E&SC inspections were conducted on 191 active projects throughout the City.

Part I.B.2.b)
Retrofitting on prior developed lands

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

POTENTIAL STORMWATER MANAGEMENT RETROFITS FOR MS4 PERMIT COMPLIANCE
Prioritized by Estimated Cost/lb TP

Retrofit Project Name	Acres Treated	Impervious acreage treated by potential project	Pervious acreage treated by potential project	Condition of downstream channel	Total Phosphorus reduction (lbs)	Feasibility for implementation	Estimated cost of implementation	Estimated cost per pound of TP
Gust Lane Stream Restoration	626.55	238.09	388.46	poor	51.00	poor	$632,998	$12,412
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Green Lake #1 level II wet pond	70.45	42.06	28.39	fair	16.10	poor	$1,367,257	$84,923

During FY 2017, construction did not commence of any of the projects listed above.

Part I.B.2.c)
Roadways

"Streets, roads and parking lots maintained by the permittee shall continue to be operated and maintained in a manner to minimize discharge of pollutants, including those pollutants related to de-icing or sanding activities."

De-icing materials are covered in a salt dome that is located at the City's Operations Center. This covered storage facility prevents runoff from the stockpile due to rain and other inclement weather conditions. The City will not use any deicing agent that contains urea or other forms of Nitrogen or Phosphorous to parking lots, roadways, and sidewalks or other paved surfaces. Immediately following a snow event, when feasible, street sweepers are used to retrieve sand/salt from primary streets. See the attached document from CH2m in regards to the City's roadways.

"The permittee shall include a copy of the written protocols identified in Part I.B.2.c)(2) with the next annual report that is due after development of the protocols." (October 1, 2019)

Protocols will be developed by the end of permit year 3 that minimize pollutant discharges from City roads, streets, and parking lot maintenance.

Part I.B.2.d)
Pesticide, herbicide and fertilizer application

"The annual report due October 1, 2017 shall contain a list of all permittee lands and applicable acreage on which nutrients are applied to more than one contiguous acre."

The City of Portsmouth owns two golf courses (Bide-a-wee and The Links at City Park), where nutrients are applied by Certified Pesticide Applicators. Each of these golf courses is more than one contiguous acre.

"Each annual report shall report on compliance with the turf and landscape nutrient management implementation schedule and include a list of the permittee's properties for which turf and landscape nutrient management plans have been implemented during the reporting year and the cumulative total of acreage under turf and landscape nutrient management plans."

Bide-a-wee and The Links at City Park both recently had turf and landscape nutrient management plans drafted. The Nutrient Management Plans were reviewed by the Department and approved.. Between both golf courses, there is a cumulative total acreage of 139.75 acres that is covered under the turf and landscape nutrient management plan.

"Each annual report shall include the number of acres managed under Integrated Pest Management Plans."

The Integrated Pest Management Plan covers 18,500 acres in the City of Portsmouth. Attached is the plan for review.

Part I.B.2.e)
Illicit discharges and improper disposal
"Each annual report shall include a list of illicit discharges identified, the source, a description of follow-up activities and whether the illicit discharge has been eliminated."

As per the requirements of the permit, the permittee shall make a report of all discharges into the stormwater system from the sanitary sewer system. Presented here are the reported spills from the sanitary system as they infiltrated into the stormwater system. The Portsmouth Public Utilities Department previously forwarded these reports to the Department of Environmental Quality (DEQ).

In FY 2017, a total of 79 reportable releases from the sanitary sewer system occurred in the City of Portsmouth. On each occasion, the Virginia Department of Environmental Quality received notice of the release and corrective actions were taken by the wastewater utility through the Sanitary Sewer Overflow Reporting System (SSORS).

Note: The following data represents the estimated total discharge that actually entered state waters. All reports previously submitted to DEQ contain the total estimated discharge from the site in question.

Sanitary Sewer Overflows – FY2017

No.	*Date of Incident*	*Date DEQ Notified*	*Amount (gallons)*	*Location*	*Cause/Corrective Action*
1	07/19/2016	07/19/2016	10	6265 Portsmouth Blvd.	Manhole overflow due to grease. Jetted sewer main to clear blockage, cleaned and deodorized area.
2	08/29/2016	08/29/2016	100	300 block Dinwiddie St.	Manhole overflow due to Pump Station #2. Cleaned and deodorized area.
3	08/31/2016	08/31/2016	100	5971 Eagle Point	Notified Pump Station Crew of manhole overflowing due to Pump Station # 63 being up. Cleaned and deodorized the area. Vacuumed out stormdrain, curb and gutter.
4	09/06/2016	09/06/2016	150	3725 Airline Blvd.	Manhole overflow due to Pump Station #21 losing power. Notified VA Ppwer, and station running on generator. Vacuumed ditch line and deodorized the area.
5	10/04/2016	10/04/2016	<1	23 Pennock Street	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
6	10/04/2016	10/04/2016	<1	2800 Portsmouth Blvd.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
7	10/04/2016	10/04/2016	<1	205 Douglas Ave.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
8	10/04/2016	10/04/2016	<1	117 Wright Ave.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
9	10/04/2016	10/04/2016	<1	122 Baldwin Ave.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
10	10/04/2016	10/04/2016	<1	24 Bainbridge Blvd.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and

					system caught back up.
11	10/04/2016	10/04/2016	<1	419-426 Chautauqua Ave.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
12	10/04/2016	10/04/2016	<1	625-646 Douglas Ave.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
13	10/04/2016	10/04/2016	<1	701 Douglas Ave.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
14	10/04/2016	10/04/2016	<1	656 Florida Ave.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
15	10/04/2016	10/04/2016	<1	1900 Frederick Blvd.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
16	10/04/2016	10/04/2016	<1	4100 George Washington Highway	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
17	10/04/2016	10/04/2016	<1	20 Worden Place	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
18	10/04/2016	10/04/2016	<1	2-6 Copper Dr.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
19	10/04/2016	10/04/2016	< 1	125 Reid St.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.

20	10/04/2016	10/04/2016	< 1	729 Bold St.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
21	10/04/2016	10/04/2016	< 1	401 Taft Drive.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
22	10/04/2016	10/04/2016	< 1	177 Allard Rd.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
23	10/04/2016	10/04/2016	< 1	100 Allard Rd.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
24	10/04/2016	10/04/2016	< 1	300 Dinwiddie St.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
25	10/04/2016	10/04/2016	<1	3524 Cedar Ln.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
26	10/04/2016	10/04/2016	<1	900 Darren Dr.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
27	10/04/2016	10/04/2016	<1	4500 Westmoreland Terrace	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
28	10/04/2016	10/04/2016	<1	310 Washington St.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
29	10/04/2016	10/04/2016	<1	1602 Basie Cres.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
30	10/04/2016	10/04/2016	<1	83 Manly St.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
31	10/04/2016	10/04/2016	<1	2400 Columbus Ave.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
32	10/04/2016	10/04/2016	<1	2002 Ann St.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
33	10/04/2016	10/04/2016	< 1	3409 Deep Creek Blvd.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and

					system caught back up.
34	10/04/2016	10/04/2016	<1	3404 Deep Creek Blvd.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
35	10/04/2016	10/04/2016	<1	112 Douglas Ave.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
36	10/04/2016	10/04/2016	<1	800 Cavalier Blvd.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
37	10/04/2016	10/04/2016	<1	500 Florida Ave.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
38	10/04/2016	10/04/2016	<1	542 Florida Ave.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
39	10/04/2016	10/04/2016	<1	3523 King St.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
40	10/04/2016	10/04/2016	<1	1145 Blair St.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
41	10/04/2016	10/04/2016	<1	809 Virginia Ave.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
42	10/04/2016	10/04/2016	< 1	432 North St.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
43	10/04/2016	10/04/2016	<1	1037 Harrell St.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
44	10/04/2016	10/04/2016	<1	308 Beacon Rd.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
45	10/04/2016	10/04/2016	<1	1519 Stratford St.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
46	10/04/2016	10/04/2016	<1	2915 Bayview Blvd.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
47	10/07/2016	10/12/2016	35	1010 Coolidge St.	Manhole overflow due to grease blockage. Vacuumed and deodorized the area.

48	10/12/2016	10/12/2016	<1	1756 Matthew Terr.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
49	10/12/2016	10/12/2016	<1	1533 Leckie St.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
50	10/12/2016	10/12/2016	<1	1142 Blair St.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
51	10/12/2016	10/12/2016	< 1	4100 George Washington Highway	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
52	10/12/2016	10/12/2016	<1	91 Afton Pkwy.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
53	10/12/2016	10/12/2016	<1	3404 Deep Creek Blvd.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
54	10/12/2016	10/12/2016	<1	3328 Deep Creek Blvd.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
55	10/12/2016	10/12/2016	<1	4501 Duke St.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
56	10/12/2016	10/12/2016	<1	4500 Westmoreland Ave.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
57	10/12/2016	10/12/2016	<1	4421 Valhalla Dr.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
58	10/12/2016	10/12/2016	<1	4 Cooper Dr.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
59	10/12/2016	10/12/2016	<1	13 Kennedy Dr.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
60	10/12/2016	10/12/2016	< 1	3409 Victory Blvd.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
61	10/12/2016	10/12/2016	<1	147 Tyler Cres. East	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.

62	10/12/2016	10/12/2016	<1	317 Arizona Ave.	Excessive rainfall and flooding caused overflow from manhole into stormdrain. Rainfall stopped and system caught back up.
63	10/14/2016	10/14/2016	60	1600 Basie Cres.	Manhole overflowing due to station #27 being up. Cleaned up area and deodorized and vaccumed stormdrain and gutter and curb.
64	10/14/2016	10/14/2016	80	2623 Hickory St.	Manhole overflowing due to station # 6 being up. Cleaned up area and deodorized and vaccumed stormdrain and gutter and curb.
65	10/17/2016	10/17/2016	25	910 Liston Lane	By pass pump at Pump Station # 27 went off line. Vaccumed out 4 catch basins and cleaned up the curb and deodorized the area.
66	10/17/2016	10/17/2016	150	1610 Basie Cres.	By pass pump at Pump Station # 27 went off line. Notified on call pump station mechanic. Vaccumed out 2 catch basins, cleaned up the curb and gutter and deodorized the area.
67	11/01/2016	11/02/2016	60	100 Anchor St.	Manhole overflow due to grease blockage in main sewer line. Cleared grease blockage in main sewer line, cleaned up and deodorized the area.
68	11/02/2016	11/02/2016	150	4701 John Bean Pump Station	Malfunction in pump station caused overflow from 2 manholes at pump station near houses. Cleaned up ditch areas, set up bypass pump at station and deodorized open areas and ditch areas with lime.
69	11/09/2016	11/09/2016	30	3724 Deep Creek Blvd.	Overflow manhole into storm drain system due to grease blockage in sewer main line. Removed blockage in sewer main, cleaned line, cleaned up area. Re-cleaned sewer line next day.
70	11/28/2016	11/28/2016	50	725 South St. @ Effingham St.	Overflow manhole into storm drain system due to grease blockage in sewer main line. Removed blockage in sewer main, cleaned line, cleaned up area. Re-cleaned sewer line next day.
71	12/08/2016	12/08/2016	80	119 Anchor St.	Overflow manhole into storm drain system due to grease blockage in sewer main line. Removed blockage in sewer main, cleaned line, cleaned up area. Re-cleaned sewer line next day.
72	01/12/2017	01/12/2017	300	1600 Darren Cir.	Grease blockage in City's main sewer line caused overflow of manhole into storm drain system. Removed blockage, cleaned line to remove grease.
73	01/20/2017	01/24/2017	300	Greenbrook Dr. & Timberland Dr.	Grease blockage in City's main sewer line caused overflow of manhole into storm drain system. Removed blockage, cleaned line to remove grease, cleaned up area and catch basin.

74	02/15/2017	02/16/2017	50	Greenwood Dr. & Rotunda Ave.	Grease blockage in City's main sewer line caused overflow of manhole into storm drain system. Removed blockage, cleaned line to remove grease, and re-cleaned line next day.
75	04/06/2017	04/06/2017	70	115 Wright Ave.	Sewage overflow from manhole due to malfunction of Pump Station # 14. Contacted Pump Station Crew, placed station back on line. Return next day to do clean- up from storm drain catch basins and yards. Re-inspect sewer main.
76	05/05/2017	05/05/2017	<1	Oak St. & Highland Ave.	Excessive rainfall and flooding caused the manhole to overflow into storm drain system. Rainfall stopped and pump station caught back up.
77	05/05/2017	05/05/2017	<1	2100-2200 Camden Ave.	Excessive rainfall and flooding caused the manhole to overflow into storm drain system. Rainfall stopped and pump station caught back up.
78	05/15/2017	05/15/2017	50	521 Barlow Dr.	Grease blockage in sewer main caused overflow from manhole into storm drain system. No problems at Pump Station. Removed blockage by cleaning main sewer line, cleaned up area. Re-check sewer next day.
79	05/25/2017	05/26/2017	50	2 Tidal Ct.	Grease blockage in sewer main caused overflow from manhole into storm drain system. No problems at Pump Station. Removed blockage by cleaning main sewer line, cleaned up area. Re-check sewer next day.

The City responds to complaints regarding illicit discharges and improper disposals. The table below lists these findings and citizen complaints.

Illicit Discharge Records

Address	Date	Summary of Findings
238 Webster Avenue	8/15/2016	Water with surface green foam was exiting curb through a hole; source undetermined. Follow up site visit on 8/16/2016.
4201 Midfield Parkway	09/28/2016	Pool maintenance educational materials sent to home owners. Follow up site visit on 9/30/2016.
205 Bunche Boulevard	10/31/2016	Gutter buddy installed at nearest inlet, educational material sent to home owner
Hedgerow Lane	11/1/2016	Paint spill in gutter pan, cleaned and contained spill, proper disposal.
5 Paddle Court	11/03/2016	Lawn debris report, none on site during visit. No further action.
800 Crawford Street	11/18/2016	Sewage smell noted, site visit indicated a stormdrain with visible floatables at abandoned location, utilities were shut off at site, and private septic contractor cleaned storm line. Follow up visit on 11/23/2016 showed problem has been eradicated.
4110 Caroline Avenue	11/28/2016	SWO, photos, and Agreement in Lieu sent to resident. Follow up with resident on 12/01/2016.
4821 Milan Drive	11/28/2016	Educational materials sent to neighborhood home owners.
315 Park Road	12/8/2016	Paint spill in gutter pan, cleaned and contained spill, SPSA disposal
3804 Peachwood Drive	12/19/2016	Waste management truck leaking hydraulic fluid on road. Spill was mitigated before spill crew arrived, cleaned and contained, SPSA disposal. No inlets were affected.
George Washington Highway	1/18/2017	Grease hose from “Country Favorites” complaint, no evidence found on site, monitoring area
92 Oregon Avenue	1/20/2017	Resident complaint of numerous cars and oil spills into gutter, no evidence found on site, fire department notified. Follow up visit to site 1/24/2017.
George Washington Highway	1/26/2017	“Country Favorites” restaurant had hose from building into storm drain. Discussed stormwater ordinances, left literature pertaining to stormwater management and grease disposal. Notified city manager.
Robin Road	2/1/2017	Waste management truck leaking hydraulic fluid on road. Spill was mitigated before spill crew arrived, cleaned and contained, SPSA disposal. No inlets were affected.
3909 Kalona Road	2/13/2017	Citizen complaint of fluid spill on roadway, spill was cleaned and contained, SPSA disposal. No inlets were affected by this spill.
417 Concord Road	2/14/2017	Pool discharge from resident through grassy area. Notified owner of proper practices of pool discharge. Notified Ombudsman of proper practices of pool discharge.
1702 Prentis Avenue	2/22/2017	Paint spill in gutter pan, cleaned and contained spill, SPSA disposal
122 Sandpiper Drive	3/6/2017	City Vehicle leaking hydraulic fluid on road and in gutter pain, spill was cleaned and contained, SPSA disposal, no inlets were affected by spill. Vehicle serviced.

3558 Western Branch Boulevard	3/10/2017	Possible illicit discharge noted behind "The Corner Café". Discharge tested. Green haze noted, pending investigation. Follow up site visit and videoed the line on 03/23/2017. Determined that apartment complex, Whispering Oaks, had treated their BMP on site with Copper Sulfate.
4625 Winston Road	3/13/2017	Illicit Discharge noted. Pipe leading into storm drain. Illicit discharge tested. Home owner educated on stormwater ordinance and illicit discharge. Pipe was removed and area stabilized. Follow up visit to site on 4/29/2017
2130 Airline Boulevard	3/23/2017	Complaint of oil in ditch. Oil not found, Iron flocking noted. Education sent to homeowner.
Virginia Avenue	3/22/2017	Complaint of mud tracking from heavy vehicle traffic on Virginia Avenue and Cleveland Avenue**. No mud was visible, revisit site in future. Follow up site visit on 03/23/2017.
London Boulevard	3/22/2017	Oil spill in Scott's Creek. U.S. Coast Guard and HazMat previously identified as "not urgent". Absorbent pads and booms installed. Contaminated sediment removed and contained. Proper disposal. Follow up site visit on 3/24/2017.
1103 Powhatan Avenue	5/3/2017	Complaint of cleaning company pouring discharge into ditch. Site visit showed no sign of detergent. Education sent to cleaning company.
1622 Leckie Street	6/30/2017	Complaint of oil spill on road. Investigation indicated strong diesel smell and oil stains spanning 3 blocks of roadway. Cleaned and contained. Proper disposal. No inlets were affected by this spill. Education sent to home owner.

“Each annual report shall include the amount of linear feet of sanitary sewer inspected during the reporting year.”

The City Utilities Department inspected 115,632 linear feet or 21.9 miles of sanitary sewer.
Department of Public Utilities Operations Department - Sewage Maintenance Division, is responsible for inspections and cleaning and is operating at 53% vacancy. We do have an annual services contract for sewer maintenance. Unfortunately, the contractor did not perform as expected and was consequently dismissed from the contract in FY2017. DPU has since remedied the non-performance issues by rectifying our procurement process requiring performance based bonds.

"Each annual report after program development shall include a list of sites surveyed for floatables, a summary of observations at each site, and a determination as to the effectiveness of the floatables reduction program."

The City's floatable reductions program has shown continued effectiveness with the growth over FY2017. Citizen participation, as well as amount of debris collected continues to steadily increase.

Event	Date	Location	Collected
Clean the Bay Day	6/3/2017	City Park; Bayview Blvd; George Washington Hwy; Alabama Ave	Total of 3048 lbs of debris, yard waste; 2050 lbs bulk; 998 bags; 4.5 miles of Shoreline Cleaned
Great American Cleanup	4/22/2017	Various locations throughout the City of Portsmouth	Total 36 tires; 10,100 lbs of bulk; 1500 lbs of litter.
City of Portsmouth Recycling Event	4/15/2017	Lowes-Victory Crossing	Total of: 14,000 lbs paper; 5,590 lbs of donated goods; 340 lbs cardboard; 3,700 lbs of electronics; 1,720 lbs bulk trash; SPSA disposed of: 914 gal. of latex paint, 51 gal. of antifreeze, 132 gal. of used oil, 23 gal. gasoline, 6 gal. of acid, 55 gal. liquid poison, 4 gal. cooking oil, .5 gal. of solid poison, 41 gal. of paint related material, .5 gal. of aerosols, 4 lb. pf alkaline batteries, 2 lbs of other batteries, 18 gal. of cleaners, 23 lead acid batteries, 1 freon tank, 8 propane tanks, 2 helium tanks, 13 flourescent bulbs, 0.75 lb. of oxidizers, 14 tires, 6 fire exinguishers; 135 pairs of glasses, 7 hearings aids, 15 used cell phones.
City of Portsmouth Recycling Event	8/5/2017	I.C. Norcom High School	Total of: 18,208.25 lbs paper; 1,100 lbs of donated goods; 600 lbs of cardboard; 5,160 lbs of electronics; SPSA disposed of: 722 gal. latex paint, 33 gal. of antifreeze, 122 gal. of used oil, 25 gal. of gasoline, 8 gal. of acid, 41.25 gal. of liquid poison, 15 gal. of cooking oil, 27.5 gal. of solid poison, 22.5 gal. of aerosols, 8 lbs of alkaline batteries, 2 Freon tanks, 8 propane tanks, 2 helium tanks, 3 fire extinguishers, 36 fluorescent bulbs; 42 pairs of glasses.

The Department of Public Works is responsible for maintaining the City streets. Street sweeping not only improves the aesthetic qualities of the urban area; it also improves stormwater quality. Pollutants and debris are removed from the gutter, which prevents them from entering the stormwater system.

Street sweeping is done with a variety of equipment, including:

- Six street sweeper machines: one Elgin Road Wizard, two Elgin Pelicans, one Tymco M2106 and two Tymco 435 Regenerative Air Sweepers,
- Three Tennant litter vacs,
- One roll-off truck to haul the debris collected by the sweepers, and
- One single axle dump truck

The City is divided into three sections. Each section is swept on an average of four times per year, except the downtown area, which is cleaned once each week. In FY2017, the City was able to provide a dedicated street-sweeping crew, resulting in improved service to the citizens of Portsmouth. The results are summarized below.

STREET SWEEPING FIGURES – FY2017	
Miles Swept	**20,097**
Loads	**2,357**
Volume (cubic yards)	**7,071**
Volume (tons)	**9,200**
Bags collected (by litter vacs)	**1,364**

Part I.B.2.f) Spill prevention and response

"Each annual report shall include a list of spills that qualify for immediate reporting as required under Part II.G and H of this state permit, the source, and a description of follow-up activities taken."

Date of Spill	Location of Spill	Material Spilled	Source of Material Spilled	Quantity Spilled	Did Spill Result in a Discharge ?	Corrective Action Taken	Did Spill Qualify for Immediate Reporting as Required Under Part II.G and H ?	Date Reported to DEQ
03/24/17	Scott's Creek	Fuel (unknown)	Unknown	Unknown	Yes	DEQ, NRC, Coast Guard, PFD notified. Petrochem mitigated with oil booms, absorbent pads and removing contaminated sediment from the banks.	Yes	3/14/17
05/17/17	1121 High St.	Bilge Water	Progressive Environmental Services	>25 Gallons	Yes	EPA, DEQ, NRC, Coast Guard, PFD notified. PetroChem vacuumed all material visible for two blocks. Investigating matter further and enforce appropriate penalties.	Yes	5/17/17

Part I.B.2.g)
Industrial and high risk runoff

"The annual report due October 1, 2017 shall include a list of all known industrial and high risk dischargers including any non-VPDES regulated industrial and commercial stormwater dischargers determined by the permittee as contributing a significant pollutant load and that discharge to the MS4 system, a schedule of inspections and procedures for inspecting outfalls."

TECHNICAL MEMORANDUM

City of Portsmouth MS4 Program Industrial and High Risk Runoff Facilities

PREPARED FOR: City of Portsmouth

PREPARED BY: Celeste Ostman/CH2M

COPY TO: James Wright/City of Portsmouth

DATE: June 21, 2017

This Technical Memorandum (TM) is a guide on how to meet the industrial and high risk runoff requirements in Part I Section B.2.g of the City of Portsmouth's (City's) Municipal Separate Storm Sewer System (MS4) permit. The MS4 permit states that the City shall implement a program to identify and control pollutants in stormwater discharges to the MS4 from industrial and high risk runoff facilities and any other industrial or commercial discharges the City determines are contributing a significant pollutant loading to the MS4. The permit requires the City to maintain, and update as necessary, a list of all known industrial and high-risk dischargers to the MS4, and to develop and implement a prioritized schedule and procedure to inspect outfalls of these facilities at the point of connection to the MS4 at least once every 5 years. This TM describes the categories of facilities that will need to be inspected, the prioritized schedule of inspections, the inspection procedures, and the Discharge Monitoring Report (DMR) review for the other stormwater permit holders that discharge to the City's MS4.

1.0 Virginia Pollutant Discharge Elimination System Permit Holders

The permit specifically states that the list of industrial and high risk dischargers shall include Virginia Pollutant Discharge Elimination System (VPDES) industrial stormwater permit holders. The City will implement a prioritized schedule to inspect outfalls of facilities with VPDES industrial stormwater permits at the point of connection to the MS4. The City will need to inspect all VPDES industrial stormwater permitted outfalls connected to its MS4, a minimum of once every 5 years.

1.1 Industrial Stormwater Permit holders

There are both individual permit holders and general stormwater industrial permit holders that discharge to the City's MS4. General permits are permits written for a general class of dischargers. Individual permits are permits for facilities not qualified for a general permit and for which permit requirements, special conditions, effluent limitations, and monitoring requirements are determined for each facility on a site-specific basis in order to meet applicable water quality standards. The number of industrial stormwater permit holders located in the City and connected to the City's MS4 is provided in Table 1. A list of all the industrial stormwater permit holders is provided in Attachment 1. The facilities that are highlighted in Attachment 1 discharge to the MS4 and are included on the prioritized inspection schedule provided in Attachment 4. All VPDES permitted facilities are also required to submit DMRs to the City for review. See Section 6 for more details on the DMR review.

Table 1. Virginia Pollutant Discharge Elimination System Permit Holders

Number of VPDES permit holders that are located in Portsmouth and the number of them that are interconnected to the MS4.

Permit Type	Total Number of Permit Holders	Number of Permit Holders Connected to the MS4
Individual Industrial Stormwater Permit (VA00XXXXX)	7	3
General Industrial Stormwater Permit (VAR05XXXX)	12	3
No Exposure Certification (NECTROXXXX)	2	1

1.2 No Exposure Certification

A facility that is required to have an industrial stormwater permit may obtain a no exposure certification (NEC) from the Virginia Department of Environmental Quality (DEQ) if they have no exposure of pollutants to stormwater. There are two permit holders with NECs located within the City and one of the facilities is connected to the City's MS4. The information about the facilities with NECs is provided in Attachment 1. The two facilities (under one permit) that are highlighted in Attachment 1 discharge to the MS4 and are included on the prioritized inspection schedule found in Attachment 4. These facilities are included on the prioritized inspection schedule because of the possibility of stormwater pollution.

2.0 Other High Risk Runoff Facilities

The MS4 permit describes municipal landfills, other treatment, storage, or disposal facilities for municipal waste, hazardous waste treatment, storage, disposal or recovery facilities, and facilities subject to Emergency Planning & Community Right-To-Know Act (EPCRA) Title III, Section 313 as high risk facilities. These high risk facilities that discharge to the City's MS4 are described in the following sections and are included in the prioritized inspection schedule in Attachment 4.

2.1 Municipal Landfills, Other Treatment, Storage, or Disposal Facilities for Municipal Waste

The City's Craney Island Landfill is the only municipal landfill located in the City and it can be found in the list of VPDES permit holders in Attachment 1. The landfill does not connect to the City's MS4 and therefore was not included in the prioritized inspection schedule.

2.2 Hazardous Waste Treatment, Storage, Disposal or Recovery Facilities

There are no hazardous waste treatment, disposal, or recovery facilities located in the City, but there are several private waste storage locations in Portsmouth. Some private waste storage locations have other types of permits and are already included on the prioritized inspection schedule. The facilities that were not already included on the inspection schedule were screened for likelihood of outdoor storage based on the type of facility.

Hazardous waste storage areas that are unlikely to have outdoor storage were not included on the prioritized inspection schedule as it is unlikely that they would contribute a "significant" pollutant load to the MS4. These facilities included schools, natural gas facilities, laundry service locations, housing developments, office buildings, medical related facilities, and facilities that were inactive or demolished. The full list of hazardous waste storage facilities is provided in Attachment 3 and the highlighted facilities in the attachment are included in the prioritized inspection schedule.

2.3 Facilities Subject to EPCRA Title III, Section 313

Facilities subject to EPCRA Title III, Section 313 are included in the MS4 permit list of industrial and high risk dischargers. The Toxic Release Inventory was used to find facilities that have EPCRA reporting requirements. Most of these facilities are already identified as an industrial or high risk discharger because

they have other permits, except for four pharmacies. Since pharmacies store their product indoors, they were excluded from the prioritized inspection schedule. The list of EPCRA facilities is provided in Attachment 2 and the highlighted facility in Attachment 2 is already included in the prioritized inspection schedule because of its individual industrial stormwater permit.

3.0 Industrial and Commercial Stormwater Dischargers with Significant Pollutant Loading

In the MS4 permit Part I Section B.2.g.6, the City will need to maintain a list of any industrial and commercial stormwater dischargers not regulated under the Virginia State Water Control Law that it determines may be contributing a significant pollutant loading to the MS4. This list may be individual dischargers or categories of dischargers. The list of industrial and commercial stormwater discharges includes major automotive facilities such as repair shops, body shops, auto detailers, tire repair shops and service stations and these facilities are included in the prioritized inspection schedule. The City is not aware of any facilities that may be significant stormwater polluters and no other categories or types of non-regulated industrial or commercial facilities were included in this category. If the City finds evidence of significant stormwater pollution during their inspections, they will need to determine the appropriate measures to control stormwater pollution from these facilities. The major automotive facilities located in the City are listed in Attachment 4 and they will be included on the prioritized inspection schedule. An internet search engine was used to locate and compile the list of the various types of automotive facilities. After City personnel visit an automotive facility, they can determine if it is not a major automotive facility or does not have the potential to be a significant pollutant source. In this case, the City will remove the facility from the prioritized inspection schedule because it does not have the potential for significant pollutant loading.

4.0 Prioritized Schedule

The connection points from the facilities to the MS4 must be inspected once per 5-year permit cycle. A prioritized schedule was developed to ensure all 133 industrial and high risk facilities are inspected. The permit specifically requires the VPDES permit holders be inspected; therefore, they are ranked first in the prioritized order for the inspection schedule, and the rest of the facilities are prioritized for inspection as follows:

1. VPDES permit holders, both individual and general
2. NEC holders
3. EPCRA Title III, Section 313 facilities
4. Hazardous waste storage site with outdoor storage
5. Industrial and/or commercial facilities which may contribute a significant pollutant load, including major automotive facilities

In order to ensure that all industrial and high risk runoff facilities' connections to the MS4 are inspected, CH2M HILL, Inc. (CH2M) assumed that they will be inspected within permit year 2 (PY2), PY3, and PY4. In PY2, Portsmouth should inspect the connections of a minimum 25 percent of all the facilities on the list. In PY3, Portsmouth should inspect the next 35 percent of the facilities on the list, continuing to follow the prioritized order. In PY4, Portsmouth should inspect the remaining 40 percent of the facilities on the list. In PY5, Portsmouth should investigate if there are any new facilities that need to be inspected and inspect them following the prioritized order. The recommended schedule is provided in Attachment 5 and it is based on the list of industrial and high risk runoff facilities found in Attachments 1 to 4 in the prioritized order and the percentages previously outlined. The City may accelerate the inspection schedule as appropriate.

5.0 Inspection Procedures

The MS4 permit requires the City to develop and implement a procedure to inspect the MS4 point of connection for facilities with VPDES industrial stormwater permits. The MS4 Permit Fact Sheet states that the visual inspection of industrial and high risk industrial outfall connections to the MS4 is a means of identifying potential sources of pollutants. The recommended industrial and high risk runoff facilities inspection

procedures are based on a visual inspection of the interconnection and will not require any water quality testing unless there is a suspected illicit discharge. If flow is present during dry weather conditions and it is a potential illicit discharge, the City Inspector will need to trace the source of the flow to determine if it is from the facility being inspected and have the location added to the City's dry weather screening program. The recommended inspection procedures are provided in Attachment 6.

6.0 Discharge Monitoring Report Review

The VPDES Industrial Stormwater Permit holders that discharge to the MS4 are required to submit DMRs for review to the City per their permits. Table 2 indicates the permit holders who have submitted their DMRs to the City for review and those who have not. The City will report the permit holders who have not submitted their DMRs to DEQ, as required by Part I Section B.2.g.5.(d) of the MS4 permit. The DMRs that have been submitted will be reviewed by the City to determine if the monitored discharges exceed the industrial stormwater benchmark values. Any facilities that exceed their benchmark values and that the City may be concerned about contributing a significant pollutant load to the MS4 will be referred to DEQ. A summary table of the DMR review will be included in the annual report. The DMR review procedures are described in Attachment 7.

Table 2. Discharge Monitoring Report Submittals
DMR submittal status of VPDES permit holders that are interconnected to the City's MS4.

Facility	Permit Number	Have DMRs been submitted
Norfolk Naval Shipyard	VA0005215	No
Wheelabrator Portsmouth Incorporated	VA0089923	No
Howells Motor Freight Incorporated	VAR050417	Yes
Third Capital Incorporated	VAR051967	Yes
P-Town Recycling	VAR052125	Yes

7.0 Recommendations and Referrals

The MS4 permit requires the City to refer the following facilities to the DEQ Tidewater Regional Office, for Department compliance review under the Virginia State Water Control Law:

a) Facilities and operations having non-stormwater discharges that do not have coverage under an existing VPDES permit.

b) Facilities and operations identified pursuant to 40 Code of Federal Regulations (CFR) Part 122.26(b)(14) with manufacturing, processing, or raw materials storage outside that do not have coverage under an existing VPDES industrial stormwater permit.

c) Any VPDES industrial stormwater permit facility where there is evidence of significant pollutant loadings to the MS4.

d) Facilities that do not submit signed copies of DMRs to the permittee as required under a VPDES industrial stormwater permit.

During the investigation of industrial and high risk runoff facilities to include on the inspection schedule, it was found that the business, Metro Used Auto Parts, located at 700 Yorktown Avenue had shut down and cancelled their permit, and there is an identical business, Brown's Automotive Services, at the same location that does not appear to have a VPDES stormwater industrial permit. The City has referred this information to DEQ via email. The VPDES permit holders that have not submitted their DMRs to the City by June 30, 2017, will also be referred to DEQ.

Attachment 1

Permitted Facilities

Permitted Facilities

Included on the prioritized inspection schedule in Appendix E

Permit No.	Type of Permit	Facility	Owner/Company	Address	Discharge through MS4
VA0005215	Individual Stormwater	US Navy - Norfolk Naval Shipyard	US Navy - Commander - Navy Region - Mid Atlantic	Intersection of Effingham St & George Washington HW	Yes
VA0074781	Individual Stormwater	Virginia Renewable Power - Portsmouth LLC	Portsmouth Genco LLC	One Wild Duck Road	No
VA0090778	Individual Stormwater	Ocean Marine Yacht Center	Ocean Marine LLC	201 WAVY Street	No
VA0089605	Individual Stormwater	US Defense Fuel Support Point Craney Island	US Navy - Commander - Navy Region - Mid Atlantic	4501 Cedar Ln	No
VA0089699	Individual Stormwater	General Dynamics NASSCO-Norfolk - Harper Facility	Earl Industries LLC	2 Harper Rd	No
VA0089923	Individual Stormwater	Wheelabrator Portsmouth RDF and WTE Facility	Wheelabrator Portsmouth Incorporated	2 Victory Blvd and 3809 Elm Ave	Yes
VA0087599	Individual Stormwater	East Coast Repair and Fabrication LLC Div-3	East Coast Repair and Fabrication LLC Div-3	3400 Shipwright St	No
VAR050312	General Industrial Stormwater	Virginia Port Authority - Portsmouth Marine Terminal	Alinda Capital Partners & Universities	2000 Seaboard Ave	No
VAR050336	General Industrial Stormwater	Tidewater Yacht Marina	ST Tidewater LLC	10 Crawford Pkwy	No
VAR050375	General Industrial Stormwater	US Navy - Southgate Annex	US Navy - Commander - Navy Region - Mid Atlantic	Route 337 and Burtons Pt Rd	No
VAR050417	General Industrial Stormwater	Howells Motor Freight Incorporated	Howells Motor Freight Incorporated	3 Victory Ct	Yes
VAR050492	General Industrial Stormwater	CSX Intermodal Terminals - Portsmouth	CSX Intermodal	1 Harper Ave	No
VAR051438	General Industrial Stormwater	Portsmouth City - Craney Island Landfill	Portsmouth City - Department of Engineering	4699 Hedgerow Ln	No
VAR051741	General Industrial Stormwater	Murro Chemical Company of Virginia Incorporated	Murro Chemical Company of Virginia Incorporated	1510 Columbus Ave	No
VAR051764	General Industrial Stormwater	Virginia International Gateway	Alinda Capital Partners & Universities	1000 APM Terminals Blvd	No
VAR051967	General Industrial Stormwater	Third Capital Incorporated - RDS	Third Capital Incorporated	3325 Frederick Blvd	Yes
VAR052125	General Industrial Stormwater	P-Town Recycling	Empire Services	4091 Portsmouth Blvd	Yes
VAR052168	General Industrial Stormwater	Beach Marine Services Inc	Beach Marine Services Inc	801 Victory Blvd	No
VAR052197	General Industrial Stormwater	US Amines LLC - Portsmouth	US Amines LLC	3230 W Norfolk Rd	No
NECTRO0075	No Exposure Certificate	L3 Communications: Power & Control Systems	PacOrd Inc.	826 Mount Vernon Ave	Yes
NECTRO0075	No Exposure Certificate	L3 Communications: SPD Technologies, Inc.	PacOrd Inc.	847 Mount Vernon Ave	Yes
NECTRO0104	No Exposure Certificate	Southeastern Freight Lines	Southeastern Freight Lines	2655 Elmhurst Lane	No
VAG110117	Concrete Products GP	Titan Virginia Ready Mix LLC - Port Norfolk	Titan Virginia Ready-Mix LLC	101 Chautauqua Ave	No
VAG110244	Concrete Products GP	Portsmouth Plant 50	Commercial Ready Mix Products, Inc.	1125 Victory Blvd	No

Attachment 2

Emergency Planning & Community Right-To-Know Act Required Reporting Facilities

EPCRA Required Reporting Facilities

Included on the prioritized inspection schedule in Appendix E

Company/Facility	Address	Reported	Other Coverage	Discharge to MS4
US Coast Guard Base Portsmouth	4000 Coast Guard Blvd	Yes	Phase II MS4 permit VAR040072	No
Titan Virginia Ready-Mix LLC - Port Norfolk Plant	101 Chautauqua Ave	Yes	Concrete Products permit VAG110117	No
General Dynamics	2 Harper Avenue	No	Industrial Permit VA0089699	No
US Navy Defense Fuel Support Point Craney Island	4501 Cedar Ln	Yes	Industrial Permit VA0089605	No
Portsmouth Genco LLC	1 Wild Duck Ln	Yes	Industrial Permit VA0074781	No
CVS Pharamcy #10088	5829 High Street	No	None	Yes
US Amines (Portsmouth) LLC	3230 W Norfolk Rd	Yes	Stormwater Industrial GP VAR052197	No
US Navy - Portsmouth Naval Hospital	620 John Paul Jones Cir	No	Phase II MS4 permit VAR040114	No
CVS Pharamcy #4520	1800 Fredrick Blvd	No	None	Yes
Neighborcare Pharmacy	1320 Court Street	No	None	Yes
US Navy Norfolk Naval Shipyard	Intersection of Effingham St & George Washington HWY	Yes	Industrial Permit VA0005215	Yes
CVS Pharmacy #5501	3555 Airline Blvd	No	None	Yes

Attachment 3

Appendix B EPCRA Required Reporting Facilities

Facilities that Store Hazardous Waste

Included in prioritized inspection schedule in Appendix E

Handler ID	Company/Facility	Address	Classification	Discharge to MS4
VAD023873920	BOULEVARD TRANSMISSION CO	1411 AIRLINE BLVD	Automotive	YES
VAD988223855	CHARLIE FALKS AUTO WHOLESALE	1140 LONDON BLVD	Automotive	YES
VAD988172086	CROWN STATION VA-33	1101 FREDERICK BLVD	Automotive	YES
VAD023875123	CULPEPPER RADIATOR SERVICE INC	3511 RACE ST	Automotive	YES
VAD023875131	CUMBIAS BODY SHOP INC	400 CUMBERLAND AVE	Automotive	YES
VAD023875693	EWELL, BOB TIRE SERVICE INC	703 CONSTITUTION AVE	Automotive	YES
VAR000006536	HYDRAULIC SVC CO INC	3104 VICTORY BLVD	Automotive	YES
VAD981737448	KOOL, JOHN LINCOLN-MERCURY	1313 HIGH ST	Automotive	YES
VAD988206678	MERCHANTS TIRE & AUTO #05007	5805 W NORFOLK RD	Automotive	YES
VAD988208849	MORSE-PARKER MOTOR SUPPLY INC	809 HIGH ST	Automotive	YES
VAR000011205	PRICES INC T/A BRADS AUTO MACHINE SHOP	3500 A GEORGE WASHINGTON HWY	Automotive	YES
VAR000011999	PROFFIT ENTERPRISES TA CRADOCK AUTO	315 HANBURY AVE	Automotive	YES
VAR000513465	WALMART SUPERCENTER #3831	1098 FREDERICK BOULEVARD	Automotive	YES
VAD003177086	WESTERN BRANCH DIESEL INC	3504 SHIPWRIGHT ST	Automotive	YES
VAD982569592	WILBARTRUCK INC	2808 FREDERICK BLVD	Automotive	YES
VAR000504233	CSX TRANSPORTATION, INC.	800 CONSTITUTION AVENUE	Permitted	YES
VAD003174885	EAST COAST REPAIR & FABRICATION, LLC DIV-3	3400 SHIPWRIGHT ST	Permitted	YES
VAD153920269	L-3 PACORD, INC.	826 MOUNT VERNON AVE	Permitted	YES
VAR000015842	L-3 PACORD, INC.	847 MOUNT VERNON AVE.	Permitted	YES
VAD125962613	PORTSMOUTH CITY OF VEHICLE SVC CTR	2003 FREDERICK BLVD	Permitted	YES
VAD988191318	7-ELEVEN #23030	725 LONDON BOULEVARD	Gas Station	YES
VAD988191326	7-ELEVEN #23219	3201 GEORGE WASHINGTON HIGHWAY	Gas Station	YES
VAD988191359	7-ELEVEN #24040	700 MOUNT VERNON AVENUE	Gas Station	YES
VAD988191367	7-ELEVEN #24488	1200 HIGH STREET	Gas Station	YES
VAR000502963	7-ELEVEN, INC. # 33236	600 FREDERICK BLVD	Gas Station	YES
VAD988191375	7-ELEVEN, INC. #24636	1500 AIRLINE BLVD	Gas Station	YES
VAD988198941	AMOCO #1990-TANKS	2201 TURNPIKE RD	Gas Station	YES
VAD988198958	AMOCO #60169-TANKS	3909 TWIN PINES RD	Gas Station	YES
VAD988198966	AMOCO #60295	2600 FREDERICK BLVD	Gas Station	YES
VAD988198248	AMOCO #735-TANKS	4113 GEORGE WASHINGTON HWY	Gas Station	YES
VAD988198206	AMOCO #780-TANKS	5901 HIGH ST WEST	Gas Station	YES
VAD988198396	AMOCO #792-TANKS	2200 HIGH ST	Gas Station	YES
VAD988211900	CHURCHLAND AMOCO	5901 HIGH ST WEST	Gas Station	YES
VAD988200754	COASTAL MART INC #908	2910 VICTORY BLVD	Gas Station	YES
VAD982580789	EXXON CO U S A PORTSMOUTH	5830 HIGH ST	Gas Station	YES
VAD988223335	EXXON CO USA #27845	3525 TOWNE POINT RD	Gas Station	YES
VAD988215737	FAST FARE INC T/A CROWN VA-536	800 FREDERICK BLVD	Gas Station	YES

Handler ID	Company/Facility	Address	Classification	Discharge
VAD988212056	HIGH STREET AMOCO	2200 HIGH ST	Gas Station	YES
VAD988212049	PARKERS AMOCO	2201 TURNPIKE	Gas Station	YES
VAD988211082	TEXACO STATION-TANKS	3500 HIGH ST	Gas Station	YES
VAR000530121	WAWA FOOD MARKETS #8636	1200 FREDERICK BLVD	Gas Station	YES
VAR000504134	CLIFF BERRY INC	3701 BROADWAY ST	Industrial	YES
VAR000502872	CRB ASSOCIATES OF VIRGINIA, INC.	1801 HIGH STREET	Industrial	YES
VAR000512061	EPSILON SYSTEMS SOLUTIONS	801 FLORIDA AVENUE	Industrial	YES
VAR000530667	EPSILON SYSTEMS SOLUTIONS, INC.	573 CHAUTAUQUA AVE	Industrial	YES
VAR000530154	EPSILON SYSTEMS SOLUTIONS, INC.	846 MOUNT VERNON AVE	Industrial	YES
VAR000016162	FAIRLEAD PRECISION MANUFACTURING & INTEGRA	3132 VICTORY BLVD.	Industrial	YES
VAR000016154	FAIRLEAD PRECISION MANUFACTURING & INTEGRA	750 CHAUTAUQUA AVE	Industrial	YES
VAR000502682	HIGHSTAR INDUSTRIAL TECH INC	500 PORTCENTRE PKWY	Industrial	YES
VAR000525451	MARINE SPECIALTY PAINTING	3350 ELM AVENUE	Industrial	YES
VA0000187872	NOTTINGHAM WINDOW AND DOOR	206 SANDPIPER DR	Industrial	YES
VAD988212973	PET DAIRY	2320 TURNPIKE ROAD	Industrial	YES
VAD988193314	PORTSMOUTH SIGN PAINT CITY OF	2007 FREDERICK BLVD	Industrial	YES
VAD046247276	PORTSMOUTH TOOL & DIE CORP	807 FLORIDA AVE	Industrial	YES
VAD003772605	J & D Marine	684 Military Rd	Industrial	YES
VAR000008227	RACHEL SCREEN PRINTING	40 CLAREMONT DR	Industrial	YES
VAD055483846	SALES SYSTEMS LTD	700 FLORIDA AVE	Industrial	YES
VAR000002451	SHERWIN-WILLIAMS (SEAGUARD)	3560 ELM AVENUE	Industrial	YES
VAD982704744	PENSKE TRUCK LEASING	2410 WESLEY ST	Automotive	NO
VAR000514836	APM TERMINALS	1000 APM TERMINALS BOULEVARD	Permitted	NO
VAP611201623	CSX INTERMODAL TERMINAL, INC	1 HARPER AVENUE	Permitted	NO
VAR000524918	DOWNTOWN TUNNEL / MIDTOWN TUNNEL / MLK EX	1500 SEABOARD AVE	Permitted	NO
VAD988228961	LAIDLAW ENVIRONMENTAL SERVICES TS INC	4 A VICTORY BLVD	Permitted	NO
VAD981744030	METRO MACHINE CORP. DBA GENERAL DYNAMICS	2 HARPER AVENUE	Permitted	NO
VA1170024813	NORFOLK NAVAL SHIPYARD	C-106 BLDG. M-22 3RD FLOOR	Permitted	NO
VA6170024818	NSA HAMPTON ROADS PORTSMOUTH ANNEX (NMC	620 JOHN PAUL JONES CIRCLE	Permitted	NO
VAR000504928	SCOTT CENTER ANNEX	ANDREW STREET	Permitted	NO
VA9170090022	SOUTHGATE ANNEX	BURTONS POINT ROAD	Permitted	NO
VA5170000181	ST. JULIENS CREEK ANNEX	VICTORY BLVD	Permitted	NO
VAD039050661	TITAN VIRGINIA READY-MIX, LLC	101 CHAUTAUQUA AVE	Permitted	NO
VA4690300112	U S FIFTH COAST GUARD DISTRICT	431 CRAWFORD ST	Permitted	NO
VA1179900989	U S PORTSMOUTH CITY LANDFILL	CRANEY ISLAND	Permitted	NO
VAR000502203	U.S. AMINES (PORTSMOUTH) LLC	3230 WEST NORFOLK RD	Permitted	NO
VA4690320235	US COAST GUARD BASE PORTSMOUTH	4000 COAST GUARD BLVD	Permitted	NO
VA0170090005	US NAVY DEFENSE FUEL SUPPORT POINT CRANEY	4501 CEDAR LANE	Permitted	NO
VAR000006569	USA CORPS ENGR CRANEY ISLAND	4599 RIVERSHORE RD	Permitted	NO

Handler ID	Company/Facility	Address	Classification	Discharge to MS4
VAD151888757	VA INTERNATIONAL TERMINALS INC	2000 SEABOARD AVE PMT	Permitted	NO
VAR000500041	WHEELABRATOR PORTMOUTH INC	3809 ELM AVE	Permitted	NO
VAD980690846	WHEELABRATOR PORTSMOUTH, INC.	2 VICTORY BOULEVARD	Permitted	NO
VAR000500223	ACCURATE MARINE ENVIRONMENTAL, INC.	3965 BURTONS POINT ROAD	Industrial	NO
VAD087340048	FIATALLIS NORTH AMERICA INC	2400 WESLEY ST	Industrial	NO
VAR000505834	PORTSMOUTH MARINE TERMINAL	1800 SEABOARD AVE	Industrial	NO
VAD003174810	PROCTER & GAMBLE MFG CO PORTSMOUTH	ARREFF TERMINALS, INC.	Industrial	NO
VAD132035601	SEALAND SERVICE INC	1800 SEABOARD AVE	Industrial	NO
VAR000514497	THE PECK COMPANY	3850 ELM AVENUE	Superfund site	NO
VAR000012864	CNA HOLDINGS, INC. REMEDIATION PROJECT	3340 WEST NORFOLK RD	Unknown	NO
VAR000512681	MID-ATLANTIC MILITARY FAMILY COMMUNITIES	QTRS C BARRON STREET	Housing	NO
VAD981039423	OPERATIONAL SERVICES	3920 BURTONS POINT RD	Inactive	NO
VAD982570483	PINNERS POINT TREATMENT PLANT	320 SEABOARD AVE	Inactive	NO
VAD981738693	PORTSMOUTH CITY SCHOOL BUS GARAGE	3920 BURTON POINT RD	Inactive	NO
VAD123933426	TIDEWATER COMMUNITY CLG	7000 COLLEGE DR	School	NO
VAD988212916	FIRESTATION #4	445 LEE AVE	Service Provider	YES
VAR000531087	METROPOLITAN SOLUTIONS	1420 CHESTNUT STREET	Administrative	YES
VAD988221933	W F MAGANN CORP	3220 MARINER AVE	Administrative	YES
VAD988213054	CITY OF PORTSMOUTH PROPERTY MGMT DIV	2005 FREDERICK BLVD	Housing	YES
VAR000512236	MID-ATLANTIC MILITARY FAMILY COMMUNITIES	16 DEBRA LANE	Housing	YES
VAD988186458	PRHA DALE HOMES VA 1-1	1842-2210 COLUMBUS AVE	Housing	YES
VAD988186540	PRHA DALE HOMES VA 1-1	2-300 DALE DR	Housing	YES
VAD988186508	PRHA IDA BARBOUR PARK VA 1-5	1100-1574 BARBOUR DR	Housing	YES
VAD988186490	PRHA IDA BARBOUR PARK VA 1-5	700-847 ELM ST	Housing	YES
VAD988186516	PRHA IDA BARBOUR PARK VA 1-5	700-918 GODWIN ST	Housing	YES
VAD988186466	PRHA IDA BARBOUR PARK VA 1-5	917-1315 COUNTY ST	Housing	YES
VAD988186557	PRHA IDA BARBOUR PARK VA 1-5	917-938 COLUMBIA ST	Housing	YES
VAD988186482	PRHA IDA BARBOUR PARK VA 1-5	920-1139 SOUTH ST	Housing	YES
VAD988186474	PRHA IDA BARBOUR VA 1-5	1000-1020 CRABAPPLE ST	Housing	YES
VAD988186326	PRHA JEFFRY WILSON HOMES VA 1-4	2901-3035 TURNPIKE RD	Housing	YES
VAD988186334	PRHA JEFFRY WILSON HOMES VA 1-4	3-400 PROJECT DR	Housing	YES
VAD988186383	PRHA LINCOLN PARK VA 1-6	1-171 LEXINGTON DR	Housing	YES
VAD988186391	PRHA LINCOLN PARK VA 1-6	2416-2422 COLUMBUS AVE	Housing	YES
VAD988186433	PRHA LINCOLN PARK VA 1-6	2501-2563 GRAHAM ST	Housing	YES
VAD988186441	PRHA LINCOLN PARK VA 1-6	2800-2918 DEEP CREEK BLVD	Housing	YES
VAD988186425	PRHA SWANSON HOMES VA 1-2	1102-1220 LANSING AVE	Housing	YES
VAD988186532	PRHA SWANSON HOMES VA 1-2	1702-1824 SOUTH ST	Housing	
VAD988186524	PRHA SWANSON HOMES VA 1-2	1-98 MERRIMAC DR	Housing	
VAD988186409	PRHA SWANSON HOMES VA 1-2	1-98 SWANSON PARKWAY	Housing	

Handler ID	Company/Facility	Address	Classification	Discharge to MS4
VAD988186417	PRHA SWANSON HOMES VA 1-2	2-44 BUCHANAN AVE	Housing	YES
VAD988186367	PRHA WASHIGTON PARK VA 1-7	1306-1402 SEVENTH ST	Housing	YES
VAD988186359	PRHA WASHINGTON PAR VA 1-7	1300-1542 GREEN ST	Housing	YES
VAD988186342	PRHA WASHINGTON PARK VA 1-7	1401-1515 EFFINGHAM ST	Housing	YES
VAD988186375	PRHA WASHINGTON PARK VA 1-7	601-615 RACE ST	Housing	YES
VA0000350603	CEM CORP	1 BEECHWOOD CT	Inactive	YES
VAD988212908	FIRESTATION #3	419 JAMESTOWN AVE	Inactive	YES
VAD988202552	FIRESTONE TIRE & SERVICE CENTER	901 FREDERICK BLVD	Inactive	YES
VAD988188728	KMART #9514	1070 FREDERICK BLVD	Inactive	YES
VAR000529966	KROGER #0538-029	5601 HIGH ST W	Inactive	YES
VAD003174836	PNEUMO ABEX CORPORATION	614 RANDOLPH ST	Inactive	YES
VAR000006783	PORTSMOUTH BODY WORKS	1001 GODWIN ST	Inactive	YES
VAD988184701	PRINTCRAFT PRESS INC	309 COLUMBIA ST	Inactive	YES
VAR000007617	TRI VECTOR INC DBA TOP COATES	820 7TH ST	Inactive	YES
VAD100557933	TRI-CITIES CENTER	4300 GEO WASHINGTON HWY	Inactive	YES
VAR000518050	CINTAS CORP	2707 SMITHFIELD ROAD	Laundry	YES
VAD023876238	FORMER HAGWOODS DRY CLEANERS	1001 ELM AVE	Laundry	YES
VAR000007344	PORTSMOUTH CLNRS	3601 HIGH ST	Laundry	YES
VAD988210340	CVS PHARMACY #10088	5829 HIGH ST	Medical	YES
VAR000523522	CVS PHARMACY #4520	1800 FREDERICK BLVD.	Medical	YES
VAD100557941	DAC	401 W RD	Medical	YES
VAR000015172	INTERNAL MEDICINE OF PORTSMOUTH LTD	3300 HIGH ST STE 6	Medical	YES
VAD982702334	MARYVIEW MEDICAL CTR	3636 HIGH ST	Medical	YES
VAR000519389	NEIGHBORCARE PHARMACY	1320 COURT STREET	Medical	YES
VAR000527424	RITE AID # 11297	5914 WEST HIGH STREET	Medical	YES
VAR000526558	RITE AID #3960	1141 LONDON BLVD	Medical	YES
VAD982710444	ILC	900 THOMAS CIRCLE	Residential	YES
VAD100557875	BRIGHTON ELEMENTARY	1101 JEFFERSON ST	School	YES
VAD100557883	CHURCHLAND ACADEMY ELEMENTARY	4061 RIVER SHORE RD	School	YES
VAD982710261	CHURCHLAND ELEMENTARY	5601 MICHAEL LANE	School	YES
VAD100557909	CHURCHLAND HIGH	4301 CEDAR LANE	School	YES
VAD100557917	CHURCHLAND MIDDLE	4051 RIVER SHORE RD	School	YES
VAD100557925	CHURCHLAND PRIMARY	5700 HEDGEROW LANE	School	YES
VAD100557867	CRADOCK MIDDLE	21 ALDEN AVE	School	YES
VAD982676058	EMILY SPONG	2200 PIEDMONT AVE	School	YES
VAD982676298	HARRY A HUNT JUNIOR HIGH	1800 HIGH ST	School	YES
VAD100558147	HUNT-MAPP MIDDLE	3701 WILLETT DR	School	
VAD982676470	HURST JAMES ELEMENTARY	18 DAHLGREN AVE	School	
VAD982675993	IRC	3651 HARTFORD ST	School	

Handler ID	Company/Facility	Address	Classification	Discharge to MS4
VAD982710329	MOUNT HERMON	3000 MOUNT HERMON	School	YES
VAD123511081	NORCOM IC HIGH	2900 TURNPIKE RD	School	YES
VAD982676413	PARKVIEW ELEMENTARY	1401 CRAWFORD PKWY	School	YES
VAD982676355	PORT NORFOLK ELEMENTARY	3101 DETROIT ST	School	YES
VAD982676116	SH CLARKE	2801 TURNPIKE RD	School	YES
VAD100558105	SHEA TERRACE ELEMENTARY	253 CONSTITUTION AVE	School	YES
VAR000007328	TIDEWATER COMM CLG VISUAL ARTS CTR	340 HIGH ST	School	YES
VAD982676173	WESTHAVEN ELEMENTARY	3701 DETROIT ST	School	YES
VAR000001248	COLUMBIA GAS OF VIRGINIA	115 AVONDALE RD	Utility	YES
VAR000001263	COMMONWEALTH GAS SERVICES INC	301 EFFINGHAM ST	Utility	YES
VAD988224473	SUBURBAN PROPANE FLEET MAINT	5202 GEO WASHINGTON HWY	Utility	

Attachment 4

Appendix C

Facilities that Store Hazardous Waste

Automotive Facilities

Automotive Facilities

Included in prioritized inspection schedule in Appendix E

Company	Address	Discharge to MS4
A1 Automotive	2012 High St	YES
Action Automotive Incorporated	1300 High St	YES
Advantage Collision Center	3013 Airline Blvd	YES
Airline Automotive & Truck Center	3308 Airline Blvd	YES
All in One Auto	1201 Airline Blvd	YES
All in One Auto Repair	3415 Griffin St	YES
American Fleet Service Inc	3000 Elmhurst Ln	YES
American Truck and Trailer Repair	2407 South St	YES
Auto Repair & Service	506 Dinwiddie St	YES
AutoZone	3931 Victory Blvd	YES
AutoZone	5921 High St W	YES
Barbers Tire & Auto	5701 Portsmouth Blvd	YES
Bargain Tire Outlet	4244 Portsmouth Blvd	YES
Baucoms Auto Service Inc	1205 Airline Blvd	YES
Bay Area Wholesale	3500 A George Washington Hwy	YES
Bayside Harley-Davidson	2211 Frederick Blvd	YES
Big Als Mufflers & Brakes	1611 Airline Blvd	YES
Bob Ewell Tire - Cooper Tire	703 Constitution Ave	YES
Boulevard Transmissions Co	1411 Airline Blvd	YES
Browns Automotive Services	700 Yorktown Ave	YES
Budget Tire & Automotive	5805 W Norfolk Rd	YES
Butchs Auto Service	3412 George Washington Hwy	YES
C & M Automotive and Truck Specialist	5009 Deep Creek Blvd	YES
Charlie Falks Auto Wholesale	1140 London Blvd	YES
Chris Auto Electric	4435 Winchester Dr	YES
Chriss Auto Services	3605 Dartmouth St	YES
Churchland Glass & Mirror Co	3112 Tyre Neck Rd	YES
Complete Auto Repair Service	3900 Garwood Ave	YES
Cradock Auto Collision Center	315 Hanbury Ave	YES
Crown station VA-33	1101 Fredrick Blvd	YES
Culpepper Radiator & Auto	3511 Race St	YES
D & J Automotive	3111 Airline Blvd	YES
Dails Auto Repair Inc	3637 Victory Blvd	YES
Dodd RV of Portsmouth	4705 Portsmouth Blvd	YES
Dodds Auto Service	4704 Portsmouth Blvd	YES
Earls Complete Car Care	2865 Airline Blvd	YES
Everway Mobile Tire Services Inc	4006 Victory Blvd	YES
Fair & Honest Auto Repair	2921 Portsmouth Blvd	YES
Finks Car Care	2711 Victory Blvd	YES
All Star Auto Repair	1011 Queen St	YES
Finks Truck Frame & Alignment	35 Beechdale Rd	YES
Firestone Tire & Service Center	901 Fredrick Blvd	YES
Ford Automotive Repair Center	1803 High St	YES
Gac Automotive Center	2100 Portsmouth Blvd	YES
George Farish Collision Center	2525 Airline Blvd	YES
Gilmores Auto	3035 High St	YES
Glasspros Inc	3901 Garwood Ave	YES
GW Auto Repair	2612 Elliott Ave	YES
Hot Spot Tires & Rims	1209 Lindsay Ave	YES
Hydraulic SVC Co. INC	3104 Victory Blvd	YES
Icebergs Auto Service	601 Constitution Ave	YES

Automotive Facilities

Company	Address	Discharge to MS4
Import 4 Less Auto Care	706 7th St	YES
Import Autowerks	3040 High St	YES
Import Connection	2884 Airline Blvd	YES
Jade Automotive LLC	1609 Airline Blvd	YES
Johnnys Auto Care	3615 High St	YES
Johns Service Center	4650 Portsmouth Blvd	YES
Kool Automotive	1313 High St	YES
Lees Auto Care	2610 Victory Blvd	YES
Liberty Tire Co., LLC	615 Chautauqua Ave	YES
Maaco Collision Repair & Auto Painting	3937 Turnpike Rd	YES
McCartys Wheel Shop	515 Broad St	YES
Meineke Car Care Center	2490 Airline Blvd	YES
Morse-Parker Motor Supply Inc.	809 High St	YES
MRD Quality Automotive Service	3427 Race St	YES
Nobles Auto Center	400 Cumberland Ave	YES
Norfolk Tire & Rims	3790 Victory Blvd	YES
Pep Boys Auto Parts & Services	2570 Airline Blvd	YES
Portsmouth Alignment Services	3119 Elm Ave	YES
Portsmouth Glass	4400 Portsmouth Blvd	YES
R & M Harden Motorsports	3144 Victory Blvd	YES
Rick Hendrick Collision Center Portsmouth	3310 Airline Blvd	YES
Salas Auto Service	4350 Portsmouth Blvd	YES
Sivels Auto Repair & Restoration	3120 Armistead Dr	YES
Sonny & Bryans Auto Repair	549 Chautauqua Ave	YES
South Norfolk Trucking	5 Beechwood Ct	YES
Steves Auto Electric & Repair	3700 Turnpike Rd	YES
Superior Automotive	4231 Portsmouth Blvd	YES
Transmission Repair & Services	4117 Portsmouth Blvd	YES
Tread Quarters	1401 Airline Blvd	YES
Tread Quarters	3205 Tyre Neck Rd	YES
Tread Quarters	5003 George Washington Hwy	YES
Unique One Auto Repair Mobil Service	2000 Laigh Rd	YES
Walmart Supercenter #3831	1098 Fredrick Blvd	YES
Waynes Body Shop	3134 Victory Blvd	YES
Wes Frye Auto & Van Repair	3409 Deep Creek Blvd	YES
Western Branch Diesel	3504 Shipwright St	YES
Wilbartruck Inc	2808 Fredrick Blvd	YES
Auto-Motivation	4748 River Shore Rd	NO
Penske Truck Leasing	2410 Wesley St	NO

Attachment 5

Inspection Schedule

Inspection

PY2 - Inspect 25% of Facilities
PY3 - Inspect 35% of Facilities
PY4 - Inspect 40% of Facilities

Facility	Address	Category
US Navy - Norfolk Naval Shipyard	Intersection of Effingham St & George Washington HWY	Permitted Facility
Wheelabrator Portsmouth RDF and WTE Facility	2 Victory Blvd and 3809 Elm Ave	Permitted Facility
Howell's Motor Freight Incorporated	3 Victory Ct	Permitted Facility
Third Capital Incorporated - RDS	3325 Frederick Blvd	Permitted Facility
P-Town Recycling	4091 Portsmouth Blvd	Permitted Facility
L3 Communications: Power & Control Systems	826 Mount Vernon Ave	Permitted Facility
L3 Communications: SPD Technologies, Inc.	847 Mount Vernon Ave	Permitted Facility
7-ELEVEN #23030	725 LONDON BOULEVARD	Hazardous Waste Storage
7-ELEVEN #23219	3201 GEORGE WASHINGTON HIGHWAY	Hazardous Waste Storage
7-ELEVEN #24040	700 MOUNT VERNON AVENUE	Hazardous Waste Storage
7-ELEVEN #24488	1200 HIGH STREET	Hazardous Waste Storage
7-ELEVEN, INC. # 33236	600 FREDERICK BLVD	Hazardous Waste Storage
7-ELEVEN, INC. #24636	1500 AIRLINE BLVD	Hazardous Waste Storage
AMOCO #1990-TANKS	2201 TURNPIKE RD	Hazardous Waste Storage
AMOCO #60169-TANKS	3909 TWIN PINES RD	Hazardous Waste Storage
AMOCO #60295	2600 FREDERICK BLVD	Hazardous Waste Storage
AMOCO #735-TANKS	4113 GEORGE WASHINGTON HWY	Hazardous Waste Storage
AMOCO #780-TANKS	5901 HIGH ST WEST	Hazardous Waste Storage
AMOCO #792-TANKS	2200 HIGH ST	Hazardous Waste Storage
CHURCHLAND AMOCO	5901 HIGH ST WEST	Hazardous Waste Storage
CLIFF BERRY INC	3701 BROADWAY ST	Hazardous Waste Storage
COASTAL MART INC #908	2910 VICTORY BLVD	Hazardous Waste Storage
CRB ASSOCIATES OF VIRGINIA, INC.	1801 HIGH STREET	Hazardous Waste Storage
EPSILON SYSTEMS SOLUTIONS	801 FLORIDA AVENUE	Hazardous Waste Storage
EPSILON SYSTEMS SOLUTIONS, INC.	573 CHAUTAUQUA AVE	Hazardous Waste Storage
EPSILON SYSTEMS SOLUTIONS, INC.	846 MOUNT VERNON AVE	Hazardous Waste Storage
EXXON CO U S A PORTSMOUTH	5830 HIGH ST	Hazardous Waste Storage
EXXON CO USA #27845	3525 TOWNE POINT RD	Hazardous Waste Storage
FAIRLEAD PRECISION MANUFACTURING & INTE	3132 VICTORY BLVD.	Hazardous Waste Storage
FAIRLEAD PRECISION MANUFACTURING & INTE	750 CHAUTAUQUA AVE	Hazardous Waste Storage
FAST FARE INC T/A CROWN VA-536	800 FREDERICK BLVD	Hazardous Waste Storage
HIGH STREET AMOCO	2200 HIGH ST	Hazardous Waste Storage
HIGHSTAR INDUSTRIAL TECH INC	500 PORTCENTRE PKWY	Hazardous Waste Storage
MARINE SPECIALTY PAINTING	3350 ELM AVENUE	Hazardous Waste Storage
NOTTINGHAM WINDOW AND DOOR	206 SANDPIPER DR	Hazardous Waste Storage
PARKERS AMOCO	2201 TURNPIKE	Hazardous Waste Storage
PET DAIRY	2320 TURNPIKE ROAD	Hazardous Waste Storage
PORTSMOUTH SIGN PAINT CITY OF	2007 FREDERICK BLVD	Hazardous Waste Storage
PORTSMOUTH TOOL & DIE CORP	807 FLORIDA AVE	Hazardous Waste Storage
J & D Marine	684 Military Rd	Hazardous Waste Storage
RACHEL SCREEN PRINTING	40 CLAREMONT DR	Hazardous Waste Storage
SALES SYSTEMS LTD	700 FLORIDA AVE	Hazardous Waste Storage
SHERWIN-WILLIAMS (SEAGUARD)	3560 ELM AVENUE	Hazardous Waste Storage
TEXACO STATION-TANKS	3500 HIGH ST	Hazardous Waste Storage
WAWA FOOD MARKETS #8636	1200 FREDERICK BLVD	Hazardous Waste Storage
A1 Automotive	2012 High St	Major Automotive
Action Automotive Incorporated	1300 High St	Major Automotive
Advantage Collision Center	3013 Airline Blvd	Major Automotive
Airline Automotive & Truck Center	3308 Airline Blvd	Major Automotive
All in One Auto	1201 Airline Blvd	Major Automotive
All in One Auto Repair	3415 Griffin St	Major Automotive
American Fleet Service Inc	3000 Elmhurst Ln	Major Automotive
American Truck and Trailer Repair	2407 South St	Major Automotive
Auto Repair & Service	506 Dinwiddie St	Major Automotive
AutoZone	3931 Victory Blvd	Major Automotive
AutoZone	5921 High St W	Major Automotive
Barbers Tire & Auto	5701 Portsmouth Blvd	Major Automotive
Bargain Tire Outlet	4244 Portsmouth Blvd	Major Automotive
Baucoms Auto Service Inc	1205 Airline Blvd	Major Automotive
Bay Area Wholesale	3500 A George Washington Hwy	Major Automotive
Bayside Harley-Davidson	2211 Frederick Blvd	Major Automotive
Big Als Mufflers & Brakes	1611 Airline Blvd	Major Automotive

Bob Ewell Tire - Cooper Tire	703 Constitution Ave	Major Automotive
Boulevard Transmissions Co	1411 Airline Blvd	Major Automotive
Browns Automotive Services	700 Yorktown Ave	Major Automotive
Budget Tire & Automotive	5805 W Norfolk Rd	Major Automotive
Butchs Auto Service	3412 George Washington Hwy	Major Automotive
C & M Automotive and Truck Specialist	5009 Deep Creek Blvd	Major Automotive
Charlie Falks Auto Wholesale	1140 London Blvd	Major Automotive
Chris Auto Electric	4435 Winchester Dr	Major Automotive
Chriss Auto Services	3605 Dartmouth St	Major Automotive
Churchland Glass & Mirror Co	3112 Tyre Neck Rd	Major Automotive
Complete Auto Repair Service	3900 Garwood Ave	Major Automotive
Cradock Auto Collision Center	315 Hanbury Ave	Major Automotive
Crown station VA-33	1101 Fredrick Blvd	Major Automotive
Culpepper Radiator & Auto	3511 Race St	Major Automotive
D & J Automotive	3111 Airline Blvd	Major Automotive
Dails Auto Repair Inc	3637 Victory Blvd	Major Automotive
Dodd RV of Portsmouth	4705 Portsmouth Blvd	Major Automotive
Dodds Auto Service	4704 Portsmouth Blvd	Major Automotive
Earls Complete Car Care	2865 Airline Blvd	Major Automotive
Everway Mobile Tire Services Inc	4006 Victory Blvd	Major Automotive
Fair & Honest Auto Repair	2921 Portsmouth Blvd	Major Automotive
Finks Car Care	2711 Victory Blvd	Major Automotive
All Star Auto Repair	1011 Queen St	Major Automotive
Finks Truck Frame & Alignment	35 Beechdale Rd	Major Automotive
Firestone Tire & Service Center	901 Fredrick Blvd	Major Automotive
Ford Automotive Repair Center	1803 High St	Major Automotive
Gac Automotive Center	2100 Portsmouth Blvd	Major Automotive
George Farish Collision Center	2525 Airline Blvd	Major Automotive
Gilmores Auto	3035 High St	Major Automotive
Glasspros Inc	3901 Garwood Ave	Major Automotive
GW Auto Repair	2612 Elliott Ave	Major Automotive
Hot Spot Tires & Rims	1209 Lindsay Ave	Major Automotive
Hydraulic SVC Co. INC	3104 Victory Blvd	Major Automotive
Icebergs Auto Service	601 Constitution Ave	Major Automotive
Import 4 Less Auto Care	706 7th St	Major Automotive
Import Autowerks	3040 High St	Major Automotive
Import Connection	2884 Airline Blvd	Major Automotive
Jade Automotive LLC	1609 Airline Blvd	Major Automotive
Johnnys Auto Care	3615 High St	Major Automotive
Johns Service Center	4650 Portsmouth Blvd	Major Automotive
Kool Automotive	1313 High St	Major Automotive
Lees Auto Care	2610 Victory Blvd	Major Automotive
Liberty Tire Co., LLC	615 Chautauqua Ave	Major Automotive
Maaco Collision Repair & Auto Painting	3937 Turnpike Rd	Major Automotive
McCartys Wheel Shop	515 Broad St	Major Automotive
Meineke Car Care Center	2490 Airline Blvd	Major Automotive
Morse-Parker Motor Supply Inc.	809 High St	Major Automotive
MRD Quality Automotive Service	3427 Race St	Major Automotive
Nobles Auto Center	400 Cumberland Ave	Major Automotive
Norfolk Tire & Rims	3790 Victory Blvd	Major Automotive
Pep Boys Auto Parts & Services	2570 Airline Blvd	Major Automotive
Portsmouth Alignment Services	3119 Elm Ave	Major Automotive
Portsmouth Glass	4400 Portsmouth Blvd	Major Automotive
R & M Harden Motorsports	3144 Victory Blvd	Major Automotive
Rick Hendrick Collision Center Portsmouth	3310 Airline Blvd	Major Automotive
Salas Auto Service	4350 Portsmouth Blvd	Major Automotive
Sivels Auto Repair & Restoration	3120 Armistead Dr	Major Automotive
Sonny & Bryans Auto Repair	549 Chautauqua Ave	Major Automotive
South Norfolk Trucking	5 Beechwood Ct	Major Automotive

Inspection

Steves Auto Electric & Repair	3700 Turnpike Rd	Major Automotive
Superior Automotive	4231 Portsmouth Blvd	Major Automotive
Transmission Repair & Services	4117 Portsmouth Blvd	Major Automotive
Tread Quarters	1401 Airline Blvd	Major Automotive
Tread Quarters	3205 Tyre Neck Rd	Major Automotive
Tread Quarters	5003 George Washington Hwy	Major Automotive
Unique One Auto Repair Mobil Service	2000 Laigh Rd	Major Automotive
Walmart Supercenter #3831	1098 Fredrick Blvd	Major Automotive
Waynes Body Shop	3134 Victory Blvd	Major Automotive
Wes Frye Auto & Van Repair	3409 Deep Creek Blvd	Major Automotive
Western Branch Diesel	3504 Shipwright St	Major Automotive
Wilbartruck Inc	2808 Fredrick Blvd	Major Automotive

Attachment 6

MS4 Interconnection Visual Inspection Procedures

Industrial and High Risk Runoff Facilities Interconnection Inspection Procedures

The City of Portsmouth's (City's) Municipal Separate Storm Sewer System (MS4) permit requires the City to implement a program to identify and control pollutants in stormwater discharges from industrial and high risk runoff facilities to the MS4. The City will perform visual inspections of the industrial and high risk runoff facilities interconnections to the City's MS4 to meet the permit requirements.

This document describes the visual inspection procedures and is intended for use as a field guide with detailed instructions and sampling procedures. It describes what observations to record, the time estimates for the inspections, the responsibilities of field personnel, and procedures to be followed.

Safety Procedures

SAFETY IS ALWAYS THE PARAMOUNT CONSIDERATION: IF YOU THINK A SITUATION IS UNSAFE, DO NOT
PUT YOURSELF INTO THAT SITUATION. Inspections may be conducted in areas where there are safety hazards. Sampling personnel must always be aware of possible hazards and must take the necessary precautions to avoid dangerous situations. Please reference the City of Portsmouth's Dry Weather Inspection Procedures' safety procedures section in Attachment A.

Inspection Procedures

The field supervisor will assign each inspection team a list of sites to be screened each day. Each field crew team will review the list of inspection points to be evaluated before starting the fieldwork. A packet of inspection site information will be distributed to each field crew team and the information packet will include a list describing the inspection sites, an inspection site location map, field data sheets, quality control records, chain-of-custody forms, and an equipment checklist. The inspection sites will be marked on the map, and the proposed order of site visits will be established before beginning fieldwork. The site descriptions will be reviewed to determine if any unusual conditions exist at the sites and to determine the best way to gain access to each site.

After the site locations have been evaluated, the field crew team will organize their equipment. The equipment checklist should be reviewed and all equipment gathered and inspected to be certain it is in good working order. All equipment should be intact, complete, and clean.

Observations

The procedures for collecting information at each site are described in the following paragraphs.

Locate the inspection location as soon as arriving at a site. Record the field crew members' names, map number, the location identification number, date, and time at the top of the field form provided in Attachment A. Document the date, duration, and amount of rainfall on the field form. Use precipitation gauges located in the City of Portsmouth and the Norfolk International Airport to obtain precipitation readings. The field supervisor will pull the precipitation data from National Oceanic and Atmospheric Administration's website at each weather station to obtain the precipitation information required for each station.

Observe and document the physical conditions of the drainage area and stormwater structure being examined by answering the questions in Section 1 of the field form. Look around the area draining to the inspection location and examine the zoning maps in the vicinity of the inspection location to characterize the dominant land use draining to the site. The location is the grid number in which the site is located. Circle or describe the appropriate type of structure in Section 2 of the field form. Determine if flow is present by carefully observing any liquid in the stormwater conveyance. Allow the liquid in the manhole or storm drain structure time to stabilize following removal of the cover. When removing a manhole or storm drain structure cover, dirt or debris is often dropped into the water at the bottom of the structure and will produce the illusion of

movement. If flow is observed in the manhole or structure, it may indicate that there is a potential illicit discharge to the storm sewer system. Follow up on a potential illicit discharge to identify it and eliminate it if the source of the illicit discharge is found is the City's responsibility. Indicate document findings of potential illicit discharges in Section 3 of the field form.

Make observations about the conveyance in which the stormwater is carried in Section 5 of the field form. Stains on the structure wall or deposits in the channel will indicate past instances of unwanted material or heavy sediment loads from construction activity being discharged to the MS4. Vegetative growth occurring in the pipe or channel will indicate past illicit discharges. Describe the general condition of the manhole or storm drain structure and indicate if there is deterioration or corrosion. Record any other general concerns in Section 7 of the field form.

Procedures if Flow is Observed

When flow is observed at the inspection manhole, outfall, or other structure, take a grab sample using the long handled sampler. Make and log visual observations about the flow, analyze the sample, and record the resulting data in Sections 3, 4, and 5 of the field form.

Photograph the outfall or manhole and record the photo numbers, date, and time.
If flow is observed, estimate the flow rate using the prescribed method and recorded in Section 3 of the field form. Take a sample of the discharge and the method used to collect the sample will depend on the type of structure and its accessibility.
Visually examine and note the observations after the sample is obtained. Evaluate the field data sheet that lists all the characteristics, including odor, color, turbidity, and presence of floatables. Select descriptors are provided; distinctly and clearly circle and appropriate descriptors. If a descriptor other than those provided is appropriate, fill in the blank beside the word "other". Address all the characteristics; none should be left without a descriptor circled or noted. Note any additional remarks in the space provided under *Notes*.

Report the locations with observed flow to the Stormwater Manager, to determine if they should be added to the dry weather inspection locations for that year.

Time Estimates

The field supervisor will estimate the time it will take to perform the inspections based on the number of sites and their relative locations. It is anticipated that an average of 35 minutes will be required for each location where flow is not observed. This estimate includes time to find the inspection site, record observations, and proceed to the next location. Notify the field supervisor of delays in the schedule, to help in planning the next day's activities.

Weather Conditions

Conduct inspections only during dry weather conditions. Dry weather conditions are defined as less than0.1 inch of rain occurring during the immediately preceding 48-hour period. If rainfall is received during this 48-hour period, then a waiting period is mandatory. Do not inspect at least 48 hours after the completion of a rainfall event, totaling between 0.1 and 1.0 inch. Major storms are defined as precipitation in the form of rain in excess of 1 inch over a 24-hour period. Do not conduct inspections for 72 hours following a major storm event. The field supervisor will notify the field crews of the suspension of inspections because of precipitation, and notify the field crews when to resume inspections.

Tidally Influenced Locations

Some of the inspection locations may discharge into the intertidal zone, meaning the locations may be partially or fully submerged with receiving waters. Schedule inspections at tidally influenced locations for low tide. If the inspection location is submerged or partially submerged during low tide, the field crew will proceed to the alternate point chosen for this location.

Field Crew Responsibilities

The Field Supervisor responsibilities include the following:

- Conduct the morning briefing and ensure that all crews understand their assignments.
- Collect the field logs each day, verify that follow-up visits were performed as needed (or are scheduled to be done), and check the field forms for completeness.
- Track the locations screened and adjust the inspection schedule, if necessary.
- Contact the local weather station to determine the weather conditions and contact City personnel to postpone sampling, if necessary, because of rain or threatening weather.
- Make decisions on procedures as requested by the field crews.
- Check that personnel performing sampling are following proper sampling and QC procedures.
- Notify the Stormwater Manager of any potential illicit

discharges. The field crews are responsible for following:

- Follow inspection procedures
- Complete all information as appropriate on the field forms
- Notify the Field Supervisor of any problems encountered

Equipment List

- D distilled water
- D squeeze bottle
- D inspection binder
- D kimwipes
- D beaker (50 ml)
- D sample containers, plastic (500 ml)
- D safety glasses
- D gloves, latex (disposable)
- D flashlight
- D first aid kit w/ eye wash
- D safety cones (18 inches)
- D sample dippers (2) with extendable handles
- D safety vests
- D camera
- D selfie stick (for pictures inside the manhole)
- D manhole pick
- D stop watch
- D pictometry app downloaded on phone

Revised 5/19/16

CITY OF PORTSMOUTH

FIELD SCREENING PLAN AND PROCEDURES MANUAL

A. INTRODUCTION

1. **Background:** You are an essential part of a federally mandated program, which will help protect and preserve the quality of the waters in Hampton Roads. Storm water has proven to be a significant cause of degraded water quality. The EPA and the Virginia Water Control Board (SWCB) already have tight control over most known point sources of water quality degradation. Sewage treatment plants and industries which discharge directly to state or federal waters hold NPDES permits which require monitoring and limit pollutant loads. Regulatory agencies are now attempting to assess the magnitude and ultimately limit the pollutant loading introduced through urban stormwater runoff. This study is a portion of a larger and more complex procedure, which will result in the issuance of an NPDES permit to the City of Portsmouth for each of its storm water outfalls. **The objective of this particular part of the EPA Storm Water program is to provide a preliminary determination about the existence, extent, and location of illicit connections and illegal dumping to your stormwater system.** A goal of any stormwater system must be no illicit connections.

2. This document is intended for use as a field guide and contains detailed instructions and sampling procedures. It describes the sampling procedures, schedule, lists the responsibilities of field personnel, and describes QA/QC procedures to be followed. You are not required to memorize this document but rather to use it as a field reference guide.

B. SAFETY PROCEDURES

SAFETY IS ALWAYS THE PARAMOUNT CONSIDERATION: IF YOU HAVE CONCERN THAT A SITUATION IS UNSAFE DO NOT PUT YOURSELF INTO THAT SITUATION.

1. <u>Sampling</u>

   Sampling is sometimes conducted in areas where safety hazards exist. Sampling personnel must always be aware of possible hazards and must take the necessary precautions to avoid dangerous situations. Some of the more common hazards are discussed below.

a. Protection from Traffic. If the sample is collected from a manhole in a street, traffic control is an important consideration. In addition to markers, the sampling vehicle should be parked between the working area and oncoming traffic. Personnel should wear orange safety vests when the manhole is located in a vehicular traffic area. Cones and flags should be utilized where appropriate. Under no circumstances should any field personnel enter a manhole.

Samples should be obtained from the manhole as quickly as possible. Sampling crews should replace the manhole cover and move the vehicle and equipment to a location off the street. All sample analyses should be performed in a safe location away from the vehicular traffic area.

b. Confined Space Entry. Manholes and enclosed storm drains are confined spaces and as such must not be entered for any reason without adequate safety precautions. These precautions can only be certified and evaluated by a "Confined Space Qualified Person" with the appropriate monitoring equipment. The project manager and supervisor are "Qualified" and must be consulted for guidance in any confined space situation. Entry includes any time any part of your body breaks the plane of the entry port. **Therefore do not enter or place any part of your body into any manhole.**

c. Removing Manhole Covers. Manhole covers should be carefully removed using the pickaxe provided. Hands and feet should not be used to assist in either opening or closing the manholes. Under no circumstances should any field personnel enter a manhole.

d. Emergencies. Every member of the sampling crew must be aware of procedures to be followed in case of an emergency. All field personnel should have a list of emergency telephone numbers, including the local hospital's general emergency number. All injuries and other problems should receive immediate medical attention and should also be reported as soon as practical to the field supervisor.

e. Hazardous Waste Streams. The storm sewers may receive industrial wastes that contain corrosive or toxic materials. Skin contact with a waste stream must be avoided and long-handled samplers will be provided to each sampling crew. Sampling personnel should always be aware of possible hazards and should take all necessary precautions to insure safety.

f. Other Hazards. A wide variety of insects and rodents may inhabit manholes or sampling sites. Sampling personnel should always be on the lookout for these creatures to avoid painful and dangerous bites or stings.

Sampling personnel are always exposed to the possibility of infections. Disposable rubber gloves should be used to avoid skin contact with the waste stream. Personnel should wash their hands or use the provided towelettes as required. Open cuts or sores should never be allowed to come into contact with a waste stream.

2. Analysis

During sample analysis with the Chemetrics kit, sampling personnel should avoid any internal or external contact with chemicals in the chlorine, copper, and phenol reagents. Skin and eyes may become irritated if exposed to the chemicals. Each member of the sampling team should wear protective safety goggles and disposable rubber gloves while performing the analyses. If exposure does occur, large amounts of water should be used to flush the exposed area.

The analyses should be performed in a well-ventilated area to avoid inhalation of chemical fumes. Specific first aid instructions for each sampling procedure are listed on the materials safety sheets included in the field procedures manual.

3. First Aid

Members of sampling crews should know first aid procedures and, if possible, one person in any sampling group should remain in a safe location during the course of the work. Included in first aid training should be procedures for resuscitation.

Each member of every sampling team should know at least the basics of first aid. A first aid kit will be provided to each sampling team. The field supervisor will carry a portable telephone and should be contacted in the event of a serious injury.

4. Accident Reports

Reports should be filled out on all accidents regardless of the extent of the injury. In this way, conditions that cause repeated injuries may be isolated and corrected.

C. SCREENING PROCEDURES

1. Preparation for Daily Screening Activities

Each sampling team will begin the day's activities by reviewing the list of screening points to be evaluated. The field supervisor will assign each team a list of sites to be screened each day. A packet of information will be distributed which includes a list of the sampling points, a description of their locations, a map showing their locations, field data sheets, quality control records, chain-of-custody forms, and an equipment checklist. The locations of the points will be marked on the map, and the proposed order of sampling will be established before moving into the field. The description of the screening point, provided by the City of Portsmouth will be reviewed to determine if any unusual conditions exist at the site and to determine the best way to gain access to the site.

Once the locations of screening points have been clearly established, the screening team will organize their equipment. The equipment checklist should be reviewed and all equipment gathered and inspected to be certain it is in good working order. In particular, the Chemetrics sample analysis kit must be clean, stocked, and fully functional. All equipment in the kit should be intact, complete, and clean.

The pH meter should be conditioned, according to directions in the kit, and checked to make certain the batteries are working. An extra set of batteries should also be carried into the field.

The field supervisor will complete the Weather Conditions Log at the start of each day. This form is presented on Figure 1. The date, duration, and amount of rainfall will be clearly documented. Precipitation gauges located at City of Portsmouth and the Norfolk airport will be used to obtain precipitation readings. The field supervisor will contact the individual identified at each location to obtain the precipitation information.

This study must be conducted only during dry weather conditions. Dry weather conditions are defined as less than 0.1 inch of rain during the immediately preceding 48 hour period. If rainfall is received during this 48 hour period then a waiting period is mandatory. No screening will be performed at least 48 hours after the completion of a rainfall event totaling

between 0.1 and 1.0 inch. Major storms are defined as precipitation in the form of rain in excess of 1 inch over a 24 hour period. No screening will be

performed for 72 hours following a major storm event.

The field supervisor will be responsible for notifying the screening crews of suspension of field screening because of precipitation, and will also notify the screening crews to resume screening.

2. Initial Observations

Figure 2 is a sample Field Data Sheet and should serve as a guide for the tasks required at each sampling site. Identify the sample location as soon as arriving at a site. Record the Map No., the Outfall/Structure No., Date and Time on the top of the Field Data Sheet.

Some initial observations are required in all cases. Complete the General Information section by answering the questions regarding rainfall and identifying the Inspection Team.

Observe and document the physical conditions of the drainage area and stormwater structure being examined by answering the questions under the Field ... Description category. Location is the grid no. in which the site is located. Circle or describe the appropriate type of structure (Open Channel; Manhole; Outfall). Look around or examine the zoning maps in the vicinity from which the structure is expected to receive runoff and describe the dominant land use (Industrial; Commercial; Residential; Unknown or Other (please describe)).

Make observations about the conveyance in which the stormwater is carried. Are their stains on the wall or deposits in the channel? This may indicate past instances of unwanted material or heavy sediment loads from construction activity. Is vegetative growth occurring in the pipe or channel, which could indicate past or future problems? Describe the general structural condition. Is it in good repair or are there indications of deterioration or corrosion?

Determine if flow is present by carefully observing any liquid in the stormwater conveyance. Remember allow the liquid time to stabilize following removal of a manhole. Often when removing the cover dirt or debris is dropped into the water which can produce the false illusion of movement. If flow is observed there is strong indication that an illicit connection to the stormwater system is present and the City will most likely follow up to identify and correct.

3. Procedures to be Followed When Flow is Observed When flow is observed at the screening location in the manhole, outfall, or other structure, a grab sample will be taken using the long handled sampler. Visual observations will then be made and logged, the sample will be analyzed, and the resulting data recorded.

The outfall or manhole should be photographed and the photo numbers recorded. Be sure to include the date and time.

If flow is observed, the amount should be estimated using the prescribed method. A sample of the discharge should then be taken. The method used to sample the discharge will depend on the type of structure and its accessibility.

Once the sample is obtained, it should be visually examined and the observations should be noted. The field data sheet lists all the characteristics to be evaluated, including odor, color, turbidity, and floatables. A selection of descriptors is provided. The appropriate ones should be distinctly and clearly circled. If a descriptor other than those provided is appropriate, the blank beside the word "other" should be filled in. All of the characteristics should be addressed; none should be left without a descriptor circled or noted. Any additional remarks should be noted in the space provided under **Comments**.

After visual observations are recorded, the sample should be analyzed using the Chemetrics stormwater sampling kit. The kit should be opened in an accessible area that is free from hazards, dry and out of direct sunlight. The following constituents will be analyzed: chlorine, copper, phenol, detergents, pH, and temperature.

The Chemetrics kit uses colorimetric methods of analysis. The analyses should be performed according to the directions provided, and color comparisons made by using the comparators. The concentrations of the constituents should be recorded on the field data sheet. If the constituent is not detected (the appropriate color change does not occur), then a concentration of zero should be recorded.

The following procedures will be used when testing the samples with the Chemetrics sampling kit.

a. Glassware Cleaning Procedure

It is important to wash sample containers with Deionized Water, 3 times in succession, after each test procedure is completed. At the

end of each day, all sampling and test glassware (except the detergent test equipment) should be washed with detergent and rinsed 3 times in succession. This procedure can best be performed in your laboratory.

To avoid possible detergent test interference, do not use detergent to clean Detergent Test reaction tube, merely rinse 3 times in succession with Deionized Water only.

***WARNING:** Reagents marked with a * are considered hazardous substances. Material Safety Data Sheets (MSDS) are supplied for these reagents. For your safety, read label and accompanying MSDS before using.

b. Total Chlorine

1. Rinse the sample cup with your sample and fill to the **25 mL** mark.
2. Add **5 drops** of the A-2500 activator solution. Stir with the tip of a chlorine CHEMet ampoule and wait **1 minute**.
3. Immerse the CHEMet ampoule in the contents of the sample cup and snap the tip.
4. After **1 minute**, wipe all of the liquid from the exterior of the ampoule and then use the appropriate chlorine comparator to determine the level of chlorine in the sample.

c. Total Phenol

1. Rinse the plastic beaker with your sample and fill to the **25 mL** mark.
2. Stir briefly (5-10 seconds) with the tip of the CHEMet ampoule to dissolve the crystals and snap the tip of the ampoule.
3. Immediately wipe all of the liquid from the exterior of the ampoule and use the appropriate phenols comparator to determine the level of phenols in the sample.

d. Total Copper

1. Rinse the sample cup with your sample and fill to the **25 mL** mark.
2. Immerse a copper CHEMet ampoule in the contents of the sample cup and snap the tip.
3. After **1 minute**, wipe all the liquid from the exterior of the ampoule and then use the appropriate chlorine comparator to determine the level of copper in the sample.

e. Detergents

1. Rinse the reaction tube (red cap) with sample and fill to the 5 mL mark.
2. While holding the double tipped ampoule in a vertical position, snap the upper tip using the tip-breaking tool.
3. Invert the ampoule and position the broken end over the reaction tube. Snap the upper tip and allow the ampoule to empty into the tube.
4. Cap the reaction tube and shake it vigorously for **30 seconds**.
   Allow the tube to stand undisturbed for approximately **1 minute**.
5. Make sure that the flexible tubing is firmly attached to the CHEMet ampoule tip.
6. Place the CHEMet assembly (tubing first) into the reaction tube, making sure that the end of the flexible tubing rests on the bottom. Break the tip of the CHEMet ampoule by gently pressing it against the side of the reaction tube.
7. When filling is complete, remove the CHEMet assembly from the reaction tube. Note: The ampoule should draw in fluid only from the organic phase (bottom layer).
8. Invert the ampoule several times, allowing the bubble to travel end to end. Using a tissue remove the flexible tubing from the CHEMet ampoule and wipe all the liquid from the exterior of the ampoule.
9. Place a small white cap firmly onto the tip of the ampoule.
10. Use the detergents comparator to determine the level of detergent in the sample.

f. **pH meter calibration**

To determine which set of standards to use, refer to historical data to find a suitable range in which the sample may give a reading. If historical data is not available, calibrate with pH 4 and 7. If the sample pH reading is outside of the range in which the meter is calibrated, recalibrate the meter to best suit the sample. Manufacturer instructions are provided for meter calibration and sample reading.

h. **Turbidity**

Turbidity in the sample may lead to difficulty in reading colorimetric test results. A 30 cc syringe and 0.45 um disposable filters are included in the kit for filtering the samples, if necessary. The filter is attached to the end of the syringe and the sample is drawn into the syringe through the filter. The filter is removed

and the filtered sample is discharged from the syringe into the appropriate sample container.

i. **Repeat Samplings**

When flow is observed at the sampling location two samplings for all the above parameters are required. The first sample set should be collected when the flow is first observed. A second set of samples must be taken and analyzed more than 4 hrs, but not greater than 24 hours later.

D. SAMPLING SCHEDULE

1. Time Estimates

Your project supervisor provides a general estimate of the work to be accomplished based on analysis of the number of sites and their relative locations. The actual time involved will be directly dependent on the number of locations where flow is observed. Assume a large portion of the locations will have flow and require sampling to develop a conservative estimate for total required time.

It is anticipated that an average of 35 minutes will be required for each location where flow is not observed. This includes time to find the access point, record observations, and to proceed to the next location. Where flow is observed, an average of 60 minutes has been estimated. This includes time to find access, collect the sample, perform the required analyses, record observations and results, and to reach the next location.

Your objective should be to do the job correctly, not to do it as fast as you can. As with all field sampling activities, your speed will increase as you gain confidence and familiarity with the program. Notify the field supervisor should you get considerably off schedule. This will assist him in planning the next day's activities and in adjusting sampling attention.

2. Weather Problems

The field screening work is to be conducted during dry weather conditions. Dry weather will be defined as less than 0.1 inch of rain during the immediately preceding 48 hour period. Sampling will not occur for 72 hours after a major storm (defined as more than 1 inch of rain over a 24 hour period).

If a rain, drizzle, snow or mist occurs during sampling, the field supervisor must decide whether sampling should be suspended and inform the field crews.

If it rains between the first and second sampling of a location, the first sampling will be repeated so that the second sample can be taken within 4 to 24 hours. Appropriate notations will be made in the field logs. To minimize the number of times this may occur, locations will be resampled on the same day whenever possible. A daily scheduling form has been developed to assist the field crews in allocating time for resampling. This form is discussed later in this section.

3. Tidally Influenced Locations

Up to one third of the screening locations discharge into the intertidal zone and have been identified as being tidally influenced. This means that the locations may be partially or fully submerged with receiving waters. These locations should be scheduled for sampling during low tide. If they are submerged or partially submerged during low tide, the crews will proceed to the alternate point chosen for this location. If the outfall is not submerged and is discharging flow, a sample will be collected and analyzed.

E. SAMPLING CREW RESPONSIBILITIES

It is anticipated that two field crews of two persons each will operate simultaneously to conduct the field screening work. A field supervisor will oversee this field screening work. In addition, a field assistant will be on call.

The responsibilities of the field supervisor include the following:

- Conduct the morning briefing and ensure that all crews understand their assignments.
- Collect the field logs each day, verify that resampling was done as needed (or is scheduled to be done), and check the field logs for completeness.
- Track the locations screened and adjust sampling schedule, if necessary.
- Contact the local weather station and City personnel to postpone sampling, if necessary, because of rain or threatening weather.

- Make decisions on procedures as requested by the field crews.

- Check that sampling crews are following proper sampling and QC procedures.

- Handle any problems that may arise.

The field crews are responsible for following the procedures described in this manual, for completing all information called for in the field data logs, and for notifying the field supervisor of any problems encountered.

F. QA/QC PROCEDURES

The quality control procedures to be used on this project are listed below.

- One person in each crew will fill out the log sheets. Before leaving the screening location, the other crewmember will check the sheet for completeness, verify the location information, and initial the form.

- If testing results in any values that are cause for concern, a retest of that constituent will be conducted immediately. If the second test shows substantially different results, a third test will be done. All results will be recorded. The specified ranges for the measured parameters, which are cause for concern, are listed below and are based on the concentration ranges available in CHEMetrics test kits:

Total Copper	> 3 mg/L
Total Phenol	> 10 mg/L
Detergents	> 3 mg/L

A sample is required for laboratory verification if the second test verifies the first test, or, if the third test still shows values, which we have identified as cause for concern. Collect a sample in the specially marked 500 ml nalgene container, place the container on ice, and call HRSD's Technical Services Division (757-460-7004) for further direction. These samples will have to be transported to the District Lab before the end of the work day (3:30 pm) so that analysis can be conducted on the sample within the prescribed holding time for the intended parameters.

- Duplicate analyses will be run routinely on 10 percent of the samples. For these duplicate analyses the crewmembers will switch roles and conduct the analyses normally

performed by the other person. Each crew will complete a Quality Control Record (presented in Figure 3).

- At least 10 percent of sample collected by each crew will be split and one part will be analyzed in the field and the other will be sent to the lab for analysis. Included in this 10% calculation are any causes for concern verifications. The chain of Custody Record for the laboratory samples is presented in Figure 5. The samples for the laboratory must be kept in a cooler on ice.

- The field supervisor will routinely check the sampling procedures of each field crew.

- The field supervisor will check the field logs each day to ensure that they are being filled out completely and that resampling is occurring as required, and that duplicate analyses are conducted as required.

Figure 1

Portsmouth NPDES Stormwater Permit Weather Conditions Log

Date_____Time_____ Field Supervisor

I. Weather Conditions:

A. If rainfall was less than 0.1 inch for the previous 48-hour period, ***dry weather conditions*** exist, and sampling may proceed.

B. If rainfall was more than 0.1 inch for the previous 48-hour period but less than 1 inch for a 24-hour period, a ***rainfall event*** has taken place and 48 hours must elapse prior to continuance of sampling.

C. If rainfall was more than 1 inch for a 24-hour period, a ***storm event*** has taken place and 72 hours must elapse prior to sampling.

II. Document current weather conditions and antecedent weather conditions. The previous 24-hour to 48-hour time frame is critical for determining if sampling will be conducted.

A. Rainfall: Document rainfall data from the two locations identified for use in the Portsmouth sampling events.

	Amount (in)	Period (hr)	Start	End
Wakefield National Weather Service 1-757-899-4200				
Portsmouth Weather Service				

B. Discussion

Figure 3

Portsmouth NPDES Stormwater Permit
Quality Control Record

Date: _____ Sheet No. _____

Time: _____ Structure No._____

Sampling Team:_____ Address. _____

_____

A. Split Sample: The sample will be collected and split into two portions. One-half of the sample will be field analyzed and one half will be sent to the laboratory for analysis. The samples for the laboratory must be kept in a cooler on ice.

Results of field analysis:

Copper ____mg/L

Phenol ____mg/L

Chlorine ____mg/L

Detergents_____mg/L

pH ____

Results of lab analyses:

Copper ____mg/L

Phenol ____mg/L

Detergents_____mg/L

Copy of chain-of-custody attached
Date of laboratory analysis

B. Duplicate Analysis: Each crewmember will switch roles and will conduct the analyses normally conducted by the other crewmember.

Results of field analysis I:

Copper ____mg/L

Phenol ____mg/L

Chlorine_____mg/L

Detergents_____mg/L

pH ____

Results of field analyses II:

Copper ____mg/L

Phenol ____mg/L

Chlorine_____mg/L

Detergents_____mg/L

pH

Note: Write NA in the blanks that are not applicable.

H. EQUIPMENT LIST

The following equipment will be provided to each field sampling team for site investigations.

1. CHEMetrics Storm Drain Kit
2. Measuring Device(s)
3. Distilled Water
4. Squeeze Bottle
5. Sampling Binder
6. Kimwipes (lg)
7. Beaker (50 ml)
8. pH meter w/ pH and temperature probe
9. Sample Containers, plastic (500 ml)
10. Safety Glasses
11. Gloves, latex (disposable)
12. Flashlight
13. First Aid Kit w/ eye wash
14. Safety Cones (18 in.)
15. Sample Dippers (2) w/ extendable handles
16. Safety Vests
17. Camera
18. Manhole pick
19. Stop Watch
20. Chemical Waste Container, plastic (1000 ml)
21. Refractometer
22. Cooler with ice
23. Pictometry App downloaded on phone

Interconnection Inspection Field Form

Section 1: Background Data

Revised 5/19/16

Station ID No.:	Receiving Water and Hydrologic Unit Code:
Date:	Time (Military):
Investigators:	Form Completed By:
Temperature (°F):	Rainfall (in.): Last 24 hours: Last 48 hours:
Latitude:	Longitude:
Location:	Photo Nos.:

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- ☐ Other: _____
- ☐ _____
- ☐ _____

Known Industrial Activities in Outfall Drainage Area: _____

_____

Notes (e.g., origin of outfall, if known):

Section 2: Station Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☐ **Closed Pipe**	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☐ Circular ☐ Elliptical ☐ Box ☐ Other: _____ ☐	☐ Single ☐ Double ☐ Triple ☐ Other: _____ ☐	Diameter/Dimensions: _____	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ **Open Drainage**	☐ Concrete ☐ Earthen ☐ Riprap ☐ Other: _____ ☐ ☐	☐ Trapezoid ☐ Parabolic ☐ Other: _____ ☐		Depth: _____ Top Width: _____ Bottom Width: _____	If partially or fully submerged in sediment, include measurement in inches: _____
FLOW PRESENT?	☐ Yes	☐ No	***If No, Skip to Section 5***		
FLOW DESCRIPTION (IF PRESENT)	☐ Trickle	☐ Moderate	☐ Substantial		

Notes:

17

Section 3: Quantitative Characterization *FOR FLOWING STATIONS ONLY*

FIELD DATA FOR STATIONS WITH DRY WEATHER FLOW				
Station Sampling Date:		**Station Sampling Time (Military):**		
PARAMETER		**RESULT**	**UNIT**	**EQUIPMENT**
☐ Flow measured using volume fill calculation	Volume		liter	Bottle: Size _____
	Time to fill		sec	Bottle: Size_____
☐ Flow measured using area and distance calculation	Flow depth		in	Tape measure
	Flow width	_____’ _____”	ft., in	Tape measure
	Measured length	_____’ _____”	ft., in	Tape measure
	Time of travel		sec	Stopwatch
☐ In-stream collection of samples				
pH			pH units	Test strip
Total Residual Chlorine (TRC)			mg/L	Test strip
Turbidity			NTU	Test kit

Section 4: Physical Indicators for Flowing Stations Only

Are any physical indicators present in the flow? ☐ Yes ☐ No ***(If No, Skip to Section 5)***

INDICATOR	CHECK IF PRESENT	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color/Clarity	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Red ☐ Orange ☐ Other: ☐	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	Description of relative turbidity in addition to turbidity measurement.	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (toilet paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other: ☐	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for both Flowing and Non-Flowing Stations

Are physical indicators that are not related to flow present? ☐ Yes ☐ No ***(If No, Skip to Section 6)***

INDICATOR	CHECK IF PRESENT	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking, or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor Pool Quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe Benthic Growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Overall Station Illicit Discharge Characterization for Flowing Stations Only

☐ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3)
☐ Obvious

Section 7: Other Concerns (e.g., trash)?

☐ Trash (e.g., plastic/glass bottles)

☐ Erosion in surrounding area?

☐ If applicable, have recommendations from previous IDS survey been implemented?

☐ Other_____

Notes:

Attachment 7

Discharge Monitoring Report Review Procedures

Discharge Monitoring Report Review Procedures

The Virginia Pollutant Discharge Elimination System (VPDES) Industrial Stormwater Permit holders that discharge to the Municipal Separate Storm Sewer System (MS4) are required to submit Discharge Monitoring Reports (DMRs) for review to the City of Portsmouth (City) per their individual or general permits. For any permitted facilities that fail to submit signed copies of DMRs to the City, the City must report them to the Virginia Department of Environmental Quality (DEQ) Tidewater Regional Office as required by Part I Section B.2.g.5.(d) of the City's MS4 permit. The MS4 permit also requires the City to review the DMRs. The City's review will consist of comparing the monitoring results against the effluent limitations or benchmarks contained in a VPDES Industrial Stormwater General Permit or Individual Stormwater Permit. Where DMRs show continued or regular exceedance of the benchmarks, the City shall refer the permittee (facility) to the DEQ Tidewater Regional Office.

Discharge Monitoring Report Review

DMR review will be performed yearly to meet annual reporting requirements and the following steps should be taken every year to ensure compliance.

1. *Confirm Permittees Required to Submit Discharge Monitoring Reports*

Beginning in January of every year, the City should reaffirm the list of permitted facilities within the City limits. City staff can look at DEQ's website, under the VPDES Permits, Fees, and Regulations webpage at http://www.deq.virginia.gov/Programs/Water/PermittingCompliance/PollutionDischargeElimination/Pe rmitsFees.aspx#GGPs and download the spreadsheets that contain information from DEQ's Comprehensive Environmental Data System. These spreadsheets contain contact information for the permitted facilities should the City staff need to remind them to submit DMRs to the City. If there are any new permitted facilities, the City will need to determine if they discharge to the MS4. The facilities that do, will need to be added to the list for DMR review.

2. *Ensure Discharge Monitoring Report Submittal*

Depending on the facility, there will either be quarterly or semiannual DMRs from each facility. As Portsmouth receives the DMRs, they should be scanned into electronic format if necessary and saved to a folder in the shared drive. After confirming the list of permittees discharging to the City's MS4, the City should review the DMRs received and determine which facilities have not submitted their reports. For the Industrial Stormwater General Permit holders, the facilities are required to submit their DMRs to DEQ by January 10th, and the DMRs should be available to Portsmouth at the same time. For the facilities failing to submit their DMRs to the City, the City may choose to remind the permitted facilities of their permit obligations to submit DMRs per Part I A.5.b of the VPDES Industrial Stormwater General Permit (VAR05), which states that in addition to submitting copies of discharge monitoring reports in accordance with Part II C, permittees with at least one stormwater discharge associated with industrial activity through a regulated MS4 shall submit signed copies of DMRs to the MS4 operator at the same time as the reports are submitted to DEQ. Permittees not required to report monitoring data and permittees that are not otherwise required to monitor their discharges need not comply with this provision. The VAR05 can be found at: http://law.lis.virginia.gov/admincode/title9/agency25/chapter151/section70/

The DMR submittal requirement language in Individual Industrial Stormwater Permits may vary slightly from the Industrial Stormwater General Permit requirements.

The City is not required to remind facilities to submit DMRs, but may do so as a courtesy. Any permittees (facilities) that do not submit their DMRs to Portsmouth by June 30th of every year should be referred to the DEQ Tidewater Regional Office.

1. *Reviewing the Discharge Monitoring Reports*

After June 30th, the City will review the DMRs by comparing the reported values to the benchmarks or effluent limitations included on the DMR form. The City will note if any of the facilities exceeded the benchmark values and refer any facilities to DEQ that show continued or regular exceedance of their benchmarks.

The City should note that benchmark concentration values are not effluent limitations. Exceedance of a benchmark concentration does not constitute a violation of the facilities permit and does not indicate that violation of a water quality standard has occurred; however, it does signal that modifications to the facilities Stormwater Pollution Prevention Plans are necessary. In addition, exceedance of benchmark concentrations may identify facilities that would be more appropriately covered under an individual, or alternative general permit where more specific pollution prevention controls could be required.

However, the City is required to report facilities where there is evidence of significant pollutant loadings to the MS4 to DEQ. Per the MS4 Permit Fact Sheet, DEQ is the authority responsible for compliance and enforcement of the VPDES Stormwater Permit Program, and the requirements of the City's MS4 permit condition do not convey any authority to the City for enforcing VPDES permits. If the City identifies a concern regarding a permitted or unpermitted discharger, they should notify the DEQ Tidewater Regional Office.

2. *Information Tracking*

Information regarding DMR review should be tracked and can be recorded in a spreadsheet located on the shared server. The following DMR review information should be included in the tracking spreadsheet:

- Permit number
- Facility and owner
- Address
- Year
- Monitoring period
- DMR submittal (Y/N)
- Outfall number
- Exceedances (none or list the constituents)
- Follow-up activities (none or email referral to DEQ with date)

The DMR review tracking spreadsheet can be updated throughout the life of the permit to help identify any reoccurring exceedances. This information will allow the City to determine if facilities may need to be referred to DEQ as contributing potential significant pollutant loadings to the MS4.

Annual Reporting

The VPDES permit holders that have not submitted their DMRs to the City by June 30th will be referred to the DEQ. Based on the available DMRs for review, any VPDES industrial stormwater permit facility where there is evidence of significant pollutant loadings to the MS4 may also be referred to DEQ. These facilities should be included in the list of referrals in the City's annual report. The City may also include a short summary table of the DMR review results in their annual report.

“Each annual report shall report on implementation of the inspection schedule and include a list of the facilities and/or facility outfalls inspected during the reporting period.”

During FY2017, no inspections were conducted. Following the permit and the above mentioned guidance, inspections will begin in Permit Year 2, and will cover 25% of the facilities listed.

“Each annual report shall include a list of referrals to the Department.”

City staff has notified DEQ of the following businesses that fall under the criteria for a Stormwater Industrial Permit.

1. Progressive Environmental Services
2. Metro Used Auto Parts
3. Bryant Used Auto Parts
4. Norfolk Naval Shipyard

Part I.B.2.h)
Stormwater infrastructure management

"The permittee shall submit with the annual report due October 1, 2017 the written inspection and maintenance procedures."

"The annual report due October 1, 2017 shall include the permittee's strategy to address maintenance of stormwater management controls that are designed to treat stormwater runoff solely from the individual residential lot on which they are located."

Maintenance information that will be sent to residents, as well as the inspection procedures are attached for review.

"Each annual report shall provide a summary of actions taken by the permittee to address failure of privately maintained SWM facilities owners to abide by maintenance agreements."

During DY2017, City Staff and CH2M designed a pilot program to address privately owned SWM facilities. Currently, the City IT Department is inputting information into the database, Tidemark, for inspectors to easily track material and inspections.

“Each annual report shall include a list of activities including inspections performed and notifications of needed maintenance and repair of stormwater facilities not operated by the permittee as required by Part I.B.2.h)2).”

“Each annual report shall include a summary of activities performed in support of the inspection and maintenance program…”

During FY2017, 95 private and public BMP’s located within the City underwent pre-inspections. The BMP’s were listed as satisfactory, unsatisfactory or FBI for further investigation. This allowed for the stormwater inspectors to locate the as-builts and approved site plans for the projects. The table below lists the BMP’s that underwent this pre-inspection phase. Each of these BMP’s will also be subject to the BMP inspection process that was listed in the program plan.

SITE_PLAN	ADDRESS	Quality/quantity	BMP_TYPES	Inspection Date	FBI?	SAT	UNSAT
Bedford Place	3715 Airline Blvd	quantity	Dry Pond	6/14/2017		x	
Airline Commerce Park	310 Airline Blvd	both	Constructed Wetlands	6/19/2017		x	
Airline Commerce Park	310 Airline Blvd	both	bioretention	6/19/2017		x	
CHURCHLAND FIRE STATION	4001 River Shore Rd	Unkown	dry pond	12/14/2016		x	
Parkview Elementary School	260 Elm Ave	both	extended detention	6/6/2016			X
Churchland Library	4934 High St. West	unknown	wet pond	12/14/2016	X		
Cingluar Cell Tower	2600 Airline	unknown	porous pavers	7/18/2016		X	
Unknown	3300 Airline	unknown	wet pond	7/18/2017		X	
Unknown	3305 Airline	unknown	wet pond	7/18/2017		X	
Unknown	30 Beechdale	unknown	Infiltration	7/18/2017			X
Unknown	1 Bon Secours Way	unknown	dry pond	7/28/2017		X	
Wrights Engineering & Design	702 Fifth Street	unknown	wet pond	2/24/2017	X		
700 PortCentre	700 Port Centre	both	infiltartion	3/10/2017	X		
700 PortCentre	700 Port Centre	both	swale	3/10/2017			X
Design Assistance Construction Systems	900 Port Centre	quantity	wet pond	2/24/2017			X
Design Assistance Construction Systems	900 Port Centre	quantity	wet pond	2/24/2017	X		
Royal Farms	3005 Towne Point	both	wet pond	2/17/2017	X		
Happy Boxes Six, LLC	3029 Airline	both	wet pond	3/6/2017		X	
Happy Boxes Six, LLC	3029 Airline	both	bioretention	2/24/2017		X	
Carolina Fire Control	600 PortCentre/ 602 Portcentre	unknown	dry pond	3/7/2017	X		
Multi Textiles	500 Lincoln	both	dry pond	3/7/2017	X		
Premier Copper and Brass	500 Premier	quantity	dry pond	3/7/2017		X	
BCR Properties	620 Lincoln	both	dry pond	4/28/2017	X		
Excellent Comm. Cleaners	801 Port Centre	unknown	swale	3/10/2017		X	
YMCA	4900 High	both	extended detention	3/9/2017			X
YMCA	4900 High	both	extended detention	3/9/2017			X
Dow Construction office/warehouse	820 PortCentre	quantity	underground detention	3/10/2017			X
Dow Construction office/warehouse	820 PortCentre	quantity	underground detention	3/10/2017			X
Whispering Oaks Apartments	3400 Glasgow Street	both	wet pond	3/23/2017		X	
CVS Pharmacy #5501	3555 Airline Blvd	Quality	Contech Storm Filter	n/a			
Mid-Atlantic Bell-Comm	701 Port Centre	unknown	Dry Pond & swale	3/13/2017		X	
BLDG Addition- conmar LLC	601 Port Centre	Unknown	Dry Pond	3/23/2017		X	
Churchland Primary School	5700 Hedgerow Lane	Quality	Filterra	3/27/2017		X	

SITE_PLAN	ADDRESS	Quality/quantity	BMP_TYPES	Inspection Date	FBI?	SAT	UNSAT
unknown	500 PortCentre	unknown	unknown	3/28/2017		X	
Building Addition, Challenge Builders LLC	400/300 PortCentre	unknown	unknown	4/5/2017	X		
Mount Sinai Church Addition	900 Portsmouth Blvd	quantity	Dry Pond	4/5/2017	X		
PortCentre Office/ Warehouse	901 PortCentre	unknown	Dry Pond	4/5/2017	X		
Seventh street	202 Seventh street	both	wetpond	4/5/2017	X		
unknown	1428 Effingham	unknown	Infiltration	4/5/2017	X		
Unknown	30 Beechdale	unknown	Infiltration	3/21/2017		X	
unknown	50 Beechdale	unknown	Infiltration	3/27/2017		X	
unknown	4007 Seaboard Ct	unknown	dry pond	3/27/2017	X		
Office & Warehouse	3704 Adams Street	unknown	Filterra	4/7/2017		X	
Office & Warehouse	3704 Adams Street	unknown	extended detention	4/7/2017		X	
Salvation Army	2306 Airline Blvd	both	Extended Dry Detention	4/7/2017		X	
Mount Sinai Church Annex	2603 Chestnut	unknown	infiltration	4/5/2017			X
ParkView Elementary Parking Addition	1401 Crawford	both	Extended Dry Detention	6/6/2016	X		
Oasis	806 Williamsburg	both	dry pond	4/20/2017		X	
First Baptist Church Addition	1445 Centre Ave	quality	Contech Storm Filter	4/20/2017		X	
Portsmouth Christian Outreach	910 Seventh Street	N/A	N/A	N/A	N/A	N/A	N/A
Portsmouth Christian Outreach	910 Seventh Street	N/A	N/A	N/A	N/A	N/A	N/A
Parking Lot for Cheshire Grill	627 King street	unknown	underground detention	4/25/2017		X	
Fraternal Order Police Park	417 County	N/A	N/A	N/A	N/A	N/A	N/A
Fraternal Order Police Park	417 County	N/A	N/A	N/A	N/A	N/A	N/A
The Heights at Old Towne	301 Green	both	bioretention	4/27/2017	X		
The Heights at Old Towne	301 Green	both	bioretention	4/27/2017	X		
The Heights at Old Towne	301 Green	both	bioretention	4/27/2017	X		
SB-361 Effingham St., LLC Starbucks	361 Effingham	both	infiltration	4/27/2017			X
Effingham Comfort Inn	347 Effingham	unknown	infiltration	4/27/2017	X		
Monumental United Methodist Church	435 Washington	unknown	swale	4/27/2017			X
Fourth Baptist Church	726 South Street	both	Infiltration	4/27/2017		X	
Fourth Baptist Church	726 South Street	both	porous pavement	4/27/2017	X		
Phoebus Square Apartments	1116 County	unknown	detention	4/27/2017		X	

Phoebus Square Apartments	1116 County	unknown	Contech Storm Filter	4/27/2017		X
Popeye's London Blvd	1020 London	unknown	dry pond	4/27/2017	X	

SITE_PLAN	ADDRESS	Quality/quantity	BMP_TYPES	Inspection Date	FBI?	SAT	UNSAT
Portsmouth Metal Stamping	548 Virginia	unknown	dry pond	5/3/2017		X	
Woodrow Street Office/Warehouse	2503 Woodrow	both	bioretention	5/3/2017	X		
Port Norf Fire	645 Broad	unknown	Dry Pond	5/3/2017			X
Tidewater Staffing	742 Florida	both	dry pond	5/3/2017		X	
Tidewater Staffing	749 Florida	both	dry pond	5/3/2017			X
Attel Switch Facilities	606 Chautauqua	unknown	dry pond	5/3/2017		X	
PRHA/ Warehouse Addition	1729 Columbus	unknown	swale	5/8/2017	X		
Trinity Temple Church	2430 Graham	unknonwn	infiltration	5/8/2017	X		
Behavioral Health Care Services	1811 King	both	bioretention	5/8/2017		X	
Behavioral Health Care Services	1811 King	both	bioretention	5/8/2017		X	
King Square	610 Armstrong	unknown	underground detention	5/12/2017		X	
King Square	610 Godwin	unknown	underground detention	5/12/2017		X	
London Shops Building Expansion	1503 London	both	dry pond	5/12/2017		X	
Plasmacare	1221 London	unknown	dry pond	5/12/2017		X	
Parkview Boat/ Portsmouth Yacht	20 Elm ave	unknown	infiltration	5/12/2017	X		
Empowerment 2010	2001 Queen	unknown	dry pond	5/12/2017			X
Western Branch Metals	2401 Wesley Street	unknown	dry pond	5/12/2017		X	
Foster Funeral Home Parking Lot	1926 High	unknown	Dry pond	5/12/2017		X	
South Bay Apartments Addition #1	1600 south street	both	porous pavement	5/12/2017		X	
South Bay Apartments Addition #2	1600 south street	both	underground detention	5/12/2017		X	
Swanson Homes Parking Lot #2	1746 South street	both	underground detention	5/12/2017		X	
Swanson Homes Parking Lot #1	1746 South street	both	filterra	5/12/2017		X	
711	1811 Effingham	both	bioretention	10/26/2016	X		
711	1811 Effingham	both	bioretention	10/26/2016	X		
nTelos #2	415 PortCentre	both	wet pond	3/23/2017	X		
nTelos #1	0 Wavy Street	both	Wet Pond	3/23/2017	X		
Churchland Primary School	5700 Hedgerow Lane	Quality	Pervious Concrete	3/27/2017		X	

Churchland Primary School	5700 Hedgerow Lane	Quality	Hydrodrynamic Separator	3/27/2017	X
Churchland Primary School	5700 Hedgerow Lane	Quality	Hydrodrynamic Separator	3/27/2017	X

*“The MS4 service area map including outfalls included in Part I.B.2.h)3) shall be submitted no later than 18 months [*January 1, 2018*] after the effective date of this state permit.”*

“The annual report due October 1, 2018 submitted under this state permit shall include the information included in Part I.B.2.h)4).”

“The annual report due October 1, 2021 shall include an updated list of all information requested in Part I.B.2.h)5).”

Part I.B.2.i)
City facilities

"The annual report due October 1, 2017 shall include a list of all high priority municipal facilities."

There are currently 3 high priority municipal facilities that have SWPPP's with quarterly inspections carried out by Kimley-Horne Associates.

1. City Operations Center
2. Public Utilities Center
3. 2717 Victory Blvd- School bus storage. Please note this is not a high priority, but SWPPP is being drafted to address low priority issues.

Pollution Prevention Assessment Summary

PREPARED FOR:	The City of Portsmouth
PREPARED BY:	Celeste Ostman/CH2M
DATE:	May 22, 2017
PROJECT NUMBER:	Task 3.3: City Facilities

CH2M and City staff conducted pollution prevention assessments at Portsmouth's three high schools: I.C. Norcom, Churchland, and Woodrow Wilson. The purpose of the assessments was to determine if any of the high schools need to be included in the City's high priority facility list or on the high priority facility list with high pollutant potential. Churchland High School and Woodrow Wilson High School serve as bus parking lots for the eastern and western parts of the City. Bus maintenance is not conducted at either high school. The known Stormwater Management Facility (SWMF) serving I.C. Norcom was inspected based on the City's draft SWMF inspection forms. The SWMF that was discovered at Churchland was not inspected.

I. C. Norcom High School

I.C. Norcom High School is located off London Boulevard and is approximately 31 acres. There is no bus parking on the campus and the parking lot is only used for staff and student parking. The site is well maintained and there is minimal trash around the site. There is one loading dock along the eastern side of the main building that had minimal spill stains, Figure 1.

There is one underground grease trap that will be cleaned out twice a year. There were no material storage areas outside of the building and there was no equipment storage onsite. The full site evaluation can be found in Attachment A.

Retention Area

The retention area was designed in 1995 and construction was finished in 1997. This was prior to the VSMP standards for building BMPs was released and so it is assumed that the retention area was designed to control quantity of runoff and not quality. This makes the retention area eligible to be retrofitted for credit should Portsmouth choose to do so. Tom Marsh from the City of Portsmouth was able to provide the original plans for the high school and per the plans, trees were to be planted along the perimeter, but no other vegetation was called for within the basin on the plans.

Churchland High School

Churchland High School is located off Cedar Road in the northern part of Portsmouth and is approximately 89 acres. There is a bus parking lot in the southwestern corner of the campus and a City fueling station. The fueling station is covered, but there were no obvious spill kits onsite. This area already has a SWPPP and the bus parking lot was being added to the document. The inlets included in the area covered by the SWPPP will need to be marked per Part I Section B.i.1.e of the MS4 permit.

There are two areas that have dumpsters and recycling bins and there is minimal trash around the site. There are two loading docks along the eastern side of the main building. The northern loading dock had stains that started at the door and went to the storm drain, Figure 2. Tom Marsh from the City stated that he believed it was from mop water and waste water from a scrubber which contains wax and "green stripper" from when the school refinishes the boiler room floor. He asserted that the water should be dumped down the sanitary sewer and that this has been conveyed to the maintenance and janitorial staff on several occasions.

There are two underground grease traps that will be cleaned out twice a year and one grease bin. There were no material storage areas outside of the building. The full site evaluation can be found in Attachment B.

Roof Drain Disconnections

While onsite, it was discovered that there were roof drain disconnections installed when the green house was built on the eastern side of the site. The operation appeared to be fairly new and in good condition. The roof drain disconnections will need to be added to the City's SWMF database and inspected annually per the MS4 permit.

Woodrow Wilson High School

Woodrow Wilson High School is located at the intersection of Cherokee Road and Elmhurst Lane and is approximately 43 acres. There is a bus parking lot in the northeastern corner of the campus, but no buses were present at the time of the inspection. During weekdays the buses will park on campus, but on weekends and breaks the buses are parked at the Parks, Recreation and Leisure Services Maintenance facility located at 2717 Victory Boulevard (formerly known as the "HRT site").

There is one loading dock along the northern side of the main building. There were similar stains to those found at the Churchland campus from mop water and waste water from a scrubber which contains wax and "green stripper" from when the school refinishes the boiler room floor. There was an area with dumpsters and recycling bins by the loading dock and there is minimal trash around the site. There is a very large, empty fuel tank that was originally used for the boiler which has no plans for removal due to cost constraints. There is one underground grease trap that will be cleaned out twice a year and one grease bin. The full site evaluation can be found in Attachment C.

Summary

In general, there were little potential pollutant sources at the three high schools. There was some concern with the improper disposal of wash water from mop buckets and waste water from refinishing the boiler room floors. It is believed that this can be remediated by having a training for custodial, maintenance, and food service staff on stormwater pollution prevention and good housekeeping practices. CH2M recommends that the City resume stormwater training at in-service meeting before school starts.

Churchland High School already has a SWPPP for the fueling station, which is currently being revised to include the bus parking area. If this facility will be included on the high priority municipal facility list required in Part I Section B.i.2(b) for facilities that are required to have SWPPPs, CH2M recommends making it clear that it is not the entire campus, but just the fueling and bus parking areas only. It is CH2M's professional opinion that the other two facilities do not need to be included on either list as there were no major potential pollutant sources and buses are only parked at the schools, if at all, and no maintenance is performed on site.

Attachment A

I.C. Norcom High School Pollution Prevention Assessment

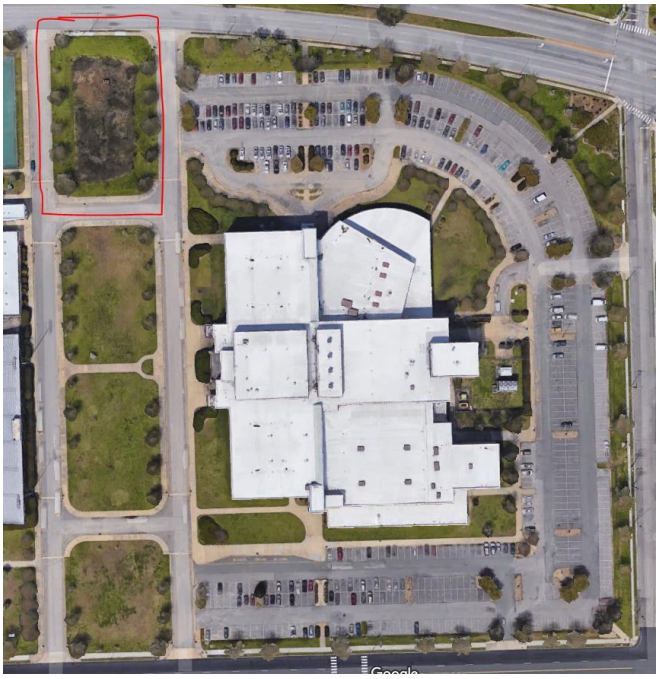
Pollution Prevention Assessment

FACILITY NAME:	I.C. Norcom High School
LOCATION:	1801 London Boulevard
INSPECTOR	Celeste Ostman/CH2M
PRESENT AT INSPECTION:	Christina VanLear/Portsmouth; Rachel Morales/Portsmouth; Alexandra Neblett; Tom Marsh/Portsmouth
DATE:	4/10/2017
TIME:	9:20 am
WEATHER: (INCLUDE DATE OF LAST RAIN EVENT)	Sunny; 62°F; Last rain event on 4/6/12 with 0.91 inches

The purpose of this form is to collect information during a pollution prevention assessment and to use the collected information to determine if the inspected facility needs to be included in the City's high priority facilities list.

Pre Site Visit Desktop Evaluation

Size of the Site (Aerial View)?
The campus is approximately 31 acres and does not have bus parking lot. There is one loading area on the eastern side of the main building.



Areas of High Pollutant Potential

This section will help to identify if there are any areas with pollutant potential on the site. A photo log is included at the end of this section to help document findings.

Are there Material Storages Areas?

There were no outdoor material storage areas. All materials were kept inside the school or in outbuildings.

Is vehicle washing performed onsite?

All buses are washed at the Vehicle Wash Building at the City's Operations Center. No vehicles are washed onsite.

Is maintenance performed on any vehicles onsite?

No vehicle maintenance is performed onsite.

Has all outdoor equipment been maintained in a clean and properly operating condition?

There was no outdoor equipment noted onsite. There were no unusually large stains in the staff and student parking lot to suggest that vehicles are not maintained.

Is there evidence of past spills other than previously noted in the material storage table?

There is a stain by the athletic fields of unknown origin or substance and minor stains in both the loading/unloading area and the student/staff parking lot (see Photos 006, 003, and 007, respectively, in the photo log)

Liquid transfer outside?

There is no liquid transfer at this campus.

Are there any material loading/unloading areas?

There is a loading/unloading area along the eastern side of the main building (see Photo 003 in the photo log).

Are spill kits available?

There were no spill kits observed onsite.

Are Pesticides, Herbicides, or Fertilizers applied to the site?

There may potentially be fertilizers used on the athletic fields.

Are trash receptacles provided and is the area clean/free of debris?

There were domestic waste dumpsters by the loading/unloading area (see Photo 005 in the photo log). There were several smaller, general use trash cans around the site as well.

Is the area cleaned on a regular basis to prevent trash/debris from washing into storm drains?

Custodians pick up trash around the campus every day that school is in session.

Are there any non-stormwater discharges observed on-site?

There was minor AC condensate on the sidewalk by the loading/unloading area (see photo 004 in the photo log).

Are all exposed areas properly vegetated to avoid sedimentation in stormwater runoff or else are proper controls such as silt fences or hay bales in place?

The campus appeared to be well stabilized at the time of the inspection.

Is there an oil water separator (OWS)?

There is a grease trap that services the cafeteria in the loading/unloading area (refer to Photo 003 in the photo log). Tom Marsh/Portsmouth stated that all the school grease traps will be cleaned out twice a year.

Notes:

There is a retention area was designed in 1995 and construction was finished in 1997 according to Tom Marsh/Portsmouth and he was able to provide the original plans for the high school. Per the plans, trees were to be planted along the perimeter, but no other vegetation was called for within the basin on the plans. As seen in Photos 008, 009, and 010 in the photo log, the SWMF has become quite overgrown with vegetation and is collecting trash. The SWMF was built prior to the VSMP standards for building SWMFs was released and it is assumed that the retention area was designed to control quantity of runoff only. This makes the retention area eligible to be retrofitted for credit should Portsmouth choose to do so.

Photo 001: Outfall for most of the school's campus. There was a sheen from a leak at an adjacent gas station

Photo 002: Loading/unloading area by the cafeteria

Photo 003: Minor stains at the loading/unloading area by the cafeteria

Photo 004: by the wood working shop off the southwestern corner of the main building

Photo 005: Dumpsters by the loading/unloading area

Photo 006: Stain of unknown origin or substance

Photo 007: Stain believed to be from mop water and waste water from refinishing the boiler room floor

Photo 008: Grease bin outside of cafeteria

Photo 009: Overgrown retention area

Photo 010: Football field

Attachment B

Churchland High School Pollution Prevention Assessment

Pollution Prevention Assessment

FACILITY NAME:	Churchland High School
LOCATION:	Off of Cedar Road in the northern part of Portsmouth
INSPECTOR	Celeste Ostman/CH2M
PRESENT AT INSPECTION:	Christina VanLear/Portsmouth; Rachel Morales/Portsmouth; Alexandra Neblett; Tom Marsh/Portsmouth; Beth Arnold/CH2M
DATE:	4/11/2017
TIME:	9:00 am
WEATHER: (INCLUDE DATE OF LAST RAIN EVENT)	Sunny; 73°F; Last rain event on 4/6/12 with 0.91 inches

The purpose of this form is to collect information during a pollution prevention assessment and to use the collected information to determine if the inspected facility needs to be included in the City's high priority facilities list.

Pre-Site Visit Desktop Evaluation

Size of the Site (Aerial View)?

The campus is approximately 89 acres and has a bus parking lot and fueling station in the southwestern corner of the campus. There is also one loading area that looks heavily used in the northeastern corner of the campus.

Areas of High Pollutant Potential

This section will help to identify if there are any areas with pollutant potential on the site. A photo log is included at the end of this section.

Are there Material Storages Areas?

There were no outdoor material storage areas. All materials were kept inside the school or in outbuildings.

Is vehicle washing performed onsite?

All buses are washed at the Vehicle Wash Building at the City's Operations Center. No vehicles are washed onsite.

Is maintenance performed on any vehicles onsite?

No vehicle maintenance is performed onsite.

Has all outdoor equipment been maintained in a clean and properly operating condition?

The buses parking area is in the southwestern corner of the campus and there were very few stains on the pavement suggesting the buses are well maintained (refer to Photo 015 in the photo log). There was no other equipment noted onsite.

Is there evidence of past spills?

There is a stain in the loading area by the cafeteria on the eastern side of the building (see Photos 005, 006, and 007 in the photo log). Most likely mop water and possibly waste water from refinishing the boiler room floor according to Tom Marsh/Portsmouth.

Liquid transfer outside?

There is a fueling station in the southwestern corner of the campus (see Photos 002, 003, and 021 in the photo log). The fueling station is covered, but there were no obvious spill kits onsite. This area already has a SWPPP and the bus parking lot was being added to the document. The inlets included in the area covered by the SWPPP will need to be marked per Part I Section B.i.1.e of the MS4 permit.

The grease bin is located off the eastern side of the building by the cafeteria (see Photos 008 and 012 in the photo log).

Are there any material loading/unloading areas?

There is material loading/unloading on the eastern side of the building for bringing in cooking supplies for the cafeteria and one at the southeastern corner of the building by the wood shop classroom (see Photos 014 and 004, respectively, in the photo log).

Are spill kits available?

There were no spill kits observed onsite.

Are Pesticides, Herbicides, or Fertilizers applied to the site?

There may potentially be fertilizers used on the athletic fields.

Are trash receptacles provided and is the area clean/free of debris?

There were domestic waste dumpsters at four locations: the athletic fields, by the HVAC system, in the bus parking area, and by the back doors of the cafeteria (see Photos 001, 009, 011, and 014, respectively, in the photo log). There were several smaller, general use trash cans around the site as well.

Is the area cleaned on a regular basis to prevent trash/debris from washing into storm drains?

Custodians pick up trash around the campus every day that school is in session.

Are there any non-stormwater discharges observed on-site?

No discharges were seen on the campus.

Are all exposed areas properly vegetated to avoid sedimentation in stormwater runoff or else are proper controls such as silt fences or hay bales in place?

The campus appeared to be well stabilized at the time of the inspection.

Is there an oil water separator (OWS)?

There is a grease trap that services the cafeteria in the loading/unloading area (refer to Photos 012 and 018 in the photo log). Tom Marsh/Portsmouth stated that all the school grease traps will be cleaned out twice a year.

Notes:

While onsite, it was discovered that there were roof drain disconnections installed when the green house was built on the eastern side of the site. The operation appeared to be fairly new and in good condition. The roof drain disconnections will need to be added to the City's SWMF database and inspected annually per the MS4 permit (see Photos 019 and 022).

Photo 001: Dumpster by athletic fields in the northeastern part of the campus

Photo 002: Fueling station in the southwestern part of the campus

Photo 003: Fueling station in the southwestern part of the campus

Photo 004: Loading/unloading area by t he wood working shop off the southwestern corner of the main building

Photo 005: Stain believed to be from mop water and waste water from refinishing the boiler room floor

Photo 006: Stain believed to be from mop water and waste water from refinishing the boiler room floor

Photo 007: Stain believed to be from mop water and waste water from refinishing the boiler room floor

Photo 008: Grease bin outside of cafeteria

Photo 009: Dumpsters

Photo 010: Football field

Photo 011: Dumpsters located in bus parking area in the southeastern corner of the campus

Photo 012: Grease bin and grease trap servicing the cafeteria kitchen

Photo 013: Drainage swale around the green house area

Photo 014: Grease bin and dumpster behind the cafeteria in the loading/unloading area

Photo 015: Bus parking area in the southwestern corner of the campus with very few stains on the asphalt

Photo 016: Drainage swale around the green house area east of the main building

Photo 017: Drainage for the bus parking area i n the southwestern corner of the campus

Photo 018: Grease trap servicing the cafeteria kitchen and vents to the boiler room

Photo 019: Greenhouse roof drain disconnection

Photo 020: Storm drain that leads directly into Craney Island Creek

Photo 021: Fueling station in the southwestern part of the campus

Photo 022: Southern end of greenhouse area

Attachment C

Woodrow Wilson High School Pollution Prevention Assessment

Pollution Prevention Assessment

FACILITY NAME:	Woodrow Wilson High School
LOCATION:	Intersection of Cherokee Road and Elmhurst Lane
INSPECTOR	Celeste Ostman/CH2M
PRESENT AT INSPECTION:	Christina VanLear/Portsmouth; Rachel Morales/Portsmouth; Alexandra Neblett; Tom Marsh/Portsmouth
DATE:	4/12/2017
TIME:	9:15 am
WEATHER: (INCLUDE DATE OF LAST RAIN EVENT)	Sunny; 73°F; Last rain event on 4/6/12 with 0.91 inches

The purpose of this form is to collect information during a pollution prevention assessment and to use the collected information to determine if the inspected facility needs to be included in the City's high priority facilities list.

Pre-Site Visit Desktop Evaluation

Size of the Site and Aerial Overview

The campus is approximately 43 acres and has a bus parking lot and a loading area in the northeastern corner of the campus.

Areas of High Pollutant Potential

This section identifies any areas with pollutant potential on the site. A photo log is included at the end of this section.

Are there Material Storages Areas?

There were no material storage areas. There was an old, empty fuel tank under an overhang in the loading/unloading area on the north side of the school (see Photo 003 in the photo log). Tom Marsh/Portsmouth stated that there were currently no plans to remove the empty tank due to the cost.

Is vehicle washing performed onsite?

All buses are washed at the Vehicle Wash Building at the City's Operations Center. No vehicles are washed onsite.

Is maintenance performed on any vehicles onsite?

No vehicle maintenance is performed onsite.

Has all outdoor equipment been maintained in a clean and properly operating condition?

There were no buses onsite during the time of the inspection. According to Tom Marsh, the buses park in the northeastern corner of the campus during weekdays the buses will park on campus, but on weekends and breaks the buses will get parked over at the old HRT location on 2717 Victory Boulevard.

There was no other equipment noted onsite.

Is there evidence of past spills other than previously noted in the material storage table?

There is a stain in the loading area by the cafeteria on the northern side of the building (see Photo 004 in the photo log). Most likely mop water and possibly waste water from refinishing the boiler room floor according to Tom Marsh/Portsmouth.

Liquid transfer outside?

The only liquid transfer is grease into the grease bin. The grease bin is located off the northeastern corner of the building in a grassy area (see Photo 001 in the photo log).

Are there any material loading/unloading areas?

There is material loading/unloading on the north side of the building that is used to bring in cooking supplies for the cafeteria.

Are spill kits available?

There were no spill kits observed onsite.

Are Pesticides, Herbicides, or Fertilizers applied to the site?

There may potentially be fertilizers used on the athletic fields.

Are trash receptacles provided and is the area clean/free of debris?

There were two domestic waste dumpsters and one dumpster for recycling off the northern side of the building by the material loading/unloading area (see Photo 005 in the photo log). There were several smaller, general use trash cans around the site as well.

Is the area cleaned on a regular basis to prevent trash/debris from washing into storm drains?

Custodians pick up trash around the campus every day school is in session.

Are there any non-stormwater discharges observed on-site?

No discharges were seen on the campus.

Are all exposed areas properly vegetated to avoid sedimentation in stormwater runoff or else are proper controls such as silt fences or hay bales in place?

There is a small area by the athletic fields that is used for overflow parking during large events that does not have good ground cover (see Photo 006 in the photo log).

Is there an oil water separator (OWS)?

There is a grease bin behind the school, along the northern side, in a grassy area (refer to Photo 001 in the photo log). There is also a grease trap that services the cafeteria in the loading/unloading area (refer to Photo 002 in the photo log). Tom Marsh/Portsmouth stated that all the school grease traps will be cleaned out twice a year.

Photo 001: Grease bin

Photo 002: Grease trap servicing the cafeteria kitchen

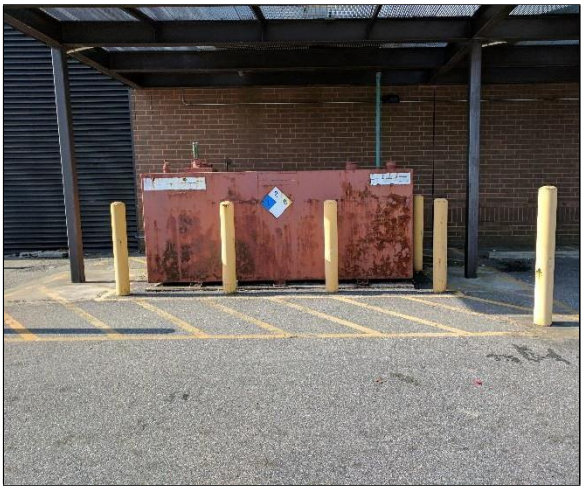


Photo 003: Empty boiler fuel tank no longe r in service

Photo 004: Stain believed to be from mop water and waste water from refinishing the boiler room floor

T

Photo 005: Dumpsters located adjacent to the material loading/unloading area

Part I.B.2.j)
Public education/participation

"Each annual report shall include a list of permittee public outreach and education activities and the estimated number of individuals reached through the activities. An evaluation of program effectiveness, as outlined in the MS4 Program Plan with recommendations for future changes shall also be included."

The objective of the public education program is to inform the public about the importance of stormwater activities as they relate to individual citizens and the City as a whole. Portsmouth continues to assess various means of educating the public on the stormwater management program.

The goals of the public information program include:

- Informing the public about the Stormwater Utility and its associated fees.
- Making the public aware of the results of polluting the stormwater system.
- Involving the community in improving the quality of the area's waters.
- Educating the public on ways to decrease the amount of pollution that is entering area waterways.

Stormwater Educational Materials Distributed – FY2017

Material Name	***Quantity Distributed***	***# of Citizens***
Fall 2016 Main Drain	140	139
Fall 2016 Main Drain- emailed	1900	1900
Summer 2016 Main Drain	5060	5060
Winter 2016 Main Drain	1803	1803
Winter 2016-2017 Main Drain Snow	93	75
Spring 2017 Main Drain-Bayscaping (includes emailed)	5076	5076
A Clean, healthy bay starts at home	6	5
Bay Star Homes Flag & Flag Holder	1	1
Bay Star Homes Folder	1	1
BMP's for restaurant grease	2	2
Coffee Mugs	18	18
Environmental coloring book	350	350
Education outreach letter	42	42
EPA Concrete washout flyer	3	3
Askhrgreen garden kneelers	31	31
Glow Bracelets	175	175
HR Green Bags	47	47
HR Storm ink pens	55	55
It's just dirt, City of Portsmouth	3	3
Keep the Bay Clean resusable shopping bags	45	45
Pet Waste Bag Holder	1	1
Pool Maintenance Facts sheet	2	2
Poop Fairy bookmark	1	1
Proper Waste Disposal- City of Portsmouth	3	3
Scoop the Poop Antibacterial	87	77

Stormwater Management Information	2	2
Sunflower Seed bookmarks	525	525
Waterwise landscaping & watering guide	51	51
Yard care for a clean environment	9	9

Stormwater Education Events

Date/Location	Event
Court Street Academy (2/22/2017)	Stormwater presentation to 5th & 6th grade
Churchland Academy (4/4/2017)	Stormwater Presentation
Douglas Park Elementary (4/16/2017)	PTA
Court Street Academy (4/20/2017)	Science Fair
Churchland Academy (4/21/2017)	Career Day
Emily Spong Elementary (4/28/2017)	Career Day

“Each annual report shall provide a summary of voluntary retrofits completed on private property used to demonstrate pollutant reduction requirements.”

Currently there are no known voluntary retrofits on private property known to the City. Stormwater staff is educating citizens on the benefits of completing these retrofits on their property through educational handouts.

“Each annual report shall provide a summary of voluntary stormwater management techniques encouraged on private property.”

Currently there are no known voluntary retrofits on private property known to the City. Stormwater staff is educating citizens on the benefits of completing these retrofits on their property through educational handouts.

Part I.B.2.k)

Training

"Each annual report shall include a list of training events, the date and the estimated number of individuals attending each event."

Certified Pesticide Applicators

Name	**Department**
Eddie Savage	Mosquito Control
Mary Seitz	Mosquito Control
George Wojcik	Mosquito Control
Jeffrey Johnson	Mosquito Control
Tiffany Gordon	Mosquito Control
Samkhan Ngeth	City Park Golf Course
Todd Spencer	Bide-a-way Golf Course
Freddie Miller	Parks and Recreation
Kevin Wallace	Parks and Recreation
Vernon Carney, Jr.	Parks and Recreation
Juan Deloatch	Parks and Recreation
Jarmaine Parker	Parks and Recreation
Charles Umphlete, Jr.	Public Utilities
Forrest Brown	Public Utilities
Sandra Raphael	Public Utilities

Name	**Certification**
James E. Wright, Jr., P.E.	Dual Combined Administrator
Christina VanLear	Dual Inspector
Alexandra Neblett	Dual Inspector (Provisional)
Howard Lusk, P.E.	CH2M Plan Reviewer

Contractors are certified as Registered Land Disturbers when they apply for a Land Disturbance Permit. Their certifications are verified at that time.
"The annual report due October 1, 2017 shall include documentation of employee emergency spill response training and/or certification."

Employee emergency spill response training was held on October 5, 2016 and was conducted by Sigma Consulting and Training, Inc. with Chris Pappas as the instructor. The training was a Hazardous Materials Operations/OSHA Level II course. All employees that attended are currently certified. Please see attached documentation.

Part I.B.2.l)

Dry weather screening program

"Each annual report shall include the total number of outfalls included as part of the permittee's MS4, the number of stations screened during the reporting period, a list of locations upon which the dry weather screening was conducted, the results and any follow-up actions…"

Dry Weather Sampling at seventy-five random sites is conducted to identify potential illicit discharges. Dry Weather samples are tested for the following parameters:

FLOW ANALYSIS PARAMETERS (Update per agreement with EPA)	***TOLERANCE LIMIT***
pH	< 6.0 or > 9.0
Total Chlorine	> 4.0 mg/l
Hardness (to benchmark Copper)	> 3.0 mg/l
Total Phenol	> 0.026 mg/l
Detergents	> 0.5 mg/l
Ammonia	> 2.14 mg/l
Potassium	> 20 mg/l

As required for the Dry Weather Sampling aspect of our program, seventy-five sites were chosen at random, but generally selected in commercial and industrial areas with some coverage in residential areas. These sites were checked for flow and, if observed, the flow was tested for chemical concentrations outside the tolerance limits for the above listed parameters. The screening results are provided.

Part I.B.2.m)
Infrastructure coordination

"As part of its Annual Report, the permittee shall document coordination efforts with VDOT that occurred during the reporting year…"

A meeting was held with VDOT on June 13, 2017 to comply with our permit. Meeting summary is provided below.

VDOT and City of Portsmouth

Date:June 13, 2017
Location:801 Crawford St., Portsmouth
Attendees:See attached sign in sheet

This coordination meeting was conducted to meet the MS4 permit requirements. The follow items were discussed:

- The City's MS4 Program was moved back under the Department of Engineering's purview.
- VDOT relayed to the City of Portsmouth that we anticipate our Individual Permit becoming effective July 1, 2017.
- James Wright is the main POC for any questions regarding MS4. If unavailable, Diane Quick is the next POC. VDOT's MS4 program is managed out of Central office, and the contact is Chris Swanson (804) 786-6839, Chris.Swanson@vdot.virginia.gov . The local MS4 POC is Jenny Dail or Drew Scott.
- Mapping-The City of Portsmouth has delineated their MS4 service area and is currently working on their interconnected mapping. James Wright mentioned that there are some areas where the City's drainage is intercepted by VDOT's MS4, then discharges back into the City.
    - James Wright will send MS4 service area maps in shape file format to Jennifer Dail for distribution to Michelle Fults, GIS analyst.
    - Jennifer Dail will send VDOT map request form to Portsmouth
    - The VDOT contact for mapping is Michelle Fults (804) 786-1294, Michelle.Fults@vdot.virginia.gov
- The City is still identifying high priority facilities, but don't think any discharge to VDOT's MS4. James Wright will look into the City's high risk facilities with VPDES permit coverage to determine if any might discharge directly to VDOT ROW
- IDDE-James Wright is the current POC, however, they are in the process of hiring a Compliance Manager who will take over that role. Illicit discharge notifications should be submitted to VDOT's IDDE email account, IDDEReports@VDOT.Virginia.gov. Chris Cowan is VDOT's IDDE POC (804) 786-2480, Chris.Cowan@VDOT.Virginia.gov . Jenny Dail and Drew Scott may be copied on emails to the IDDE email account.
- Outreach-Future coordination opportunities with VDOT could be a possibility at local events or within the schools.
- TMDL-Tracey Harmon is the POC forVDOT. She updated the City of Portsmouth that we are going to meet our 5% for the Bay TMDL and that future collaborative efforts for the next cycle are a possibility.
    - City of Portsmouth will develop their Bay and Hoffler Creek TMDL action plans in this coming permit year
    - Tracey updated the City of other opportunities that VDOT plans on taking credit for in the future, i.e street sweeping, land conversion, etc.
- Water Quality Monitoring-The City of Portsmouth has two water quality monitoring stations that have been collecting data for a little over a year.
- Drew Scott is the POC for coordinating future projects with potential sharing opportunities for meeting stormwater requirements to include retro-fits and new SWM facilities. Possible TMDL initiatives should be coordinated with Tracey Harmon.

Part I.C Monitoring Requirements

Part I.C.1
In-system/wet weather monitoring

"The annual report due October 1, 2017 shall include the list of sites to be monitored during the term of the state permit and monitoring protocols."

"Each annual report shall include a summary of the monitoring results and analyses and an interpretation of that data."

In FY2014, the City of Portsmouth partnered with the other Hampton Roads Phase I localities in signing a Memorandum of Agreement (see MOA at end of this section) with the Hampton Roads Planning District Commission establishing a regional water quality monitoring program. The objective of this program is to collect data at a regional scale that will accurately measure, over the next five years, the amount of nutrients and sediments delivered to waterways by the local MS4 systems.

The City of Portsmouth is currently working with the Hampton Roads Sanitation District (HRSD) on the Wet Weather Monitoring Stations. In FY 2016, the station at Craneybrook and the station at Carter and Daisy were installed. See the attached regional documentation for the status of this project.

Part I.C.2
Bacteria monitoring

*"No later than twelve (12) months after the effective date of this state permit, the permittee shall submit to the Department the list of sites to be monitored, the methodology and the monitoring protocols". (*Submitted to the Department July 1, 2017*)*

As part of our TMDL plan and requirements for the MS4 permit for the City, monthly testing of Hoffler Creek is conducted at four different sites. Samples are delivered to HRSD for analysis. Levels of Fecal Coliform and Enterococcus are measured, and the following reports show the levels throughout the year. The methodology and protocols are attached for review.

“Each subsequent annual report shall include a summary of the monitoring results and analyses and an interpretation of that data with respect to long-term patterns/trends.”

“Final results and analyses shall be submitted with the permit application for the reissuance of this state permit due 180 days prior to this permit’s expiration date.”

2016 – 2017 Bacteria Monitoring Program for Hoffler Creek

PREPARED FOR:	City of Portsmouth	James Wright, PE
COPY TO:		
PREPARED BY:	CH2M	
DATE:	July 2017, Finalized September 2017	

Continuation of water quality monitoring is required as part of the City of Portsmouth's Municipal Separate Storm Sewer (MS4) permit (VA0088668). Monitoring at four locations within Hoffler Creek is performed on a monthly basis to meet this requirement. This technical memorandum summarizes the monitoring performed for the period from September 2013 through March 2017. Annual updates will be submitted to the City describing the additional data collected and findings from these data.

Monitoring Program

The City's MS4 permit requires monthly bacteria monitoring at four locations in Hoffler Creek to assess the overall health and evaluate long-term trends in Hoffler Creek. These monitoring locations, shown on Figure 1, are sampled during ebb tide. Until July 2014, the samples were analyzed for *E. coli* and *Enterococcus* bacteria. Since that time, the samples are analyzed for fecal coliform and *Enterococcus* bacteria.

Monitoring Results

Monitoring was typically performed in the middle of each month and will continue throughout the five year permit cycle. A summary of *E. coli* results for the four monitoring locations is provided in Table 1. A summary of *Enterococcus* results for the four monitoring locations is provided in Table 2. A summary of fecal coliform results for the four monitoring locations is provided in Table 3. Raw results are provided in Attachment 1. The data were analyzed to

determine whether there were spatial patterns, temporal trends, or correlation with seasons, temperature, salinity, or rainfall.

A number of samples were reported as being below the reporting limit of a maximum probable number of 10 per 100 mL (MPN/100mL) for *Enterococcus* and or 10 colony forming units per 100 mL (CFU/100mL). For the calculation of the statistics, these data points were set to a value of 5 (one half detection limit) since these points fall in the range where the analysis method has limited accuracy but the sample may still contain bacteria.

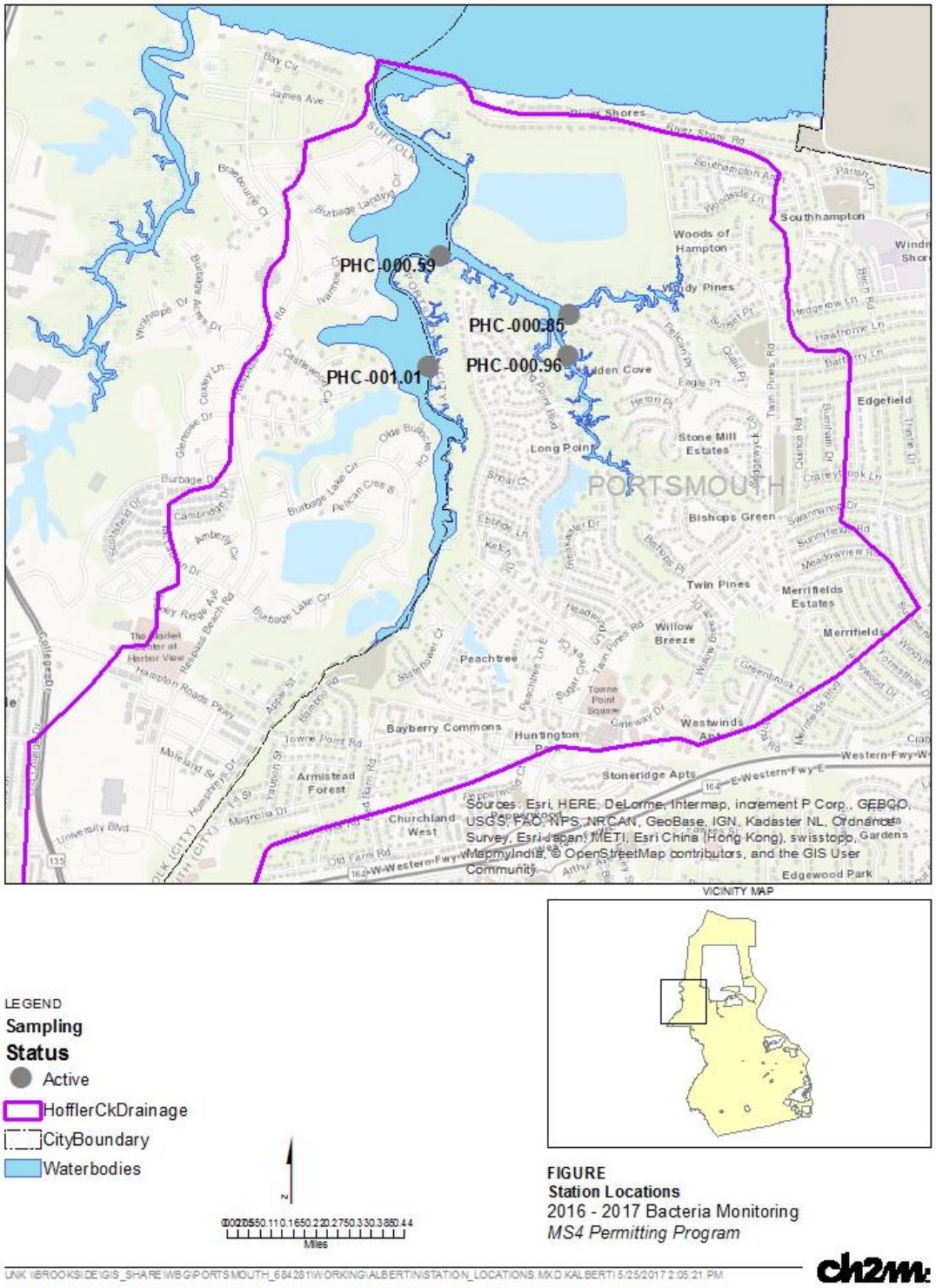


Figure 1.
Hoffler Creek Monitoring Locations

Table 1. Summary of Hoffler Creek *E. coli* Observations – September 2013 – June 2014

Station	Minimum	Maximum	Mean	Std. Deviation	Samples exceeding Water Quality Standard [1]	Count
PHC-000.85	80	8800	1387	2677	3	9
PHC-000.96	40	270	155	115	3	9
PHC-000.59	20	7300	1281	2298	3	9
PHC-001.01	90	130	110	20	2	9

[1] Virginia E. coli Water Quality Standard – no more than 10 percent exceeding 235 MPN/100mL

Table 2. Summary of Hoffler Creek *Enterococcus* Observations – September 2013 – March 2017

Station	Minimum	Maximum	Mean	Std. Deviation	Samples exceeding Water Quality Standard [1]	Count
PHC-000.85	< 10	19,900	1,398	3,955	23	35
PHC-000.96	< 10	9,800	1,133	2,502	18	35
PHC-000.59	< 10	19,900	1,101	3,571	20	35
PHC-001.01	< 10	24,200	1,477	4,623	20	35

[1] Virginia Enterococcus Water Quality Standard – no more than 10 percent exceeding 104 MPN/100mL

Table 3. Summary of Hoffler Creek Fecal Coliform Observations – July 2016 – March 2017

Station	Minimum	Maximum	Mean	Std. Deviation	Samples exceeding Water Quality Standard [1]	Count
PHC-000.85	< 10	8,400	1,070	1,974	22	26
PHC-000.96	10	4,500	1,008	1,350	22	26
PHC-000.59	< 10	4,800	500	1,030	22	26
PHC-001.01	10	6,100	815	1,491	22	26

[1] Virginia Fecal coliform Water Quality Standard for Shellfish Waters – 90th percentile less than 43 cfu/100mL

E. Coli

E. coli bacteria monitoring by the City was discontinued in June of 2014. For this reason, a detailed assessment of results or trends was not performed for this technical memorandum. E. coli data for the September 2013 to June 2014 period is summarized in Table 1.

Enterococcus

An indeterminate pattern is seen between stations for the *Enterococcus* bacteria monitoring results. Stations PHC-000.85 and PHC-001.01 typically had higher concentrations during the monitoring period but the difference relative to PHC-000.96 and PHC-000.59 is moderate. The box and whisker plot in Figure 2 shows the range of enterococcus values measured during the September 2013 to March 2017 period.

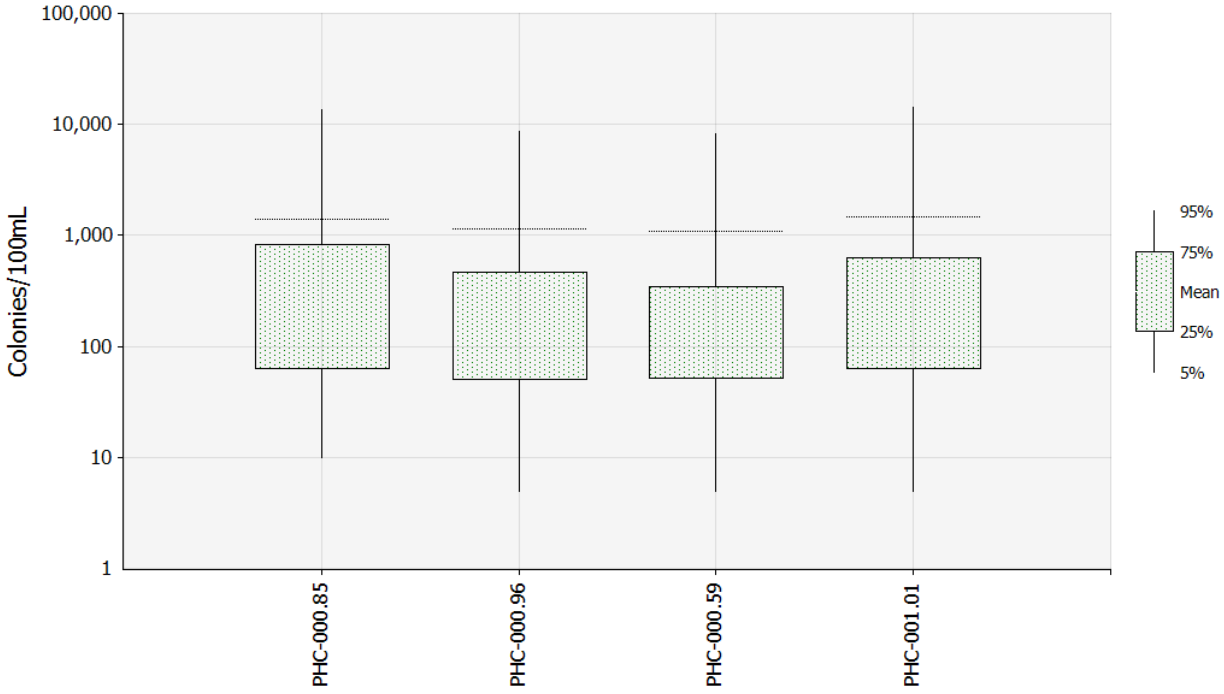
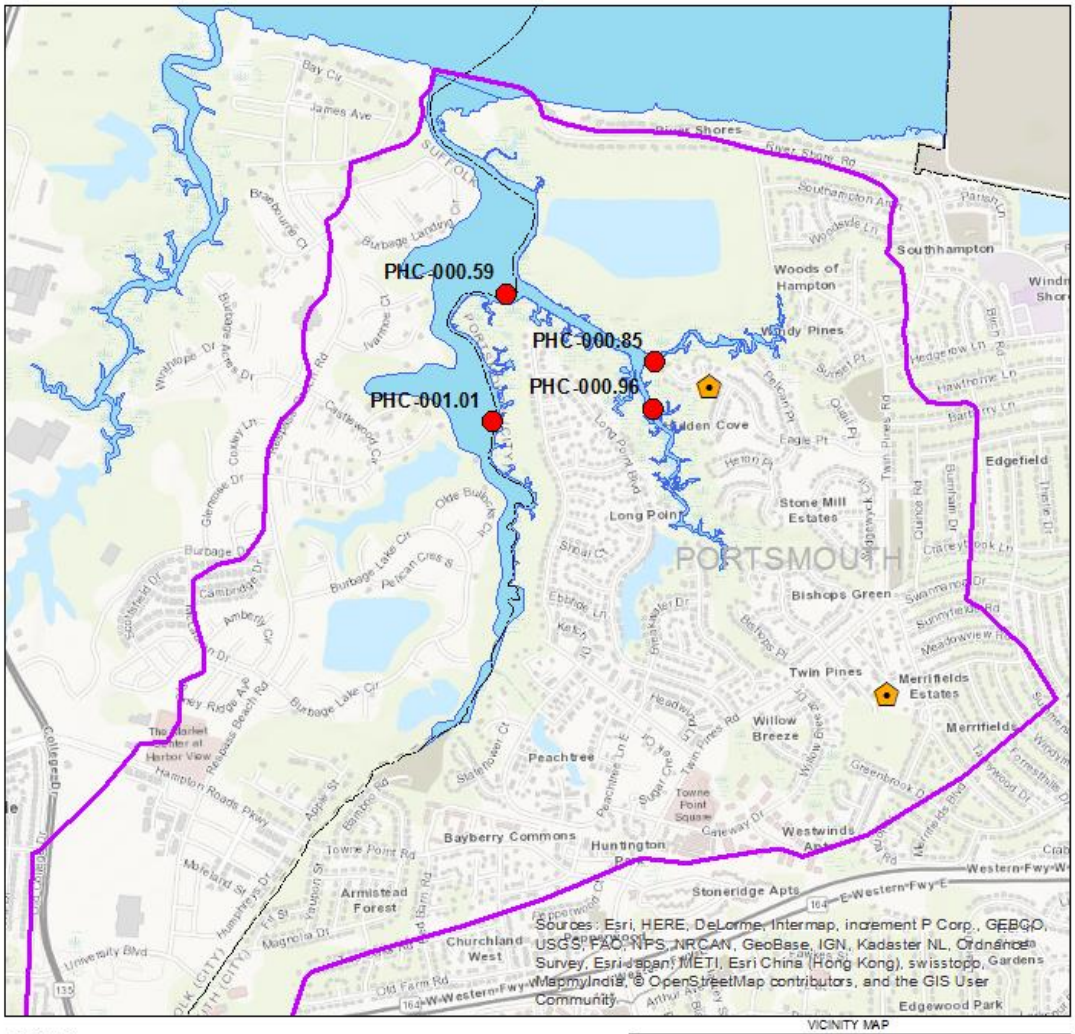


Figure 2.
Box and Whisker Plot of Enterococcus Bacteria in Hoffler Creek in 2013 - 2017

During the 2016-2017 period, Station PHC-001.01 tended to have the lowest concentrations but also had the single highest measurement recorded, 823 MPN/100 mL on March 15, 2017, for any station during the sampling period.

The Virginia water quality standards for *Enterococcus* are based on measurement of a geometric mean of multiple samples collected during a 30 day period. The standard does allow an alternative standard of 104 colony forming units per 100 mL if less than five samples are collected during the 30 day period. As noted in Table 2, all stations exceeded the standard more than 50 percent of the time with PHC-0.085 having the highest exceedance rate of approximately 66 percent.

Figure 3 provides a spatial representation of the mean *Enterococcus* data. The dots for stations PHC-000.59, PHC-000.85, PHC-000.96, PHC-001.01, show the relative magnitude of the mean *Enterococcus* results.



LEGEND

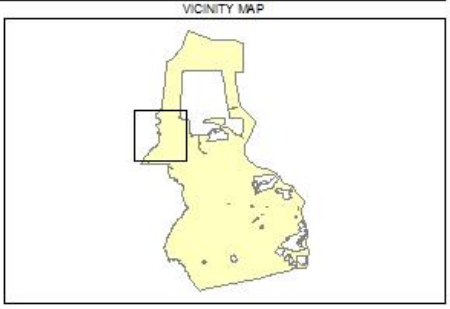
- Reported_SSO

Sampling

Ave Enterococcus

- 0 - 104
- 105 - 250
- 251 - 500
- 501 - 1500
- HofflerCkDrainage
- CityBoundary
- Waterbodies

VICINITY MAP



Miles

FIGURE 3
Average Enterococcus Bacteria
2016 - 2017 Bacteria Monitoring
MS4 Permitting Program

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ch2m

Potential Sanitary Sewer Overflows

Due to the low lying nature of Portsmouth and the lack of hydraulic gradient in the sewer system, sanitary system overflows (SSOs) can occur. The City's SSORS Database - Spill

Report for the period from 07/01/2016 to 03/31/2017 was analyzed to identify overflows in the Hoffler Creek watershed. The locations, Pump Station #6 and the John Bean Pump Station, are shown on Figure 3. The overflows did not occur at the same time as the monitoring events so not direct connection between the overflows and high bacteria levels can be made but these locations should be considered potential sources.

Trend Analyses

Kendall trend tests (USGS 2005) were performed on the bacteria monitoring data. The data was first analyzed with the standard Kendall trend test to determine whether a statistically significant trend existed. The data was then reanalyzed including the time of year to exclude potential seasonal influences such as temperature and sunlight. In general, the Kendall trend analyses were more significant without considering seasonality. For example, the p statistic for Station PHC-000.59 increased from 0.009 (very significant) to 0.025 (significant). This suggests that while factors such as water temperature can affect bacteria die off, other factors such as runoff loading may have a more significant and less seasonal impact.
Figures 4 through 7 demonstrate the trends for *Enterococcus* using regression analyses.

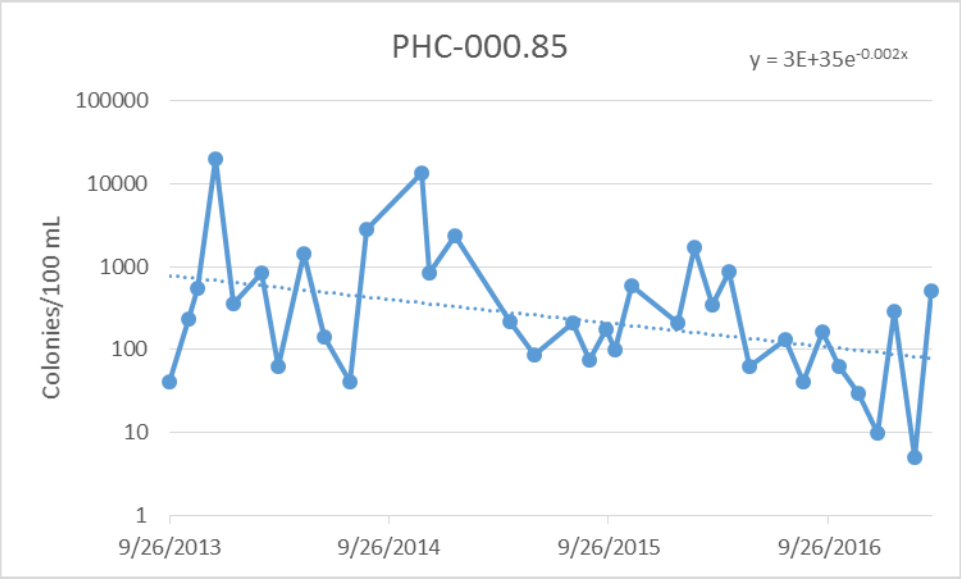


Figure 4.
Enterococcus Bacteria in Hoffler Creek Station PHC-000.85 for 2013 - 2017

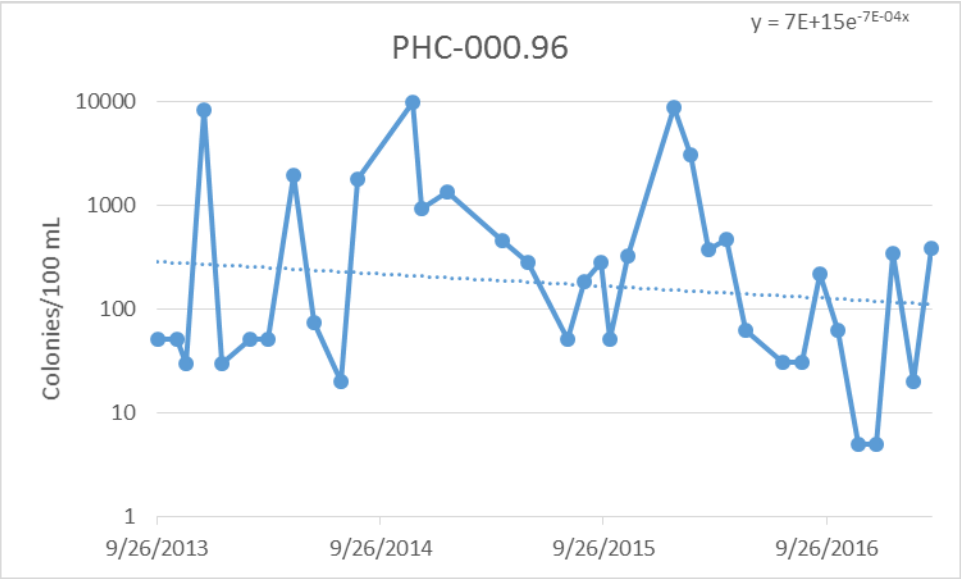


Figure 5.
Enterococcus Bacteria in Hoffler Creek Station PHC-000.96 for 2013 - 2017

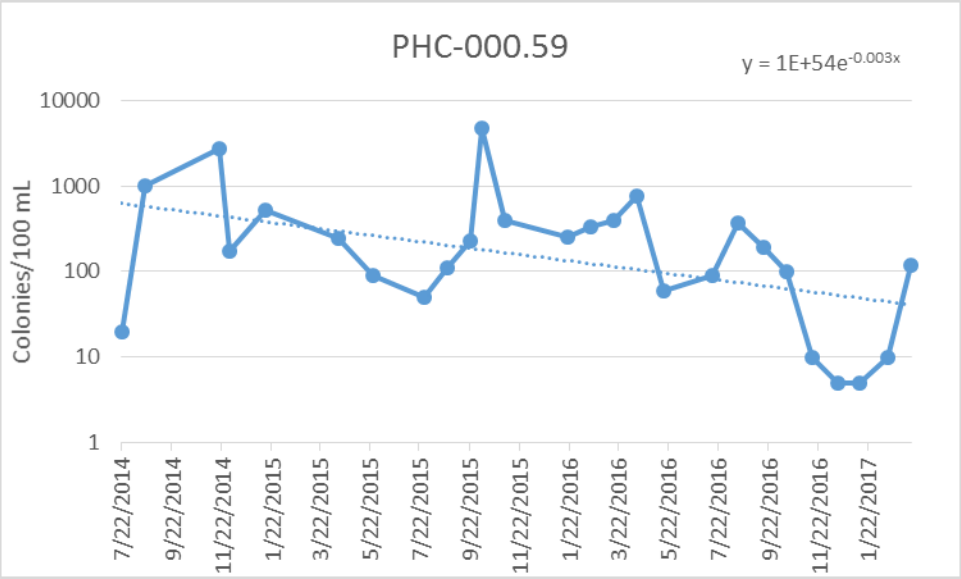


Figure 6.
Enterococcus Bacteria in Hoffler Creek Station PHC-000.59 for 2013 - 2017

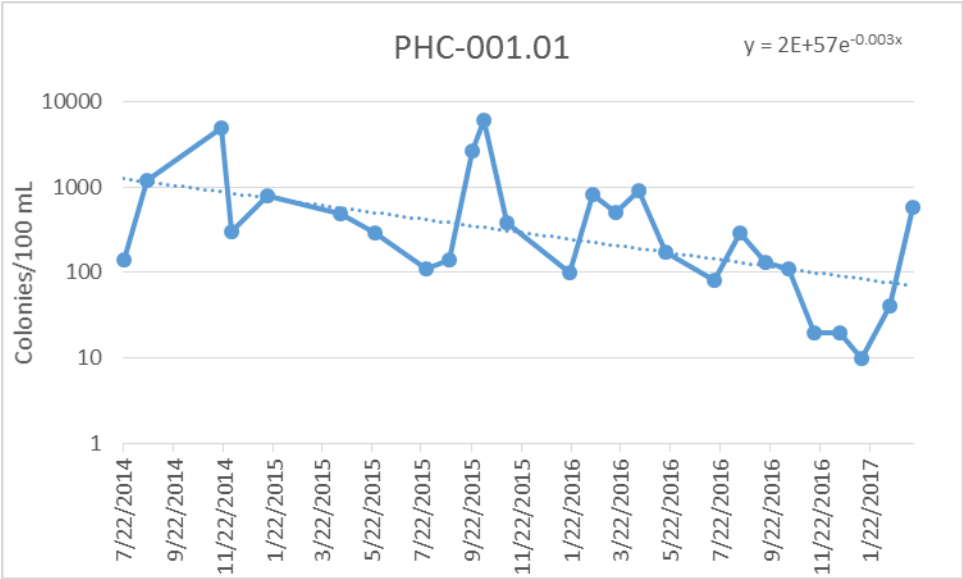


Figure 7.
Enterococcus Bacteria in Hoffler Creek Station PHC-001.01 for 2013 - 2017

A clear downward trend is seen at all stations with PHC-0.085 have the greatest decrease and PHC-0.096 having the least decrease. High values are still seen at times but an overall decrease over time is apparent.

Correlation with Environmental Factors

A number of environmental factors including temperature, salinity, and precipitation may all affect bacteria levels. Correlation analyses between bacteria concentrations and these factors was performed. No significant correlation was identified between *Enterococcus* data and environmental factors. Examples of these relationships shown in Figures 8 through 10 demonstrate that some ranges of these factors tend to have higher bacteria concentrations, they cannot fully explain differences in levels. A multivariate analysis, used to determine whether a combination of factors can explain variability, also showed limited statistical significance.

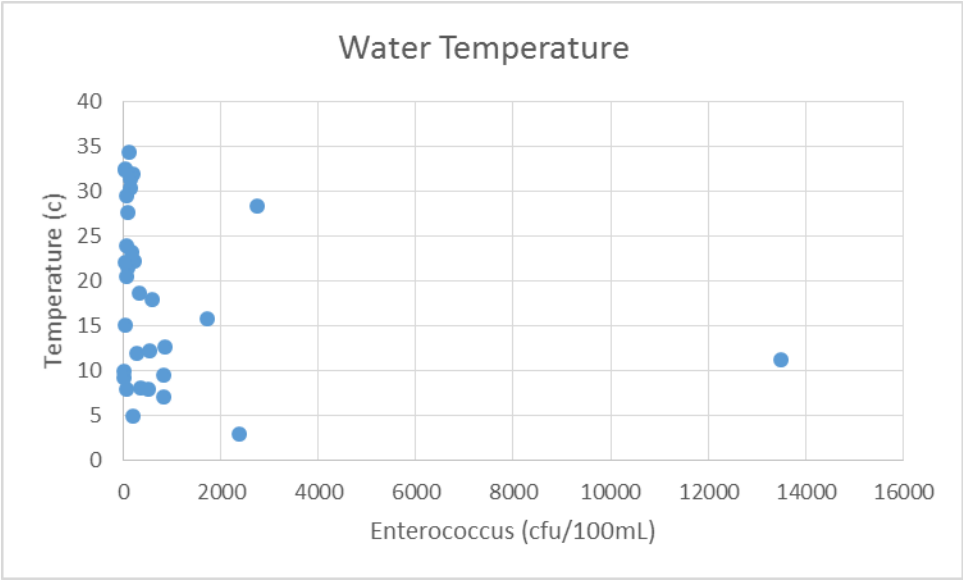


Figure 8.

Correlation of Enterococcus Bacteria and Water Temperature - Station PHC-000.85 for 2013 - 2017

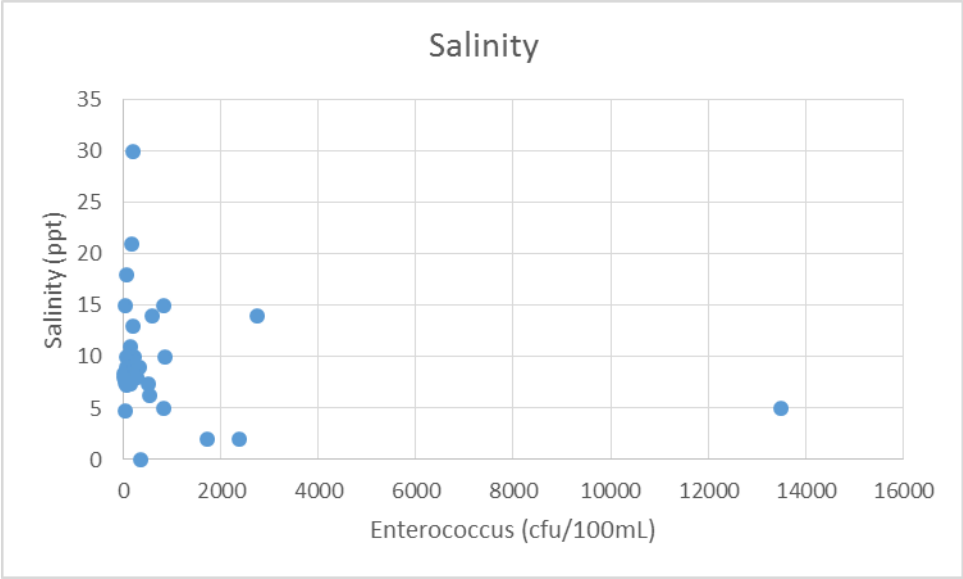


Figure 9.
Correlation of Enterococcus Bacteria and Salinity - Station PHC-000.85 for 2013 - 2017

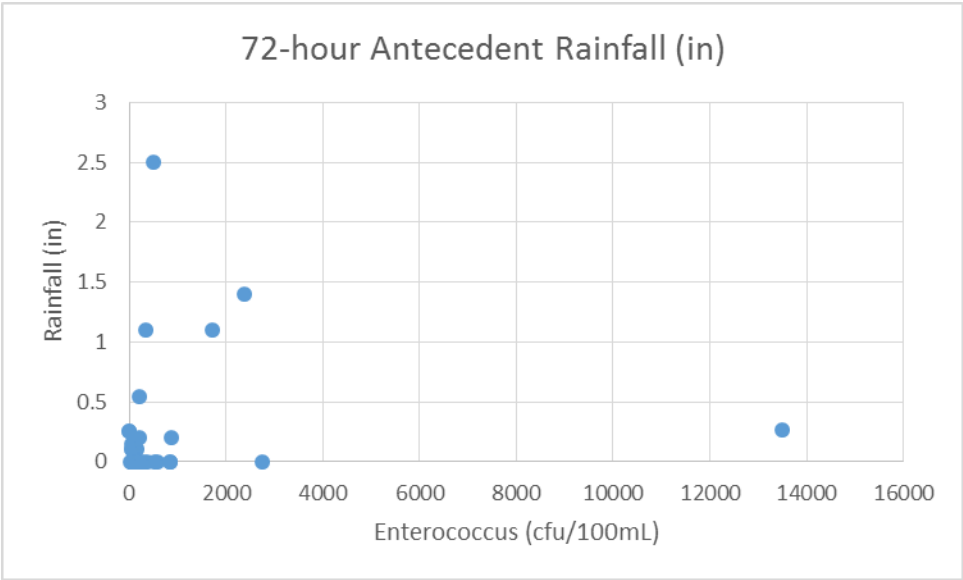


Figure 10.
Correlation of Enterococcus Bacteria and Antecedent Rainfall - Station PHC-000.85 for 2013 - 2017

While the regression show limited explanatory power, a number of general qualitative observations can be made. Bacteria concentrations generally are highest when temperatures are in the 5 degree C to 20 degree C range... As shown in Figure 11, a large drop off of bacteria concentrations tends to occur between the October and November events when water temperature drops below 15 °C. Concentrations for Stations PHC-000.85 and PHC-000.96 on January 12th, 2017 and for all stations on March 15, 2017 are elevated despite the colder temperatures, however. This shows that bacteria levels are not completely temperature dependent.

A similar ideal salinity range for Enterococcus seems to occur when salinity is less than 15 parts per thousand. This could be due to tidal stage or to amount of runoff from the watershed. The largest factor in *Enterococcus* concentrations during the sampling period appears to be rainfall and the subsequent source loading. The highest bacteria concentrations occur after a rainfall of more than 0.25 inches. The only significant rainfall during 2016-2017 sampling events was a large, approximately 1.98 inch rainfall event (NCDC, 2017) on March 13th and 14th, 2017 prior to the March event which had the highest bacteria concentrations in that period. No measureable rainfall occurred for 48 hours prior to the September 2016 and January 2017 sampling events however so rainfall is not the only cause for elevated bacteria counts.

A moderate relationship is seen when comparing concentrations to tide stage. Higher concentrations are seen when sampling occurs in the middle of an ebb tide versus at the beginning of an ebb tide. This could occur if concentrations in the Hoffler Creek stream network are higher than those in the adjacent river.

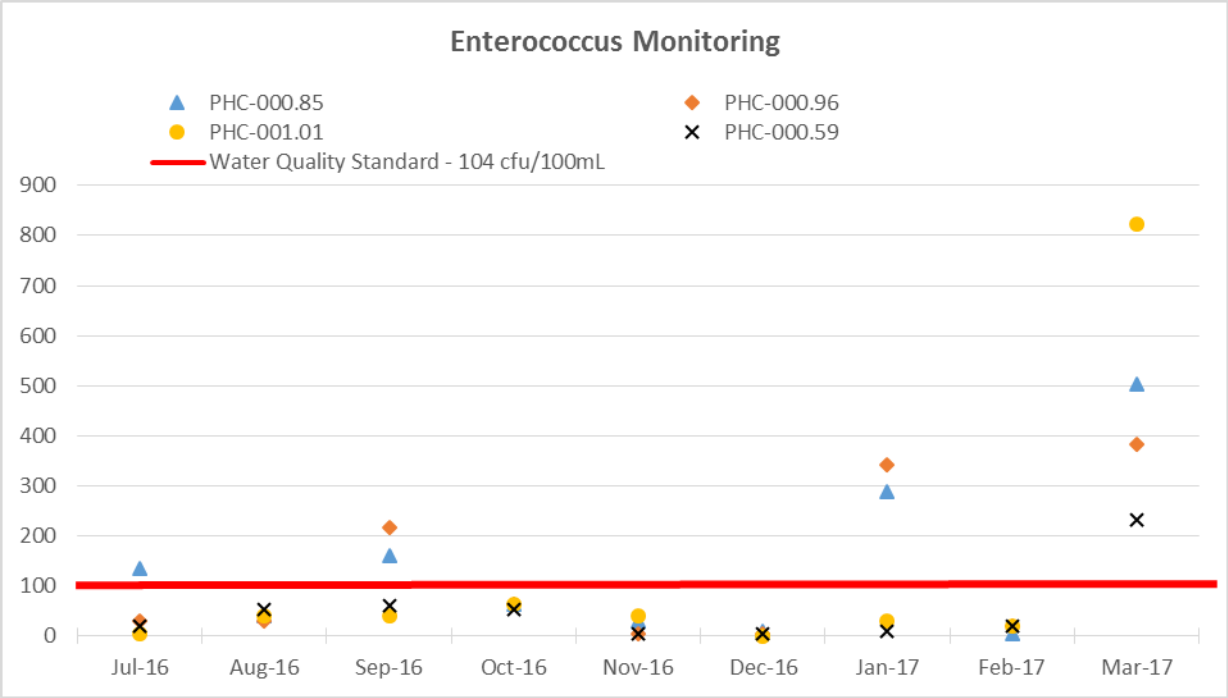


Figure 11.
Timeseries Plot of Enterococcus Bacteria in Hoffler Creek in 2016 - 2017

Fecal Coliform

An indeterminate pattern is seen between stations for the fecal coliform bacteria monitoring results. Stations PHC-00.085, PHC-00.096, and PHC-001.01 had similar concentrations during the 2014 to 2017 monitoring period. Station PHC-00.059 had overall lower fecal coliform concentrations. This may be due to increased die-off of fecal coliform as a result of higher salinity values seen towards the mouth of Hoffler Creek.

The box and whisker plot in Figure 12 shows the range of fecal coliform values measured from July 2014 to 2017.

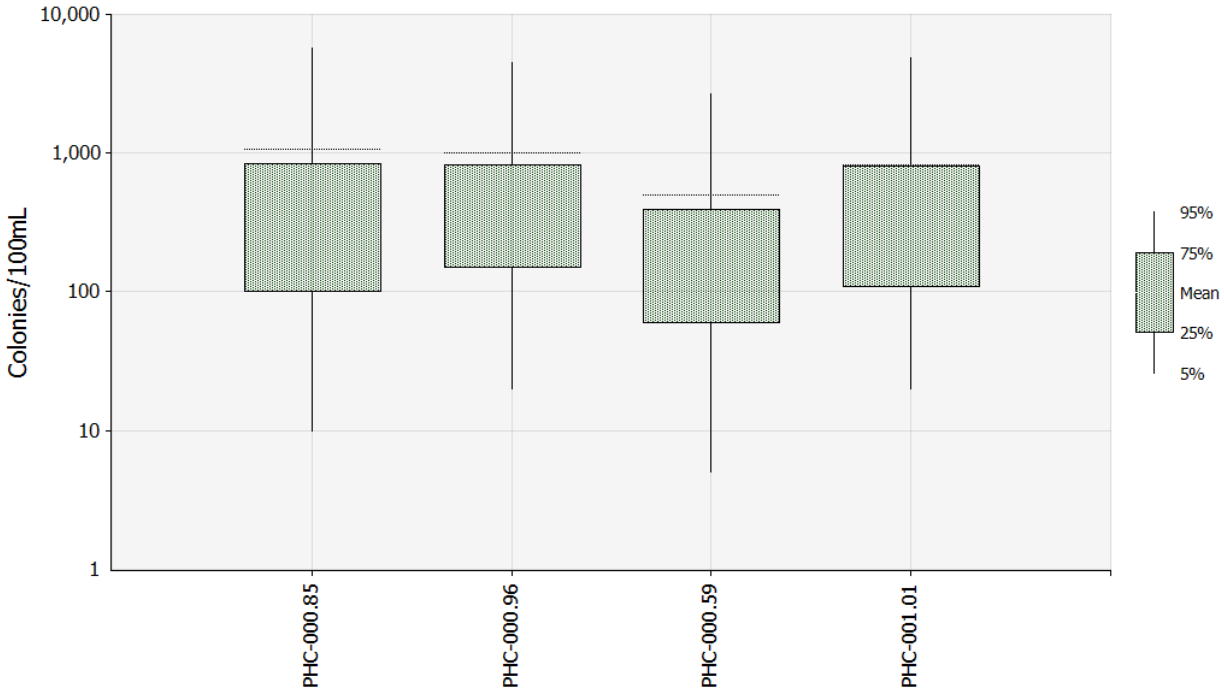
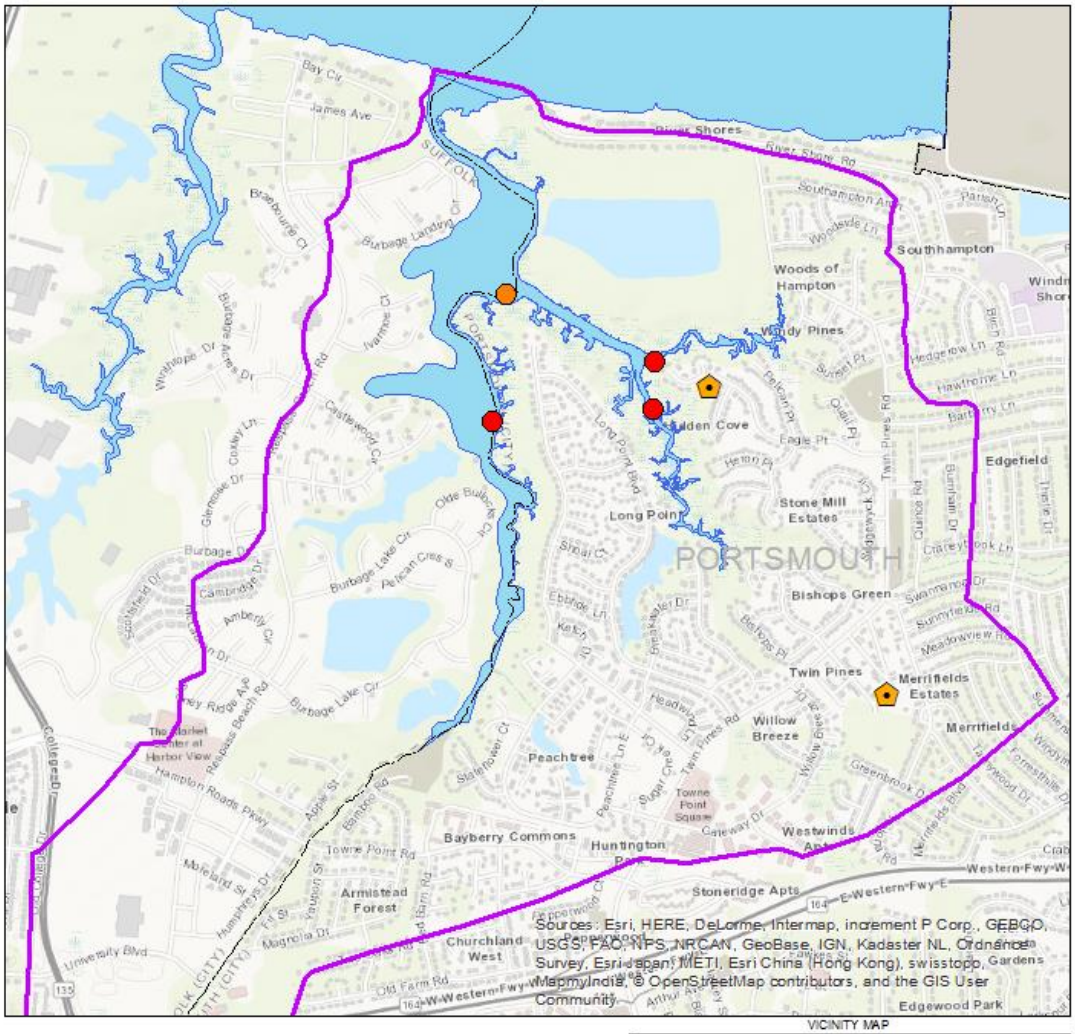


Figure 12.
Box and Whisker Plot of Fecal Coliform Bacteria in Hoffler Creek in 2016 - 2017

The Virginia water quality standards for fecal coliform are based on measurement of a geometric mean of multiple samples collected during a 30 day period. The standard does allow an alternative standard of 43 colony forming units per 100 mL if less than five samples are collected during the 30 day period. As noted in Table 2, all stations exceeded the standard approximately 85 percent of the time.
Figure 13 provides a spatial representation of these data. The dots for stations PHC-000.59, PHC-000.85, PHC-000.96, PHC-001.01, show the relative magnitude of the mean fecal coliform results. No station had an average less than 43 cfu/100mL.



LEGEND

Reported_SSO

Average FC

- 0 - 43
- 44 - 250
- 251 - 500
- 501 - 1500

HofflerCkDrainage

CityBoundary

Waterbodies

VICINITY MAP

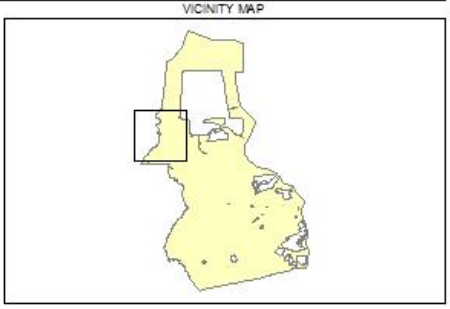


FIGURE 13
Average Fecal Coliform Bacteria
2016 - 2017 Bacteria Monitoring
MS4 Permitting Program

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Kendall trend tests (USGS 2005) were performed on the fecal coliform bacteria monitoring data. The data was first analyzed with the standard Kendall trend test to determine whether a statistically significant trend existed. All stations show a statistically significant downward trend as shown in Figures 14 through 17.

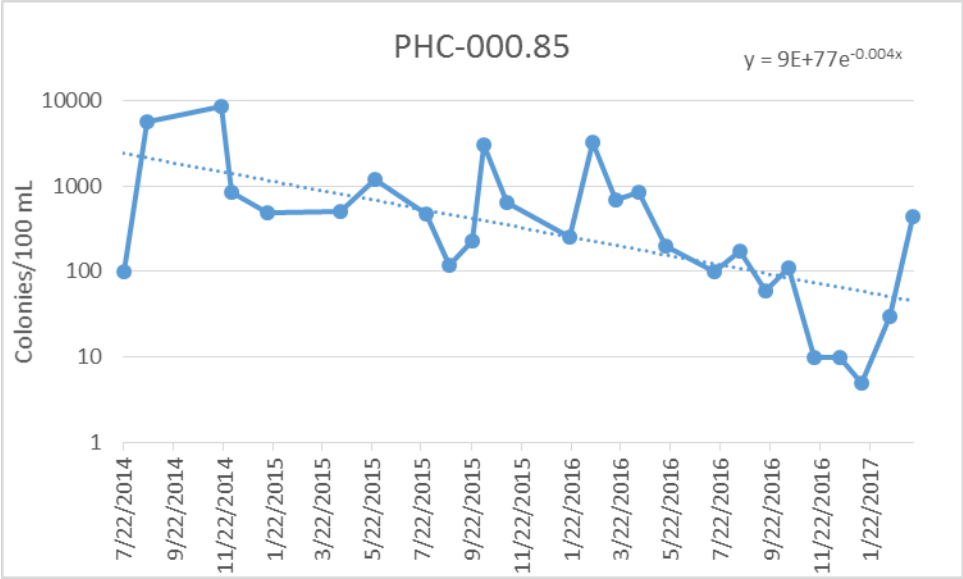

Figure 14.
Fecal coliform Bacteria in Hoffler Creek Station PHC-00.085 for 2014 - 2017

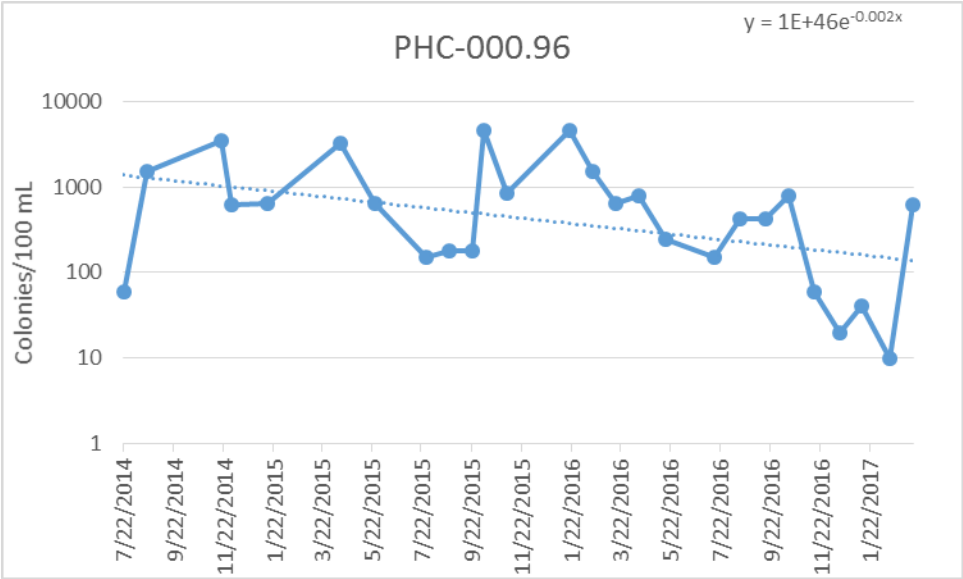

Figure 15.
Fecal coliform Bacteria in Hoffler Creek Station PHC-001.01 for 2014 - 2017

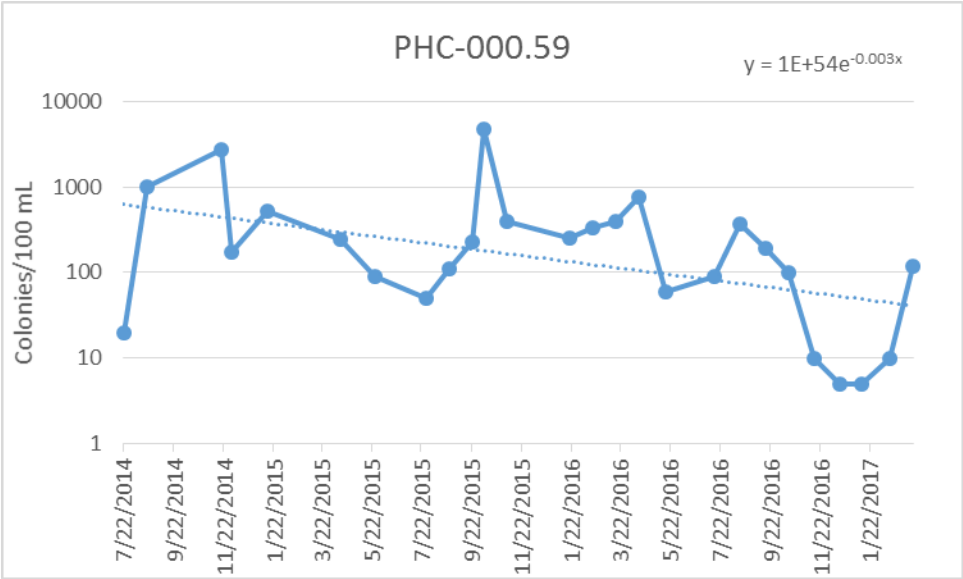

Figure 16.
Fecal coliform Bacteria in Hoffler Creek Station PHC-001.01 for 2014 - 2017

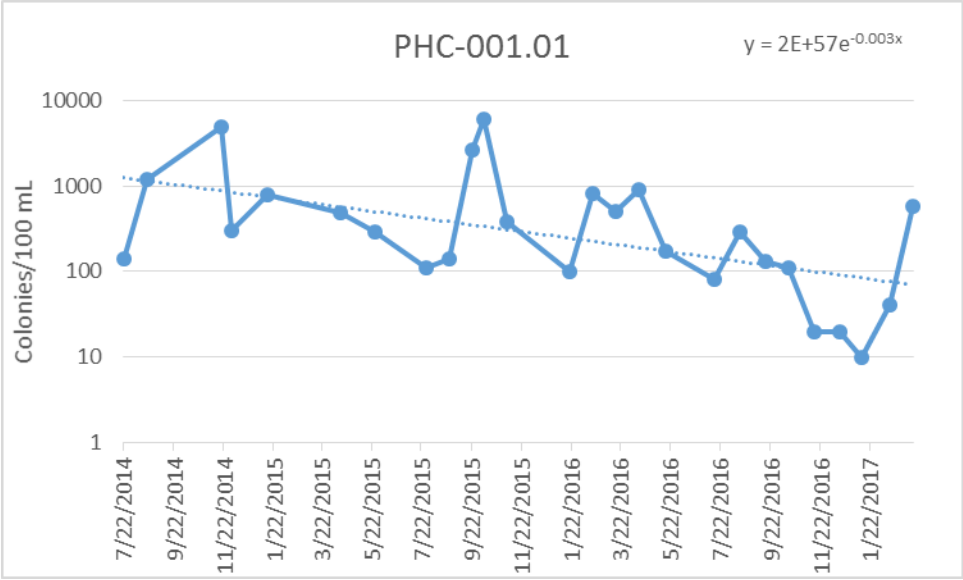

Figure 17.
Fecal coliform Bacteria in Hoffler Creek Station PHC-001.01 for 2014 - 2017

A clear downward trend is seen at all stations with PHC-0.085 have the greatest decrease and PHC-0.096 having the least decrease. High values are still seen at times but an overall decrease over time is apparent.

A timeseries of results is provided in Figure 15.

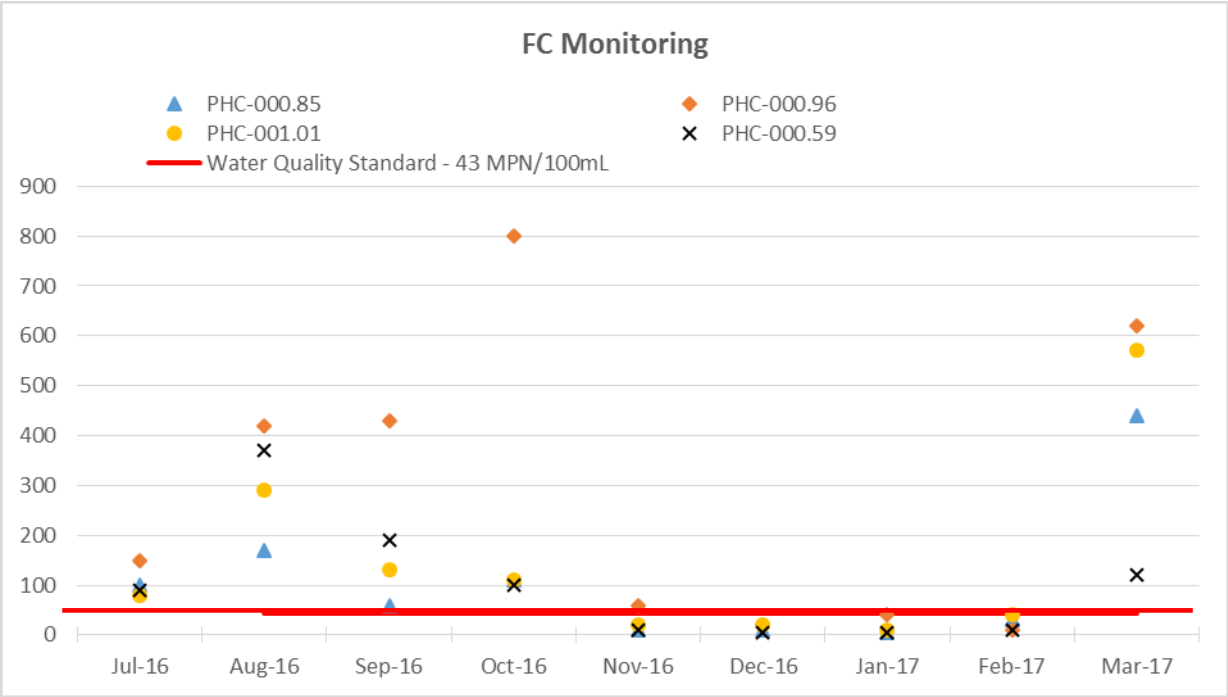

Figure 15.
Timeseries Plot of Fecal coliform Bacteria in Hoffler Creek in 2016 - 2017

Only moderate correlation was identified between fecal coliform data and environmental factors. The largest factor in fecal coliform concentrations during the sampling period appears to be moderate temperatures and antecedent rainfall

As with *Enterococcus*, fecal coliform concentrations can be seen decrease as temperatures decrease. Concentrations for all stations on March 15, 2017 are elevated despite the colder temperatures. A spike in fecal coliform concentrations on January 12th, 2017 at Stations PHC-000.85 and PHC-000.96 is not seen as it was for Enterococcus. In combination, temperature and salinity may have a moderate impact on fecal coliform concentrations.

Conclusions

A review of the Hoffler Creek bacteria monitoring data show a moderate level of bacteria at all stations. A large spatial difference is not seen between stations although PHC-000.59 had slightly lower concentrations than the three upstream stations. This may be due to the higher flushing with the Elizabeth River.

Two SSO locations, associated with pump stations, were identified in the watershed. While overflows did not occur during any sampling event, they could be considered as potential sources of bacteria.

Water quality standards for *Enterococcus* and fecal coliform were not uncommon from 2013 through 2017. The *Enterococcus* standard was exceeded at all station at least fifty percent of the time. The fecal coliform standard was exceeded approximately 85 percent of the time at all stations. Despite this, a trend analysis shows a steady and continuing decrease in bacteria demonstrating clear improvements over time.

References

NCDC. 2017. Draft Monthly Climate Data – Norfolk, VA Station. National Climatic Data Center, National Weather Service.

VADEQ. 2012. TMDL Implementation Plan for Hoffler Creek. Virginia Department of Environmental Quality.
USGS. 2005. Computer Program for the Kendall Family of Trend Tests. U.S. Geological Survey. Scientific Investigations Report 2005–5275.

Part I.C.3
Structural source controls compliance monitoring and tracking

"Each annual report shall include a copy of the updated database in electronic format."

"Each annual report shall include a summary of activities taken by the permittee to ensure maintenance of private stormwater management facilities."

"Each annual report shall include a summary of the program to ensure maintenance of stormwater management facilities maintained by the permittee."

City staff along with CH2M has designed a pilot program that is currently being tested out. The *City's IT Department is inputting tracking information into Tidemark for inspectors to be able to track materials sent, as well as inspections.*

Part I.D TMDL Action Plan and Implementation

Part I.D.1.b)
Chesapeake Bay Watershed TMDL Planning

"No later than 24 months after the effective date of this state permit (July 1, 2018), *the permittee shall develop and submit to the Department for its review and approval a phased Chesapeake Bay TMDL Action Plan…"*

Part I.D.1.c)
Chesapeake Bay Action Plan Implementation

"The permittee shall implement the TMDL action plan required in Part I.D.1.b)1) of this state permit according to the schedule therein."

Part I.D.2
TMDL Action Plans other than the Chesapeake Bay TMDL

Part I.D.2.a)
TMDL Action Plan Development

"No later than 24 months after the effective date of this state permit (July 1, 2018)*, the permittee shall submit to the Department TMDL Action Plans to address any new or modified requirements established under this Special Condition for pollutants identified in TMDL wasteload allocations approved prior to the effective date of this state permit"* (July 1, 2016).

CH2M is has the above mentioned Chesapeake Bay Watershed TMDL in the

REGIONAL COOPERATION IN STORMWATER MANAGEMENT
FISCAL YEAR 2016-2017
A STATUS REPORT

This report was included in the HRPDC Work Program for FY 2016-2017, approved by the Commission at its Executive Committee Meeting on June 16, 2016

Prepared by the staff of the
Hampton Roads Planning District Commission

in cooperation with the
Regional Stormwater Workgroup

September 2017

REPORT DOCUMENTATION

TITLE:
Regional Cooperation in Stormwater Management Fiscal Year 2016-2017: A Status Report

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LOCAL FUNDS

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ABSTRACT

This document describes cooperative activities related to stormwater management undertaken by Hampton Roads local governments during Fiscal Year 2016-2017. Activities described include the regional information exchange process, public information and education, legislative and regulatory issues, cooperative regional studies and related programs. This document is used by the region's eleven localities with stormwater permits to assist them in meeting their permit requirements.

ACKNOWLEDGMENTS

The Hampton Roads Planning District Commission, in cooperation with the regional Stormwater Workgroup, prepared this report.

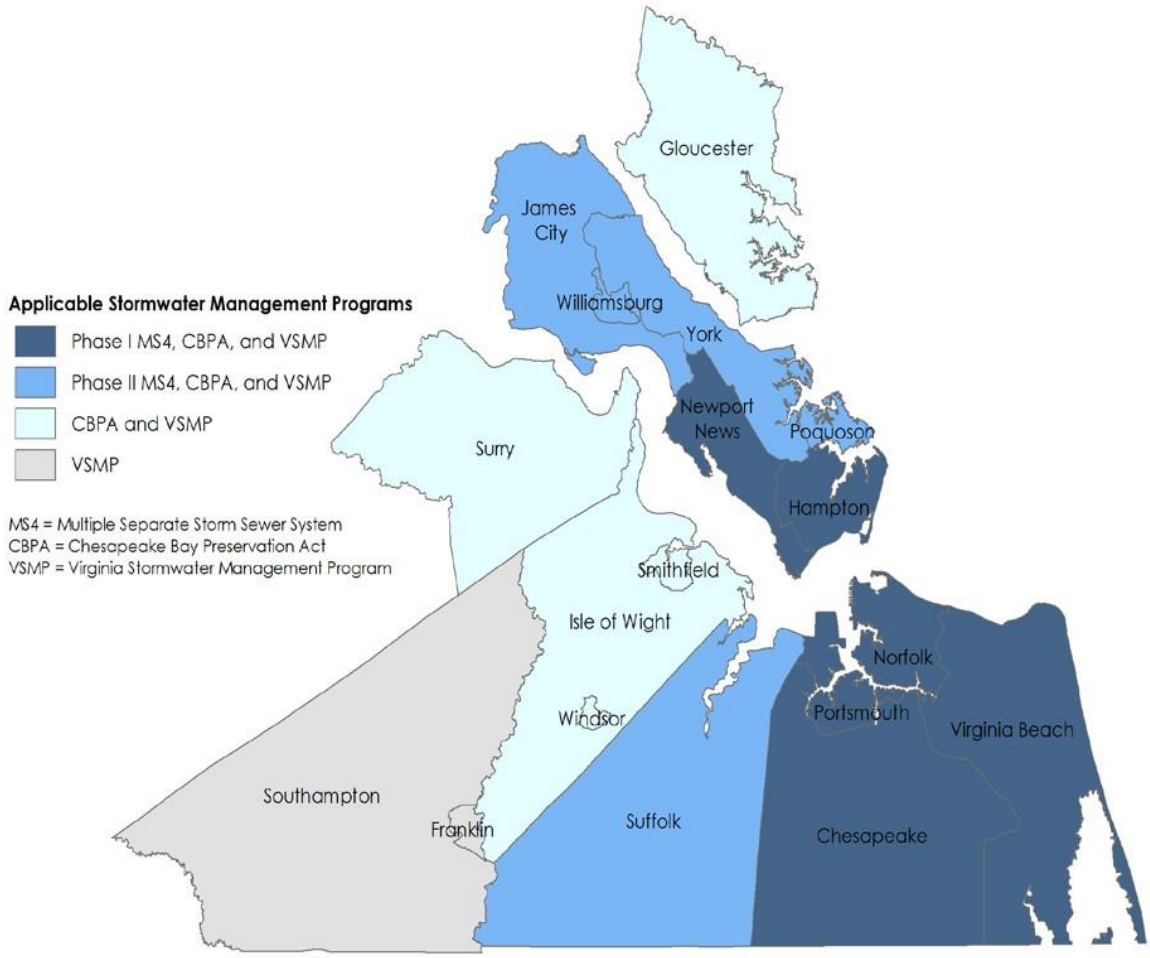
Preparation of this report was included in the HRPDC Unified Planning Work Program for FY 2016-2017, approved by the Commission at its Executive Committee Meeting of June 16, 2016.

The seventeen member local governments through the HRPDC Regional Stormwater Management Program provided funding.

INTRODUCTION

Working through the Hampton Roads Planning District Commission (HRPDC), the region's seventeen member cities and counties and town (Figure 1) cooperated on a variety of stormwater management activities during Fiscal Year 2016-2017. This cooperative effort has been underway as a formal adjunct to the Virginia Pollutant Discharge Elimination System Permits (VPDES) for Municipal Separate Storm Sewer Systems (MS4) held by the Cities of Chesapeake, Hampton, Newport News, Norfolk, Portsmouth and Virginia Beach since Fiscal Year 1995-1996. The Cities of Suffolk, Poquoson, Williamsburg, and James City County, Isle of Wight County, and York County joined in 2002 to coordinate Phase II MS4 permit applications. Cooperative activities documented in this report represent a continuation of an ongoing effort, which has involved concerted activity since 1992.

As of April 19, 2016, the Phase II MS4 permit for Isle of Wight County was terminated by the Department of Environmental Quality (DEQ). It was determined that the County does not own or operate a MS4 within the Census Urbanized Area.



REGIONAL STORMWATER MANAGEMENT PROGRAM GOALS

The HRPDC and local stormwater staffs undertook a comprehensive effort in FY 1998-1999, called the Regional Loading Study. The project included developing a set of regional stormwater management goals to guide the regional program. The goals were presented to and adopted by the HRPDC at its Executive Committee Meeting in September 1999. They were reaffirmed in the January 2003 approval of the "Memorandum of Agreement (MOA) Establishing the Hampton Roads Regional Stormwater Management Program" and the renewal of the MOA in 2008 and 2013. The adopted Regional Stormwater Management Program Goals, which guide the regional program, are:

- Manage stormwater quantity and quality to the maximum extent practicable (MEP).
  - Implement best management practices (BMPs) and retrofit flood control projects to provide water quality benefits.
  - Support site planning and plan review activities.
  - Manage pesticide, herbicide and fertilizer applications.
- Implement public information activities to increase citizen awareness and support for the program.
- Meet the following needs of citizens:
  - Address flooding and drainage problems.
  - Maintain the stormwater infrastructure.
  - Protect waterways.
  - Provide the appropriate funding for the program.
- Implement cost-effective and flexible program components.
- Satisfy VPDES stormwater permit requirements.
  - Enhance erosion and sedimentation control.
  - Manage illicit discharges, spill response, and remediation.

THE REGIONAL PROGRAM

The Regional Stormwater Management Program initially focused on activities that supported the permit compliance efforts of the six communities with Phase I VPDES Stormwater System Permits, technical assistance to the region's non-permitted communities and regional education and training to support all of the communities. The program has expanded to include the needs of the five communities with Phase II VPDES MS4 permits and the development of locally administered Stormwater Programs which were required starting July 1, 2014.

Phase I Localities

The current Phase I MS4 permits became effective on July 1, 2016. FY 2016-2017 represents the first year of the five-year permit cycle. This year, the permittees were focused on revising their MS4 Program Plans to incorporate the requirements of their new permits. The Program Plans were required to be submitted to DEQ for review and approval on July 1, 2017.

Phase II Localities

The Phase II General Permit was reissued on July 1, 2013. FY 2016-2017 represents the fourth year in the permit cycle. The permittees continue to implement their first Chesapeake Bay Action Plans, which were submitted in FY 2014-2015. Their first local TMDL Action Plans were due to DEQ on July 1, 2016.

Both the Phase I and Phase II Localities continue to implement their local Stormwater Programs, train staff on stormwater issues, and meet education and outreach requirements. HRPDC staff developed training materials and hosted various webcasts to assist with these efforts. More detailed descriptions are available in the *Training* section of this report. askHRgreen.org conducted regional media campaigns for pet waste reduction, proper lawn maintenance, and reduction of fats, oils, and grease.

INFORMATION EXCHANGE

The cornerstone of the Regional Stormwater Program continues to be the exchange of information. This is accomplished through regular monthly meetings to address topics of regional importance, as well as crosscutting issues that affect local stormwater, planning, public works and public utilities staff. In addition, various agencies and organizations utilize this regional forum to engage and inform local governments, as well as to gather feedback.

Monthly Meetings

The seventeen communities participate in the HRPDC Regional Stormwater Program and their staffs meet twice a month. The Stormwater Workgroup meetings provide an opportunity for local stormwater managers to exchange information about successful program activities, utility structures and policies, and technical challenges. The HRPDC Regional Environmental Committee meetings include local stormwater and planning staff plus cooperating agencies such as the Department of Conservation and Recreation (DCR), the DEQ, the Virginia Department of Transportation, the Hampton Roads Sanitation District (HRSD), and the US Navy.

State and Federal Agency Program Briefings

Representatives of state and federal agencies frequently brief the Committee on developing issues, regulatory guidance and technical programs. During the year, the Committee was briefed by representatives of the Virginia Coastal Zone Management Program on the native plants guide, the DEQ Tidewater Regional Office on local TMDLs, the Commonwealth Center for Recurrent Flooding Resiliency on the technical assistance services they offer, the Virginia Department of Health Division of Shellfish Sanitation on their bacteria source tracking projects,

the Virginia Master Naturalists on their training program, and the DEQ Central Office on Chesapeake Bay TMDL Phase III Watershed Implementation Plan outreach.

Regional Water Quality Technical Workgroup

In FY 2015, the HRPDC established the Regional Technical Environmental Workgroup in order to provide a forum for local government staff from various departments and consultants to discuss technical details of the implementation of the Chesapeake Bay TMDL as well as local TMDLs. In FY 2016, the name of the

Workgroup was changed to the Regional Water Quality Technical Workgroup to more accurately reflect the topics of discussion.

The objectives of the Workgroup are to discuss technical aspects of restoration projects and research, discuss research and development of alternative BMPs, help set regional priorities for approval of BMPs for the Bay TMDL, and develop research priorities for filling data gaps. Meetings are open to the public and are held quarterly. The Workgroup serves an advisory role to the Regional Environmental Committee. In FY 2017, three meetings were held. In December 2016, Mr. Fred Cunningham (DEQ-Central Office) spoke to the group regarding the state's interpretation of the Federal MS4 Remand Rule and the state study to evaluate BMP implementation in areas with a seasonally high groundwater table. In March 2017, Dr. Jeff Cornwell (University of Maryland Center for Environmental Science) presented his research on the availability of nutrients in eroding wetland sediments and gave an update on the status of the oyster aquaculture CBP Expert Panel. And finally, in June 2017, Mr. James Davis-Martin (DEQ-Central Office) spoke about the Phase 6 model inputs and BMP strategies for Virginia going forward.

PUBLIC EDUCATION

askHRgreen.org

The HR STORM committee, consisting of local stormwater education/public information staff, was established in 1997 to support development and operation of the stormwater education program. Beginning in FY 2011, the HRPDC environmental education programs were combined into a single public awareness program and central resource for environmental education in Hampton Roads known as askHRgreen.org. In June 2011, the askHRgreen.org website launched. The website contains information on earth-friendly landscaping ideas and pointers for keeping local waterways clean, recycling tips, and simple steps to make local living easy on the environment. It also includes a blog written by a team of local experts who work in the region's municipal utility and environmental divisions.

The stormwater education subcommittee of askHRgreen.org continues to meet on a monthly basis to discuss education priorities for stormwater. In FY 2017, the subcommittee focused on ensuring that the regional education campaign fulfills the outreach requirements of the current Phase II General Permit and many of the outreach objectives of the individual Phase I permits. The subcommittee also continued the program to distribute pet waste stations to interested community members throughout Hampton Roads. The activities conducted through the askHRgreen.org campaign for the year are summarized in the askHRgreen.org Annual Report.

TRAINING

Since 2004, HRPDC staff has worked with the MS4 permittees to develop and conduct training programs for local government staff. The table below provides a summary of the FY 2017 programs.

Training Topic	**Date**
Center for Watershed Protection – Incentivizing BMP Installation in Communities with Stormwater Utilities (webcast)	Sept 2016
Center for Watershed Protection – Retrofitting Revisited Forward Into the Past (webcast)	Oct 2016
Center for Watershed Protection – Stormwater Contaminants of Emerging Concern (webcast)	Mar 2017
Center for Watershed Protection – Nutrient Trading (webcast)	May 2017
Center for Watershed Protection – Making Urban Trees Count (webcast)	June 2017
IDDE in the Coastal Plain – Field Guide	Apr 2017
Identifying Illicit Discharges in the Coastal Plain – Video 1	Apr 2017
Tracking and Eliminating Illicit Discharges in the Coastal Plain – Video 2	Apr 2017
Excal Visual - Stormwater Pollution Prevention – Bulk Video Purchase	May 2017

Webcasts

The Stormwater Regional Workgroup purchased a series of webcasts from the Center for Watershed Protection to view throughout FY 2017. HRPDC hosted the webcasts so that one subscription could be shared.

Illicit Discharge Detection and Elimination (IDDE) in the Coastal Plain

Using grant funds provided by the National Fish and Wildlife Foundation, HRPDC staff, along with consultant partners, completed the IDDE in the Coastal Plain training project in May 2017. The final project deliverables are unique resources that are specifically designed to enhance capacity of the MS4 communities in the Coastal Plain. The project team produced two IDDE training videos and a customizable Field Guide.

The first video, *Identifying Illicit Discharges in the Coastal Plain*, is geared towards municipal staff from departments, such as Parks and Recreation, Utilities, Fire, and Police, who may witness and report discharges. The video addresses what a suspected illicit discharge might look like and runs for 15 minutes.

The second video, *Tracking and Eliminating Illicit Discharges in the Coastal Plain*, is targeted to environmental staff who will conduct investigations to determine the source of a suspected illicit discharge and take steps

to eliminate it. The video covers storm drain mapping, how to account for tidal influences, and field testing parameters. The video is 12 minutes long.

The field guide, *Illicit Discharge Detection and Elimination Field Guide for the Coastal Plain: How to Identify and Quickly Report Pollution Problems*, includes descriptions and photographs of the most common pollution problems, characteristics of illicit discharges, and written procedures.

Stormwater Pollution Prevention Videos
Excal Visual Inc. produces an extensive line of environmental training videos covering topics such as spill response, hazardous waste management, and stormwater management. Several localities were interested in purchasing pollution prevention training kits. HRPDC staff coordinated with Excal Visual Inc. over several months to evaluate purchasing options. The localities were able to purchase training kits at a discounted rate based on volume. By placing a regional order of fourteen videos, the localities were able to obtain them at half the original cost.

LEGISLATIVE & REGULATORY MONITORING

This element of the program involves monitoring state and federal legislative and regulatory activities that may impact local stormwater management programs. HRPDC staff in cooperation with the Committee develops consensus positions for consideration by the Commission and local governments. The level of effort devoted to this element has increased significantly over the years. During 2016-2017, the regional emphasis was on the fees related to the consolidated Virginia Erosion and Stormwater Management Program, developing guidelines for the use of proprietary BMPs for stormwater regulation compliance, the Phase II MS4 General Permit reissuance, the new individual MS4 permit for the Virginia Department of Transportation, the state nutrient trading regulations, the state's study on the use of stormwater practices in areas with a seasonally high water table, and development of Virginia's Phase III Watershed Implementation Plan for the Chesapeake Bay TMDL. For each issue, HRPDC staff provided updates to the Regional Stormwater Workgroup or the Regional Environmental Committee, collected input, and submitted comments on behalf of the Region. If a stakeholder group was assembled for a particular issue, then the Region nominated a representative to serve on behalf of the localities.

Fees Related to the Consolidated Virginia Erosion and Stormwater Management Program
In FY 2017, HRPDC served on the Stakeholders Advisory Group to evaluate the fees associated with the Erosion and Sediment Control and Stormwater Management combined program. There is a state fee structure that specifies the fees to be paid for coverage under the General

Permit for Discharges of Stormwater from Construction Activities that varies according to the disturbed acreage. It states the minimum amount to be collected by the locality, and the portion required by DEQ. The Stakeholders Advisory Group was charged with determining whether the fee structure is adequate to fund the program. Regional input was focused on preserving a locality's flexibility to increase permit fees as needed to support the local program. The Stakeholder Advisory Group reached consensus that DEQ cannot fund the state portion of the program with the current fee structure. It is anticipated that a new Advisory Group will be formed to evaluate options for increasing DEQ's funding for the program.

Proprietary BMPs for Stormwater Compliance
The new post-construction water quality requirements require approval from DEQ for use of proprietary BMPs in Virginia. The Stormwater BMP Clearinghouse Committee was established in order to provide guidance to the DEQ on BMP listing criteria, Clearinghouse website content, and database design. Regional input centered on defining the proposed role of the Clearinghouse in approving non-proprietary BMP pollutant removal efficiencies.

At the end of FY 2014, the DEQ issued interim guidance that describes a process for approving these proprietary BMPs and assigning pollutant removal credits: "Interim Use of Stormwater Manufactured Treatment Devices (MTDs) to Meet the New Virginia Stormwater Management Program (VSMP) Technical Criteria, Part IIB Water Quality Design Requirements." In FY 2015, the Clearinghouse Committee focused on the approval process for MTDs and discussed how and when the guidance should be updated or replaced with regulations. HRPDC staff has been involved with a cooperative effort to request that DEQ add sizing criteria to the Guidance. In FY 2016, DEQ began the process of revising the guidance and updating the BMP Clearinghouse to include sizing for MTDs. That process remains ongoing. In FY 2017, HRPDC staff has been involved with parallel efforts by the Chesapeake Bay Program (CBP) and the Water Environment Federation to develop testing protocols for MTDs.

Phase II MS4 General Permit Reissuance

The Phase II MS4 general permit expires on June 30, 2018. HRPDC staff served on the Technical Advisory Committee established to assist DEQ with revising the permit language. The Technical Advisory Committee met nine times from October 2016 through May 2017 and reviewed all sections of the permit twice.

The federal MS4 Remand Rule ("Rule") was finalized in November 2017, and the general permit has to be updated to comply. DEQ is following the Traditional Approach outlined in the Rule which requires the general permit to contain clear, specific, and measurable requirements. For example, for minimum control measure 1, public education and outreach, permittees are to implement a certain number of strategies that they select from the list of DEQ- or CBP- approved BMPs provided in the permit.

Regional input was focused on preserving a permittee's flexibility to implement BMPs that work best for them. DEQ intends to share a final draft of the permit with the Technical Advisory Committee and the EPA in September 2017 for review. A formal public comment

period will be held this fall. DEQ has planned to submit the final permit to the State Water Control Board for approval in November 2017.

Virginia Department of Transportation Individual MS4 Permit

Instead of continuing coverage under the Phase II MS4 general permit, DEQ issued VDOT an individual MS4 permit with an effective date of July 1, 2017. HRPDC staff followed the development of the VDOT permit closely to monitor any potential precedent that could be set for future locality MS4 permits. The draft VDOT MS4 permit went out for public notice on May 4, 2017. Some of the permit conditions were different than what had been discussed during the Technical Advisory Committee meetings for the Phase II general MS4 permit. HRPDC submitted comments to request a consistent approach across all of the VDPES permits, specifically: remove the requirement for DEQ to approve the MS4 Program Plan; remove "dechlorinated" from the water line flushing exemption; remove the requirement to track routine BMP maintenance activities; and finally, ensure that the compliance standard for local TMDLs is to implement BMPs from the list provided. The final VDOT MS4 permit became effective on July 1, 2017, and the permit language is more closely aligned with the positions DEQ had taken during the meetings for the Phase II MS4 general permit.

Virginia Nutrient Trading Regulations

In 2012, the Virginia General Assembly passed legislation requiring the State Water Control Board to adopt regulations for the certification of nonpoint source nutrient credits. Nonpoint credits include credits generated from agricultural and urban stormwater BMPs, management of animal feeding operations, land use conversion, stream or wetlands restoration, shellfish aquaculture, and other established or innovative methods of nutrient control or removal. Virginia's current trading program involves exchanges between point

sources. This regulation is another step towards a successful trading program because it will make additional nonpoint source nutrient credits available for point source or nonpoint source trades. This expanded trading program is part of the overall goal of meeting the reductions assigned by the Chesapeake Bay TMDL.

The regulation will establish the process for the certification of nonpoint source nitrogen and phosphorus nutrient credits and assure the generation of the credits. The regulation includes application procedures, baseline requirements, credit calculation procedures, release and registration of credits, compliance and reporting requirements for nutrient credit-generating entities, enforcement requirements, application fees, and financial assurance requirements.

From FY 2013 to FY 2017, HRPDC staff has served on the Regulatory Advisory Panel established to assist the DEQ in developing the certification regulations. The DEQ proposed the Regulations for public comment in the Virginia Registrar on December 29, 2014. The HRPDC submitted comments to the DEQ in March 2015 that: supported the definition of management area; requested that a public hearing be held for nutrient certification requests; asked for clarification of credits purchased within MS4s by private parties; and suggested revisions to ensure that the regulations are protective of local water quality.

In FY 2016, the DEQ reconvened the Regulatory Advisory Panel to discuss "Innovative Practices,

Perpetual Nutrient Credits/Permanence, Stream Restoration/Mitigation Banking, and Term Nutrient Credits" based on the number of comments received during the public comment period.

In FY 2017, the Regulatory Advisory Panel met in April. DEQ presented a list of issues that have failed to reach consensus. It is anticipated that a revised regulation will go out for public comment later this year. Regional concerns with nutrient credit trading are focused on local water quality protection and the types of purchased credits MS4 permittees can claim in their Chesapeake Bay Action Plans. HRPDC staff continues to serve on the Regulatory Advisory Panel.

Application of the Postdevelopment Stormwater Management Technical Criteria in Areas with a Seasonal High Groundwater Table – House Joint Resolution 587 (2015)

In 2015, House Joint Resolution (HJR) 587 requested that DEQ perform a two-year study of the application of the postdevelopment stormwater management technical criteria in areas with a seasonal high groundwater table (SHGT). DEQ submitted the Phase 1 report to the General Assembly in January 2016. The Phase 1 report provided background information and summarized the challenges of implementing infiltration BMPs in the coastal plain.

In December 2016, DEQ released a draft of the Phase 2 report, which included a continued search and study of the literature and stormwater design manuals used in other states. The report includes examples of BMPs used in other states in areas with a SHGT that are not currently approved for use in Virginia. The HRPDC submitted comments that: requested CBP- approved BMPs be added to the BMP Clearinghouse; DEQ develop guidance on how to use BMPs effectively in areas with a SHGT; and requested a clear process for seeking DEQ approval of innovative BMPs.

The final Phase 2 report was presented to the General Assembly in January 2017. The recommendations will be revisited during the development of the regulations for the new consolidated Virginia Erosion and Stormwater Management Program.

Virginia's Phase III Watershed Implementation Plan for the Chesapeake Bay TMDL

The EPA established the Chesapeake Bay TMDL on December 29, 2010 that included a Phase I Watershed Implementation Plan (WIP) developed by Virginia that outlined the statewide strategies that would be implemented by each source sector to achieve TMDL compliance. In March 2012, Virginia submitted its

final Phase II WIP to EPA that outlined the management actions that will be implemented by local governments. The HRPDC participated in both efforts on behalf of the local governments and submitted regional input for the Phase II WIP entitled, *Hampton Roads Regional Planning Framework, Scenario, and Strategies.*

Virginia is required to develop a Phase III Watershed Implementation Plan by 2018 that will describe how Virginia will achieve the required nutrient and sediment reductions from 2017 through 2025. In FY 2015, Virginia began the development of this plan with the establishment of the Chesapeake Bay Stakeholder Advisory Group. HRPDC staff continues to participate in the

Stakeholder Advisory Group and attended the meetings in December 2016 and July 2017. Meetings included the data inputs for the Phase 6 model, Virginia fertilizer law, the James River chlorophyll criteria study, and the midpoint assessment schedule.

As part of Virginia's efforts to develop the Phase III WIP, DEQ staff is leading outreach meetings across the state. HRPDC hosted the outreach meeting for Hampton Roads on June 1, 2017. DEQ staff reviewed the progress Virginia has made so far in reaching the goals of the TMDL, discussed the schedule for the development of the Phase III WIP, and explained the role of localities.

REGIONAL STUDIES

Water Quality Monitoring Study

In FY 2014, the HRPDC and the Phase I localities partnered with the USGS and the HRSD to create the Hampton Roads Regional Water Quality Monitoring Program (HRRWQMP). The purpose of the study is to characterize the sediment and nutrient loadings from the major urban land-uses in the Hampton Roads region. The data collected during the first three to five years will serve as a baseline for nutrient and sediment loads from the MS4s prior to implementation of BMPs to comply with the Chesapeake Bay TMDL. In addition these measured sediment and nutrient loads will be compared to the loading rates in the Chesapeake Bay Watershed Model and used to improve the accuracy of the model in the Coastal Plain. In FY 2015, the locations of the 12 stations (2 per Phase I locality) were selected. Seven stations were installed. In FY 2016, three additional stations were installed. In FY 2017, the remaining two stations were brought online. The twelve stations are collecting storm event samples, which are analyzed for nutrients and sediments. The stations continuously monitor flow, turbidity, and conductivity. Additional information on the project objectives, site locations, and data collected can be viewed here: http://va.water.usgs.gov/HRstormwater/index.html.

The HRRWQMP was incorporated into the new Phase I MS4 permits. HRPDC staff is developing an Annual Report that includes the locations of monitoring stations, a summary of available data, and an interpretation of the data to include in the Phase I MS4 Annual Reports. The report is based on the annual update presented to the Regional Stormwater Workgroup by Mr. Aaron Porter (USGS).

Stormwater Program Matrix

A comprehensive stormwater program matrix, including Phase I and Phase II communities, was developed in FY 2000 to address both utility and programmatic issues. HRPDC staff coordinates with local government stormwater program staff to update the information in the matrix annually.

Local TMDL and Implementation Plan Development

The state has developed a substantial number of TMDL Studies and TMDL Implementation Plans. This work follows the classification of the waters by the state as meeting or failing to meet water quality standards. Water bodies that fail to meet water quality standards are classified as "impaired," triggering the requirement to prepare the TMDL study. HRPDC staff has coordinated regional involvement in the "impaired waters" listing and TMDL development process. This has entailed providing opportunities through the Regional Environmental Committee for education of local government staff on the TMDL process, response to the development of TMDLs themselves, and participation in the development of implementation plans.

To assist the region's localities in addressing this requirement and ensuring that Implementation Plans are feasible, HRPDC staff is working with the DEQ through a cooperative regional partnership to coordinate the TMDL study process with the localities and to develop the required Implementation Plans. In FY 2014, the HRPDC partnered with the DEQ, Hampton Roads localities, and the HRSD to develop a study plan to collect stormwater samples from the Elizabeth River watershed and analyze them for polychlorinated biphenyl (PCB) concentration in order to support the development of the Lower James and Elizabeth River PCB TMDL. Stations in Chesapeake, Norfolk, Portsmouth, and Virginia Beach were selected because they met the criteria for representative land uses and watersheds where PCBs could be monitored. In FY 2015, water samples were collected at these stations by the HRSD and sent to the DEQ selected laboratory for PCB analysis. The MS4 localities in Hampton Roads funded the data collection and the DEQ paid for the analysis. The PCB TMDL for the Lower James and Elizabeth River was expected to be developed in FY 2017; however, the DEQ experienced a number of staffing changes and other delays. It is expected sometime during FY 2018.

HRSD Bacteria Source Tracking

HRSD began a pathogen program to conduct bacteria source tracking in June 2015. The program was designed as a way to partner with local governments to focus source identification efforts. HRSD is providing sampling and analyses services while the local governments are providing staff time for the investigations. HRPDC hosted Dr. Raul Gonzalez (HRSD) as he introduced the program and sought locality partners. Several localities have taken advantage of the program so far.

TECHNICAL ASSISTANCE

The HRPDC continues to serve as a clearinghouse for technical assistance to the localities, as well as a point of contact in arranging short-term assistance from one locality to another. The HRPDC Committee structure also provides a forum for state and federal regulatory agency staff to meet with the region's localities to discuss evolving stormwater management regulations and other emerging regulatory issues. In addition, HRPDC staff provides technical information and advice to all of the participating localities on a wide variety of issues upon request. In FY 2017, technical assistance to localities was focused on disseminating information related to implementation of and compliance with the Chesapeake Bay TMDL, providing training resources for locality stormwater staff, and evaluating the real world challenges of interpreting and implementing the local stormwater programs.

MEMORANDUM OF AGREEMENT

The Regional Stormwater Management Program was established in 1996 as a formal program of the Hampton Roads Planning District Commission with support and participation from the seventeen member local governments. An MOA was created that outlines the basic regulatory and programmatic premises for the cooperative program, incorporating the Regional Program Goals, described earlier in this report. The MOA establishes a division of program responsibilities among the HRPDC and the participating localities, addresses questions of legal liability for program implementation, and includes other general provisions. The MOA is reauthorized by the signatories every five years and was renewed in 2013.

PERMIT ADMINISTRATION AND REPORTING SYSTEM (PARS)

In an effort to streamline reporting and capture data more effectively for local governments, the permitted localities pooled resources to develop the Permit Administration and Reporting System, or PARS. The region contracted with URS Corporation to develop a web-based data tracking and reporting system. The system allows local governments to catalog development sites and their associated BMPs. The system also enables localities to capture inspection information, catalog stormwater outfalls, document illicit discharge investigations and record public education information. Users can query a variety of reports to satisfy the reporting requirements of their stormwater permits. In FY 2016, the Regional Stormwater Workgroup agreed to retire PARS on June 30, 2016 for all users except Chesapeake, James City County, Norfolk, Suffolk, and Williamsburg as it no longer meets today's reporting and tracking needs. These five localities agreed to continue to support PARS through December 2016. Norfolk and Chesapeake continue to support the database into FY 2018 while alternative systems are under development in those localities.

RELATED PROGRAMS AND PROJECTS

In various combinations, the eleven MS4 communities, as well as their non-permitted counterpart communities, participate in a wide variety of related programs. These programs are noted here because of their relationship with stormwater management.

Chesapeake Bay Program Participation

The Chesapeake Bay Program (CBP) is a regional partnership that has led and directed the restoration of the Chesapeake Bay since 1983. CBP partners include federal and state agencies, local governments, non-profit organizations and academic institutions. Partners work together through the CBP's goal teams, workgroups and committees to collaborate, share information, and set goals. Since the development of the Chesapeake Bay TMDL in December 2010, the Hampton Roads Region has devoted considerable attention to the ongoing CBP. HRPDC and locality staff have participated in the deliberations of many CBP committees and work groups dealing with urban stormwater, land development, watershed planning, land use development, modeling and local government's role in the Bay Program. HRPDC staff has continued to follow the activities of the CBP primarily through participation in the Urban Stormwater Workgroup,

the Land Use Workgroup, and the Water Quality Goal Implementation Team. HRPDC staff serves on the Climate Resiliency Workgroup, which was established to evaluate the impacts of climate change on the CBP's goals and activities. HRPDC staff participated in the Local Area Targets Task Force, which was charged to make recommendations whether the Phase III WIPs should include local area targets and if so, options for how these targets could be expressed in different jurisdictions. HRPDC staff also serves on Virginia's WIP III Stakeholder Advisory Group (SAG). HRPDC staff continues to participate in the development of the ongoing James River Chlorophyll-a study.

Chesapeake Bay Preservation Act Program

Fifteen of the seventeen member localities continue to implement programs in response to the Virginia Chesapeake Bay Preservation Act (CBPA). Stormwater management is one component of those programs. Although the CBPA is not formally part of the multi-state CBP, described above, it serves as one element of local government implementation actions to comply with their MS4 Permits and to meet the goals of the CBP.

HRSD - Sustainable Water Initiative for Tomorrow (SWIFT)

HRSD is developing the SWIFT project, their multi-year initiative that will take treated wastewater, purify it to drinking water standards, and then inject it into the Potomac Aquifer. In addition to replenishing the water in the aquifer, the SWIFT project will significantly reduce the volume of treated wastewater reaching the James, York, and Elizabeth Rivers. The project will generate enough nutrient and sediment credits to meet almost all of the regional urban stormwater waste load allocations in the Chesapeake Bay TMDL. Mr. Ted Henifin (General Manager for HRSD) has given several presentations on the project at the Regional Environmental Committee and Regional Stormwater Workgroup meetings and has described the advantages of using the credits generated by the project to meet MS4 pollution reduction requirements.

HRSD, HRPDC staff, and the MS4 permittees collaborated to develop a regional template for the memorandums of agreement to establish the framework for trading stormwater pollutant reduction credits. It is anticipated that individual MOAs with each of the eleven MS4 permittees will be signed by October 1, 2017.

CONCLUSION

Through the Hampton Roads Planning District Commission, the seventeen localities of Hampton Roads have established a comprehensive Regional Stormwater Management Program. This program provides

technical assistance, coordination, comprehensive technical studies and policy analyses and stormwater education. The Regional Stormwater Management Program enables the region's localities to participate actively and effectively in state and federal regulatory matters. It has enhanced the ability of the eleven localities with VPDES Permits for their Municipal Separate Storm Sewer Systems to comply with permit requirements.

The Regional Stormwater Management Program provides a mechanism through which the strengths of the seventeen local stormwater programs can be mutually supportive. It allows for cost-effective compliance with permit requirements, resolution of citizen concerns with stormwater drainage and water quality matters, promotes regional consistency, and achievement of improved environmental quality throughout the Hampton Roads Region.