



N O R F O L K

Department of Public Works, Field Engineering & Environmental Management

September 25, 2020

David Taylor
Regional MS4 Coordinator
Department of Environmental Quality
Tidewater Regional Office
5636 Southern Blvd.
Virginia Beach, VA 23462

RE: VPDES Permit VA0088650

Dear Mr. Taylor:

Please find enclosed the FY2020 VPDES Annual Report for the City of Norfolk, submitted in accordance with Part I.E of the above referenced MS4 Phase I permit.

If you have any questions or need additional information, please do not hesitate to contact June Whitehurst, Environmental Programs Manager of Environmental Storm Water Management, at (757) 823 – 4010.

Sincerely,

Richard Broad, PE
Director of Public Works

Enclosures

CERTIFICATION STATEMENT AND SIGNATORY REQUIREMENTS FOR MS4 PERMIT APPLICATIONS AND REPORTS

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:

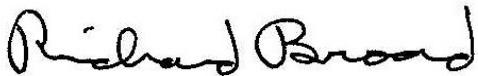
1. *For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy-making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

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.*
-

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

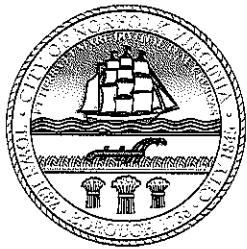
Date

VA0088650

City of Norfolk

Permit Number

MS4 Name



N O R F O L K

Department of Public Works, Field Engineering & Environmental Management

August 16, 2017

Craig Nicol
Department of Environmental Quality
Tidewater Regional Office
5636 Southern Blvd.
Virginia Beach, VA 23462

RE: City of Norfolk, Duly Authorized Representative

Dear Mr. Nicol:

As the principal executive officer, I am approving Mr. Richard Broad, Director of Public Works to be designated as a "Duly Authorized Representative" for the City of Norfolk. This authorization will allow him to certify environmental regulatory correspondence such as reports, plans, permit applications and other supporting documentation on behalf of the City of Norfolk with regard to environmental compliance.

If you have any questions or need additional information, please do not hesitate to contact June Whitehurst, Environmental Programs Manager of Environmental Storm Water Management, at (757) 823 – 4005.

Sincerely,

Douglas L. Smith
City Manager

City of Norfolk Phase I MS4 Annual Report - Fiscal Year 2020

VA0088650

Permit Section	Specific Reporting Requirement and Result
Part I.A.2 (Permittee Responsibilities)	<p>Each annual report shall include a current list of roles and responsibilities.</p> <ul style="list-style-type: none">• See MS4 Program Plan (originally approved via letter dated August 28, 2017; second revision completed in October 2018; third revision completed in April 2020) for a full list of roles and responsibilities. https://www.norfolk.gov/documentcenter/view/31602
	<p>Each annual report shall include a list of those circumstances of non-compliance outside of the permittee's control.</p> <ul style="list-style-type: none">• The City is required to inspect a minimum of 724,000 linear feet of sanitary sewer during the reporting year. The City inspected 685,205 linear feet during FY2020. Upon further review, it was found that The City of Norfolk's Utilities Combined Operations was split into two crews in March 2020 due to COVID-19 and operated under reduced operations/manpower through mid-May. During this time, staff only responded to emergencies. Since bringing crews back to work full-time in May 2020, there have been many situations where multiple personnel have been out for various lengths of time due to COVID-19. This has led to continued periods of time when operations have moved to addressing emergencies only. Note that this issue of non-compliance was brought to our attention during the development of the MS4 Annual Report and was immediately reported to DEQ via email 9/16/2020.
Part I.A.4 (MS4 Program Resources)	<p>A copy of the fiscal year's budget including its proposed capital and operation and maintenance expenditures necessary to accomplish the activities required by this state permit shall be submitted with each annual report.</p> <ul style="list-style-type: none">• See Appendix 1 for all budget information.
Part I.A.6 (MS4 Program Plan)	<p>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.</p> <ul style="list-style-type: none">• Revision #3 of the MS4 Program Plan is available online. https://www.norfolk.gov/documentcenter/view/31602
Part I.A.7.b (MS4 Program Updates Requested by the Department)	<p>All modifications and proposed modifications shall be reported in accordance with this section of the permit.</p> <ul style="list-style-type: none">• Revision #3 of the MS4 Program Plan is available online. https://www.norfolk.gov/documentcenter/view/31602
Part I.B.1 (Planning)	<p>Each annual report shall include an updated project summary sheet.</p> <ul style="list-style-type: none">• See Appendix 2.
	<p>Each annual report shall include a current web link to the project status page.</p> <ul style="list-style-type: none">• https://www.norfolk.gov/index.aspx?nid=3969
	<p>Each annual report shall include a status update for those water quality projects for which implementation or construction occurred during the reporting year.</p> <ul style="list-style-type: none">• See Appendix 2. https://www.norfolk.gov/index.aspx?nid=3969
Part I.B.2.a (Construction Site Runoff & Post Construction from Areas of New Development &	<p>Each annual report shall contain the number of regulated land disturbing activities approved and the total number of acres disturbed.</p> <ul style="list-style-type: none">• A total of 384 land disturbing activities were approved, for a total of 149.47 disturbed acres during FY2020.
	<p>Each annual report shall contain the number of land disturbing activity inspections conducted and the number and type of each enforcement action taken.</p>

Permit Section	Specific Reporting Requirement and Result												
Development on Prior Developed Lands)	<ul style="list-style-type: none"> A total of 4,321 Erosion & Sediment Control inspections were conducted, resulting in 95 written violations and 5 Stop Work Orders during FY2020. 												
	<p>Each annual report shall include a list of land disturbing projects that qualify under the “Grandfathering” provision of the VSMP regulations that receive coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities during the reporting period.</p> <ul style="list-style-type: none"> NA – None during FY2020. 												
	<p>Each annual report shall include a summary of actions taken by the permittee to implement a local E&SC program consistent with the VESC Law and regulations, and a SWM program consistent with VSWM Act and regulations. The permittee shall identify in the MS4 Program Plan all legal authorities for ESC and SWM that are more stringent than required.</p> <ul style="list-style-type: none"> See MS4 Program Plan (https://www.norfolk.gov/documentcenter/view/31602) and City's Design & Construction Manual (https://www.norfolk.gov/DocumentCenter/View/21350) for details. 												
Part I.B.2.b (Retrofitting on Prior Developed Lands)	<p>Each annual report shall include a status update for those projects for which implementation began during the reporting period.</p> <ul style="list-style-type: none"> See Appendix 2. https://www.norfolk.gov/index.aspx?nid=3969 												
	<p>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).</p> <ul style="list-style-type: none"> NA – All retrofit projects serve to assist in meeting the requirements of Part I.D (TMDL Action Plans and Implementation) of the MS4 permit. 												
Part I.B.2.c (Roadways)	<p>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 BMP's, and miles of roadway treated with BMP's.</p> <ul style="list-style-type: none"> Lists have been developed, are being maintained, and are available upon request. 												
	<p>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. The permittee shall include a copy of the written protocols...with the next annual report that is due after development of the protocols.</p> <ul style="list-style-type: none"> See Appendix 7 for a copy of SOP 630 – Storm Water Pollution Prevention Protocol for the Maintenance of Roads, Streets and Parking Lots. 												
Part I.B.2.d (Pesticide, Herbicide, and Fertilizer Application)	<p>Updated list of all permittee lands and applicable acreage on which nutrients are applied to more than one contiguous acre:</p> <ul style="list-style-type: none"> See table below. 												
	<p>Each annual report shall report on compliance with the turf and landscape nutrient management plan implementation schedule and include a list of the permittee's properties for which turf and landscape nutrient management plans have been implemented during the reporting year and the cumulative total of acreage under turf and landscape management plans.</p> <ul style="list-style-type: none"> Due October 1, 2020 – Not less than 75% of all identified acres will be covered by turf and landscape management plans. <ul style="list-style-type: none"> As of March 1, 2019, the second and final phase of Nutrient Management Plan development and implementation was completed. This accounts for 100% of all identified acres required to be covered under Nutrient Management Plans. 												
<table border="1"> <thead> <tr> <th>Site</th><th>Irrigated / Non-irrigated</th><th>Sq Ft</th><th>Acres</th></tr> </thead> <tbody> <tr> <td>Lake Taylor Soccer Field 1</td><td>Irrigated</td><td>74,339</td><td>1.70</td></tr> <tr> <td>Lake Taylor Soccer Field 2</td><td>Irrigated</td><td>72,601</td><td>1.67</td></tr> </tbody> </table>		Site	Irrigated / Non-irrigated	Sq Ft	Acres	Lake Taylor Soccer Field 1	Irrigated	74,339	1.70	Lake Taylor Soccer Field 2	Irrigated	72,601	1.67
Site	Irrigated / Non-irrigated	Sq Ft	Acres										
Lake Taylor Soccer Field 1	Irrigated	74,339	1.70										
Lake Taylor Soccer Field 2	Irrigated	72,601	1.67										

Permit Section	Specific Reporting Requirement and Result			
	Lake Taylor Soccer Field 3	Irrigated	68,158	1.56
	Lake Taylor Soccer Field 5	Irrigated	65,221	1.50
	Lake Taylor Soccer Field 6	Irrigated	34,597	0.79
	Lake Taylor Soccer Field 7	Irrigated	60,607	1.39
	Lake Taylor Soccer Field 9	Irrigated	77,154	1.77
	Lake Taylor Soccer Field 10	Irrigated	76,247	1.75
	Lake Taylor Soccer Field 11	Irrigated	70,354	1.62
	Lake Taylor Soccer Field 12	Irrigated	61,526	1.41
	Lake Taylor Soccer Field 13	Irrigated	35,089	0.81
	Lake Taylor Soccer Field 14	Irrigated	71,932	1.65
	Lake Taylor Soccer Field 15	Irrigated	70,291	1.61
	Norview Baseball Field	Irrigated	124,154	2.9
	Norview Softball Field	Irrigated	95,729	2.2
	Norview Stadium	Irrigated	92,631	2.1
	Booker T. Washington Stadium	Irrigated	103,390	2.4
	Blair Middle School Soccer Field	Irrigated	70,818	1.6
	Ghent Elementary School Soccer Field	Irrigated	107,415	2.5
	Northside Softball Field 1	Irrigated	90,852	2.1
	Northside Softball Field 2	Irrigated	91,004	2.1
	Northside Softball Field 3	Irrigated	91,416	2.1
	Barraud Park RBI Field	Irrigated	97,463	2.2
	Town Point Park Field 1	Irrigated	55,123	1.3
	Town Point Park Field 2	Irrigated	42,525	1.0
	Town Point Park Field 3	Irrigated	57,634	1.3
	Town Point Park Field 4	Irrigated	24,162	0.6
	Total:		1,982,432	45.6
	Each annual report shall include the number of acres managed under Integrated Pest Management Plans.			
	<ul style="list-style-type: none"> The Norfolk Department of Public Health manages and tracks the permittee lands managed under Integrated Pest Management (IPM) Plans. The City utilizes IPM to manage the mosquito and rodent populations City-wide, for a total of 66 square miles, or 42,240 acres. 			
Part I.B.2.e (Illicit Discharges and Improper Disposal)	<p>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.</p> <ul style="list-style-type: none"> See Appendix 3 for copies of all illicit discharge 5-day letters submitted to DEQ during FY2020, as well as a list of sanitary sewer overflows reported to SSORS by Public Utilities. <p>Each annual report shall include the amount of linear feet of sanitary sewer (a minimum of 724,000 linear feet annually) inspected during the reporting year. The City inspected 685,205 linear feet of sanitary sewer during FY2020.</p> <ul style="list-style-type: none"> Upon further review, it was found that The City of Norfolk's Utilities Combined Operations was split into two crews in March 2020 due to COVID-19 and operated under reduced operations/manpower through mid-May. During this time, staff only responded to emergencies. Since bringing crews back to work full-time in May 2020, there have been many situations where multiple personnel have been out for various lengths of time due to COVID-19. This has led to continued periods of time when operations have moved to addressing emergencies only. Note that this issue of non-compliance was brought to our attention during the development of the MS4 Annual Report and was immediately reported to DEQ via email 9/16/2020. 			

Permit Section	Specific Reporting Requirement and Result
	<p>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 program.</p> <ul style="list-style-type: none"> • This criterion is accomplished through our participation in the International Coastal Cleanup, which is conducted by registration through Virginia Clean Waterways. The International Coastal Cleanup takes place September 10th through October 31st encouraging the removal of trash from our beaches and waterways around the world. This cleanup is fueled by volunteer organizations and individuals as a means to change behavior toward cleaner, healthier waterways. Trash was collected and recorded from various sites across Norfolk. Keep Norfolk Beautiful maintains the ICC data sets on the City's Open Data Portal. Listing the yearly results on this platform allows the public as well as City staff to access and evaluate this data. See Appendix 4 for a detailed list of sites surveyed and items collected during Norfolk's FY2020 International Coastal Cleanup. • Each year, the Community Appearance Survey, conducted by Keep Norfolk Beautiful and volunteers, measures litter to target ways to keep our city clean. Each year, a team of volunteers conducts a windshield tour of the city to assess the level of litter. It takes a day and a half to drive 12 routes in each of the city's five wards, for a total of 60. Each of the routes varies in length from half a mile to a mile. Keep Norfolk Beautiful has used the same routes for the last eight years to create a baseline and standard for measuring litter in our city. Driving the same routes ensures consistency in measurements as well as coverage of a broad distribution of sites within the city. See Appendix 4 for a detailed summary of the data from the last eight years, and a copy of the Training Script for volunteers. Also see https://data.norfolk.gov/stories/s/Keep-Norfolk-Beautiful-Litter-Index/pwzd-ddfh/ for additional information.
	<p>The permittee shall ensure the implementation of programs to collect used motor vehicle fluids (such as oil and antifreeze) and HHW 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.</p> <ul style="list-style-type: none"> • Keep Norfolk Beautiful hosts two recycling and household hazardous waste collection drives every fall and spring for Norfolk citizens to easily and safely recycle waste materials at no charge. • Norfolk residents are invited to participate in the fall and spring Clean Out to Clean Up (formerly America Recycles Day and Norfolk Recycles Day) events each year. This event is an open to the public, electronics, recycling, and household hazardous waste (HHW) event. This year, the event was held at the City's Ocean View Community Beach Park. In partnership with Waste Management and SPSA, the event offered Norfolk residents a one-stop location to drop unwanted items such as acceptable recyclable items. However, the Spring 2020 event was cancelled due to COVID-19. • Data: <ul style="list-style-type: none"> ○ Fall 2019 Event – Clean Out to Clean Up <ul style="list-style-type: none"> ▪ 143 Participants ▪ 2 partners involved (City of Norfolk Waste Management and SPSA) ▪ See Appendix 4 for HHW detailed items list ○ Spring 2020 Event – Clean Out to Clean Up <ul style="list-style-type: none"> ▪ Cancelled due to COVID-19. • See Appendix 4 for event flyers and detailed lists of items collected during FY2020. • Note that most of the scheduled spring outreach programs, events, and volunteer activities were cancelled due to COVID-19.

Permit Section	Specific Reporting Requirement and Result
Part I.B.2.f (Spill Prevention and Response)	<p>Each annual report shall include a list of spills, that qualify for immediate reporting as required...of this state permit, the source (identified to the best of the permittee's ability), and a description of follow-up activities taken.</p> <ul style="list-style-type: none"> See Appendix 3 for copies of all illicit discharge 5-day letters submitted to DEQ during FY2020, as well as a list of sanitary sewer overflows reported to SSORS by Public Utilities.
Part I.B.2.g (Industrial & High Risk Runoff)	<p>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.</p> <ul style="list-style-type: none"> See Appendix 5 for High-Risk and Industrial Outfall Inspection Program SOP and a list of facility outfalls inspected during FY2020.
	<p>Each annual report shall include a list of referrals to the Department, including:</p> <p>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, report those facilities to the Department, and include the facilities outfall in the prioritized inspection schedule.</p> <ul style="list-style-type: none"> NA – None in FY2020 <p>The permittee shall refer facilities and operations having non-stormwater discharges that do not have coverage under an existing VPDES permit.</p> <ul style="list-style-type: none"> NA – None in FY2020 <p>The permittee shall refer facilities and operations identified...with manufacturing, processing, or raw material storage outside that do not have coverage under an existing VPDES industrial stormwater permit.</p> <ul style="list-style-type: none"> NA – None in FY2020 <p>The permittee shall refer any VPDES industrial stormwater permit facility where there is evidence of significant pollutant loadings to the MS4.</p> <ul style="list-style-type: none"> NA – None in FY2020 <p>The permittee shall refer facilities that do not submit signed copies of DMR's to the permittee as required under a VPDES industrial stormwater permit.</p> <ul style="list-style-type: none"> NA - Reissuance of the VPDES Industrial Stormwater General Permit July 1, 2019 no longer requires the submission of DMR's to the MS4 permit holder.
Part I.B.2.h (Stormwater Infrastructure Management)	<p>Each annual report shall include a summary of activities performed in support of the inspections and maintenance program....The summary shall include the total number of drainage structures operated by the permittee; the total length of open conveyance that is part of the permittee's MS4; the total number of the drainage structures inspected (at least 4,060) and the total length of open conveyances inspected (at least 35,460).</p> <ul style="list-style-type: none"> Total # Drainage Structures – 35,627 Total Length of Open Conveyance – 353,213 linear feet Total # Drainage Structures Inspected (at least 4,060) – 21,467 Total Length of Open Conveyances Inspected (at least 35,460 linear ft) – 92,259 linear ft
	<p>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.</p> <ul style="list-style-type: none"> See Appendix 6 for Storm Water Best Management Practice Inspections SOP. Also see section 2.8 in the City's MS4 Program Plan.
	<p>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....</p> <ul style="list-style-type: none"> See Appendix 6 for Storm Water Best Management Practice Inspections SOP and a comprehensive list of private and public SWMF inspections and reinspections conducted during FY2020. Also see section 2.8 in the City's MS4 Program Plan.

Permit Section	Specific Reporting Requirement and Result
	<p>The annual report due October 1, 2021 shall include as updated list of all information requested in Part I.B.2.h)5).</p> <ul style="list-style-type: none"> • Due October 1, 2021.
Part I.B.2.i (City Facilities)	<p>The permittee shall develop and/or update and implement individual SWPPP's for each high-priority municipal facility...no later than 36-months after the effective date of this state permit.</p> <ul style="list-style-type: none"> • See Appendix 7 for the High Priority Municipal Yard Study. Below is a listing of all City of Norfolk facilities that have SWPPP's, and the implementation date. <ul style="list-style-type: none"> ○ Public Works Operations - November 2008 ○ Waste Management - August 2010 ○ Recreation, Parks, & Open Space – June 2017 ○ Moores Bridges WTP – June 2017 ○ 37th Street WTP – June 2017 ○ Public Utilities Combined Operations – June 2017 ○ Facilities – June 2017 ○ Fleet – June 2017 ○ School Fleet – June 2017
	<p>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...and on permittee properties with greater than 2-acres of impervious area.</p> <ul style="list-style-type: none"> • Due June 2021.
Part I.B.2.j (Public Education & Participation)	<p>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.</p> <ul style="list-style-type: none"> • See Appendix 8 for a list of presentations, workshops, cleanups, beautification events, and other activities conducted by both Keep Norfolk Beautiful and the Division of Environmental Storm Water Management, as well as copy of the Public Works Operations – Stormwater Communication Outline, the askHRGreen.org Annual Report which summarizes activities conducted at a Regional level, and the FY2020 summary of the askHRGreen.org Environmental Education Mini-Grants awarded to Norfolk Public Schools. Also see Section 2.10 in the City's MS4 Program Plan. • The City has a program that requires all residents applying for a business license for a mobile car wash to sign an application with the Division of Environmental Storm Water management. The application provides explanation of the City's code and offers options to not discharging wash water into the City's storm water system. One business owner signed the application in FY2020. See Appendix 8 for a copy of the application and handout from the Department of City Planning outlining the requirements before issuance of a business license.
	<p>Each annual report shall provide a summary of voluntary retrofits completed on private property used to demonstrate pollutant reduction requirements. Note that any voluntary project for which the permittee seeks to use for pollutant reduction requirements must be tracked and reported.</p> <ul style="list-style-type: none"> • During FY2020, the City's Bay Star Home program gave away 3 rain barrels to residents, with detailed maintenance agreements signed by each recipient. The City also partners with the Elizabeth River Project (ERP) on River Star Homes. During FY20, ERP installed 3 rain gardens treating 3892 ft², 37 rain barrels treating 14,100 ft², 8 living shorelines totaling 9224 ft², 5 riparian buffer plantings totaling 9073 ft², 1 conservation landscape plantings treating 2000 ft², and 20 trees outside of other project areas. An enhanced "Scoop the Poop" campaign was conducted during the fiscal year, as well as tree giveaways to Bay Star Homes members. Members also have access to free lawn soil testing to encourage proper usage of fertilizers. In addition, the City has a Fee Reduction Program

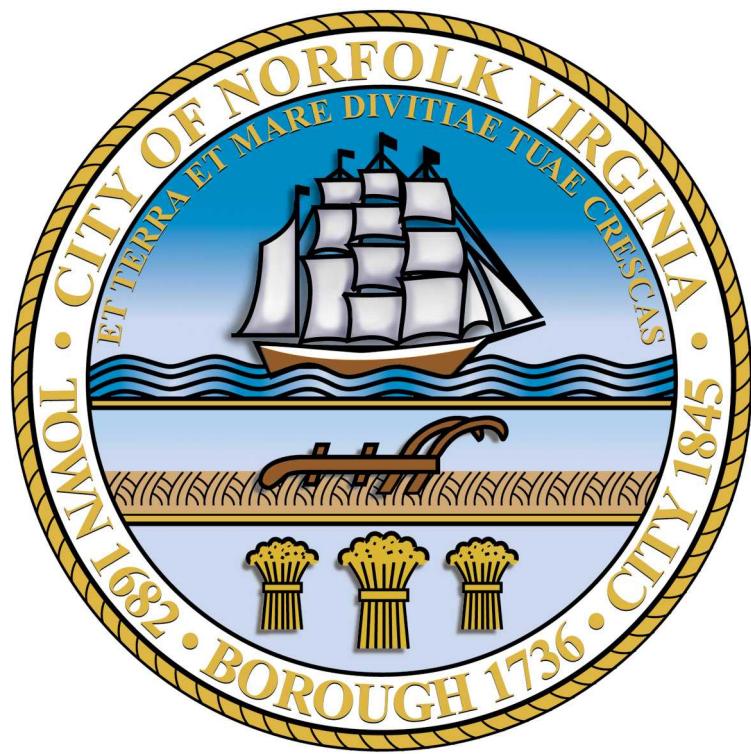
Permit Section	Specific Reporting Requirement and Result																								
	<p>(https://www.norfolk.gov/DocumentCenter/View/28851). See Appendix 8 for a list of voluntary retrofits that were approved and installed for a fee reduction. For additional information, see Section 2.10 in the City's MS4 Program Plan.</p>																								
	<p>Each annual report shall provide a summary of voluntary stormwater management techniques encouraged on private property.</p> <ul style="list-style-type: none"> • See Appendix 8 for a copy of the City's Fee Reduction Program (https://www.norfolk.gov/DocumentCenter/View/28851). Also see Section 2.8 of the City's MS4 Program Plan. 																								
	<p>The permittee shall post a copy of this state permit on its web page no later than 30-days after the effective date of this permit and continue to retain a copy of the permit online for the duration of this permit.</p> <ul style="list-style-type: none"> • https://www.norfolk.gov/DocumentCenter/View/2994 																								
	<p>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 annual reports online for the duration of this permit.</p> <ul style="list-style-type: none"> • The FY2019 Annual Report was posted October 8, 2019. All Annual Reports can be found at https://www.norfolk.gov/index.aspx?NID=1689. The FY2020 Annual Report will be posted on the City webpage upon submittal to the Department. 																								
	<p>The permittee shall post the most current MS4 Program Plan on its website no later than 30 days after approval of the MS4 Program Plan 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.</p> <ul style="list-style-type: none"> • https://www.norfolk.gov/documentcenter/view/31602 																								
Part I.B.2.k (Training)	<p>Each annual report shall include a list of training events, the date and the estimated number of individuals attending each event. (The permittee shall provide biennial training to appropriate field personnel in the recognition and reporting of illicit discharges; in good housekeeping and P2 practices that are to be employed during road, street, and parking lot maintenance, in and around permittee maintenance and public works facilities, and recreation facilities.)</p> <table border="1"> <thead> <tr> <th>Date</th><th>Dept/Div Reached</th><th># Attending</th><th>Topics</th></tr> </thead> <tbody> <tr> <td>2/12/2020</td><td>Recreation, Parks, & Open Space</td><td>89</td><td>SWPPP, IDDE, spill response, good housekeeping, pollution prevention</td></tr> <tr> <td>3/12/2020</td><td>Norfolk Public Schools – Janitorial Staff</td><td>77</td><td>SWPPP, IDDE, spill response, good housekeeping, pollution prevention</td></tr> <tr> <td>June 2020</td><td>Division of Waste Management</td><td>76</td><td>Spill response, good housekeeping, pollution prevention</td></tr> <tr> <td>August 2020</td><td>School Fleet</td><td>29</td><td>SWPPP, IDDE, spill response, good housekeeping, pollution prevention</td></tr> <tr> <td>May 2020</td><td>PW Operations – Streets, Bridges, Stormwater</td><td>149</td><td>SWPPP, IDDE, spill response, good housekeeping, pollution prevention</td></tr> </tbody> </table>	Date	Dept/Div Reached	# Attending	Topics	2/12/2020	Recreation, Parks, & Open Space	89	SWPPP, IDDE, spill response, good housekeeping, pollution prevention	3/12/2020	Norfolk Public Schools – Janitorial Staff	77	SWPPP, IDDE, spill response, good housekeeping, pollution prevention	June 2020	Division of Waste Management	76	Spill response, good housekeeping, pollution prevention	August 2020	School Fleet	29	SWPPP, IDDE, spill response, good housekeeping, pollution prevention	May 2020	PW Operations – Streets, Bridges, Stormwater	149	SWPPP, IDDE, spill response, good housekeeping, pollution prevention
Date	Dept/Div Reached	# Attending	Topics																						
2/12/2020	Recreation, Parks, & Open Space	89	SWPPP, IDDE, spill response, good housekeeping, pollution prevention																						
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August 2020	School Fleet	29	SWPPP, IDDE, spill response, good housekeeping, pollution prevention																						
May 2020	PW Operations – Streets, Bridges, Stormwater	149	SWPPP, IDDE, spill response, good housekeeping, pollution prevention																						

Permit Section	Specific Reporting Requirement and Result			
	May 2020	Fleet	40	SWPPP, IDDE, spill response, good housekeeping, pollution prevention
<p>The annual report due October 1, 2017 shall include documentation of employee emergency spill response training and/or certification.</p> <ul style="list-style-type: none"> • HazMat Operations/OSHA Level II 8-hour training was conducted September 30 and October 1, 2019 and reached a total of 97 staff. See Appendix 9 for roster. 				
<p>The permittee shall ensure that employees, and require that contractors, who apply pesticides and herbicides are properly trained or certified per the Virginia Pesticide Control Act.</p> <ul style="list-style-type: none"> • See Section 2.11 in the City's MS4 Program Plan. 				
<p>The permittee shall have a program to ensure that City plan reviewers, inspectors, program administrators and construction site operators employed or contracted by the permittee (e.g. RLD) are trained and obtain the appropriate certifications to the extent required under the Virginia Erosion and Sediment Control Law and attendant regulations.</p> <ul style="list-style-type: none"> • See Section 2.11 in the City's MS4 Program Plan. 				
<p>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 stormwater management design criteria.</p> <ul style="list-style-type: none"> • See Section 2.11 in the City's MS4 Program Plan. 				
Part I.B.2.l (Dry Weather Screening Program)	<p>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 (minimum of 50), 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 investigations was closed.</p> <ul style="list-style-type: none"> • See Appendix 10 for list. 			
Part I.B.2.m (Infrastructure Coordination)	<p>The permittee shall coordinate with the Virginia Department of Transportation (VDOT) regarding issues of MS4 physical-interconnectivity. As part of its Annual Report, the permittee shall document coordination efforts with VDOT that occurred during the reporting year regarding: mapping, Chesapeake Bay TMDL Action Plans, other TMDL Action Plans, credit for TMDL implementation, IDDE, and water quality monitoring.</p> <ul style="list-style-type: none"> • A Regional VDOT MS4 Coordination Meeting was held May 7, 2020. See Appendix 11 for detailed copies of the meeting minutes and agenda. 			
Part I.C.1 (In-System/Wet Weather Monitoring)	<p>Each annual report shall include a summary of the monitoring results and analyses and an interpretation of that data.</p> <ul style="list-style-type: none"> • See Appendix 12 for a copy of the Annual Report for the Regional In-system Wet Weather Stormwater Monitoring Program. 			
Part I.C.2 (Street Sweeping Program Monitoring)	<p>No later than twelve (12) months after permit effective date, the permittee shall submit to the Department the list of sites to be monitored, the methodology and the monitoring protocols. The monitoring protocols shall be incorporated into the MS4 Program Plan.</p> <ul style="list-style-type: none"> • Street Sweeping Monitoring Plan submitted to DEQ June 28, 2017. <p>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.</p> <ul style="list-style-type: none"> • See Appendix 13. 			
	<p>Final results and analyses shall be submitted with the permit application for the reissuance of this state permit due 180 days prior to the permit's expiration date.</p> <ul style="list-style-type: none"> • Due December 30, 2020. 			

Permit Section	Specific Reporting Requirement and Result
Part I.C.3 (Structural and Source Controls Compliance Monitoring and Tracking)	<p>The permittee shall maintain an updated electronic database of all known permittee and privately maintained stormwater management (SWM) facilities. Each annual report shall include a copy of the updated database in electronic format of all SWM facilities brought online during each reporting year.</p> <ul style="list-style-type: none"> See Appendix 6 for a list of all SWM facilities brought online during each reporting year, up to and through FY2020.
	<p>Each annual report shall include a summary of actions taken by the permittee to ensure maintenance of private stormwater management facilities.</p> <ul style="list-style-type: none"> See Appendix 6 for Storm Water Best Management Practice Inspections SOP and a comprehensive list of private and public SWMF inspections and reinspections conducted during FY2020. Also see section 2.8 in the City's MS4 Program Plan.
	<p>Each annual report shall include a summary of the program to ensure maintenance of stormwater management facilities maintained by the permittee.</p> <ul style="list-style-type: none"> See Appendix 6 for Storm Water Best Management Practice Inspections SOP and a comprehensive list of private and public SWMF inspections and reinspections conducted during FY2020. Also see section 2.8 in the City's MS4 Program Plan.
Part I.D.1.b) & d) (Chesapeake Bay Watershed TMDL Planning & Annual Reporting Requirements)	<p>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.</p> <ul style="list-style-type: none"> Submitted June 29, 2018.
	<p>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 TN, TP, and TSS.</p> <ul style="list-style-type: none"> See Appendix 14.
	<p>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 stormwater management controls, the report shall include...whether an existing stormwater management control was retrofitted, and if so, the existing stormwater management control type retrofit used.</p> <ul style="list-style-type: none"> See Appendix 14.
	<p>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 TN, TP, and TSS.</p> <ul style="list-style-type: none"> See Appendix 14.
	<p>The permittee shall include the following as part of its reapplication package: (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, and (b) a draft second phase Chesapeake Bay TMDL Action Plan.</p> <ul style="list-style-type: none"> Due December 30, 2020.
Part I.D.2 (TMDL Action Plans other than the Chesapeake Bay TMDL)	<p>No later than 24 months after the effective date of this state permit, the permittee shall submit to the Department TMDL Action Plans to address any new or modified requirements established under this Special Condition for pollutants identified in TMDL wasteload allocations approved prior to the effective date of this permit.</p> <ul style="list-style-type: none"> Elizabeth River TMDL Action Plan was submitted June 29, 2018. Per DEQ's request, the Action Plan was revised and resubmitted July 24, 2018.
	<p>The permittee shall submit the required TMDL Action Plans to the Department for review and acceptance with the appropriate annual report associated schedule identified in this permit.</p> <ul style="list-style-type: none"> Elizabeth River TMDL Action Plan was submitted June 29, 2018. Per DEQ's request, the Action Plan was revised and resubmitted July 24, 2018.

Permit Section	Specific Reporting Requirement and Result
	<p>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.</p> <ul style="list-style-type: none"> • See Appendix 15. <p>The permittee shall identify the best management practices and other steps that will be implemented during the next permit term as part of the permittee's reapplication for coverage as required. The permittee shall also evaluate and modify the estimated end date for achieving the applicable wasteload based on information acquired during the permit cycle.</p> <ul style="list-style-type: none"> • Due December 30, 2020.

Capital Improvement Plan



FY 2021 - FY 2025 Capital Improvement Plan

Project Title	Fund Pg	FY 2021	FY 2021	Originally Planned	Adopted	Planned					Total
						FY 2022	FY 2023	FY 2024	FY 2025		
Install Dehumidification System at Scope Arena	CP 501	-	-			500,000	-	-	-		500,000
Maintain USS Wisconsin BB-64	CP 502	500,000	-			500,000	750,000	500,000	500,000		2,250,000
Maintain Wells Theatre	CP 503	-	750,000			-	-	-	-		750,000
Renovate Chrysler Hall	CP 504	40,000,000	-			50,000,000	5,000,000	-			55,000,000
Replace Cruise Terminal Passenger Boarding Bridge	CP 505	-	4,850,000			-	-	-	-		4,850,000
Support Citywide Public Art	CP 506	250,000	-			250,000	250,000	250,000	250,000		1,000,000
Subtotal Cultural Facilities		42,165,000	6,100,000	4,665,000	53,250,000	9,000,000	4,000,000	4,000,000	77,015,000		
Neighborhood Development											
Acquisition and Demolition of Blighted Properties in Willoughby	CP 507	200,000	-			200,000	200,000	200,000	200,000		800,000
Construct New Department of Utilities Headquarters in St. Paul's Area	WF 508	-	20,000,000			-	-	-	-		20,000,000
Construct the Blue/Greenway in St. Paul's Area	SW 509	-	800,000			6,000,000	6,000,000	-	-		12,800,000
Convert Street Lights to LED	CP 510	134,130	-			100,000	125,000	150,000	175,000		550,000
Improve Citywide Dredging and Waterways	CP 511	150,000	-			150,000	150,000	150,000	150,000		600,000
Improve East Ocean View Drainage	SW 512	-	2,000,000			2,000,000	2,700,000	3,100,000	2,000,000		11,800,000
Improve Gifford Street Drainage	SW 513	-	1,000,000			-	-	-	-		1,000,000
Improve Glenrock Drainage	SW 514	-	1,000,000			1,400,000	1,600,000	1,900,000	2,300,000		8,200,000
Improve Glenwood Park Drainage	SW 515	-	500,000			1,900,000	1,600,000	-	-		4,000,000

FY 2021 - FY 2025 Capital Improvement Plan

Project Title	Fund Pg	FY 2021	Originally Planned	Adopted	Planned					Total
			FY 2021	FY 2022	FY 2023	FY 2024	FY 2025			
Improve Infrastructure at Moton Circle	CP 516	-	750,000	-	-	-	-	-	-	750,000
Improve Neighborhood Streets	CP 517	550,000	-	550,000	550,000	550,000	550,000	550,000	2,200,000	
Improve Newport Avenue (Talbot Hall) Drainage	SW 518	-	-	300,000	400,000	-	-	-	700,000	
Improve Overbrook/Coleman Place Drainage	SW 519	-	2,000,000	2,000,000	2,000,000	2,000,000	2,200,000	10,200,000		
Improve Park Place Drainage	SW 520	-	-	-	-	2,000,000	1,950,000	3,950,000		
Improve Road Infrastructure in St. Paul's Area	CP 521	2,000,000	4,000,000	4,000,000	3,000,000	3,000,000	-	14,000,000		
Improve Storm Water Infrastructure in St. Paul's Area	SW 522	3,000,000	1,000,000	500,000	500,000	500,000	300,000	2,800,000		
Improve Street Lights	CP 523	100,000	-	100,000	100,000	100,000	100,000	400,000		
Improve Wastewater Infrastructure in St. Paul's Area	SF 524	2,000,000	4,000,000	2,000,000	2,000,000	2,000,000	2,000,000	12,000,000		
Improve Water Infrastructure in St. Paul's Area	WF 525	2,000,000	2,000,000	2,000,000	2,000,000	-	-	6,000,000		
Provide Funds for Acquisition in Wards Corner	CP 526	-	700,000	-	-	-	-	700,000		
Rehabilitate Colley Avenue Pump Station	SW 527	-	500,000	-	-	-	-	500,000		
Rehabilitate Tidewater Drive Pump Station	SW 528	-	-	-	-	600,000	600,000	1,200,000		
Revitalize St. Paul's Community	CP 529	3,000,000	-	3,000,000	3,000,000	3,000,000	3,000,000	12,000,000		
Strengthen Neighborhoods through Affordable Housing Initiatives	CP 530	1,750,000	-	1,750,000	1,750,000	1,750,000	-	5,250,000		

FY 2021 - FY 2025 Capital Improvement Plan

Project Title	Fund Pg	FY 2021	Originally Planned	Adopted	Planned					Total
			FY 2021	FY 2022	FY 2023	FY 2024	FY 2025			
Support Elizabeth River Trail Capital Campaign	CP 531	250,000	-	250,000	-	-	-	-	-	250,000
Upgrade the Monticello Avenue Pump Station	SW 532	-	-	600,000	600,000	-	-	-	-	1,200,000
Subtotal Neighborhood Development		15,134,130	40,250,000	28,800,000	28,275,000	21,000,000	15,525,000			133,850,000
Public Buildings										
Demolish the Willis Building	CP 533	-	-	-	1,500,000	-	-	-	-	1,500,000
Develop New Animal Care Facility	CP 534	-	-	-	-	-	-	10,000,000	10,000,000	
Improve and Maintain the Zoo	CP 535	-	-	560,000	-	-	-	-	-	560,000
Maintain Fire Stations	CP 536	1,000,000	-	500,000	250,000	500,000	500,000	1,750,000		
Maintain Municipal Facilities	CP 537	2,100,000	-	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	14,000,000	
Maintain Parking Facilities	PF 538	2,900,000	-	1,450,000	2,900,000	2,900,000	2,900,000	10,150,000		
Refurbish Boush Street Garage Elevators	PF 539	-	850,000	-	-	-	-	-	-	850,000
Refurbish Main Street Garage Elevators	PF 540	-	-	600,000	-	-	-	-	-	600,000
Refurbish Town Point Garage Elevators	PF 541	-	-	850,000	-	-	-	-	-	850,000
Relocate the City's Data Center	CP 542	4,000,000	8,000,000	-	-	-	-	-	-	8,000,000
Renovate the School Administration Building	CP 543	-	3,400,000	-	-	-	-	-	-	3,400,000
Replace Chiller at Central Energy Plant	CP 544	-	800,000	-	-	-	-	-	-	800,000
Replace Fire Station 11	CP 545	5,400,000	5,400,000	-	-	-	-	-	-	5,400,000
Replace In-Ground Vehicle Lifts	CP 546	-	-	300,000	-	-	-	-	-	300,000
Support Jail Improvements	CP 547	350,000	345,000	300,000	300,000	300,000	300,000	300,000	1,545,000	

FY 2021 - FY 2025 Capital Improvement Plan

Project Title	Fund Pg	FY 2021	FY 2021	Planned					Total
				Originally Planned	Adopted	FY 2022	FY 2023	FY 2024	
Upgrade Security at City Facilities	CP 548	-	-	500,000	500,000	500,000	500,000	500,000	2,000,000
Subtotal Public Buildings		15,750,000	18,795,000	8,560,000	8,950,000	7,700,000	17,700,000	61,705,000	
Parks & Recreation Facilities									
Implement RPOS Master Plan	CP 549	500,000	-	500,000	500,000	500,000	500,000	500,000	2,000,000
Improve Community and Neighborhood Parks	CP 550	250,000	-	250,000	250,000	250,000	250,000	250,000	1,000,000
Improve Existing Community Centers	CP 551	200,000	-	200,000	200,000	200,000	200,000	200,000	800,000
Subtotal Parks & Recreation Facilities		950,000	-	950,000	950,000	950,000	950,000	950,000	3,800,000
Environmental Sustainability									
Conduct Drainage Studies Citywide	SW 553	-	1,000,000	-	500,000	-	-	-	1,500,000
Conduct Outfall Maintenance and Dredging	SW 554	-	650,000	750,000	450,000	950,000	1,000,000	1,000,000	3,800,000
Conduct Sliplining and Major Repairs to Existing Infrastructure	SW 555	-	1,000,000	1,200,000	1,200,000	1,200,000	1,000,000	1,000,000	5,600,000
Control Beach Erosion	CP 556	1,014,400	525,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	4,525,000
Create Citywide Flooding Reserve	SW 557	1,315,200	1,315,200	1,315,200	1,315,200	1,315,200	1,315,200	1,315,200	6,576,000
Implement Pond Retrofits Citywide	SW 558	-	1,290,000	1,290,000	1,290,000	1,290,000	1,290,000	1,290,000	6,450,000
Implement Shoreline Restoration	SW 559	-	960,000	960,000	960,000	960,000	960,000	960,000	4,800,000
Implement the Green Infrastructure Plan	SW 560	-	100,000	100,000	100,000	100,000	100,000	100,000	500,000
Improve 10th View Outfall Extension	SW 561	-	500,000	-	-	-	-	-	500,000
Improve Duffys Lane Outfall Extension	SW 562	-	-	500,000	-	-	-	-	500,000
Improve Selby Place Outfall Extension	SW 563	-	-	-	500,000	-	-	-	500,000

FY 2021 - FY 2025 Capital Improvement Plan

Project Title	Fund Pg	FY 2021	Originally Planned	Adopted	Planned					Total
			FY 2021	FY 2022	FY 2023	FY 2024	FY 2025			
Improve Storm Water Waterfront Facilities	SW 564	500,000	-	-	-	500,000	500,000	1,000,000		
Raise the Downtown Floodwall	SW 565	1,000,000	1,000,000	8,000,000	8,000,000	-	-	17,000,000		
Replace Downtown Pump Station Trash Rack	SW 566	-	100,000	-	-	-	-	100,000		
Subtotal Environmental Sustainability		3,829,600	8,440,200	15,115,200	15,315,200	7,315,200	7,165,200	53,351,000		
Wastewater										
Improve Larchmont Wastewater Infrastructure	SF 567	-	1,000,000	1,500,000	1,500,000	1,500,000	1,500,000	7,000,000		
Improve Wastewater Collection System	SF 568	15,000,000	12,500,000	12,000,000	12,000,000	12,000,000	12,000,000	60,500,000		
Support System Evaluation, Modeling, and Design	SF 569	-	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	7,500,000		
Subtotal Wastewater		15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	75,000,000		
Water										
Construct Commonwealth Railroad Pipeline	WF 571	15,000,000	18,000,000	-	-	-	-	18,000,000		
Install Hampton Boulevard Water Storage Tank	WF 572	-	6,000,000	-	-	-	-	6,000,000		
Replace Raw and Finished Water Transmission / Distribution	WF 573	-	7,905,000	13,800,000	17,000,000	18,300,000	20,000,000	77,005,000		
Support System Evaluation, Modeling, and Design	WF 574	-	1,700,000	1,500,000	1,700,000	1,700,000	1,700,000	8,300,000		
Support Watershed Management	WF 575	-	200,000	6,200,000	1,800,000	1,500,000	800,000	10,500,000		
Upgrade Billing System	WF 576	-	-	-	2,000,000	-	-	2,000,000		

Neighborhood Development



Construct the Blue/Greenway in St. Paul's Area

Department	Project Description
Storm Water Utility	Provide funds to construct the Blue/Greenway in the St. Paul's Area. Funds will be used for the redevelopment of approximately 26 acres of public housing and other properties into an aesthetic open space designed to treat and store storm water runoff during storm events. This transformation will create a water eco-center comprised of parks, green spaces, and a dynamic living laboratory. This project is a new project that was previously planned under "Improve Storm Water Infrastructure in St. Paul's
Fund	
Storm Water Utility	
Account #	
2300 35 4311	
Property Address:	
Customers Served	
Residents <input checked="" type="checkbox"/> Business <input type="checkbox"/> City Services <input type="checkbox"/> Area."	
Educational Community <input type="checkbox"/> Tourists/Visitors <input type="checkbox"/>	

Financial Summary

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
FY 2021 Adopted	N/A	800,000	6,000,000	6,000,000	N/A	N/A	12,800,000
FY 2020 Adopted	0	0	0	0	0	N/A	0
Estimated Operation Budget Impact	N/A	0	0	0	0	N/A	0

Anticipated Project Timeline:

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Planning/Design/Other	N/A	800,000	0	0	0	0	800,000
Construction/FFE	N/A	0	6,000,000	6,000,000	0	0	12,000,000
Total	N/A	800,000	6,000,000	6,000,000	0	0	12,800,000

Prior Capital Funding	0
FY 2021 Adopted	800,000
Capital Share Remaining	12,000,000
Project Total	12,800,000



Improve East Ocean View Drainage

Department	Project Description	
Storm Water Utility		
Fund		
Storm Water Utility		
Account #		
2300 35 4308		
Property Address:		
Customers Served		
Residents <input checked="" type="checkbox"/>	Business <input checked="" type="checkbox"/>	City Services <input checked="" type="checkbox"/>
Educational Community <input checked="" type="checkbox"/>	Tourists/Visitors <input checked="" type="checkbox"/>	

Financial Summary

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
FY 2021 Adopted	N/A	2,000,000	2,000,000	2,700,000	3,100,000	2,000,000	11,800,000
FY 2020 Adopted	0	0	0	0	0	N/A	0
Estimated Operation Budget Impact	N/A	0	0	0	0	N/A	0

Anticipated Project Timeline:

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Planning/Design/Other	N/A	200,000	200,000	200,000	200,000	200,000	1,000,000
Construction/FFE	N/A	800,000	1,800,000	2,500,000	2,900,000	1,800,000	9,800,000
Total	N/A	1,000,000	2,000,000	2,700,000	3,100,000	2,000,000	10,800,000
Prior Capital Funding		0					
FY 2021 Adopted			2,000,000				
Capital Share Remaining				9,800,000			
Project Total					11,800,000		



Improve Gifford Street Drainage

Department	Project Description
Storm Water Utility	Provide funds to support drainage improvements along Gifford Street. Funds will be used to improve the storm water system's ability to manage storm events. Funding will allow for infrastructure improvements to better mitigate issues from precipitation and tidal flooding.
Fund	
Storm Water Utility	
Account #	
2300 35 4303	
Property Address:	
Customers Served	
Residents <input checked="" type="checkbox"/> Business <input checked="" type="checkbox"/> City Services <input checked="" type="checkbox"/>	
Educational Community <input checked="" type="checkbox"/> Tourists/Visitors <input checked="" type="checkbox"/>	

Financial Summary

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
FY 2021 Adopted	N/A	1,000,000	N/A	N/A	N/A	N/A	1,000,000
FY 2020 Adopted	0	0	0	0	0	N/A	0
Estimated Operation Budget Impact	N/A	0	0	0	0	N/A	0

Anticipated Project Timeline:

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Planning/Design/Other	N/A	200,000	0	0	0	0	200,000
Construction/FFE	N/A	800,000	0	0	0	0	800,000
Total	N/A	1,000,000	0	0	0	0	1,000,000
Prior Capital Funding		0					
FY 2021 Adopted		1,000,000					
Capital Share Remaining		0					
Project Total		1,000,000					



Improve Glenrock Drainage

Department	Project Description
Storm Water Utility	Provide funds to improve drainage in the Glenrock area. This project will add storm water pipes and inlets to manage a 10-year storm event.
Fund	
Storm Water Utility	
Account #	
2300 35 4309	
Property Address:	
Customers Served	
Residents <input checked="" type="checkbox"/> Business <input checked="" type="checkbox"/> City Services <input checked="" type="checkbox"/>	
Educational Community <input checked="" type="checkbox"/> Tourists/Visitors <input checked="" type="checkbox"/>	

Financial Summary

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
FY 2021 Adopted	N/A	1,000,000	1,400,000	1,600,000	1,900,000	2,300,000	8,200,000
FY 2020 Adopted	0	0	0	0	0	N/A	0
Estimated Operation Budget Impact	N/A	0	0	0	0	N/A	0

Anticipated Project Timeline:

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Planning/Design/Other	N/A	150,000	200,000	200,000	200,000	200,000	950,000
Construction/FFE	N/A	850,000	1,200,000	1,400,000	1,700,000	2,100,000	7,250,000
Total	N/A	1,000,000	1,400,000	1,600,000	1,900,000	2,300,000	8,200,000
Prior Capital Funding		0					
FY 2021 Adopted		1,000,000					
Capital Share Remaining			7,200,000				
Project Total			8,200,000				



Improve Glenwood Park Drainage

Department	Project Description
Storm Water Utility	Provide funds to improve drainage in the Glenwood Park area. Funds will be used for neighborhood flood mitigation to address various drainage system improvements. Funding will allow for infrastructure improvements to better mitigate issues from precipitation and tidal flooding.
Fund	
Storm Water Utility	
Account #	
2300 35 4302	
Property Address:	
Customers Served	
Residents <input checked="" type="checkbox"/> Business <input checked="" type="checkbox"/> City Services <input checked="" type="checkbox"/>	
Educational Community <input checked="" type="checkbox"/> Tourists/Visitors <input checked="" type="checkbox"/>	

Financial Summary

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
FY 2021 Adopted	N/A	500,000	1,900,000	1,600,000	N/A	N/A	4,000,000
FY 2020 Adopted	0	0	0	0	0	N/A	0
Estimated Operation Budget Impact	N/A	0	0	0	0	N/A	0

Anticipated Project Timeline:

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Planning/Design/Other	N/A	200,000	100,000	100,000	0	0	400,000
Construction/FFE	N/A	300,000	1,800,000	1,500,000	0	0	3,600,000
Total	N/A	500,000	1,900,000	1,600,000	0	0	4,000,000
Prior Capital Funding		0					
FY 2021 Adopted		500,000					
Capital Share Remaining		3,500,000					
Project Total		4,000,000					



Improve Newport Avenue (Talbot Hall) Drainage

Department	Project Description
Storm Water Utility	Support drainage improvements along Newport Avenue in the Talbot Hall area. This project is correcting a flooding issue by increasing the size of storm water pipes along with outfall improvements.
Fund	
Storm Water Utility	
Account #	
N/A	
Property Address:	
Customers Served	
Residents <input checked="" type="checkbox"/> Business <input checked="" type="checkbox"/> City Services <input checked="" type="checkbox"/>	
Educational Community <input checked="" type="checkbox"/> Tourists/Visitors <input checked="" type="checkbox"/>	

Financial Summary

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
FY 2021 Adopted	N/A	N/A	300,000	400,000	N/A	N/A	700,000
FY 2020 Adopted	0	0	0	0	0	N/A	0
Estimated Operation Budget Impact	N/A	0	0	0	0	N/A	0

Anticipated Project Timeline:

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Planning/Design/Other	N/A	0	100,000	0	0	0	100,000
Construction/FFE	N/A	0	200,000	400,000	0	0	600,000
Total	N/A	0	300,000	400,000	0	0	700,000
Prior Capital Funding		0					
FY 2021 Adopted		0					
Capital Share Remaining		700,000					
Project Total		700,000					



Improve Overbrook/Coleman Place Drainage

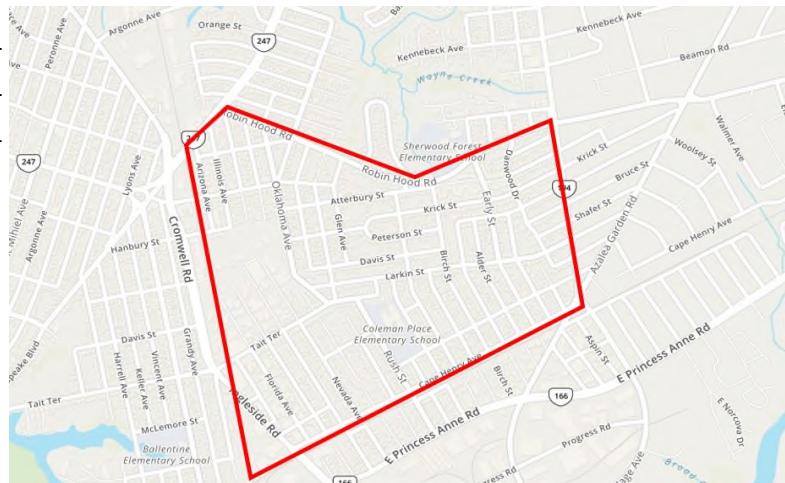
Department	Project Description
Storm Water Utility	Provide funds to improve the drainage in the Overbrook/Coleman Place area. Funds will be used for neighborhood flood mitigation to address various drainage system improvements. Funding will allow for infrastructure improvements to better mitigate issues from precipitation and tidal flooding through new inlets and large conduits to convey storm water.
Fund	
Storm Water Utility	
Account #	
2300 35 4301	
Property Address:	
Customers Served	
Residents <input checked="" type="checkbox"/> Business <input checked="" type="checkbox"/> City Services <input checked="" type="checkbox"/>	
Educational Community <input checked="" type="checkbox"/> Tourists/Visitors <input checked="" type="checkbox"/>	

Financial Summary

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
FY 2021 Adopted	N/A	2,000,000	2,000,000	2,000,000	2,000,000	2,200,000	10,200,000
FY 2020 Adopted	0	0	0	0	0	N/A	0
Estimated Operation Budget Impact	N/A	0	0	0	0	N/A	0

Anticipated Project Timeline:

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Planning/Design/Other	N/A	200,000	200,000	200,000	200,000	200,000	1,000,000
Construction/FFE	N/A	1,800,000	1,800,000	1,800,000	1,800,000	2,000,000	9,200,000
Total	N/A	2,000,000	2,000,000	2,000,000	2,000,000	2,200,000	10,200,000
Prior Capital Funding		0					
FY 2021 Adopted		2,000,000					
Capital Share Remaining		8,200,000					
Project Total		10,200,000					



Improve Park Place Drainage

Department	Project Description
Storm Water Utility	Provide funds to support drainage improvements in the Park Place area. Funds will be used to add piping and inlets that will improve the storm water collection and conveyance.
Fund	
Storm Water Utility	
Account #	
N/A	
Property Address:	
Customers Served	
Residents <input checked="" type="checkbox"/> Business <input checked="" type="checkbox"/> City Services <input checked="" type="checkbox"/>	
Educational Community <input checked="" type="checkbox"/> Tourists/Visitors <input checked="" type="checkbox"/>	

Financial Summary

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
FY 2021 Adopted	N/A	N/A	N/A	N/A	2,000,000	1,950,000	3,950,000
FY 2020 Adopted	0	0	0	0	0	N/A	0
Estimated Operation Budget Impact	N/A	0	0	0	0	N/A	0

Anticipated Project Timeline:

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Planning/Design/Other	N/A	0	0	0	200,000	0	200,000
Construction/FFE	N/A	0	0	0	1,800,000	1,950,000	3,750,000
Total	N/A	0	0	0	2,000,000	1,950,000	3,950,000
Prior Capital Funding	0						
FY 2021 Adopted	0						
Capital Share Remaining	3,950,000						
Project Total	3,950,000						



Improve Storm Water Infrastructure in St. Paul's Area

Department	Project Description
Storm Water Utility	Provide funds to improve storm water infrastructure in the St. Paul's area. The project will add storm water collection and conveyance infrastructure in the existing and new street network. The project will mitigate precipitation flooding in the area. The planned FY 2021 amount is below planned. The project "Construct the Blue/Greenway in St. Paul's Area" is a new standalone project. It was originally planned to be included in this project. Total planned funding has increased by \$600,000 across these two projects.
Fund	
Storm Water Utility	
Account #	
4000 35 4274	
Property Address:	St. Paul's Area
Customers Served	
Residents <input checked="" type="checkbox"/> Business <input checked="" type="checkbox"/> City Services <input type="checkbox"/>	
Educational Community <input checked="" type="checkbox"/> Tourists/Visitors <input type="checkbox"/>	

Financial Summary

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
FY 2021 Adopted	N/A	1,000,000	500,000	500,000	500,000	300,000	2,800,000
FY 2020 Adopted	3,000,000	3,000,000	4,000,000	4,000,000	4,000,000	N/A	18,000,000
Estimated Operation Budget Impact	N/A	0	0	0	0	N/A	0

Anticipated Project Timeline:

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Planning/Design/Other	N/A	100,000	50,000	50,000	50,000	30,000	280,000
Construction/FFE	N/A	900,000	450,000	450,000	450,000	270,000	2,520,000
Total	N/A	1,000,000	500,000	500,000	500,000	300,000	2,800,000
Prior Capital Funding		3,000,000					
FY 2021 Adopted		1,000,000					
Capital Share Remaining		1,800,000					
Project Total		5,800,000					



Rehabilitate Colley Avenue Pump Station

Department	Project Description
Storm Water Utility	Provide funds to rehabilitate the pump station at Colley Avenue. The project will increase pumping capacity of the station and reduce the times the underpass is unavailable due to flooding. This project is a new project that was previously planned under "Improve Storm Water System."
Fund	
Storm Water Utility	
Account #	
2300 35 4313	
Property Address:	
Colley Avenue	
Customers Served	
Residents <input checked="" type="checkbox"/> Business <input checked="" type="checkbox"/> City Services <input checked="" type="checkbox"/>	
Educational Community <input checked="" type="checkbox"/> Tourists/Visitors <input checked="" type="checkbox"/>	

Financial Summary

	FY 2020	FY 21	FY 2022	FY 2023	FY 2024	FY 2025	Total
FY 2021 Adopted	N/A	500,000	N/A	N/A	N/A	N/A	500,000
FY 2020 Adopted	0	0	0	0	0	N/A	0
Estimated Operation Budget Impact	N/A	0	0	0	0	N/A	0

Anticipated Project Timeline:

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Planning/Design/Other	N/A	50,000	0	0	0	0	50,000
Construction/FFE	N/A	450,000	0	0	0	0	450,000
Total	N/A	500,000	0	0	0	0	500,000
Prior Capital Funding		0					
FY 2021 Adopted		500,000					
Capital Share Remaining		0					
Project Total		500,000					



Rehabilitate Tidewater Drive Pump Station

Department	Project Description
Storm Water Utility	Provide funds to rehabilitate the Tidewater Drive pump station. The project will increase pumping capacity of the station and reduce the times the underpass is unavailable due to flooding. This project is a new project that was previously planned under "Improve Storm Water System."
Fund	
Storm Water Utility	
Account #	
N/A	
Property Address:	
Customers Served	
Residents <input checked="" type="checkbox"/> Business <input checked="" type="checkbox"/> City Services <input checked="" type="checkbox"/>	
Educational Community <input checked="" type="checkbox"/> Tourists/Visitors <input checked="" type="checkbox"/>	

Financial Summary

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
FY 2021 Adopted	N/A	N/A	N/A	N/A	600,000	600,000	1,200,000
FY 2020 Adopted	0	0	0	0	0	N/A	0
Estimated Operation Budget Impact	N/A	0	0	0	0	N/A	0

Anticipated Project Timeline:

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Planning/Design/Other	N/A	0	0	0	60,000	60,000	120,000
Construction/FFE	N/A	0	0	0	540,000	540,000	1,080,000
Total	N/A	0	0	0	600,000	600,000	1,200,000
Prior Capital Funding		0					
FY 2021 Adopted		0					
Capital Share Remaining		1,200,000					
Project Total		1,200,000					



Upgrade the Monticello Avenue Pump Station

Department	Project Description	
Storm Water Utility	Provide funds for upgrades to the Monticello Avenue Pump Station. The project will increase pumping capacity of the station and reduce the times the underpass is unavailable due to flooding. This project is a new project that was previously planned under "Improve Storm Water System."	
Fund		
Storm Water Utility		
Account #		
N/A		
Property Address:		
Customers Served		
Residents <input checked="" type="checkbox"/>	Business <input checked="" type="checkbox"/>	City Services <input checked="" type="checkbox"/>
Educational Community <input checked="" type="checkbox"/>	Tourists/Visitors <input checked="" type="checkbox"/>	

Financial Summary

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
FY 2021 Adopted	N/A	N/A	600,000	600,000	N/A	N/A	1,200,000
FY 2020 Adopted	0	0	0	0	0	N/A	0
Estimated Operation Budget Impact	N/A	0	0	0	0	N/A	0

Anticipated Project Timeline:

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Planning/Design/Other	N/A	0	60,000	60,000	0	0	120,000
Construction/FFE	N/A	0	540,000	540,000	0	0	1,080,000
Total	N/A	0	600,000	600,000	0	0	1,200,000
Prior Capital Funding	0						
FY 2021 Adopted	0						
Capital Share Remaining	1,200,000						
Project Total	1,200,000						



Environmental Sustainability



Conduct Drainage Studies Citywide

Department	Project Description
Storm Water Utility	Provide funds to study areas in advance of designing for planning purposes to optimize resources and target storm water infrastructure areas with the greatest needs.
Fund	
Storm Water Utility	
Account #	
2300 35 4299	
Property Address:	
Citywide	
Customers Served	
Residents <input checked="" type="checkbox"/> Business <input checked="" type="checkbox"/> City Services <input checked="" type="checkbox"/>	
Educational Community <input checked="" type="checkbox"/> Tourists/Visitors <input checked="" type="checkbox"/>	

Financial Summary

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
FY 2021 Adopted	N/A	1,000,000	N/A	500,000	N/A	N/A	1,500,000
FY 2020 Adopted	0	0	0	0	0	N/A	0
Estimated Operation Budget Impact	N/A	0	0	0	0	N/A	0

Anticipated Project Timeline:

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Planning/Design/Other	N/A	1,000,000	0	500,000	0	0	1,500,000
Construction/FFE	N/A	0	0	0	0	0	0
Total	N/A	1,000,000	0	500,000	0	0	1,500,000
Prior Capital Funding		0					
FY 2021 Adopted		1,000,000					
Capital Share Remaining		500,000					
Project Total		1,500,000					



Conduct Outfall Maintenance and Dredging

Department	Project Description
Storm Water Utility	Fund the maintenance and dredging of outfalls citywide.
Fund	This project includes opening up submerged, clogged outfalls through shoreline or barge dredging.
Storm Water Utility	
Account #	
2300 35 4300	
Property Address:	
Citywide	
Customers Served	
Residents <input checked="" type="checkbox"/> Business <input checked="" type="checkbox"/> City Services <input checked="" type="checkbox"/>	
Educational Community <input checked="" type="checkbox"/> Tourists/Visitors <input checked="" type="checkbox"/>	

Financial Summary

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
FY 2021 Adopted	N/A	650,000	750,000	450,000	950,000	1,000,000	3,800,000
FY 2020 Adopted	0	0	0	0	0	N/A	0
Estimated Operation Budget Impact	N/A	0	0	0	0	N/A	0

Anticipated Project Timeline:

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Planning/Design/Other	N/A	65,000	75,000	45,000	95,000	100,000	380,000
Construction/FFE	N/A	585,000	675,000	405,000	855,000	900,000	3,420,000
Total	N/A	650,000	750,000	450,000	950,000	1,000,000	3,800,000
Prior Capital Funding		0					
FY 2021 Adopted		650,000					
Capital Share Remaining		3,150,000					
Project Total		3,800,000					



Conduct Sliplining and Major Repairs to Existing Infrastructure

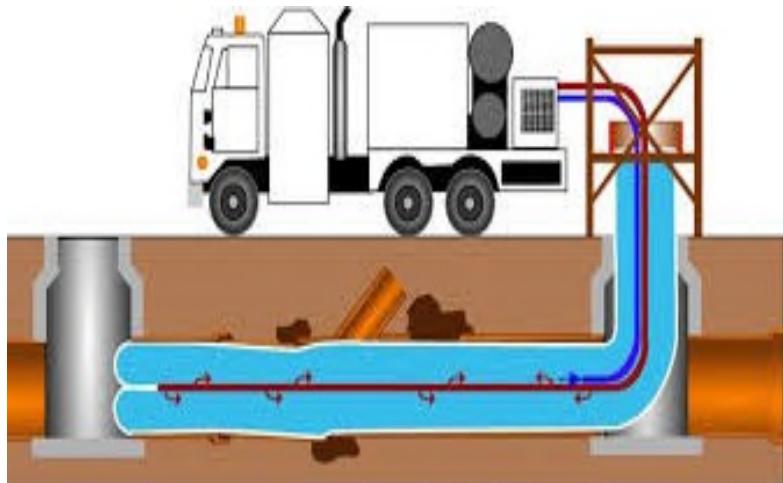
Department	Project Description
Storm Water Utility	Support sliplining and major repairs to existing storm water infrastructure. The funds will be used to repair and improve existing storm water conveyance pipes by repairing the system using trenchless and other techniques to restore the system to optimal condition.
Fund	
Storm Water Utility	
Account #	
2300 35 4298	
Property Address:	
Citywide	
Customers Served	
Residents <input checked="" type="checkbox"/> Business <input checked="" type="checkbox"/> City Services <input checked="" type="checkbox"/>	
Educational Community <input checked="" type="checkbox"/> Tourists/Visitors <input checked="" type="checkbox"/>	

Financial Summary

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
FY 2021 Adopted	N/A	1,000,000	1,200,000	1,200,000	1,200,000	1,000,000	5,600,000
FY 2020 Adopted	0	0	0	0	0	N/A	0
Estimated Operation Budget Impact	N/A	0	0	0	0	N/A	0

Anticipated Project Timeline:

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Planning/Design/Other	N/A	0	0	0	0	0	0
Construction/FFE	N/A	1,000,000	1,200,000	1,200,000	1,200,000	1,000,000	5,600,000
Total	N/A	1,000,000	1,200,000	1,200,000	1,200,000	1,000,000	5,600,000
Prior Capital Funding		0					
FY 2021 Adopted		1,000,000					
Capital Share Remaining		4,600,000					
Project Total		5,600,000					



Create Citywide Flooding Reserve

Department	Project Description
Storm Water Utility	Provide funds to create a citywide flooding reserve to prepare for the larger citywide flooding control projects.
Fund	This project is funded by the \$1.00 Storm Water fee increase approved in FY 2013. Funding will be dedicated to support the city's flood mitigation efforts.
Storm Water Utility	
Account #	
4000 35 4188	
Property Address:	
Citywide	
Customers Served	
Residents <input checked="" type="checkbox"/> Business <input checked="" type="checkbox"/> City Services <input checked="" type="checkbox"/>	
Educational Community <input checked="" type="checkbox"/> Tourists/Visitors <input checked="" type="checkbox"/>	

Financial Summary

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
FY 2021 Adopted	N/A	1,315,200	1,315,200	1,315,200	1,315,200	1,315,200	6,576,000
FY 2020 Adopted	1,315,200	1,315,200	1,315,200	1,315,200	1,315,200	N/A	6,576,000
Estimated Operation Budget Impact	N/A	0	0	0	0	N/A	0

Anticipated Project Timeline:

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Planning/Design/Other	N/A	1,315,200	1,315,200	1,315,200	1,315,200	1,315,200	6,576,000
Construction/FFE	N/A	0	0	0	0	0	0
Total	N/A	1,315,200	1,315,200	1,315,200	1,315,200	1,315,200	6,576,000
Prior Capital Funding		10,521,600					
FY 2021 Adopted		1,315,200					
Capital Share Remaining		5,260,800					
Project Total		17,097,600					



Implement Pond Retrofits Citywide

Department	Project Description
Storm Water Utility	Provide funds to support the implementation of pond retrofit projects citywide. Pond retrofits enhance pollutant removal and assist in flood mitigation.
Fund	
Storm Water Utility	
Account #	
2300 35 4305	
Property Address:	
Customers Served	
Residents <input checked="" type="checkbox"/> Business <input checked="" type="checkbox"/> City Services <input checked="" type="checkbox"/>	
Educational Community <input checked="" type="checkbox"/> Tourists/Visitors <input checked="" type="checkbox"/>	

Financial Summary

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
FY 2021 Adopted	N/A	1,290,000	1,290,000	1,290,000	1,290,000	1,290,000	6,450,000
FY 2020 Adopted	0	0	0	0	0	N/A	0
Estimated Operation Budget Impact	N/A	0	0	0	0	N/A	0

Anticipated Project Timeline:

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Planning/Design/Other	N/A	290,000	290,000	290,000	290,000	290,000	1,450,000
Construction/FFE	N/A	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
Total	N/A	1,290,000	1,290,000	1,290,000	1,290,000	1,290,000	6,450,000
Prior Capital Funding		0					
FY 2021 Adopted		1,290,000					
Capital Share Remaining		5,160,000					
Project Total		6,450,000					



Implement Shoreline Restoration

Department	Project Description
Storm Water Utility	
Fund	Provide funds to implement shoreline restoration in various areas across the city. The restoration process involves planting specific vegetation, constructing protective sills, adding sand fill, and creating buffer zones to reduce erosion and allow natural growth to build up the shoreline.
Account #	
2300 35 4304	
Property Address:	
Customers Served	
Residents <input checked="" type="checkbox"/> Business <input checked="" type="checkbox"/> City Services <input checked="" type="checkbox"/>	
Educational Community <input checked="" type="checkbox"/> Tourists/Visitors <input checked="" type="checkbox"/>	

Financial Summary

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
FY 2021 Adopted	N/A	960,000	960,000	960,000	960,000	960,000	4,800,000
FY 2020 Adopted	0	0	0	0	0	N/A	0
Estimated Operation Budget Impact	N/A	0	0	0	0	N/A	0

Anticipated Project Timeline:

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Planning/Design/Other	N/A	60,000	60,000	60,000	60,000	60,000	300,000
Construction/FFE	N/A	900,000	900,000	900,000	900,000	900,000	4,500,000
Total	N/A	960,000	960,000	960,000	960,000	960,000	4,800,000
Prior Capital Funding		0					
FY 2021 Adopted		960,000					
Capital Share Remaining		3,840,000					
Project Total		4,800,000					



Implement the Green Infrastructure Plan

Department	Project Description
Storm Water Utility	Provide funds to support the continued implement of the city's Green Infrastructure Plan. The plan involves approaching water management in a manner that protects or restores the natural water cycle. Funds will be used to build bioretention structures, rainwater collection or infiltration systems, and strategically placed vegetation.
Fund	
Storm Water Utility	
Account #	
2300 35 4306	
Property Address:	
Customers Served	
Residents <input checked="" type="checkbox"/> Business <input checked="" type="checkbox"/> City Services <input checked="" type="checkbox"/>	
Educational Community <input checked="" type="checkbox"/> Tourists/Visitors <input checked="" type="checkbox"/>	

Financial Summary

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
FY 2021 Adopted	N/A	100,000	100,000	100,000	100,000	100,000	500,000
FY 2020 Adopted	0	0	0	0	0	N/A	0
Estimated Operation Budget Impact	N/A	0	0	0	0	N/A	0

Anticipated Project Timeline:

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Planning/Design/Other	N/A	0	0	0	0	0	0
Construction/FFE	N/A	100,000	100,000	100,000	100,000	100,000	500,000
Total	N/A	100,000	100,000	100,000	100,000	100,000	500,000
Prior Capital Funding		0					
FY 2021 Adopted		100,000					
Capital Share Remaining		400,000					
Project Total		500,000					



Improve 10th View Outfall Extension

Department	Project Description
Storm Water Utility	Provide funds to design and construct improvements to the 10th View outfall extension. This project will extend the outfall beyond the beach replenishment project. This project is a new project that was previously planned under "Improve Storm Water Waterfront Facilities."
Fund	
Storm Water Utility	
Account #	
2300 35 4310	
Property Address:	
Customers Served	
Residents <input checked="" type="checkbox"/> Business <input checked="" type="checkbox"/> City Services <input checked="" type="checkbox"/>	
Educational Community <input checked="" type="checkbox"/> Tourists/Visitors <input checked="" type="checkbox"/>	

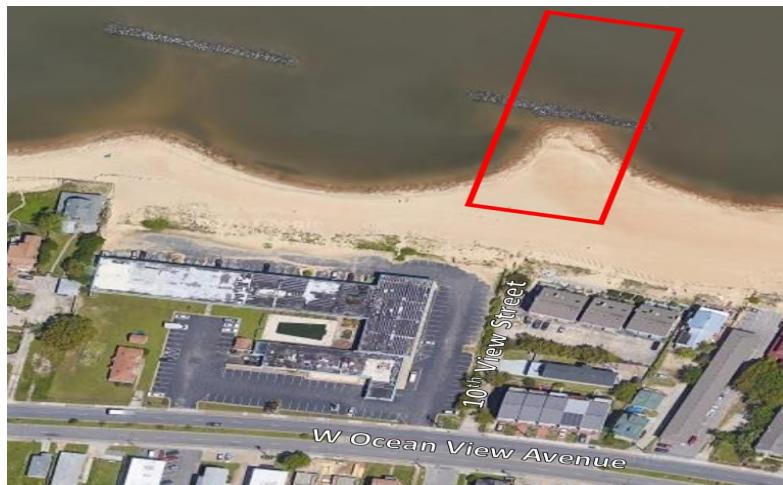
Financial Summary

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
FY 2021 Adopted	N/A	500,000	N/A	N/A	N/A	N/A	500,000
FY 2020 Adopted	0	0	0	0	0	N/A	0
Estimated Operation Budget Impact	N/A	0	0	0	0	N/A	0

Anticipated Project Timeline:

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Planning/Design/Other	N/A	50,000	0	0	0	0	50,000
Construction/FFE	N/A	450,000	0	0	0	0	450,000
Total	N/A	500,000	0	0	0	0	500,000

Prior Capital Funding	0
FY 2021 Adopted	500,000
Capital Share Remaining	0
Project Total	500,000



Improve Duffys Lane Outfall Extension

Department	Project Description
Storm Water Utility	Provide funds to design and construct improvements to Duffys Lane outfall extension. This project will extend the outfall beyond the beach replenishment project. This project is a new project that was previously planned under "Improve Storm Water Waterfront Facilities."
Fund	
Storm Water Utility	
Account #	
N/A	
Property Address:	
Customers Served	
Residents <input checked="" type="checkbox"/> Business <input checked="" type="checkbox"/> City Services <input checked="" type="checkbox"/>	
Educational Community <input checked="" type="checkbox"/> Tourists/Visitors <input checked="" type="checkbox"/>	

Financial Summary

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
FY 2021 Adopted	N/A	N/A	500,000	N/A	N/A	N/A	500,000
FY 2020 Adopted	0	0	0	0	0	N/A	0
Estimated Operation Budget Impact	N/A	0	0	0	0	N/A	0

Anticipated Project Timeline:

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Planning/Design/Other	N/A	0	50,000	0	0	0	50,000
Construction/FFE	N/A	0	450,000	0	0	0	450,000
Total	N/A	0	500,000	0	0	0	500,000
Prior Capital Funding		0					
FY 2021 Adopted		0					
Capital Share Remaining		500,000					
Project Total		500,000					



Improve Selby Place Outfall Extension

Department	Project Description
Storm Water Utility	Provide funds to design and construct improvements to the Selby Place outfall extension. This project will extend the outfall beyond the beach replenishment project. This project is a new project that was previously planned under "Improve Storm Water Waterfront Facilities."
Fund	
Storm Water Utility	
Account #	
N/A	
Property Address:	
Customers Served	
Residents <input checked="" type="checkbox"/> Business <input checked="" type="checkbox"/> City Services <input checked="" type="checkbox"/>	
Educational Community <input checked="" type="checkbox"/> Tourists/Visitors <input type="checkbox"/>	

Financial Summary

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
FY 2021 Adopted	N/A	N/A	N/A	500,000	N/A	N/A	500,000
FY 2020 Adopted	0	0	0	0	0	N/A	0
Estimated Operation Budget Impact	N/A	0	0	0	0	N/A	0

Anticipated Project Timeline:

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Planning/Design/Other	N/A	0	0	50,000	0	0	50,000
Construction/FFE	N/A	0	0	450,000	0	0	450,000
Total	N/A	0	0	500,000	0	0	500,000
Prior Capital Funding		0					
FY 2021 Adopted		0					
Capital Share Remaining		500,000					
Project Total		500,000					



Improve Storm Water Waterfront Facilities

Department	Project Description
Storm Water Utility	Provide funds for non-routine inspections, maintenance, repair, rehabilitation, and replacement of deteriorated bulkheads and outfall extensions citywide. The planned FY 2021 amount is below planned. The projects "Improve 10th View Outfall Extension", "Improve Duffys Lane Outfall Extension", and "Improve Selby Place Outfall Extension" are new standalone projects. They were originally planned to be included in this project. Total planned funding remains unchanged across these projects.
Fund	
Storm Water Utility	
Account #	
4000 35 3037	
Property Address:	
Citywide	
Customers Served	
Residents <input checked="" type="checkbox"/> Business <input checked="" type="checkbox"/> City Services <input type="checkbox"/>	
Educational Community <input type="checkbox"/> Tourists/Visitors <input checked="" type="checkbox"/>	

Financial Summary

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
FY 2021 Adopted	N/A	N/A	N/A	N/A	500,000	500,000	1,000,000
FY 2020 Adopted	500,000	500,000	500,000	500,000	500,000	N/A	2,500,000
Estimated Operation Budget Impact	N/A	0	0	0	0	N/A	0

Anticipated Project Timeline:

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Planning/Design/Other	N/A	0	0	0	50,000	50,000	100,000
Construction/FFE	N/A	0	0	0	450,000	450,000	900,000
Total	N/A	0	0	0	500,000	500,000	1,000,000
Prior Capital Funding		9,000,000					
FY 2021 Adopted		0					
Capital Share Remaining		1,000,000					
Project Total		10,000,000					



Raise the Downtown Floodwall

Department	Project Description
Storm Water Utility	Provide funds to raise the elevation of the downtown floodwall between one and two feet, reinforce sections of the wall, and reconstruct all flood gates in order to provide the level of flood protection required by the Federal Emergency Management Agency (FEMA) for the downtown area.
Fund	
Storm Water Utility	
Account #	
4000 35 4270	
Property Address:	Downtown
Customers Served	Residents <input checked="" type="checkbox"/> Business <input checked="" type="checkbox"/> City Services <input checked="" type="checkbox"/> Educational Community <input checked="" type="checkbox"/> Tourists/Visitors <input checked="" type="checkbox"/>

Financial Summary

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
FY 2021 Adopted	N/A	1,000,000	8,000,000	8,000,000	N/A	N/A	17,000,000
FY 2020 Adopted	1,000,000	1,000,000	8,000,000	8,000,000	0	N/A	18,000,000
Estimated Operation Budget Impact	N/A	0	0	0	0	N/A	0

Anticipated Project Timeline:

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Planning/Design/Other	N/A	1,000,000	0	0	0	0	1,000,000
Construction/FFE	N/A	0	8,000,000	8,000,000	0	0	16,000,000
Total	N/A	1,000,000	8,000,000	8,000,000	0	0	17,000,000
Prior Capital Funding		1,000,000					
FY 2021 Adopted		1,000,000					
Capital Share Remaining		16,000,000					
Project Total		18,000,000					



Replace Downtown Pump Station Trash Rack

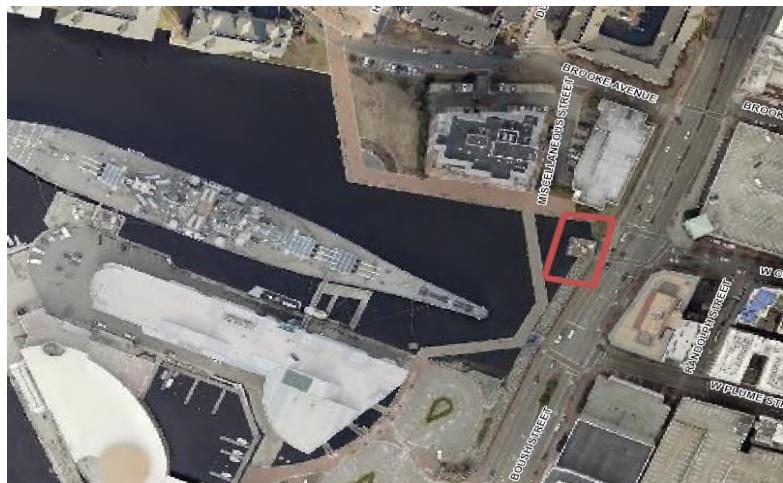
Department	Project Description
Storm Water Utility	Fund the replacement of the downtown pump station's trash rack. The rack has had functional issues over the previous several years. The funds will make the trash rack fully operational reducing the debris entering the river system. This project is a new project that was previously planned under "Improve Storm Water System."
Fund	
Storm Water Utility	
Account #	
2300 35 4307	
Property Address:	
Customers Served	
Residents <input checked="" type="checkbox"/> Business <input checked="" type="checkbox"/> City Services <input checked="" type="checkbox"/>	
Educational Community <input checked="" type="checkbox"/> Tourists/Visitors <input checked="" type="checkbox"/>	

Financial Summary

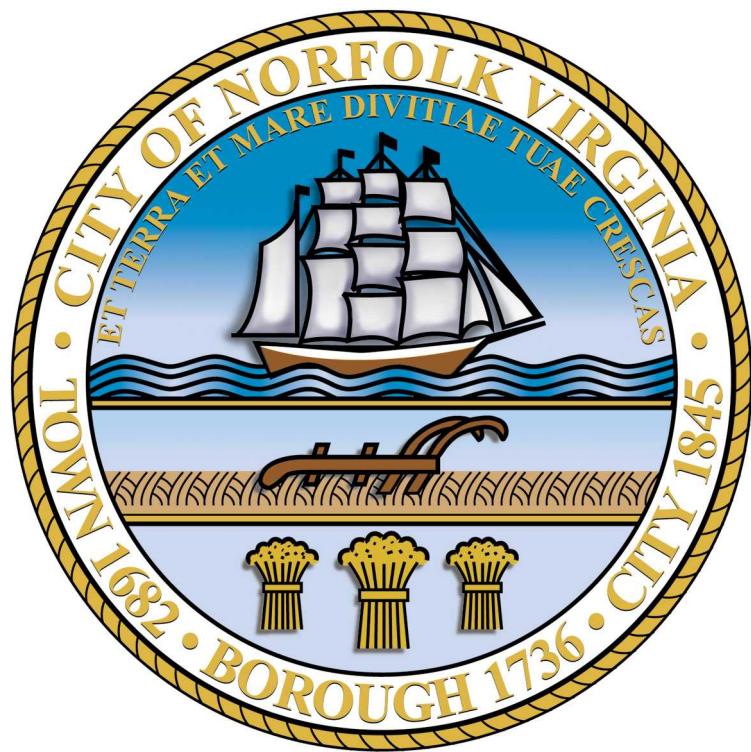
	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
FY 2021 Adopted	N/A	100,000	N/A	N/A	N/A	N/A	100,000
FY 2020 Adopted	0	0	0	0	0	N/A	0
Estimated Operation Budget Impact	N/A	0	0	0	0	N/A	0

Anticipated Project Timeline:

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Planning/Design/Other	N/A	0	0	0	0	0	0
Construction/FFE	N/A	100,000	0	0	0	0	100,000
Total	N/A	100,000	0	0	0	0	100,000
Prior Capital Funding		0					
FY 2021 Adopted		100,000					
Capital Share Remaining		0					
Project Total		100,000					



Enterprise Funds



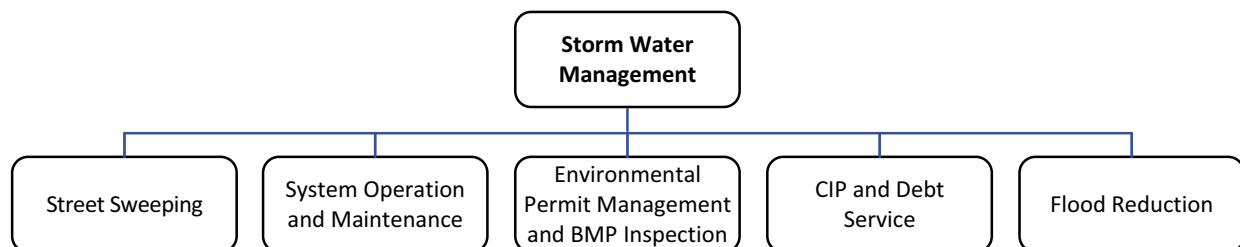
STORM WATER MANAGEMENT

MISSION STATEMENT

As part of Public Works Operations, Storm Water Management strives to improve the quality of life of Norfolk's residents, business owners, and visitors by improving the environment through reducing pollutants in storm water discharges. Storm Water Management also mitigates flooding, thereby reducing property damage and threats to life, health, and economic vitality.

DIVISION OVERVIEW

The Division of Storm Water Management focuses on five prominent categories of work: environmental permit management and regulatory compliance, Capital Improvement Program (CIP) and debt service, flood reduction, system operation and maintenance, and street sweeping. Staff is comprised of professional engineers, environmental scientists, and operations personnel that coordinate to meet the division's goals of reducing flooding and preventing pollution. The Division of Storm Water Management receives oversight from the Department of Public Works.



PERFORMANCE MEASURES

Goal

Enhance efficient use and protection of natural resources

Objective

Prevent pollutants and debris from entering the storm water system

Measure	FY 2018 Actual	FY 2019 Actual	FY 2020 Adopted	FY 2021 Adopted	Change
Miles of curb cleaned through street sweeping	53,781	42,252	55,000	55,000	0
Number of tons of debris removed by street sweeping	5,589	4,506	7,000	7,000	0

Goal

Reduce the negative impacts of flooding

Objective

Keep Norfolk's drain/storm water structures clean and free from debris

Measure	FY 2018 Actual	FY 2019 Actual	FY 2020 Adopted	FY 2021 Adopted	Change
Number of drain structures cleaned annually	12,715	23,051	10,000	10,000	0

REVENUE SUMMARY

	FY 2018 Actual	FY 2019 Actual	FY 2020 Adopted	FY 2021 Adopted
Use of Money and Property	\$946	\$15,443	\$565	\$3,020
Charges for Services	\$16,342,605	\$16,877,791	\$20,788,948	\$21,360,848
Miscellaneous Revenue	\$94,528	\$109,922	\$45,000	\$45,000
Recovered Costs	\$172,377	\$0	\$0	\$0
Federal Aid	\$449,362	\$0	\$0	\$0
Total	\$17,059,818	\$17,003,156	\$20,834,513	\$21,408,868

Actual amounts represent collections, not appropriation authority.

EXPENDITURE SUMMARY

	FY 2018 Actual	FY 2019 Actual	FY 2020 Adopted	FY 2021 Adopted
Personnel Services	\$6,122,698	\$5,852,643	\$6,576,818	\$6,830,528
Materials, Supplies and Repairs	\$3,109,288	\$2,641,741	\$2,469,064	\$2,317,803
Contractual Services	\$2,594,038	\$2,318,590	\$1,602,242	\$1,779,245
Equipment	\$108,195	\$623,752	\$1,119,425	\$1,668,774
Department Specific Appropriation	(\$89,246)	(\$9,398)	\$2,189,433	\$3,972,451
Debt Service/Transfers to CIP	\$4,737,283	\$4,758,346	\$6,877,531	\$4,840,067
Total	\$16,582,256	\$16,185,674	\$20,834,513	\$21,408,868

ADOPTED FY 2021 BUDGET ACTIONS

- Purchase vacuum-flushing truck** **FY 2021 \$380,000 FTE: 0**

Provide one-time funds to purchase a mini vacuum-flushing truck. The vacuum-flushing truck is effective in reducing pollution that may enter waterways by cleaning pipes, structures, and pump station wet-wells of debris and other pollutants. The additional truck will allow the department to be more responsive to flooding issues.

- Provide funds for resiliency collaboration** **FY 2021 \$100,000 FTE: 0**

Provide one-time funds for storm water planning in partnership with the Old Dominion University Resilience Collaborative.

• Enhance storm water maintenance operations	FY 2021 \$71,462	FTE: 1
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Provide funds to create a Utility Maintenance Supervisor position to provide day-to-day oversight of the crew that performs emergency and routine maintenance on storm water mechanical components. The request also provides one-time funds for the purchase of an additional vehicle for the new position.

• Enhance flood mitigation project management	FY 2021 \$65,539	FTE: 1
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Provide funds to create a Project Manager position to join the Storm Water engineering team. This position will assist with major flooding priorities and act as a resource to inform the public on flood mitigation programs. The Project Manager will also oversee studies and design, and construction of infrastructure required to adapt to sea level rise.

• Adjust operational expenditures	FY 2021 \$3,800	FTE: 0
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Technical adjustment for operational expenses which occurs annually. These expenses may include indirect costs, and materials and supplies for essential operations.

• Increase funding for HRPDC	FY 2021 \$27,570	FTE: 0
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Technical adjustment to increase funding for the Hampton Roads Planning District Commission (HRPDC). Norfolk's contribution to HRPDC is based on a per capita rate and population numbers from the U.S. Census Bureau. The contribution from Storm Water supports regional environmental education and outreach programs.

• Adjust debt service expenses	FY 2021 (\$207,464)	FTE: 0
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Technical adjustment to adjust annual debt service payments for storm water related projects. This is a routine adjustment which occurs each budget cycle.

• Adjust costs for Fleet expenditures	FY 2021 (\$9,261)	FTE: 0
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Technical adjustment to update the funding needed to support Fleet expenditures based on an annual cost revision calculation. Fleet provides maintenance, fuel, and the management of vehicles for essential operations of the department. This is a routine adjustment which occurs each budget cycle.

• Adjust required contribution to the city retirement system	FY 2021 \$27,342	FTE: 0
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Adjust the annual required contribution to the Norfolk Employees' Retirement System (NERS). Retirement contributions are based on a formula that calculates funds needed to meet present and future retirement payments. The contribution rate for the city will increase from 19.5 percent to 20.3 percent of eligible payroll in FY 2021. Costs are distributed to departments based on each department's NERS eligible payroll.

• Adjust employer healthcare contribution	FY 2021 \$68,451	FTE: 0
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Technical adjustment to update employer contribution amounts for healthcare premiums. This adjustment includes changes to employer contribution rates for each medical plan based on January enrollment data. The Norfolk Healthcare Consortium agreed to increase plan year 2021 rates by 12 percent. The city has elected to split the rate increase with employees, resulting in both employee and employer contribution rates increasing 12 percent from plan year 2020. The new rates will be effective December 2020.

- **Annualize FY 2020 compensation increase**

FY 2021 \$41,469 FTE: 0

Technical adjustment to annualize FY 2020 citywide compensation actions that occurred in January 2020. The Adopted FY 2020 Budget included funds for: a two percent increase for general and constitutional officer employees; a step increase for sworn Police and Fire-Rescue employees, an increase to the permanent employee living wage; and salary range adjustments to the city's most regionally out of market positions.

- **Update personnel expenditures**

FY 2021 \$5,447 FTE: 0

Technical adjustment to update department costs for personnel services. Changes include updates to staffing due to administrative actions and the funds needed in FY 2021 for such actions. In addition, the city transitioned to position-based budgeting in FY 2019. Adjustments to personnel expenditures reflect an update to the department's budget for positions, based on actual salaries for filled positions and minimum salaries for vacant positions. These are routine actions that occur at the beginning of the budget cycle.

Storm Water Management

Total: \$574,355 FTE: 2

FULL TIME EQUIVALENT (FTE) SUMMARY

	Pay Grade	Minimum	Maximum	FY 2020 Adopted	FTE Change	FY 2021 Adopted
Accountant I	1 11	\$40,805	\$66,586	1	0	1
Accountant III	1 13	\$47,823	\$77,978	1	0	1
Accountant IV	1 14	\$52,020	\$86,041	1	0	1
Accounting Supervisor	1 14	\$52,020	\$86,041	1	0	1
Accounting Technician II	1 07	\$29,391	\$47,962	2	0	2
Administrative Assistant II	1 10	\$37,337	\$60,884	2	0	2
Administrative Technician	1 07	\$29,391	\$47,962	1	0	1
Automotive Service Attendant	1 08	\$31,804	\$51,864	1	0	1
Civil Engineer II	1 15	\$56,314	\$92,075	2	0	2
Civil Engineer III	1 16	\$60,149	\$98,068	2	0	2
Civil Engineer V	1 18	\$68,697	\$112,020	1	0	1
Collection Coordinator	1 11	\$40,805	\$66,586	1	0	1
Construction Inspector II	1 11	\$40,805	\$66,586	3	0	3
Crew Leader I	1 09	\$34,445	\$56,161	9	-1	8
Design/Construction Project Manager, Senior	1 17	\$64,260	\$104,872	1	0	1
Engineering Technician I	1 10	\$37,337	\$60,884	2	0	2
Engineering Technician II	1 11	\$40,805	\$66,586	2	0	2
Enterprise Controller	1 16	\$60,149	\$98,068	1	0	1
Environmental Engineer	1 14	\$52,020	\$86,041	1	0	1
Environmental Specialist II	1 12	\$44,339	\$72,308	1	0	1
Equipment Operator II	1 07	\$29,391	\$47,962	13	0	13
Equipment Operator III	1 08	\$31,804	\$51,864	16	0	16
Equipment Operator IV	1 09	\$34,445	\$56,161	1	0	1
Geographic Information Systems Technician II	1 11	\$40,805	\$66,586	1	0	1
Maintenance Mechanic II	1 08	\$31,804	\$51,864	2	0	2

FULL TIME EQUIVALENT (FTE) SUMMARY

	Pay Grade	Minimum	Maximum	FY 2020 Adopted	FTE Change	FY 2021 Adopted
Maintenance Worker I	1 04	\$23,333	\$38,047	11	1	12
Maintenance Worker II	1 06	\$27,438	\$44,737	4	0	4
Manager of Budget & Accounting	1 18	\$68,697	\$112,020	1	0	1
Program Administrator	1 13	\$47,823	\$77,978	1	0	1
Program Supervisor	1 13	\$47,823	\$77,978	1	-1	0
Programs Manager	1 15	\$56,314	\$92,075	1	0	1
Project Manager	1 16	\$60,149	\$98,068	0	2	2
Public Relations Specialist	1 12	\$44,339	\$72,308	1	0	1
Storekeeper II	1 06	\$27,438	\$44,737	1	0	1
Storm Water Engineer	1 19	\$72,930	\$118,606	1	0	1
Storm Water Operations Manager	1 15	\$56,314	\$92,075	2	0	2
Utility Maintenance Mechanic I	1 07	\$29,391	\$47,962	1	0	1
Utility Maintenance Mechanic II	1 09	\$34,445	\$56,161	3	0	3
Utility Maintenance Supervisor	1 11	\$40,805	\$66,586	4	1	5
Utility Maintenance Supervisor, Senior	1 13	\$47,823	\$77,978	2	0	2
Total				103	2	105

Capital Improvement Projects (CIP) Funded by Storm Water Utility Funds

The City of Norfolk continues to make significant upgrades to the storm water infrastructure to fulfill our two-pronged mission of reducing storm water flooding and improving storm water quality. The City uses three main funding avenues to support these improvements:

- Direct storm water capital improvements supported by the storm water utility
- General capital improvements funded through the City's capital improvement program supported by general tax sources and
- Annual operations funds from the storm water utility.

Additional projects may be completed by developers and turned over to the City to become part of the storm water infrastructure.

The storm water capital improvement fund is further divided into eight major categories:

- Reduce Neighborhood Flooding
- Improve Storm Water Quality
- Improve Storm Water System
- Improve Storm Water Waterfront Facilities
- Address Street Flooding Citywide
- Raise the Downtown Floodwall
- Improve Storm Water Infrastructure in St. Paul's Area
- Create Citywide Flooding Reserve

The total annual investment in storm water capital improvements for FY20 was \$12,915,200. However, due to project timing the annual expenditures can sometimes be substantially higher and/or lower than the appropriated amounts.

Reduce Neighborhood Flooding

Neighborhood Flood Reduction projects are major repairs and upgrades to the storm water infrastructure that result in the extension of the storm water collection and conveyance systems or substantially extend the life of the existing systems. Projects undertaken include sliplining, master plan studies, system replacements and upgrades. Sliplining means to slip a plastic liner in existing pipe that is no longer serviceable. The new liner extends the service life of the pipe without having to dig up and replace the existing pipe. Capacity is not diminished due to the liner smoothness. Master plan studies allow the City to determine the condition and capacity of the existing pipe systems and plan upgrades. Studies of the existing inventory allow for planning and may be used by developers to determine the necessary upgrades for planned redevelopment. Replacement and extensions of storm water infrastructure allows for upgrades of non-serviceable sections of the collection and conveyance system where required to reduce flooding.

Improve Storm Water Quality

Water Quality Improvement projects improve the quality of storm water runoff. Projects in this category include construction of best management practices (BMPs), wetlands restoration, shorelines, and similar projects. BMP projects include construction of detention and retention ponds, as well as major BMP maintenance, such as dredging and installation of aeration systems. Wetlands restoration and shoreline projects have the potential to

significantly improve storm water runoff and are being reviewed and planned throughout the City.

Improve Storm Water System

Improve Storm Water System provides funding for improvements to flood control and underpass pumping stations throughout the City. Improvements include, but are not limited to, replacing pumps, controls, electrical systems, valves, and piping that are approaching the end of their service life.

Improve Storm Water Waterfront Facilities

Improve Storm Water Waterfront facilities provides funding for projects to improve shoreline bulkheads, floodwalls, floodgates, outfalls and other similar facilities for the City. These projects reduce erosion that is caused by non-serviceable infrastructure and protect public and private property against coastal flooding.

Address Street Flooding Citywide

The Address Street Flooding Citywide improvements are generally flood reduction projects that will upgrade or expand the storm water system to address certain neighborhood flooding, though they may also include water quality projects on a more regional basis.

Raise the Downtown Floodwall

Raise the Downtown Floodwall provides funding to raise the elevation of the floodwall, reinforce sections of the wall and reconstruct all the flood gates to provide the level of flood protection required by the Federal Emergency Management Agency (FEMA) for the downtown area.

Improve Storm Water Infrastructure in St. Paul's Area

Improve Storm Water Infrastructure in the St. Paul's Area provides funding to add storm water collection and conveyance infrastructure in the existing and new street network to mitigate precipitation flooding.

Create Citywide Flooding Reserve

The Create Citywide Flooding Reserve provides a funding reserve to prepare for larger citywide flooding control projects. This funding is dedicated to support the city's flood mitigation efforts.

Funding of the CIP is by fiscal year. Storm Water CIP funding is expected to continue for the foreseeable future. Projects utilizing and/or having funds allocated in FY20 are listed in the following Table.

PROJECTS	PROJECT COSTS	BUDGET AMOUNT
Reduce Neighborhood Flooding		\$2,850,000
W.23 rd Street and Colonial Avenue Improvements (Extending to Gosnold Ave. & W. 25 th Street)	\$350,000	
Janaf Place Drainage Improvements (Frament Avenue)	\$1,000,000	
Repair and Improve Slipling and Major Systems	\$300,000	
Lowery Road Drainage Improvements	\$700,000	
Conduct Outfall Maintenance and Dredging	\$200,000	
Conduct Drainage Studies	\$300,000	
	\$2,850,000	
Improve Storm Water Quality		\$2,350,000
Implement Granby Street Park Living Shoreline	\$400,000	
Implement Meadow Lake Outfall Structure Retrofit	\$400,000	
Implement Pretty Lake Upper Reaches BMP's	\$536,685	
Design Lake Whitehurst Retrofit	\$200,000	
Implement NIT Living Shoreline	\$153,315	
Implement Green Infrastructure Plan	\$100,000	
The Hague Constructed Wetland BMP	\$330,000	
Design Lake Herbert Retrofit	\$205,000	
Lake Taylor Retrofit	\$25,000	
	\$2,350,000	
Improve Storm Water System		\$600,000
Improve Colley Avenue Pump Station #10	\$500,000	
Install Downtown Pump Station Trash Rack	\$100,000	
	\$600,000	
Improve Storm Water Waterfront Facilities		\$500,000
Improve Storm Water Waterfront Facilities	\$500,000	
	\$500,000	
Address Street Flooding Citywide		\$1,300,000
Improve East Ocean View Drainage	\$400,000	
Improve Glenrock Drainage	\$300,000	
Improve Janaf Place Drainage	\$300,000	
Implement Minor Flooding & Standing Water Resolution	\$300,000	
	\$1,300,000	

Raise the Downtown Floodwall		\$1,000,000
Raise the Downtown Floodwall	\$1,000,000	
	\$1,000,000	
Improve Storm Water Infrastructure in St. Paul's Area		\$3,000,000
Improve Storm Water Infrastructure in St. Paul's Area	\$3,000,000	
	\$3,000,000	
Create Citywide Flooding Reserve		\$1,315,200
Flooding Reserve	1,315,200	
	\$1,315,200	
TOTAL		\$12,915,200

Street Sweeping Signage

Beyond sliplining and system repair projects, the operations component of the storm water utility fund finances the installation of new signage for the once-a-month street sweeping program. In FY08, all regulatory no parking signs associated with street sweeping were replaced and the program is still ongoing. Where regulatory signs are not appropriate, advisory signs will be installed. These signs will inevitably make the monthly street sweeping program more effective by educating residents to move their automobiles during scheduled street sweeping. This will improve storm water quality by reducing the pollutants available to be washed in the waterways.



MS4 Program Plan - Section 2.2 - Planning and Retrofitting Storm Water Quality Projects



9/26/2019

Department of Environmental
Quality Tidewater Regional Office
5636 Southern Boulevard
Virginia Beach, VA 23462

RE: VPDES Permit No. VA0088650
IR 292171

Dear Sir or Madam:

In accordance with the reporting requirements for the referenced permit, be advised that there was an illicit discharge of used cooking oil in water on 9/18/2019 3:10:00 PM(36.8728747234851, -76.2904464163361). The description of the incident is as follows:

Speaking with the owner on site, he said the over flow alarm on the used cooking oil tank had malfunctioned and was now fixed. A employee had tried to clean up the spill with the water hose and sent the mix through the parking lot to the street and into the storm drain. Handsome Biscuit hired Petro Chem to clean the storm drain and I was on site for the cleaning. Handsome Biscuit is working to move two drains that contribute to the water flow and should have this completed by 10-02-2019.

The enclosed documents outline the relevant information. The discharge was reported to the DEQ Tidewater Regional Office on 9/19/2019 8:40:00 AM.

Please let me know if you have any questions regarding this incident.

Sincerely,

Peter Mack

Enclosures

cc: File

VPDES PERMIT NO. VA0088650

INCIDENT NO: 292171

REPORT DATE: 9/26/2019 3:48:53 PM

ESTIMATED QUANTITY: 7 gals

TYPE OF DISCHARGE: used cooking oil in water

LOCATION: NOV ELLICIT DISCHARGE 2511 COLONIAL AVE
2511 COLONIAL AVENUE
36.8728747234851, -76.2904464163361

RESPONSIBLE PARTY: Handsome Biscuit

ADDRESS& PHONE: 2511 Colonial Ave

DATE OF DISCHARGE: 9/18/2019 3:10:00 PM

DATE/TIME REPORTED: 9/19/2019 8:40:00 AM

REPORTED TO DEQ/DCR BY: Peter Mack

REPORTED TO: TRO prep

DESCRIPTION OF DISCHARGE: Speaking with the owner on site, he said the over flow alarm on the used cooking oil tank hand malfunctioned and was now fixed. A employee hand tried to clean up the spill with the water hose and sent the mix through the parking lot to the street and into the storm drain. Handsome Biscuit hired Petro Chem to clean the storm drain and I was on site for the cleaning. Handsome Biscuit is working to move two drains that contribute to the water flow and should have this completed by 10-02-2019.

CORRECTIVE ACTION: Speaking with the owner on site, he said the over flow alarm on the used cooking oil tank hand malfunctioned and was now fixed. A employee hand tried to clean up the spill with the water hose and sent the mix through the parking lot to the street and into the storm drain. Handsome Biscuit hired Petro Chem to clean the storm drain and I was on site for the cleaning. Handsome Biscuit is working to move two drains that contribute to the water flow and should have this completed by 10-02-2019.

IMPACT TO STATE WATERS: none

10/7/2019

Department of Environmental
Quality Tidewater Regional Office
5636 Southern Boulevard
Virginia Beach, VA 23462

RE: VPDES Permit No. VA0088650
IR 292324

Dear Sir or Madam:

In accordance with the reporting requirements for the referenced permit, be advised that there was a discharge of 25 gallons of Hydraulic Fluid onto the ground on 10/4/2019 12:30:00 PM. The description of the incident is as follows:

A City of Norfolk sweeper truck busted a hydraulic fuel line releasing approximately 25 gallons of fuel onto the roadway. No storm drains were impacted. Site was cleaned up and materials properly disposed of.

The enclosed documents outline the relevant information. The discharge was reported to the DEQ Tidewater Regional Office on 10/4/2019 2:19:00 PM.

Please let me know if you have any questions regarding this incident.

Sincerely,



Chrisi VanLear
Environmental Specialist II

Enclosures

cc: File

VPDES PERMIT NO. VA0088650

INCIDENT NO: 292324

REPORT DATE: 10/7/2019 12:26:27 PM

ESTIMATED QUANTITY: 25 gals

TYPE OF DISCHARGE: Hydraulic Fluid

LOCATION: Hydraulic Spill-125 Granby Park Drive
125 GRANBY PARK DRIVE

RESPONSIBLE PARTY: Kyle Quick
ADDRESS & PHONE: 2233 McKann Ave

DATE OF DISCHARGE: 10/4/2019 12:30:00 PM

DATE/TIME REPORTED: 10/4/2019 2:19:00 PM

REPORTED TO DEQ/DCR BY: C.VanLear

REPORTED TO: TRO Prep

DESCRIPTION OF DISCHARGE: A City of Norfolk sweeper truck busted a hydraulic fuel line releasing approximately 25 gallons of fuel onto the roadway. No storm drains were impacted. Site was cleaned up and materials properly disposed of.

CORRECTIVE ACTION: Site was cleaned up and materials properly disposed of.

IMPACT TO STATE WATERS: No

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.


Signature

10/7/19
Date

THE CITY OF
NORFOLK

PUBLIC WORKS



October 10, 2019

Virginia Department of Environmental Quality
Tidewater Regional Office
5636 Southern Boulevard
Virginia Beach, VA 23462

Re: VPDES Permit No. VA0088650
Reference ID# 292357

Dear Sir or Madam:

In accordance with the reporting requirements for the referenced permit, be advised that there was an illicit discharge of sediment laden water on October 4, 2019, at approximately 5:00pm. The description of the incident is as follows:

During a routine inspection, it was discovered that a City contractor had overflowed the vactor truck infiltration basin with sediment laden pump station wet well water. The water was discharged into the City's MS4 ditch. The sediment was contained to the ditch and removed by City crews. No waterways were affected.

The enclosed documents outline the relevant information. The discharge was reported to the DEQ Tidewater Regional Office on October 9, 2019, at approximately 2:15pm.

Please let me know if you have any questions regarding this incident.

Respectfully,

A handwritten signature in black ink, appearing to read "Casey Magruder".

Casey Magruder
Environmental Program Administrator

Enclosure

cc: File

VPDES PERMIT NO. VA0088650

INCIDENT NO: 292357

REPORT DATE: 10/10/2019 @ 8am

ESTIMATED QUANTITY: 5 gallons

TYPE OF DISCHARGE: Sediment laden water

LOCATION: ILLICIT DISCHARGE
1176 Pineridge Road

RESPONSIBLE PARTY: City of Norfolk Storm Water
ADDRESS& PHONE: 2233 McKann Ave.

DATE OF DISCHARGE: 10/4/2019 @5pm

DATE/TIME REPORTED: 10/9/2019 @ 2:15pm

REPORTED TO DEQ/DCR BY: C. Magruder

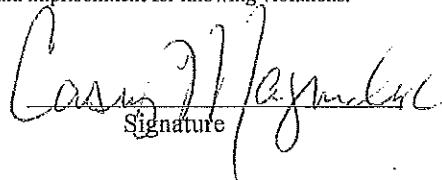
REPORTED TO: Online PREP

DESCRIPTION OF DISCHARGE: During routine inspection, discovered that City contractor overflowed the infiltration basin with sediment laden pump station wet well water. The water entered the City's MS4 ditch.

CORRECTIVE ACTION: Sediment was contained to ditch and removed by City crews. Infiltration basin scheduled for clean out.

IMPACT TO STATE WATERS: None

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.


Signature

10/10/19
Date

11/4/2019

Department of Environmental
Quality Tidewater Regional Office
5636 Southern Boulevard
Virginia Beach, VA 23462

RE: VPDES Permit No. VA0088650
IR 292591

Dear Sir or Madam:

In accordance with the reporting requirements for the referenced permit, be advised that there was an illicit discharge of gasoline on 10/29/2019 10:09:00 AM. The description of the incident is as follows:

City staff cleaned up a spill from what appeared to be a full 5 gallon container that had been improperly disposed of in front of a storm drain. It appears that approximately 3 gallons remained in the tank, while approximately 2 gallons of gasoline spilled out onto the road way and into the storm drain. City staff cleaned up the road way, and Petrochem was contracted to clean up the contaminated sediment in the storm drain.

The enclosed documents outline the relevant information. The discharge was reported to the DEQ Tidewater Regional Office on 10/29/2019 11:17:00 AM.

Please let me know if you have any questions regarding this incident.

Sincerely,



Chrisi VanLear
Environmental Specialist II

Enclosures

cc: File

VPDES PERMIT NO. VA0088650

INCIDENT NO: 292591

REPORT DATE: 11/4/2019 9:52:33 AM

ESTIMATED QUANTITY: 2 gals

TYPE OF DISCHARGE: Gasoline

LOCATION: ILLICIT DISCHARGE-700 Muskogee Ave
700 MUSKOGEE AVENUE

RESPONSIBLE PARTY: Unknown

ADDRESS& PHONE: Unknown

DATE OF DISCHARGE: 10/29/2019 10:09:00 AM

DATE/TIME REPORTED: 10/29/2019 11:17:00 AM

REPORTED TO DEQ/DCR BY: C.VanLear

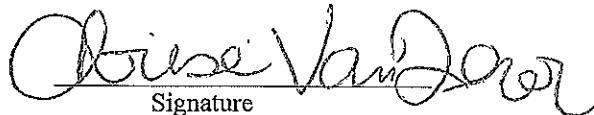
REPORTED TO: TRO Prep

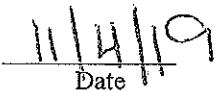
DESCRIPTION OF DISCHARGE: City staff cleaned up spill from a full 5 gallon container that had been improperly disposed of in front of a storm drain. It appears that approximately 3 gallons remained in the tank, while approximately 2 gallons of gasoline spilled out onto the road way and into the storm drain. City staff cleaned up the road way, and Petrochem was contracted to clean up the contaminated sediment in the storm drain.

CORRECTIVE ACTION: City staff cleaned up the road way, and Petrochem was contracted to clean up the contaminated sediment in the storm drain.

IMPACT TO STATE WATERS: No

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.


Signature


Date

11/21/2019

Department of Environmental
Quality Tidewater Regional Office
5636 Southern Boulevard
Virginia Beach, VA 23462

RE: VPDES Permit No. VA0088650
IR #292788

Dear Sir or Madam:

In accordance with the reporting requirements for the referenced permit, be advised that there was an illicit discharge of hood vent cleaning waste water on 11/14/2019 10:30:00 AM(36.861433081847, -76.2861870684204). The description of the incident is as follows:

The hood cleaning contractor for Pizza Hut cleaned the vents in a large plastic tub and dumped the wash water into the parking lot multiple times.

The enclosed documents outline the relevant information. The discharge was reported to the DEQ Tidewater Regional Office on 11/14/2019 1:18:00 PM.

Please let me know if you have any questions regarding this incident.

Sincerely,



Peter Mack

Description of Incident

Permit Number: VAoo88650
DEQ IR Number: #292788
Reported To: Troprep
Reported To DEQ/DCR By: Peter Mack
Date Reported: 11/14/2019 1:18:00 PM
Date of Discharge: 11/14/2019 10:30:00 AM
Date/time Under Control: 11/14/2019 6:00:00 PM
Report Date: 11/21/2019 9:36:35 AM
Description of Discharge: The hood cleaning contractor for Pizza Hut cleaned the vents in a large plastic tub and dumped the wash water into the parking lot multiple times.
Type of Discharge: hood vent cleaning waste water
Amount Released: 20 gals
Amount Recovered: 19 gals
Amount Reaching State Waters: 0 gals
Impact to State Waters: 0
Corrective Action: Petro Chem was called to the scene and they vacuumed the pipes and all the standing water. Then cleaned the area with absorbent, then vacuumed again.

11/21/2019

Department of Environmental
Quality Tidewater Regional Office
5636 Southern Boulevard
Virginia Beach, VA 23462

RE: VPDES Permit No. VA0088650
IR #292789

Dear Sir or Madam:

In accordance with the reporting requirements for the referenced permit, be advised that there was an illicit discharge of frying oil on 11/14/2019 12:30:00 PM(36.8610467999813, -76.2858008303223). The description of the incident is as follows:

The grease trap spilled onto the pavement and was not properly cleaned, and went into the nearest catch basin.

The enclosed documents outline the relevant information. The discharge was reported to the DEQ Tidewater Regional Office on 11/14/2019 3:26:00 PM.

Please let me know if you have any questions regarding this incident.

Sincerely,



Peter Mack

Complaint Info

Complaint Number: 2020-66

Work Order Number:

Complaint Date: 11/14/2019 12:30:00 PM

Complainant: Peter Mack
2233 McKann Ave
17574390609

Complaint Made: The grease trap spilled onto the pavement and was not properly cleaned, and went into the nearest catch basin.

Respondent(s): Peter Mack

Respondent Remarks: meet with the manager and owner, they cleaned the area immediately. the owner said he would redo the landscaping to prevent any future issues getting to the storm drain. New landscaping in place 11/15/19.

NOV Issued: Yes

Summons Issued: No

Site Information

Responsible Party: Samuel Stewart/ Leonard Colt
1208 Monticello Ave
757/822/9136

Site Name: NOV RALLY'S 1208 MONICELLO AVE
1208 MONTICELLO AVENUE

HUC Code:

Outfall To:

Illicit Discharge Coordinates: 36.8610467999813
-76.2858008303223

Description of Incident

Permit Number: VA0088650

DEQ IR Number: #292789

Reported To: tro prep

Reported To DEQ/DCR By: Peter Mack

Date Reported: 11/14/2019 3:26:00 PM

Date of Discharge: 11/14/2019 12:30:00 PM

Date/time Under Control: 11/15/2019 11:14:00 AM

Report Date: 11/21/2019 8:31:33 AM

Description of Discharge: The grease trap spilled onto the pavement and was not properly cleaned, and went into the nearest catch basin.

Type of Discharge: frying oil

Amount Released: 1 gals

Amount Recovered: 1 gals

Amount Reaching State Waters: 0 gals

Impact to State Waters: none

Corrective Action: Pipe was cleaned by PetroChem .Landscaping was changed to prevent any future issues from reaching the storm drain.

11/27/2019

VA DCR
Division of Soil & Water Conservation
Attn: MS4 Program Manager
203 Governor Street Suite 206
Richmond, VA 23219

RE: VPDES Permit No. VA0088650
IR 292891

Dear Sir or Madam:

In accordance with the reporting requirements for the referenced permit, be advised that there was an illicit discharge of Bona Mega Waterborne Wood Floor Finish on 11/25/2019 2:05:00 PM(36.8544432213696, -76.2935651548681). The description of the incident is as follows:

workers cleaning tools over the storm drain. Drain pipe has leaves clogging the system slowing the flow.

The enclosed documents outline the relevant information. The discharge was reported to the DEQ Tidewater Regional Office on 11/26/2019 3:35:00 PM.

Please let me know if you have any questions regarding this incident.

Sincerely,

Peter Mack

THE CITY OF
NORFOLK

PUBLIC WORKS



December 2, 2019

Virginia Department of Environmental Quality
Tidewater Regional Office
5636 Southern Boulevard
Virginia Beach, VA 23462

Re: VPDES Permit No. VA0088650
Reference ID# 292921

Dear Sir or Madam:

In accordance with the reporting requirements for the referenced permit, be advised that there was an illicit discharge of diesel fuel on December 2, 2019, at approximately 8:30am. The description of the incident is as follows:

Approximately 5 gallons of diesel fuel leaked from a dump truck inside the facility yard and out past the security gate. Due to heavy morning rains, an unknown quantity entered the storm water system and was unable to be recovered. The site drains to the Lafayette River.

The enclosed documents outline the relevant information. The discharge was reported to the DEQ Tidewater Regional Office on December 2, 2019, at approximately 9:50am.

Please let me know if you have any questions regarding this incident.

Respectfully,

A handwritten signature in black ink, appearing to read "Casey Magruder".

Casey Magruder
Environmental Program Administrator

Enclosure

cc: File

VPDES PERMIT NO. VA0088650

INCIDENT NO: 292921

REPORT DATE: 12/2/2019 10:04:27 AM

ESTIMATED QUANTITY: 5 gals

TYPE OF DISCHARGE: Diesel

LOCATION: ILLICIT DISCHARGE - 2233 McKann
2233 MCKANN AVENUE

RESPONSIBLE PARTY: City of Norfolk Public Works

ADDRESS& PHONE: 2233 McKann Ave.

DATE OF DISCHARGE: 12/2/2019 8:30AM

DATE/TIME REPORTED: 12/2/2019 9:50AM

REPORTED TO DEQ/DCR BY: C. Magruder

REPORTED TO: Online PREP

DESCRIPTION OF DISCHARGE: Approximately 5 gallons of diesel fuel leaked from a dump truck inside the facility yard and out past the security gate. Due to heavy morning rain, an unknown quantity entered the storm water system and was unable to be recovered.

CORRECTIVE ACTION: Inlet protection was immediately put into place at all affected drainage structures.

IMPACT TO STATE WATERS: Lafayette River

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 of 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.


Signature

12/2/19
Date

12/11/2019

Department of Environmental
Quality Tidewater Regional Office
5636 Southern Boulevard
Virginia Beach, VA 23462

RE: VPDES Permit No. VA0088650
IR 292967

Dear Sir or Madam:

In accordance with the reporting requirements for the referenced permit, be advised that there was an illicit discharge of used oil during the Thanksgiving holiday, but the exact date and time is unknown. The description of the incident is as follows:

Storm water received a call from Inspector Pallet with the Fire Marshall's office that during a routine site inspection, he found what appeared to be an illicit discharge. Per an employee at Hertz the waste oil container overflowed during the Thanksgiving holiday releasing an unknown amount of oil onto the ground and ultimately downhill into the storm drain. When I arrived on the site, there was a significant amount of oil surrounding the container, as well as absorbent on the ground, residual staining near the storm drain, and a very small sheen could be observed in the storm drain. A Notice of Violation was issued, and Hertz was given 24 hours for remediation of the spill. Visible evidence of an overflow of the waste oil container was on the ground appeared to have entered the nearest storm drain. NOV was issued to General Manager April Fladeland. Hertz contracted Cura Emergency Services to clean up the spilled oil.

PLEASE NOTE THAT THE EXACT DATE AND TIME OF THE RELEASE IS UNKNOWN.

The enclosed documents outline the relevant information. The discharge was reported to the DEQ Tidewater Regional Office on 12/4/2019 2:19:00 PM.

Please let me know if you have any questions regarding this incident.

Sincerely,



Chrisi VanLear
Environmental Specialist II

Enclosures

cc: File

VPDES PERMIT NO. VA0088650

INCIDENT NO: 292967

REPORT DATE: 12/11/2019 9:52:42 AM

ESTIMATED QUANTITY: Unknown

TYPE OF DISCHARGE: Used Oil

LOCATION: ILLICIT DISCHARGE-3323 N. Military Highway
3323 N MILITARY HIGHWAY

RESPONSIBLE PARTY: Hertz (April Fladeland)

ADDRESS& PHONE: 3323 N. Military Highway Norfolk, VA 23518
773-798-3308

DATE OF DISCHARGE: Unknown

DATE/TIME REPORTED: 12/4/2019 2:19:00 PM

REPORTED TO DEQ/DCR BY: C.VanLear

REPORTED TO: TRO Prep

DESCRIPTION OF DISCHARGE: Storm water received a call from Inspector Pallet with the Fire Marshall's office that during a routine site inspection, he found what appeared to be an illicit discharge. Per an employee at Hertz the waste oil container overflowed during the Thanksgiving holiday releasing an unknown amount of oil onto the ground and ultimately downhill into the storm drain. When I arrived on the site, there was a significant amount of oil surrounding the container, as well as absorbent on the ground, residual staining near the storm drain, and a very small sheen could be observed in the storm drain. A Notice of Violation was issued and Hertz was given 24 hours for remediation of the spill. Visible evidence of an overflow of the waste oil container was on the ground appeared to have entered the nearest storm drain. NOV was issued to General Manager April Fladeland. Hertz contracted Cura Emergency Services to clean up the spilled oil.
PLEASE NOTE THAT THE EXACT DATE AND TIME OF THE RELEASE IS UNKNOWN.

CORRECTIVE ACTION: A Notice of Violation was issued and Hertz was given 24 hours for remediation of the spill. Visible evidence of an

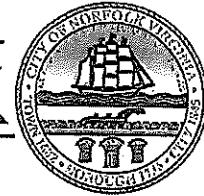
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system of 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.

Signature: Debra Dugan Date: 12/11/19

WATERS: Unknown
IMPACT TO STATE: Unknown
*PLEASE NOTE THAT THE EXACT DATE AND TIME
OF THE RELEASE IS UNKNOWN.*
Oil.
overflow of the waste oil container was on the ground
appeared to have entered the nearest storm drain. NOV was
issued to General Manager April Fladeland, Hertz
contracted Curra Emergency Services to clean up the spilled

THE CITY OF
NORFOLK

PUBLIC WORKS



January 21, 2020

Virginia Department of Environmental Quality
Tidewater Regional Office
5636 Southern Boulevard
Virginia Beach, VA 23462

Re: VPDES Permit No. VA0088650
Reference ID# 293458

Dear Sir or Madam:

In accordance with the reporting requirements for the referenced permit, be advised that there was an illicit discharge of firefighting foam on January 18, 2020, at approximately 8:30am. The description of the incident is as follows:

Due to operator error, approximately 300 gallons of diluted firefighting foam was discharged at Norfolk International Airport grounds, with some entering the storm drains. Airport firefighters responded and secured the scene, and storm drain blockers and dikes were installed. HEPACO was contacted and to conduct the cleanup. All product was contained to the storm drains, which HEPACO cleaned. No water bodies were affected.

The enclosed documents outline the relevant information, and includes two Incident Reports from Captain Albert of Norfolk International Airport's Fire Department. The discharge was reported to the DEQ Tidewater Regional Office on January 18, 2020 at approximately 11:45am.

Please let me know if you have any questions regarding this incident.

Respectfully,

A handwritten signature in black ink, appearing to read "Casey Magruder".

Casey Magruder
Environmental Program Administrator

Enclosure

cc: File

VPDES PERMIT NO. VA0088650

INCIDENT NO: 293458

REPORT DATE: 1/21/2020 10:04:15 AM

ESTIMATED QUANTITY: 300 gals

TYPE OF DISCHARGE: Firefighting Foam

LOCATION: Norfolk International Airport
2200Norview Ave.

RESPONSIBLE PARTY: Norfolk International Airport
ADDRESS & PHONE: 2200Norview Ave.

DATE OF DISCHARGE: 1/18/2020 8:30AM

DATE/TIME REPORTED: 1/18/2020 11:45AM

REPORTED TO DEQ/DCR BY: J. Shafer

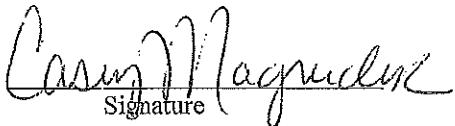
REPORTED TO: Online PREP

DESCRIPTION OF DISCHARGE: Firefighting foam spilled due to operator error.
Approximately 300 gallons of diluted foaming liquid spilled and some entered the airport storm drains.

CORRECTIVE ACTION: Airport firefighters responded and secured the scene.
Drain blockers and dikes installed to protect storm drains.
HEPACO was contacted to conduct cleanup. Product contained to storm drains, which HEPACO cleaned. No water bodies affected.

IMPACT TO STATE WATERS: None

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.


Signature

1/21/2020
Date



NORFOLK INTERNATIONAL AIRPORT
FIRE DEPARTMENT
INCIDENT REPORT

DATE	CASE #	SHIFT	RECEIVED	RESPONDED	ON SCENE	CONTROLLED	CLEAR	STATION
1/18/20	FD20-000028	"C"	0842	0842	0842	0959	1409	1415

NOTIFIED	UNITS	SOIC	OTHER PERSONNEL	LOCATION
R-7	R-2, R-5, & R-7	Capt. C. Albert	Multiple Personnel	Old T/W D

INCIDENT TYPE	CONDITIONS	DAY	WATER	FOAM
Hazardous Materials	Clear	Daylight	N/A	N/A

FUEL/HAZMAT	UNID	AMOUNT	AREA (SIZE) SPILL	ENVIRONMENTAL IMPACT
AFFF		Undetermined	100'x217'	Entered Storm Drains

OWNER/OPERATOR		PHONE
NAME	ADDRESS, CITY, STATE, ZIP	PHONE
Norfolk Airport Fire Department	2200 Norview Avenue, Norfolk, Virginia 23518	757-857-3497

TYPE	TAIL/VIN	CREW	PASSENGERS

MUTUAL AID	NOTIFIED	ARRIVED	TURNED OVER	CLEARED	UNITS	TYPE OF UNITS
n/a	n/a	n/a	n/a	n/a	n/a	n/a

SUMMARY

Received a phone call from FF George while I was conducting my morning inspection (currently on the perimeter road by the ATC). He stated that he had accidentally discharged AFFF while conducting his morning operation check of R-7 at the old T/W D. I told FF George to check the drains and to not leave the scene. R-2 advised control to dispatch R-5 to the scene for a hazardous material spill of AFFF. R-5 responded and arrived on scene. As advised by R-2, R-5 crew placed two drain blockers down over the two drains that AFFF had already entered to stop any more AFFF from entering the storm water system. R-2 arrived on scene at 08:49 and assumed Command. A-31 was utilized by R-4 driver to bring bags of speedy dry to the scene as requested by Lt. Myles. Approximately three bags of speedy dry was put down to dike around a drain located in the grass adjacent to the taxiway. -Fire Chief Lavene was contacted and advise of the situation at 08:49. -APD was requested to the scene to conduct their own investigation and help with traffic around the perimeter road. -Hepaco was requested to respond to the scene to conduct a cleanup operation at 08:51 and arrived at 10:26. -Mr. Bass was contacted at 08:53 and advised of the situation. -Norfolk public utilities was unsuccessfully contacted at 09:10 and then at 09:27 Command spoke to Elpaul Pope of Norfolk City Storm Water Division. He stated that he would pass the information up the chain of command. -StatFile was contacted at 09:17 and arrived at the Airport Fire Station at 11:00 to conduct a screening of FF George. FF George was escorted by R-2 to the fire station and Command was transferred to R-5 (Lt. Myles) at 09:59 for the cleanup operation. At this time the scene was secured, the spill contained, and Hepaco was responding to conduct the cleanup operation.

Hepaco on scene with three trucks and 4 personnel and began clean up. Hepaco using a vac truck cleaned all of the AFFF on the ground and pavement. Hepaco started cleaning the drains. The last drain effected by the AFFF was located and the vac truck was placed at the next drain in line for clean up. R-7 was flushed and then water was used to clean the area. All the water used to clean up was collected by the vac truck. Five drains in total were cleaned. Hepaco finished cleaning the area. All Hepaco units were escorted off of the AOA at gate 4. Command terminated R-5 and R-7 returned to service.

On Scene Person In-Charge: Cyril Albert (Print)	Report Prepared By: _____ (Signature)
Shift Officer In-Charge: Captain Cyril Albert (Print)	Report Reviewed By: _____ Fire Chief or Deputy Fire Chief (Signature)



**NORFOLK AIRPORT AUTHORITY
FIRE DEPARTMENT
SPILL INCIDENT REPORT**

Date: 1-18-2020 Time: 0842 Incident Number: FD20-000028

Location of Spill: Old Taxiway D

Product Spilled: AFFF

Cause of Spill: Operator Error

Spill Reported By; Name: Mark George Organization: NAA Fire

Were Injuries Involved? No If Yes, EMS Incident #

Were Photos Taken? Yes

Brief Summary of Incident:

Received a phone call from FF George, He stated that he had accidentally discharged AFFF while conducting his morning operation check of R-7 at the old T/W D. I told FF George to check the drains and to not leave the scene. R-2 advised control to dispatch R-5 to the scene for a hazardous material spill of AFFF. R-5 responded and arrived on scene. As advised by R-2, R-5 crew placed two drain blockers down over the two drains that AFFF had already entered to stop any more AFFF from entering the storm water system. R-2 arrived on scene at 08:49 and assumed Command. Approximately three bags of speedy dry was put down to dike around a drain located in the grass adjacent to the taxiway. Hepaco on scene with three trucks and 4 personnel and began clean up. Hepaco using a vac truck cleaned all of the AFFF on the ground and pavement. Hepaco started cleaning the drains. The last drain effected by the AFFF was located and the vac truck was placed at the next drain in line for clean up. R-7 was flushed and then water was used to clean the area. All the water (approx 2200 gallons) used to clean up was collected by the vac truck. Five drains in total were cleaned. Hepaco finished cleaning the area.

Did Spill Enter Storm Drains? Yes Drain Location: Old Taxiway D

If Yes; 300 Approximate Gallons. (If more than 10 gallons, or in waterways....)

Was NAA Director of Facilities Notified? Yes If Yes, Time: 0853

Were Regulatory Agencies Notified? Yes

Norfolk Public Utilities: Name: El paul Pope Time: 0927
(757-441-5683)

Virginia DEQ: Name: Time:
(757-518-2077)

HEPACO LLC Name: Steve Time: 0851
(Call 757-543-5718)

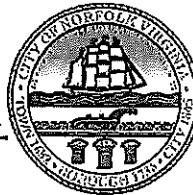
National Response Center: Name: Time:
(800-424-8802) (www.NRC.uscg.mil)

Report Completed By: Lt Travis Myles Signed:

Shift Officer InCharge: Capt Cyril Albert Signed:

THE CITY OF
NORFOLK

PUBLIC WORKS



March 25, 2020

Virginia Department of Environmental Quality
Tidewater Regional Office
5636 Southern Boulevard
Virginia Beach, V.A. 23462

Re: VPDES Permit No. VA0088650
Reference ID# 294438

Dear Sir or Madam:

In accordance with the reporting requirements for the referenced permit, be advised that there was an illicit discharge of herbicidal dye on March 25, 2020, at approximately 9:10am. The description of the incident is as follows:

A 250-gallon tote full of herbicidal (Round-Up) dye was dropped off at Empire Recycling. The tote leaked and spilled dye onto the property and into the City's street and storm water system. Facility staff contained the spill to one storm drain and diked off the rest of the area. A clean-up contractor was contacted and cleaned the storm drain system and site. No water bodies were affected.

The enclosed documents outline the relevant information. The discharge was reported to the DEQ Tidewater Regional Office on March 25, 2020 at approximately 12:45pm.

Please let me know if you have any questions regarding this incident.

Respectfully,

Casey Magruder

Casey Magruder
Environmental Program Administrator

Enclosure

cc: File

VPDES PERMIT NO. VA0088650

INCIDENT NO: 294438

REPORT DATE: 3/25/2020 12:56 PM

ESTIMATED QUANTITY: 250 gals

TYPE OF DISCHARGE: Herbicidal Dye

LOCATION: Empire Recycling
1100 E Princess Anne Rd, Norfolk, VA 23504

RESPONSIBLE PARTY: Empire Recycling
ADDRESS& PHONE: 1100 E Princess Anne Rd, Norfolk, VA 23504
(757) 533-9178

DATE OF DISCHARGE: 3/25/2020 9:10 AM

DATE/TIME REPORTED: 3/25/2020 12:45 PM

REPORTED TO DEQ/DCR BY: C. Magruder

REPORTED TO: Online PREP

DESCRIPTION OF DISCHARGE: A 250- gallons tote full of Round-Up dye was dropped off at Empire Recycling. The tote leaked and spilled onto the property and into the City's street and storm drain.

CORRECTIVE ACTION: Facility staff contained the spill to one storm drain and diked off the rest of the area. Clean-up contractor was contacted and cleaned the storm drain system and site.

IMPACT TO STATE WATERS: None

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 of 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.


Signature

3/25/2020
Date

THE CITY OF
NORFOLK

PUBLIC WORKS



April 17, 2020

Virginia Department of Environmental Quality
Tidewater Regional Office
5636 Southern Boulevard
Virginia Beach, VA 23462

Re: VPDES Permit No. VA0088650
Reference ID# 294695

Dear Sir or Madam:

In accordance with the reporting requirements for the referenced permit, be advised that there was an illicit discharge of hydraulic fluid on April 16, 2020, at approximately 10:30am. The description of the incident is as follows:

City of Norfolk Waste Management truck #3669 blew a hydraulic line and spilled approximately 24 gallons into the street. An estimated 5 gallons reached the storm drain. The spill was immediately contained by staff and PetroChem was called to the scene. The street was swept and the storm drains were cleaned. No waterways were affected.

The enclosed documents outline the relevant information. The discharge was reported to the DEQ Tidewater Regional Office on April 16, 2020 at approximately 11:25pm.

Please let me know if you have any questions regarding this incident.

Respectfully,

A handwritten signature in black ink that appears to read "Casey Magruder".

Casey Magruder
Environmental Program Administrator

Enclosure

cc: File

VPDES PERMIT NO. VA0088650

INCIDENT NO: 294695

REPORT DATE: 4/17/2020 11:42 AM

ESTIMATED QUANTITY: 24 gals

TYPE OF DISCHARGE: Hydraulic Fluid

LOCATION: 615 W Little Creek Road

RESPONSIBLE PARTY: City of Norfolk Public Works – Waste Management

ADDRESS& PHONE: 1176 Pineridge Road.

DATE OF DISCHARGE: 4/16/2020 10:30 AM

DATE/TIME REPORTED: 4/16/2020 11:25 AM

REPORTED TO DEQ/DCR BY: C. Magruder

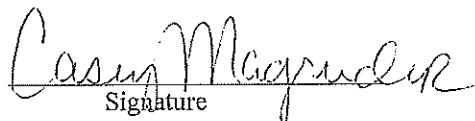
REPORTED TO: Online PREP

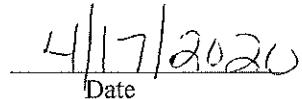
DESCRIPTION OF DISCHARGE: Waste Management truck #3669 blew a hydraulic line and spilled approximately 24 gallons into the street. Approximately 5 gallons reached the storm drain.

CORRECTIVE ACTION: The spill was immediately contained and PetroChem was called to the scene. Street was swept and storm drains were cleaned out by contractor. No waterways were affected.

IMPACT TO STATE WATERS: None

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.


Signature


Date

5/4/2020

Department of Environmental
Quality Tidewater Regional Office
5636 Southern Boulevard
Virginia Beach, VA 23462

RE: VPDES Permit No. VA0088650
IR 294872

Dear Sir or Madam:

In accordance with the reporting requirements for the referenced permit, be advised that there was an illicit discharge of paint on 4/28/2020 6:00 PM. The description of the incident is as follows:

Stormwater received a complaint of an unknown quantity of paint in a storm drain at Vinings Marina from the City of Norfolk Fire Marshall's Office, Karen Backa on Wednesday April 29, 2020. Chuck Stollery from Vinings Marina notified the Fire Marshall's office that paint appeared the previous evening on Tuesday April 28, 2020 around 6:00 PM. Stormwater Inspector Peter Mack investigated once he was notified and was able to trace the discharge and found that paint appeared to have been illegally dumped on the property into the grass at a nearby business, Shore Drive Self Storage. The paint had dried upon inspection on the ground and there was no visual evidence in the storm water drains. Peter spoke with the owner of Shore Drive Self Storage and addressed the suspected discharge from the business.

The enclosed documents outline the relevant information. The discharge was reported to the DEQ Tidewater Regional Office on 4/29/2020 2:58 PM.

Please let me know if you have any questions regarding this incident.

Sincerely,



Chrisi VanLear
Environmental Programs Supervisor

Enclosures

cc: File

VPDES PERMIT NO. VA0088650

INCIDENT NO: 294872

REPORT DATE: 5/4/2020 9:22:59 AM

ESTIMATED QUANTITY: Unknown

TYPE OF DISCHARGE: Paint

LOCATION: Illicit Discharge-8110 Shore Drive
8110 SHORE DRIVE

RESPONSIBLE PARTY: Shore Drive Self Storage (Charles & Jasmine Barshar)
ADDRESS& PHONE: 8110 Shore Drive Norfolk, VA 23518

DATE OF DISCHARGE: 4/28/2020 6:00 PM

DATE/TIME REPORTED: 4/29/2020 2:58 PM

REPORTED TO DEQ/DCR BY: C.VanLear

REPORTED TO: TRO Prep

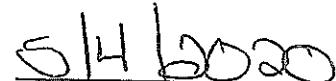
DESCRIPTION OF DISCHARGE: Stormwater received a complaint of paint in a storm drain at Vinings Marina from the City of Norfolk Fire Marshall's Office, Karen Backa. Stormwater Inspector Peter Mack investigated and found that paint appeared to have been illegally dumped on the property at a nearby business, Shore Drive Self Storage. The paint had dried upon inspection. Peter spoke with the owner of Shore Drive Self Storage and addressed the suspected.

CORRECTIVE ACTION: Addressed issue with owner of Shore Drive Self Storage, Charles Barshar.

IMPACT TO STATE WATERS: Yes

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 of 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.


Signature


Date

5/8/2020

Department of Environmental
Quality Tidewater Regional Office
5636 Southern Boulevard
Virginia Beach, VA 23462

RE: VPDES Permit No. VA0088650
IR 294961

Dear Sir or Madam:

In accordance with the reporting requirements for the referenced permit, be advised that there was an illicit discharge of dumpster water runoff on 5/5/2020 12:30 PM. The description of the incident is as follows:

Storm water Inspector Peter Mack discovered an unknown substance in gutter pan. Peter was able to trace the source back to Atlantic Paper Stock, and discovered that it was runoff water from a large dumpster for paper on site. The nearest inlet was immediately blocked off. Runoff was contained and area was cleaned up, and NOV was issued.

The enclosed documents outline the relevant information. The discharge was reported to the DEQ Tidewater Regional Office on 5/5/2020 3:31 PM.

Please let me know if you have any questions regarding this incident.

Sincerely,



Chrisi VanLear
Environmental Programs Supervisor

Enclosures

cc: File

VPDES PERMIT NO. VA0088650

INCIDENT NO: 294961

REPORT DATE: 5/8/2020 2:03:33 PM

ESTIMATED QUANTITY: Unknown

TYPE OF DISCHARGE: Dumpster water runoff

LOCATION: ILLICIT DISCHARGE-1832 Church Street
1832 Church Street

RESPONSIBLE PARTY: Paul Celetano

ADDRESS& PHONE: 1832 Church Street
75625-6211

DATE OF DISCHARGE: 5/5/2020 12:30:00 PM

DATE/TIME REPORTED: 5/5/2020 3:31:00 PM

REPORTED TO DEQ/DCR BY: C.VanLear

REPORTED TO: TRO Prep

DESCRIPTION OF DISCHARGE: Storm water Inspector Peter Mack discovered an unknown substance in gutter pan. Peter was able to trace the source back to Atlantic Paper Stock, and discovered that it was runoff water from a large dumpster for paper on site. The nearest inlet was immediately blocked off. Runoff was contained and area was cleaned up, and NOV was issued. The nearest inlet was immediately blocked off. Runoff was contained and area was cleaned up, and NOV was issued.

CORRECTIVE ACTION: The nearest inlet was immediately blocked off. Runoff was contained and area was cleaned up, and NOV was issued.

IMPACT TO STATE WATERS: Yes

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 of 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.

Chesli Von Lear

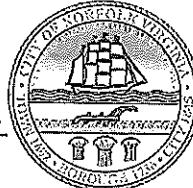
Signature

5/8/2020

Date

THE CITY OF
NORFOLK

PUBLIC WORKS



May 8, 2020

Virginia Department of Environmental Quality
Tidewater Regional Office
5636 Southern Boulevard
Virginia Beach, VA 23462

Re: VPDES Permit No. VA0088650
Reference ID# 294995

Dear Sir or Madam:

In accordance with the reporting requirements for the referenced permit, be advised that there was an illicit discharge of latex paint on May 7, 2020, at approximately 11:40am. The description of the incident is as follows:

Blue paint was spilled into the street and entered the storm drain. City crews cleaned the street and curb line, and PetroChem cleaned the storm water system. No waterways were affected due to blockages in the storm water system that contained the spill.

The enclosed documents outline the relevant information. The discharge was reported to the DEQ Tidewater Regional Office on May 7, 2020 at approximately 3:40pm.

Please let me know if you have any questions regarding this incident.

Respectfully,

Casey Magruder

Casey Magruder
Environmental Program Administrator

Enclosure

cc: File

VPDES PERMIT NO. VA0088650

INCIDENT NO: 294995
REPORT DATE: 5/8/2020 1:02 PM
ESTIMATED QUANTITY: 2 gals
TYPE OF DISCHARGE: Latex Paint
LOCATION: 2138 Keller Ave.
RESPONSIBLE PARTY: Unknown
ADDRESS& PHONE: NA

DATE OF DISCHARGE: 5/7/2020 11:40 AM
DATE/TIME REPORTED: 5/7/2020 3:40 PM
REPORTED TO DEQ/DCR BY: C. Magruder
REPORTED TO: Online PREP
DESCRIPTION OF DISCHARGE: Blue paint spilled into the street and entered the storm drain.

CORRECTIVE ACTION: City crews cleaned the street and curb line, and PetroChem cleaned the storm water system. No waterways were affected due to blockages in the storm water system that contained the spill.

IMPACT TO STATE WATERS: None

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 of 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.

Casey Magruder
Signature

5/8/2020
Date

6/5/2020

Department of Environmental
Quality Tidewater Regional Office
5636 Southern Boulevard
Virginia Beach, VA 23462

RE: VPDES Permit No. VA0088650
IR 295340

Dear Sir or Madam:

In accordance with the reporting requirements for the referenced permit, be advised that there was an illicit discharge of Water/Sediment on 6/4/2020 10:25 AM. The description of the incident is as follows:

City staff observed Verizon staff pumping water down the street and into a storm drain with no filter bag at the corner of Colley Ave and 43rd Street.

The enclosed documents outline the relevant information. The discharge was reported to the DEQ Tidewater Regional Office on 6/4/2020 2:41 PM.

Please let me know if you have any questions regarding this incident.

Sincerely,

Chrisi VanLear

Chrisi VanLear
Environmental Programs Supervisor

Enclosures

cc: File

VPDES PERMIT NO. VA0088650

INCIDENT NO: 295340

REPORT DATE: 6/5/2020 11:31:15 AM

ESTIMATED QUANTITY: Unknown

TYPE OF DISCHARGE: Water/Sediment

LOCATION: ILLICIT DISCHARGE-4211 Colley Avenue
4211 COLLEY AVENUE

RESPONSIBLE PARTY: Verizon

ADDRESS& PHONE: Unknown

DATE OF DISCHARGE: 6/4/2020 10:25:00 AM

DATE/TIME REPORTED: 6/4/2020 2:41:00 PM

REPORTED TO DEQ/DCR BY: C.VanLear

REPORTED TO: TRO Prep

DESCRIPTION OF DISCHARGE: City staff observed Verizon staff pumping water down the street and into a storm drain with no filter bag at the corner of Colley Ave and 43rd Street.

CORRECTIVE ACTION: City staff spoke with Verizon staff and filter bag was put on pump.

IMPACT TO STATE WATERS: Yes

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 of 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.

Choui VanLear
Signature

6/5/2020
Date

6/11/2020

Department of Environmental
Quality Tidewater Regional Office
5636 Southern Boulevard
Virginia Beach, VA 23462

RE: VPDES Permit No. VA0088650
IR 295420

Dear Sir or Madam:

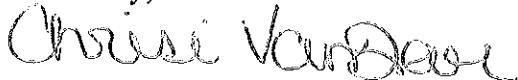
In accordance with the reporting requirements for the referenced permit, be advised that there was an illicit discharge of power washing discharge water on 6/10/2020 10:31:00 AM. The description of the incident is as follows:

A contractor was power washing a parking and water from this activity did enter into the nearest storm drain. No detergents were present in the discharged water. I spoke with the contractor and power washing ceased once he was educated on this activity not being allowed to enter into the storm drains in Norfolk. We discussed ways for Mr. Nowak to contain his discharged water on his site for future activities.

The enclosed documents outline the relevant information. The discharge was reported to the DEQ Tidewater Regional Office on 6/11/2020 6:51:00 AM.

Please let me know if you have any questions regarding this incident.

Sincerely,



Chrisi VanLear
Environmental Programs Supervisor

Enclosures

cc: File

VPDES PERMIT NO. VA0088650

INCIDENT NO: 295420

REPORT DATE: 6/11/2020 2:02:33 PM

ESTIMATED QUANTITY: Unknown

TYPE OF DISCHARGE: Power washing discharge water

LOCATION: ILLICIT DISCHARGE-975 W Ocean View Ave.
975 W OCEAN VIEW AVENUE

RESPONSIBLE PARTY: Nowak Window Cleaning (Matt Nowak)

ADDRESS& PHONE: Unknown

DATE OF DISCHARGE: 6/10/2020 10:31:00 AM

DATE/TIME REPORTED: 6/11/2020 6:51:00 AM

REPORTED TO DEQ/DCR BY: C.VanLear

REPORTED TO: TRO Prep

DESCRIPTION OF DISCHARGE: A contractor was power washing a parking and water from this activity did enter into the nearest storm drain. No detergents were present in the discharged water. I spoke with the contractor and power washing ceased once he was educated on this activity not being allowed to enter into the storm drains in Norfolk. We discussed ways for Mr. Nowak to contain his discharged water on his site for future activities.

CORRECTIVE ACTION: I spoke with the contractor and power washing ceased once he was educated on this activity not being allowed to enter into the storm drains in Norfolk. We discussed ways for Mr. Nowak to contain his discharged water on his site for future activities.

IMPACT TO STATE
WATERS:

Yes

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.

Christi Vandeur
Signature

6/11/2020
Date

6/23/2020

Department of Environmental
Quality Tidewater Regional Office
5636 Southern Boulevard
Virginia Beach, VA 23462

RE: VPDES Permit No. VA0088650
IR 295611

Dear Sir or Madam:

In accordance with the reporting requirements for the referenced permit, be advised that there was an illicit discharge of used oil on 6/23/2020 12:00:00 PM. The description of the incident is as follows:

We received notification from one of our Storm Water Supervisors that there was oil on the road at Tidewater Drive. My inspector went out to investigate and found used oil spread across a number of roads in the area.

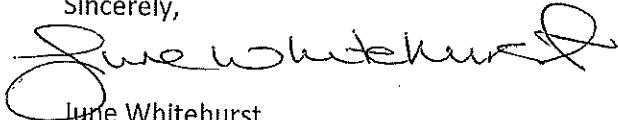
CD Hauling Inc. was the Responsible party (owner of the truck). Darryl Reese was the driver. He dropped off an old used oil tank that apparently still contained the oil at Guttermann's Iron & Metal Corp at 706 May Avenue. CD Hauling is POBox 5990 VA Beach, VA 23471 with phone of 757-718-1750.

The spill started at Park Avenue & Brambleton; ran down Brambleton to Tidewater Drive; Down Tidewater Drive to Olney; From Olney to May.

The enclosed documents outline the relevant information. The discharge was reported to the DEQ Tidewater Regional Office on 6/23/2020 2:08:00 PM.

Please let me know if you have any questions regarding this incident.

Sincerely,


June Whitehurst

Enclosures

cc: File

VPDES PERMIT NO. VA0088650

INCIDENT NO: 295611

REPORT DATE: 6/23/2020 2:20:25 PM

ESTIMATED QUANTITY: 35 gals

TYPE OF DISCHARGE: Used Oil

LOCATION: Illicit Discharge - CD Hauling
706 MAY AVENUE
36.8493715823957, -76.274953977066

RESPONSIBLE PARTY: CD Hauling

ADDRESS& PHONE: PO Box 5990
7577181750

DATE OF DISCHARGE: 6/23/2020 12:00:00 PM

DATE/TIME REPORTED: 6/23/2020 2:08:00 PM

REPORTED TO DEQ/DCR BY: June Whitehurst

REPORTED TO: TRO Prep

DESCRIPTION OF DISCHARGE: We received notification from one of our Storm Water Supervisors that there was oil on the road at Tidewater Drive. My inspector went out to investigate and found used oil spread across a number of roads in the area.

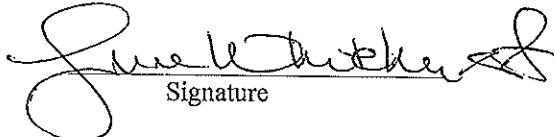
CD Hauling Inc. was the Responsible party (owner of the truck). Darryl Reese was the driver. He dropped off an old used oil tank that apparently still contained the oil at Guttermann's Iron & Metal Corp at 706 May Avenue. CD Hauling is POBox 5990 VA Beach, VA 23471 with phone of 757-718-1750.

The spill started at Park Avenue & Brambleton; ran down Brambleton to Tidewater Drive; Down Tidewater Drive to Olney; From Olney to May.

CORRECTIVE ACTION: The inspector stated that there is no free standing liquid that can be cleaned up nor was there any evidence that any had entered the storm water system. I requested our street sweeper go out and hit the roads to get up as much as we can, but most of it has dried in the asphalt at this point.

IMPACT TO STATE WATERS: N/A

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 of 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.


Signature

10/23/2020
Date

6/24/2020

Department of Environmental
Quality Tidewater Regional Office
5636 Southern Boulevard
Virginia Beach, VA 23462

RE: VPDES Permit No. VA0088650
IR 295576

Dear Sir or Madam:

In accordance with the reporting requirements for the referenced permit, be advised that there was an illicit discharge of gasoline and fire fighting remnant discharge on 6/22/2020 8:30:00 AM. The description of the incident is as follows:

Storm water staff was notified by the Fire Marshall's office of a car fire that dumped approximately 5 gallons of gas and fire fighting remnants onto ground, and then entered into nearby storm drain.

The enclosed documents outline the relevant information. The discharge was reported to the DEQ Tidewater Regional Office on 6/22/2020 2:55:00 PM.

Please let me know if you have any questions regarding this incident.

Sincerely,



Chrisi VanLear
Environmental Programs Supervisor

Enclosures

cc: File

VPDES PERMIT NO. VA0088650

INCIDENT NO: 295576

REPORT DATE: 6/24/2020 11:34:44 AM

ESTIMATED QUANTITY: 5 gals

TYPE OF DISCHARGE: Gasoline, Fire fighting discharge

LOCATION: ILLICIT DISCHARGE-1750 Green Leaf Drive
1750 GREEN LEAF DRIVE

RESPONSIBLE PARTY: Unknown

ADDRESS& PHONE: Unknown

DATE OF DISCHARGE: 6/22/2020 8:30:00 AM

DATE/TIME REPORTED: 6/22/2020 2:55:00 PM

REPORTED TO DEQ/DCR BY: C.VanLear

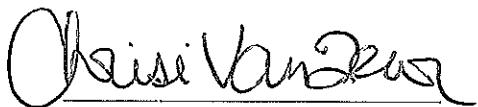
REPORTED TO: TRO Prep

DESCRIPTION OF DISCHARGE: Storm water staff was notified by the Fire Marshall's office of a car fire that dumped approximately 5 gallons of gas onto ground and entered into nearby storm drain, as well as fire fighting foam remnants.

CORRECTIVE ACTION: A street sweeper was used to get up remaining debris.

IMPACT TO STATE WATERS: No

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 of 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.


Signature

6/24/2020
Date

City of Norfolk SSO's Reported FY2020

DEQ IR	SSORS ID	Reporting Jurisdiction	Reported By	Reported Date	Responsible Party	Possible Receptors	Site Name	Site Address	Spilled In Jurisdiction	SSO Classification	Description of Incident	Date of Incident	Date Under Control	Spill Duration	Final Submittal Date	Description of Materials	Corrective Action	Quantity	Units	Amount Recovered	Amount Reaching State Waters
SSORS#2020-T-105447	105447	Norfolk	David Speer	7/15/2019 16:48	City of Norfolk	LaFayette River	427 Piping Rock Rd	427 Piping Rock Rd	Norfolk	Maintenance-Grease	A blockage occurred which caused an overflow. The stoppage was broken and the overflow cleaned up.	7/12/2019 9:00	7/12/2019 15:30	6 hour(s) 30 minute(s)	7/15/2019 16:48	Sewage	Broke the stoppage and cleaned up the overflow -----July 15, 2019 04:48 PM-----	150	Gallons	0	150
SSORS#2020-T-105448	105448	Norfolk	David Speer	7/16/2019 13:08	City of Norfolk	Elizabeth River	255 Granby St	255 Granby St	Norfolk	Maintenance-Grease	A stoppage in a lateral caused an overflow. The stoppage was broken and the area cleaned up.	7/15/2019 17:00	7/15/2019 19:30	2 hour(s) 30 minute(s)	7/16/2019 13:08	Sewage	Broke the stoppage and cleaned up the area -----July 16, 2019 01:08 PM-----	25	Gallons	0	25
SSORS#2020-T-105456	105456	Norfolk	David Speer	7/26/2019 13:11	City of Norfolk	Broad Creek	5700 Lake Wright Dr	5700 Lake Wright Dr	Norfolk	Damage By Others	A non-City contractor broke a force main. The City had to come out to repair the force main and clean up the area.	7/25/2019 15:00	7/25/2019 23:00	8 hour(s) 0 minute(s)	7/26/2019 13:11	Sewage	The force main was repaired and the area cleaned up.-----July 26, 2019 01:11 PM-----	2,000	Gallons	0	2,000
SSORS#2020-T-105457	105457	Norfolk	David Speer	8/2/2019 11:09	City of Norfolk	LaFayette River	1418 Leat St	1418 Leat St	Norfolk	Maintenance-Debris	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	7/31/2019 7:30	7/31/2019 11:23	3 hour(s) 42 minute(s)	8/2/2019 11:09	Sewage	Cleared the blockage and cleaned the area up -----August 2, 2019 11:09 AM-----	25	Gallons	0	25
SSORS#2020-T-105466	105466	Norfolk	David Speer	8/15/2019 16:45	City of Norfolk	LaFayette River	4314 Colley Ave	4314 Colley Ave	Norfolk	Maintenance-Grease	Grease caused a lateral to overflow. The stoppage was broken and the area was cleaned and cleared up.	8/15/2019 14:15	8/15/2019 14:45	0 hour(s) 30 minute(s)	8/15/2019 16:45	Sewage	Stoppage was broken and the area was cleaned up -----August 15, 2019 04:45 PM-----	980	Gallons	25	955
SSORS#2020-T-105477	105477	Norfolk	David Speer	8/31/2019 8:35	City of Norfolk	Elizabeth River	834 Manteo	834 Manteo	Norfolk	Maintenance-Grease	A stoppage on a sewer main caused an overflow. The stoppage was broken and the area cleaned up.	8/30/2019 9:17	8/30/2019 12:38	3 hour(s) 21 minute(s)	8/31/2019 8:39	Sewage	Broke stoppage and cleaned up the area -----August 31, 2019 08:39 AM-----	30	Gallons	0	30
SSORS#2020-T-105478	105478	Norfolk	David Speer	9/1/2019 12:38	City of Norfolk	LaFayette River	7928 Orchid Ave	7928 Orchid Ave	Norfolk	Maintenance-Grease	Blockage occurred which caused a sewer overflow at this address. Blockage was cleared and the area cleaned up.	8/31/2019 8:21	8/31/2019 9:05	0 hour(s) 44 minute(s)	9/1/2019 12:38	Sewage	Blockage was cleared and the area cleaned up -----September 1, 2019 12:38 PM-----	125	Gallons	0	125
SSORS#2020-T-105479	105479	Norfolk	David Speer	9/1/2019 12:43	City of Norfolk	LaFayette River	345 W. McGinnis Circle	345 W. McGinnis Circle	Norfolk	Maintenance-Grease	Blockage occurred at above address. Blockage was cleared and area cleaned up.	9/1/2019 10:33	9/1/2019 12:04	1 hour(s) 31 minute(s)	9/1/2019 12:43	Sewage	Blockage cleared and area cleaned up -----September 1, 2019 12:43 PM-----	15	Gallons	0	15
SSORS#2020-T-105480	105480	Norfolk	David Speer	9/8/2019 17:22	City of Norfolk	Elizabeth River	834 Westover Ave	834 Westover Ave	Norfolk	Maintenance-Grease	A blockage caused an overflow. The blockage was cleared and the area cleaned up.	9/2/2019 13:15	9/2/2019 15:15	2 hour(s) 0 minute(s)	9/8/2019 17:23	Sewage	Blockage was cleared and the area cleaned up -----September 8, 2019 05:22 PM-----	150	Gallons	0	150
SSORS#2020-T-105481	105481	Norfolk	David Speer	9/8/2019 17:28	City of Norfolk	Elizabeth River	800 City Hall Ave	800 City Hall Ave	Norfolk	Maintenance-Debris	Debris in the sewer line from the jail caused an overflow. It took a long time to clear the blockage due to the amount of debris.	9/3/2019 9:30	9/3/2019 16:30	7 hour(s) 0 minute(s)	9/8/2019 17:28	Sewage	After much efforts, the debris was cleared and the area cleaned up -----September 8, 2019 05:28 PM-----	150	Gallons	0	150
SSORS#2020-T-105482	105482	Norfolk	David Speer	9/8/2019 17:34	City of Norfolk	LaFayette River	507 Ashlawn Dr	507 Ashlawn Dr	Norfolk	Maintenance-Grease	A blockage caused an overflow. The blockage was cleared and the area cleaned up.	9/7/2019 8:52	9/7/2019 9:40	0 hour(s) 48 minute(s)	9/8/2019 17:34	Sewage	Blockage was cleared and the area cleaned up -----September 8, 2019 05:34 PM-----	240	Gallons	0	240
SSORS#2020-T-105483	105483	Norfolk	David Speer	9/8/2019 19:52	City of Norfolk	Elizabeth River	1450 Graydon Ave	1450 Graydon Ave	Norfolk	Power Outages (Storm)	A sewer pump station was not pumping due to Hurricane Dorian. A system backup and overflow occurred. The pump station tech came out and re-started the station and re-started the pump.	9/7/2019 19:48	9/7/2019 21:18	1 hour(s) 30 minute(s)	9/8/2019 13:50	Sewage	Re-started the pump station and it pumped down the system -----September 8, 2019 09:52 PM-----	100	Gallons	0	100
SSORS#2020-T-105484	105484	Norfolk	David Speer	9/9/2019 14:00	City of Norfolk	Elizabeth River	1000 E. City Hall Ave	1000 E. City Hall	Norfolk	Maintenance-Debris	Debris from the City jail entered the sewer system and clogged manholes and lines and caused an overflow.	9/9/2019 8:00	9/9/2019 19:05	11 hour(s) 0 minute(s)	9/12/2019 9:18	Sewage	Cleaning out all the debris from the pipes to clear the blockage -----September 9, 2019 07:00 PM-----	750	Gallons	0	900
SSORS#2020-T-105487	105487	Norfolk	David Speer	9/12/2019 9:26	City of Norfolk	Elizabeth River	1000 E. City Hall Ave	1000 E. City Hall Ave	Norfolk	Maintenance-Debris	Continuing to work on stoppage on City Hall Ave at St Pools	9/11/2019 8:00	9/11/2019 19:00	11 hour(s) 0 minute(s)	9/12/2019 9:26	Sewage	Continued to try to break the blockage. Had to call in a bypass pump to relieve the overflow. -----September 12, 2019 09:26 AM-----	1,200	Gallons	0	1,200
SSORS#2020-T-105488	105488	Norfolk	David Speer	9/12/2019 16:42	City of Norfolk	Elizabeth River	1000 E. City Hall Ave	1000 E. City Hall Ave	Norfolk	Maintenance-Debris	On-going debris in the sewer main caused a blockage which caused an overflow. A bypass pump was installed while the blockage is being cleared.	9/12/2019 7:00	9/12/2019 14:25	7 hour(s) 28 minute(s)	9/12/2019 16:42	Sewage	Installed a bypass pump to keep the main from overflowing while working the pipe issue -----September 12, 2019 04:42 PM-----	800	Gallons	0	800
SSORS#2020-T-105489	105489	Norfolk	David Speer	9/12/2019 17:03	City of Norfolk	LaFayette River	220 Glen Echo Dr	220 Glen Echo Dr	Norfolk	Maintenance-Grease	Some grease and debris in a lateral caused a blockage. An overflow occurred and the area was cleaned up.	9/8/2019 16:00	9/8/2019 16:37	0 hour(s) 37 minute(s)	9/12/2019 17:03	Sewage	The blockage was cleared and the area cleaned up -----September 12, 2019 05:03 PM-----	5	Gallons	0	5
SSORS#2020-T-105490	105490	Norfolk	David Speer	9/12/2019 17:28	City of Norfolk	LaFayette River	7556 Virginia Dr	7556 Virginia Drive	Norfolk	Maintenance-Grease	A blockage occurred in a lateral which caused an overflow. The blockage was broken and the area cleaned up. This is being reported out of order and late.	8/8/2019 6:00	8/8/2019 12:11	6 hour(s) 11 minute(s)	9/12/2019 17:28	Sewage	Blockage cleared and the area cleaned up -----September 12, 2019 05:28 PM-----	50	Gallons	0	50
SSORS#2020-T-105491	105491	Norfolk	David Speer	9/13/2019 8:19	City of Norfolk	LaFayette River	2725 Azalea Garden Rd	2725 Azalea Garden Rd	Norfolk	Maintenance-Grease	A blockage caused an overflow. The blockage was cleared and the area cleaned up.	9/12/2019 9:17	9/12/2019 11:00	1 hour(s) 43 minute(s)	9/13/2019 8:19	Sewage	The blockage was cleared and the area cleaned up -----September 13, 2019 08:19 AM-----	25	Gallons	0	25
SSORS#2020-T-105499	105499	Norfolk	David Speer	9/23/2019 9:07	City of Norfolk	Elizabeth River	1342 Kenton Ave	1342 Kenton Ave	Norfolk	Maintenance-Grease	A blockage occurred which caused an overflow. The blockage was broken and the area cleaned up.	9/21/2019 11:22	9/21/2019 12:41	1 hour(s) 19 minute(s)	9/23/2019 9:07	Sewage	The blockage was cleared and the area cleaned up -----September 23, 2019 09:07 AM-----	1,972	Gallons	0	1,972
SSORS#2020-T-105502	105502	Norfolk	David Speer	9/26/2019 8:54	City of Norfolk	LaFayette River	212 Birmingham Ave	212 Birmingham Ave	Norfolk	Maintenance-Grease	A blockage caused an overflow. The blockage was broken and the area cleaned up.	9/25/2019 9:45	9/25/2019 10:45	1 hour(s) 0 minute(s)	9/26/2019 8:54	Sewage	Broke stoppage and cleaned up area -----September 26, 2019 08:54 AM-----	100	Gallons	0	100
SSORS#2020-T-105503	105503	Norfolk	David Speer	9/26/2019 16:31	City of Norfolk	Broad Creek	5338 Bellefield Rd	5338 Bellefield Rd	Norfolk	Maintenance-Grease	A blockage caused an overflow. The blockage was broken and the area cleaned up.	9/26/2019 10:45	9/26/2019 11:30	0 hour(s) 45 minute(s)	9/26/2019 16:31	Sewage	Broke the stoppage and cleaned up the area -----September 26, 2019 04:31 PM-----	200	Gallons	0	200
SSORS#2020-T-105504	105504	Norfolk	David Speer	9/27/2019 13:14	City of Norfolk	LaFayette River	Humbert St & Kennesaw	Humbert St & Kennesaw	Norfolk	Maintenance-Grease	Blockage occurred which caused an overflow. The blockage was broken and the area cleaned up.	9/26/2019 23:00	9/27/2019 0:30	1 hour(s) 30 minute(s)	9/27/2019 13:14	Sewage	Blockage was broken and area cleaned up -----September 27, 2019 01:14 PM-----	100	Gallons	0	100
SSORS#2020-T-105505	105505	Norfolk	David Speer	10/1/2019 16:10	City of Norfolk	Broad Creek	5333 Coach Way Dr	5333 Coach Way Dr	Norfolk	Maintenance-Grease	A blockage occurred which caused an overflow. The blockage was broken and the area cleaned up.	10/1/2019 13:25	10/1/2019 14:30	1 hour(s) 5 minute(s)	10/1/2019 16:10	Sewage	Blockage was broken and the area cleaned up -----October 1, 2019 04:10 PM-----	50	Gallons	0	50
SSORS#2020-T-105506	105506	Norfolk	David Speer	10/3/2019 8:17	City of Norfolk	LaFayette River	871 B Ave	871 B Ave	Norfolk	Maintenance-Grease	A blockage was cleared and the area cleaned up.	10/2/2019 12:16	10/2/2019 13:00	0 hour(s) 44 minute(s)	10/3/2019 8:17	Sewage	Blockage was cleared and the area cleaned up -----October 3, 2019 08:17 AM-----	30	Gallons	0	30
SSORS#2020-T-105509	105509	Norfolk	David Speer	10/7/2019 11:43	City of Norfolk	Elizabeth River	552 Nicholson St	552 Nicholson St	Norfolk	Maintenance-Grease	A blockage occurred which caused an overflow. The blockage was broken and the area cleaned up.	10/7/2019 9:31	10/7/2019 9:58	0 hour(s) 27 minute(s)	10/7/2019 11:44	Sewage	The blockage was broken and the area cleaned up -----October 7, 2019 11:43 AM-----	675	Gallons	0	675
SSORS#2020-T-105511	105511	Norfolk	David Speer	10/9/2019 14:16	City of Norfolk	Elizabeth River	900 Bagnall Rd	900 Bagnall Rd	Norfolk	Maintenance-Grease	A blockage caused an overflow. The blockage was cleared and the area cleaned up.	10/8/2019 13:16	10/8/2019 14:30	1 hour(s) 14 minute(s)	10/9/2019 14:16	Sewage	The blockage was cleared and the area cleaned up -----October 9, 2019 02:16 PM-----	40	Gallons	0	40
SSORS#2020-T-105513	105513	Norfolk	David Speer	10/11/2019 12:07	City of Norfolk	Elizabeth River	26th St & Llewellyn Ave	26th St & Llewellyn Ave	Norfolk	Maintenance-Grease	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	10/10/2019 17:30	10/10/2019 18:30	1 hour(s) 0 minute(s)	10/11/2019 13:02	Sewage	Cleared the blockage and cleaned up the area -----October 11, 2019 12:07 PM-----	50	Gallons	0	50
SSORS#2020-T-105515	105515	Norfolk	David Speer	10/13/2019 10:33	City of Norfolk	Elizabeth River	901 Salter St	901 Salter St	Norfolk	Maintenance-Grease	Blockage caused an overflow. Blockage was broken and the area cleaned up.	10/11/2019 15:03	10/11/2019 16:00	0 hour(s) 57 minute(s)	10/13/2019 10:34	Sewage	Blockage was cleared and the area cleaned up -----October 13, 2019 10:33 AM-----	25	Gallons	0	25

City of Norfolk SSO's Reported FY2020

DEQ IR	SSORS ID	Reporting Jurisdiction	Reported By	Reported Date	Responsible Party	Possible Receptors	Site Name	Site Address	Spilled In Jurisdiction	SSO Classification	Description of Incident	Date of Incident	Date Under Control	Spill Duration	Final Submittal Date	Description of Materials	Corrective Action	Quantity	Units	Amount Recovered	Amount Reaching State Waters
SSORS#2020-T-105516	105516	Norfolk	David Speer	10/14/2019 11:06	City of Norfolk	Elizabeth River	6320 North Center Dr	6320 North Center Dr	Norfolk	Other	PS #65 was not pumping which caused a backup in the gravity system and an overflow occurred. PS tech was notified and went out and reset the ps which pumped down so the overflow stopped.	10/12/2019 12:00	10/12/2019 19:46	7 hour(s) 46 minute(s)	10/14/2019 11:06	Sewage	PS tech reset and re-started the ps which pumped down the collection system. ----- October 14, 2019 11:06 AM-----	1,000	Gallons	0	1,000
SSORS#2020-T-105533	105533	Norfolk	David Speer	10/27/2019 10:49	City of Norfolk	Chesapeake Bay	9640 1st View St	9640 1st View St	Norfolk	Maintenance-Grease	A blockage was cleared and the area cleaned up.	10/26/2019 15:00	10/26/2019 15:52	0 hour(s) 52 minute(s)	10/27/2019 10:49	Sewage	Broke blockage and cleaned area up. ----- October 27, 2019 10:49 AM-----	1,250	Gallons	0	1,250
SSORS#2020-T-105536	105536	Norfolk	David Speer	10/29/2019 16:48	City of Norfolk	Broad Creek	2916 S. Cape Henry Av	2916 S. Cape Henry Av	Norfolk	Maintenance-Grease	A blockage occurred and caused an overflow. The blockage was cleared and the area cleaned up.	10/29/2019 10:50	10/29/2019 14:00	3 hour(s) 10 minute(s)	10/29/2019 16:48	Sewage	The block was cleared and the area cleaned up. ----- October 29, 2019 04:48 PM-----	500	Gallons	0	500
SSORS#2020-T-105537	105537	Norfolk	David Speer	11/1/2019 9:51	City of Norfolk	Elizabeth River	850 E. Charlotte St	850 E. Charlotte St	Norfolk	Maintenance-Grease	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	10/30/2019 15:15	10/30/2019 16:15	1 hour(s) 0 minute(s)	11/1/2019 9:51	Sewage	Cleared the blockage and cleaned the area up. ----- November 1, 2019 09:51 AM-----	5,000	Gallons	0	5,000
SSORS#2020-T-105538	105538	Norfolk	David Speer	11/1/2019 9:55	City of Norfolk	Elizabeth River	850 E. Charlotte St	850 E. Charlotte St	Norfolk	Maintenance-Grease	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	10/31/2019 13:55	10/31/2019 16:20	2 hour(s) 25 minute(s)	11/1/2019 9:55	Sewage	The blockage was cleared and the area cleaned up. ----- November 1, 2019 09:55 AM-----	1,000	Gallons	0	1,000
SSORS#2020-T-105540	105540	Norfolk	David Speer	11/1/2019 13:57	City of Norfolk	Elizabeth River	1000 Salter St	1000 Salter St	Norfolk	Maintenance-Grease	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	10/28/2019 8:05	10/28/2019 9:00	0 hour(s) 55 minute(s)	11/1/2019 13:58	Sewage	The Blockage was cleared and the area cleaned up. ----- November 1, 2019 01:57 PM-----	500	Gallons	0	500
SSORS#2020-T-105542	105542	Norfolk	David Speer	11/5/2019 16:14	City of Norfolk	LaFayette River	1417 Lead St	1417 Lead St	Norfolk	Maintenance-Grease	A blockage was broken and the area cleaned up.	11/2/2019 16:36	11/2/2019 17:05	0 hour(s) 29 minute(s)	11/5/2019 16:14	Sewage	Blockage was broken and the area cleaned up. ----- November 5, 2019 04:14 PM-----	725	Gallons	0	725
SSORS#2020-T-105543	105543	Norfolk	David Speer	11/5/2019 16:21	City of Norfolk	Elizabeth River	2607 Colonial Ave	2607 Colonial Ave	Norfolk	Maintenance-Grease	A blockage occurred which caused an overflow. The blockage was broken and the area cleaned up.	11/4/2019 8:09	11/4/2019 8:56	0 hour(s) 47 minute(s)	11/5/2019 16:21	Sewage	Blockage was broken and the area cleaned up. ----- November 5, 2019 04:21 PM-----	235	Gallons	0	235
SSORS#2020-T-105544	105544	Norfolk	David Speer	11/5/2019 16:38	City of Norfolk	LaFayette River	1476 Mead Rd	1476 Mead Rd	Norfolk	Maintenance-Grease	A blockage occurred which caused an overflow. The blockage was broken and the area cleaned up.	11/4/2019 15:31	11/4/2019 16:45	1 hour(s) 14 minute(s)	11/5/2019 16:38	Sewage	The Blockage was broken and the area cleaned up. ----- November 5, 2019 04:38 PM-----	148	Gallons	0	148
SSORS#2020-T-105545	105545	Norfolk	David Speer	11/5/2019 16:43	City of Norfolk	Broad Creek	112 Cromwell Rd	112 Cromwell Rd	Norfolk	Maintenance-Grease	A blockage occurred which caused an overflow. The blockage was broken and the area cleaned up.	11/5/2019 13:30	11/5/2019 14:00	0 hour(s) 30 minute(s)	11/5/2019 16:43	Sewage	Blockage was broken and the area cleaned up. ----- November 5, 2019 04:43 PM-----	200	Gallons	0	200
SSORS#2020-T-105548	105548	Norfolk	David Speer	11/10/2019 16:37	City of Norfolk	LaFayette River	722 Lesner Ave	722 Lesner Ave	Norfolk	Maintenance-Grease	A blockage caused an overflow. The blockage was cleared and the area cleaned up.	11/10/2019 14:52	11/10/2019 16:00	1 hour(s) 8 minute(s)	11/10/2019 16:37	Sewage	Broke the stoppage and cleaned up the area. ----- November 10, 2019 04:37 PM-----	260	Gallons	0	260
SSORS#2020-T-105553	105553	Norfolk	David Speer	11/13/2019 16:48	City of Norfolk	Elizabeth River	201 Westover Ave	201 Westover Ave	Norfolk	Maintenance-Grease	A blockage caused an overflow. The blockage was broken and the area cleaned up.	11/12/2019 8:00	11/12/2019 10:00	2 hour(s) 0 minute(s)	11/13/2019 16:48	Sewage	Broke the blockage and cleaned up the area. ----- November 13, 2019 04:48 PM-----	200	Gallons	0	200
SSORS#2020-T-105556	105556	Norfolk	David Speer	11/21/2019 16:34	City of Norfolk	Broad Creek	5425 Robin Hood Rd	5425 Robin Hood Rd	Norfolk	Maintenance-Debris	Stoppages on multiple laterals caused backups and overflows. The stoppage was cleared and the area cleaned up.	11/20/2019 14:00	11/20/2019 15:00	1 hour(s) 0 minute(s)	11/21/2019 16:34	Sewage	Broke the stoppage and cleaned up the area. ----- November 21, 2019 04:34 PM-----	80	Gallons	10	70
SSORS#2020-T-105560	105560	Norfolk	David Speer	11/26/2019 8:46	City of Norfolk	LaFayette River	1225 Sussex Place	1225 Sussex Place	Norfolk	Maintenance-Debris	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	11/25/2019 9:32	11/25/2019 10:15	0 hour(s) 43 minute(s)	11/26/2019 8:46	Sewage	The blockage was cleared and the area cleaned up. ----- November 26, 2019 08:46 AM-----	215	Gallons	0	215
SSORS#2020-T-105561	105561	Norfolk	David Speer	11/27/2019 14:04	City of Norfolk	Elizabeth River	1501 Campostella Rd	1501 Campostella Rd	Norfolk	Maintenance-Grease	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	11/26/2019 11:00	11/26/2019 16:05	5 hour(s) 5 minute(s)	11/27/2019 14:04	Sewage	The blockage was broken and the area cleaned up. ----- November 27, 2019 02:04 PM-----	2,000	Gallons	0	2,000
SSORS#2020-T-105563	105563	Norfolk	David Speer	12/3/2019 10:37	City of Norfolk	Elizabeth River	4846 Kennebeck Ave	4846 Kennebeck Ave	Norfolk	Maintenance-Grease	A blockage occurred which resulted in an overflow. The blockage was cleared and the area cleaned up.	12/1/2019 15:44	12/1/2019 16:40	0 hour(s) 56 minute(s)	12/3/2019 10:37	Sewage	Cleared the blockage and cleaned up the area. ----- December 3, 2019 10:37 AM-----	280	Gallons	0	280
SSORS#2020-T-105569	105569	Norfolk	David Speer	12/9/2019 16:14	City of Norfolk	Chesapeake Bay	255 W. Ocean View Av	255 W. Ocean View Av	Norfolk	Maintenance-Debris	Blockage caused an overflow. Broke the stoppage and cleaned up the area.	12/7/2019 11:24	12/7/2019 12:20	0 hour(s) 56 minute(s)	12/9/2019 16:14	Sewage	Broke the stoppage and cleaned up the area. ----- December 9, 2019 04:14 PM-----	66	Gallons	0	66
SSORS#2020-T-105570	105570	Norfolk	David Speer	12/9/2019 16:18	City of Norfolk	Mason Creek	8256 McCloy Rd	8256 McCloy Rd	Norfolk	Maintenance-Grease	Blockage caused an overflow. Blockage was cleared and the area cleaned up.	12/8/2019 15:58	12/8/2019 16:40	0 hour(s) 42 minute(s)	12/9/2019 16:18	Sewage	Blockage was cleared and the area cleaned up. ----- December 9, 2019 04:18 PM-----	210	Gallons	0	210
SSORS#2020-T-105574	105574	Norfolk	David Speer	12/13/2019 16:21	City of Norfolk	Chesapeake Bay	134 W. Chester St	134 W. Chester St	Norfolk	Maintenance-Debris	A blockage occurred which caused an overflow. The blockage was cleared and the area was cleaned up.	12/13/2019 9:08	12/13/2019 11:15	2 hour(s) 7 minute(s)	12/13/2019 16:21	Sewage	Cleared the blockage and cleaned up the area. ----- December 13, 2019 04:21 PM-----	1,280	Gallons	0	1,280
SSORS#2020-T-105576	105576	Norfolk	David Speer	12/21/2019 12:54	City of Norfolk	Elizabeth River	300 Peace Haven Dr	300 Peace Haven Dr	Norfolk	Maintenance-Debris	A blockage caused an overflow. The blockage was cleared and the area cleaned up.	12/14/2019 13:39	12/14/2019 15:00	1 hour(s) 21 minute(s)	1/15/2020 16:18	Sewage	The blockage was cleared and the area cleaned up. ----- December 21, 2019 12:54 PM-----	81	Gallons	0	81
SSORS#2020-T-105577	105577	Norfolk	David Speer	12/23/2019 15:27	City of Norfolk	Broad Creek	5745 Poplar Hall Dr	5745 Poplar Hall Dr	Norfolk	Maintenance-Debris	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	12/22/2019 14:19	12/22/2019 17:15	2 hour(s) 56 minute(s)	12/23/2019 15:27	Sewage	Broke blockage and cleaned up area. ----- December 23, 2019 03:27 PM-----	1,740	Gallons	0	1,740
SSORS#2020-T-105582	105582	Norfolk	David Speer	1/13/2020 20:22	City of Norfolk	Elizabeth River	4707 Killam Ave	4707 Killam Ave	Norfolk	Maintenance-Debris	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	1/10/2020 13:58	1/10/2020 14:20	0 hour(s) 22 minute(s)	1/13/2020 20:22	Sewage	The blockage was cleared and the area cleaned up. ----- January 13, 2020 08:22 PM-----	44	Gallons	0	44
SSORS#2020-T-105583	105583	Norfolk	David Speer	1/13/2020 20:41	City of Norfolk	Broad Creek	5745 Poplar Hall Dr	5745 Poplar Hall Dr	Norfolk	Maintenance-Grease	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	1/13/2020 14:30	1/13/2020 14:55	0 hour(s) 25 minute(s)	1/13/2020 20:41	Sewage	The blockage was cleared and the area cleaned up. ----- January 13, 2020 08:41 PM-----	2,500	Gallons	0	2,500
SSORS#2020-T-105585	105585	Norfolk	David Speer	1/22/2020 11:04	City of Norfolk	Chesapeake Bay	282 W. Bay Ave	282 W. Bay Ave	Norfolk	Maintenance-Grease	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	1/21/2020 9:45	1/21/2020 10:30	0 hour(s) 45 minute(s)	1/22/2020 11:04	Sewage	The blockage was cleared and the area cleaned up. ----- January 22, 2020 11:04 AM-----	25	Gallons	0	25
SSORS#2020-T-105586	105586	Norfolk	David Speer	1/23/2020 16:35	City of Norfolk	Elizabeth River	243 Nicholson St	243 Nicholson St	Norfolk	Maintenance-Grease	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	1/23/2020 13:50	1/23/2020 14:10	0 hour(s) 20 minute(s)	1/23/2020 16:35	Sewage	The blockage was cleared and the area cleaned up. ----- January 23, 2020 04:35 PM-----	120	Gallons	0	120
SSORS#2020-T-105588	105588	Norfolk	David Speer	1/27/2020 15:22	City of Norfolk	Chesapeake Bay	1351 Virginia Ave	1351 Virginia Ave	Norfolk	Maintenance-Grease	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	1/25/2020 13:13	1/25/2020 15:50	2 hour(s) 37 minute(s)	1/27/2020 15:22	Sewage	The blockage was cleared and the area cleaned up. ----- January 27, 2020 03:22 PM-----	785	Gallons	0	785
SSORS#2020-T-105589	105589	Norfolk	David Speer	1/27/2020 15:26	City of Norfolk	LaFayette River	4127 Columbus Ave	4127 Columbus Ave	Norfolk	Maintenance-Debris	A blockage caused an overflow. The blockage was cleared and the area cleaned up.	1/26/2020 8:34	1/26/2020 9:10	0 hour(s) 36 minute(s)	1/27/2020 15:26	Sewage	Broke the stoppage and cleaned up area ----- January 27, 2020 03:26 PM-----	72	Gallons	0	72
SSORS#2020-T-105591	105591	Norfolk	David Speer	1/29/2020 16:45	City of Norfolk	Chesapeake Bay	282 W. Bay Ave	282 W. Bay Ave	Norfolk	Maintenance-Grease	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	1/29/2020 10:00	1/29/2020 10:45	0 hour(s) 45 minute(s)	1/29/2020 16:45	Sewage	The blockage was cleared and the area cleaned up. ----- January 29, 2020 04:45 PM-----	17	Gallons	0	17
SSORS#2020-T-105592	105592	Norfolk	David Speer	2/4/2020 12:17	City of Norfolk	LaFayette River	7406 Glencoke Place	7406 Glencoke Place	Norfolk	Maintenance-Debris	A blockage caused an overflow. The blockage was cleared and the area cleaned up.	2/1/2020 12:07	2/1/2020 13:15	1 hour(s) 8 minute(s)	2/4/2020 12:17	Sewage	Broke the stoppage and cleaned up the area. ----- February 4, 2020 12:17 PM-----	340	Gallons	0	340
SSORS#2020-T-105593	105593	Norfolk	David Speer	2/4/2020 12:21	City of Norfolk	Elizabeth River	120 W. Main St	120 W. Main St	Norfolk	Maintenance-Debris	A blockage caused an overflow. The blockage was cleared and the area cleaned up.	2/3/2020 13:50	2/3/2020 14:35	0 hour(s) 45 minute(s)	2/4/2020 12:21	Sewage	Broke stoppage and cleaned up area ----- February 4, 2020 12:21 PM-----	45	Gallons	0	45
SSORS#2020-T-105594	105594	Norfolk	David Speer	2/4/2020 12:28	City of Norfolk	LaFayette River	112 Cromwell Parkway	112 Cromwell Parkway	Norfolk	Maintenance-Debris	A blockage was cleared and the area cleaned up.	2/3/2020 14:10	2/3/2020 15:15	1 hour(s) 5 minute(s)	2/4/2020 12:28	Sewage	Broke stoppage and cleaned up area ----- February 4, 2020 12:28 PM-----	50	Gallons	0	50

City of Norfolk SSO's Reported FY2020

DEQ IR	SSORS ID	Reporting Jurisdiction	Reported By	Reported Date	Responsible Party	Possible Receptors	Site Name	Site Address	Spilled In Jurisdiction	SSO Classification	Description of Incident	Date of Incident	Date Under Control	Spill Duration	Final Submittal Date	Description of Materials	Corrective Action	Quantity	Units	Amount Recovered	Amount Reaching State Waters
SSORS#2020-T-105597	105597	Norfolk	David Speer	2/9/2020 9:32	City of Norfolk	Chesapeake Bay	6123 Pamlico Circle	6123 Pamlico Circle	Norfolk	Maintenance-Debris	A blockage caused an overflow. The blockage was cleared and the area cleaned up.	2/7/2020 14:07	2/7/2020 15:20	1 hour(s) 13 minute(s)	2/9/2020 9:32	Sewage	Cleared the blockage and cleaned up the area. -----February 9, 2020 09:32 AM-----	50	Gallons	0	50
SSORS#2020-T-105598	105598	Norfolk	David Speer	2/9/2020 9:35	City of Norfolk	Elizabeth River	449 Nicholson St	449 Nicholson St	Norfolk	Maintenance-Debris	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	2/7/2020 14:45	2/7/2020 16:40	1 hour(s) 55 minute(s)	2/9/2020 9:35	Sewage	Cleared the blockage and cleaned up the area. -----February 9, 2020 09:35 AM-----	2,875	Gallons	0	2,875
SSORS#2020-T-105599	105599	Norfolk	David Speer	2/9/2020 9:39	City of Norfolk	Elizabeth River	Park Ave & Va Beach B	Park Ave & Va Beach B	Norfolk	Maintenance-Grease	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	2/8/2020 11:40	2/8/2020 13:20	1 hour(s) 40 minute(s)	2/9/2020 9:39	Sewage	Cleared the blockage and cleaned up the overflow. -----February 9, 2020 09:39 AM-----	2,250	Gallons	0	2,250
SSORS#2020-T-105600	105600	Norfolk	David Speer	2/9/2020 9:43	City of Norfolk	LaFayette River	1040 Hannah St	1040 Hannah St	Norfolk	Maintenance-Grease	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	2/8/2020 7:51	2/8/2020 8:55	1 hour(s) 4 minute(s)	2/9/2020 9:43	Sewage	The blockage was cleared and the area cleaned up. -----February 9, 2020 09:43 AM-----	3,200	Gallons	0	3,200
SSORS#2020-T-105601	105601	Norfolk	David Speer	2/9/2020 17:32	City of Norfolk	Elizabeth River	3480 Vivian St	3480 Vivian St	Norfolk	Maintenance-Debris	A blockage occurred and caused an overflow. The blockage was cleared and the area cleaned up.	2/9/2020 13:21	2/9/2020 14:00	0 hour(s) 39 minute(s)	2/9/2020 17:32	Sewage	Cleared the blockage and cleaned up the area. -----February 9, 2020 05:32 PM-----	975	Gallons	0	975
SSORS#2020-T-105602	105602	Norfolk	David Speer	2/10/2020 11:19	City of Norfolk	LaFayette River	1334 E. Balview Ave	1334 E. Balview Ave	Norfolk	Maintenance-Debris	A blockage caused an overflow. The blockage was cleared and the area cleaned up.	2/10/2020 9:20	2/10/2020 10:00	0 hour(s) 40 minute(s)	2/10/2020 11:19	Sewage	Broke the blockage and cleaned up the area. -----February 10, 2020 11:19 AM-----	1,200	Gallons	0	1,200
SSORS#2020-T-105611	105611	Norfolk	David Speer	2/23/2020 16:31	City of Norfolk	Elizabeth River	26th & Llewellyn Ave B	26th & Llewellyn Ave B	Norfolk	Maintenance-Debris	A blockage caused an overflow. The blockage was cleared and the area cleaned up.	2/7/2020 13:00	2/7/2020 16:00	3 hour(s) 0 minute(s)	2/23/2020 16:31	Sewage	Cleared the blockage and cleaned up the area. -----February 23, 2020 04:31 PM-----	100	Gallons	0	100
SSORS#2020-T-105612	105612	Norfolk	David Speer	2/23/2020 16:34	City of Norfolk	Elizabeth River	Va Beach Blvd & Salter	Va Beach Blvd & Salter	Norfolk	Maintenance-Grease	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	2/8/2020 10:00	2/8/2020 12:00	2 hour(s) 0 minute(s)	2/23/2020 16:34	Sewage	The blockage was cleared and the area cleaned up. -----February 23, 2020 04:34 PM-----	200	Gallons	0	200
SSORS#2020-T-105613	105613	Norfolk	David Speer	2/23/2020 16:38	City of Norfolk	LaFayette River	1051 Meads Rd	1051 Meads Rd	Norfolk	Maintenance-Grease	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	2/22/2020 9:16	2/22/2020 10:18	1 hour(s) 2 minute(s)	2/23/2020 16:38	Sewage	The blockage was cleared and the area cleaned up. -----February 23, 2020 04:38 PM-----	310	Gallons	0	310
SSORS#2020-T-105614	105614	Norfolk	David Speer	2/23/2020 16:42	City of Norfolk	LaFayette River	1048 Hannah St	1048 Hannah St	Norfolk	Maintenance-Debris	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	2/22/2020 9:46	2/22/2020 10:18	0 hour(s) 32 minute(s)	2/23/2020 16:42	Sewage	The blockage was cleared and the area cleaned up. -----February 23, 2020 04:42 PM-----	160	Gallons	0	160
SSORS#2020-T-105615	105615	Norfolk	David Speer	2/23/2020 16:46	City of Norfolk	LaFayette River	6416 Wellington St	6416 Wellington St	Norfolk	Maintenance-Grease	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	2/22/2020 11:18	2/22/2020 12:30	1 hour(s) 2 minute(s)	2/23/2020 16:46	Sewage	The blockage was cleared and the area cleaned up. -----February 23, 2020 04:46 PM-----	310	Gallons	0	310
SSORS#2020-T-105616	105616	Norfolk	David Speer	2/23/2020 16:49	City of Norfolk	Elizabeth River	317 Curtis St	317 Curtis St	Norfolk	Maintenance-Debris	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	2/22/2020 11:40	2/22/2020 14:00	2 hour(s) 20 minute(s)	3/1/2020 17:28	Sewage	The blockage was cleared and the area cleaned up. -----February 23, 2020 04:49 PM-----	1,250	Gallons	0	1,250
SSORS#2020-T-105617	105617	Norfolk	David Speer	2/23/2020 16:49	City of Norfolk	Elizabeth River	317 Curtis St	317 Curtis St	Norfolk	Maintenance-Debris	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	2/22/2020 11:40	2/22/2020 13:45	2 hour(s) 5 minute(s)	2/23/2020 16:50	Sewage	The blockage was cleared and the area cleaned up. -----February 23, 2020 04:49 PM-----	1,250	Gallons	0	1,250
SSORS#2020-T-105618	105618	Norfolk	David Speer	2/23/2020 18:12	City of Norfolk	LaFayette River	Holly Lane & N.Shore	Holly Lane & N.Shore	Norfolk	Maintenance-Debris	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	2/23/2020 12:39	2/23/2020 13:52	2 hour(s) 56 minute(s)	2/23/2020 16:12	Sewage	The blockage was cleared and the area cleaned up. -----February 23, 2020 04:12 PM-----	1,760	Gallons	0	1,760
SSORS#2020-T-105621	105621	Norfolk	David Speer	3/1/2020 17:33	City of Norfolk	Elizabeth River	9501 Willow Ct	9501 Willow Ct	Norfolk	Maintenance-Debris	Broke a blockage. Blockage cleared and area cleaned up.	3/1/2020 12:23	3/1/2020 13:50	1 hour(s) 27 minute(s)	3/1/2020 17:33	Sewage	Cleared blockage and area up. -----March 1, 2020 05:33 PM-----	900	Gallons	0	900
SSORS#2020-T-105624	105624	Norfolk	David Speer	3/5/2020 17:13	City of Norfolk	Chesapeake Bay	931 Hannah St	931 Hannah St	Norfolk	Maintenance-Grease	A blockage caused an overflow. The blockage was cleared and the area cleaned up.	3/2/2020 13:02	3/2/2020 14:10	1 hour(s) 8 minute(s)	3/5/2020 17:13	Sewage	The blockage was cleared and the area cleaned up. -----March 5, 2020 04:13 PM-----	1,360	Gallons	0	1,360
SSORS#2020-T-105632	105632	Norfolk	David Speer	3/23/2020 16:00	City of Norfolk	LaFayette River	Rogers & Glen Myrtle	Rogers & Glen Myrtle	Norfolk	Maintenance-Grease	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	3/4/2020 11:19	3/4/2020 13:30	2 hour(s) 11 minute(s)	3/23/2020 16:00	Sewage	The blockage was cleared and the area cleaned up. -----March 23, 2020 04:00 PM-----	500	Gallons	0	500
SSORS#2020-T-105633	105633	Norfolk	David Speer	3/13/2020 16:13	City of Norfolk	Broad Creek	3480 Vivian St	3480 Vivian St	Norfolk	Maintenance-Debris	A blockage was cleared and the area cleaned up.	3/9/2020 9:57	3/9/2020 10:45	0 hour(s) 48 minute(s)	3/23/2020 16:13	Sewage	The blockage was cleared and the area cleaned up. -----March 23, 2020 04:13 PM-----	960	Gallons	0	960
SSORS#2020-T-105635	105635	Norfolk	David Speer	3/26/2020 9:55	City of Norfolk	Wayne Creek	4828 Beamon Rd	4828 Beamon Rd	Norfolk	Maintenance-Debris	A blockage caused an overflow. The blockage was cleared and the area cleaned up.	3/25/2020 10:27	3/25/2020 11:17	0 hour(s) 50 minute(s)	3/26/2020 9:55	Sewage	Broke the blockage and cleaned up the area. -----March 26, 2020 09:55 AM-----	5,000	Gallons	0	5,000
SSORS#2020-T-105637	105637	Norfolk	David Speer	3/28/2020 11:50	City of Norfolk	Elizabeth River	432 Clifton St	432 Clifton St	Norfolk	Maintenance-Grease	A blockage caused an overflow. The blockage was cleared and the area cleaned up.	3/26/2020 12:07	3/26/2020 13:11	1 hour(s) 4 minute(s)	3/28/2020 11:50	Sewage	Broke the blockage and cleaned up the area. -----March 28, 2020 11:50 AM-----	35	Gallons	0	35
SSORS#2020-T-105642	105642	Norfolk	David Speer	4/2/2020 11:30	City of Norfolk	Elizabeth River	417 W. 26th St	417 W. 26th St	Norfolk	Maintenance-Debris	A blockage was cleared and the area cleaned up.	3/31/2020 12:17	3/31/2020 12:50	0 hour(s) 33 minute(s)	4/2/2020 11:30	Sewage	Cleared the blockage and cleaned up the area. -----April 2, 2020 11:30 AM-----	165	Gallons	0	165
SSORS#2020-T-105643	105643	Norfolk	David Speer	4/2/2020 11:34	City of Norfolk	Wayne Creek	6416 Wellington St	6416 Wellington St	Norfolk	Maintenance-Grease	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	3/31/2020 13:37	3/31/2020 14:21	0 hour(s) 44 minute(s)	4/2/2020 11:34	Sewage	Cleared the blockage and cleaned the area up. -----April 2, 2020 11:34 AM-----	440	Gallons	0	440
SSORS#2020-T-105657	105657	Norfolk	David Speer	4/28/2020 13:01	City of Norfolk	LaFayette River	7909 Simmons Dr	7909 Simmons Dr	Norfolk	Maintenance-Grease	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	4/14/2020 8:00	4/14/2020 9:00	1 hour(s) 0 minute(s)	4/28/2020 13:01	Sewage	The blockage was cleared and the area cleaned up. -----April 28, 2020 01:00 PM-----	100	Gallons	0	100
SSORS#2020-T-105658	105658	Norfolk	David Speer	5/5/2020 8:37	City of Norfolk	Elizabeth River	813 Goff St	813 Goff St	Norfolk	Maintenance-Grease	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	4/30/2020 10:00	4/30/2020 11:10	1 hour(s) 10 minute(s)	5/5/2020 8:37	Sewage	The blockage was cleared and the area cleaned up. -----May 5, 2020 08:37 AM-----	75	Gallons	0	75
SSORS#2020-T-105662	105662	Norfolk	David Speer	5/17/2020 8:37	City of Norfolk	LaFayette River	8562 Executive Dr	8562 Executive Dr	Norfolk	Maintenance-Debris	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	5/16/2020 9:30	5/16/2020 10:15	0 hour(s) 45 minute(s)	5/17/2020 8:37	Sewage	Cleared the blockage and cleaned up the overflow. -----May 17, 2020 08:37 AM-----	440	Gallons	0	440
SSORS#2020-T-105663	105663	Norfolk	David Speer	5/17/2020 8:43	City of Norfolk	LaFayette River	8568 Executive Dr	8568 Executive Dr	Norfolk	Maintenance-Debris	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	5/16/2020 9:32	5/16/2020 10:35	1 hour(s) 3 minute(s)	5/17/2020 8:43	Sewage	The blockage was cleared and the area cleaned up. -----May 17, 2020 08:43 AM-----	400	Gallons	0	400
SSORS#2020-T-105664	105664	Norfolk	David Speer	5/17/2020 22:22	City of Norfolk	LaFayette River	851 Norview Ave	851 Norview Ave	Norfolk	Maintenance-Debris	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	5/17/2020 11:36	5/17/2020 13:00	1 hour(s) 24 minute(s)	5/17/2020 22:22	Sewage	The blockage was cleared and the area cleaned up. -----May 17, 2020 10:22 PM-----	850	Gallons	0	850
SSORS#2020-T-105669	105669	Norfolk	David Speer	5/23/2020 17:27	City of Norfolk	LaFayette River	7277 Remsen St	7277 Remsen St	Norfolk	Maintenance-Grease	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	5/22/2020 15:30	5/22/2020 19:54	4 hour(s) 24 minute(s)	5/23/2020 17:27	Sewage	Broke the blockage and cleaned up the area. -----May 23, 2020 05:27 PM-----	1,500	Gallons	0	1,500
SSORS#2020-T-105670	105670	Norfolk	David Speer	5/23/2020 17:32	City of Norfolk	Elizabeth River	823 Lexington St	823 Lexington St	Norfolk	Maintenance-Debris	A force main leak is causing an overflow. The repair is scheduled for this.	5/23/2020 10:18	5/23/2020 13:26	3 hour(s) 8 minute(s)	5/23/2020 17:32	Sewage	Scheduled a repair of the force main. Called it in to DEQ. -----May 27, 2020 03:53 PM-----	1,000	Gallons	0	1,000
SSORS#2020-T-105671	105671	Norfolk	David Speer	5/23/2020 17:40	City of Norfolk	Elizabeth River	815 Goff St	815 Goff St	Norfolk	Maintenance-Grease	A force main leak is causing an overflow. The repair is scheduled for this.	5/23/2020 13:40	5/23/2020 13:50	0 hour(s) 16 minute(s)	5/23/2020 17:40	Sewage	Broke the blockage. -----May 23, 2020 05:40 PM-----	3,000	Gallons	0	3,000
SSORS#2020-T-105674	105674	Norfolk	David Speer	5/27/2020 15:53	City of Norfolk	Elizabeth River	Brambleton Ave & St P	Brambleton Ave & St P	Norfolk	Infrastructure	A blockage caused an overflow. The blockage was cleared and the area cleaned up.	5/26/2020 10:00	5/27/2020 15:37	29 hours 37 minute(s)	5/27/2020 15:53	Sewage	Scheduled a repair of the force main. Called it in to DEQ. -----May 27, 2020 03:53 PM-----	1,000	Gallons	0	1,000
SSORS#2020-T-105675	105675	Norfolk	David Speer	5/27/2020 15:59	City of Norfolk	Elizabeth River	550 Nicholson St	550 Nicholson St	Norfolk	Maintenance-Grease	A blockage caused an overflow. The blockage was cleared and the area cleaned up.	5/26/2020 11:10	5/26/2020 11:45	0 hour(s) 35 minute(s)	5/27/2020 15:59	Sewage	Cleared the blockage and cleaned up area. -----May 27, 2020 03:59 PM-----	100	Gallons	0	100

City of Norfolk SSO's Reported FY2020

DEQ IR	SSO/S ID	Reporting Jurisdiction	Reported By	Reported Date	Responsible Party	Possible Receptors	Site Name	Site Address	Spilled In Jurisdiction	SSO Classification	Description of Incident	Date of Incident	Date Under Control	Spill Duration	Final Submittal Date	Description of Materials	Corrective Action	Quantity	Units	Amount Recovered	Amount Reaching State Waters
SSOR#2020-T-105678	105678	Norfolk	David Speer	5/31/2020 13:32	City of Norfolk	Elizabeth River	Monticello Ave & 11th	Monticello Ave & 11th	Norfolk	Infrastructure	Leaking force main from City PS #4 spilled sewage. Isolated section of force main, repaired it, and monitored to ensure the repair was effective.	5/27/2020 8:00	5/28/2020 18:00	34 hour(s) 0 minute(s)	5/31/2020 13:32	Sewage	Isolated section of force main, repaired it, and monitored to ensure the repair was effective. -----May 31, 2020 01:32 PM-----	5,000	Gallons	0	5,000
SSOR#2020-T-105682	105682	Norfolk	David Speer	6/13/2020 18:54	City of Norfolk	Elizabeth River	411 Granby St	411 Granby St	Norfolk	Maintenance-Grease	A blockage caused an overflow. The blockage was cleared and the area cleaned up.	6/11/2020 23:07	6/12/2020 8:20	9 hour(s) 13 minute(s)	6/13/2020 18:54	Sewage	The blockage was cleared and the area cleaned up. -----June 13, 2020 06:54 PM-----	5,530	Gallons	0	5,530
SSOR#2020-T-105683	105683	Norfolk	David Speer	6/13/2020 18:57	City of Norfolk	Elizabeth River	425 Nicholson St	425 Nicholson St	Norfolk	Maintenance-Debris	A blockage caused an overflow. The blockage was cleared and the area cleaned up.	6/13/2020 8:00	6/13/2020 8:20	0 hour(s) 20 minute(s)	6/13/2020 18:57	Sewage	The blockage was cleared and the area cleaned up. -----June 13, 2020 06:57 PM-----	200	Gallons	0	200
SSOR#2020-T-105684	105684	Norfolk	David Speer	6/14/2020 20:02	City of Norfolk	Chesapeake Bay	490 W. Ocean View Av	490 W. Ocean View Av	Norfolk	Maintenance-Debris	A blockage occurred and caused an overflow. The blockage was cleared and the area cleaned up.	6/14/2020 11:06	6/14/2020 12:50	1 hour(s) 44 minute(s)	6/14/2020 20:02	Sewage	The blockage was cleared and the area cleaned up. -----June 14, 2020 08:02 PM-----	1,040	Gallons	0	1,040
SSOR#2020-T-105685	105685	Norfolk	David Speer	6/14/2020 20:08	City of Norfolk	Wayne Creek	6100 Pamlico Circle	6100 Pamlico Circle	Norfolk	Maintenance-Debris	A blockage occurred which caused an overflow. The blockage was cleared and the area was cleaned up.	6/14/2020 13:55	6/14/2020 14:50	0 hour(s) 55 minute(s)	6/14/2020 20:08	Sewage	The blockage was cleared and the area was cleaned up. -----June 14, 2020 08:08 PM-----	2,750	Gallons	0	2,750
SSOR#2020-T-105687	105687	Norfolk	David Speer	6/15/2020 19:17	City of Norfolk	Elizabeth River	2400 Reservoir Ave	2400 Reservoir Ave	Norfolk	Maintenance-Grease	A blockage caused an overflow. The blockage was cleared and the area cleaned up.	6/13/2020 11:22	6/13/2020 11:50	0 hour(s) 28 minute(s)	6/15/2020 19:17	Sewage	The blockage was cleared and the area cleaned up. -----June 15, 2020 07:17 PM-----	1,400	Gallons	0	1,400
SSOR#2020-T-105692	105692	Norfolk	David Speer	6/25/2020 15:49	City of Norfolk	Lafayette River	5331 River Edge Rd	5331 River Edge Rd	Norfolk	Maintenance-Grease	A blockage occurred which caused an overflow. The blockage was cleared and the area cleaned up.	6/24/2020 19:00	6/24/2020 19:24	0 hour(s) 24 minute(s)	6/25/2020 15:49	Sewage	The blockage was cleared and the area cleaned up. -----June 25, 2020 03:49 PM-----	150	Gallons	0	150



NORFOLK



2019 International Coastal Clean Up

Thousands of volunteers around the world will clean up to benefit their coastlines.
Join Norfolk's efforts to help prevent debris from entering our waterways.

September 9 - October 31

Locations and times to be announced. Visit norfolk.gov/KNB or call 757-441-1347.



NORFOLK



2019 International Coastal Clean Up

Thousands of volunteers around the world will clean up to benefit their coastlines.
Join Norfolk's efforts to help prevent debris from entering our waterways.

**October 26 | 9AM - Noon
Lafayette Park**

Visit norfolk.gov/KNB or call 757-441-1347.



NORFOLK



2019 International Coastal Clean Up

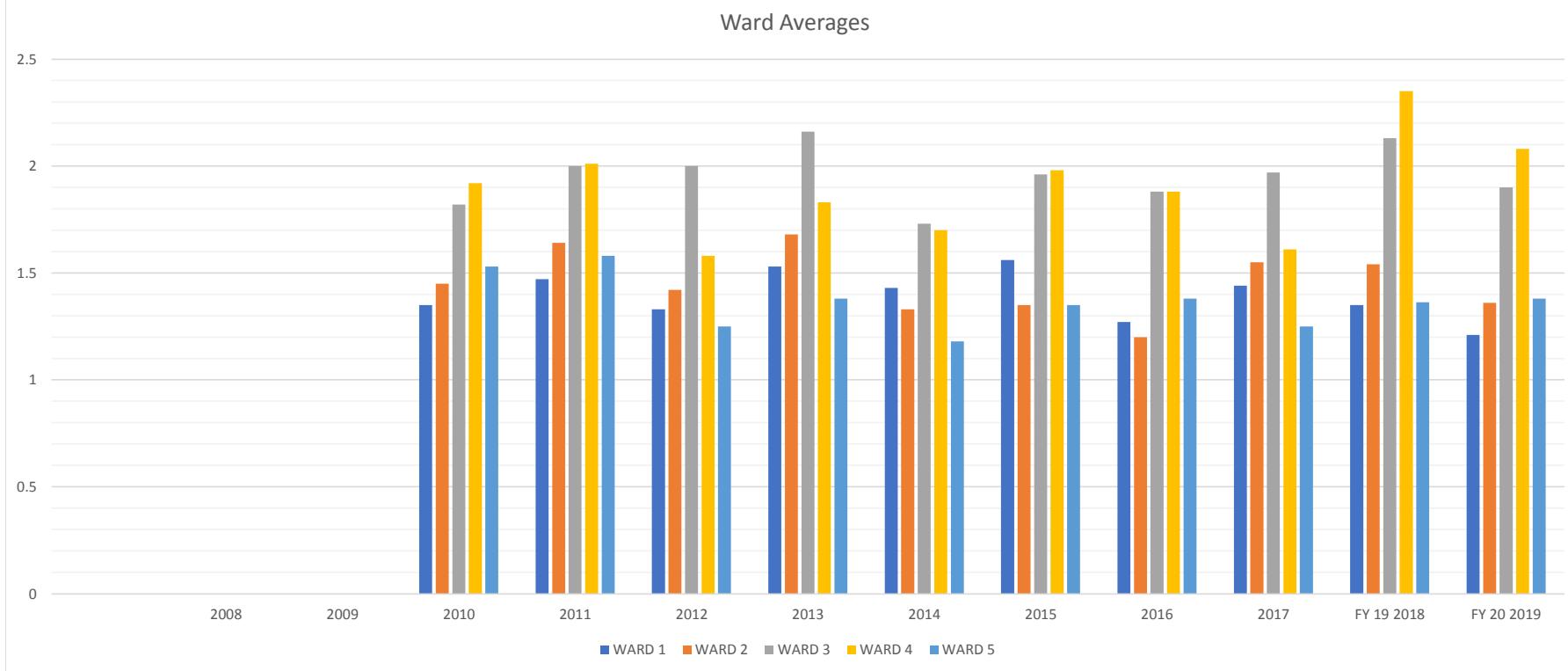
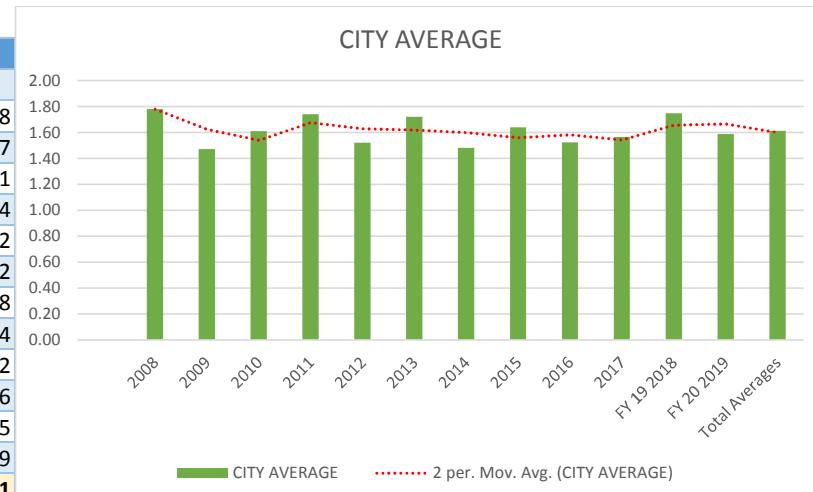
Thousands of volunteers around the world will clean up to benefit their coastlines.
Join Norfolk's efforts to help prevent debris from entering our waterways.

September 21 | 9AM - Noon
Barraud Park

Visit norfolk.gov/KNB or call 757-441-1347.

COMMUNITY APPEARANCE INDEX FOR KEEP NORFOLK BEAUTIFUL 2010- 2019

YEAR	WARD 1	WARD 2	WARD 3	WARD 4	WARD 5	CITY AVERAGE
2008						1.78
2009						1.47
2010	1.35	1.45	1.82	1.92	1.53	1.61
2011	1.47	1.64	2	2.01	1.58	1.74
2012	1.33	1.42	2	1.58	1.25	1.52
2013	1.53	1.68	2.16	1.83	1.38	1.72
2014	1.43	1.33	1.73	1.7	1.18	1.48
2015	1.56	1.35	1.96	1.98	1.35	1.64
2016	1.27	1.2	1.88	1.88	1.38	1.52
2017	1.44	1.55	1.97	1.61	1.25	1.56
FY 19 2018	1.35	1.54	2.13	2.35	1.3625	1.75
FY 20 2019	1.21	1.36	1.9	2.08	1.38	1.59
Total Averages	1.39	1.45	1.96	1.89	1.36	1.61



Training Script for Scorers

Introduction: Welcome all the scorers and thank them for participating. Introduce everyone. Provide an overview of the day. Training will be approximately 1 hour including a video. After training, the scorers will convene at the van. The scorers will conduct 2-3 sample Site scorings and will conduct the scoring for all Sites divided into Areas. The group will stop for lunch and breaks as needed. At the end of the day, the scorers will be asked to gather back at the meeting location to review the scoring process.

Background: Review the background information briefly. Information is included in the purpose, introduction, and research sections.

Keep America Beautiful, Inc. developed an approach to measuring litter, based on the research of our experts, Litter Measurement Technical Committee, field-testing, and review by selected Keep America Beautiful affiliates and state leaders. The Index has been designed to make your litter-prevention work easier and your reported results more credible. The results will help you quickly and reliably assess the litter situation in your community with the aim of achieving long-term, sustainable results. The purpose of the process is to gather information and not to point fingers. Over time, comparisons of the Index data can be used to evaluate results and identify what works locally to change attitudes and behaviors regarding litter and related community improvement issues.

Scoring: Discuss the scoring process. The Litter Index, section of the Community Appearance Index, is conducted annually, at approximately the same time. The affiliate may choose to conduct the Optional Indices. Distribute scorer packets and review score sheet and photos from the instructional materials. Explain part of the process is the consistency of using the 4-point Likert scale and definitions.

Review the descriptions, scale and photographs in Exhibit 4 and 5.

Show the local map including the Areas and Sites that will be scored.

Show the video: Show entire video and then during the Site review section provide your own commentary using the information outlined below:

1. The scoring leader will announce the Area and Site number and call “start” for each Site to be scored. When the entire Site has been viewed, the leader will call “stop.”
2. Unless instructed otherwise, scorers should look left and right into alleyways, parking lots, businesses, residences, etc. to assess the overall Site. Both public and private property should be included. Consider the following:
 - How visible is the litter?
 - How continuous or frequent is the litter?
 - How difficult would it be to clean up the Site?
3. When stop is called, each scorer will write down a 1, 2, 3 or 4 opposite the appropriate Site number on the scoring sheet. The scorer should use a whole number only. Emphasize the scorer makes a decision on whether the Site most closely matches the descriptions provided and circles the applicable number.
4. During the scoring process, there should be no discussion among scorers.

5. Scorers may use the “notable conditions” column on the scoring sheet to indicate other circumstances, such as more litter at intersection, graffiti, illegal dumpsites, broken windows, or unkempt vegetation. This column can be used for listing conditions that might guide a work plan in one of the other Keep America Beautiful focus areas such as beautification or waste reduction and recycling.
6. When all Site scoring is complete, the scoring leader will collect the score sheets and check to be sure that all scoring sheets are complete.

If Optional Indices will be conducted, review Exhibit 6. Provide a brief review of the applicable local codes or ordinances related to each Optional Index. View the Optional Indices video.

Ask if the scorers have any questions.

Conclude by reviewing the agenda for the day. Ask scorers to make any calls needed and then turn off ringer before joining you in the van.

Litter Scale: Photographs

Score	Example	
1 "Minimal or No Litter"		
2 "Slightly Littered"		
3 "Littered"		
4 "Extremely Littered"		

Litter Scale: Photographs

1 "Minimal No Litter"



Exhibit 5: Litter Scale: Photographs

2 "Slightly Littered"



Exhibit 5: Litter Scale: Photographs

3 "Littered"



Exhibit 5: Litter Scale: Photographs

4 “Extremely Littered”



Litter Scale Descriptions

Score	Instructions for Scores	Instructions for Scores
1 "Minimal or No Litter"	<ul style="list-style-type: none">• Virtually no litter• 1 or 2 small items in a city block or equivalent• Collected quickly by 1 individual• Generally neat and tidy	Virtually no litter can be observed in the Site. The scorer may see one or two small items in a city block, or equivalent. Any litter seen could be collected quickly by one individual. The entire Site has a generally neat and tidy appearance.
2 "Slightly Littered"	<ul style="list-style-type: none">• Small amount of litter• Eye is not continually grabbed by littered items• Site cleaned in a short period of time	Litter is obvious, but the eye is not continually grabbed by littered items. The Site could be cleaned in a short period of time.
3 "Littered"	<ul style="list-style-type: none">• Visible litter catches your eye frequently• Organized effort for removal• Considerable effort to clean	Visible litter catches your eye frequently throughout the Site. An organized effort for removal is required with considerable effort to clean up the Site.
4 "Extremely Littered"	<ul style="list-style-type: none">• Continuous amount of litter• Litter first thing noticed• Might include an illegal dump• Equipment may be required for removal• Strong impression of a lack of concern about litter	A continuous amount of litter is one of the first things noticed about the Site. Illegal dumpsites might be observed. Equipment may be required to clean up. There is a strong impression of a lack of concern about litter in the Site.

Consider the following:

How visible is the litter?

How continuous or frequent is the litter?

How difficult would it be to clean up the Site?

What Are You Storing?

It's time to clean-out your old hazardous waste!



Nov. 2, 2019 • 9am-noon
Community Beach Park, 700 E. Ocean View Ave.

**If you have harmful items that are taking up space,
don't drop them in your trash can!**

Items to bring:

- Batteries
- Auto fluids & oils
- Household cleaners
- Compact fluorescent bulbs
- Fertilizer & Pesticides
- Paint & paint products
- Drain cleaners
- Propane tanks
- Aerosol cans
- And More!

VISIT NORFOLK.GOV/KNB OR CALL 757.441.1347

Remember to check spsa.com for all acceptable items. Quantities are limited to 5-gallons of liquid and/or 75lbs of solid materials.

Norfolk
Oceanview Special Event

11/2/2019

Inventory of Collected Materials				
	Gallons	Count	Drum (55 Gal)	Pounds
Latex Paint	250			2085
Antifreeze	15			1251
Used Oil	41			342
Gasoline	13			108
Acids	6			50
Liquid Poison			0.50	32.5
Solid Poison			0.50	35.5
Aerosols			0.25	16.25
Alkaline Batteries				5
Other Batteries				2
Oxidizers		20lbs		20
Cleaners	12			100
Kerosene				
Lead Acid Batteries		2		78
Propane Tanks		3		51
Helium Tanks		2		34
Fluorescent Bulbs		16		20
Paint related materials	15			125
Used cooking Oil	10			83
Fire Extinguishers		1		30

Weight of a gallon: 8.34 lbs

65 pounds full

39 pounds

17 pounds

17 pounds

1.25 pounds

30 pounds

Portsmouth Residents	0	Total: 4,465.25 pounds of HHW collected
Chesapeake Residents	0	
Norfolk	136	
Va Beach	1	
Suffolk	0	
Total	137	



**DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENVIRONMENTAL
STORM WATER MANAGEMENT
HIGH-RISK COMMERCIAL AND INDUSTRIAL
OUTFALL INSPECTION PROGRAM**

DATE WRITTEN:

May 13, 2014

DATE REVISED:

June 28, 2017; November 25, 2019; February 10, 2020

PREPARED BY:

June Whitehurst, Environmental Program Manager; Casey Magruder, Environmental Program Administrator

REVIEWED BY:

John M. White, Storm Water Engineer

FILE PATH:

REFERENCE:

MS4 Permit; City Ordinances; SOP628, Storm Water Infrastructure Inspection Program

DISTRIBUTION:

Management Services; Operations

PURPOSE/OBJECTIVE:

To meet regulatory requirements outlined in Part I.A.2.g of the MS4 permit.

To define guidelines, protocols, and procedures for the high-risk Commercial and Industrial “outfall” Inspection Program. The purpose of this program is to identify and control pollutants in storm water discharges from commercial and industrial facilities that have been identified in the MS4 permit as high risk of discharging pollutants to the City’s MS4.

This SOP is to be used by Public Works Storm Water staff to assist with the implementation of the program.

BACKGROUND:

The City of Norfolk is mandated by federal and state law, as well as the City’s MS4 VPDES Permit, VA0088650, to monitor and control pollutants in storm water discharges from the City storm water conveyances. One component of the program is the detection and elimination of illicit discharges into the City’s MS4 system.

Facilities operating under a VPDES permit issued by DEQ are required to meet certain effluent standards and implement best management practices depending upon the nature of the activity undertaken at the facility and are inspected by the State.

The focus of the City’s program will be on those high-risk commercial and industrial sites which have a point source outfall from the facility directly into City’s MS4 system.

DEFINITIONS:

Best Management Practices (BMP’s) – Schedules of activities, practices (and prohibitions of practices), structures, vegetation, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to surface waters. BMP’s also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

High-risk Facilities – Any industrial or commercial facility that discharges to the MS4 that has been determined to contribute a significant pollutant loading (e.g. municipal landfills, TSD facilities, hazardous waste TSD facilities, facilities subject to EPCRA Title III, Section 313, facilities with

A handwritten signature in black ink, appearing to read "JMW".



**DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENVIRONMENTAL
STORM WATER MANAGEMENT
HIGH-RISK COMMERCIAL AND INDUSTRIAL
OUTFALL INSPECTION PROGRAM**

VPDES industrial permits etc.).

Illicit Discharge – Discharge to the storm water system that is not comprised entirely of rainwater or an authorized discharge. Illicit discharges are often, but not limited to, petroleum products (i.e., motor oil, antifreeze, hydraulic oil, transmission fluid, etc.), paint and solid waste.

MS4 VPDES Permit – Municipal Separate Storm Sewer System Virginia Pollution Discharge Elimination System is a permit issued to the City of Norfolk by the state of Virginia authorizing, under prescribed conditions, the potential or actual discharge of pollutants from a point source to surface waters. Best management practices and good housekeeping practices must be implemented and maintained to the maximum extent practicable to reduce the pollutants from discharging to natural waterways of the US.

RESPONSIBILITIES:

Division – The Department of Public Works, Division of Environmental Storm Water Management is the administrator of the MS4 VPDES Permit, VA0088650. Environmental staff ensures compliance with the VPDES permit associated with illicit discharges to the storm water system.

Environmental Staff develop and maintain a list of high priority commercial and industrial facilities. This list is reviewed and updated annually. Staff conduct the outfall inspection at these industrial and commercial high-risk facilities.

PROCEDURES:

- 1) Identify known industrial and commercial high-risk facilities:

The City obtains a list of current VPDES industrial storm water permit holders in the City of Norfolk from the DEQ Comprehensive Environmental Database System (CEDS). The CEDS data can be accessed via the following link:

<http://www.deq.virginia.gov/programs/water/permittingcompliance/pollutiondischargeelimination/permitsfees.aspx>

No exposure certifications issued by DEQ exclude a facility from requiring a permit for storm water discharges associated with industrial activity. These certifications only apply to industrial facilities when all industrial materials and activities are protected by a storm-resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. A list of facilities in the City of Norfolk that hold no exposure certifications is also requested.

A list of business licenses in the City of Norfolk will be requested and received from the Commissioner of the Revenue's office. From this information, a prioritized inventory of high-risk commercial and industrial businesses is developed. City staff cross reference the business licenses with DEQ VPDES Industrial permitted facilities and no-exposure facilities. Facilities operating under a no exposure certification issued by DEQ are excluded from this inspection program. Additionally, facilities that sheet flow or discharge directly to state waters will be also excluded from the City's inspection program.

DEPARTMENT OF PUBLIC WORKS DIVISION OF ENVIRONMENTAL STORM WATER MANAGEMENT HIGH-RISK COMMERCIAL AND INDUSTRIAL OUTFALL INSPECTION PROGRAM

The list of high-risk facilities will be refined throughout the permit cycle. Industrial and commercial properties removed from the inspection program will be documented with justification.

2) Prioritize high-risk facilities:

Currently, the City prioritizes facility outfall inspections by concentrating on those commercial and industrial entities that have been identified as high-risk facilities in the MS4 permit. This prioritized inventory of target businesses includes:

High-risk Facilities:

- VPDES Industrial sites
- High-priority City municipal facilities
- Car wash/auto detailing facilities (including new/used car dealerships and rental facilities)
- Junk dealers
- Auto repair shops (mechanical and body)
- Transportation services (tow truck, taxi)
- Gas/service stations
- Nurseries
- Marinas
- Pet care facilities (kennels, day care)
- Waste Management Solid Waste Collection Sites / Material Recovery Facilities

The Department of Fire-Rescue permits and inspects commercial and industrial facilities subject to Section 313 of SARA Title III. The Department of Fire-Rescue also permits and monitors demolition certificates, fireworks performances, hazardous materials storage, underground fuel tanks filling or removal, and welding or cutting metal. These facilities will also be excluded from the Commercial/Industrial Inspection Outfall Program inspection inventory.

3) VPDES Industrial Facility DMR Review

On an annual basis, the City will track submittals of all discharge monitoring reports (DMR's) by current VPDES industrial permit holders in the City of Norfolk. These documents will be used to identify and investigate facilities contributing significant pollutant loadings to the environment. Facilities that have not submitted a copy of their DMR to the City by June 30th of each year will be reported to DEQ by the annual report process.

4) Develop and implement a standard high-risk outfall inspection program:

The high-risk facilities outfall/tie-in inspections occur during the standard storm water preventative maintenance inspection program. This program consists of visual inspections of the storm water infrastructure including catch basins, manholes or drop inlets. The Inspector observes the structure for dry weather or illicit discharges from the facilities; if discovered the source is identified and eliminated. Details of the inspection program can be found in SOP657.

Upon discovery of an unauthorized discharge, the inspector will refer facilities to the DEQ TRO for the following:





**DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENVIRONMENTAL
STORM WATER MANAGEMENT
HIGH-RISK COMMERCIAL AND INDUSTRIAL
OUTFALL INSPECTION PROGRAM**

- Facilities that have non-stormwater discharges that do not currently have coverage under an existing VPDES industrial permit,
- Facilities that do not have coverage under an existing VPDES industrial permit and have been identified as required to obtain VPDES industrial permit coverage, and
- VPDES permit facilities that have evidence of significant pollutant loading.

5) Prepare reports to document inspection activities:

Standard high-risk facility outfall/tie-in inspections are documented and tracked by the preventative maintenance inspector. Documentation of the high-risk facilities completed will be reported to DEQ in the annual report.

Facilities that are referred to DEQ will also be tracked and reported in the City's annual report.

6) Analyze trends and modify/improve the program as necessary:

The overall success of the high-risk Commercial and Industrial Outfall Inspection Program will be measured through the successful implementation of outfall inspections as part of the program. Success will also be measured by the number of inspections conducted, and the number of problems discovered and resolved.

Program assessment will be submitted with each annual report discussing the activities completed for the previous program year. This will include a report on inventory, including the type and total number of facilities inspected.

Due to the ever-evolving nature of the program the inventory will be evaluated and updated. The program will exclude those properties that do not have a point source discharge directly to the City's MS4 or do not have the potential to pollute the MS4.

APPROVED:

A handwritten signature in black ink, appearing to read "John M. White".

John M. White
Storm Water Engineer
Public Works, Division of Environmental Storm Water Management

Prioritized Inspection Schedule - Norfolk Industrial & High Risk Facilities - FY2020

VPDES Permit No.	Fiscal Year Proposed Inspection Date	Schedule Date	Inspection Date	Commercial / Industrial Name	Address	Owner Name	NAIC_Code	Class	Planning District #	Planning District Name
	2020	Jul-19	7/1/19	UNIVERSAL-MART	1033 W LITTLE CREEK RD	TRIDEV INC	44710.00	Gas Station @ Convenience Store	31	TITUSTOWN
	2020	Jul-19	7/1/19	O & D CYCLES	1038 W LITTLE CREEK RD	WAYBRY CORP	811111.00	General Automotive Repair	31	TITUSTOWN
	2020	Jul-19	7/1/19	FREEOM WASH	1200 N MILITARY HWY	MILITARY FREEDOM WASH LLC	811192.00	Car Wash	76	LAKE TAYLOR
	2020	Jul-19	7/1/19	ARM FRESH SUPERMARKET #55467	1200 N MILITARY HWY	FF ACQUISITION LLC	447190.00	Gas Stations	76	LAKE TAYLOR
	2020	Jul-19	7/1/19	PEP BOYS-MANNY MOE & JACK #111	1230 N MILITARY HWY	PEP BOYS-MANNY MOE & JACK	811111.00	General Automotive Repair	76	LAKE TAYLOR
	2020	Jul-19	7/1/19	NISSAN OF NORFOLK	1250 N MILITARY HWY	NISSAN OF NORFOLK LLC	532111.00	Passenger Car Rental	76	LAKE TAYLOR
	2020	Jul-19	7/1/19	NISSAN OF NORFOLK	1250 N MILITARY HWY	NISSAN OF NORFOLK LLC	811111.00	General Automotive Repair	76	LAKE TAYLOR
	2020	Jul-19	7/1/19	NISSAN OF NORFOLK	1250 N MILITARY HWY	NISSAN OF NORFOLK LLC	441110.00	New Car Dealer	76	LAKE TAYLOR
	2020	Jul-19	7/1/19	NISSAN OF NORFOLK	1250 N MILITARY HWY	NISSAN OF NORFOLK LLC	423110.00	Auto Sales Wholesale	76	LAKE TAYLOR
	2020	Jul-19	7/1/19	ED'S HOME IMPROVEMENTS	6137 MILLER STORE RD	LEISKER, EDWARD FRANK JR	811192.00	Car Wash	76	LAKE TAYLOR
	2020	Jul-19	7/1/19	JONES BUILT SPEED & CUSTOM	6137 MILLER STORE RD	JONES, EDWARD N	811111.00	General Automotive Repair	76	LAKE TAYLOR
	2020	Jul-19	7/1/19	7-ELEVEN #393258	774 W LITTLE CREEK RD	MILLERS II LLC	447110.00	Gas Station @ Convenience Store	31	TITUSTOWN
	2020	Jul-19	7/1/19	ENTERPRISE RENT-A-CAR	912 W LITTLE CREEK RD	ENTERPRISE LEASING CO OF NFLK/RICH	532112.00	Passenger Car Leasing	31	TITUSTOWN
	2020	Aug-19	8/1/19	PHIL'S STYLIN' RIDES	1353 WESTMORELAND AVE	GRATHWOL, PHILIP	485999.00	All Other Passenger Transportation	37	EDGEWATER - LARCHMONT
	2020	Aug-19	8/1/19	THE BEST DOG'S LARCHMONT	1409 BUCKINGHAM AVE	BEST DOGS IN LARCHMONT LLC, THE	812910.00	Pet Services (not Veterinary)	37	EDGEWATER - LARCHMONT
	2020	Aug-19	8/1/19	BARRY'S PERFORMANCE IMPORTS	2131 CROMWELL RD	BPI INC	811111.00	General Automotive Repair	50	BALLENTINE PARK
	2020	Aug-19	8/1/19	CHRISTIAN A TORRES	2766 MCKANN AVE	TORRES, CHRISTIAN A	485999.00	All Other Passenger Transportation	50	BALLENTINE PARK
	2020	Aug-19	8/1/19	GALE L ROSE-CARMACK	2851 BALLENTINE BLVD	ROSE-CARMACK, GALE L	812910.00	Pet Services (not Veterinary)	50	BALLENTINE PARK
	2020	Aug-19	8/1/19	CROMWELL BP	3210 CHESAPEAKE BLVD	TIDEWATER CONVENIENCE INC	811192.00	Car Wash	50	BALLENTINE PARK
	2020	Aug-19	8/1/19	CROMWELL BP	3210 CHESAPEAKE BLVD	TIDEWATER CONVENIENCE INC	447110.00	Gas Station @ Convenience Store	50	BALLENTINE PARK
	2020	Aug-19	8/1/19	GORDON AUDIO	5217 ARGALL AVE	BOES, BRIAN G	811118.00	Auto Mechanical & Electrical Repair	37	EDGEWATER - LARCHMONT
	2020	Sep-19	9/4/19	DAYOAN LAUNDRY & CAR WASH USA	1203 W LITTLE CREEK RD	DAYOAN, JOSE M	811192.00	Car Wash	30	NORTH SHORE
	2020	Sep-19	9/4/19	ALFRED MOORE III	1307 MILTON STREET	MOORE, ALFRED III	495310.00	Taxi	30	NORTH SHORE
	2020	Sep-19	9/4/19	JOHN F O'NEIL	7720 ENFIELD AVE	O'NEIL, JOHN F	485310.00	Taxi	30	NORTH SHORE
	2020	Sep-19	9/4/19	O'REILLY AUTO PARTS #2000	7720 HAMPTON BOULEVARD	O'REILLY AUTOMOTIVE STORES INC	423110.00	Auto Sales Wholesale	30	NORTH SHORE
	2020	Sep-19	9/4/19	DODGES STORE	8110 HAMPTON BOULEVARD	H & D OIL CO INC	447110.00	Gas Station @ Convenience Store	28	GLENWOOD PARK
	2020	Oct-19	10/8/19	THE BOWMEOW LLC	219 SOUTH BLAKE ROAD	BOWMEOW LLC, THE	812910.00	Pet Services (not Veterinary)	36	TALBOT PARK
	2020	Oct-19	10/8/19	SUN DOGS MOBILE PET SALON	283 SIR OLIVER RD	CAGNEY, MARY F	812910.00	Pet Services (not Veterinary)	36	TALBOT PARK
	2020	Oct-19	10/8/19	ENTERPRISE LEASING CO OF NFLK/RICH	9000 HAMPTON BOULEVARD	ENTERPRISE LEASING CO OF NFLK/RICH	532111.00	Passenger Car Rental	26	NAVAL BASE
	2020	Nov-19	11/1/19	CALVARY CARS & SERVICE INC	1417 N MILITARY HWY	CALVARY CARS & SERVICE INC	811111.00	General Automotive Repair	75	RIVER OAKS
	2020	Nov-19	11/1/19	TRASH TREASURE JUNKMEN	301 NAVAL BASE RD	ALSTON, ANTWAIN & ALSTON, RONALD	562119.01	Junk Dealer	39	NAVAL BASE ROAD
	2020	Nov-19	11/1/19	DOODY CALLS	385 NAVAL BASE RD	R BARQUE LLC	812910.00	Pet Services (not Veterinary)	39	NAVAL BASE ROAD
	2020	Nov-19	11/1/19	GENTRY'S MOBILE REPAIR	385 NAVAL BASE RD	GENTRY, THOMAS H III	811111.00	General Automotive Repair	39	NAVAL BASE ROAD
	2020	Nov-19	11/1/19	FAMILY CAR WASH INC	5007 E PRINCESS ANNE RD	FAMILY CAR WASH INC	811192.00	Car Wash	75	RIVER OAKS
	2020	Nov-19	11/1/19	AUTO EXPRESS II	5029 E PRINCESS ANNE RD	GOSSETT INC	441120.00	Used Car Dealer	75	RIVER OAKS
	2020	Nov-19	11/1/19	EXPRESS TIRE & AUTO REPAIR	5045 E PRINCESS ANNE RD	GOSSETT INC	811111.00	General Automotive Repair	75	RIVER OAKS
	2020	Nov-19	11/1/19	EXPRESS TIRE & AUTO REPAIR	5045 E PRINCESS ANNE RD	GOSSETT INC	441320.00	Tire Dealers	75	RIVER OAKS
	2020	Nov-19	11/1/19	JAY DA MAN ENTERPRISES LLC	5129 SOUTH CAPE HENRY AVENUE	JAY DA MAN ENTERPRISES LLC	811111.00	General Automotive Repair	75	RIVER OAKS
	2020	Nov-19	11/1/19	PRINCESS ANNE AUTOMOTIVE CENTER	5333 E PRINCESS ANNE RD	VIC & NOLI LLC	811111.00	General Automotive Repair	75	RIVER OAKS
	2020	Nov-19	11/1/19	SUBTRACK FOOD MART	5369 E PRINCESS ANNE RD	AMBEKA LLC	447110.00	Gas Station @ Convenience Store	75	RIVER OAKS
	2020	Nov-19	11/1/19	DOUBLE J MOTORS INC	5601 E PRINCESS ANNE RD	DOUBLE J MOTORS INC	441120.00	Used Car Dealer	75	RIVER OAKS
	2020	Nov-19	11/1/19	HONDA OF NORFOLK	6955 TIDEWATER DR	LTGB LLC	811111.00	General Automotive Repair	39	NAVAL BASE ROAD
	2020	Dec-19	12/2/19	HILLIARD AUTO & TRUCK REPAIR	2313 MOHAWK STREET	HILLIARD, JOHN L	811111.00	General Automotive Repair	48	FOXHALL
	2020	Dec-19	12/2/19	ED'S RODS & RECKS	2320 MOHAWK STREET	MURMILLO, EDWARD W & REMONA	811111.00	General Automotive Repair	48	FOXHALL
	2020	Dec-19	12/2/19	ALL PRO AUTO REPAIR	2328 AZALEA GARDEN RD	HARRIS, BRIAN K	811111.00	General Automotive Repair	48	FOXHALL
	2020	Dec-19	12/2/19	FASTRACK AZALEA	2335 AZALEA GARDEN RD	SAIRAM ENTERPRISE INC	447110.00	Gas Station @ Convenience Store	48	FOXHALL
	2020	Dec-19	12/2/19	NU WHEELS	2675 AZALEA GARDEN RD	E'DSCO CORP	423110.00	Auto Sales Wholesale	48	FOXHALL
	2020	Dec-19	12/2/19	7-ELEVEN STORE #24025A	3112 AZALEA GARDEN RD	AYO, ARTURO D	447190.00	Gas Stations	48	FOXHALL
	2020	Dec-19	12/2/19	7-ELEVEN STORE #39586A	6100 TIDEWATER DR	RIGHTEOUS ACTS LLC	811192.00	Car Wash	34	ROLAND PARK
	2020	Dec-19	12/2/19	AUTOMASTERS EXPRESS CARE	6100 TIDEWATER DR	AUTOMASTERS OF ASHEBORO LLC	811191.00	Oil Change & Lube Shop	34	ROLAND PARK
	2020	Dec-19	12/2/19	7-ELEVEN STORE #39586A	6100 TIDEWATER DR	RIGHTEOUS ACTS LLC	447110.00	Gas Station @ Convenience Store	34	ROLAND PARK
VAR050293	2020	Dec-19	12/2/19	Carroll Trucking Incorporated	6300 Tidewater Drive				34	ROLAND PARK
	2020	Jan-20	1/2/20	WILLOUGHBY HARBOR MARINA	1525 BAYVILLE STREET	WILLOUGHBY HARBOR PARTNERS LP	713930.00	Marina	1	WILLOUGHBY
	2020	Jan-20	1/2/20	REBEL MARINE SERVICE INC	1553 BAYVILLE STREET	REBEL MARINE SERVICE INC	713930.00	Marina	1	WILLOUGHBY
	2020	Jan-20	1/2/20	YACHT SYSTEMS SERVICES	1553 BAYVILLE STREET	YACHT SYSTEMS SERVICES INC	811111.00	General Automotive Repair	1	WILLOUGHBY
	2020	Jan-20	1/20/20	7-ELEVEN STORE #36467A	357 W OCEAN VIEW AVE	PTE INC	447190.00	Gas Stations	1	WILLOUGHBY
	2020	Jan-20	1/20/20	HOLIDAY FOOD STORE #405	418 SAINT PAULS BLVD	SUPREME PETROLEUM INC	447110.00	Gas Station @ Convenience Store	65	TIDEWATER - YOUNG PARK
VAR050301	2020	Jan-20	1/2/20	U.S. Postal Svcs - Vehicle Maintenance Fac	600 Church Street				65	TIDEWATER - YOUNG PARK
	2020	Jan-20	1/2/20	CHURCH STREET BP	800 E BRAMBLETON AVE	TIDEWATER CONVENIENCE INC	811192.00	Car Wash	65	TIDEWATER - YOUNG PARK
	2020	Jan-20	1/2/20	CHURCH STREET BP	800 E BRAMBLETON AVE	TIDEWATER CONVENIENCE INC	447110.00	Gas Station @ Convenience Store	65	TIDEWATER - YOUNG PARK
	2020	Jan-20	1/2/20	ONE STOP FOOD MART #351	900 E BRAMBLETON AVE	J & M INVESTMENTS INC	447110.00	Gas Station @ Convenience Store	65	TIDEWATER - YOUNG PARK
	2020	Feb-20	2/3/20	MARINE OIL SERVICE INC	201 E CITY HALL AVE	MARINE OIL SERVICE INC	562111.00	Solid Waste Collection	59	DOWNTOWN
	2020	Feb-20	2/3/20	PETS MATE	201 W TAIZEWELL STREET	PETS MATE LLC	812910.00	Pet Services (not Veterinary)	59	DOWNTOWN
	2020	Feb-20	2/3/20	TRANSPORTATION KINGZ LLC	259 GRANBY STREET	TRANSPORTATION KINGZ LLC	495999.00	All Other Passenger Transportation	59	DOWNTOWN
	2020	Feb-20	2/3/20	GRANBY ST PALMS LLC	425 MONTICELLO AVE	GRANBY ST PALMS LLC	444220.00	Nursery & Garden Centers	59	DOWNTOWN
	2020	Feb-20	2/3/20	ENTERPRISE RENT-A-CAR	751 MONTICELLO AVE	ENTERPRISE LEASING CO OF NFLK/RICH	532112.00	Passenger Car Leasing	59	DOWNTOWN
	2020	Feb-20	2/3/20	DOWNTOWN PIT STOP	770 BOUSH STREET	WOODFIN HEATING INC	811192.00	Car Wash	59	DOWNTOWN
	2020	Feb-20	2/3/20	DOWNTOWN PIT STOP	770 BOUSH STREET	WOODFIN HEATING INC	447190.00	Gas Stations	59	DOWNTOWN
	2020	Feb-20	2/3/20	PARKER OIL CO INC	857 MONTICELLO AVE	PARKER OIL CO INC	447190.00	Gas Stations	59	DOWNTOWN
	2020	Feb-20	2/3/20	CALIFORNIA STYLE DETAILING	999 WATERSIDE DR	MARTIN, JOHN A	811192.00	Car Wash	59	DOWNTOWN
	2020	Apr-20	3/2/20	BARNEYS BUDDIES LLC	1741 TAIT TERRACE	BARNEYS BUDDIES LLC	812910.00	Pet Services (not Veterinary)	51	LAFAYETTE
	2020	Apr-20	3/2/20	C & P MOBILE AUTO REPAIR	1813 BOURBON AVE	WILLOUGHBY, LAMONT D	811111.00	General Automotive Repair	51	LAFAYETTE
	2020	Apr-20	3/2/20	TINEE GIANT #172	2001 LAFAYETTE BOULEVARD	COASTAL INVESTMENTS INC	447110.00	Gas Station @ Convenience Store	51	LAFAYETTE

Prioritized Inspection Schedule - Norfolk Industrial & High Risk Facilities - FY2020

VPDES Permit No.	Fiscal Year Proposed Inspection Date	Schedule Date	Inspection Date	Commercial / Industrial Name	Address	Owner Name	NAIC_Code	Class	Planning District #	Planning District Name
VAR052227	2020 Apr-20	3/2/20	ONE STOP FOOD MART #355	2628 TIDEWATER DR	J & M INVESTMENTS INC	447110.00	Gas Station @ Convenience Store	51	LAFAYETTE	
	2020 Apr-20	3/2/20	US Postal Service - Lafayette Station	2655 Tidewater Drive				51	LAFAYETTE	
	2020 Apr-20	3/2/20	MITCH'S BRAKE & MUFFLER	2801 LAFAYETTE BOULVARD	MITCH'S BRAKE & MUFFLER INC	811111.00	General Automotive Repair	51	LAFAYETTE	
	2020 Apr-20	3/2/20	MAJESTIC WAD LLC	3106 PERONNE AVE	MAJESTIC WAD LLC	485310.00	Taxi	51	LAFAYETTE	
	2020 Apr-20	3/2/20	O'REILLY AUTO PARTS #4479	3212 TIDEWATER DR	O'REILLY AUTOMOTIVE STORES INC	423110.00	Auto Sales Wholesale	51	LAFAYETTE	
	2020 May-20	3/18/20	POISED PUPS	145 E LEICESTER AVE	POISED PUPS LLC	812910.00	Pet Services (not Veterinary)	11	NORTHSIDE	
	2020 May-20	3/18/20	SRB LIMOUSINE LLC	167 E EVANS STREET	SRB LIMOUSINE LLC	485320.00	Limousine Services	11	NORTHSIDE	
	2020 May-20	3/18/20	K MART #4988 (GAS & CONV STORE)	6101 N MILITARY HWY	K MART CORP	447110.00	Gas Station @ Convenience Store	44	EAST NORVIEW	
	2020 May-20	3/18/20	WAWA #8628	6301 N MILITARY HWY	WAWA INC	447110.00	Gas Station @ Convenience Store	44	EAST NORVIEW	
	2020 May-20	3/3/20	GEORGE WYNN	6949 SEWELLS POINT RD	WYNN, GEORGE NATHANIEL	562119.01	Junk Dealer	40	CHESAPEAKE MANOR	
	2020 May-20	3/3/20	HERMAN'S MOBILE AUTO REPAIR	7419 SEWELLS POINT RD	COUNCIL, HERMAN J	811111.00	General Automotive Repair	40	CHESAPEAKE MANOR	
	2020 May-20	3/3/20	L SHADY GARAGE	7425 SEWELLS POINT RD	SHADY, DENNIS L	811111.00	General Automotive Repair	40	CHESAPEAKE MANOR	
	2020 May-20	3/3/20	M & M AUTO CARE	7425 SEWELLS POINT RD.	GIVENS, MARCUS A	811111.00	General Automotive Repair	40	CHESAPEAKE MANOR	
	2020 May-20	3/3/20	WAL-MART SUPERCENTER #5488	7530 TIDEWATER DR	WAL-MART STORES EAST LP	811111.00	General Automotive Repair	40	CHESAPEAKE MANOR	
	2020 May-20	3/3/20	SAM'S CLUB #4733 GAS STATION	7530 TIDEWATER DR	SAM'S EAST INC	447190.00	Gas Stations	40	CHESAPEAKE MANOR	
	2020 May-20	3/18/20	7-ELEVEN STORE #25925A	8595 TIDEWATER DR	PTE INC	811192.00	Car Wash	11	NORTHSIDE	
	2020 May-20	3/18/20	7-ELEVEN STORE #25925A	8595 TIDEWATER DR	PTE INC	447110.00	Gas Station @ Convenience Store	11	NORTHSIDE	
	2020 Jun-20	6/1/20	7-ELEVEN STORE#23323A	3800 GRANBY STREET	BHATTI, MANPREET	447110.00	Gas Station @ Convenience Store	53	COLONIAL PLACE	
	2020 Jun-20	6/1/20	BIG AL'S MUFFLERS & BRAKES	3930 GRANBY STREET	ANZELL AUTOMOTIVE INC	811111.00	General Automotive Repair	53	COLONIAL PLACE	
	2020 Jun-20	6/1/20	RIVERVIEW SHELL	4002 GRANBY STREET	COLVIEW CORP	447110.00	Gas Station @ Convenience Store	53	COLONIAL PLACE	
	2020 Jun-20	6/1/20	JAY JAY'S CAR WASH	4126 LLEWELLYN AVE	REAL CHANCE LLC	811192.00	Car Wash	53	COLONIAL PLACE	
	2020 Jun-20	6/1/20	GRANBY SHELL	4225 GRANBY STREET	GRANBY MOBIL CORP	811111.00	General Automotive Repair	53	COLONIAL PLACE	
	2020 Jun-20	6/1/20	GRANBY SHELL	4225 GRANBY STREET	GRANBY MOBIL CORP	447110.00	Gas Station @ Convenience Store	53	COLONIAL PLACE	
	2020 Jun-20	6/1/20	WARD, LARRY JUNIOR	4507 COLONIAL AVE	WARD JR, LARRY	562119.01	Junk Dealer	53	COLONIAL PLACE	
	2020 Jun-20	6/1/20	ARVO AUTO RESTORATION	4809 COLONIAL AVE	ARVO AUTO RESTORATION LLC	811121.00	Auto Body & Paint Repair	53	COLONIAL PLACE	
	2020 Jun-20	6/1/20	7-ELEVEN STORE #36463A	8594 TIDEWATER DR	PTE INC	447190.00	Gas Stations	12	OCEANAIR	
	2020 Jun-20	6/1/20	BAYVIEW BP	8595 CHESAPEAKE BLVD	HORTON & WHO LLC	811111.00	General Automotive Repair	12	OCEANAIR	
	2020 Jun-20	6/1/20	BAYVIEW BP	8595 CHESAPEAKE BLVD	HORTON & WHO LLC	447190.00	Gas Stations	12	OCEANAIR	



**DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENVIRONMENTAL
STORM WATER MANAGEMENT
STORM WATER BMP INSPECTIONS**

DATE WRITTEN:

March 8, 2005

DATE REVISED:

June 28, 2017; September 18, 2018; November 25, 2019; February 10, 2020

PREPARED BY:

Kyle Quick, Environmental Specialist; June Whitehurst, Environmental Programs Manager

REVIEWED BY:

John M. White, Storm Water Engineer

FILE PATH:

[Enter Link Here](#)

DISTRIBUTION:

Operations Personnel

PURPOSE / OBJECTIVE:

To define guidelines for the inspection and enforcement for the installation and maintenance of all private and city-owned storm water structural best management practices (BMPs). BMPs reduce unwanted contaminants and/or the volume of storm water entering the City MS4 system and local waterways. BMPs are regularly inspected to ensure they are working as designed and maintained in such a manner to not cause flooding, become a nuisance, or impose a threat to health and safety.

RESPONSIBILITIES:

Division – The Department of Public Works, Division of Environmental Storm Water Management is the administrator of the MS4 VPDES Permit, VA0088650. Environmental staff ensures compliance with the VPDES permit associated with BMP inspections to the storm water system. State law requires BMPs to be inspected once every 5-years. The City's MS4 permit requires city-owned BMPs be inspected and maintained once per year.

Environmental Staff develop and maintain a list of BMPs within the geographic boundary of the City of Norfolk. This list is routinely updated following site plan review. Environmental staff conduct routine inspections of both private and public storm water BMPs.

OTHER:

BMPs are used to reduce pollution in and/or volume of storm water runoff, thereby protecting area waterways. Some examples of structural storm water BMPs include infiltration trenches, grass swales, detention basins, retention ponds, oil/grit separators, bioretention basins, manufactured BMPs, etc.

REQUIREMENTS:

1. BMPs are approved for installation after an extensive site plan review by a designated storm water engineer. All pertinent information pertaining to the BMPs are entered into the current BMP tracking database.
2. As part of the site plan approval process, a Declaration of Covenants for Storm and Surface Water Facility and System Maintenance (BMP Maintenance Agreement) should be signed and notarized by the owner or responsible party of the private property being developed to maintain the BMP after construction. That party will remain responsible for all maintenance until the property is sold; at which time the new owner is responsible for maintaining the BMP. A copy of the agreement is filed with the clerk of the court by the owner or responsible party. A copy of the agreement is also maintained in the site plan file at the Division.
3. Storm water management (SWM) facilities or BMPs are required to be installed in accordance with the approved plans, and manufacturers' specifications where applicable. The City of Norfolk Planning Department, Building Safety Bureau will inspect the installation of onsite stormwater piping and structures. The Department of Public Works, Environmental Storm Water Management



**DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENVIRONMENTAL
STORM WATER MANAGEMENT
STORM WATER BMP INSPECTIONS**

staff will inspect the installation of BMPs. Additionally, they also inspect stormwater piping and structures within the City Right-of-Way and piping that ties into the City's MS4 system. During construction, environmental staff will have completed the following procedures:

- a. A pre-construction meeting will be scheduled to go over expectations. Pre-construction meetings will be documented.
 - b. Follow up inspections with the contractor will occur throughout the construction process to verify that the BMPs are installed in accordance with the approved plans. These inspections should take place before any backfilling occurs and should include pictures for documentation. If there is a tie-in to the city system, a storm water inspector will inspect the tie-in.
 - c. A construction record drawing ("As-built" submission) signed and sealed by a professional registered in Virginia will be reviewed by a storm water engineer or their designee to verify the SWM facilities have been installed per the approved plan.
 - d. A final inspection will be performed by the environmental staff to ensure that the BMP and contributing drainage areas are stabilized. The inspector will also ensure that the site is free of excessive litter or debris, sediment build up, or erosion, and no deviations from the approved construction record drawing.
 - e. Upon approval of the construction record drawing and the final inspection, the environmental staff will approve the release of the Certificate of Occupancy (if required) and approval to terminate bonds for stormwater improvements.
4. All privately-owned and city-owned BMP inspections are tracked in the current BMP tracking database. The database enables the Division to maintain inspection data and to ensure inspections are completed on a routine schedule.
 5. When an inspection is conducted, the following items are checked to ensure that the BMP will consistently perform its water quality improvement and/or runoff reduction functions.
 - a. *Sediment Buildup:* Sediment buildup can reduce the effectiveness of the BMP by blocking inlets and outlets, reducing infiltration rates, and reducing effectiveness of pretreatment practices.
 - b. *Erosion:* Erosion can lead to reduced volume of the BMP and/or structural failure. Erosion is a common problem around inlets and outlets of BMPs, and may also be caused by roots of woody vegetation and animal burrows.
 - c. *Debris and Litter Removal:* Regular removal of litter and debris is essential to ensure the BMP is working properly. The BMP must be free from debris and litter in or around the BMP structure.
 - d. *Vegetation:* Vegetation must be established and maintained to guard against erosion and sediment buildup, and to maintain designed pollutant removal rates where applicable. Excessive vegetation clippings must be removed from the BMP and disposed of properly.
 - e. *Deviation from the Construction Record Drawing:* Verify a property owner, tenant, or other responsible party has not modified a post-construction BMP without written approval from the City of Norfolk Department of Public Works storm water engineer, or their designee.

**DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENVIRONMENTAL
STORM WATER MANAGEMENT
STORM WATER BMP INSPECTIONS**

- f. *Manufactured BMPs:* The owner or responsible party are required to maintain manufactured BMPs in accordance with the manufacturer's specifications, and to provide evidence of continued maintenance by copies of maintenance records and/or photographic proof.
- g. *Other Maintenance Concerns:* Refer to the Virginia Department of Environmental Quality Stormwater Design Specifications for other BMP maintenance concerns.
6. The environmental staff will complete an inspection report and track inspections in the current BMP tracking database. The responsible party will either be sent an email or a letter that lists the BMP maintenance discrepancies and includes a copy of the inspection report, if necessary. The responsible party will have a specified time-period to complete the maintenance after the report has been sent. A re-inspection will occur after the allotted time-period to ensure all corrections have been made. If the inspector has had no contact from the property owner, if letters have been returned, or if the discrepancies have not been addressed a Notice of Violation (NOV) may be sent or issued. If no progress occurs after the NOV has been issued, further legal actions should be taken. The City also holds the right to conduct the corrections after proper warning, and then charge the responsible party for any financial obligations. If the BMP is working properly and does not appear to have any maintenance discrepancies, a note will be made in the file and no report will be sent to the responsible party.
7. Routine maintenance for any City-owned BMP is conducted by the Division which is submitted in a service request and put into the work management tracking system. The City-owned BMPs must also follow all the guidelines established above.
8. The Norfolk Public Schools BMPs are inspected by the environmental staff, however, the school board facilities manager is the main point of contact for any discrepancies regarding BMP maintenance at school facilities. The school board is responsible for maintaining the BMPs and if major work is required beyond the capabilities of facilities personnel, then they will hire a contractor.

Approved:



John M. White
Storm Water Engineer
Public Works, Division of Environmental Storm Water Management

SWMF Inspections/Reinspections - FY2020

Site	SWMF ID	Inspection Notes	Inspection Date	Follow-up Action Required	DCR Classification	Number of Reinspections	Last Reinspection Date	On
Crossroads Elementary Rebuild	NPS22.1	Permeable pavement- well maintained, ok.	7/9/2019	No	Permeable Pavement 1	0		Sdf
Crossroads Elementary Rebuild	NPS22.2	Rainwater harvesting in oversized RCP along northside of school, along bus lane between Tidewater Dr. and Old Ocean View Road-ok.	7/9/2019	No	Rainwater Harvesting	0		Sdf
Sentara Parking Garage Expansion	07-0042.1	Grass swales are not very pronounced, but well maintained-ok.	7/10/2019	No	Grassed Swale	0		Prf
Sentara Parking Garage Expansion	07-0042.2	Grass swales are not very pronounced, but well maintained-ok.	7/10/2019	No	Grassed Swale	0		Prf
Sentara Parking Garage Expansion	07-0042.3	Grass swales are not very pronounced, but well maintained-ok.	7/10/2019	No	Grassed Swale	0		Prf
Duplex Lot Y	08-0090.1	Bioretention Basin-ok.	7/10/2019	No	Bioretention Basins	0		Prf
Duplex Lot X	08-0091.1	Bioretention Basin-ok.	7/10/2019	No	Bioretention Basins	0		Prf
Duplex Lot X	08-0091.2	Bioretention Basin-ok.	7/10/2019	No	Bioretention Basins	0		Prf
Turbo Wash Dry Cleaners	T755.1	Ok.	7/10/2019	No	General Infiltration Practices	0		Prf
Abyssinia Baptist Church Parking Lot	T245.1	Curb cuts have little sediment accumulation, heavy rain event within the last 24 hours, ponding is present near parking lot from rain event but appears to be draining-ok.	7/12/2019	No	General Infiltration Practices	0		Prf
Heritage Bank & Trust	T457.1	Infiltration basin beside building-ok.	7/12/2019	No	General Infiltration Practices	0		Prf
Heritage Bank & Trust	T457.2	Infiltration basin in parking lot along Colley Ave.-ok.	7/12/2019	No	General Infiltration Practices	0		Prf
Lamberts Point Community Center	08-0008.1	Watch for erosion from roof drains, ok.	7/15/2019	No	Bioretention Basins	0		Pul
Mount Hermon Baptist Church Parking Addition	09-0058.1	Remove accumulated sediment/debris from drop inlet.	7/15/2019	Yes	Extended Detention Basin	1	9/16/2019	Prf
Mount Hermon Baptist Church Parking Addition	09-0058.2	Remove debris (concrete) from basin. Remove debris and accumulated sediment from drop inlet in basin.	7/15/2019	Yes	Detention Basin	1	9/16/2019	Prf
Mount Hermon Baptist Church Parking Addition	09-0058.3	Ok.	7/15/2019	No	Detention Basin	0		Prf
Ray and Joan Kroc Center	11-0065.1	Ok.	7/15/2019	No	Retention Basin	0		Prf
Ray and Joan Kroc Center	11-0065.2	Pervious concrete-ok.	7/15/2019	No	General Infiltration Practices	0		Prf
Lamberts Point Pond	S38.1	Phragmites is overgrown and needs to be cut back. Per Justin Shafer, we do not need a permit to cut this, service request submitted for Hanson.	7/15/2019	Yes	Retention Basin	1		Pul
ODU University Village	S39.1	Please address erosion that is still present on the bank of the East side pond (located near the "Brock Common's sign").	7/15/2019	Yes	Retention Basin	1	10/18/2019	Pul
Lambert's Point Rec Center Parking Addition	S57.1	Pervious pavers- very little sediment accumulation, ok.	7/15/2019	No	General Infiltration Practices	0		Pul
Cullifer Construction Company	T282.1	Underground infiltration basin-Ok.	7/15/2019	No	General Infiltration Practices	0		Prf
Bazemore's	T705.1	Please maintain the Vortechnics unit per manufacturer's specifications, and provide a copy of the maintenance records.	7/15/2019	Yes	Manufactured BMP Systems	2	9/26/2019	Prf
Village Point Senior Housing	00-4322.3	Underground infiltration trench-less than 1/2 of accumulated sediment, ok.	7/16/2019	No	General Infiltration Practices	0		Prf
Village Point Senior Housing	00-4322.1	Underground infiltration trench-less than 1/2 of accumulated sediment, ok.	7/16/2019	No	General Infiltration Practices	0		Prf
Village Garden Senior Housing	08-0056.1	Drop inlets in parking lot along 39th Street are holding water. Please vector out drop inlets to remove accumulated sediment and water.	7/16/2019	Yes	General Infiltration Practices	1		Prf
Village Garden Senior Housing	08-0056.2	Please vector out drop inlets to remove accumulated sediment and water.	7/16/2019	Yes	General Infiltration Practices	1		Prf
Village Garden Senior Housing	08-0056.3	Drop inlets in parking lot along 39th Street are holding water. Please vector out drop inlets to remove accumulated sediment and water.	7/16/2019	Yes	General Infiltration Practices	1	9/23/2019	Prf
Village Garden Senior Housing	08-0056.4	Drop inlets in parking lot along 39th Street are holding water. Please vector out drop inlets to remove accumulated sediment and water.	7/16/2019	Yes	General Infiltration Practices	1		Prf
Killam Avenue Eatery	12-0016.1	Infiltration trench beside driveway-ok.	7/16/2019	No	General Infiltration Practices	0		Prf
Balance Builders	12-0033.1	Bioretention basin-ok.	7/16/2019	No	Bioretention Basins	0		Prf
Walter H. Taylor Elementary School	NPS07.1	Weep holes in the curb need to be cleaned out. Remove accumulated sediment from on top of the drop inlet.	7/16/2019	Yes	General Infiltration Practices	1	9/10/2019	Sdf
Walter H. Taylor Elementary School	NPS07.2	Weep holes in the curb need to be cleaned out. Remove accumulated sediment from on top of the drop inlet.	7/16/2019	Yes	General Infiltration Practices	1	9/10/2019	Sdf
Walter H. Taylor Elementary School	NPS07.3	Weep holes in the curb need to be cleaned out. Remove accumulated sediment from on top of the drop inlet.	7/16/2019	Yes	General Infiltration Practices	1	9/10/2019	Sdf
Consolidated McKann Ave Facility	S36.1	Oil Water Separator at the Sweeping Bay. Maintenance occurred 6/5/2019 (tracked by Casey for the SWPPP).	7/16/2019	No	Manufactured BMP Systems	0		Pul
Filterra	S60.1	City maintained Filterra. Scheduled for maintenance in October.	7/18/2019	No	Manufactured BMP Systems	0		Pul
Filterra	S61.1	City maintained Filterra. Scheduled for maintenance in October.	7/18/2019	No	Manufactured BMP Systems	0		Pul
Filterra	S62.1	City maintained Filterra. Scheduled for maintenance in October.	7/18/2019	No	Manufactured BMP Systems	0		Pul
Division of Streets & Bridges	S28.1	Ok.	7/22/2019	No	General Infiltration Practices	0		Pul
Rotunda Condominiums	05-0156.1	Please maintain the Filterra units in accordance with the manufacturer's specifications, and provide copies of the maintenance records.	7/29/2019	Yes	Manufactured BMP Systems	1	9/10/2019	Prf
Rotunda Condominiums	05-0156.2	Underground infiltration system-ok.	7/29/2019	No	Extended Detention Basin	0		Prf
Rotunda Condominiums	05-0156.3	Please maintain the Filterra units in accordance with manufacturer's specifications, and provide copies of the maintenance records.	7/29/2019	Yes	Manufactured BMP Systems	1	9/10/2019	Prf
Granby Municipal Building Parking Lot	S20.1	Ok.	7/29/2019	No	General Infiltration Practices	0		Pul
Combined McKann Ave. Facility	S32.1	Retention basin-recently maintained, ok.	7/29/2019	No	Retention Basin	0		Pul
St. Paul's Place Condo	04-0055.1	3 Underground Infiltration Systems-minor amount of sediment accumulation, ok.	7/31/2019	No	General Infiltration Practices	0		Prf
Red Cross Parking Lot	07-0104.1	Please maintain the Filterra units in accordance with the manufacturer's specifications, and provide copies of the maintenance records.	7/31/2019	Yes	Manufactured BMP Systems	1	8/8/2019	Prf
Red Cross Parking Lot	07-0104.2	Please maintain the Contech system in accordance with the manufacturer's specifications, and provide copies of the maintenance records.	7/31/2019	Yes	Manufactured BMP Systems	1		Prf
Red Cross Parking Lot	07-0104.3	Please maintain the Filterra units in accordance with the manufacturer's specifications, and provide copies of the maintenance records.	7/31/2019	Yes	Manufactured BMP Systems	1	8/8/2019	Prf
Fort Norfolk Plaza	08-0038.1	Please maintain the Filterra units in accordance with the manufacturer's specifications, and provide copies of the maintenance records.	7/31/2019	Yes	Manufactured BMP Systems	1		Prf
Fort Norfolk Plaza	08-0038.2	Please maintain the Filterra units in accordance with the manufacturer's specifications, and provide copies of the maintenance records.	7/31/2019	Yes	Manufactured BMP Systems	1		Prf
Fort Norfolk Plaza	08-0038.3	Please maintain the Filterra units in accordance with the manufacturer's specifications, and provide copies of the maintenance records.	7/31/2019	Yes	Manufactured BMP Systems	0		Prf
Fort Norfolk Plaza	08-0038.4	Please maintain the Filterra units in accordance with the manufacturer's specifications, and provide copies of the maintenance records.	7/31/2019	Yes	Manufactured BMP Systems	1		Prf
Tidewater Park Elementary	NPS08.1	Ok.	7/31/2019	No	Detention Basin	0		Sdf
Norfolk Public Health Center	S27.1	Underground Infiltration system-ok.	7/31/2019	No	General Infiltration Practices	0		Pul
Pope Avenue Street Improvements	S34.1	Small amount of sediment present-ok.	7/31/2019	No	Manufactured BMP Systems	0		Pul
McKann Ave Street Expansion	S44.1	Filterra-city maintained BMP. Scheduled for maintenance in October by BMP Crew.	7/31/2019	No	Manufactured BMP Systems	0		Pul
McKann Ave Street Expansion	S44.2	Filterra-city maintained BMP. Scheduled for maintenance in October by BMP Crew.	7/31/2019	No	Manufactured BMP Systems	0		Pul
BP Gas Station	T106.1	Ok.	7/31/2019	No	General Infiltration Practices	0		Prf
New Hope Christian Community Church	T343.1	Ok.	7/31/2019	No	General Infiltration Practices	0		Prf
Duplex	T776.1	Underground Infiltration (drains from roof to Infiltration Trench under landscape)-ok.	7/31/2019	No	General Infiltration Practices	0		Prf
Norfolk Cruise Terminal	05-0060.1	CDS Contech system-unit will be serviced by BMP maintenance crew in August, ok.	8/6/2019	No	Manufactured BMP Systems	0		Pul
Norfolk Cruise Terminal	05-0060.2	CDS Contech system-unit will be serviced by BMP maintenance crew in August, ok.	8/6/2019	No	Manufactured BMP Systems	0		Pul
Forest Lawn Cemetery	S56.1	Infiltration trench-ok. No standing water present.	8/9/2019	No	General Infiltration Practices	0		Pul
Trader Square	04-0136.1	Please maintain the Vortechs unit in accordance with the manufacturer's specifications. (Vortechs Model 3000 located by intersection of Granby and Plume Streets.)	8/12/2019	Yes	Manufactured BMP Systems	1	11/7/2019	Prf
Trader Square	04-0136.2	Please maintain the Vortechs unit in accordance with the manufacturer's specifications. (Vortechs Model 3000 located along City Hall Ave.)	8/12/2019	Yes	Manufactured BMP Systems	1	11/7/2019	Prf
HRT Bus Maint. Facility	09-0029.1	Ok, well maintained and vegetated.	8/12/2019	No	Bioretention Basins	0		Prf
HRT Bus Maint. Facility	09-0029.2	Ok, well maintained and vegetated.	8/12/2019	No	Bioretention Basins	0		Prf
HRT Bus Maint. Facility	09-0029.3	Please replace cap over observation well.	8/12/2019	Yes	Bioretention Basins	2	10/29/2019	Prf
HRT Bus Maint. Facility	09-0029.4	Ok, well vegetated.	8/12/2019	No	Bioretention Basins	0		Prf
HRT Bus Maint. Facility	09-0029.5	Ok, well vegetated.	8/12/2019	No	Bioretention Basins	0		Prf
HRT Bus Maint. Facility	09-0029.6	Ok, well vegetated.	8/12/2019	No	Bioretention Basins	0		Prf
Wells Fargo	09-0039.1	Please maintain the Vortex unit in accordance with the manufacturer's specifications, and please provide a copy of the maintenance log. (Vortex Model 3000 in Loading and Compactor area along Charlotte Street. Treats drainage from Building A, which is ow	8/12/2019	Yes	Manufactured BMP Systems	1		Prf
Wells Fargo	09-0039.2	Please maintain the Vortex unit in accordance with the manufacturer's specifications, and please provide a copy of the maintenance log. Vortex Model 2000 in Monticello Station Apartments	8/12/2019	Yes	Manufactured BMP Systems	1		Prf
Wells Fargo	09-0039.3	Please maintain the Vortex unit in accordance with the manufacturer's specifications, and please provide a copy of the maintenance log. Vortex Model 3000 in walkway between retail shops along Monticello Ave. Treats drainage from Building B which is owne	8/12/2019	Yes	Manufactured BMP Systems	1		Prf
Wells Fargo	09-0039.4	ok, scheduled for Annual Maintenance August 2019. Vortex unit in Public Garage Entrance along Freemason Street. (Maintained by Norfolk Public Works).	8/12/2019	No	Manufactured BMP Systems	0		Prf
Wells Fargo	09-0039.5	Please maintain the Vortex unit in accordance with the manufacturer's specifications, and please provide a copy of the maintenance log. (Vortex Model 1000 in Public Garage exit along Freemason Street. Treats drainage from Building C which is owned by SI	8/12/2019	Yes	Manufactured BMP Systems	1		Prf
Chrysler Museum Expansion and Renovation	11-0057.1	Please maintain the Filterra units in accordance with the manufacturer's specifications, and provide copies of the maintenance records.	8/12/2019	Yes	Manufactured BMP Systems	1		Prf
Plume Ln. Parking Garage	S35.1	Ok, scheduled for annual maintenance August 2019.	8/12/2019	No	Manufactured BMP Systems	0		Pul
RiverStar Homes Bioretention	S69	Bioretention basin-well vegetated, ok.	8/12/2019	No	Bioretention Basins	0		Pul
Nauticus	S29.1	Ok-underground retention system with baffles. Scheduled for annual maintenance August 2019.	8/13/2019	No	Manufactured BMP Systems	0		Pul
Mixed Use Building	12-0082.1	Please maintain the Filterra unit in accordance with the manufacturer's specifications, and provide a copy of the maintenance record.	8/27/2019	Yes	Manufactured BMP Systems	2	10/2/2019	Prf
Boush Street Garage	S40.1	City owned BMP, scheduled for maintenance by BMP maintenance crew August 2019.	8/27/2019	No	Manufactured BMP Systems	0		Pul
Baynew Estates Subdivision	00-4449.1	Complaint driven inspection-please remove vegetation that is blocking 6" PVC on outlet control structure. Please remove any accumulated sediment or debris from outlet.	9/3/2019	Yes	Detention Basin	1		Prf
Norfolk Commerce Pond #2	S10.1	Ok-well maintained.	9/10/2019	No	Retention Basin	0		Prf
Norfolk Commerce Pond #3	S11.1	Ok-well maintained.	9/10/2019	No	Detention Basin	0		Pul
Norfolk Commerce Pond #1	S9.1	Ok-well maintained.	9/10/2019	No	Retention Basin	0		Prf
Robin Hood Road Parking Lot	T223.1	Ok-well maintained.	9/10/2019	No	Detention Basin	0		Prf

SWMF Inspections/Reinspections - FY2020

Site	SWMF ID	Inspection Notes	Inspection Date	Follow-up Action Required	DCR Classification	Number of Reinspections	Last Reinspection Date	O
Duplex Dudley Avenue - Lot "F"	T56.1	Ok-swales are not very distinguishable, area is not holding water after recent rain event	9/10/2019	No	General Infiltration Practices	0		Pri
Palmetto St Drainage Improvement	11-0071.1	Cut grass surrounding basin, and remove overgrown brush that is blocking inlet/outlet.	9/12/2019	No	Detention Basin	0		Pul
Covan Building Addition	T251.1	Please remove trash and debris from detention basin. Please remove accumulated trash from inside of the drop inlet.	9/12/2019	Yes	Detention Basin	1	11/12/2019	Pri
Department of Homeland Security Building	T284.1	Ok- well maintained.	9/12/2019	No	Detention Basin	0		Pri
Navy Federal Credit Union	T261.1	Ok-well maintained.	9/12/2019	No	Detention Basin	0		Pri
United Way	T598.1	Ok- watch erosion on the banks near the roof drains in future inspections.	9/12/2019	No	Detention Basin	0		Pri
Duplex	T612.1	Ok.	9/12/2019	No	General Infiltration Practices	0		Pri
Almeda Business Center	T744.1	ok	9/12/2019	No	Grassed Swale	0		Pri
Norview Middle School	NPS01.1	Please remove trash and debris from detention basin. It appears that the banks of the detention basin were used for post storm debris storage, please remove large pile of tree limbs and properly dispose of tree limbs in a lawful manner.	9/17/2019	Yes	Extended Detention Basin	1	10/29/2019	Scf
Norview Middle School	NPS01.3	Ok	9/17/2019	No	Extended Detention Basin	0		Scf
Sherwood Forest Elementary	NPS10.1	Ok-inlets are clear of sediment and debris and site is well vegetated.	9/17/2019	No	General Infiltration Practices	0		Scf
Norview High School	NPS11.1	Ok-keep an eye on sediment accumulation at east end of the pond near the RCP.	9/17/2019	No	Retention Basin	0		Scf
Sherwood Forest Elementary School	NPS15.1	Please remove accumulated sediment and debris from on top of the drop inlet in detention basin.	9/17/2019	Yes	Detention Basin	1		Scf
Coleman Place Elementary School	NPS17.1	Ok-water levels elevated due to recent rain events.	9/17/2019	No	Retention Basin	0		Scf
Norview Community Center	S48.1	Remove accumulated sediment and debris from on top of drop inlets and in swale.	9/17/2019	Yes	Bioretention Basins	1	10/2/2019	Pul
Norview Community Center	S48.2	Ok-minor sediment accumulation.	9/17/2019	No	General Infiltration Practices	0		Pul
2nd Patrol Division	S53.1	Pervious pavers-depression on north side of parking lot near drop inlet. Submitting to have stormwater line tv'd to verify no damage to stormwater pipe.	9/17/2019	Yes	General Infiltration Practices	1		Pul
Capitol Group Mail Center	08-0086.1	Ok-fully vegetated, watch for overgrowth.	9/19/2019	No	Detention Basin	0		Pri
Filipino Christian Church	12-0014	Ok-monitor erosion in middle of basin bottom in future inspections.	9/19/2019	No	Detention Basin	0		Pri
R.E. Michel Building Addition	12-0030.1	Please address erosion on bank near rip rap inlet to detention basin.	9/19/2019	Yes	Extended Detention Basin	1		Pri
Oaks at Elmhurst	14-0070.1	Per previous inspection reports, retention basin was not installed. Approval given to fill in pond and purchased credit on 7/21/2017.	9/19/2019	No	Other SWMF	0		Pri
Oaks at Elmhurst	14-0070.2	Grass swale in well maintained.	9/19/2019	No	Grassed Swale	0		Pri
Herbert St Subdivision	Infiltration Basins	Ok-Grass channel (infiltration basins) behind the 4 houses at 3202,3206,3210 & 3214 Herbert Street.	9/19/2019	No	Grass Channel	0		Pri
Zoo-Animal Wellness Center	S66.1	Please address erosion by inlet in detention basin. Detention basin along west side of the building with curb-cut inlets from paver parking area.	9/20/2019	Yes	Detention Basin	1		Pul
Zoo-Animal Wellness Center	S66.2	Ok- Detention basin-BMP # 2, detention basin along west side of building, up next to building.	9/20/2019	No	Detention Basin	0		Pul
Zoo-Animal Wellness Center	S66.3	Ok- Detention basin along south side of building, BMP # 3	9/20/2019	No	Detention Basin	0		Pul
Zoo-Animal Wellness Center	S66.4	Ok- BMP#4, detention basin along east side of building within the Zoo gates, beside the play area- detention basin was previously converted to a decorative pond and is no longer serving as a stormwater detention basin. Per previous inspection reports	9/20/2019	No	Detention Basin	0		Pul
Virginia Zoological Park, Phase I	T473.1	Ok-3-Chambered Manufactured Sand Filter- chambers had less than 1/2 inch of sediment.	9/20/2019	No	General Intermittent Sand Filter Practices	0		Pul
Filterra	S58.1	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	9/23/2019	No	Manufactured BMP Systems	0		Pul
Filterra	S58.2	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	9/23/2019	No	Manufactured BMP Systems	0		Pul
Filterra	S59.1	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	9/23/2019	No	Manufactured BMP Systems	0		Pul
Filterra	S60.1	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	9/23/2019	No	Manufactured BMP Systems	0		Pul
Filterra	S61.1	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	9/23/2019	No	Manufactured BMP Systems	0		Pul
Filterra	S62.1	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	9/23/2019	No	Manufactured BMP Systems	0		Pul
2nd Patrol Division	S53.2	Ok	9/25/2019	No	Extended Detention Basin	0		Pul
Shorewood Shores Phase II	06-0044.1	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	9/26/2019	No	Manufactured BMP Systems	0		Pri
Shorewood Shores Phase II	06-0044.2	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	9/26/2019	No	Manufactured BMP Systems	0		Pri
Shorewood Shores Phase II	06-0044.3	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	9/26/2019	No	Manufactured BMP Systems	0		Pri
Shorewood Shores Phase II	06-0044.4	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	9/26/2019	No	Manufactured BMP Systems	0		Pri
Shorewood Shores Phase II	06-0044.5	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	9/26/2019	No	Manufactured BMP Systems	0		Pri
Shorewood Shores Phase II	06-0044.6	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	9/26/2019	No	Manufactured BMP Systems	0		Pri
Bus Transfer Station	13-0085.1	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	9/26/2019	No	Manufactured BMP Systems	0		Pul
Bus Transfer Station	13-0085.3	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	9/26/2019	No	Manufactured BMP Systems	0		Pul
Fairmount Park Phase 13B	15-0010.1	Filterra at 2965 Verdun Ave needs tree replacement.	9/26/2019	No	Manufactured BMP Systems	0		Pul
Fairmount Park Phase 13B	15-0010.2	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	9/26/2019	No	Manufactured BMP Systems	0		Pul
Fairmount Park Phase 13B	15-0010.3	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	9/26/2019	No	Manufactured BMP Systems	0		Pul
Fairmount Park Phase 13B	15-0010.4	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	9/26/2019	No	Manufactured BMP Systems	0		Pul
Lowery Road Pedestrian Improvements	15-0028.1	Tree's need to be replaced.	9/26/2019	No	Manufactured BMP Systems	0		Pul
Lowery Road Pedestrian Improvements	15-0028.2	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	9/26/2019	No	Manufactured BMP Systems	0		Pul
Shorewood Shores Phase I	S41.1	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	9/26/2019	No	Manufactured BMP Systems	0		Pri
Shorewood Shores Phase I	S41.2	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	9/26/2019	No	Manufactured BMP Systems	0		Pul
Shorewood Shores Phase I	S41.3	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	9/26/2019	No	Manufactured BMP Systems	0		Pul
Shorewood Shores Phase I	S41.4	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	9/26/2019	No	Manufactured BMP Systems	0		Pul
Shorewood Shores Phase I	S41.5	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	9/26/2019	No	Manufactured BMP Systems	0		Pul
McKann Ave Street Expansion	S44.1	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	9/26/2019	No	Manufactured BMP Systems	0		Pul
McKann Ave Street Expansion	S44.2	Filterra directly in front of 2521 McKann Ave has 2 trees that need to be replaced.	9/26/2019	No	Manufactured BMP Systems	0		Pul
MacArthur Mall Museum Expansion	S64.1	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	9/26/2019	No	Manufactured BMP Systems	0		Pri
MacArthur Mall Museum Expansion	S64.1	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	9/26/2019	No	Manufactured BMP Systems	0		Pri
Norfolk Multi-Modal Transportation Center	S67.1	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	9/26/2019	No	Manufactured BMP Systems	0		Pul
Cape Henry Filterra	SCHF-1	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	9/26/2019	No	Manufactured BMP Systems	0		Pul
Stormwater Pump Station 12	S70.1	City maintained BMP- Serviced by BMP Maintenance crew on 8/2019.	10/2/2019	No	Manufactured BMP Systems	0		Pul
Lamberts Point 26th St. Improvements	09-0072.1	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	10/3/2019	No	Manufactured BMP Systems	0		Pul
Premium Outlets Boulevard	15-0043.1	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	10/3/2019	No	Manufactured BMP Systems	0		Pul
Premium Outlets Boulevard	15-0043.2	Inspection of tree for possible replacement this winter, tree does not need to be replaced. Filterra scheduled for maintenance in October.	10/3/2019	No	Manufactured BMP Systems	0		Pul
Retail / Offices	08-0009.1	Concrete trenches/underground infiltration-ok, some standing water present, but rain event during inspection.	10/8/2019	No	General Infiltration Practices	0		Pri
Retail / Offices	08-0009.2	Concrete trenches/underground infiltration-ok, some standing water present, but rain event during inspection.	10/8/2019	No	General Infiltration Practices	0		Pri
Retail / Offices	08-0009.3	Concrete trenches/underground infiltration-ok, some standing water present, but rain event during inspection.	10/8/2019	No	General Infiltration Practices	0		Pri
Lot 27 8025 Ransom Road	08-0060.1	4 bioretention basins+ pervious pavers-ok, well maintained.	10/8/2019	No	Bioretention Basins	0		Pri
Lot 28 8023 Ransom Road	08-0062.1	4 bioretention basins-ok.	10/8/2019	No	Bioretention Basins	0		Pri
Lot 24 8037 Ransom Road	08-0063.1	4 bioretention basins and pervious pavers-ok.	10/8/2019	No	Bioretention Basins	0		Pri
Blair Middle School	NPS12.1	Underground infiltration Trenches beneath soccer field, small amount of sediment accumulation.	10/8/2019	No	General Infiltration Practices	0		Scf
Blair Middle School	NPS12.2	Detention basin with concrete steps at the Western side of the soccer fields.	10/8/2019	No	Detention Basin	0		Scf
Dairy Queen/Zero Subs	T367.1	Underground infiltration area by outside dining area-Ok. Some leaf litter present in the DL.	10/8/2019	No	General Infiltration Practices	0		Pri
Dairy Queen/Zero Subs	T367.2	Trench drain in parking lot connected to underground infiltration-ok.	10/8/2019	No	General Infiltration Practices	0		Pri
R/T Body Shop Addition	10-0075.1	Please clear accumulated sediment and leaf debris from drop inlet within detention basin.	10/11/2019	Yes	Detention Basin	1		Pri
821 W 26TH ST - Industrial Storage Building	12-0006	Ok- shallow infiltration basin with swales.	10/11/2019	No	General Infiltration Practices	0		Pri
Dollar General	12-0074.1	Please cut back overgrown vegetation.	10/11/2019	Yes	Bioretention Basins	1		Pri
Dollar General	12-0074.2	Please maintain the Filterra in accordance with the manufacturer's specifications, and provide a copy of the maintenance record.	10/11/2019	Yes	Manufactured BMP Systems	1		Pri
Ghent Station	13-0091.1	1 Filterra- Please maintain the Filterra unit in accordance with the manufacturer's specifications, and provide a copy of the maintenance records.	10/11/2019	Yes	Manufactured BMP Systems	1		Pri
Contel Cellular Tower	T170.1	Ok, well maintained.	10/11/2019	No	Grassed Swale	0		Pri
Manteo Street and West Princess Road Townhouses	T370.1	Infiltration practice beneath deck-Ok. Roof drains in place that direct roof drainage to BMP, and concrete driveway between garages sloped to drain water to infiltration practice beneath deck.	10/11/2019	No	General Infiltration Practices	0		Pri
Doctor's Office	T430.1	Ok	10/11/2019	No	General Infiltration Practices	0		Pri
Thermcor, Inc.	08-0081.1	Ok-grassed swale located at the southeast corner of property, inspected during rain event and no ponding occurring.	10/16/2019	No	Grassed Swale	0		Pri
Parking Lot	08-0103.1	Underground infiltration- ok, inspected during rain event. Minor amount of sediment.	10/16/2019	No	General Infiltration Practices	0		Pri
Parking Lot	08-0103.2	Underground infiltration- ok, inspected during rain event. Minor amount of sediment.	10/16/2019	No	General Infiltration Practices	0		Pri
Parking Lot	08-0103.3	Underground infiltration- ok, inspected during rain event. Minor amount of sediment.	10/16/2019	No	General Infiltration Practices	0		Pri
Norfolk Machine & Welding	11-0045.1	Ok-inspected during rain event, not holding water.	10/16/2019	No	General Infiltration Practices	0		Pri
Duplex	04-0056.1	Pervious pavers, swale-ok, monitor sediment at the end of the driveway for accumulation.	10/17/2019	No	General Infiltration Practices	0		Pri

SWMF Inspections/Reinspections - FY2020

Site	SWMF ID	Inspection Notes	Inspection Date	Follow-up Action Required	DCR Classification	Number of Reinspections	Last Reinspection Date	On
WaWa Food Market	05-0040.1	Remove invasive species (cattails) along the banks of the retention basin that are blocking inlet. Remove trash and debris that is along the banks.	10/17/2019	Yes	Retention Basin	1		Pri
WaWa Food Market	05-0040.1	Remove invasive species (cattails) along the banks of the retention basin that are blocking inlet. Remove trash and debris that is along the banks.	10/17/2019	Yes	Retention Basin	1		Pri
Ruby Tuesday	05-0093.1	Please maintain Contech Stormfilter BMP per the manufacturer's specifications, and provide a copy of the maintenance record.	10/17/2019	Yes	Manufactured BMP Systems	1	12/9/2019	Pri
OSAGE	09-0031.1	Ok-monitor sediment and debris accumulation.	10/17/2019	No	Grassed Swale	0		Pri
LIDL Grocery Store	15-0054.1	Remove invasive species (cattails) from extended detention basin.	10/17/2019	Yes	Extended Detention Pond 1	1	3/4/2020	Pri
9533 7th Bay Street	91-0070.008.1	Ok, well vegetated.	10/17/2019	No	General Infiltration Practices	0		Pri
U-Haul	99-4220.1	Infiltration swale-ok.	10/17/2019	No	General Infiltration Practices	0		Pri
Lake Whitehurst Harvesting Facility	S19.1	Detention basin-ok, removed accumulated debris from blocking storm drain.	10/17/2019	No	Retention Basin	0		Pul
Rite Aid	T136.1	Please remove trash and debris from on top of drop inlet in detention basin, remove accumulated sediment from curb cut inlet in parking lot that is allowing for water to pond in parking lot.	10/17/2019	Yes	Retention Basin	1		Pri
Baywalk Townhouses	04-0132.1	Ok-some amount of sediment accumulation present.	10/19/2019	No	General Infiltration Practices	0		Pri
Baywalk Townhouses	04-0133.2	Ok-some amount of sediment accumulation present.	10/29/2019	No	General Infiltration Practices	0		Pri
Tarrant Elementary Parking Lot	NPS19.1	Grassed Swale-well maintained, ok.	10/29/2019	No	Grassed Swale	0		Scl
Little Creek Elementary Parking Lot	NPS20.1	Grass swale/detention basin-ok, well maintained.	10/29/2019	No	Grassed Swale	0		Scl
Fire Station	S31.1	Ok-Well vegetated.	10/30/2019	No	Grassed Swale	0		Pul
Bay Oaks Place Extension NRHA	T212.1	Paved Flume & DI's small amount of sediment accumulation to watch, ok.	10/30/2019	No	General Infiltration Practices	0		Pul
First Pentecostal Church-Building and Parking Lot	T250.1	Ok-well vegetated.	10/30/2019	No	General Infiltration Practices	0		Pri
First Pentecostal Church-Building and Parking Lot	T250.2	Ok-well vegetated.	10/30/2019	No	General Infiltration Practices	0		Pri
First Pentecostal Church-Building and Parking Lot	T250.3	Ok-well vegetated.	10/30/2019	No	General Infiltration Practices	0		Pri
First Pentecostal Church-Building and Parking Lot	T250.4	Ok-well vegetated.	10/30/2019	No	General Infiltration Practices	0		Pri
Bay Oaks Place (NRHA)	T58.1	Underground Infiltration-(DIs and Catch Basins along Bay Oaks Place), ok.	10/30/2019	No	General Infiltration Practices	0		Pul
Sunset Shores	03-0009.1	Please maintain the manufactured BMP (Stormceptor) in accordance with the manufacturer's specifications, and provide a copy of the maintenance record.	10/31/2019	Yes	Manufactured BMP Systems	1		Pri
Duplex	03-0309.1	Ok-some leaf litter present, but no standing water.	10/31/2019	No	General Infiltration Practices	0		Pri
Condo	03-0322.1	Please maintain the Stormfilter BMPs in accordance with the manufacturer's specifications, and provide a copy of the maintenance record.	10/31/2019	No	Manufactured BMP Systems	0		Pri
Condo	03-0322.2	Please maintain the Stormfilter BMPs in accordance with the manufacturer's specifications, and provide a copy of the maintenance record.	10/31/2019	No	Manufactured BMP Systems	0		Pri
Condo	03-0322.3	Please maintain the Stormfilter BMPs in accordance with the manufacturer's specifications, and provide a copy of the maintenance record.	10/31/2019	No	Manufactured BMP Systems	0		Pri
Condo	03-0322.4	Please maintain the Stormfilter BMPs in accordance with the manufacturer's specifications, and provide a copy of the maintenance record.	10/31/2019	No	Manufactured BMP Systems	0		Pri
Condo	03-0322.5	Please maintain the Stormfilter BMPs in accordance with the manufacturer's specifications, and provide a copy of the maintenance record.	10/31/2019	No	Manufactured BMP Systems	0		Pri
Condo	03-0322.6	Ok-well vegetated.	10/31/2019	No	Grassed Swale	0		Pri
Condo	03-0322.7	Ok.	10/31/2019	No	General Infiltration Practices	0		Pri
Duplex	03-0322.8	Ok.	10/31/2019	No	General Infiltration Practices	0		Pri
Duplex	04-0019.1	Infiltration trenches-ok, along sides of house.	10/31/2019	No	General Infiltration Practices	0		Pri
Duplex	04-0019.2	Infiltration trenches-ok, along sides of house.	10/31/2019	No	General Infiltration Practices	0		Pri
Duplex - Residential houses	05-0100.1	Ok-infiltration area is dry, not holding water.	10/31/2019	No	General Infiltration Practices	0		Pri
Duplex - Residential houses	05-0100.2	Ok-infiltration area is dry, not holding water.	10/31/2019	No	General Infiltration Practices	0		Pri
Berkeley Basketball Court	09-0015.1	Ok-well vegetated.	10/31/2019	No	General Infiltration Practices	0		Pul
First Baptist Church of Berkley Expansion	09-0027.1	Ok-some erosion along the banks, monitor.	10/31/2019	No	Bioretention Basins	0		Pri
First Baptist Church of Berkley Expansion	09-0027.2	Ok-some erosion along the banks, monitor.	10/31/2019	No	Bioretention Basins	0		Pri
Bay Oaks Place	T509.1	Ok.	10/31/2019	No	General Infiltration Practices	0		Pul
Lumber Liquidators	09-0002.1	Please maintain the Filterra units in accordance with the manufacturer's specifications, and provide copies of the maintenance logs.	11/6/2019	Yes	Manufactured BMP Systems	1	11/19/2019	Pri
Lumber Liquidators	09-0002.2	Please maintain the Filterra units in accordance with the manufacturer's specifications, and provide copies of the maintenance logs.	11/6/2019	No	Manufactured BMP Systems	0		Pri
Metro Machine Corporation Parking Lot Addition	13-0065.1	Modular Wetlands System- Please maintain the Modular Wetlands System in accordance with the manufacturer's specifications, and provide a copy of the maintenance records.	11/6/2019	Yes	Manufactured BMP Systems	1	11/15/2019	Pri
EA's Daycare	14-0026.1	Permeable pavement 2 - ok. No standing water or heavy sediment accumulation.	11/6/2019	No	Permeable Pavement 2	0		Pri
Campestella Elementary	14-0073.1	Retention basin-please remove accumulated trash/debris from banks of basin.	11/6/2019	Yes	Retention Basin	1	11/12/2019	Scl
St. Paul's Apartments	16-0098.1	CO approved 4-2-2019, Ok.	11/6/2019	No	Permeable Pavement 1	0		Pri
St. Paul's Apartments	16-0098.2	CO approved 4-2-2019, Ok.	11/6/2019	No	Permeable Pavement 1	0		Pri
St. Paul's Apartments	16-0098.3	CO approved 4-2-2019, Ok.	11/6/2019	No	Infiltration 1	0		Pri
St. Paul's Apartments	16-0098.3	CO approved 4-2-2019, Ok.	11/6/2019	No	Infiltration 1	0		Pri
Winn Nursery	T330.1	Detention basin-ok. Appears to have been recently maintained.	11/6/2019	No	Retention Basin	0		Pri
Condo	T349.1	Ok, well maintained.	11/6/2019	No	General Infiltration Practices	0		Pri
Burning Bush Worship Center	T364.1	Infiltration basin- ok. No standing water, small amount of vegetation in corner of basin.	11/6/2019	No	General Infiltration Practices	0		Pri
Walmart @ Military Hwy	02-0174.1	Please provide maintenance records for the Vortex units on site.	11/7/2019	Yes	Manufactured BMP Systems	1	11/7/2019	Pri
Walmart @ Military Hwy	02-0174.2	Please provide maintenance records for the Vortex units on site.	11/7/2019	Yes	Manufactured BMP Systems	1	11/7/2019	Pri
Jack's Towing	01-0010.1	Grass swale-ok.	11/12/2019	No	Grassed Swale	0		Pri
Spring Hill Suites Marriott	01-0188.1	Please remove overgrown vegetation from extended detention basin. Inlet and outlet are unable to be seen due to overgrowth of vegetation.	11/12/2019	Yes	Extended Detention Basin	1	11/21/2019	Pri
St. Mary's Home for Disabled Children	01-0203.1	Ok-monitor phragmites and woody vegetation along banks, aerators working properly.	11/12/2019	No	Retention Basin	0		Pri
Amelia Building at Koger at Center	T591.1	Retention basin-in trash present, well vegetated and outlet is clear.	11/12/2019	No	Retention Basin	0		Pri
Shorewood Cove Apartments	00-4329.1	Ok-DI's holding some standing water, but rain event less than 72 hours prior.	11/13/2019	No	General Infiltration Practices	0		Pri
Quarles Petroleum, Inc.	01-0009.1	Please remove accumulated sediment and vegetation from around the inlet and outlet.	11/13/2019	Yes	Extended Detention Basin	1	12/3/2019	Pri
Quarles Petroleum, Inc.	01-0009.2	Please maintain the Oil-Water Separator per manufacturer's specifications, and provide a maintenance log.	11/13/2019	Yes	Manufactured BMP Systems	1	12/3/2019	Pri
Fuel Express at Farm Fresh	02-0001.1	Ok-some standing water in the drop inlet, but rain event occurred less than 72 hours prior.	11/13/2019	No	Bioretention Basins	0		Pri
Iron Mountain Management Inc.	01-0003.1	Retention basin-ok. Monitor vegetation growth in basin.	11/14/2019	No	Retention Basin	0		Pri
AllSafe Self Storage	03-101.1	Please remove accumulated sediment/debris from on top of drop inlet in basin.	11/14/2019	Yes	Extended Detention Basin	1	12/5/2019	Pri
AllSafe Self Storage	03-101.2	Ok.	11/14/2019	No	Extended Detention Basin	0		Pri
Agent Wall Systems	04-0031.1	Please remove materials from on top of the infiltration practice.	11/14/2019	Yes	General Infiltration Practices	1		Pri
Nash Warehouse	05-0165.1	Please maintain the Bay Saver Vault Systems in accordance with the manufacturer's specifications, and provide copies of the maintenance logs. Met with Mr. Harmon on site and discussed maintenance.	11/14/2019	Yes	Manufactured BMP Systems	1		Pri
Nash Warehouse	05-0165.2	Please maintain the Bay Saver Vault Systems in accordance with the manufacturer's specifications, and provide copies of the maintenance logs. Met with Mr. Harmon on site and discussed maintenance.	11/14/2019	Yes	Manufactured BMP Systems	1		Pri
Marine Hydraulics Incorporated	06-0135.1	Retention basin-ok,met on site with Gary Small and discussed detention basin and discussed maintenance. Vegetation growth around inlet in detention basin that will be cut back.	11/14/2019	No	Extended Detention Basin	0		Pri
Marine Hydraulics Incorporated	06-0135.2	Vortechnics-Met on site with Gary Small and discussed maintenance. BMP is due to be serviced before the end of 2019, and Mr. Small will send over the maintenance records then.	11/14/2019	Yes	Manufactured BMP Systems	1	12/16/2019	Pri
Building Addition at Circle South	07-0127.1	Please maintain Filterra's in accordance with the manufacturer's specifications, and provide a copy of the maintenance log.	11/14/2019	Yes	Manufactured BMP Systems	1	12/17/2019	Pri
Building Addition at Circle South	07-0127.2	Please maintain Filterra's in accordance with the manufacturer's specifications, and provide a copy of the maintenance log.	11/14/2019	Yes	Manufactured BMP Systems	1	12/17/2019	Pri
Building Addition at Circle South	07-0127.3	Underground detention-ok.	11/14/2019	No	Manufactured BMP Systems	0		Pri
Wash Land	02-0305.1	Extended detention basin-ok.	11/18/2019	No	Extended Detention Basin	0		Pri
Green Gifford / Wells Fargo Bank commercial center	03-0015.1	Please remove sediment accumulation and vegetation from blocking the inlet and outlet. Please remove woody vegetation growth from the banks of the basin.	11/18/2019	Yes	Retention Basin	1		Pri
Vanguard Warehouse	03-0028.1	Retention basin-ok.	11/18/2019	No	Retention Basin	0		Pri
RSG Roofing Supply	03-0033.1	Remove trash and debris from banks of extended detention basin.	11/18/2019	Yes	Extended Detention Basin	1		Pri
Arby's Restaurant	03-0041.1	Bioretention basin-ok.	11/18/2019	No	Bioretention Basins	0		Pri
Riverside Corporate Center Parcel	03-160.1	Retention basin-ok, some cat tall growth near inlet.	11/18/2019	No	Retention Basin	0		Pri
Colonial Chevrolet	04-0018.1	Please maintain the Baysaver per manufacturer's specifications, and please provide a copy of the maintenance records.	11/18/2019	Yes	Manufactured BMP Systems	1		Pri
The Kempsville Center	04-0341.1	Please remove accumulated sediment along lattice work leading to the dry pond. Dry Pond-under deck for resident safety.	11/19/2019	Yes	Retention Basin	1		Pri
Grand Furniture	10-0052.1	Please remove trash from drop inlet, and install a grate on top of inlet. Please remove accumulated trash and debris from banks of retention basin.	11/19/2019	Yes	Retention Basin	1		Pri
Grand Furniture	10-0052.1	Please remove trash from drop inlet, and install a grate on top of inlet. Please remove accumulated trash and debris from banks of retention basin.	11/19/2019	Yes	Retention Basin	1		Pri
Autobell Carwash	11-0019.1	Pervious asphalt- Per the design of the porous asphalt BMP, vacuum sweeping of the porous asphalt should be performed 1-2 times per year. Please provide verification that this maintenance task is being performed.	11/19/2019	Yes	General Infiltration Practices	1	12/16/2019	Pri
Autobell Carwash	11-0019.2	Stormceptor- Please maintain the hydrodynamic separator in accordance with the manufacturer's specifications, and provide a copy of the maintenance record.	11/19/2019	Yes	Manufactured BMP Systems	1	12/16/2019	Pri
Office Warehouse Complex	02-0170.1	Ok	11/20/2019	No	Bioretention Basins	0		Pri
Valley Self Storage	13-0010.1	Please remove overgrown vegetation that is blocking inlet.	11/20/2019	Yes	Retention Basin	1		Pri

SWMF Inspections/Reinspections - FY2020

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USAA Parking Garage	13-0017.1	Please maintain the Filterra unit per the manufacturer's specifications, and provide a copy of the maintenance log.	11/20/2019	Yes	Manufactured BMP Systems	1	12/6/2019	Pri
USAA Parking Garage	13-0017.2	Please maintain the Filterra unit per the manufacturer's specifications, and provide a copy of the maintenance log.	11/20/2019	Yes	Manufactured BMP Systems	1	12/6/2019	Pri
USAA Parking Garage	13-0017.3	Please maintain the Filterra unit per the manufacturer's specifications, and provide a copy of the maintenance log.	11/20/2019	Yes	Manufactured BMP Systems	1	12/6/2019	Pri
USAA Parking Garage	13-0017.4	Please maintain the Filterra unit per the manufacturer's specifications, and provide a copy of the maintenance log.	11/20/2019	Yes	Manufactured BMP Systems	1	12/6/2019	Pri
USAA Parking Garage	13-0017.4	Please maintain the Filterra unit per the manufacturer's specifications, and provide a copy of the maintenance log.	11/20/2019	Yes	Manufactured BMP Systems	1	12/6/2019	Pri
USAA Parking Garage	13-0017.5	Please maintain the Filterra unit per the manufacturer's specifications, and provide a copy of the maintenance log.	11/20/2019	Yes	Manufactured BMP Systems	1	12/6/2019	Pri
VA Dermatology and Skin Cancer Center	14-0029.1	13x7 Filterra installed- Please maintain the Filterra unit in accordance with the manufacturer's specifications, and provide a copy of the maintenance record.	11/20/2019	Yes	Manufactured BMP Systems	1		Pri
Taco Bell	14-0086.1	Ok.	11/20/2019	No	Rooftop (Impervious Surface) Disconnection	0		Pri
JANAF Wawa	16-0010.1	Contech Jellyfish- Please maintain the Contech jellyfish per manufacturer's specifications, and please provide a copy of the maintenance record.	11/20/2019	Yes	Manufactured BMP Systems	1		Pri
JANAF Wawa	16-0010.2	Underground Detention System-Please maintain the Underground Detention System per the manufacturer's specifications, and please provide a copy of the maintenance records.	11/20/2019	Yes	Manufactured BMP Systems	1		Pri
JANAF Wawa	16-0010.3	Oil-water separator- Please maintain the oil-water separator per the manufacturer's specifications and provide a copy of the maintenance records.	11/20/2019	Yes	Other SWMF	1		Pri
Chartway Federal Credit Union	16-0035.1	Stormtech Underground Infiltration System-Please maintain the Underground Infiltration System per the manufacturer's specifications, and please provide a copy of the maintenance log.	11/20/2019	Yes	Infiltration 1	1		Pri
Chartway Federal Credit Union	16-0035.2	Stormtech Underground Infiltration System-Please maintain the Underground Infiltration System per the manufacturer's specifications, and please provide a copy of the maintenance log.	11/20/2019	Yes	Infiltration 2	1		Pri
Azalea Super Service	92067.087.1	Ok.	11/20/2019	No	General Infiltration Practices	0		Pri
Subaru Showroom & Service Center	03-149.1	Please maintain the Stormtreat System in accordance with the manufacturer's specifications, and provide copies of the maintenance records.	11/21/2019	Yes	Manufactured BMP Systems	1		Pri
Colonnas Shipyards Super Building Phase I	04-0002.1	Underground Infiltration System-Ok. Vacated out regularly per Chris Williamson.	11/21/2019	No	General Infiltration Practices	0		Pri
Colonnas Shipyards Super Building Phase 3	12-0034.1	Underground Infiltration Pipes connected to DL-ok. Some standing water, cleaned out regularly per Chris Williamson.	11/21/2019	No	General Infiltration Practices	0		Pri
Bauer Compressors Expansion	12-0085.1	Filterra-Please maintain the Filterra unit in accordance with the manufacturer's specifications, and provide a copy of the maintenance record.	11/21/2019	Yes	Manufactured BMP Systems	1		Pri
Bauer Compressors Expansion	12-0085.2	Contech Stormfilter-Please maintain the Contech Stormfilter in accordance with the manufacturer's specifications, and provide a copy of the maintenance record.	11/21/2019	Yes	Manufactured BMP Systems	1		Pri
Bauer Compressors Expansion	12-0085.3	Underground detention system-Please maintain the Underground Detention System in accordance with the manufacturer's specifications, and provide a copy of the maintenance record.	11/21/2019	Yes	Manufactured BMP Systems	1		Pri
Telecommunications Tower	03-0317.1	Ok.	11/22/2019	No	Grassed Swale	0		Pri
Bracco Supply Corporation Parking Lot Addition	04-0127.1	Ok.	11/22/2019	No	Extended Detention Basin	0		Pri
Walgreens	05-0085.1	Remove overgrowth of cat tails in basin. Remove accumulated sediment and vegetation from blocking inlet.	11/22/2019	Yes	Detention Basin	1		Pri
Calvary Revival Church Addition	05-0146.1	Please maintain the Filterra units in accordance with the manufacturer's specifications, and please provide a copy of the maintenance records. Please remove accumulated sediment and debris from the inlet into the Filterra unit.	11/22/2019	Yes	Manufactured BMP Systems	1		Pri
Calvary Revival Church Addition	05-0146.2	Please maintain the Filterra units in accordance with the manufacturer's specifications, and please provide a copy of the maintenance records. Please remove accumulated sediment and debris from the inlet into the Filterra unit.	11/22/2019	Yes	Manufactured BMP Systems	1		Pri
Calvary Revival Church Addition	05-0146.3	Please maintain the Filterra units in accordance with the manufacturer's specifications, and please provide a copy of the maintenance records. Please remove accumulated sediment and debris from the inlet into the Filterra unit.	11/22/2019	Yes	Manufactured BMP Systems	1		Pri
Calvary Revival Church Addition	05-0146.4	Please remove trash and debris from retention basin, and properly dispose of all collected material. Remove accumulated sediment and leaf debris from blocking inlet/outlet.	11/22/2019	Yes	Retention Basin	1		Pri
Calvary Revival Church Addition	05-0146.5	Please clear accumulated sediment from curb cut inlets in parking lot that lead to infiltration trench.	11/22/2019	Yes	General Infiltration Practices	1		Pri
Lake Wright Executive Center	98-3611.1	Ok.	11/22/2019	No	Retention Basin	0		Pri
Lake Wright Executive Center	98-3611.2	Ok.	11/22/2019	No	Retention Basin	0		Pri
Lake Wright Executive Center	98-3611.3	Ok.	11/22/2019	No	Retention Basin	0		Pri
Warehouse	T146.1	Grassed swale-ok, well maintained.	11/22/2019	No	Grassed Swale	0		Pri
Single Family Condominium	T596.1	Bioretention basins-ok.	11/22/2019	No	Bioretention Basins	0		Pri
Watford at Lake Taylor	03-0313.1	Detention basin-Ok, keep an eye on growth of cat tails on eastern side of basin.	12/2/2019	No	Detention Basin	0		Pri
New Life Worship Center	04-0058.1	Infiltration basin between parking lot and Briar Hill Road-ok. Holding water, per previous inspection reports this basin has always held water. Appears to be well maintained.	12/2/2019	No	General Infiltration Practices	0		Pri
New Life Worship Center	04-0058.2	Infiltration basin behind church-Please remove overgrown vegetation from basin sides and bottom.	12/2/2019	Yes	General Infiltration Practices	1		Pri
New Life Worship Center	04-0058.3	Ok.	12/2/2019	No	Grassed Swale	0		Pri
Fox Hall Place	09-0071.1	Pervious Pavers-ok.	12/2/2019	No	General Infiltration Practices	0		Pri
Heco Slings Corporation Building Addition	HECO.1	Detention basin-ok, some standing water but significant rain event within 24 hours prior.	12/2/2019	No	Detention Basin	0		Pri
Magnolia Cove Regional BMP	MAGBMP.1	Ok.	12/2/2019	No	Detention Basin	0		Pri
Silver Lake/Duck Pond	S14.1	Ok.	12/2/2019	No	Retention Basin	0		Pul
Meadow Lake	S15.1	Ok.	12/2/2019	No	Retention Basin	0		Pul
Lake Scott	S8.1	Service request placed for storm drains to be vacated out.	12/2/2019	No	Retention Basin	0		Pul
BJ's Wholesale Warehouse	T121.1	Retention basin-ok, well maintained.	12/2/2019	No	Retention Basin	0		Pri
Davidta Dialysis Center	T122.1	Ok.	12/2/2019	No	General Infiltration Practices	0		Pri
1st View St. - 3 SFR	17-0028.1		12/3/2019	No	Rooftop (Impervious Surface) Disconnection	0		Pri
1st View St. - 3 SFR	17-0028.2		12/3/2019	No	Rooftop (Impervious Surface) Disconnection	0		Pri
1st View St. - 3 SFR	17-0028.3		12/3/2019	No	Rooftop (Impervious Surface) Disconnection	0		Pri
Wawa at Newtown	18-0008.1		12/3/2019	No	Detention Basin	0		Pri
Wawa at Newtown	18-0008.2		12/3/2019	No	Manufactured BMP Systems	0		Pri
Wawa at Newtown	18-0008.3		12/3/2019	No	Other SWMF	0		Pri
VAMAC	18-0039.1		12/3/2019	No	Dry Swale 2	0		Pri
Sentara Norfolk parking expansion	18-0076.1		12/3/2019	No	Permeable Pavement 2	0		Pri
Sentara Norfolk parking expansion	18-0076.2		12/3/2019	No	Permeable Pavement 2	0		Pri
Sentara Norfolk parking expansion	18-0076.3		12/3/2019	No	Permeable Pavement 1	0		Pri
Sentara Norfolk parking expansion	18-0076.4		12/3/2019	No	Permeable Pavement 1	0		Pri
Sentara Norfolk parking expansion	18-0076.5		12/3/2019	No	Permeable Pavement 1	0		Pri
1050 N Military HWY-Aldi	18-0092.1		12/3/2019	No	Other SWMF	0		Pri
Eaton Office Park Phase III	07-0123.1	Please remove overgrown vegetation from basin.	12/4/2019	No	Detention Basin	0		Pri
Lake Taylor Hospital additions	09-0033.1	Ok-well maintained.	12/4/2019	No	Retention Basin	0		Pri
Lake Taylor Hospital additions	09-0033.2	Ok-well maintained.	12/4/2019	No	Detention Basin	0		Pri
Bobbit Mid-Rise Site Improvements	12-0029.1	Pervious pavers-Ok-monitor staining on parking spaces.	12/4/2019	No	General Infiltration Practices	0		Pri
Faith Wesleyan Church	99-4033.1	Ok-well maintained.	12/4/2019	No	Retention Basin	0		Pri
Windstream	99-4087.1	Ok.	12/4/2019	No	Retention Basin	0		Pri
Lowes'	99-4237.1	Ok.	12/4/2019	No	Retention Basin	0		Pri
Inglewood Elementary School Gymnasium	NPS23.1	Ok-small amount of leaf litter present.	12/4/2019	No	Detention Basin	0		Pul
Pepsi Bottling Group	03-0087.1	Retention basin-Met with Samantha Santos on site, BMP is maintained regularly. Small amount of algae locate don the western side of basin, but per Ms. Santos it does not take over the pond-ok.	12/5/2019	No	Retention Basin	0		Pri
Janaf Shopping Center	05-0181.1	Ok.	12/5/2019	No	General Infiltration Practices	0		Pri
Janaf Shopping Center	05-0181.2	Ok-per previous inspection reports not a Stormceptor, but a manhole structure with stone-filled opening in bottom(infiltration BMP as shown on As-Built drawing).	12/5/2019	No	General Infiltration Practices	0		Pri
Commander Corporate Center	06-0040.1	Retention basin-Ok, well maintained.	12/5/2019	No	Retention Basin	0		Pri
Medical Office Building	06-0042.1	Please remove excessive trash in basin and along banks. Please address erosion issues along banks.	12/5/2019	No	Extended Detention Basin	0		Pri
Atlas Masters Company	06-0078.1	Ok-inspected BMP with owner. Discussed routine maintenance.	12/5/2019	No	Retention Basin	0		Pri
Penske Trucking	07-0054.1	Please maintain the Filterra units as specified by the manufacturer, and provide copies of the maintenance logs.	12/5/2019	No	Manufactured BMP Systems	0		Pri
Penske Trucking	07-0054.2	Please maintain the Filterra units as specified by the manufacturer, and provide copies of the maintenance logs.	12/5/2019	No	Manufactured BMP Systems	0		Pri
BJ's Gas Station	15-0018.1	Ok-small amount of erosion, near inlet, monitor.	12/5/2019	No	Bioretention 1	0		Pri
BJ's Gas Station	15-0018.2	Oil-Water Separator- Please maintain the Oil-Water Separator in accordance with the manufacturer's specifications, and provide a copy of the inspection/maintenance log.	12/5/2019	No	Other SWMF	0		Pri
Norfolk Public Schools Transportation Operations	NPS02.1	Ok-appears that the banks has been stabilized with jute/mat at denuded areas.	12/5/2019	No	Detention Basin	0		Sel
Metro Machine Parking Addition	09-0057.1	10 Filterra's-Ok. Received maintenance records from Stevens Maintenance that Filterra's were maintained 12/10/2019.	12/17/2019	No	Manufactured BMP Systems	0		Pri
Metro Machine Parking Addition	09-0057.10	10 Filterra's-Ok. Received maintenance records from Stevens Maintenance that Filterra's were maintained 12/10/2019.	12/17/2019	No	Manufactured BMP Systems	0		Pri
Metro Machine Parking Addition	09-0057.2	10 Filterra's-Ok. Received maintenance records from Stevens Maintenance that Filterra's were maintained 12/10/2019.	12/17/2019	No	Manufactured BMP Systems	0		Pri
Metro Machine Parking Addition	09-0057.3	10 Filterra's-Ok. Received maintenance records from Stevens Maintenance that Filterra's were maintained 12/10/2019.	12/17/2019	No	Manufactured BMP Systems	0		Pri
Metro Machine Parking Addition	09-0057.4	10 Filterra's-Ok. Received maintenance records from Stevens Maintenance that Filterra's were maintained 12/10/2019.	12/17/2019	No	Manufactured BMP Systems	0		Pri
Metro Machine Parking Addition	09-0057.5	10 Filterra's-Ok. Received maintenance records from Stevens Maintenance that Filterra's were maintained 12/10/2019.	12/17/2019	No	Manufactured BMP Systems	0		Pri

SWMF Inspections/Reinspections - FY2020

Site	SWMF ID	Inspection Notes	Inspection Date	Follow-up Action Required	DCR Classification	Number of Reinspections	Last Reinspection Date	On	
Metro Machine Parking Addition	09-0057.6	10 Filterra's-ok. Received maintenance records from Stevens Maintenance that Filterra's were maintained 12/10/2019.	12/17/2019	No	Manufactured BMP Systems	0		Pri	
Metro Machine Parking Addition	09-0057.7	10 Filterra's-ok. Received maintenance records from Stevens Maintenance that Filterra's were maintained 12/10/2019.	12/17/2019	No	Manufactured BMP Systems	0		Pri	
Metro Machine Parking Addition	09-0057.8	10 Filterra's-ok. Received maintenance records from Stevens Maintenance that Filterra's were maintained 12/10/2019.	12/17/2019	No	Manufactured BMP Systems	0		Pri	
Metro Machine Parking Addition	09-0057.9	10 Filterra's-ok. Received maintenance records from Stevens Maintenance that Filterra's were maintained 12/10/2019.	12/17/2019	No	Manufactured BMP Systems	0		Pri	
Sentara Leigh Nursing Tower Replacement	11.0077.8	Southern bioretention basin in front of (west side) of building-ok. Ok-maintenance records received from Stevens Maintenance for work performed 12/9/2019.	12/17/2019	No	Bioretention 2	0		Pri	
Sentara Leigh Nursing Tower Replacement	11.0077.9	Southern bioretention basin in front of (west side) of building Ok-maintenance records received from Stevens Maintenance for work performed 12/9/2019.	12/17/2019	No	Bioretention 2	0		Pri	
Sentara Leigh Nursing Tower Replacement	11.0077.1	Detention basin for back parking lot. Ok-maintenance records received from Stevens Maintenance for work performed 12/9/2019.	12/17/2019	No	Extended Detention Basin	0		Pri	
Sentara Leigh Nursing Tower Replacement	11.0077.10	Northern bioretention basin in front of (west side) hospital-ok. Ok-maintenance records received from Stevens Maintenance for work performed 12/9/2019.	12/17/2019	No	Bioretention 2	0		Pri	
Sentara Leigh Nursing Tower Replacement	11.0077.11	11-0077.1-Northern U/G detention in basin front of (west side) of hospital. 11-0077.12-Southern U/G detention basin in front of (west side) of hospital. 11-0077-U/G detention basin closest to Kempsville Rd. Ok-maintenance records received from Stevens M.	12/17/2019	No	Extended Detention Basin	0		Pri	
Sentara Leigh Nursing Tower Replacement	11.0077.12	11-0077.1-Northern U/G detention in basin front of (west side) of hospital. 11-0077.12-Southern U/G detention basin in front of (west side) of hospital. 11-0077-U/G detention basin closest to Kempsville Rd. Ok-maintenance records received from Stevens M.	12/17/2019	No	Extended Detention Basin	0		Pri	
Sentara Leigh Nursing Tower Replacement	11.0077.2	Filtera on North side of Emergency Room parking lot-ok. Ok-maintenance records received from Stevens Maintenance for work performed 12/9/2019.	12/17/2019	No	Manufactured BMP Systems	0		Pri	
Sentara Leigh Nursing Tower Replacement	11.0077.5	Filtera on North side of Emergency Room parking lot-ok. Ok-maintenance records received from Stevens Maintenance for work performed 12/9/2019.	12/17/2019	No	Manufactured BMP Systems	0		Pri	
Sentara Leigh Nursing Tower Replacement	11.0077.6	Bioretention along southside of building within parking lot. Ok-maintenance records received from Stevens Maintenance for work performed 12/9/2019.	12/17/2019	No	Bioretention 2	0		Pri	
Sentara Leigh Nursing Tower Replacement	11.0077.7	Linear grass swale bioretention along southwest side of building. Ok-maintenance records received from Stevens Maintenance for work performed 12/9/2019.	12/17/2019	No	Bioretention 1	0		Pri	
Avis Rent A Car Expansion	T465.1	Remove accumulated trash and debris from detention basin. Address rills (dug out trenches) in BMP.	3/3/2020	Yes	Detention Basin	1		Pri	
Bruce's Park Pump Station #152	13-0009.1	Ok	5/5/2020	No	Dry Swale 1	0		Pul	
Norchester Pump Station No. 116 Replacement	13-0023.1	Ok-well maintained.	5/5/2020	No	Grassed Swale	0		Pul	
Norchester Pump Station No. 116 Replacement	13-0023.2	Ok-well maintained.	5/5/2020	No	Grassed Swale	0		Pul	
Norchester Pump Station No. 116 Replacement	13-0023.3	Ok-well maintained.	5/5/2020	No	Grassed Swale	0		Pul	
Barraud Park Pump Station #153	14-0002.1	Slightly overgrown vegetation, will put work request in after business resumes to normal due to COVID-19.	5/5/2020	Yes	Dry Swale 1	1		Pul	
Barraud Park Pump Station #153	14-0002.2	Well maintained-ok.	5/5/2020	No	Permeable Pavement 1	0		Pul	
Booker T. Washington Field House	14-0010.1	Ok	5/5/2020	No	Grass Channel	0		Sdf	
Broad Creek Library	16-0057.1	Ok-minimal trash present.	5/5/2020	No	Dry Swale 2	0		Pul	
Broad Creek Library	16-0057.2	Small sink hole located near drop inlet (will send to BMP crew for repair once City is back to full operation after closure for COVID-19).	5/5/2020	No	Bioretention 1	0		Pul	
Broad Creek Library	16-0057.3	Ok	5/5/2020	No	Grassed Swale	0		Pul	
Booker T. Washington High School	NPS03.1	Please maintain Stormceptor BMP in accordance with manufacturer's specifications and provide a copy of the maintenance record. Email sent to Tony Brown and Rex Gay.	5/5/2020	Yes	Manufactured BMP Systems	1		Sdf	
Jacox Elementary School Bus Loop	NPS14.1	Infiltration trench (in front)-ok.	5/5/2020	No	General Infiltration Practices	0		Sdf	
Jacox Elementary School Bus Loop	NPS14.2	Infiltration trench (in front)-ok.	5/5/2020	No	General Infiltration Practices	0		Sdf	
Barraud Park	S-07-0086.1	Well maintained-ok.	5/5/2020	No	General Infiltration Practices	0		Pul	
Lake Liberty, NRHA	S12.1	Ok-minor amount of trash around embankment.	5/5/2020	No	Retention Basin	0		Pul	
Lake Liberty, NRHA	S12.1	Ok-minor amount of trash around embankment.	5/5/2020	No	Retention Basin	0		Pul	
Pump Station 24 Replacement	S54.1	Ok	5/5/2020	No	Grassed Swale	0		Pul	
Grandy Village, Phase 1	01-0222.1	Please provide maintenance records for BMP.	5/13/2020	No	Manufactured BMP Systems	0		Pul	
Grandy Village Roadway	04-0119.1	Ok- Ohio Creek Watershed construction going on nearby to this but it does not appear to be impacting this BMP. Keep monitoring to ensure that this swale does not become disturbed.	5/13/2020	No	Grassed Swale	0		Pul	
American Tie Distributors	07-0039.1	Please remove overgrown vegetation from swale and banks of Retention Basin. Remove accumulated sediment and vegetation from inlet. Please correct erosion in swale that drains to BMP.	5/13/2020	Yes	Retention Basin	1		7/27/2020	Pri
Grandy Village-Phase V Site Improvements	12-0028.1	Ok- monitor vegetation	5/13/2020	No	Extended Detention Basin	0		Pul	
Heco Slings Corporation Building Addition	HECO.1	Please remove overgrown vegetation from bottom and banks of detention basin. Please remove accumulated sediment and leaf debris from drop inlet located in detention basin.	5/13/2020	Yes	Detention Basin	1		7/13/2020	Pri
Chesterfield Elementary Parking Lot	NPS18.1	Ok	5/13/2020	No	General Infiltration Practices	0		Sdf	
Central Brambleton	S30.1	Ok- monitor vegetation near inlet	5/13/2020	No	Retention Basin	0		Pul	
Chesterfield Heights WW Pump Station	S55.1	Ok	5/13/2020	No	Bioretention Basins	0		Pul	
Lake Taylor Field House	14-0009.1	Ok	5/27/2020	No	Grass Channel	0		Sdf	
Lake Taylor Field House	14-0009.2	Ok	5/27/2020	Yes	Rooftop (Impervious Surface) Disconnection	1		Sdf	
Parkdale Channel Improvements	15-0011.1	Ok	5/27/2020	No	Other SWMF	0		Pul	
Popular Hall Trail	16-0049.1	Ok	5/27/2020	No	Other SWMF	0		Pul	
Lake Taylor High School Stadium	NPS04.1	Stormceptors at Lake Taylor and Booker T. Washington football fields - Please maintain Stormceptor in accordance with manufacturer's specifications. Please provide maintenance records.	5/27/2020	Yes	Manufactured BMP Systems	1		Sdf	
Fairlawn Recreation Center Addition	S23.1	Please remove overgrowth of phragmites from basin bottom.	5/27/2020	No	Detention Basin	0		Pul	
Third Police Precinct Parking Lot Addition	S43.1	Please remove cat tails from Infiltration Trench.	5/27/2020	No	Extended Detention Basin	0		Pul	
NPD 2nd Precinct Training Center	S45.1	Please remove cat tails from basin bottom.	5/27/2020	Yes	Retention Basin	1		Pul	
Street Improvements - Ernies Way	S47.1	Ok	5/27/2020	No	Bioretention Basins	0		Pul	
Street Improvements - Ernies Way	S47.2	Ok	5/27/2020	No	Grassed Swale	0		Pul	
Virginia Zoo Exhibit Building Renovation	17-0019.1	Email sent to Mark Schwartz, Maintenance Supervisor. Due to COVID-19 and the Citywide shutdown, we have been unable to access the Zoo. Please provide the maintenance reports for these two BMP's for our files.	6/8/2020	No	Bioretention 1	0		Pul	
Anne Outten Pond	S1.1	Basin was maintained by BMP Maintenance Crew on 1/17/2020.	6/8/2020	No	Retention Basin	0		Pul	
Titusown Recreation Center	S37.1	Maintained by BMP Crew on 7/9/2019	6/8/2020	No	Extended Detention Basin	0		Pul	
Trail of the Tiger Exhibit	S52.1	Email sent to Mark Schwartz, Maintenance Supervisor. Due to COVID-19 and the Citywide shutdown, we have been unable to access the Zoo. Please provide the maintenance reports for these two BMP's for our files. If you have any questions, please do not hesi	6/8/2020	No	Manufactured BMP Systems	0		Pul	
Norfolk Fitness and Wellness Center	T21.1	Maintained by BMP Crew on 8/1/2019	6/8/2020	No	Detention Basin	0		Pul	
Tarrollton Park Improvements	07-0031.1	Ok	6/10/2020	No	General Infiltration Practices	0		Pul	
Parking Lot	11-0032.1	Minor amount of sediment in parking lot inlets, monitor.	6/10/2020	No	General Infiltration Practices	0		Pul	
Greenway Stormwater Park	12-0053.1	Retention basin-inlet/outlet not obstructed. Vegetation surrounding pond is thriving.	6/10/2020	No	Retention Basin	0		Pul	
Forest Lawn Mausoleum	14-0045.1	Detention basin-monitor overgrowth of vegetation in basin bottom.	6/10/2020	No	Detention Basin	0		Pul	
Ocean View Elementary School	14-0085.1	Wet pond- Please remove overgrowth of Cattails and Phragmites from basin sides.	6/10/2020	Yes	Wet Pond 1	1		Sdf	
Carlton Homes LLC ROW Improvements	15-0001.1	Infiltration trench-ok, well maintained.	6/10/2020	No	Infiltration 1	0		Pul	
Carlton Homes LLC ROW Improvements	15-0001.2	Infiltration trench-ok, well maintained.	6/10/2020	No	Infiltration 1	0		Pul	
Carlton Homes LLC ROW Improvements	15-0001.3	Infiltration trench-ok, well maintained.	6/10/2020	No	Infiltration 1	0		Pul	
Lafayette Boulevard Streetscape Improvements	16-0025	Please provide maintenance per manufacturer's specifications. Maintenance request submitted.	6/10/2020	No	Manufactured BMP Systems	0		Pul	
Lake Whitehurst Boat Ramp & Boarding Pier	16-0096.1	Ok	6/10/2020	No	Other SWMF	0		Pul	
Grandy St and Bayview Blvd Intersection Improvements	18-0031.1	Nutrient credit purchase.	6/10/2020	No	Other SWMF	0		Pul	
Central Business Park	99-3931.1	Pond is overgrown with Algae and pond weed. Treated on 6/8/2020 by Soltide for algae growth.	6/10/2020	No	Retention Basin	0		Pul	
Bayview Elementary School Addition / Renovation	NPS06.1	Ok	6/10/2020	No	General Infiltration Practices	0		Sdf	
Beach Maintenance Blvd, NRHA	S161	Roof drains- ok	6/10/2020	No	General Infiltration Practices	0		Pul	
Norfolk Botanical Gardens - Visitors Reception	S18.1	Ok	6/10/2020	No	Retention Basin	0		Pul	
Lake Whitehurst Harvesting Facility	S19.1	Ok	6/10/2020	No	Detention Basin	0		Pul	
Balantine Elementary School Lake	S21	City retrofit- vegetation is growing well on the banks where planted.	6/10/2020	No	Retention Basin	0		Pul	
Norfolk Botanical Gardens Production House	S24.1	Due to COVID-19 and the Citywide shutdown, we have been unable to access Botanical Gardens.	6/10/2020	No	Grassed Swale	0		Pul	
Bayview Recreation Center	S25.1	Ok	6/10/2020	No	General Infiltration Practices	0		Pul	
Pretlow Library	S42.1	Ok-monitor inlets for sediment accumulation.	6/10/2020	No	General Infiltration Practices	0		Pul	
Lake Modoc	S6.1	Ok-well maintained.	6/10/2020	No	Retention Basin	0		Pul	
Sewells Point GC Entrance	S71.1	Ok	6/10/2020	No	Detention Basin	0		Pul	
Sewells Point GC Entrance	S71.2	Ok	6/10/2020	No	Detention Basin	0		Pul	
Slover Library	11-0027.1	Vortechs- Please vector out Vortech's chambers per manufacturer's specifications.	6/12/2020	Yes	Manufactured BMP Systems	1		Pul	
Norfolk Courts Rear Access	16-0105.1	Ok	6/12/2020	No	Infiltration 1	0		Pul	
City Hall North Garage Replacement	18-0056.1	Ok-well maintained, not holding water.	6/12/2020	No	Permeable Pavement 1	0		Pul	

SWMF Inspections/Reinspections - FY2020

Site	SWMF ID	Inspection Notes	Inspection Date	Follow-up Action Required	DCR Classification	Number of Reinspections	Last Reinspection Date	Owner
Cedar Grove Parking Lot	\$33.1	Detention basin- holding water. Please remove trash and limbs that are blocking inlet and outlet. Maintenance request placed.	6/12/2020	Yes	Detention Basin	1		Pul
Bay Oaks Place Extension	01-0026.1	Some sediment/sand present. Please vacut or infiltration trench. Maintenance request placed.	6/16/2020	No	General Infiltration Practices	0		Pul
Southside Aquatic Center	11-0020.1	Please remove overgrown vegetation from blocking inlet. Maintenance request submitted.	6/16/2020	Yes	Detention Basin	1		Pul
Norfolk Premium Outlets	15-0045.1	Ok-no overgrowth of vegetation or algae present at time of inspection.	6/16/2020	No	Retention Basin	0		Prf
Norfolk Premium Outlets	15-0045.2	Ok-no overgrowth of vegetation or algae present at time of inspection.	6/16/2020	No	Retention Basin	0		Prf
Norfolk Premium Outlets	15-0045.3	Ok-no overgrowth of vegetation or algae present at time of inspection.	6/16/2020	No	Retention Basin	0		Prf
Norfolk Premium Outlets	15-0045.4	Ok	6/16/2020	No	Bioretention 2	0		Pul
Harbor Park Picnic Area	16-0065.1	Ok, well maintained 13 x 7 Filterra.	6/16/2020	No	Manufactured BMP Systems	0		Pul
Virginia Paving Co.	99-4218.2	Extended Detention Basin in ROW. Please maintain overgrown vegetation in basin.	6/16/2020	Yes	Detention Basin	1		Pul
Northside Middle School Parking Lot	NPS21.1	Minor amount of sediment/leaf litter-ok.	6/16/2020	No	Bioretention Basins	0		Sdf
Norfolk Juvenile Detention Center	S26.1	Conservation Management area surrounding pond is thriving-ok.	6/16/2020	No	Wet Pond 1	0		Pul
Norfolk Police Department Firearms Range	\$49.1	Infiltration trench-no access to property at time of visit due to COVID-19. Will arrange for reinspection at later date, once City is back to full operating capacity.	6/16/2020	No	General Infiltration Practices	0		Pul
Downtown Pump Station (PS 145)	S51.1	2 chamber Contech Storm Filter-Please maintain in accordance with manufacturer's specifications. Maintenance request placed.	6/16/2020	Yes	Manufactured BMP Systems	1		Pul
Downtown Pump Station (PS 145)	S51.2	No grass swale present. Entire area where grass swale is supposed to be according the 07-0088 plans is paved with concrete.	6/16/2020	No	Grassed Swale	0		Pul
CON Small Brick Building	S65.1	Ok.	6/16/2020	No	General Infiltration Practices	0		Pul
Towing Operations Center	S68.1	Please cut back overgrown vegetation in basin.	6/16/2020	No	Bioretention Basins	0		Pul
Christopher Court	S17.1	Detention basin-overgrown with limbs and debris. Researching best way to go about maintenance.	6/25/2020	No	Detention Basin	0		Pul
Virginia Paving Co.	99-4218.1	Ok-Met with Morgan onsite and walked property. Minor sediment accumulation. Discussed trash maintenance and invasive species monitoring (phragmites and cat tails were present).	6/30/2020	No	Retention Basin	0		Prf
Coleman Place Elementary School	NPS17.1	Erosion on the banks of Retention Basin.	6/30/2020	Yes	Retention Basin	1		Sdf

UPDATED SWMF INFO - FACILITIES BROUGHT ONLINE FY2020

Site Title	Street Number	Street Name	Total Site Area	Total Impervious Area	SWMF ID	Ownership Type	SWMF Type	Contributing Drainage Area	Long	Lat	SWMF Maintenance Agreement	Date Online	HUC	Discharges to MS4?	Impaired Water Segment Discharges to?	Date of Last Inspection
Coastal Villas by the Bay	7922	SHORE DRIVE	1.65	1.18	15-0025.3	Private	Grass Channel	-0.27	-76.19242	36.91891579	Yes	08/15/2019	CB26	Y	Little Creek & Harbor	08/15/2019
Coastal Villas by the Bay	7922	SHORE DRIVE	1.65	1.18	15-0025.1	Private	BiosRetention 2	-0.77	-76.19242	36.91891579	Yes	08/19/2019	CB26	Y	Little Creek & Harbor	08/19/2019
Coastal Villas by the Bay	7922	SHORE DRIVE	1.65	1.18	15-0025.2	Private	Grass Channel	-0.33	-76.19242	36.91891579	Yes	08/15/2019	CB26	Y	Little Creek & Harbor	08/15/2019
4013 Colley Mixed Use	4013	COLLEY AVENUE	0.39	0.25	16-0109.1	Private	Permeable Pavement 1	-0.19	-76.29525	36.88200088	Yes	11/25/2019	JLS5	Y	Knitting Mill Creek	11/25/2019
4012 Colley Mixed Use	4013	COLLEY AVENUE	0.39	0.25	16-0109.2	Private	Other SWMF	-0.39	-76.29525	36.88200088	Yes	11/25/2019	JLS5	Y	Knitting Mill Creek	11/25/2019
1st View St - 3 SFR	9225	1ST VIEW STREET	0.432	0.162	17-0028.1	Private	Rooftop (Impervious Surface) Disconnection	-0.07	-76.26473	36.94782745	Yes	12/10/2019	JLS5	Y	Willoughby Bay (Less Beach Areas)	12/10/2019
1st View St - 3 SFR	9225	1ST VIEW STREET	0.432	0.162	17-0028.2	Private	Rooftop (Impervious Surface) Disconnection	-0.07	-76.26463	36.94788789	Yes	12/10/2019	JLS5	Y	Willoughby Bay (Less Beach Areas)	12/10/2019
1st View St - 3 SFR	9225	1ST VIEW STREET	0.432	0.162	17-0028.3	Private	Rooftop (Impervious Surface) Disconnection	-0.07	-76.26451	36.94795719	Yes	12/10/2019	JLS5	Y	Willoughby Bay (Less Beach Areas)	12/10/2019
Coastal Services	805	FORD DRIVE	1.4	1.23	17-0056.1	Private	Rooftop (Impervious Surface) Disconnection	-0.19	-76.25318	36.83234789	Yes	01/06/2020	JLS4	Y	Steamboat Creek	01/06/2020
3 SFR Columbia Avenue	1636	COLUMBIA AVENUE	0.35	0.155	17-0068.2	Private	Detention Basin	-0.117	-76.26591	36.88166827	Yes	08/15/2019	JLS5	Y	Lafayette River - Upper	08/15/2019
Wawa at Newtown	701	'N NEWTON ROAD	12.58	2.03	18-0008.1	Private	Detention Basin	-0.83	-76.18052	36.8489149	Yes	12/11/2019	JLS4	Y	Unsegmented Estuary in Eastern Branch Elizabeth River	12/11/2019
Wawa at Newtown	701	IN NEWTON ROAD	12.58	2.03	18-0008.2	Private	Manufactured BMP Systems	-0.19	-76.18037	36.84912738	Yes	12/11/2019	JLS4	Y	Unsegmented Estuary in Eastern Branch Elizabeth River	12/11/2019
Wawa at Newtown	701	'N NEWTON ROAD	12.58	2.03	18-0008.3	Private	Other SWMF	-2.58	-76.18063	36.8491202	N/A	12/11/2019	JLS4	Y	Unsegmented Estuary in Eastern Branch Elizabeth River	12/11/2019
1118 EOV Duplex	1718	E OCEAN VIEW AVENUE	0.25	0.11	18-0009.1	Private	BiosRetention 2	-0.1	-76.22665	36.93988509	Yes	10/10/2019	CB26	Y	Ocean View Beaches	10/10/2019
1718 EOV Duplex	1718	E OCEAN VIEW AVENUE	0.23	0.11	18-0009.2	Private	Detention Basin	-0.1	-76.22655	36.93988273	Yes	10/10/2019	CB26	Y	Ocean View Beaches	10/10/2019
1718 EOV Duplex	1718	E OCEAN VIEW AVENUE	0.23	0.11	18-0009.3	Private	Other SWMF	-0.23	-76.22648	36.94007253	N/A	10/10/2019	CB26	Y	Ocean View Beaches	10/10/2019
Priority Ford	3340	'N MILITARY HIGHWAY	5.71	5.2	18-0013.1	Private	Manufactured BMP Systems	-2.58	-76.21688	36.88742892	Yes	06/01/2020	CB26	Y	Lake Whitehurst (PWS)	06/01/2020
941 Hillside Ave Subdivision	941	HILLSIDE AVENUE	0.59	0.27	18-0014.1	Private	BiosRetention 2	-0.14	-76.24181	36.94668646	Yes	09/17/2019	CB26	Y	Chesapeake Bay Beaches	09/17/2019
941 Hillside Ave Subdivision	941	HILLSIDE AVENUE	0.59	0.27	18-0014.2	Private	BiosRetention 2	-0.12	-76.24172	36.94654792	Yes	09/17/2019	CB26	Y	Chesapeake Bay Beaches	09/17/2019
941 Hillside Ave Subdivision	941	HILLSIDE AVENUE	0.59	0.27	18-0014.3	Private	BiosRetention 2	-0.12	-76.24174	36.94653921	Yes	09/17/2019	CB26	Y	Chesapeake Bay Beaches	09/17/2019
941 Hillside Ave Subdivision	941	HILLSIDE AVENUE	0.59	0.27	18-0014.4	Private	BiosRetention 2	-0.14	-76.2418	36.94626207	Yes	09/17/2019	CB26	Y	Chesapeake Bay Beaches	09/17/2019
1101 E Leicester Avenue-3 lot SF subdivision	1101	E LEICESTER AVENUE	0.85	0.18	18-0029.1	Private	Rooftop (Impervious Surface) Disconnection	-0.05	-72.143078	35.10524455	Yes	06/08/2020	CB26	Y	Willoughby Bay (Less Beach Areas)	06/08/2020
1101 E Leicester Avenue-3 lot SF subdivision	1101	E LEICESTER AVENUE	0.85	0.18	18-0029.2	Private	Rooftop (Impervious Surface) Disconnection	-0.05	-72.143078	35.10524465	Yes	06/08/2020	CB26	Y	Willoughby Bay (Less Beach Areas)	06/08/2020
1101 E Leicester Avenue-3 lot SF subdivision	1101	E LEICESTER AVENUE	0.85	0.18	18-0029.3	Private	Rooftop (Impervious Surface) Disconnection	-0.05	-72.143045	35.1052744	Yes	06/08/2020	CB26	Y	Willoughby Bay (Less Beach Areas)	06/08/2020
1101 E Leicester Avenue-3 lot SF subdivision	1101	E LEICESTER AVENUE	0.85	0.18	18-0029.4	Private	Rooftop (Impervious Surface) Disconnection	-0.05	-72.143009	35.10516.89	Yes	06/08/2020	CB26	Y	Willoughby Bay (Less Beach Areas)	06/08/2020
1101 E Leicester Avenue-3 lot SF subdivision	1101	E LEICESTER AVENUE	0.85	0.18	18-0029.5	Private	Rooftop (Impervious Surface) Disconnection	-0.05	-72.142997	35.10520.43	Yes	06/08/2020	CB26	Y	Willoughby Bay (Less Beach Areas)	06/08/2020
1101 E Leicester Avenue-3 lot SF subdivision	1101	E LEICESTER AVENUE	0.85	0.18	18-0029.6	Private	Rooftop (Impervious Surface) Disconnection	-0.05	-72.142950	35.10517.98	Yes	06/08/2020	CB26	Y	Willoughby Bay (Less Beach Areas)	06/08/2020
VAMAC	5846	CURLFEE DRIVE	10.65	3.38	18-0039.1	Private	Dry Swale 2	-0.33	-76.20473	36.8420021	Yes	12/11/2019	JLS5	Y	Unsegmented Estuary in Eastern Branch Elizabeth River	12/11/2019
Sentara Norfolk parking expansion	4551	GRESHAM DRIVE	24.98	0.51	18-0076.1	Private	Permeable Pavement 2	-0	-72.125167	34.80688477	Yes	12/09/2019	JLS5	Y	Elizabeth River Main Stem - Middle	12/09/2019
Sentara Norfolk parking expansion	4550	GRESHAM DRIVE	24.98	0.51	18-0076.2	Private	Permeable Pavement 2	-0	-72.125230	34.80654816	Yes	12/09/2019	JLS5	Y	Elizabeth River Main Stem - Middle	12/09/2019
Sentara Norfolk parking expansion	4550	GRESHAM DRIVE	24.98	0.51	18-0076.3	Private	Permeable Pavement 1	-0.01	-72.125173	34.80640661	Yes	12/09/2019	JLS5	Y	Elizabeth River Main Stem - Middle	12/09/2019
Sentara Norfolk parking expansion	4550	GRESHAM DRIVE	24.98	0.51	18-0076.4	Private	Permeable Pavement 1	-0.02	-72.125173	34.80640661	Yes	12/09/2019	JLS5	Y	Elizabeth River Main Stem - Middle	12/09/2019
Sentara Norfolk parking expansion	4550	GRESHAM DRIVE	24.98	0.51	18-0076.5	Private	Permeable Pavement 1	-0.03	-72.125173	34.80640661	Yes	12/09/2019	JLS5	Y	Elizabeth River Main Stem - Middle	12/09/2019
Sentara Norfolk parking expansion	4550	GRESHAM DRIVE	24.98	0.51	18-0076.6	Private	Permeable Pavement 2	-0.11	-76.30414	36.8621	Yes	12/03/2019	JLS5	Y	Elizabeth River Main Stem - Middle	12/03/2019
Sentara Norfolk parking expansion	4550	GRESHAM DRIVE	24.98	0.51	18-0076.7	Private	Permeable Pavement 2	-0.32	-76.30414	36.8621	Yes	12/03/2019	JLS5	Y	Elizabeth River Main Stem - Middle	12/03/2019
5764 E Virginia Beach Blvd-Discount Tire	5764	E VIRGINIA BEACH BOULEVARD	1.08	0.83	18-0080.1	Private	Wet Pond 1	-0.08	-76.12551	36.5122.22	Yes	06/09/2020	JLS4	Y	Broad Creek, Eastern Branch Elizabeth River	06/09/2020
5764 E Virginia Beach Blvd-Discount Tire	5764	E VIRGINIA BEACH BOULEVARD	1.08	0.83	18-0080.2	Private	Other SWMF	-0	-76.12567	36.5121.47	Yes	06/09/2020	JLS4	Y	Broad Creek, Eastern Branch Elizabeth River	06/09/2020
Villa Marina Apartments	3842	SHORE DRIVE	3.76	2.63	18-0085.1	Private	Permeable Pavement 1	-0.57	-76.19125	36.92287471	Yes	06/01/2020	CB26	Y	Little Creek & Harbor	06/01/2020
Villa Marina Apartments	3842	SHORE DRIVE	3.76	2.63	18-0085.2	Private	Permeable Pavement 1	-0.16	-76.19125	36.92244343	Yes	06/01/2020	CB26	Y	Little Creek & Harbor	06/01/2020
Villa Marina Apartments	3842	SHORE DRIVE	3.76	2.63	18-0085.3	Private	Manufactured BMP Systems	-0.26	-76.19131	36.92284317	Yes	06/01/2020	CB26	Y	Little Creek & Harbor	06/01/2020
1050 N Military HWY-Aldi	1050	'N MILITARY HIGHWAY	2.25	1.66	18-0092.1	Private	Other SWMF	-1.1	-76.1234	36.513	Yes	12/16/2019	JLS5	Y	Broad Creek, Eastern Branch Elizabeth River	12/16/2019
Christ & St Luke's Episcopal Church-Outdoor Improvements	560	W OLNEY ROAD	0.52	0.26	18-0095.2	Private	Other SWMF	-0	-76.17517	36.513635	Yes	11/22/2019	JLS4	Y	Elizabeth River Main Stem - Upper	11/22/2019
4535 E Princess Anne Road-Tidewater Tech parking expansion	4535	E PRINCESS ANNE ROAD	13.36	2.86	18-0104.1	Private	Manufactured BMP Systems	-1.03	-76.14064	36.5156.5	Yes	10/15/2019	JLS4	Y	Broad Creek, Eastern Branch Elizabeth River	10/15/2019
4535 E Princess Anne Road-Tidewater Tech parking expansion	4535	E PRINCESS ANNE ROAD	13.36	2.86	18-0104.2	Private	Manufactured BMP Systems	-0	-76.14064	36.5156.5	Yes	10/15/2019	JLS4	Y	Broad Creek, Eastern Branch Elizabeth River	10/15/2019
300 Bowdens Ferry Road-IP Configuration	300	BOWDEN'S FERRY ROAD	2.21	1.72	19-0071.2	Private	Other SWMF	-0	-76.30441	36.87575	Yes	11/09/2019	JLS5	Y	Elizabeth River Main Stem - Middle	11/09/2019
West 36th Street Apartments	1045	38TH STREET	2.21	1.72	19-0071.2	Private	Other SWMF	-0	-72.12629	34.70869.38	Yes	09/03/2020	JLS4	Y	Lafayette River - Upper	09/03/2020
Hermitage Living Shoreline	7637	NORTH SHORE ROAD	1.11	0	17-0063.1	Public	Shoreline Management	-1.11	-76.31368	36.911676	N/A	7/2/2019	JLS5	Y	Lafayette River - Lower	07/2/2019
North Shore Road Living Shoreline	7612	NORTH SHORE ROAD	1.04	0	17-0023.1	Public	Shoreline Management	-1.04	-76.31089	36.913477	N/A	7/2/2019	JLS5	Y	Lafayette River - Lower	07/2/2019
Central Business Park Pond Retrofit	910	DENISON Ave	3.34	0	16-0047.1	Public	Wet Pond 2	-19.6	-76.25097	36.908594	N/A	11/14/2019	JLS5	Y	Lafayette River - Upper	11/14/2019
Roberts Road Pond Retrofit	1398	Roberts Rd	25.79	0	16-0055.1	Public	Wet Pond 2	-57.6	-76.2584	36.858567	N/A	11/14/2019	JLS5	Y	Lafayette River - Upper	11/14/2019
Lake Taylor Retrofit	1380	Kempville Road	143	0	17-0004.1	Public	Wet Pond 2	-1465.9	-76.20235	36.867875	N/A	6/19/2020	JLS4	Y	Broad Creek, Eastern Branch Elizabeth River	6/19/2020
Villa Circle Living Shoreline	2618	Villa Circle	1.55	0	16-0099.1	Public	Shoreline Management	-1.55	-76.27384	36.873853	N/A	5/1/2020	JLS5	Y	Lafayette River - Upper	05/1/2020
Ingleside Road Ditch Retrofit	1925	Ingleside Road	10.8	10.008	18-0101.1	Public	Other SWMF	-1.1	-76.23657	36.849354	N/A	6/1/2020	JLS4	Y	Unsegmented Estuary in Eastern Branch Elizabeth River	06/1/2020

UPDATED SWMF INFO - FACILITIES BROUGHT ONLINE FY19

Site Title	Street Number	Street Name	Total Site Area	Total Impervious Area	SWMF ID	Ownership Type	SWMF Type	Contributing Drainage Area	Long	Lat	SWMF Maintenance Agreement	Date Online	HUC	Discharges to MS4?	Impaired Water Segment Discharges to?	Date of Last Inspection
Gethsemane Community Fellowship Baptist Church Bldg Addition	1317	26 BRAMBLETON AVENUE	0.27	0.177	12-0064-1	Private	Constructed Stormwater Wetland	0.27	-76.2727	36.84693359	Yes	07/09/2018	JLS4	Y	Eastern Branch Elizabeth R - Lower	7/9/2018
Woodlawn Memorial Gardens	16309	E VIRGINIA BEACH BOULEVARD	0.73	0.47	15-0038.3	Private	Bioretention 1	1.11	-76.1834	36.84958622	Yes	10/29/2018	JLS4	Y	Unsegmented estuaries in EBEMH	10/29/2018
Woodlawn Memorial Gardens	16309	E VIRGINIA BEACH BOULEVARD	0.73	0.47	15-0038.4	Private	Bioretention 1	1.32	-76.1825	36.84978655	Yes	10/29/2018	JLS4	Y	Unsegmented estuaries in EBEMH	10/29/2018
Woodlawn Memorial Gardens	16309	E VIRGINIA BEACH BOULEVARD	0.73	0.47	15-0038.3	Private	Bioretention 1	1.52	-76.1834	36.85140916	Yes	10/29/2018	JLS4	Y	Unsegmented estuaries in EBEMH	10/29/2018
Woodlawn Memorial Gardens	16309	E VIRGINIA BEACH BOULEVARD	0.73	0.47	15-0038.4	Private	Bioretention 1	1.15	-76.1841	36.85082537	Yes	10/29/2018	JLS4	Y	Unsegmented estuaries in EBEMH	10/29/2018
Woodlawn Memorial Gardens	16309	E VIRGINIA BEACH BOULEVARD	0.73	0.47	15-0038.5	Private	Bioretention 1	1.16	-76.1844	36.85157228	Yes	10/29/2018	JLS4	Y	Unsegmented estuaries in EBEMH	10/29/2018
Food Bank Paving Addition	800	TIWATER DRIVE	0.37	0.19	16-0048.1	Private	Bioretention 1	0.15	-76.2739	36.85224276	Yes	07/19/2018	JLS4	Y	Unsegmented estuaries in EBEMH	7/19/2018
14th Bay Street Residential	1547 9553	14th Bay Street	0.373	0.242	16-0037.1	Private	Bioretention Urban	0.12	-76.2022	36.85293607	Yes	04/22/2019	JCB26	Y	Little Creek & Harbor	4/22/2019
14th Bay Street Residential	1547 9553	14th Bay Street	0.373	0.242	16-0037.2	Private	Bioretention Basins	0.03	-76.2022	36.852936254	Yes	04/22/2019	JCB26	Y	Little Creek & Harbor	4/22/2019
14th Bay Street Residential	1547 9553	14th Bay Street	0.373	0.242	16-0037.3	Private	Bioretention Urban	0.03	-76.2022	36.85293827	Yes	04/22/2019	JCB26	Y	Little Creek & Harbor	4/22/2019
14th Bay Street Residential	1547 9553	14th Bay Street	0.373	0.242	16-0037.7	Private	Bioretention Urban	0.03	-76.2022	36.85293827	Yes	04/22/2019	JCB26	Y	Little Creek & Harbor	4/22/2019
14th Bay Street Residential	1547 9553	14th Bay Street	0.373	0.242	16-0037.4	Private	Bioretention Urban	0.09	-76.2023	36.85293857	Yes	04/22/2019	JCB26	Y	Little Creek & Harbor	4/22/2019
ODU Barry Art Museum	11075	43RD STREET	0.97	0.75	16-0094.1	Private	Bioretention 1	0.2	-76.3019	36.88317331	Yes	08/15/2018	JLS4	Y	Lafayette River - Upper	8/15/2018
ODU Barry Art Museum	11075	43RD STREET	0.97	0.75	16-0094.2	Private	Bioretention 1	0.44	-76.3018	36.88284721	Yes	08/15/2018	JLS4	Y	Lafayette River - Upper	8/15/2018
Virginia Zoo Exhibit Building Renovation	3500	GRANBY STREET	0.24	0.1	17-0019.1	Public	Bioretention 1	0.19	-76.2755	36.87649099	Yes	02/04/2019	JLS4	Y	Lafayette River - Upper	2/4/2019
Sunshine Villas	11218	SW OCEAN VIEW AVENUE	0.334	0.3	17-0016.1	Private	Bioretention Basins	0.03	-76.2852	36.86038387	Yes	11/02/2018	JCB26	Y	10th View Beach	11/2/2018
Arts Apartments	1123	SW VIRGINIA BEACH BOULEVARD	0.674	0.56	16-0052.1	Private	Detention Basin	0.2015	-76.2881	36.85715967	Yes	04/15/2019	JLS4	Y	Elizabeth Branch Mainstem - Upper	4/5/2019
IKEA	60000	INORTHAMPTON BOULEVARD	18.871	15.41	17-0004.2	Private	Infiltration 2	5.22	-76.2019	36.87536368	Yes	04/04/2019	JCB26	Y	Lake Wright	4/4/2019
IKEA	60000	INORTHAMPTON BOULEVARD	18.871	15.41	17-0014.2	Private	Infiltration 2	10.82	-76.2009	36.87589579	Yes	04/04/2019	JCB26	Y	Lake Wright	4/4/2019
Royal Farms	55156	TRABY ROAD	3.216	2.08	16-0115.2	Private	Detention Basin	1.26	-76.2191	36.85711243	Yes	12/28/2018	JLS4	Y	Broad Creek, Eastern Br. Elizabeth R.	12/27/2018
Royal Farms	55156	TRABY ROAD	3.216	2.08	16-0115.2	Private	Detention Basin	0.87	-76.2196	36.85645078	Yes	12/28/2018	JLS4	Y	Broad Creek, Eastern Br. Elizabeth R.	12/27/2018
Royal Farms	55156	TRABY ROAD	3.216	2.08	16-0115.3	Private	Detention Basin	0.87	-76.2206	36.85651755	Yes	12/28/2018	JLS4	Y	Broad Creek, Eastern Br. Elizabeth R.	12/27/2018
St. Paul's Apartments	15516	SAINT PAULS BOULEVARD	3.216	2.08	16-0115.4	Private	Other SWMF	13.5	-76.2206	36.85651755	Yes	12/28/2018	JLS4	Y	Broad Creek, Eastern Br. Elizabeth R.	NA - Credit Purchase
St. Paul's Apartments	15516	SAINT PAULS BOULEVARD	3.216	2.08	16-0115.5	Private	Permeable Pavement	0.03	-76.2223	36.85651755	Yes	12/28/2018	JLS4	Y	Eastern Branch Elizabeth R - Lower	NA - Credit Purchase
St. Paul's Apartments	15516	SAINT PAULS BOULEVARD	3.216	2.08	16-0115.6	Private	Permeable Pavement	0.03	-76.2242	36.85651755	Yes	12/28/2018	JLS4	Y	Eastern Branch Elizabeth R - Lower	NA - Credit Purchase
St. Paul's Apartments	15516	SAINT PAULS BOULEVARD	3.216	2.08	16-0115.7	Private	Infiltration 1	1.99	-76.2242	36.85601052	Yes	04/02/2019	JLS4	Y	Eastern Branch Elizabeth R - Lower	4/2/2019
St. Paul's Apartments	15516	SAINT PAULS BOULEVARD	3.216	2.08	16-0115.8	Private	Infiltration 1	1.14	-76.2289	36.85195642	Yes	04/02/2019	JLS4	Y	Eastern Branch Elizabeth R - Lower	4/2/2019
St. Paul's Apartments	15516	SAINT PAULS BOULEVARD	3.216	2.08	16-0115.9	Private	Other SWMF	5.52	-76.2832	36.85648534	Yes	04/02/2019	JLS4	Y	Eastern Branch Elizabeth R - Lower	NA - Credit Purchase
Carlton Homes LLC ROW Improvements	11100	VIRGINIA AVENUE	0.34	0.12	15-0001.1	Public	Infiltration 1	0.08	-76.2405	36.94458878	N/A	11/02/2018	JCB26	Y	Chesapeake Bay Beaches	11/2/2018
Carlton Homes LLC ROW Improvements	11100	VIRGINIA AVENUE	0.34	0.12	15-0001.2	Public	Infiltration 1	0.11	-76.2407	36.94469186	N/A	11/02/2018	JCB26	Y	Chesapeake Bay Beaches	11/2/2018
Carlton Homes LLC ROW Improvements	11100	VIRGINIA AVENUE	0.34	0.12	15-0001.3	Public	Infiltration 1	0.14	-76.2408	36.94471914	N/A	11/02/2018	JCB26	Y	Chesapeake Bay Beaches	11/2/2018
Food Bank Paving Addition	800	TIWATER DRIVE	0.37	0.19	16-0048.2	Private	Detention Basin	0.29	-76.2737	36.85218283	Yes	07/19/2018	JLS4	Y	Eastern Branch Elizabeth R - Lower	7/19/2018
Harbor Park Picnic Area	1150	PARK AVENUE	0.3	0.22	16-0065.1	Public	Manufactured BMP Systems	0.46	-76.2775	36.84278267	Yes	02/14/2019	JLS4	Y	Eastern Branch Elizabeth R - Lower	2/14/2019
Checkered Flag Honda Expansion	16539	E VIRGINIA BEACH BOULEVARD	4.27	3.26	17-0039.1	Private	Manufactured BMP Systems	0.98	-76.1816	36.85345186	Yes	10/15/2018	JLS4	Y	Unsegmented estuaries in EBEMH	10/15/2018
Checkered Flag Honda Expansion	16539	E VIRGINIA BEACH BOULEVARD	4.27	3.26	17-0039.2	Private	Manufactured BMP Systems	2.6	-76.1819	36.85292988	Yes	10/15/2018	JLS4	Y	Unsegmented estuaries in EBEMH	10/15/2018
Checkered Flag Honda Expansion	16539	E VIRGINIA BEACH BOULEVARD	4.27	3.26	17-0039.3	Private	Other SWMF	2.6	-76.1821	36.85293711	Yes	10/15/2018	JLS4	Y	Unsegmented estuaries in EBEMH	10/15/2018
1424, 1426, & 1428 W Ocean View Ave.	16426	W OCEAN VIEW AVENUE	0.62	0.55	16-0192.2	Private	Infiltration 1	0.58	-76.2922	36.86753502	Yes	05/01/2019	JCB26	Y	1501 View Beach	5/1/2019
Valley Self Storage Additional Buildings	11117	VALLEY DRIVE	0.97	0.64	17-0012.2	Private	Infiltration 1	0.41	-76.2112	36.86004652	Yes	11/26/2018	JLS4	Y	Broad Creek, Eastern Br. Elizabeth R.	11/26/2018
Valley Self Storage Additional Buildings	11117	VALLEY DRIVE	0.97	0.64	17-0012.2	Private	Infiltration 1	0.36	-76.2118	36.86023469	Yes	11/26/2018	JLS4	Y	Broad Creek, Eastern Br. Elizabeth R.	11/26/2018
1855 Kingston Ave. Duplex	11855	KINGSTON AVENUE	0.168	0.0804	16-0097.1	Private	Infiltration 2	0.12	-76.2240	36.83759518	Yes	06/07/2019	JCB26	Y	Chesapeake Bay Beaches	6/6/2019
1855 Kingston Ave. Duplex	11855	KINGSTON AVENUE	0.168	0.0804	16-0097.2	Private	Infiltration 1	0.05	-76.2241	36.83728732	Yes	06/07/2019	JCB26	Y	Chesapeake Bay Beaches	6/6/2019
3 SFR - 1100 Virginia Ave.	1100	VIRGINIA AVENUE	0.34	0.145	17-0043.4	Private	Permeable Pavement 2	0.03	-76.2404	36.94448989	Yes	08/20/2018	JCB26	Y	Chesapeake Bay Beaches	8/20/2018
3 SFR - 1100 Virginia Ave.	1100	VIRGINIA AVENUE	0.34	0.145	17-0043.5	Private	Bioretention 2	0.12	-76.2404	36.94448989	Yes	08/20/2018	JCB26	Y	Chesapeake Bay Beaches	8/20/2018
3 SFR - 1100 Virginia Ave.	1100	VIRGINIA AVENUE	0.34	0.145	17-0043.3	Private	Permeable Pavement 1	0.0248	-76.2404	36.94448989	Yes	08/20/2018	JCB26	Y	Chesapeake Bay Beaches	8/20/2018
3 SFR - 1100 Virginia Ave.	1100	VIRGINIA AVENUE	0.34	0.145	17-0043.4	Private	Permeable Pavement 2	0.0373	-76.2404	36.94448989	Yes	08/20/2018	JCB26	Y	Chesapeake Bay Beaches	8/20/2018
2607 Colonial Ave.	16607	COLONIAL AVENUE	1.3788	1.132	17-0052.1	Private	Other SWMF	1.12	-76.2904	36.87369305	Yes	02/11/2019	JLS4	Y	Lafayette River - Upper	1/11/2019
2607 Colonial Ave.	16607	COLONIAL AVENUE	1.3788	1.132	17-0052.2	Private	Other SWMF	0.37	-76.2904	36.87369305	Yes	02/11/2019	JLS4	Y	Lafayette River - Upper	NA - Credit Purchase
Cook Out	1120	F LITTLE CREEK ROAD	0.67	0.49	17-0021.1	Private	Manufactured BMP Systems	0.28	-76.2531	36.81618339	Yes	01/11/2019	JLS4	Y	Lafayette River - Upper	1/9/2019
Cook Out	1120	F LITTLE CREEK ROAD	0.67	0.49	17-0021.2	Private	Other SWMF	0.28	-76.2531	36.81618339	Yes	01/11/2019	JLS4	Y	Lafayette River - Upper	1/9/2019
Didlake Expansion	16131	SHORE DRIVE	0.91	0.63	17-0077.1	Private	Wet Swale 1	0.465	-76.1929	36.92230262	Yes	01/18/2019	JCB26	Y	Little Creek & Harbor	1/18/2019
Didlake Expansion	16131	SHORE DRIVE	0.91	0.63	17-0077.2	Private	Wet Swale 1	0.316	-76.1927	36.92191985	Yes	01/18/2019	JCB26	Y	Little Creek & Harbor	1/18/2019
3 SFR - COLUMBIA Avenue	16136	COLUMBIA AVENUE	0.35	0.155	17-0068.3	Private	Detention Basin	0.115	-76.2657	36.88377231	Yes	06/14/2019	JLS4	Y	Lafayette River - Upper	6/13/2019
8802 Chesapeake Blvd - 3 SFR	18802	CHESAPEAKE BOULEVARD	0.43	0.13	17-0072.1	Private	Bioretention 2	0.06	-76.2445	36.83708223	Yes	03/14/2019	JLS4	Y	Unsegmented rivers in G15R - HR Area	11/27/2018
8802 Chesapeake Blvd - 3 SFR	18802	CHESAPEAKE BOULEVARD	0.43	0.13	17-0072.2	Private	Bioretention 2	0.06	-76.2442	36.83708409	Yes	11/27/2018	JLS4	Y	Unsegmented rivers in G15R - HR Area	11/27/2018
8802 Chesapeake Blvd - 3 SFR	18802	CHESAPEAKE BOULEVARD	0.43	0.13	17-0072.3	Private	Bioretention 2	0.06	-76.2441	36.83713074	Yes	02/13/2019	JLS4	Y	Unsegmented rivers in G15R - HR Area	11/27/2018
13th Bay Street Duplex	9538	13TH BAY STREET	0.2	0.11	17-0081.1	Private	Other SWMF	0.02	-76.2029	36.92936193	N/A	11/06/2018	JCB26	Y	Little Creek & Harbor	NA - Credit Purchase
Salvation Army Parking Lot	15525	TRABY ROAD	5.79	2.28	17-0080.1	Private	Wet Pond 1	13.32	-76.2186	36.85644564	Yes	05/30/2019	JLS4	Y	Broad Creek, Eastern Br. Elizabeth R.	5/30/2019
Salvation Army Parking Lot	15525	TRABY ROAD	5.79	2.28	17-0080.2	Private	Other SWMF	0.99	-76.2186	36.85646464	Yes	05/30/2019	JLS4	Y	Broad Creek, Eastern Br. Elizabeth R.	NA - Credit Purchase
General Aviation CBD Facility	6101	BURTON STATION ROAD	1.51	0.63	18-0002.1	Private	Other SWMF	1.51	-76.1985							

UPDATED SWMF INFO - FACILITIES BROUGHT ONLINE FY18																
Site Title	Street Number	Street Name	Total Site Area	Total Impervious Area	SWMF ID	Ownership Type	SWMF Type	Contributing Drainage Area	Long	Lat	SWMF Maintenance Agreement	Date Online	HUC	DISCHARGES TO MS4?	IMPAIRED WATER SEGMENT DISCHARGES TO	DATE OF LAST INSPECTION
13th Bay Street Duplex	9538	13TH BAY STREET	0.2	0.11	17-00811	Private	Other SWMF	0.2	-76.2029368	36.92936193	N/A	06/11/2018	CB26	Y	Little Creek & Harbor	3/12/2018
20th Bay Street Subdivision	9512-9526	20TH BAY STREET	1.03	0.5	16-00041	Private	Grass Channel	0.08	-76.1939513	36.93011919	Yes	09/27/2017	CB26	Y	Little Creek & Harbor	11/2/2017
20th Bay Street Subdivision	9512-9526	20TH BAY STREET	1.03	0.5	16-00042	Private	Grass Channel	0.09	-76.1939513	36.93011919	Yes	08/10/2017	CB26	Y	Little Creek & Harbor	12/2/2017
20th Bay Street Subdivision	9512-9526	20TH BAY STREET	1.03	0.5	16-00043	Private	Grass Channel	0.09	-76.1939513	36.93011919	Yes	08/11/2017	CB26	Y	Little Creek & Harbor	12/1/2017
20th Bay Street Subdivision	9512-9526	20TH BAY STREET	1.03	0.5	16-00049	Private	Rooftop (Impervious Surface) Disconnection	0.12	-76.1939513	36.93011919	Yes	09/27/2017	CB26	Y	Little Creek & Harbor	3/22/2018
9535 6th Bay Duplex	2535	6TH BAY STREET	0.24	0.01	14-00053	Private	Rooftop (Impervious Surface) Disconnection	0.17	-76.2114715	36.93121592	No	01/25/2018	CB26	Y	Little Creek & Harbor	3/22/2018
7th Bay St. Duplex	9565	7TH BAY STREET	0.17	0.103	17-00831	Private	Other SWMF	0.17	-76.2098428	36.93185682	N/A	05/04/2018	CB26	Y	Little Creek & Harbor	12/12/2017
CIRS Facility	900	ASBURY AVENUE	3.44	3.35	16-01061	Private	Wet Pond 1	0.32	-76.2503848	36.91189902	Yes	03/05/2018	CB26	Y	Lafayette River - Upper	1/25/2018
CIRS Facility	900	ASBURY AVENUE	3.44	3.35	16-01062	Private	Manufactured BMP Systems	0.32	-76.2504761	36.91164426	Yes	03/05/2018	CB26	Y	Lafayette River - Upper	10/20/2017
901 Ballentine Boulevard Parking Lot	901	BALLENTINE BOULEVARD	0.78	0.45	15-00191	Private	Bioretention 1	0.1245	-76.2490707	36.85035176	Yes	09/26/2017	JL54	Y	Eastern Branch Elizabeth R. - Lower	4/6/2018
901 Ballentine Boulevard Parking Lot	901	BALLENTINE BOULEVARD	0.78	0.45	15-00192	Private	Bioretention 1	0.0872	-76.2492423	36.85022298	Yes	09/26/2017	JL54	Y	Eastern Branch Elizabeth R. - Lower	9/28/2017
901 Ballentine Boulevard Parking Lot	901	BALLENTINE BOULEVARD	0.78	0.45	15-00193	Private	Bioretention 2	0.1669	-76.2487059	36.85030025	Yes	09/26/2017	JL54	Y	Eastern Branch Elizabeth R. - Lower	8/10/2017
901 Ballentine Boulevard Parking Lot	901	BALLENTINE BOULEVARD	0.78	0.45	15-00194	Private	Bioretention 1	0.1288	-76.2489526	36.85007703	Yes	09/26/2017	JL54	Y	Eastern Branch Elizabeth R. - Lower	8/11/2017
Oaks at Elmhurst	4820	BEAMON ROAD	1.37	0.57	14-00702	Private	Grassed Swale	0.81	-76.2320655	36.8801874	No	10/16/2017	JL56	Y	Lafayette River - Upper	9/27/2017
Oaks at Elmhurst	4820	BEAMON ROAD	1.37	0.57	14-00702	Private	Grassed Swale	0.81	-76.2320655	36.8801874	No	10/16/2017	JL56	Y	Lafayette River - Upper	7/16/2018
450 Boush St. Mixed Use Development	450	BOUSH STREET	0.74	0.74	15-00021	Private	Detention Basin	0.71	-76.2902801	36.8527939	No	10/20/2017	JL54	Y	Elizabeth River Mainstem - Upper	9/26/2017
Rockefeller Apartments	252	BOUSH STREET	0.23	0.22	16-00191	Private	Manufactured BMP Systems	0.2	-76.2902108	36.84929492	Yes	02/07/2018	JL56	Y	Elizabeth River Mainstem - Upper	9/26/2017
Church Street Studios	2000	CHURCH STREET	3.29	0.96	15-00221	Private	Manufactured BMP Systems	0.32	-76.2783228	36.86662805	N/A	11/12/2017	JL56	Y	Lafayette River - Upper	9/26/2017
Church Street Studios	2000	CHURCH STREET	3.29	0.96	15-00222	Private	Manufactured BMP Systems	0.11	-76.2774913	36.86656736	N/A	11/12/2017	JL56	Y	Lafayette River - Upper	9/26/2017
Starbucks - The Corner Shops	2000	COLONIAL AVENUE	0.39	0.29	16-00631	Private	Bioretention Urban	0.05	-76.2918358	36.86845041	Yes	01/10/2018	JL56	Y	Elizabeth River Mainstem - Upper	10/16/2017
Starbucks - The Corner Shops	2000	COLONIAL AVENUE	0.39	0.29	16-00632	Private	Permeable Pavement 1	0.01	-76.2918975	36.86854752	No	01/10/2018	JL56	Y	Elizabeth River Mainstem - Upper	10/16/2017
210 E. 22nd St. - 36 Apt.	211	E 22ND STREET	0.66	0.33	16-00361	Private	Other SWMF	0.66	-76.2622875	36.86779534	N/A	09/23/2017	JL56	Y	Elizabeth River Mainstem - Upper	12/12/2017
Norfolk Courts Rear Access	811	E CITY HALL AVENUE	2.89	2.58	16-01053	Public	Infiltration 1	0.087	-76.284639796	36.84639796	No	11/20/2017	JL54	Y	Eastern Branch Elizabeth R. - Lower	12/12/2017
Captain's Landing	529	E OCEAN VIEW AVENUE	3.57	2.06	15-00391	Private	Infiltration 1	0.59	-76.2411689	36.94701224	Yes	04/23/2018	CB26	Y	Chesapeake Bay Beaches	4/23/2018
McCoy Duplex	2040	E OCEAN VIEW AVENUE	0.2663	0.0946	16-00181	Private	Infiltration 1	0.1854	-76.2171738	36.93690573	Yes	03/07/2018	CB26	Y	Chesapeake Bay Beaches	3/5/2018
Front Street Apartments	519	FRONT STREET	1.4	0.95	14-00641	Private	Manufactured BMP Systems	0.47	-76.3003438	36.85363725	Yes	06/13/2018	JL56	Y	Elizabeth River Mainstem - Upper	3/5/2018
Granby Townhomes	3239-3245	GRANBY STREET	0.236	0.137	16-00111	Private	Bioretention 1	0.24	-76.2821584	36.87688372	Yes	08/28/2017	JL56	Y	Lafayette River - Upper	2/7/2018
Dunkin Donuts	8410	HAMPTON BOULEVARD	0.33	0.27	15-0051	Private	Bioretention Basins	0.34	-76.3176655	36.92944883	Yes	12/27/2017	JL57	Y	James River at Hampton Roads Harbor	3/22/2018
Burrard Pump Station #152	2125	HANSON AVENUE	0.24	0.07	14-00022	Public	Dry Swale 1	0.11	-76.2599301	36.85088618	N/A	09/23/2018	JL56	Y	Lafayette River - Upper	7/9/2018
Burrard Pump Station #152	2125	HANSON AVENUE	0.24	0.07	14-00022	Public	Permeable Pavement 1	0.08	-76.2645041	36.86474687	N/A	09/26/2018	JL56	Y	Lafayette River - Upper	9/28/2017
United Disposal Laydown Yard	5833	HARGROVE STREET	0.411	0.324	17-00642	Private	Other SWMF	0.411	-76.2051413	36.84389382	N/A	12/19/2017	JL54	Y	Unsegmented estuaries in EBEMH	12/14/2017
Herbert St. Subdivision	3214	HERBERT STREET	0.68	0.33	Herbert St. SPivari	Grass Channel	0.34	-76.2296032	36.88278588	No	09/28/2017	JL56	Y	Lafayette River - Upper	3/21/2018	
Jehovah's Witnesses Parking Lot Improvements	959	INGLESIDE ROAD	0.6837	0.3992	14-00571	Private	Grassed Swale	0.18	-76.2384733	36.85176649	Yes	08/15/2017	JL54	Y	Broad Creek, Eastern Br. Elizabeth R.	3/21/2018
Jehovah's Witnesses Parking Lot Improvements	959	INGLESIDE ROAD	0.6837	0.3992	14-00572	Private	Grassed Swale	0.15	-76.2386363	36.85189701	Yes	08/15/2017	JL54	Y	Broad Creek, Eastern Br. Elizabeth R.	3/31/2018
Dollar General	1540	INTERNATIONAL BOULEVARD	1.44	0.8	17-00101	Private	Other SWMF	0.8	-76.2268566	36.89668628	No	11/30/2017	CB26	Y	Lake Whitehurst (PWS)	5/8/2018
Charway Federal Credit Union	132	KEMPSVILLE ROAD	1.01	0.64	16-00351	Private	Infiltration 1	0.46	-76.1876105	36.84259315	Yes	11/16/2017	JL54	Y	Unsegmented estuaries in EBEMH	6/13/2018
Charway Federal Credit Union	132	KEMPSVILLE ROAD	1.01	0.64	16-00352	Private	Infiltration 2	0.39	-76.1873228	36.84268994	Yes	11/16/2017	JL54	Y	Unsegmented estuaries in EBEMH	6/13/2018
New Horizon Outreach Ministries	1775	KERRY AVENUE	0.605	0.122	16-00882	Private	General Infiltration Practices	0.11	-76.2298727	36.87078454	Yes	09/20/2017	JL56	Y	Broad Creek, Eastern Br. Elizabeth R.	6/15/2018
New Horizon Outreach Ministries	1775	KERRY AVENUE	0.606	0.323	16-00882	Private	Other SWMF	0.791	-76.2298727	36.87078454	Yes	09/20/2017	JL54	Y	Broad Creek, Eastern Br. Elizabeth R.	12/28/2017
Lafayette Boulevard Streetscape Improvements	2115	LAFAYETTE BOULEVARD	1.51	1	16-00251	Public	Manufactured BMP Systems	0.27	-76.26109	36.87630919	N/A	03/22/2018	JL56	Y	Lafayette River - Upper	12/28/2017
Metro Machine - Lot D Parking	200	LIGON STREET	0.95	0.58	14-00601	Private	Detention Basin	0.96	-76.2878740	36.87364462	No	12/12/2017	JL53	Y	Southern Branch Elizabeth R. - Lower	12/15/2017
Reeves Avenue Substation Improvements	1724	LOVITT AVENUE	1.39	1.39	17-00351	Private	Other SWMF	1.39	-76.2732845	36.84209085	N/A	11/03/2017	JL54	Y	Eastern Branch Elizabeth R. - Lower	12/20/2017
Ocean View Elementary School	9501	MASON CREEK ROAD	2.58	5.03	14-00851	School	Wet Pond 1	5.4	-76.2604593	36.95501876	N/A	08/31/2017	JL57	Y	Chesapeake Bay Beaches	4/10/2018
JANAF Wawa	1146	IN MILITARY HIGHWAY	1.85	1.62	16-00101	Private	Manufactured BMP Systems	1.93	-76.2093954	36.86051958	Yes	09/18/2017	JL54	Y	Broad Creek, Eastern Br. Elizabeth R.	4/10/2018
JANAF Wawa	1146	IN MILITARY HIGHWAY	1.85	1.62	16-00102	Private	Manufactured BMP Systems	1.37	-76.2094191	36.86053529	Yes	09/18/2017	JL54	Y	Broad Creek, Eastern Br. Elizabeth R.	5/29/2018
JANAF Wawa	1146	IN MILITARY HIGHWAY	1.85	1.62	16-00103	Private	Other SWMF	0.5	-76.2097763	36.86103552	Yes	09/18/2017	JL54	Y	Broad Creek, Eastern Br. Elizabeth R.	3/7/2018
1081 Military Hwy Retail Shops	1081	IN MILITARY HIGHWAY	0.825	0.65	15-00311	Private	Manufactured BMP Systems	0.2	-76.2109752	36.85842429	No	06/07/2018	JL54	Y	Broad Creek, Eastern Br. Elizabeth R.	2/6/2018
Broad Creek Library	1425	NORCHESTER AVENUE	2.19	1.03	16-00571	Public	Dry Swale 2	0.57	-76.2558482	36.85802862	N/A	06/13/2018	JL56	Y	Lafayette River - Upper	2/6/2018
Broad Creek Library	1425	NORCHESTER AVENUE	2.19	1.03	16-00572	Public	Bioretention 1	0.96	-76.2557494	36.85737304	N/A	06/13/2018	JL56	Y	Lafayette River - Upper	3/5/2018
Broad Creek Library	1425	NORCHESTER AVENUE	2.19	1.03	16-00573	Public	Grassed Swale	0.44	-76.2557818	36.85682364	N/A	06/13/2018	JL56	Y	Lafayette River - Upper	3/5/2018
Norchester Pump Station No. 116 Replacement	935	NORCHESTER STREET	0.142	0.083	13-00231	Public	Grassed Swale	0.024	-76.2552562	36.85005007	Yes	03/22/2018	JL54	Y	Eastern Branch Elizabeth R. - Lower	3/5/2018
Norchester Pump Station No. 116 Replacement	935	NORCHESTER STREET	0.142	0.083	13-00232	Public	Grassed Swale	0.048	-76.2552766	36.84998197	Yes	03/22/2018	JL54	Y	Eastern Branch Elizabeth R. - Lower	3/5/2018
Norfolk Premium Outlets	2302	NORTHHAMPTON BOULEVARD	49.79	38.84	15-00452	Private	Retention Basin	19.23	-76.1708887	36.88322488	No	09/26/2017	CB26	Y	Lake Wright	3/5/2018
Norfolk Premium Outlets	6282	NORTHHAMPTON BOULEVARD	49.79	38.84	15-00453	Private	Retention Basin	4.55	-76.1747274	36.88268416	Yes	09/26/2017	CB26	Y	Lake Wright	3/26/2018
Norfolk Premium Outlets	6282	NORTHHAMPTON BOULEVARD	49.79	38.84	15-00454	Public	Bioretention 2	1.22	-76.2033063	36.88032417	N/A	09/26/2017	CB26	Y	Lake Wright	3/26/2018
Premium Outlets Boulevard	5992	NORTHHAMPTON BOULEVARD	6.36	1.92	15-00431	Public	Manufactured BMP Systems	0.73	-76.1931681	36.87763799	No	09/25/2017	JL54	Y	Lake Wright	6/13/2018
Premium Outlets Boulevard	5992	NORTHHAMPTON BOULEVARD	6.36	1.92	15-00432	Public	Manufactured BMP Systems	1.19	-76.1949703	36.88041857	N/A	09/25/2017	JL54	Y	Lake Wright	11/30/2017
1921 Parkview Avenue	1921	PARKVIEW AVENUE	0.34	0.15	16-00761	Private	Bioretention 2	0.12	-76.2223773	36.93591375	Yes	08/10/2017	CB26	Y	Little Creek	

UPDATED SWMF INFO - FACILITIES BROUGHT ONLINE FY17

Site Title	Street Number	Street Name	Total Site Area	Total Impervious Area	SWMF ID	Ownership Type	SWMF Type	Contributing Drainage Area	Long	Lat	SWMF Maintenance Agreement	Date Online	HUC	DISCHARGES TO MS4?	IMPAIRED WATER SEGMENT DISCHARGES TO	DATE OF LAST INSPECTION
Lot 25 8033 Ransom Road	18033	RANSOM ROAD	0.23	0.07	08-0062.1	Private	Bioretention Basins	0.15	-76.1949	36.92095073	Yes	05/23/2017	CB26	N	Little Creek & Harbor	5/23/2017
Larchmont Elementary School	1145	BOLLING AVENUE	20.4	4.9	14-0084.1	School	Retention Basin	7.34	-76.2996	36.89018058	N/A	06/02/2017	JLS56	N	Lafayette River (Upper)	6/1/2017
Mixed Use Development Church St.	1402	CHURCH STREET	0.64	0.29	14-0080.1	Private	Detention Basin	0.3	-76.2787	36.86050826	No	09/27/2016	JLS54	Y	Elizabeth River Main Stem (Upper)	9/26/2016
Mixed Use Development Church St.	1402	CHURCH STREET	0.64	0.29	14-0080.2	Private	Permeable Pavement 1	0.3	-76.2787	36.86046308	No	09/27/2016	JLS54	Y	Elizabeth River Main Stem (Upper)	9/26/2016
The Banks at Berkley	701	SOUTH MAIN STREET	2.648	1.477	14-0072.1	Private	Infiltration 2	1.31	-76.285	36.83259913	Yes	03/31/2017	JLS53	Y	E. Branch Elizabeth River (Lower)	5/12/2017
The Banks at Berkley	701	SOUTH MAIN STREET	2.648	1.477	14-0072.2	Private	Infiltration 2	1.1	-76.2847	36.8328086	Yes	03/31/2017	JLS53	Y	E. Branch Elizabeth River (Lower)	5/12/2017
NRHA Broad Creek Ph. 5	2800	CARY AVENUE	17.44	9.02	14-0022.1	Private	Extended Detention Basin	1.34	-76.2552	36.85827913	Yes	10/28/2016	JLS56	Y	Lafayette River (Upper)	2/28/2017
Metro Towing Company, Inc.	15870	CURLEW DRIVE	0.89	0.79	14-0094.1	Private	Permeable Pavement 1	0.3	-76.2036	36.84203786	Yes	03/20/2017	JLS54	Y	Broad Creek E. Branch Elizabeth River	3/20/2017
17th Bay Street Duplexes	3607	17TH BAY STREET	0.34	0.34	14-0092.1	Private	Dry Swale 2	0.14	-76.1981	36.92965414	Yes	04/19/2017	CB26	Y	Little Creek & Harbor	4/18/2017
17th Bay Street Duplexes	3607	17TH BAY STREET	0.34	0.34	14-0092.2	Private	Dry Swale 2	0.032	-76.1981	36.92965414	Yes	04/19/2017	CB26	Y	Little Creek & Harbor	4/18/2017
17th Bay Street Duplexes	3607	17TH BAY STREET	0.34	0.34	14-0092.3	Private	Dry Swale 2	0.031	-76.1981	36.92965414	Yes	04/19/2017	CB26	Y	Little Creek & Harbor	4/18/2017
17th Bay Street Duplexes	3607	17TH BAY STREET	0.34	0.34	14-0092.4	Private	Rooftop (Impervious Surface) Disconnection	0.02	-76.1981	36.92965414	Yes	04/19/2017	CB26	Y	Little Creek & Harbor	4/18/2017
Watermark at Talbot Park - Ph. 1	17201	NEWPORT AVENUE	5.61	4.16	15-0036.1	Private	Bioretention 1	0.97	-76.2807	36.91008039	Yes	12/09/2016	JLS56	Y	Lafayette River (Upper)	6/2/2017
Watermark at Talbot Park - Ph. 1	17201	NEWPORT AVENUE	5.61	4.16	15-0036.2	Private	Bioretention 1	0.51	-76.2807	36.91008039	Yes	12/09/2016	JLS56	Y	Lafayette River (Upper)	6/2/2017
Watermark at Talbot Park - Ph. 1	17201	NEWPORT AVENUE	5.61	4.16	15-0036.3	Private	Bioretention 1	0.19	-76.2807	36.91008039	Yes	12/09/2016	JLS56	Y	Lafayette River (Upper)	6/2/2017
Roper Home Parking Lot	127	E 40TH STREET	0.615	0.08	15-0008.1	Private	Permeable Pavement 2	0.12	-76.2804	36.88308749	Yes	02/22/2017	JLS56	Y	Lafayette River (Upper)	2/22/2017
Claimrent Apartments	1050	BERKLEY AVENUE EX	9.29	4.24	15-0006	Private	Retention Basin	8.16	-76.2705	36.82730399	Yes	05/31/2017	JLS54	Y	Unsegmented Estuaries in EBEMH	5/31/2017
20th Bay Street Subdivision	9612-9626	20TH BAY STREET	1.03	0.5	16-0004.4	Private	Grass Channel	0.09	-76.194	36.93011919	Yes	12/16/2016	CB26	Y	Little Creek & Harbor	12/16/2016
20th Bay Street Subdivision	9612-9626	20TH BAY STREET	1.03	0.5	16-0004.5	Private	Grass Channel	0.1	-76.194	36.93011919	Yes	01/24/2017	CB26	Y	Little Creek & Harbor	1/24/2017
20th Bay Street Subdivision	9612-9626	20TH BAY STREET	1.03	0.5	16-0004.6	Private	Grass Channel	0.09	-76.194	36.93011919	Yes	01/24/2017	CB26	Y	Little Creek & Harbor	1/24/2017
20th Bay Street Subdivision	9612-9626	20TH BAY STREET	1.03	0.5	16-0004.7	Private	Grass Channel	0.09	-76.194	36.93011919	Yes	11/16/2016	CB26	Y	Little Creek & Harbor	11/16/2016
20th Bay Street Subdivision	9612-9626	20TH BAY STREET	1.03	0.5	16-0004.8	Private	Grass Channel	0.15	-76.194	36.93011919	Yes	10/25/2016	CB26	Y	Little Creek & Harbor	10/25/2016
Milton Point at Kimball Terrace Shipyard	2401	KIMBALL TERRACE	14.66	5.53	15-0046.1	Private	Dry Swale 1	1.2	-76.2622	36.84267071	Yes	01/13/2017	JLS54	N	E. Branch Elizabeth River (Lower)	1/12/2017
Milton Point at Kimball Terrace Shipyard	2401	KIMBALL TERRACE	14.66	5.53	15-0046.2	Private	Dry Swale 1	1.44	-76.2605	36.84234286	Yes	01/13/2017	JLS54	N	E. Branch Elizabeth River (Lower)	1/12/2017
Milton Point at Kimball Terrace Shipyard	2401	KIMBALL TERRACE	14.66	5.53	15-0046.3	Private	Dry Swale 1	0.4	-76.2612	36.8429257	Yes	01/13/2017	JLS54	N	E. Branch Elizabeth River (Lower)	1/12/2017
Partrea Site Improvements	701	EASY STREET	0.6	0.36	15-0021.1	Private	Permeable Pavement 1	0.14	-76.2547	36.90804337	Yes	05/17/2017	JLS56	Y	Lafayette River (Upper)	5/16/2017
Norfolk Academy Football Stadium	1585	WESLEYAN DRIVE	2.7	1.33	15-0059.1	Private	Bioretention Urban	0.13	-76.1927	36.87493863	Yes	06/28/2017	JLS54	Y	Broad Creek E. Branch Elizabeth River	6/15/2017
Norfolk Academy Football Stadium	1585	WESLEYAN DRIVE	2.7	1.33	15-0059.2	Private	Permeable Pavement 1	0.13	-76.1927	36.87499021	Yes	06/28/2017	JLS54	Y	Broad Creek E. Branch Elizabeth River	6/15/2017
Norfolk Academy Football Stadium	1585	WESLEYAN DRIVE	2.7	1.33	15-0059.3	Private	Grass Channel	0.11	-76.1926	36.87485062	Yes	06/29/2017	JLS54	Y	Broad Creek E. Branch Elizabeth River	6/15/2017
Norfolk Academy Football Stadium	1585	WESLEYAN DRIVE	2.7	1.33	15-0059.4	Private	Rooftop (Impervious Surface) Disconnection	0.14	-76.193	36.87477781	Yes	06/28/2017	JLS54	Y	Broad Creek E. Branch Elizabeth River	6/15/2017
Norfolk Christian Soccer Field	255	THOLE STREET	2.96	0.25	15-0058.1	Private	Grass Channel	0.8	-76.2726	36.90469989	Yes	05/12/2017	JLS56	N	Lafayette River (Upper)	5/12/2017

ALL ACTIVE SWMFs - CITY OF NORFOLK																
Site Title	Street Number	Street Name	Total Site Area	Total Impervious Area	SWMF ID	Ownership Type	SWMF Type	Contributing Drainage Area	Long	Lat	SWMF Maintenance Agreement	Date Online	Status	HUC		
Virginia Wesleyan College - Physical Plant	1584	Wesleyan Drive	6.83	0.29	92067.053.1	Private	Extended Detention Basin	6.83	-76.19211137	36.87064762	Yes	02/25/1991	Active	JL54		
Virginia Wesleyan College - Physical Plant	1584	Wesleyan Drive	6.83	0.29	92067.053.2	Private	Extended Detention Basin	4.33	-76.19096875	36.87075491	Yes	02/29/1991	Active	JL54		
Greek Orthodox Church	7220	Granby Street	0.24	0.09	91067.012.1	Private	General Infiltration Practices	0.24	-76.27934645	36.9075702	Yes	07/16/1991	Active	JL56		
Sarah Lee Baker Perennial Garden	6700	Azalea Garden Road	0	0	S22.1	Private	General Infiltration Practices	0	-76.20085888	36.90240763	No	08/26/1991	Active	JC86		
9533 7th Bay Street	9533	7th Bay Street	0.17	0.05	91067.008.1	Private	General Infiltration Practices	0.172	-76.2104845	36.93070059	Yes	09/16/1991	Active	JC86		
Beach Maintenance Blvd, NRHA	700	E Ocean View Avenue	1.31	0.11	S16.1	Public	General Infiltration Practices	1.31	-76.24429793	36.95030464	No	01/01/1992	Active	JC86		
Nutreco	1	WATERSIDE DRIVE	0	0	S29.1	Public	Manufactured BMP Systems	1.65	-76.29390614	36.84714879	No	01/01/1992	Active	JL56		
Calvary Revival Church Addition	5833	Poplar Hall Drive	3.95	1.49	05-0146.5	Private	General Infiltration Practices	1.41	-76.20619291	36.84804957	Yes	01/01/1992	Active	JL54		
Archers Green Apartments	261	Suburban Parkway	2.88	1.12	91067.006.2	Private	General Infiltration Practices	1.2	-76.26781404	36.91015561	Yes	02/13/1992	Active	JL56		
Archers Green Apartments	261	Suburban Parkway	2.88	1.12	91067.006.1	Private	General Infiltration Practices	2.49	-76.26764764	36.91059995	Yes	02/13/1992	Active	JL56		
Parkdale Day School	7419	Parkdale Drive	0.6	0.1	91067.032.1	Private	General Infiltration Practices	0.46	-76.26651049	36.91132442	Yes	06/29/1992	Active	JL56		
Shoshone Court	4553	Shoshone Court	0.75	0.75	92067.022.1	Private	General Infiltration Practices	8.93	-76.237822	36.879089	No	07/02/1992	Active	JL56		
Azalea Super Service	5828	Curlew Drive	0	0	92067.087.1	Private	General Infiltration Practices	0	-76.20569291	36.84163163	No	02/16/1992	Active	JL54		
Bay Point Club House	9511	BY FRONT DRIVE	0.89	0.69	92067.013.1	Private	General Infiltration Practices	0.89	-76.18166149	36.92442682	Yes	02/17/1992	Active	JC86		
Division of Streets & Bridges	2205	McKann Avenue	3.52	3.04	S28.1	Public	General Infiltration Practices	3.74	-76.25417501	36.8601263	Yes	01/01/1993	Active	JL56		
Lake Liberty, NRHA	3000	LAKEBRIDGE DRIVE	0	0	S12.1	Public	Retention Basin	195	-76.24935116	36.84829066	Yes	01/01/1993	Active	JL54		
Virginia Zoological Park, Phase I	3500	Granby Street	3.29	5.19	T47.1	Public	General Intermittent Sand Filter Practices	6.52	-76.26778685	36.87716769	No	01/04/1993	Active	JL56		
Mazzika Restaurant	4800	Colley Avenue	0.432	0.39	T4.1	Private	General Infiltration Practices	0.128	-76.2947965	36.88743791	Yes	06/16/1993	Active	JL56		
Norview Middle School	6325	Sewells Point Road	3.6	4.65	NP501.1	School	Extended Detention Basin	10.04	-76.24306798	36.89442308	Yes	08/31/1993	Active	JL56		
Norview Middle School	6325	Sewells Point Road	16	4.65	NP501.2	School	Extended Detention Basin	5.96	-76.24065399	36.89356075	Yes	08/31/1993	Active	JL56		
Village Foods - Azalea Garden & Village Intersec	1187	AZALEA GARDEN ROAD	5.34	4.4	91067.022.1	Private	Retention Basin	5.34	-76.234721	36.858343	No	12/15/1993	Active	JL54		
Cedar Grove, Parking Lot	207	E Princess Anne Road	0	0	S33.1	Public	Detention Basin	10.36	-76.28655783	36.86019606	No	01/01/1994	Active	JL56		
FBI Building - Riverside Corporate Center	150	CORPORATE BOULEVARD	1.08	2.56	T91.1	Private	Detention Basin	1.92	-76.23466666	36.8392851	Yes	02/14/1994	Active	JL54		
FBI Building - Riverside Corporate Center	150	CORPORATE BOULEVARD	4.04	2.56	T91.2	Private	Retention Basin	1.92	-76.21345639	36.84002169	No	02/14/1994	Active	JL54		
Raytheon	2555	Ellismore Avenue	1.57	1.12	92067.076.1	Private	Detention Basin	1.177	-76.22064203	36.87656383	Yes	04/15/1994	Active	JL56		
Barry's Performance Car Shop	2131	Cromwell Road	0.57	0.14	T93.2	Private	General Infiltration Practices	0.57	-76.24874756	36.86173904	Yes	06/09/1994	Active	JL54		
Barry's Performance Car Shop	2131	Cromwell Road	0.57	0.14	T93.2	Private	General Infiltration Practices	0.121	-76.24848738	36.86175835	Yes	06/09/1994	Active	JL54		
Davinc Dialysis Center	962	Norfolk Square	1.73	1.47	T122.1	Private	General Infiltration Practices	1.73	-76.23490711	36.85933514	Yes	07/25/1994	Active	JL54		
Lake Whitehurst Harvesting Facility	7601	Leafwood Drive	0.43	0.24	S19.1	Public	Detention Basin	0.43	-76.20882958	36.90694287	No	09/07/1994	Active	JC86		
Dr. Hamlin Parking Lot	1806	Hampton Boulevard	0.2991	0.25	T61.1	Private	Detention Basin	0.2991	-76.30091786	36.87058003	Yes	09/08/1994	Active	JL56		
Annetta M. Lane Apartments	2734	Gate House Road	0.81	0.53	T100.1	Private	Detention Basin	0.53	-76.25648975	36.84995793	Yes	09/13/1994	Active	JL54		
BJ's Wholesale Warehouse	5820	E VIRGINIA BEACH BOULEVARD	11.2	10.34	T121.1	Private	Retention Basin	12.385	-76.20571285	36.85811329	Yes	09/19/1994	Active	JL54		
Norfolk Botanical Gardens - Visitors Reception	5702	Azalea Garden Road	10.56	4.01	S18.1	Public	Retention Basin	1.04	-76.20568673	36.90238549	No	02/22/1995	Active	JL56		
BP Gas Station	3210	Chesapeake Boulevard	0.56	0.47	T106.1	Private	General Infiltration Practices	0.423	-76.25247315	36.87503769	Yes	09/27/1994	Active	JL56		
Thrifty Car Rental	3579	N Military Highway	1.83	1.75	T142.1	Private	Detention Basin	1.83	-76.22358529	36.89236485	Yes	10/04/1994	Active	JC86		
Greek Orthodox Church	7220	Granby Street	0.46	0.33	T86.1	Private	Grassed Swale	0.144	-76.27336621	36.90856427	No	10/06/1994	Active	JL56		
NRHA CMD Facility	910	Balentine Boulevard	0.12	0.12	T99.1	Private	General Infiltration Practices	0.12	-76.2451306	36.84932022	Yes	10/06/1994	Active	JL54		
Norfolk Public Schools Transportation Operations	5553	Ruby Road	0.25	0.06	NP902.1	School	Detention Basin	0.95	-76.21025914	36.83729723	No	10/07/1994	Active	JL54		
Helena Townhouses	1601	Helena Avenue	0.44	0.18	T474.1	Private	General Infiltration Practices	0.221	-76.3048996	36.91003443	Yes	10/17/1994	Active	JL56		
Contel Cellular Tower	424	IW Government Avenue	0.24	0.07	T150.1	Private	General Infiltration Practices	0.24	-76.26332134	36.9563285	Yes	11/02/1994	Active	JL57		
Warehouse	1141	Lane Road	0.5	0.34	T146.1	Private	Grassed Swale	0.006	-76.21576337	36.861741782	Yes	11/23/1994	Active	JL54		
Duplex Dudley Avenue - Lot "F"	709	Dudley Avenue	0.28	0.07	T56.1	Private	General Infiltration Practices	0.28	-76.24699205	36.94275246	Yes	12/21/1994	Active	JC86		
Bay Oaks Place (NRHA)	2301	Bay Oaks Place	1.14	0.91	T58.1	Private	General Infiltration Practices	0.89	-76.21233791	36.92506831	Yes	12/29/1994	Active	JC86		
Gospel Church of Deliverance	711	Comstock Street	1.45	0.53	91067.003.1	Private	Detention Basin	1.451	-76.23708196	36.84291794	Yes	01/01/1995	Active	JL54		
Anne Outten Pond	1401	Anne Street	99.43	58.95	S1.1	Public	Retention Basin	99.4	-76.27993226	36.86072076	N/A	01/01/1995	Active	JL56		
Silver Lake/Duck Pond	517	Duck Pond Road	0	0	S14.1	Public	Retention Basin	74.35	-76.22019177	36.848667	No	01/01/1995	Active	JL54		
Meadow Lake	5442	Bayberry Drive	0	0	S15.1	Public	Retention Basin	193.1	-76.22117222	36.85139707	No	01/01/1995	Active	JL54		
Bellavette Elementary School Lake	3000	Dana Street	0	0	S2.1	Public	Retention Basin	179.83	-76.25348463	36.86486819	N/A	01/01/1995	Active	JL56		
Lake Modoc	925	E Balview Avenue	0	0	S6.1	Public	Retention Basin	81.31	-76.24341619	36.94620794	N/A	01/01/1995	Active	JC86		
Lake Scott	5906	McGinnis Circle	0	0	S8.1	Public	Retention Basin	15.89	-76.20504462	36.83335344	N/A	01/01/1995	Active	JL54		
The Anchorage-South Hampton Roads Support Housing	112	Cromwell Parkway	4.58	2.09	T158.1	Private	Detention Basin	0.508	-76.27173811	36.91279668	Yes	01/01/1995	Active	JL56		
Applebee's - Janaf Shopping Center	5750	E VIRGINIA BEACH BOULEVARD	1.44	1	T64	Private	Detention Basin	0.91	-76.20775787	36.8572427	Yes	01/01/1995	Active	JC86		
9501 8th Bay Street	9501	8th Bay Street	0.35	0.04	T109.1	Private	Vegetated Filter Strip	0	-76.20953077	36.92956892	No	01/05/1995	Active	JC86		
Saeson Presb. Church	5135	Stanart Street	2.8	0.7	T119.1	Private	Detention Basin	1.4	-76.22522727	36.85409784	Yes	02/02/1995	Active	JL54		
Saeson Presb. Church	5135	Stanart Street	2.8	0.7	T119.2	Private	Detention Basin	1.4	-76.22577664	36.85424642	Yes	02/02/1995	Active	JL54		
Autumn Care	1401	Halstead Avenue	4.63	2.4	T23.1	Private	Detention Basin	4.63	-76.22488797	36.86173171	Yes	02/03/1995	Active	JL54		
Merrimac Landing Apartments (off site parking)	8807	Monitor Way	3.26	1.29	T75.1	Private	General Infiltration Practices	0.143	-76.27181585	36.94301185	Yes	02/03/1995	Active	JL57		
Merrimac Landing Apartments (off site parking)	8807	Monitor Way	3.26	1.29	T75.3	Private	General Infiltration Practices	0.143	-76.27021462	36.94210292	Yes	02/03/1995	Active	JL57		
Merrimac Landing Apartments (off site parking)	8807	Monitor Way	3.26	1.29	T75.2	Private	General Infiltration Practices	0.143	-76.27204455	36.94157663	Yes	02/03/1995	Active	JL57		
Merrimac Landing Apartments (off site parking)	8807	Monitor Way	3.26	1.29	T75.8	Private	General Infiltration Practices	0.143	-76.27289683	36.93096518	Yes	02/03/1995	Active	JL57		
Merrimac Landing Apartments (off site parking)	8807	Monitor Way	3.26	1.29	T75.9	Private	General Infiltration Practices	0.143	-76.27462685	36.94168065	Yes	02/03/1995	Active	JL57		
Merrimac Landing Apartments (off site parking)	8807	Monitor Way	3.26	1.29	T75.4	Private	General Infiltration Practices	0.143	-76.27069876	36.94061729	Yes	02/03/1995	Active	JL57		
Merrimac Landing Apartments (off site parking)	8807	Monitor Way	3.26	1.29	T75.7	Private	General Infiltration Practices	0.143	-76.27180807	36.93910698	Yes	02/03/1995	Active	JL57		
Merrimac Landing Apartments (off site parking)	8807	Monitor Way	3.26	1.29	T75.5	Private	General Infiltration Practices	0.143	-76.27133042	36.94213829	Yes	02/03/1995	Active	JL57		
Merrimac Landing Apartments (off site parking)	8807	Monitor Way	3.26	1.29	T75.6	Private	General Infiltration Practices	0.143	-76.27204455	36.94157663	Yes	02/03/1995	Active	JL57		
Macedonia Christian Church	1426	Marshall Avenue	0.51	0.31	T116.1	Private	Detention Basin	0.218	-76.26340717	36.85913697	Yes	02/21/1995	Active	JL56		
Allied Systems	2224	Springfield Avenue	2.47	1.81	T178.1	Private	Extended Detention Basin	0.42	-76.25327387	36.8327058	Yes	03/16/1995	Active	JL54		
Bay Oaks Place Extension NRHA	2318	Bay Oaks Place	0.36	0.23	T212.1	Public	General Infiltration Practices	0.23	-76.2197493	36.93525685	No	04/29/1995	Active	JC86		
Contel Cellular Tower	4116	W 24th Street	0.181	0.04	T170.1	Private	Grassed Swale	0.181	-76.28956676	36.87132353	Yes	05/04/1995	Active	JL56		
Cowan Building Addition	3325	Croft Street	0.86	0.64	T251.1	Private	Detention Basin	0.86	-76.22174442	36.88474602	Yes	05/24/1995	Active	JC86		
Norfolk Tent Company	836	Poplar Hall														

ALL ACTIVE SWMFs - CITY OF NORFOLK														
Baypoint Condominiums (NRHA)	4801	Pretty Lake Avenue	6.15	1.92	T207.1	Private	General Infiltration Practices	0	76.18519909	36.92477726	No	12/12/1995	Active	JL57
Abyssinia Baptist Church Parking Lot	2816	Colley Avenue	0.17	0.17	T245.1	Private	General Infiltration Practices	0.17	76.29466429	36.87661364	Yes	01/01/1996	Active	JL56
Pope Avenue Street Improvements	1740	Pope Avenue	2.9	1.2	S34.1	Public	Manufactured BMP Systems	2.34	76.266962	36.873969	No	01/01/1996	Active	JL56
Pizzeria Uno	5700	E Virginia Beach Boulevard	2.05	1.73	T70.1	Private	Retention Basin	1.8	76.20826364	36.85720334	Yes	01/01/1996	Active	JL54
NPD 2nd Precinct Training Center	2500	IN Military Highway	8	4.4	S45.1	Public	Retention Basin	6.15	76.20952964	36.8801441	No	01/04/1996	Active	JC26
8570 Chesapeake Blvd. (18 unit apartments)	8570	Chesapeake Boulevard	0.76	0.49	T275.1	Private	General Infiltration Practices	0.38	76.24395043	36.93238366	Yes	01/10/1996	Active	JC28
8570 Chesapeake Blvd. (18 unit apartments)	8570	Chesapeake Boulevard	0.76	0.49	T275.2	Private	General Infiltration Practices	0.38	76.24340728	36.9324244	Yes	01/10/1996	Active	JC28
Union Chapel A.M.E. Church	1200	Saint Julian Avenue	0.65	0.5	T38.1	Private	General Infiltration Practices	0.217	76.26660168	36.86084737	Yes	01/25/1996	Active	JL56
Union Chapel A.M.E. Church	1200	Saint Julian Avenue	0.65	0.5	T38.2	Private	General Infiltration Practices	0.217	76.26691158	36.86084308	Yes	01/25/1996	Active	JL56
Union Chapel A.M.E. Church	1200	Saint Julian Avenue	0.65	0.5	T38.3	Private	General Infiltration Practices	0.217	76.26702279	36.86128087	Yes	01/25/1996	Active	JL56
O'Reilly Auto Parts	3212	Tidewater Drive	0.97	0.97	T278.1	Private	General Infiltration Practices	0.94	76.26276499	36.87817947	Yes	02/16/1996	Active	JL56
Target Store	1245	N Military Highway	21.6	16.35	T285.1	Private	Retention Basin	17.1	76.21405721	36.86556907	No	03/04/1996	Active	JL54
Auxiliary Systems	2401	Church Street	2.23	1.92	T309.1	Private	Grassed Swale	1.56	76.27986789	36.86756412	Yes	03/18/1996	Active	JL56
Cullifer Construction Company	864	JW 40th Street	0.12	0.08	T282.1	Private	General Infiltration Practices	0.12	76.29775822	36.88145927	Yes	03/19/1996	Active	JL56
U-Haul Center	5609	Ruby Road	0.06	0.06	T293.1	Private	General Infiltration Practices	0.06	76.21427178	36.85820128	Yes	05/26/1996	Active	JL54
Signature Printing	889	Poplar Hall Drive	0.62	0.04	T317.1	Private	General Infiltration Practices	0.62	76.19877839	36.85427382	No	03/27/1996	Active	JL54
Signature Printing	889	Poplar Hall Drive	0.62	0.04	T317.2	Private	Grassed Swale	0.31	76.19871631	36.85428348	No	03/27/1996	Active	JL54
Department of Homeland Security Building	5280	Henneman Drive	2.51	1.26	T284.1	Private	Detention Basin	2.51	76.22331929	36.87582299	Yes	03/28/1996	Active	JL54
Elm Court Development	915	Elm Court	5.47	1.69	T153.1	Private	Detention Basin	5.47	76.23534842	36.84860964	Yes	04/12/1996	Active	JL54
New Hope Christian Community Church	3240	Brest Avenue	0.54	0.17	T343.1	Private	General Infiltration Practices	0.54	76.25780665	36.87793612	Yes	07/10/1996	Active	JL56
New Hope Christian Community Church	3241	Brest Avenue	0.54	0.17	T343.2	Private	General Infiltration Practices	0.54	76.25731051	36.87755018	Yes	07/10/1996	Active	JL56
Piedmont Aviation Hanger - International Airport	6170	Miller Store Road	0.55	0.55	T281.1	Private	Extended Detention Basin	0.55	76.20192892	36.88625828	No	07/24/1996	Active	JC26
Safe Place Mini Storage	6137	Miller Store Road	1.32	1.14	T333.1	Private	General Infiltration Practices	0.86	76.20340347	36.88269289	Yes	08/21/1996	Active	JC26
Manteo Street and West Princess Road Townhouses	636	JW Princess Anne Road	0.0434	0.038	T370.1	Private	General Infiltration Practices	0.0434	76.29671752	36.86499659	Yes	08/21/1996	Active	JL56
Townhouses	7322	Ivan Patten Road	0.05	0.03	T291.1	Private	General Infiltration Practices	0.05	76.25512509	36.91773583	Yes	09/26/1996	Active	JL56
Strip Mall - JANAF	5950	IE VIRGINIA BEACH BOULEVARD	1.76	1.12	T379.1	Private	Detention Basin	1.12	76.20065689	36.85626548	Yes	09/11/1996	Active	JL54
Lake Taylor High School Stadium	1384	Kempsville Road	35.54	2.87	NP504.1	School	Manufactured BMP Systems	0.71	76.20019823	36.86834091	Yes	10/29/1996	Active	JL54
Little Creek East Shopping Center	3857	IE Little Creek Road	1.66	1.33	T297.1	Private	Detention Basin	1.66	76.19668186	36.91776654	Yes	12/11/1996	Active	JC26
Shiloh Baptist Church Parking Lot	745	Park Avenue	2.32	1.91	T173.2	Private	Detention Basin	2.32	76.27003585	36.84843528	Yes	01/01/1997	Active	JL54
Granby Municipal Building/Parking Lot	4606	Granby Street	0.42	0.08	T301.1	Public	General Infiltration Practices	0.42	76.203244	36.882950	N/A	01/01/1997	Active	JL54
Zap Tax	325	E Bayview Boulevard	0.57	0.21	T257.1	Private	General Infiltration Practices	0.21	76.25541151	36.93247157	Yes	01/01/1997	Active	JC26
Booker T. Washington High School	1111	Park Avenue	12.38	2.03	NP503.1	School	Manufactured BMP Systems	0.34	76.27079129	36.85457429	Yes	01/01/1997	Active	JL54
Woodlawn Memorial Gardens Funeral Home	6329	IE VIRGINIA BEACH BOULEVARD	2.91	1.68	T409.1	Private	Detention Basin	1.95	76.18737996	36.85363854	Yes	01/01/1997	Active	JL54
Woodlawn Memorial Gardens Funeral Home	6329	IE VIRGINIA BEACH BOULEVARD	2.91	1.68	T409.2	Private	Detention Basin	1.95	76.1875791	36.85321923	Yes	01/01/1997	Active	JL54
Shiloh Baptist Church Parking Lot	745	Park Avenue	2.32	1.91	T173.1	Private	Detention Basin	1.16	76.2701261	36.84834363	Yes	01/01/1997	Active	JL54
Commonwealth Building Materials	401	Naval Base Road	0.69	0.69	T285.1	Private	General Infiltration Practices	0.69	76.2691586	36.90984892	Yes	01/02/1997	Active	JL57
Chrysler Museum - Gallery Project	245	JW Olney Road	0.16	0.16	T222.1	Private	General Infiltration Practices	0.16	76.25289538	36.85681704	Yes	02/25/1997	Active	JL56
Dairy Queen/Zero Subs	1520	Colley Avenue	0.32	0.19	T367.1	Private	General Infiltration Practices	0.162	76.29703403	36.86836451	No	03/31/1997	Active	JL54
Dairy Queen/Zero Subs	1520	Colley Avenue	0.32	0.19	T367.2	Private	General Infiltration Practices	0.162	76.29748598	36.86839134	No	03/31/1997	Active	JL56
John's Brothers Inc. Parking Lot and Wash Building	1384	Ingleside Road	3.7	2.33	BROTHERS 1	Private	Grassed Swale	0.29	76.242015	36.863043	Yes	04/17/1997	Active	JL54
Heritage Bank & Trust	4815	Colley Avenue	0.41	0.29	T457.1	Private	General Infiltration Practices	0.083	76.29555345	36.8878181	Yes	04/25/1997	Active	JL56
Heritage Bank & Trust	4815	Colley Avenue	0.41	0.29	T457.2	Private	General Infiltration Practices	0.083	76.29541129	36.88782024	Yes	04/25/1997	Active	JL56
Condo	9630	13th Bay Street	0.28	0.2	T349.1	Private	General Infiltration Practices	0.254	76.20218642	36.93164237	Yes	05/14/1997	Active	JC26
Doctor's Office	1902	Omohundro Avenue	0.63	0.53	T430.1	Private	General Infiltration Practices	0.63	76.28657609	36.86631631	Yes	06/12/1997	Active	JL56
Heco Slings Corporation Building Addition	4570	Progress Road	1.29	0.73	HECO 1	Private	Detention Basin	0.84	76.20081297	36.86633777	Yes	07/24/1997	Active	JL54
East Coast Brake Rebuilders	5812	Curlew Drive	1.5	0.88	T447.1	Private	Detention Basin	1.25	76.20626941	36.84177223	No	07/25/1997	Active	JL54
L. Fisherman & Son Inc. Flooring Installation	5875	ADDERLEY STREET	0.64	0.44	T449.1	Private	Grassed Swale	0.432	76.20319158	36.8428294	Yes	10/28/1997	Active	JL54
Pretty Lake Estates - Lot 14	9532	8th Bay Street	0.17	0.05	T237.1	Private	Bioretention Basins	0	76.2085793	36.93055139	No	11/03/1997	Active	JC26
Winn Nursery	1201	IE LIBERTY STREET	0.81	0.36	T330.1	Private	Detention Basin	0.81	76.27711669	36.82475758	Yes	01/01/1998	Active	JL54
Shell Station	2750	IN MILITARY HIGHWAY	0.93	0.74	T416.1	Private	Detention Basin	0.89	76.21549219	36.88511502	Yes	01/01/1998	Active	JC26
Ford Motor Company Body Shop & Final Area Addition	2424	Ford Drive	0.5	0.5	T487.1	Private	Detention Basin	0.5	76.25258446	36.831014	No	01/01/1998	Active	JL54
Covenant Presbyterian Church	913	Covenant Street	0.56	0.56	T448.1	Private	Detention Basin	0.35	76.26416087	36.85133447	Yes	03/20/1998	Active	JL54
Covenant Presbyterian Church	913	Covenant Street	0.56	0.56	T448.2	Private	Detention Basin	0.27	76.26415014	36.85108485	Yes	03/20/1998	Active	JL54
New Life Christian Center	3909	Pleasant Avenue	0.97	0.62	T446.1	Private	Detention Basin	0.98	76.19491696	36.92838498	Yes	05/07/1998	Active	JC26
Amelia Building at Koger Center	885	Kempsville Road	10.71	8	T591.1	Private	Detention Basin	8.7	76.19494915	36.85362137	Yes	06/11/1998	Active	JL54
Kramer Tire	1371	Azalea Garden Road	3.1	2.47	T577.1	Private	Detention Basin	1.11	76.23598695	36.86512427	Yes	09/17/1998	Active	JL54
Central Brambleton	1231	Booth Street	0	0	S30.1	Public	Retention Basin	57.02	76.27105145	36.85714984	N/A	12/03/1998	Active	JL54
Home Depot, Broad Creek Crossing	1261	IN Military Highway	23.92	14.52	T548.1	Private	Retention Basin	22.7	76.21490479	36.86764656	Yes	12/18/1998	Active	JL54
USA Recreation Area	5800	Northampton Boulevard	1.37	10	T361	Private	Extended Detention Basin	1.37	76.203693	36.878807	No	01/01/1999	Active	JC26
Burning Bush Worship Center	405	Pendleton Street	0.41	0.28	T364.1	Private	General Infiltration Practices	0.223	76.28357603	36.83562177	Yes	01/01/1999	Active	JL56
Dale's Train Station	5880	Poplar Hall Drive	1.32	1.15	T400	Private	Detention Basin	1.32	76.20300114	36.8496851	Yes	01/01/1999	Active	JL54
Fairlawn Recreation Center Addition	1014	KEMPSVILLE ROAD	3.5	1.21	S23.1	Public	Detention Basin	3.5	76.19402647	36.85604657	Yes	01/01/1999	Active	JL54
Apartment Parking Lot	1601	Kingston Avenue	0.34	0.15	T435.1	Private	General Infiltration Practices	0.096	76.22929215	36.93395259	Yes	01/01/1999	Active	JC26
Moran Towing of Virginia, Inc.	1901	Brown Avenue	0.03	0.03	T450.1	Private	Grassed Swale	0.09	76.272058	36.84213977	Yes	01/01/1999	Active	JL54
Langley Federal Credit Union	7420	GRANBY STREET	0.15	0.07	T455.1	Private	General Infiltration Practices	0.15	76.272902	36.913163	Yes	01/01/1999	Active	JL56
Norfolk Botanical Gardens Production House	6700	Azalea Garden Road	1.62	0.5	S24.1	Public	Grassed Swale	0.22	76.1988536	36.90720726	Yes	01/01/1999	Active	JC26
Norfolk Collegiate Lower School	5429	Tidewater Drive	8.81	2.8	T478.1	Private	Extended Detention Basin	3.61	76.26154304	36.88085048	Yes	01/01/1999	Active	JL56
Bayview Recreation Center	1434	IE Bayview Boulevard	3	0.8	S25.1	Public	General Infiltration Practices	1.44	76.235057	36.9355659	No	01/01/1999	Active	JC26
Norfolk Juvenile Detention Center	1310	CHILD CARE COURT	28.83	5.04	S26.1	Public	Wet Pond 1	29.97	76.20866865	36.86733881	N/A	01/01/1999	Active	JL54
Combined McKann Ave. Facility	2205	McKann Avenue	4.22	4.01	S32.1	Public	Retention Basin	4.22	76.25562072	36.86178947	Yes	01/01/1999	Active	JL56
Calvert Square Site Improvements	1855	W Brambleton Avenue	3.24	3.06	S27.1	Public	General Infiltration Practices	3.24	76.20432295	36.85907903	No	01/01/1999	Active	JL56
H.B. Hunter Parking Lot	2814	Cromwell Road	1.9	1.92	T614.2	Private	General Infiltration Practices	0.545	76.2739711	36.85387034	Yes	01/01/1999	Active	JL56
H.B. Hunter Parking Lot</														

ALL ACTIVE SWMFs - CITY OF NORFOLK																
Family Dollar	6130	Chesapeake Boulevard	2.13	0.87	T485.1	Private	Extended Detention Basin	1.43	76.23769283	36.890313	No	02/10/1999	Active	JL56		
Cottage Place Subdivision	1110	Cottage Place	0.12	0.11	T341.1	Private	General Infiltration Practices	1.48	76.238129	36.94585	No	02/18/1999	Active	JC26		
Mariner's Watch Apartments -Phase 1	740	Mariners Way	7.22	3.32	T627.1	Private	General Infiltration Practices	0.56	76.24724686	36.93982795	Yes	04/01/1999	Active	JC26		
Mount Pleasant Baptist Church Parking Lot	944	Baltimore Street	0.25	0.18	T593.1	Private	Detention Basin	0.265	76.29166156	36.91694737	Yes	07/13/1999	Active	JL57		
Costco Gas Station	850	Glenrock Road	1.51	1.29	T644	Private	Manufactured BMP Systems	1.24	76.19978517	36.85074109	Yes	12/02/1999	Active	JL54		
United Way	2515	Walmer Avenue	1.55	1.02	T598.1	Private	Detention Basin	1.29	76.22481555	36.87738926	Yes	12/13/1999	Active	JL54		
Lake Wright Executive Center	5701	Lake Wright Drive	43	35	T98.3611.1	Private	Retention Basin	26.2	76.20904684	36.87736351	No	01/01/2000	Active	JC26		
Windstream	1319	Ingleside Road	0.61	0.45	T99.4087.1	Private	Detention Basin	0.5	76.24395311	36.85945588	No	01/01/2000	Active	JL54		
Jack & Jill Ice Cream Co.	7816	N Military Highway	0.884	0.748	T188.1	Private	General Infiltration Practices	0.884	76.23697668	36.91450051	Yes	01/01/2000	Active	JC26		
HKI Station Wards Corner	7725	Granby Street	3.25	2.15	T402.1	Private	Detention Basin	0.083	76.27795645	36.91830908	Yes	01/01/2000	Active	JL56		
Beekman Street & Cape Henry Avenue	1557	Beekman Street	1.3	1.05	T527.1	Private	General Infiltration Practices	0.163	76.22034261	36.87385974	No	01/01/2000	Active	JL54		
Lot E Bay Oaks Place	1	E Ocean View Avenue	0.17	10.06	T571.1	Private	General Infiltration Practices	0.04	76.21246826	36.93552528	No	01/01/2000	Active	JC26		
Calz Pizza	728	E Bayview Boulevard	0.46	10.39	T678.1	Private	Grassed Swale	0.24	76.24499917	36.93412136	Yes	01/01/2000	Active	JC26		
Plume Ln. Parking Garage	545	E PLUME STREET	0.87	0.9	T535.1	Public	Manufactured BMP Systems	0.87	76.28668472	36.84631421	No	01/01/2000	Active	JL54		
Glad Tidings Church	301	S NEWTON ROAD	10	2.63	T731.1	Private	General Infiltration Practices	0.384	76.1943993	36.83456267	Yes	01/01/2000	Active	JL54		
Almeda Business Center	2500	Almeda Avenue	6.59	0.26	T744.1	Private	Grassed Swale	6.59	76.21353418	36.88026211	Yes	01/01/2000	Active	JL54		
Cox Communications	4573	Village Avenue	0.08	0.06	T747.1	Private	General Infiltration Practices	0.075	76.23086529	36.86266074	Yes	01/01/2000	Active	JL54		
Consolidated McKann Ave Facility	2233	McKann Avenue	11.12	10.9	T536.1	Public	Manufactured BMP Systems	14.22	76.2545988	36.86174426	No	01/01/2000	Active	JL56		
Lake Wright Executive Center	5701	Lake Wright Drive	43	35	T98.3611.2	Private	Retention Basin	12.25	76.20966911	36.87934598	No	01/01/2000	Active	JC26		
Lake Wright Executive Center	5701	Lake Wright Drive	11	35	T98.3611.2	Private	Retention Basin	5.52	76.20458907	36.87814449	Yes	01/01/2000	Active	JC26		
Calvary Revival Church Addition	5833	Poplar Hall Drive	3.95	3.49	T05.01464	Private	Retention Basin	2.5	76.205657	36.848839	Yes	01/01/2000	Active	JL54		
Popeye's Chicken & Biscuits	5850	E VIRGINIA BEACH BOULEVARD	0.95	10.67	T766.1	Private	Detention Basin	0.297	76.20397747	36.856141	No	02/25/2000	Active	JL54		
Turbo Wash Dry Cleaners	4311	Colley Avenue	0.23	0.12	T755.1	Private	General Infiltration Practices	0.133	76.29505829	36.88424156	Yes	02/28/2000	Active	JL56		
Granby High School Renovations	7101	Granby Street	21.7	9.22	TNP50.1	School	General Infiltration Practices	4.85	76.27946019	36.906669194	Yes	02/29/2000	Active	JL56		
Duplex	6400	Chesapeake Boulevard	0.13	0.06	T612.1	Private	General Infiltration Practices	0.151	76.23843312	36.8967097	Yes	02/29/2000	Active	JC26		
Granby High School Renovations	7101	Granby Street	21.7	9.22	TNP50.2	School	General Infiltration Practices	0.11	76.27700865	36.90823184	Yes	02/29/2000	Active	JL56		
Granby High School Renovations	7101	Granby Street	21.7	9.22	TNP50.3	School	General Infiltration Practices	1.26	76.27996445	36.90670052	Yes	02/29/2000	Active	JL56		
Granby High School Renovations	7101	Granby Street	21.7	9.22	TNP50.4	School	General Infiltration Practices	5.19	76.27654731	36.908086	Yes	02/29/2000	Active	JL56		
Bank Street Baptist Church Parking Lot	7036	Chesapeake Boulevard	1.65	0.93	T1111.1	Private	General Infiltration Practices	1.65	76.23933971	36.90747905	Yes	03/01/2000	Active	JC26		
BEST	1551	W Ocean View Avenue	0.53	0.41	T610.1	Private	General Infiltration Practices	0.51	76.23237831	36.93207105	Yes	03/07/2000	Active	JC26		
Centura College	7020	N Military Highway	2.52	1.29	T99.4224.1	Private	Retention Basin	0.945	76.23312235	36.90875515	Yes	04/01/2000	Active	JC26		
First Va Bank of Tidewater	2222	E Little Creek Road	2.35	1.7	T589.1	Private	Retention Basin	2.35	76.22149229	36.9161196	Yes	04/19/2000	Active	JL54		
Willoughby Bluff Condos	264	W Ocean View Avenue	0.086	0.057	T643.1	Private	General Infiltration Practices	0.086	76.25543028	36.95757591	Yes	05/02/2000	Active	JL57		
Airport Long Term Parking	2200	Norview Avenue	1.49	2.95	T746.1	Private	Grassed Swale	1.12	76.20464849	36.89494902	No	05/02/2000	Active	JC26		
Excel Paving Corporation	1132	Harmony Road	0.3	0.25	T770.1	Private	Retention Basin	0.31	76.2174046	36.86107699	Yes	05/10/2000	Active	JL54		
Bay Oaks Place	3701	Bay Oaks Place	4.16	2.45	T509.1	Public	General Infiltration Practices	4.83	76.19739801	36.93156679	Yes	05/12/2000	Active	JC26		
WHRD building addition	5200	Hampton Boulevard	0	0	T00-4523.1	Private	General Infiltration Practices	0	76.30173728	36.88959972	No	09/08/2000	Active	JL56		
First Pentecostal Church-Building and Parking Lot	1430	WILSON ROAD	0.17	10.06	T250.1	Private	General Infiltration Practices	0.123	76.26584262	36.82875976	Yes	10/09/2000	Active	JL54		
First Pentecostal Church-Building and Parking Lot	1430	WILSON ROAD	0.17	10.06	T250.2	Private	General Infiltration Practices	0.123	76.26592174	36.82864866	Yes	10/09/2000	Active	JL54		
First Pentecostal Church-Building and Parking Lot	1430	WILSON ROAD	0.17	10.06	T250.3	Private	General Infiltration Practices	0.123	76.20355294	36.82812857	Yes	10/09/2000	Active	JL54		
First Pentecostal Church-Building and Parking Lot	1430	WILSON ROAD	0.17	10.06	T250.4	Private	General Infiltration Practices	0.123	76.26563072	36.82803732	Yes	10/09/2000	Active	JL54		
Duplex	248	W Freemason Street	0.45	0.37	T776.1	Private	General Infiltration Practices	0.054	76.29318647	36.852255636	Yes	10/11/2000	Active	JL54		
Duplex	248	W Freemason Street	0.45	0.37	T776.2	Private	General Infiltration Practices	0.054	76.29306369	36.85226012	Yes	10/11/2000	Active	JL54		
The Kempsville Center	860	Kempsville Road	6.2	2.31	T00-4341.1	Private	Detention Basin	0.85	76.189161	36.8528295	Yes	11/04/2000	Active	JL54		
Rivertide Commerce Center	120	Corporate Boulevard	6.65	5.18	T719.1	Private	Retention Basin	6.65	76.21440155	36.84116115	Yes	11/14/2000	Active	JL54		
Arcler Equipment Co.	304	E 25th Street	1.72	1.19	T769.1	Private	Manufactured BMP Systems	1.39	76.28102124	36.86978503	Yes	12/12/2000	Active	JL56		
Arcler Equipment Co.	304	E 25th Street	1.72	1.19	T769.2	Private	Grassed Swale	0.327	76.28164887	36.87033434	Yes	12/12/2000	Active	JL56		
Norfolk Commerce Pond #3	2416	ALMEDA AVENUE	0	0	S11.1	Public	Detention Basin	28.35	76.212845	36.878975	No	01/01/2001	Active	JL56		
Parking Lot	2129	Vincent Avenue	0.52	0.13	T792.1	Private	General Infiltration Practices	0.52	76.25106901	36.86064986	Yes	01/01/2001	Active	JL56		
Teagle and Little	1048	W 27th Street	0.2	0.13	T00-4352.1	Private	Detention Basin	0.203	76.29957408	36.87658682	Yes	02/05/2001	Active	JL56		
WVC Parking Lot Improvements	716	FRONT STREET	0	0	T01-0055.1	Private	General Infiltration Practices	0	76.30400589	36.85614552	Yes	05/14/2001	Active	JL56		
Ballantine Home	7211	Granby Street	0.97	0.56	T99.4169.1	Private	General Infiltration Practices	0.22	76.27621606	36.90813962	Yes	05/29/2001	Active	JL56		
USA Recreation Area	5800	Northampton Boulevard	1.37	10	T36.2	Private	General Infiltration Practices	0.4	76.20658447	36.87680132	Yes	06/01/2001	Active	JC26		
Faith Wesleyan Church	745	Pecan Point Road	2.65	11.41	T99.4033.1	Private	Detention Basin	3.86	76.22369472	36.8536602	Yes	06/04/2001	Active	JL54		
Rite Aid	1101	E Little Creek Road	0.91	0.74	T136.1	Private	Retention Basin	0.91	76.20406589	36.91374135	Yes	06/08/2001	Active	JC26		
Calvary Academy of the King Elementary School	2329	E Little Creek Road	10.39	4.73	T258.1	Private	Retention Basin	10.39	76.21840239	36.91394937	Yes	06/13/2001	Active	JC26		
Calvary Academy of the King Elementary School	2329	E Little Creek Road	10.39	4.73	T258.2	Private	Retention Basin	5.196	76.21867597	36.91390005	Yes	06/13/2001	Active	JC26		
Navy Federal Credit Union	1530	International Boulevard	3	1.88	T326.1	Private	General Infiltration Practices	3	76.22733414	36.86929356	Yes	07/26/2001	Active	JC26		
Enterprise Rent-A-Car	1361	E Little Creek Road	0.45	0.3	T382.1	Private	General Infiltration Practices	0.45	76.23480946	36.91566712	Yes	07/30/2001	Active	JC26		
Rite Aid Regional Office	5315	HENNEPIN DRIVE	0.75	0.5	T516.1	Private	General Infiltration Practices	0.75	76.22220576	36.87568138	Yes	08/01/2001	Active	JL54		
Park Place Central	601	59th Street	0.28	0.15	T566.1	Private	Detention Basin	0.209	76.29074156	36.87790419	Yes	09/02/2001	Active	JL56		
Walter H. Taylor Elementary School	1410	Clairement Avenue	4.03	1.5	TNP07.1	School	General Infiltration Practices	0.4	76.30425912	36.86986961	Yes	08/20/2001	Active	JL56		
Walter H. Taylor Elementary School	1410	Clairement Avenue	4.03	1.5	TNP07.2	School	General Infiltration Practices	0.24	76.30405065	36.86931939	Yes	08/20/2001	Active	JL56		
Walter H. Taylor Elementary School	1410	Clairement Avenue	4.03	1.5	TNP07.3	School	General Infiltration Practices	0.38	76.30394876	36.86945887	Yes	08/20/2001	Active	JL56		
Bazemore's	1170	Lexan Avenue	0.83	0.63	T705.1	Private	Manufactured BMP Systems	0.39	76.30288392	36.9050717	Yes	08/27/2001	Active	JL56		
Mt. Gilead Baptist Church	1057	Kennedy Street	0.402	0.291	T00-4298.2	Private	General Infiltration Practices	0.201	76.24245912	36.90597989	Yes	09/11/2001	Active	JL56		
Mt. Gilead Baptist Church	1057	Kennedy Street	0.402	0.291	T00-4298.2	Private	General Infiltration Practices	0.201	76.24245912	36.90597989	Yes	09/11/2001	Active	JL56		
22nd St. Parking Lot	738	W 22nd Street	0.93	0.74	T00-4320.1	Private	General Infiltration Practices	0.93	76.29352838	36.87076778	No	09/19/2001				

ALL ACTIVE SWMFs - CITY OF NORFOLK																
Fairlawn Elementary School Parking Lot	1132	WADE STREET	3.9	2.4	NP09.1	School	Grassed Swale	3.4	76.19445965	36.85802729	Yes	01/01/2002	Active	JL54		
Grandy Village, Phase 1	3150	KIMBALL TERRACE	33.84	7.03	01-0222.1	Public	Manufactured BMP Systems	37.26	76.24816108	36.84320563	No	01/01/2002	Active	JL54		
Bay Disposal	2424	Springfield Avenue	102.2	102.2	02-0012.1	Private	Extended Detention Basin	9.05	76.24988079	36.83589467	No	01/01/2002	Active	JL54		
Avis Rent A Car Expansion	3462	IN MILITARY HIGHWAY	2.912	2.649	T465.1	Private	Detention Basin	2.912	76.23830046	36.88878132	Yes	01/01/2002	Active	CB26		
Shorewood Cove Apartments	293/295	Corporate Boulevard	5.4	2.58	00-4329.1	Private	General Infiltration Practices	0.61	76.21184707	36.83561673	Yes	01/17/2002	Active	JL54		
Landmark Aviation	6101	BURTON STATION ROAD	1.64	1.58	T498.1	Private	Extended Detention Basin	1.64	76.19799726	36.88656079	Yes	01/22/2002	Active	CB26		
Mallory Country Club	907	WEYANOE STREET	0	0	01-0019.1	Private	General Infiltration Practices	0.212	76.31035388	36.87215392	Yes	03/28/2002	Active	JL54		
AAA Self Storage	6562	TIDEWATER DRIVE	4.89	3.415	01-0166.1	Private	Detention Basin	4.502	76.25448488	36.88908205	No	04/09/2002	Active	JL54		
Iron Mountain Management Inc.	4555	Progress Road	15.45	5	01-0003.1	Private	Detention Basin	5.45	76.23223722	36.86376805	No	04/22/2002	Active	JL54		
Fuel Express at Farm Fresh	1201	IN MILITARY HIGHWAY	1.44	1.31	02-0001.1	Private	Bioswale	1.437	76.20957524	36.86366719	No	04/26/2002	Active	JL54		
Woodard Office Building	2511	WALMER AVENUE	1.01	0.707	01-0192.1	Private	General Infiltration Practices	0.503	76.2246117	36.87671777	Yes	05/15/2002	Active	CB26		
Woodard Office Building	2511	WALMER AVENUE	1.01	0.707	01-0192.2	Private	General Infiltration Practices	0.503	76.22424692	36.87606973	Yes	05/15/2002	Active	CB26		
Mariner's Watch Apartments - Phase 1	740	Mariners Way	7.22	3.32	T627.2	Private	General Infiltration Practices	0.417	76.24720515	36.93904166	Yes	06/05/2002	Active	CB26		
ABC Supply Company	3373	Progress Road	3.5	1.74	02-0103.1	Private	Detention Basin	2.503	76.24286413	36.86013969	Yes	06/11/2002	Active	JL54		
Mariner's Watch Apartments - Phase 1	740	Mariners Way	7.22	3.32	T627.3	Private	General Infiltration Practices	1.88	76.250936	36.938789	Yes	06/25/2002	Active	CB26		
Tabernacle Church	7000	Granby Street	10.99	7.47	T537.1	Private	Extended Detention Basin	7.14	76.27339706	36.90363563	Yes	08/27/2002	Active	JL54		
First Baptist Church of Lamber's Point	1268	38th Street	0.94	0.59	T698.1	Private	General Infiltration Practices	0.59	76.30536228	36.880034578	No	09/18/2002	Active	JL56		
Infinite Day School	722	Miller Street	0.34	0.15	00-4467.1	Private	General Infiltration Practices	0.34	76.25442713	36.91517105	Yes	09/19/2002	Active	JL56		
Norfolk Christian School	255	Thole Street	0.95	3.24	05-0153.1	Private	Detention Basin	9.5	76.27054914	36.90459547	No	10/21/2002	Active	JL56		
Bayview Estates Subdivision	5511	Jenny Court	1.01	0	00-4449.1	Private	Detention Basin	0.52	76.25591185	36.94080916	No	11/27/2002	Active	CB26		
Shell	6100	Tidewater Drive	0.94	0.71	00-4243.1	Private	Detention Basin	0.94	76.25709325	36.89177601	Yes	12/18/2002	Active	JL54		
Woodfin Oil	5139	E Virginia Beach Boulevard	0.9	0.62	00-4244.1	Private	Manufactured BMP Systems	1.65	76.22565508	36.85615388	No	01/01/2003	Active	JL54		
Central Business Park	910	Denison Avenue	31	23	99-3931.1	Public	Retention Basin	0.8	76.25071764	36.9085136	Yes	01/01/2003	Active	JL54		
Lake Wright Resort	6280	INORTHAMPTON BOULEVARD	13.5	3.72	T555.1	Private	Manufactured BMP Systems	10	76.2030552	36.87782822	No	01/01/2003	Active	CB26		
Central Business Park	910	Denison Avenue	31	23	99-3931.2	Public	Retention Basin	5	76.25058621	36.90823399	No	01/01/2003	Active	JL54		
Central Business Park	910	Denison Avenue	31	23	99-3931.3	Public	Grassed Swale	18	76.24775648	36.90835623	Yes	01/01/2003	Active	JL54		
Affordable Towing and Recovery	2424	CROMWELL ROAD	0.84	10.67	02-0117.1	Private	Detention Basin	0.8	76.248903	36.86439895	Yes	03/25/2003	Active	JL54		
Apartments	200	Maple Avenue	0.327	0.226	01-0223.1	Private	General Infiltration Practices	0.54	76.2599954	36.94985106	Yes	04/22/2003	Active	JL57		
Village Point Senior Housing	1220	38th Street	0.72	0.58	00-4332.1	Private	General Infiltration Practices	0.144	76.303782	36.879969	Yes	08/28/2003	Active	JL54		
Village Point Senior Housing	1220	38th Street	0.72	0.58	00-4332.2	Private	General Infiltration Practices	0.144	76.3039431	36.8799868	Yes	08/29/2003	Active	JL54		
Village Point Senior Housing	1220	38th Street	0.72	0.58	00-4332.3	Private	General Infiltration Practices	0.144	76.30357593	36.87978634	Yes	08/28/2003	Active	JL54		
Village Point Senior Housing	1220	38th Street	0.72	0.58	00-4332.4	Private	General Infiltration Practices	0.144	76.30308375	36.87986358	Yes	08/28/2003	Active	JL54		
Village Point Senior Housing	1220	38th Street	0.72	0.58	00-4332.5	Private	General Infiltration Practices	0.144	76.30301133	36.880006043	Yes	08/28/2003	Active	JL54		
Vanguard Warehouse	1172	JAZALEA GARDEN ROAD	5.47	2.42	03-0028.1	Private	Detention Basin	0.937	76.23188317	36.86121863	Yes	09/02/2003	Active	JL54		
Wash Land	8049	E Virginia Beach Boulevard	0.74	0.59	02-0905.1	Private	Extended Detention Basin	0.74	76.19772139	36.85906577	Yes	10/09/2003	Active	JL54		
Green Gifford / Wells Fargo Bank, commercial center	1200	IN MILITARY HIGHWAY	6.88	4.86	03-0015.1	Private	Retention Basin	6.88	76.21061325	36.86781948	Yes	10/13/2003	Active	JL54		
Arby's Restaurant	460	IN MILITARY HIGHWAY	0.77	0.64	03-0041.1	Private	Bioswale	0.77	76.20922828	36.84082811	Yes	10/13/2003	Active	JL54		
Rally's	2300	Azalea Garden Road	0.38	0.28	03-0047.1	Private	General Infiltration Practices	0.3628	76.23201191	36.87063475	Yes	11/17/2003	Active	JL54		
Walgreens	8609	TIDEWATER DRIVE	1.75	1.51	01-0224.1	Private	Manufactured BMP Systems	1.75	76.253951	36.9330393	Yes	11/21/2003	Active	JL57		
Office Warehouse Complex	5724	Selger Drive	0.35	0.3311	02-0170.1	Private	Bioswetention Basins	0.356	76.20880981	36.83881958	Yes	12/09/2003	Active	JL54		
Verizon Virginia, Inc.	856	W 40TH STREET	0.115	0.022	02-0283.1	Private	General Infiltration Practices	0.115	76.29736132	36.881662721	Yes	01/01/2004	Active	CB26		
RGG Roofing Supply	1140	JAZALEA GARDEN ROAD	6.27	3.31	03-0033.1	Private	Extended Detention Basin	2.44	76.23090416	36.85883438	Yes	01/01/2004	Active	JL54		
Norfolk Collegiate Middle School	122	Granby Park	0.79	0.62	03-0042.1	Private	General Infiltration Practices	0.34	76.22727763	36.91040653	Yes	01/01/2004	Active	CB26		
Willard Elementary School Parking Lot	1511	Willow Wood Drive	5.5	0.455	NPS13.1	School	General Infiltration Practices	0.627	76.2665302	36.88815544	No	01/01/2004	Active	JL56		
Virginia Paving Co.	3419	Trant Avenue	18.55	18.55	99-4218.1	Private	Retention Basin	6.9	76.24230623	36.84927729	Yes	01/01/2004	Active	JL54		
Norfolk Collegiate Middle School	122	Granby Park	0.79	0.62	03-0042.2	Private	General Infiltration Practices	1.68	76.27184272	36.91113977	Yes	01/01/2004	Active	CB26		
Virginia Paving Co.	3419	Trant Avenue	18.55	18.55	99-4218.2	Public	Detention Basin	2.38	76.24433659	36.85063693	N/A	01/01/2004	Active	JL54		
Riverpark Condominium	239	DUKE STREET	1.32	1.12	02-0075	Private	General Infiltration Practices	1.32	76.29388511	36.84950051	Yes	01/20/2004	Active	CB26		
Duplex 9610-9614	9610	16TH BAY STREET	0.3	0.084	03-0105.1	Private	Grassed Swale	0.3	76.19881987	36.93008828	Yes	01/20/2004	Active	CB26		
Duplex	3634	W OCEAN VIEW AVENUE	0.36	0.22	03-0066.1	Private	General Infiltration Practices	0.36	76.19761725	36.93151791	Yes	02/03/2004	Active	CB26		
Riverside Corporate Center Parcel	170	Corporate Boulevard	3.53	2.38	03-160.1	Private	Retention Basin	2.02	76.21315514	36.83801158	Yes	02/18/2004	Active	JL54		
Duplex	479	W OCEAN VIEW AVENUE	0.58	0.17	01-0173.1	Private	General Infiltration Practices	0.042	76.26332	36.960605	Yes	03/19/2004	Active	CB26		
Duplex	479	W OCEAN VIEW AVENUE	0.58	0.17	01-0173.2	Private	General Infiltration Practices	0.051	76.2623231	36.960519	Yes	03/19/2004	Active	CB26		
Duplex	9557	12th Bay Street	0.17	10.07	03-0309.1	Private	General Infiltration Practices	0.17	76.204322	36.930469	No	04/21/2004	Active	CB26		
Duplex	605	Banker Road	0.165	0.078	03-0096.1	Private	General Infiltration Practices	0.165	76.25485361	36.9179531	Yes	04/28/2004	Active	CB26		
Spring Hill Suites Marriott	6350	N Newtown Road	5.32	5	01-0188.1	Private	Extended Detention Basin	5.32	76.187536	36.848499	Yes	05/05/2004	Active	JL54		
Liberty Tax Service	7931	Shore Drive	0.24	0.13	T698.1	Private	Grassed Swale	0.19	76.19313732	36.91927191	Yes	05/13/2004	Active	CB26		
Duplex	479	W OCEAN VIEW AVENUE	0.14	0.082	03-0211.1	Private	General Infiltration Practices	0.042	76.26332	36.960605	Yes	05/13/2004	Active	CB26		
Duplex	479	W OCEAN VIEW AVENUE	0.14	0.082	03-0211.2	Private	General Infiltration Practices	0.042	76.26332	36.960519	Yes	05/13/2004	Active	CB26		
St. Mary's Home for Disabled Children	6171	Kempsville Circle	6.19	4.71	01-0263.1	Private	Retention Basin	1.86	76.19514227	36.85092929	Yes	09/22/2004	Active	JL54		
Townhouses	9700	12TH VIEW STREET	0.24	0.19	03-193.1	Private	General Infiltration Practices	0.118	76.28437936	36.9674069	No	10/19/2004	Active	JL57		
Townhouses	9700	12TH VIEW STREET	0.24	0.19	03-193.2	Private	General Infiltration Practices	0.118	76.284086	36.967436	No	10/13/2004	Active	JL57		
Westover Commons	1125	WESTOVER AVENUE	1.08	0.68	03-110.1	Private	General Infiltration Practices	0.76	76.3070628	36.86708345	Yes	11/16/2004	Active	CB26		
Ghent Arms	802	MANTEO STREET	0.55	0.48	03-0169.1	Private	General Infiltration Practices	0.27	76.29842341	36.86215429	Yes	12/06/2004	Active	JL54		
Vinings Landing Marine Center	8166	Shore Drive	4.42	2.39	04-0026.1	Private	Manufactured BMP Systems	3.76	76.191504	36.924149	Yes	12/21/2004	Active	CB26		
Checker Taxi Parking Lot	6257	Bewells Point Road	0.81	0.56	04-0278.1	Private	General Infiltration Practices	0.44	76.25984933	36.89348996	Yes	01/01/2005	Active	CB26		
Bay Oak Place Extension	3900	KEGAGIE DRIVE	1.51	0.72	01-0026.1	Public	General Infiltration Practices	1.51	76.19472921	36.93124947	No	01/01/2005	Active	CB26		
Pepsi Bottling Group	1194	PINERIDGE ROAD	3.01	1.93	03-0087.1	Private	Retention Basin	1.17	76.22684325	36.86327972	No	01/01/2005	Active	JL54		
Duplex	2806	W OCEAN VIEW AVENUE	0.63	0.46	03-0310.1	Private	General Infiltration Practices	0.63	76.20728756							

ALL ACTIVE SWMFs - CITY OF NORFOLK																
Pretty Lake Terrace - Infrastructure Only	9504	7TH BAY STREET	2.45	1.03	03-019.3	Private	Grassed Swale	2.45	76.21006608	36.9302276	No	02/01/2005	Active	CB26		
Colonial Chevrolet	6252	1E VIRGINIA BEACH BOULEVARD	10.72	10.32	04-0018.1	Private	Manufactured BMP Systems	7.42	76.19194508	36.85526966	No	02/09/2005	Active	JL54		
Senior Housing Development	6311	GRANBY STREET	10.88	6.89	02-0158.1	Private	Retention Basin	2.35	76.28116608	36.90015451	Yes	02/15/2005	Active	JL56		
Pretty Lake Townhouses	2603	PRETTY LAKE AVENUE	0.54	10.22	03-0303.1	Private	Extended Detention Basin	0.54	76.21093625	36.93126162	No	03/04/2005	Active	CB26		
Faith Deliverance Christian Center	1010	E 26TH STREET	2.49	1.49	02-0244.1	Private	Retention Basin	0.78	76.27400726	36.87301454	Yes	03/24/2005	Active	JL56		
Norfolk Academy	1585	Wesleyan Drive	65	1.56	1748.1	Private	Retention Basin	1.643	76.19484186	36.87219254	No	04/01/2005	Active	JL54		
Duplex	1538	LEA VIEW AVENUE	0.22	0.11	03-0272.1	Private	General Infiltration Practices	0.061	76.295639	36.968447	No	04/08/2005	Active	JL57		
Duplex	1538	LEA VIEW AVENUE	0.22	0.11	03-0272.2	Private	General Infiltration Practices	0.061	76.295397	36.968499	No	04/08/2005	Active	JL57		
Duplex	980	JW Ocean View Avenue	0.14	10.09	03-0151.5	Private	General Infiltration Practices	0.025	76.27730638	36.96720451	Yes	04/22/2005	Active	CB26		
Duplex	980	JW Ocean View Avenue	0.14	10.09	03-0151.5	Private	General Infiltration Practices	0.076	76.27730605	36.96705911	Yes	04/22/2005	Active	CB26		
Duplex	980	JW Ocean View Avenue	0.14	10.09	03-0151.5	Private	General Infiltration Practices	0.043	76.27743135	36.96690549	Yes	04/22/2005	Active	CB26		
Sherwood Forest Elementary	3035	Sherwood Forest Lane	0	10	NPS10.1	School	General Infiltration Practices	0.219	76.23873353	36.87069762	Yes	04/28/2005	Active	JL54		
Public Storage	854	SWIDGEON ROAD	3.774	3.013	04-0030.1	Private	Extended Detention Basin	1.887	76.25500381	36.90314876	No	05/10/2005	Active	JL56		
Public Storage	854	SWIDGEON ROAD	3.774	3.013	04-0030.2	Private	Extended Detention Basin	1.887	76.25428498	36.90357987	Yes	05/10/2005	Active	JL56		
AllSafe Self Storage	3701	1E PRINCESS ANNE ROAD	4.58	3.562	03-101.1	Private	Extended Detention Basin	2.29	76.23953191	36.86488393	No	05/24/2005	Active	JL54		
AllSafe Self Storage	3701	1E PRINCESS ANNE ROAD	4.58	3.562	03-101.2	Private	Extended Detention Basin	2.29	76.23808712	36.86388923	Yes	05/24/2005	Active	JL54		
Warehouse / Office Building	2635	Nevada Avenue	0.23	10.6725	04-1512.1	Private	General Infiltration Practices	0.223	76.24681905	36.87130314	Yes	05/30/2005	Active	JL56		
River Oaks Office Addition	5353	IE Princess Anne Road	0.75	10.5	03-163.1	Private	Grassed Swale	0.753	76.21848418	36.8727476	No	05/31/2005	Active	JL54		
8th Bay Street	9569	18TH BAY STREET	0.34	10	03-147.1	Private	Extended Detention Basin	0.224	76.20869147	36.931665	No	06/02/2005	Active	CB26		
Titustown Recreation Center	2545	Diven Street	0.21	10	557.1	Private	Extended Detention Basin	0.211	76.29521012	36.91463562	N/A	06/19/2005	Active	JL54		
Duplex - 3 Story	238	W OCEAN AVENUE	0	10	01-0078.1	Private	General Infiltration Practices	0.037	76.25442151	36.95727296	No	06/13/2005	Active	CB26		
Piedmont Hawthorne Aviation Hanger	6101	Burton Station Road	0	10	01-0111.1	Private	General Infiltration Practices	2.19	76.20171203	36.88398718	No	06/13/2005	Active	CB26		
Duplex	1271	W Ocean View Avenue	0	10	01-0165.1	Private	General Infiltration Practices	0	76.28709376	36.96690728	Yes	06/13/2005	Active	CB26		
EVMS Parking Lot	801	FAIRFAX AVENUE	3.77	2.01	01-0176.1	Private	General Infiltration Practices	0.466	76.30288124	36.86008553	Yes	06/13/2005	Active	JL56		
University Pizza Parking	5008	COLLEY AVENUE	0.25	10	02-0265.1	Private	Grassed Swale	0.145	76.25464019	36.88920318	Yes	06/19/2005	Active	JL54		
Duplex Complex William Henry Taylors Tract	8127	REDMON COURT	1.39	10.62	03-0026.1	Private	General Infiltration Practices	0.075	76.195977	36.922577	Yes	06/13/2005	Active	CB26		
Children's Harbor	1900	Lewellyn Avenue	0	10	99-4004.1	Private	Manufactured BMP Systems	0	76.2883383	36.86685385	Yes	06/13/2005	Active	JL56		
Lowe's	1081	N Military Highway	17.65	12.22	99-4237.1	Private	Retention Basin	12.469	76.21217966	36.85923569	Yes	06/13/2005	Active	JL54		
East Beach Marine	4521	Pretty Lake Avenue	1.62	1.28	1543.1	Private	General Infiltration Practices	0.803	76.18830532	36.92519017	No	06/13/2005	Active	CB26		
Duplex	1171	W Ocean View Avenue	0	10	01-0155.2	Private	General Infiltration Practices	0	76.20277078	36.90692050	Yes	06/19/2005	Active	CB26		
East Beach Marine	4521	Pretty Lake Avenue	1.62	1.28	1543.2	Private	General Infiltration Practices	0.34	76.18865669	36.92526843	No	06/13/2005	Active	CB26		
Piedmont Hawthorne Aviation Hanger	6101	Burton Station Road	0	10	01-0111.3	Private	Manufactured BMP Systems	1.029	76.20082154	36.88618529	Yes	06/13/2005	Active	CB26		
Clarendon Commons	1201	Ridgegate Avenue	0.34	10.23	04-0045.1	Private	General Infiltration Practices	0.22	76.30728841	36.86651738	No	07/22/2005	Active	JL54		
Savannah Suites	5649	LOWERY ROAD	2.06	1.46	04-0111.1	Private	Manufactured BMP Systems	0.22	76.21340275	36.86082985	Yes	07/22/2005	Active	JL54		
Clarendon Commons	1201	Ridgegate Avenue	0.34	10.23	04-0045.2	Private	Manufactured BMP Systems	0.22	76.3073099	36.86693493	Yes	07/22/2005	Active	JL56		
Savannah Suites	5649	LOWERY ROAD	2.06	1.46	04-0111.2	Private	Manufactured BMP Systems	0.24	76.21323913	36.86162457	Yes	07/22/2005	Active	JL54		
Savannah Suites	5649	LOWERY ROAD	2.06	1.46	04-0111.3	Private	Manufactured BMP Systems	0.081	76.21363631	36.86156387	Yes	07/22/2005	Active	JL54		
Savannah Suites	5649	LOWERY ROAD	2.06	1.46	04-0111.4	Private	Manufactured BMP Systems	1.64	76.21367365	36.86137462	Yes	07/22/2005	Active	JL54		
Savannah Suites	5649	LOWERY ROAD	2.06	1.46	04-0111.5	Private	Retention Basin	0.214	76.21367365	36.86137462	Yes	07/22/2005	Active	JL54		
Savannah Suites	5649	LOWERY ROAD	2.06	1.46	04-0111.6	Private	Manufactured BMP Systems	2.06	76.21340398	36.86151007	Yes	07/22/2005	Active	JL54		
Duplex	3206	PRETTY LAKE AVENUE	0.17	10.09	03-0308.1	Private	Detention Basin	0.173	76.20416522	36.92933381	No	07/29/2005	Active	CB26		
Duplex	3206	PRETTY LAKE AVENUE	0.17	10.09	03-0308.2	Private	Detention Basin	0.172	76.2040177	36.92931146	No	07/29/2005	Active	CB26		
Ghent Elementary School Bus Loop	200	Shirley Avenue	0.92	10.44	NPS16.1	School	General Infiltration Practices	0.922	76.288113	36.86469090	Yes	08/01/2005	Active	JL56		
Walmart @ Military Hwy	1170	N MILITARY HIGHWAY	0	10	02-0174.1	Private	Manufactured BMP Systems	6.91	76.20613933	36.86230021	Yes	08/03/2005	Active	JL54		
Tubby's Auto Parts	2215	E INDIAN RIVER ROAD	7.04	10.67	03-0081.1	Private	Manufactured BMP Systems	0.84	76.25467264	36.83025574	No	08/03/2005	Active	JL53		
Walmart @ Military Hwy	1170	N MILITARY HIGHWAY	0	10	02-0174.2	Private	Manufactured BMP Systems	6.41	76.20800614	36.86193111	Yes	08/03/2005	Active	JL54		
Picadilly Mews	6370	TRAFALGAR COURT	2	1.33	02-0193.1	Private	Detention Basin	1.9	76.23318136	36.86960666	Yes	08/10/2005	Active	CB26		
Picadilly Mews	6370	TRAFALGAR COURT	2	1.33	02-0193.2	Private	Grassed Swale	1.34	76.23259664	36.86979979	Yes	08/10/2005	Active	CB26		
Miller Gas Station	4900	HAMPTON BOULEVARD	1.26	1.02	04-0067.1	Private	Manufactured BMP Systems	0.146	76.30186121	36.88836854	Yes	08/23/2005	Active	JL56		
Duplex	9524	14TH BAY STREET	0.22	10.08	03-0290.1	Private	General Infiltration Practices	0.22	76.20179385	36.92833568	No	09/07/2005	Active	CB26		
Gethsemane Community Fellowship Church	1317	1E BRAMBLETON AVENUE	0.81	0.56	S-03-0065.1	Private	General Infiltration Practices	0.5	76.22723053	36.84693559	Yes	09/15/2005	Active	JL54		
Gethsemane Community Fellowship Church	1317	1E BRAMBLETON AVENUE	0.81	0.56	S-03-0065.2	Private	General Infiltration Practices	0.31	76.27310872	36.84749795	Yes	09/15/2005	Active	JL54		
Duplex	1106	Little Bay Avenue	0.17	10.09	04-0072.1	Private	Bioretention Basins	0	76.28181	36.9669532	No	09/23/2005	Active	CB26		
Jacob Elementary School Bus Loop	1300	Marshall Avenue	1.37	10.4	NPS14.1	School	General Infiltration Practices	0.685	76.26517475	36.85670973	Yes	10/04/2005	Active	JL56		
Jacob Elementary School Bus Loop	1300	Marshall Avenue	1.37	10.4	NPS14.2	School	General Infiltration Practices	0.685	76.26530301	36.85643288	Yes	10/04/2005	Active	JL56		
FOR Kids Residence	840	38TH STREET	0.13	10.07	04-0120.1	Private	General Infiltration Practices	0.13	76.25646137	36.88014714	No	10/05/2005	Active	JL54		
AAAAA Self Storage	5680	LOWERY ROAD	2	1.385	04-0023.1	Private	Manufactured BMP Systems	0.33	76.21242883	36.86130567	Yes	10/11/2005	Active	JL54		
AAAAA Self Storage	5680	LOWERY ROAD	2	1.385	04-0023.2	Private	Manufactured BMP Systems	0.33	76.21240201	36.863135	Yes	10/11/2005	Active	JL54		
AAA Self Storage	5680	LOWERY ROAD	2	1.385	04-0023.3	Private	Manufactured BMP Systems	0.33	76.21209222	36.86281739	Yes	10/11/2005	Active	JL54		
AAA Self Storage	5680	LOWERY ROAD	2	1.385	04-0023.4	Private	Manufactured BMP Systems	0.33	76.21207284	36.86274443	Yes	10/11/2005	Active	JL54		
AAA Self Storage	5680	LOWERY ROAD	2	1.385	04-0023.5	Private	Manufactured BMP Systems	0.33	76.211997	36.86245005	Yes	10/11/2005	Active	JL54		
AAA Self Storage	5680	LOWERY ROAD	2	1.385	04-0026.6	Private	Manufactured BMP Systems	0.33	76.21206080	36.86240756	Yes	10/11/2005	Active	JL54		
Endtime United Chrch of Jesus Christ Apostolic	7416	EVELYN T BUTTS AVENUE	0.56	10.36	03-0312.1	Private	General Infiltration Practices	0.2815	76.24288023	36.91039152	Yes	10/20/2005	Active	CB26		
Sherwood Forest Elementary School	3035	Sherwood Forest Lane	0.66	10.24	NPS15.1	School	Retention Basin	0.66	76.23786449	36.87085511	Yes	10/20/2005	Active	JL56		
Endtime United Chrch of Jesus Christ Apostolic	7416	EVELYN T BUTTS AVENUE	0.56	10.36	03-0312.2	Private	General Infiltration Practices	0.2815	76.24254227	36.91029286	Yes	10/20/2005	Active	JL56		
Colonnes Shipyard Super Building Phase 1	1300	E INDIAN RIVER ROAD	1.12	10.72	04-0002.1	Private	General Infiltration Practices	1.12	76.22449934	36.83590395	Yes	10/26/2005	Active	JL54		
Norview High School	1070	Middleton Place	30.11	10.460137	NPS11.1	School	Retention Basin	30.11	76.22442013	36.90252246	Yes	11/01/2				

ALL ACTIVE SWMFs - CITY OF NORFOLK																
Office Warehouse	12640	Nevada Avenue	0.86	0.64	05-0195.1	Private	Extended Detention Basin	0.86	76.24632955	36.87154025	Yes	01/02/2006	Active	JL56		
Warehouse extension	11150	IE Olney Road	1.91	0.83	05-0016.1	Private	Detention Basin	1.91	76.27365857	36.85192584	Yes	02/02/2006	Active	JL56		
Herald of His Coming Church	727	IE 27th Street	0.972	0.95	00-4505.1	Private	General Infiltration Practices	0.272	76.27872587	36.87035948	Yes	03/07/2006	Active	JL56		
Duplex - Residential houses	4114	Pretty Lake Avenue	0.15	0.07	05-0100.1	Private	General Infiltration Practices	0.056	76.192967	36.92633838	Yes	03/08/2006	Active	CB26		
Duplex - Residential houses	4114	Pretty Lake Avenue	0.15	0.07	05-0100.2	Private	General Infiltration Practices	0.056	76.19297236	36.92632659	Yes	03/08/2006	Active	CB26		
Marshall Manor Senior Living Apartments	2500	E Princess Anne Road	3.65	1.79	01-0053.1	Private	Retention Basin	17.25	76.25837803	36.85867771	Yes	03/23/2006	Active	CB26		
Nash Warehouse	11133	Kingwood Avenue	9.2	6.33	05-0165.1	Private	Manufactured BMP Systems	6.27	76.24028653	36.85601974	No	03/29/2006	Active	JL54		
Nash Warehouse	11133	Kingwood Avenue	9.2	6.33	05-0165.2	Private	Manufactured BMP Systems	2.1	76.23723245	36.85613456	Yes	03/29/2006	Active	JL54		
Nash Warehouse	11133	Kingwood Avenue	9.2	6.33	05-0165.3	Private	Retention Basin	5.8	76.2391372	36.85933119	Yes	03/29/2006	Active	JL54		
Duplex	9640	13th View Street	0.058	0.07	04-0323.1	Private	General Infiltration Practices	0.058	76.28781259	36.96630722	Yes	03/31/2006	Active	JL57		
Duplex	9640	13th View Street	0.058	0.07	04-0323.2	Private	General Infiltration Practices	0.058	76.28791988	36.96620221	Yes	03/31/2006	Active	JL57		
Bracco Supply Corporation Parking Lot Addition	3747	Village Avenue	3.69	3.12	04-0121.7	Private	Extended Detention Basin	1.45	76.23753673	36.86016493	Yes	04/17/2006	Active	JL54		
Baywalk Townhouses	9637	Capeview Avenue	0.48	0.293	04-0133.1	Private	General Infiltration Practices	0.24	76.22280121	36.93767479	Yes	04/19/2006	Active	CB26		
Baywalk Townhouses	9637	Capeview Avenue	0.48	0.293	04-0133.2	Private	General Infiltration Practices	0.24	76.22336715	36.93781425	Yes	04/19/2006	Active	CB26		
Parking Lot Addition	8111	SHORE DRIVE	0.37	0.22	04-0115.1	Private	Grassed Swale	0.35	76.19284515	36.92146223	Yes	04/20/2006	Active	CB26		
Parking Lot Addition	8111	SHORE DRIVE	0.37	0.22	04-0115.2	Private	Manufactured BMP Systems	0.175	76.19288653	36.92160543	Yes	04/20/2006	Active	CB26		
Parking Lot Addition	8111	SHORE DRIVE	0.37	0.22	04-0115.3	Private	Manufactured BMP Systems	0.175	76.19282216	36.92164651	Yes	04/20/2006	Active	CB26		
Christ the King Catholic School	3401	Tidewater Drive	0.82	0.5	03-0034.1	Private	General Infiltration Practices	0.09	76.26234904	36.88138633	Yes	04/21/2006	Active	JL56		
Christ the King Catholic School	3401	Tidewater Drive	0.82	0.5	03-0034.2	Private	General Infiltration Practices	0.2	76.2626937	36.88186476	Yes	04/26/2006	Active	JL56		
Palace Station, LLC	404	W 22ND STREET	2.77	2.5	06-0019.1	Private	Manufactured BMP Systems	1.85	76.29008519	36.86962685	Yes	05/15/2006	Active	JL56		
Wash Land	6600	IN MILITARY HIGHWAY	0.64	0.42	06-0020.1	Private	Extended Detention Basin	0.64	76.22810394	36.90127415	Yes	05/24/2006	Active	CB26		
Church Street Executive Office Park	1751	CHURCH STREET	5.14	3.93	04-0112.1	Private	Retention Basin	4.42	76.2791373	36.86287384	No	06/20/2006	Active	JL56		
Conley Warehouse and Office	3404	WESTMINSTER AVENUE	0.224	0.137	02-0121.1	Private	Retention Basin	0.101	76.24997771	36.84384684	Yes	06/22/2006	Active	JL54		
Boush Street Garage	326	Boush Street	1.45	1.42	IS40.1	Public	Manufactured BMP Systems	1.291	76.29115999	36.851224	Yes	07/19/2006	Active	JL56		
Bauer Compressors - Building Expansion	1528	JAZALEA GARDEN HOMES	3.01	3.62	05-0128.1	Private	Retention Basin	5.01	76.23205215	36.86272212	Yes	07/31/2006	Active	JL54		
Townhomes	1407	Colonial Avenue	0.17	0.14	04-0132.1	Private	General Infiltration Practices	0.063	76.29359007	36.86531311	Yes	08/02/2006	Active	JL56		
Townhomes	1407	Colonial Avenue	0.17	0.14	04-0132.2	Private	General Infiltration Practices	0.36	76.29378319	36.86535817	Yes	08/02/2006	Active	JL56		
Townhouses	873	W 42nd Street	0.46	0.31	06-0003.1	Private	Extended Detention Basin	0.4403	76.305019	36.912069	Yes	08/08/2006	Active	JL56		
New Life Worship Center	925	Briar Hill Road	2.77	0.97	04-0058.1	Private	General Infiltration Practices	1.86	76.21550506	36.85497348	Yes	08/16/2006	Active	JL54		
New Life Worship Center	925	Briar Hill Road	2.77	0.97	04-0058.2	Private	General Infiltration Practices	0.05	76.21570701	36.85306204	Yes	08/19/2006	Active	JL54		
Bolling Square Apartments Phase I	919	BOLLING AVENUE	7.22	4.94	03-0280.1	Private	Bioretention Basins	0.547	76.29708036	36.89187365	Yes	08/28/2006	Active	JL56		
Laundromat, Shops, Offices	6138	Chesapeake Boulevard	0.8	0.55	05-0009.1	Private	General Infiltration Practices	0.8	76.23700887	36.89142198	Yes	08/28/2006	Active	JL56		
Bolling Square Apartments Phase I	919	BOLLING AVENUE	7.22	4.94	03-0280.2	Private	Bioretention Basins	0.376	76.29616189	36.892269	Yes	08/28/2006	Active	JL56		
Bolling Square Apartments Phase I	919	BOLLING AVENUE	7.22	4.94	03-0280.3	Private	Grassed Swale	0.53	76.29647396	36.89181208	Yes	08/28/2006	Active	JL56		
Castropella Heights Seventh Day Adventist Church	1006	Oakwood Street	1.004	0.693	05-0110.1	Private	General Infiltration Practices	1.004	76.29395167	36.89184053	Yes	09/05/2006	Active	JL53		
Watertower at Lake Taylor	1309	Kempsville Road	3.51	2.09	03-0313.1	Private	Retention Basin	3.51	76.20564848	36.86864261	Yes	09/15/2006	Active	JL54		
Third Police Precinct Parking Lot Addition	1013	Goff Street	1.3	0.77	IS43.1	Public	Extended Detention Basin	1.3	76.27147031	36.85784742	Yes	10/30/2006	Active	JL56		
Duplex	9509	14th Bay Street	0.172	0.095	04-0148.1	Private	General Infiltration Practices	0.172	76.20248348	36.92805478	Yes	10/03/2006	Active	CB26		
Janai Shopping Center	11140	IN MILITARY HIGHWAY	4.34	3.77	05-0181.1	Private	General Infiltration Practices	3.472	76.20877249	36.86027527	Yes	10/24/2006	Active	JL54		
Janai Shopping Center	11140	IN MILITARY HIGHWAY	4.34	3.77	05-0181.2	Private	General Infiltration Practices	0.2472	76.20850328	36.86002216	Yes	10/24/2006	Active	JL54		
Duplex	3023	Pleasant Avenue	0.16	0.08	05-0124.1	Private	General Infiltration Practices	0.172	76.20567891	36.93144724	Yes	10/31/2006	Active	CB26		
Cornick Place Condominiums	1405	Diure Road	0.98	0.62	06-0086.1	Private	Retention Basin	0.49	76.21030323	36.87292656	Yes	11/07/2006	Active	JL54		
Cornick Place Condominiums	1405	Diure Road	0.98	0.62	06-0086.2	Private	Retention Basin	0.49	76.21030233	36.87292657	Yes	11/07/2006	Active	JL54		
Cornick Place Condominiums	1405	Diure Road	0.98	0.62	06-0086.5	Private	Grassed Swale	0.27	76.21027844	36.87263425	Yes	11/07/2006	Active	JL54		
WaWa Food Market	975	E Little Creek Road	2.885	1.875	05-0040.1	Private	Grassed Swale	0.27	76.21021738	36.87270306	Yes	11/07/2006	Active	JL54		
Ruby Tuesday	4213	E Little Creek Road	0.79	0.75	05-0093.1	Private	Manufactured BMP Systems	0.79	76.19414181	36.917417	Yes	11/14/2006	Active	CB26		
Duplex	848	38th Street	0.12	0.07	04-0125.1	Private	General Infiltration Practices	0.127	76.29689455	36.88003468	Yes	11/16/2006	Active	JL56		
Gypsum Plant Expansion	1424	SOUTH MAIN STREET	32.9	17.44	05-0075.1	Private	Extended Detention Basin	32.9	76.28675451	36.82267167	Yes	11/17/2006	Active	JL53		
Parktowne Apartments	7850	FLOWERFIELD ROAD	2.04	1.75	05-0188.1	Private	Grassed Swale	0.673	76.199212	36.917188	Yes	11/30/2006	Active	CB26		
Parktowne Apartments	7850	FLOWERFIELD ROAD	2.04	1.75	05-0188.2	Private	Grassed Swale	0.404	76.2000376	36.91730088	Yes	11/30/2006	Active	CB26		
Parktowne Apartments	7850	FLOWERFIELD ROAD	2.04	1.75	05-0188.3	Private	Manufactured BMP Systems	0.673	76.199446	36.917189	Yes	11/30/2006	Active	CB26		
Parktowne Apartments	7850	FLOWERFIELD ROAD	2.04	1.75	05-0188.4	Private	Manufactured BMP Systems	0.673	76.199128	36.917472	Yes	11/30/2006	Active	CB26		
Parktowne Apartments	7850	FLOWERFIELD ROAD	2.04	1.75	05-0188.5	Private	Grassed Swale	0.675	76.19918113	36.91702369	Yes	11/30/2006	Active	CB26		
Parktowne Apartments	7850	FLOWERFIELD ROAD	2.04	1.75	05-0188.6	Private	Manufactured BMP Systems	0.675	76.199294	36.916987	Yes	11/30/2006	Active	CB26		
Gifford Office	1547	E LITTLE CREEK ROAD	1.55	1.12	05-0023.2	Private	Manufactured BMP Systems	0.775	76.23175979	36.91632547	Yes	12/01/2006	Active	CB26		
EG Middleton Office Addition	2510	ICROMWELL ROAD	0.76	0.51	06-0023.1	Private	General Infiltration Practices	0.76	76.24904829	36.86698553	Yes	12/07/2006	Active	JL54		
Trader Square	150	Granby Street	0.72	0.72	04-0136.1	Private	Manufactured BMP Systems	0.36	76.29161655	36.84737829	Yes	12/12/2006	Active	JL56		
Trader Square	150	Granby Street	0.72	0.72	04-0136.2	Private	Manufactured BMP Systems	0.36	76.29098836	36.8477342	Yes	12/12/2006	Active	JL56		
WaWa Food Market	8105	Hampton Boulevard	1.5	1.26	05-0046.1	Private	Manufactured BMP Systems	0.2067	76.31779434	36.92658813	Yes	12/15/2006	Active	JL57		
WaWa Food Market	8105	Hampton Boulevard	1.5	1.26	05-0046.2	Private	Manufactured BMP Systems	0.2067	76.31838441	36.92661498	Yes	12/15/2006	Active	JL57		
WaWa Food Market	8105	Hampton Boulevard	1.5	1.26	05-0046.3	Private	Manufactured BMP Systems	0.2067	76.31784931	36.9274302	Yes	12/15/2006	Active	JL57		
Commerce Bank	245	IN MILITARY HIGHWAY	0.51	0.45	06-0146.1	Private	Manufactured BMP Systems	0.51	76.288196	36.916032	Yes	12/19/2006	Active	JL56		
Water's Edge	390	IN MILITARY HIGHWAY	7.08	4.28	05-0113.1	Private	Bioretention Basins	2.36	76.20902232	36.8337779	Yes	01/01/2007	Active	JL54		
Water's Edge	390	IN MILITARY HIGHWAY	7.08	4.28	05-0113.2	Private	Bioretention Basins	2.36	76.20914841	36.83390859	Yes	01/01/2007	Active	JL54		
Street Improvements - Ermies Way	951	ERNIES WAY	0.69	0.41	S47.1	Public	Bioretention Basins	0.159	76.18259184	36.85168778	Yes	01/01/2007	Active	JL54		
VIT Office Building	1531	TERMINAL BOULEVARD	2.61	1.41	06-0121.1	Private	Retention Basin	2.61	76.201012	36.918239	No	01/01/2007	Active	JL56		
The Rotunda Lofts parking lot addition	415	Saint Pauls Boulevard	0.3	0.21	07-0021.1	Private	General Infiltration Practices	0.03	76.2853137</							

ALL ACTIVE SWMFs - CITY OF NORFOLK														
Duplex	9508	5TH BAY STREET	0.16	0.51	04-0008.2	Private	General Infiltration Practices	0.0349	76.2121743	36.93055373	Yes	01/22/2007	Active	CB26
Lots 21 & 22	3617	BAYSIDE AVENUE	0.17	0.13	03-0162.1	Private	General Infiltration Practices	0.112	76.197389	36.931808	Yes	01/24/2007	Active	CB26
Duplex	8113	TURNER STREET	0.178	0.093	06-0068.1	Private	General Infiltration Practices	0.178	76.19055569	36.92126401	Yes	02/05/2007	Active	CB26
Condo (24 units)	450	IW Princess Anne Road	0.38	10.3	05-0132.1	Private	Manufactured BMP Systems	0.034	76.29382206	36.8636999	Yes	02/14/2007	Active	JL56
Little Creek Retail Shops	7862	TIEDWATER DRIVE	2.23	1.94	06-0062.1	Private	Manufactured BMP Systems	0.245	76.25297606	36.91550205	Yes	02/20/2007	Active	CB26
Little Creek Retail Shops	7862	TIEDWATER DRIVE	2.23	1.94	06-0062.2	Private	Manufactured BMP Systems	0.245	76.25296801	36.91556955	Yes	02/20/2007	Active	CB26
Walmart @ Tidewater	7530	TIEDWATER DRIVE	37.9	32.52	05-0074.1	Private	Retention Basin	36.6	76.25231624	36.91074967	Yes	03/16/2007	Active	JL56
Walmart @ Tidewater	7530	TIEDWATER DRIVE	37.9	32.52	05-0074.2	Private	Manufactured BMP Systems	5.69	76.25249863	36.91153459	Yes	03/16/2007	Active	CB26
Walmart @ Tidewater	7530	TIEDWATER DRIVE	37.9	32.52	05-0074.3	Private	Manufactured BMP Systems	5.69	76.25346804	36.91176125	Yes	03/16/2007	Active	JL56
Roosevelt Family Medicine	2203	E LITTLE CREEK ROAD	1.27	0.65	06-0101.1	Private	Detention Basin	0.391	76.222291	36.91505271	Yes	03/23/2007	Active	CB26
Norfolk Cruise Terminal	111	Waterside Drive	1.15	0.47	05-0060.1	Public	Manufactured BMP Systems	0.575	76.29461869	36.84699748	Yes	03/26/2007	Active	JL56
Norfolk Cruise Terminal	111	Waterside Drive	1.15	0.47	05-0060.2	Public	Manufactured BMP Systems	0.575	76.29574522	36.84815126	Yes	03/26/2007	Active	JL56
Duplex Lots 59 & 60	9545	20th Bay Street	0.172	0.093	05-0049.1	Private	General Infiltration Practices	0.172	76.19482309	36.92739653	Yes	04/09/2007	Active	CB26
Duplex Lots 61 & 62	9543	20th Bay Street	0.172	0.094	05-0051.1	Private	General Infiltration Practices	0.172	76.19480699	36.92726359	Yes	04/12/2007	Active	CB26
Warehouses	5819	Hargrove Street	0.27	0.18	05-0180.1	Private	Extended Detention Basin	0.278	76.20583836	36.84394645	No	04/13/2007	Active	JL56
McRae Commons Condo Units	915	Colley Avenue	0.46	0.35	05-0145.1	Private	General Infiltration Practices	0.368	76.30082741	36.86428529	Yes	04/19/2007	Active	JL56
Medical Center	302	E LITTLE CREEK ROAD	0.91	0.68	06-0092.1	Private	Bioretention Basins	0.908	76.26500067	36.91859256	Yes	04/25/2007	Active	CB26
Duplex	1349	LEAD STREET	0.16	0.08	06-0073.1	Private	Extended Detention Basin	0.164	76.26353047	36.8578929	Yes	05/04/2007	Active	JL56
Cape Henry Subdivision	3651	Cape Henry Avenue	14	1.89	05-0008.1	Private	Detention Basin	2.906	76.23796417	36.86808677	Yes	05/14/2007	Active	JL56
Cape Henry Subdivision	3651	Cape Henry Avenue	14	1.89	05-0008.2	Private	Detention Basin	2.763	76.21455775	36.86658889	Yes	05/14/2007	Active	JL56
Cape Henry Subdivision	3651	Cape Henry Avenue	14	1.89	05-0008.3	Private	Grassed Swale	2.72	76.24223313	36.86607283	Yes	05/14/2007	Active	JL56
Jet Aircraft Ground Run-Up Enclosure	2200	Norview Avenue	9.3	2.14	06-0048.1	Private	General Infiltration Practices	1.68	76.205423	36.930274	Yes	06/08/2007	Active	CB26
Social Security Building	5850	Lake Herbert Drive	4.99	2.78	06-0016.1	Private	General Infiltration Practices	4.99	76.20779963	36.86882372	Yes	06/18/2007	Active	JL54
Pretty Lake Village	2201	PRETTY LAKE AVENUE	4.2	2.27	03-0292.1	Private	General Infiltration Practices	3.5	76.21522445	36.93345559	No	06/21/2007	Active	CB26
2542 E Ocean View Ave	2542	E Ocean View Avenue	1	0.19	03-0304.1	Private	General Infiltration Practices	0.402	76.210014	36.93474679	No	06/25/2007	Active	CB26
Medical Office Building	5665	Lowery Road	0.78	0.52	06-0042.1	Private	Extended Detention Basin	0.795	76.21286117	36.86180741	Yes	06/28/2007	Active	JL54
Cornick Place Condominiums	1405	Dure Road	0.98	0.62	06-0086.3	Private	Manufactured BMP Systems	0.22	76.21020217	36.87233654	Yes	07/01/2007	Active	JL54
Cornick Place Condominiums	1405	Dure Road	0.98	0.62	06-0086.4	Private	Manufactured BMP Systems	0.22	76.21003526	36.87287504	Yes	07/01/2007	Active	JL54
Tanner's Landing	4250	Granby Street	1.54	0.91	05-0097.1	Private	Manufactured BMP Systems	0.772	76.20849072	36.88594083	No	07/12/2007	Active	JL56
Tanner's Landing	4250	Granby Street	1.54	0.91	05-0097.2	Private	Manufactured BMP Systems	0.772	76.20305953	36.88593461	No	07/12/2007	Active	JL56
Chesterfield Elementary Parking Lot	2915	Westminster Avenue	0.78	0.28	NPS18.1	School	General Infiltration Practices	0.78	76.25199874	36.84473593	Yes	08/14/2007	Active	JL54
Duplex	475	IW Ocean View Avenue	0.21	0.1	03-139.1	Private	General Infiltration Practices	0.1035	76.263284	36.960477	Yes	08/17/2007	Active	CB26
Duplex	475	IW Ocean View Avenue	0.21	0.1	03-139.2	Private	General Infiltration Practices	0.1035	76.263147	36.960375	Yes	08/17/2007	Active	CB26
Atlas Masters Company	5552	IRBY ROAD	1	0.71	06-0078.1	Private	Detention Basin	0.86	76.21772766	36.85887271	Yes	08/29/2007	Active	JL54
Norfolk Commerce Park	5373	HENNEMAN DRIVE	1	0.72	04-0065.1	Private	General Infiltration Practices	1	76.21877138	36.87718671	No	09/21/2007	Active	CB26
Harbor Heights	123	College Place	1.23	0.93	05-0073.1	Private	Manufactured BMP Systems	0.51	76.29151482	36.85009467	Yes	09/24/2007	Active	JL56
Duplex - Willoughby	1109	LITTLE BAY AVENUE	0.13	0.08	04-0062.1	Private	General Infiltration Practices	0.076	76.282139	36.9569561	Yes	09/28/2007	Active	CB26
Duplex	19569	7th Bay Street	0.17	0.09	05-0116.1	Private	Bioretention Basins	0.17	76.20984355	36.93195262	No	10/02/2007	Active	CB26
Little Creek Self Storage	1806	E Little Creek Road	1.27	1	05-0179.1	Private	Bioretention Basins	0.176	76.22652111	36.91656764	Yes	10/08/2007	Active	JL57
Little Creek Self Storage	1806	E Little Creek Road	1.27	1	05-0179.2	Private	Bioretention Basins	0.06	76.22604945	36.91637105	No	10/09/2007	Active	CB26
Tarrollall Elementary Parking Lot	2080	TARRALLTON DRIVE	0.52	0.38	NPS19.1	School	Grassed Swale	0.52	76.222376	36.92595589	No	10/17/2007	Active	CB26
Little Creek Elementary Parking Lot	7900	TARPON PLACE	0.82	0.65	NPS20.1	School	Grassed Swale	0.82	76.20891278	36.91795076	No	10/17/2007	Active	CB26
Northside Middle School Parking Lot	8720	Granby Street	1.89	0.11	NPS21.1	School	Bioretention Basins	1.89	76.26208216	36.93525444	No	11/07/2007	Active	JL57
Lowe's Garden Expansion	1081	IN MILITARY HIGHWAY	1.27	1.09	06-0138.1	Private	Vegetated Filter Strip	1.27	76.21207104	36.85713259	No	11/08/2007	Active	CB26
Marine Hydraulics Incorporated	543	E INDIAN RIVER ROAD	5.07	4.05	06-0135.1	Private	Extended Detention Basin	6.9	76.276423	36.833955	Yes	11/21/2007	Active	JL54
Marine Hydraulics Incorporated	543	E INDIAN RIVER ROAD	5.07	4.05	06-0135.2	Private	Manufactured BMP Systems	1.78	76.27171111	36.832079	Yes	11/21/2007	Active	JL54
Riverpoint Condos	6111	Granby Street	2.2	1.29	05-0176.1	Private	General Infiltration Practices	0.638	76.28055722	36.89749906	Yes	11/26/2007	Active	JL56
Rotunda Condominiums	415	Saint Pauls Boulevard	1.35	1.04	05-0156.2	Private	Extended Detention Basin	0.37	76.28487616	36.84870988	Yes	12/03/2007	Active	JL54
Rotunda Condominiums	415	Saint Pauls Boulevard	1.35	1.04	05-0156.3	Private	Manufactured BMP Systems	0.3	76.28486611	36.84953954	Yes	12/03/2007	Active	JL56
Saint Pauls COGIC	1615	Isaac Street	1.08	0	02-0007.1	Private	General Infiltration Practices	0.059	76.26505673	36.82620488	Yes	12/10/2007	Active	JL54
St. Paul's Church Parking Lot Expansion	1615	Isaac Street	0.18	0.12	07-0083.1	Private	Bioretention Basins	0.194	76.26575981	36.82630133	No	12/10/2007	Active	JL54
Saint Pauls COGIC	1615	Isaac Street	1.08	0	02-0007.2	Private	General Infiltration Practices	0.083	76.2655127	36.8258356	Yes	12/10/2007	Active	JL54
Saint Pauls COGIC	1615	Isaac Street	1.08	0	02-0007.3	Private	General Infiltration Practices	0.227	76.26589984	36.82610183	Yes	12/10/2007	Active	JL54
Calvary Presbyterian Church	150	KEMPSVILLE ROAD	4.74	10.64	06-0091.1	Private	Grassed Swale	0.56	76.18800098	36.84396807	Yes	12/17/2007	Active	JL54
Pettow Library	111	W Ocean View Avenue	3.15	0.96	542.1	Public	General Infiltration Practices	3.15	76.25127127	36.95299236	No	12/20/2007	Active	CB26
Fentress Court Subdivision	9500	FENTRESS COURT	3.18	0.66	05-0175.1	Private	Grassed Swale	1.18	76.22528985	36.93666227	No	01/01/2008	Active	CB26
Duplex	1400	E Ocean View Avenue	0.11	0.02	06-0053.1	Private	Bioretention Basins	0.985	76.23260546	36.94261987	Yes	01/01/2008	Active	CB26
Dey Street and Texas Avenue Roadway Extension	4817	Texas Avenue	0.34	0.19	07-0017.1	Private	General Infiltration Practices	0.37	76.234917	36.885599	No	01/01/2008	Active	JL54
New Life Worship Center	925	Briar Hill Road	2.77	0.97	04-0058.3	Private	Grassed Swale	0.7	76.21567001	36.85502054	Yes	01/01/2008	Active	JL54
Newview Community Center	6380	SEWELLS POINT ROAD	3.62	2.21	548.1	Public	Bioretention Basins	1.43	76.24090846	36.89684659	No	01/19/2008	Active	JL54
Newview Community Center	6380	SEWELLS POINT ROAD	3.62	2.21	548.2	Public	General Infiltration Practices	0.001	76.23943921	36.89608295	No	01/19/2008	Active	JL54
EVMS Parking Addition	855	W BRAMBLETON AVENUE	0.31	0.16	07-0061.0	Private	Grassed Swale	0.31	76.30610745	36.85971488	Yes	01/23/2008	Active	JL56
Duplex	9612	Grove Avenue	0.26	0.08	05-0090.2	Private	General Infiltration Practices	0.13	76.22569263	36.93780782	Yes	02/19/2008	Active	CB26
Duplex	9612	Grove Avenue	0.26	0.08	05-0090.2	Private	General Infiltration Practices	0.13	76.22662729	36.93795145	Yes	02/19/2008	Active	CB26
New Hope United Church of Christ	145	JE LIBERTY STREET	0.85	0.56	06-0096.1	Private	Detention Basin	0.85	76.2766212	36.82518826	Yes	03/11/2008	Active	JL54
Duplex	2217	Minnesota Avenue	0.81	0.44	06-0045.1	Private	Manufactured BMP Systems	0.15	76.24569485	36.87119049	Yes	03/19/2008	Active	JL54
Duplex	2617	Minnesota Avenue	0.81	0.44	06-0045.2	Private	Bioretention Basins	0.52	76.24547929	36.870904	Yes	03/18/2008	Active	JL56
Duplex	2617	Minnesota Avenue	0.81	0.44	06-0045.3	Private	Manufactured BMP Systems	0.15	76.24554098	36.8712377	Yes	03/18/2008	Active	JL56
American Tire Distributors	4554	Progress Road	1.6	0.94	07-0039.1	Private	Retention Basin	1.6	76.23235524	36.86562001	Yes	03/25/2008	Active	JL54
Grantham Square	7610	RESTMERE ROAD	1.06	0.49	06-0117.2	Private	General Infiltration Practices	0.5302	76.28170788	36.91642841	Yes	04/09/2008	Active	JL57
Grantham Square	7610	RESTMERE ROAD	1.06	0.49	06-0117.									

ALL ACTIVE SWMFs - CITY OF NORFOLK														
Duplex - Lot 5 blk 3	1020	HILLSIDE AVENUE	0.17	0.1	05-0061.1	Private	General Infiltration Practices	0.086	76.24034378	36.94618681	Yes	05/07/2008	Active	CB26
Duplex - Lot 6 blk3	1016	Hillside Avenue	0.17	0.1	05-0062.1	Private	General Infiltration Practices	0.086	76.24046087	36.94612768	Yes	05/07/2008	Active	CB26
Duplex - Lot 7 blk 3	1012	Hillside Avenue	0.17	0.1	05-0063.1	Private	General Infiltration Practices	0.086	76.24073446	36.94628561	Yes	05/07/2008	Active	CB26
Duplex - Lot 5 blk 3	1020	HILLSIDE AVENUE	0.17	0.1	05-0061.2	Private	General Infiltration Practices	0.086	76.24029527	36.94615276	Yes	05/07/2008	Active	CB26
Duplex - Lot 6 blk3	1016	Hillside Avenue	0.17	0.1	05-0062.2	Private	General Infiltration Practices	0.086	76.24025837	36.94619153	Yes	05/07/2008	Active	CB26
Duplex - Lot 7 blk 3	1012	Hillside Avenue	0.17	0.1	05-0063.2	Private	General Infiltration Practices	0.086	76.24047562	36.94649102	Yes	05/07/2008	Active	CB26
Townhomes	2400	JAZALEA GARDEN ROAD	0.804	0.412	06-0129.1	Private	Detention Basin	0.402	76.23100877	36.87233556	Yes	05/14/2008	Active	CB26
Townhomes	2400	JAZALEA GARDEN ROAD	0.804	0.412	06-0129.2	Private	Detention Basin	0.402	76.23100877	36.87233556	Yes	05/14/2008	Active	CB26
Duplex	9634	7TH BAY STREET	0.17	0.07	05-0114.1	Private	General Infiltration Practices	0.15	76.20889437	36.93334216	No	05/23/2008	Active	CB26
La Quinta Hotel	1387	IN Military Highway	1.22	0.86	06-0030.1	Private	Detention Basin	1.22	76.21168486	36.87096047	Yes	06/05/2008	Active	JL54
Shamrock Gardens	8115	IREDMON ROAD	0.46	0.25	06-0051.1	Private	General Infiltration Practices	0.47	76.19524346	36.9221556	Yes	06/06/2008	Active	CB26
Duplex	1505	E OCEAN VIEW AVENUE	0.37	0.18	09-0040.1	Private	General Infiltration Practices	0.185	76.2304067	36.940882	Yes	06/06/2008	Active	CB26
Duplex	1505	E OCEAN VIEW AVENUE	0.37	0.18	09-0040.2	Private	General Infiltration Practices	0.185	76.2305066	36.940937	Yes	06/06/2008	Active	CB26
Duplex	2807	PEASANT AVENUE	0.12	0.06	04-0019.1	Private	General Infiltration Practices	0.65	76.20801285	36.93175118	No	06/09/2008	Active	CB26
Duplex	2807	PEASANT AVENUE	0.12	0.06	04-0019.2	Private	General Infiltration Practices	0.065	76.20780095	36.93173402	Yes	06/09/2008	Active	CB26
Target Expansion	1245	IN Military Highway	9.21	8.44	07-0103.1	Private	Manufactured BMP Systems	0.45	76.21183019	36.86583804	Yes	06/17/2008	Active	CB26
Target Expansion	1245	IN Military Highway	9.21	8.44	07-0103.2	Private	Manufactured BMP Systems	0.45	76.21174705	36.86525438	Yes	06/17/2008	Active	JL54
Duplex	716	Ridgeview Avenue	0.13	0.09	07-0074.1	Private	Grassed Swale	0.132	76.299257	36.863317	Yes	07/22/2008	Active	JL56
Retail / Offices	2201	COLONIAL AVENUE	1.592	1.433	08-0009.1	Private	General Infiltration Practices	0.339	76.29195593	36.87080533	No	07/23/2008	Active	JL56
Retail/ Offices	2201	COLONIAL AVENUE	1.592	1.433	08-0009.2	Private	General Infiltration Practices	0.25	76.2919526	36.87023242	No	07/23/2008	Active	JL56
Retail / Offices	2201	COLONIAL AVENUE	1.592	1.433	08-0009.3	Private	General Infiltration Practices	0.737	76.29218459	36.87042125	No	07/23/2008	Active	JL56
Powhatan Sports Complex	4251	Powhatan Avenue	9.29	2.18	07-0063.1	Private	Detention Basin	1.55	76.31354578	36.88287899	Yes	08/07/2008	Active	JL56
Sentara Medical Group	835	Glenrock Road	2.31	1.8	02-0048.1	Private	Detention Basin	2.31	76.202728	36.851037	Yes	08/15/2008	Active	JL54
Blair Middle School	730	Spotswood Avenue	0.93	0.43	NP512.1	School	General Infiltration Practices	3.2	76.29655123	36.86875505	Yes	08/20/2008	Active	JL56
Bay Disposal	469	E Indian River Road	16.74	1.38	07-0027.1	Private	Retention Basin	6.35	76.27434947	36.83428323	Yes	09/20/2008	Active	JL54
Blair Middle School	730	Spotswood Avenue	0.93	0.43	NP512.2	School	Retention Basin	3.2	76.29576802	36.86926146	N/A	08/20/2008	Active	JL56
Duplex	1342	Little Bay Avenue	0.17	0.09	06-0014.1	Private	Bioretention Basins	0.086	76.29002877	36.96621741	Yes	09/11/2008	Active	CB26
Duplex	1342	Little Bay Avenue	0.17	0.09	06-0014.2	Private	Bioretention Basins	0.086	76.28991703	36.9662002	Yes	09/11/2008	Active	JL57
Norfolk Police Department Firearms Range	1501	Pritchard Street	2.6	1.17	S49.1	Public	General Infiltration Practices	2.6	76.20492675	36.88159145	No	09/16/2008	Active	CB26
New Life Christian Center	1040	JOHNSTON'S ROAD	0.27	0.10	07-0065.1	Private	Bioretention Basins	0.211	76.23357045	36.90712084	Yes	10/21/2008	Active	CB26
Saint Clair's Law Firm Office Addition	2317	E LITTLE CREEK ROAD	0.4	0.28	06-0090.1	Private	General Infiltration Practices	0.404	76.21988882	36.911941182	Yes	10/22/2008	Active	CB26
McDonald's rebuild	7900	Shore Drive	0.93	0.7	07-0113.1	Private	General Infiltration Practices	0.67	76.191671	36.918533	Yes	10/27/2008	Active	CB26
Eaton Office Park Phase III	173	Kempsville Road	0.6	0.37	07-0123.1	Private	Retention Basin	0.602	76.19104640	36.84286274	Yes	11/03/2008	Active	JL54
Calvary Revival Church Addition	5833	Poplar Hall Drive	3.95	3.49	05-0146.1	Private	Manufactured BMP Systems	0.17	76.20671332	36.84871924	Yes	11/07/2008	Active	JL54
Calvary Revival Church Addition	5833	Poplar Hall Drive	3.95	3.49	05-0146.2	Private	Manufactured BMP Systems	0.18	76.20603519	36.84878588	Yes	11/07/2008	Active	JL54
Calvary Revival Church Addition	5833	Poplar Hall Drive	3.95	3.49	05-0146.3	Private	Manufactured BMP Systems	0.28	76.20512726	36.84877222	Yes	11/07/2008	Active	JL54
Duplex	1156	Toler Place	0.19	0.06	06-0056.1	Private	General Infiltration Practices	0.0975	76.283768	36.968823	Yes	11/13/2008	Active	CB26
Duplex	1156	Toler Place	0.19	0.06	06-0056.2	Private	General Infiltration Practices	0.0975	76.283578	36.968824	Yes	11/13/2008	Active	CB26
Coleman Place Elementary School	2445	Palmyra Street	9.32	4.19	NP517.1	School	Retention Basin	9.32	76.24012023	36.86877222	Yes	12/11/2008	Active	JL56
Duplex	240	W Ocean View Avenue	0.26	0.16	04-0013.1	Private	General Infiltration Practices	1.33	76.25464233	36.95730959	No	01/07/2009	Active	JL57
Parking Lot	817	BRANDON AVENUE	0.46	0.29	08-0103.1	Private	General Infiltration Practices	0.115	76.29800498	36.86928721	Yes	01/01/2009	Active	JL56
Downtown Pump Station (PS 145)	718	Yarmouth Street	0.18	0.07	SS1.1	Public	Manufactured BMP Systems	0.044	76.29387401	36.8537668	No	01/01/2009	Active	JL56
EVMS roadway widening	825	Fairfax Avenue	0.56	0.46	07-0090.1	Private	Bioretention Basins	0.55	76.30459013	36.86053337	Yes	01/01/2009	Active	JL56
Orapax Inn	1300	Ridgeview Avenue	0.13	0.09	08-0026.1	Private	Permeable Pavement 1	0.13	76.30840866	36.86746275	Yes	01/01/2009	Active	JL56
Broad Creek Villas	2951	WOODLAND AVENUE	1.1	0.74	08-0042.1	Private	Extended Detention Basin	0.5505	76.251522	36.853051	Yes	01/01/2009	Active	JL54
Broad Creek Villas	2951	WOODLAND AVENUE	1.1	0.74	08-0042.2	Private	Extended Detention Basin	0.5505	76.251455	36.852575	Yes	01/01/2009	Active	JL54
Parking Lot	817	BRANDON AVENUE	0.46	0.29	08-0103.2	Private	General Infiltration Practices	0.143	76.29809082	36.86892242	Yes	01/01/2009	Active	JL56
Parking Lot	817	BRANDON AVENUE	0.46	0.29	08-0103.3	Private	General Infiltration Practices	0.145	76.29818067	36.86876041	Yes	01/01/2009	Active	JL56
Downtown Pump Station (PS 145)	718	Yarmouth Street	0.18	0.07	SS1.2	Public	Grassed Swale	0.044	76.29431925	36.85362645	No	01/01/2009	Active	JL54
Duplex	9634	14th Bay Street	0.18	0.095	05-0170.1	Private	Bioretention Basins	0.045	76.201009	36.931322	Yes	01/14/2009	Active	CB26
Duplex	9634	14th Bay Street	0.18	0.095	05-0170.3	Private	Bioretention Basins	0.045	76.200869	36.931327	Yes	01/14/2009	Active	CB26
Duplex	9634	14th Bay Street	0.18	0.095	05-0170.4	Private	Bioretention Basins	0.045	76.200956	36.931444	Yes	01/14/2009	Active	CB26
Brittany Apartments (6 units)	1136	Piccadilly Street	0.46	0.19	07-0125.1	Private	General Infiltration Practices	0.459	76.23317599	36.89729957	Yes	01/21/2009	Active	CB26
Southwind Apartments	7824	Dallas Street	5.9	4.02	08-0001.1	Private	Retention Basin	3.51	76.25860602	36.91689161	Yes	01/30/2009	Active	JL56
Seaward Marine Services	5409	BEAUMON ROAD	2.74	1.95	02-0101.1	Private	Detention Basin	2.74	76.21904343	36.88244831	Yes	02/04/2009	Active	JL56
Capitol Group Mail Center	12740	Azalea Garden Road	4.07	3.04	08-0086.1	Private	Detention Basin	2.75	76.22585535	36.87950475	Yes	03/09/2009	Active	JL56
Penske Trucking	4845	BROOKSIDE COURT	7.94	4.04	07-0054.1	Private	Manufactured BMP Systems	0.5455	76.22695461	36.86435331	Yes	03/13/2009	Active	JL54
Penske Trucking	4845	BROOKSIDE COURT	7.94	4.04	07-0054.2	Private	Manufactured BMP Systems	0.5455	76.22609096	36.86368086	Yes	03/13/2009	Active	JL54
Duplex	9542	18TH BAY STREET	0.28	0.14	08-0046.1	Private	Retention Basin	0.28	76.1966604	36.9280916	Yes	03/17/2009	Active	CB26
Harbor Park- Deck Addition	150	PARK AVENUE	0.08	0.06	08-0094.1	Private	Manufactured BMP Systems	0.06	76.27893448	36.84250312	Yes	03/31/2009	Active	JL54
Condo	9518	3RD BAY STREET	1.75	1.71	03-0322.1	Private	Manufactured BMP Systems	0.189	76.21419046	36.93248556	No	04/03/2009	Active	CB26
Condo	9518	3RD BAY STREET	1.75	1.71	03-0322.2	Private	Manufactured BMP Systems	0.189	76.21391115	36.93237712	Yes	04/03/2009	Active	CB26
Condo	9518	3RD BAY STREET	1.75	1.71	03-0322.3	Private	Manufactured BMP Systems	0.189	76.2141592	36.93225588	Yes	04/03/2009	Active	CB26
Condo	9518	3RD BAY STREET	1.75	1.71	03-0322.4	Private	Manufactured BMP Systems	0.189	76.21418978	36.93201682	Yes	04/03/2009	Active	CB26
Condo	9518	3RD BAY STREET	1.75	1.71	03-0322.5	Private	Manufactured BMP Systems	0.189	76.21415023	36.9319007	Yes	04/03/2009	Active	CB26
Condo	9518	3RD BAY STREET	1.75	1.71	03-0322.6	Private	Grassed Swale	0.263	76.21391017	36.93208329	Yes	04/03/2009	Active	CB26
Condo	9518	3RD BAY STREET	1.75	1.71	03-0322.7	Private	General Infiltration Practices	0.315	76.21441979	36.93228911	Yes	04/03/2009	Active	CB26
Condo	9518	3RD BAY STREET	1.75	1.71	03-0322.8	Private	General Infiltration Practices	0.315	76.21392859	36.93261286	Yes	04/03/2009	Active	CB26
Widgeon Point	851	Norview Avenue	2.67	1.79	06-0110.2	Private	Manufactured BMP Systems	0.24	76.254235	36.890183	Yes	04/08/2009	Active	JL56
Widgeon Point	851	Norview Avenue	2.67	1.79	06-0110.3	Private	Manufactured BMP Systems	0.18	76.254268	36.890145	Yes	04/08/2009	Active	JL56
Widgeon Point	851	Norview Avenue												

ALL ACTIVE SWMFs - CITY OF NORFOLK														
THR Park	:801	IE 25th Street	1.03	:0.81	:04-0036.2	Private	Manufactured BMP Systems	:0.254	:76.27631664	:36.8694417	:Yes	:05/06/2009	:Active	:JL56
St. Mary's Mausoleum	:3000	Church Street	:0.48	:0.1	:07-0002.1	Private	Detention Basin	:0.479	:76.28073765	:36.87335518	:Yes	:05/20/2009	:Active	:JL56
Residential Dwellings	:9628	17th Bay Street	:0.17	:0.095	:05-0137.1	Private	Bioretention Basins	:0.172	:76.20898247	:36.93324448	:Yes	:05/21/2009	:Active	:CB26
Candlewood Suites	:5600	LOWERY ROAD	:5.65	:4.2	:07-0098.1	Private	Manufactured BMP Systems	:0.441	:76.23371	:36.861746	:Yes	:06/19/2009	:Active	:JL54
Candlewood Suites	:5600	LOWERY ROAD	:5.65	:4.2	:07-0098.2	Private	Manufactured BMP Systems	:0.441	:76.231374	:36.861704	:Yes	:06/19/2009	:Active	:JL54
Candlewood Suites	:5600	LOWERY ROAD	:5.65	:4.2	:07-0098.3	Private	Manufactured BMP Systems	:0.441	:76.213908	:36.86186931	:Yes	:06/19/2009	:Active	:JL54
Candlewood Suites	:5600	LOWERY ROAD	:5.65	:4.2	:07-0098.4	Private	Manufactured BMP Systems	:0.441	:76.214243	:36.862318	:Yes	:06/19/2009	:Active	:JL54
Candlewood Suites	:5600	LOWERY ROAD	:5.65	:4.2	:07-0098.5	Private	Manufactured BMP Systems	:0.441	:76.214339	:36.862276	:Yes	:06/19/2009	:Active	:JL54
Candlewood Suites	:5600	LOWERY ROAD	:5.65	:4.2	:07-0098.6	Private	Manufactured BMP Systems	:0.441	:76.214986	:36.861936	:Yes	:06/19/2009	:Active	:JL54
Candlewood Suites	:5600	LOWERY ROAD	:5.65	:4.2	:07-0098.7	Private	Manufactured BMP Systems	:0.441	:76.215059	:36.861897	:Yes	:06/19/2009	:Active	:JL54
Candlewood Suites	:5600	LOWERY ROAD	:5.65	:4.2	:07-0098.8	Private	Manufactured BMP Systems	:0.441	:76.214905	:36.861833	:Yes	:06/19/2009	:Active	:JL54
Candlewood Suites	:5600	LOWERY ROAD	:5.65	:4.2	:07-0098.9	Private	Manufactured BMP Systems	:0.441	:76.214866	:36.861321	:Yes	:06/19/2009	:Active	:JL54
Single Family Condominium	:1539	BIRCH STREET	:0.11	:0.06	:07-0062.1	Private	General Infiltration Practices	:0.11		:36.86267529	:Yes	:07/31/2009	:Active	:JL54
Vulcan Construction Materials, LP	:966	BALLENTINE BOULEVARD	:12.25	:10.88	:06-0121.1	Private	Detention Basin	:2.15	:76.24601864	:36.85297859	:Yes	:09/15/2009	:Active	:JL54
Vulcan Construction Materials, LP	:966	BALLENTINE BOULEVARD	:12.25	:10.88	:06-0121.2	Private	Detention Basin	:2.15	:76.24552351	:36.85098167	:Yes	:09/15/2009	:Active	:JL54
Vulcan Construction Materials, LP	:966	BALLENTINE BOULEVARD	:12.25	:10.88	:06-0121.3	Private	Retention Basin	:6.43	:76.24603289	:36.85290908	:Yes	:09/15/2009	:Active	:JL54
Huntersville II Townhomes	:1300	CHURCH STREET	:0.75	:0	:06-1023.1	Private	General Infiltration Practices	:0.527	:76.27771129	:36.85981295	:No	:09/15/2009	:Active	:JL56
The Va Arts Festival	:440	BANK STREET	:0.4	:0.33	:08-0040.2	Private	Manufactured BMP Systems	:0.54	:76.28647953	:36.85124976	:Yes	:09/16/2009	:Active	:JL56
Duplex	:9515	15TH BAY STREET	:0.318	:0.105	:08-0099.1	Private	Grassed Swale	:0.282	:76.20110214	:36.92798617	:Yes	:09/23/2009	:Active	:CB26
AAA Self Storage Facility	:408	18th Street	:1.52	:1.48	:05-0149.1	Private	General Infiltration Practices	:0.224	:76.202216386	:36.86513286	:Yes	:10/16/2009	:Active	:JL54
Walgreens	:1157	N Military Highway	:1.9	:1.63	:05-0085.1	Private	Detention Basin	:4.137	:76.21085929	:36.86257826	:Yes	:10/27/2009	:Active	:JL54
Building Addition at Circle South	:835	Glenrock Road	:1.09	:0.76	:07-0121.7	Private	Manufactured BMP Systems	:0.545	:76.20114908	:36.85159524	:No	:11/12/2009	:Active	:JL54
Building Addition at Circle South	:835	Glenrock Road	:1.09	:0.76	:07-0127.2	Private	Manufactured BMP Systems	:0.545	:76.20106593	:36.85158482	:Yes	:11/12/2009	:Active	:JL54
Building Addition at Circle South	:835	Glenrock Road	:1.09	:0.76	:07-0127.3	Private	Manufactured BMP Systems	:0.001	:76.20049194	:36.85125398	:Yes	:11/12/2009	:Active	:JL56
Laundromat	:5812	POPLAR HALL DRIVE	:1.05	:0.764	:07-0110.1	Private	Detention Basin	:0.463	:76.20899586	:36.84901115	:Yes	:11/17/2009	:Active	:JL54
Laundromat	:5812	POPLAR HALL DRIVE	:1.05	:0.764	:07-0110.2	Private	Detention Basin	:0.463	:76.20888054	:36.84943612	:Yes	:11/17/2009	:Active	:JL54
Duplex Lot "C"	:1067	IW OCEAN VIEW AVENUE	:0.2	:0.15	:06-0015.1	Private	General Infiltration Practices	:0.1	:76.28056662	:36.95681349	:Yes	:11/30/2009	:Active	:JL56
Dunkin Donuts	:3901	HAMPTON BOULEVARD	:0.446	:0.321	:08-0055.1	Private	Bioretention Basins	:0.446	:76.30288124	:36.88101516	:Yes	:12/02/2009	:Active	:JL56
Thermcor, Inc.	:2601	COLLEY AVENUE	:0.58	:0.37	:08-0081.1	Private	Grassed Swale	:0.07	:76.257509	:36.87484	:Yes	:12/15/2009	:Active	:JL56
Freemason St. Baptist Church	:406	E FLEMASON STREET	:1.84	:1.23	:07-0087.1	Private	General Infiltration Practices	:6.19	:76.20053583	:36.83005929	:No	:12/20/2009	:Active	:JL54
Sandollar Duplex	:915	HILLSIDE AVENUE	:0.17	:0.09	:06-1014.1	Private	General Infiltration Practices	:0.172	:76.24259512	:36.94695211	:Yes	:12/31/2009	:Active	:CB26
MHI Building Addition and Bulkhead	:1215	Warrington Avenue	:5.78	:4.31	:06-1014.1	Private	Manufactured BMP Systems	:15.64	:76.31098664	:36.86373828	:Yes	:01/01/2010	:Active	:JL56
Red Cross Parking Lot	:611	IW BRAMBLETON AVENUE	:215	:0.168	:07-0104.1	Private	Manufactured BMP Systems	:0.215	:76.3016344	:36.85643255	:Yes	:01/01/2010	:Active	:JL56
Red Cross Parking Lot	:611	IW BRAMBLETON AVENUE	:215	:0.168	:07-0104.2	Private	Manufactured BMP Systems	:0.55	:76.30164531	:36.85644935	:Yes	:01/01/2010	:Active	:JL56
OSAGE	:2618	COLLEY AVENUE	:0.52	:0.3	:09-0031.1	Private	Grassed Swale	:0.52	:76.294896	:36.874544	:Yes	:01/01/2010	:Active	:JL56
Grandy Village Site Improvements	:601	SWILEY DRIVE	:19.32	:11.45	:09-0049.1	Private	Bioretention Basins	:19.32	:76.24819636	:36.84099195	:Yes	:01/01/2010	:Active	:JL54
Fox Hall Place	:1570	ASPEN STREET	:0.18	:0.11	:09-0071.1	Private	General Infiltration Practices	:0.17	:76.23166323	:36.86971636	:Yes	:01/01/2010	:Active	:JL54
Red Cross Parking Lot	:611	IW BRAMBLETON AVENUE	:215	:0.168	:07-0104.3	Private	Manufactured BMP Systems	:0.215	:76.301766	:36.85615603	:Yes	:01/01/2010	:Active	:JL56
Stormwater Pump Station 12	:8701	HAMPTON BOULEVARD	:5.69	:4.45	:570.1	Public	Manufactured BMP Systems	:5.69	:76.32047106	:36.93338474	:N/A	:01/01/2010	:Active	:JL57
River House Apartments	:4233	IW ELLYWENNY AVENUE	:3.65	:2.4	:07-0073.1	Private	Manufactured BMP Systems	:0.21	:76.2011449	:36.8867663	:Yes	:01/04/2010	:Active	:JL56
River House Apartments	:4233	IW ELLYWENNY AVENUE	:3.65	:2.4	:07-0073.2	Private	Manufactured BMP Systems	:0.21	:76.28146648	:36.87754994	:Yes	:01/04/2010	:Active	:JL56
Mission College Clubhouse	:1300	LEAD STREET	:2.77	:1.38	:09-0014.1	Private	Detention Basin	:0.19	:76.26286268	:36.85325391	:Yes	:01/08/2010	:Active	:JL56
Condos/Coffee Shop	:201	W 21st Street	:3.04	:2.8	:07-0077.1	Private	Manufactured BMP Systems	:3.04	:76.2874472	:36.8677558	:Yes	:01/29/2010	:Active	:JL56
Lamberts Point Community Center	:1251	W 42ND STREET	:2.49	:1.09	:08-0008.1	Public	Bioretention Basins	:2.49	:76.30419006	:36.88223791	:Yes	:02/09/2010	:Active	:JL56
First Presbyterian Church	:820	COLONIAL AVENUE	:2.41	:1.79	:06-0125.1	Private	General Infiltration Practices	:0.15	:76.29456338	:36.8608887	:Yes	:03/05/2010	:Active	:JL56
First Presbyterian Church	:820	COLONIAL AVENUE	:2.41	:1.79	:06-0125.2	Private	Manufactured BMP Systems	:0.21	:76.29463372	:36.86107246	:Yes	:03/05/2010	:Active	:JL56
Sentara Parking Garage Expansion	:801	COLLEY AVENUE	:1.27	:0.99	:07-0042.1	Private	Grassed Swale	:0.317	:76.30059395	:36.8629331	:Yes	:04/30/2010	:Active	:JL56
Sentara Parking Garage Expansion	:801	COLLEY AVENUE	:1.27	:0.99	:07-0042.2	Private	Grassed Swale	:0.317	:76.30044848	:36.86346118	:Yes	:04/30/2010	:Active	:JL56
Sentara Parking Garage Expansion	:801	COLLEY AVENUE	:1.27	:0.99	:07-0042.3	Private	Grassed Swale	:0.317	:76.30049944	:36.86346333	:Yes	:04/30/2010	:Active	:JL56
Lumber Liquidators	:416	CAMPOSTELLA ROAD	:0.97	:0.73	:09-0002.2	Private	Manufactured BMP Systems	:0.66	:76.26298258	:36.83563906	:Yes	:05/07/2010	:Active	:JL54
Land & Coates	:830	POPLAR HALL DRIVE	:1.05	:0.76	:08-0096.1	Private	Detention Basin	:0.86	:76.19673014	:36.85308052	:Yes	:05/12/2010	:Active	:JL54
Fort Norfolk Plaza	:301	RIVERVIEW AVENUE	:3.06	:2.54	:08-0038.1	Private	Manufactured BMP Systems	:0.39	:76.307244	:36.861453	:Yes	:06/02/2010	:Active	:JL56
Fort Norfolk Plaza	:301	RIVERVIEW AVENUE	:3.06	:2.54	:08-0038.2	Private	Manufactured BMP Systems	:0.25	:76.306446	:36.860026	:Yes	:06/02/2010	:Active	:JL56
Fort Norfolk Plaza	:301	RIVERVIEW AVENUE	:3.06	:2.54	:08-0038.3	Private	Manufactured BMP Systems	:0.55	:76.306569	:36.860848	:Yes	:06/02/2010	:Active	:JL56
Fort Norfolk Plaza	:301	RIVERVIEW AVENUE	:3.06	:2.54	:08-0038.4	Private	Manufactured BMP Systems	:0.52	:76.306829	:36.859861	:Yes	:06/02/2010	:Active	:JL56
Grandy Village Community Center	:2971	Kimball Loop	:4.96	:1.27	:07-0079.1	Public	Bioretention Basins	:0.53	:76.25012755	:36.84112074	:Yes	:06/18/2010	:Active	:JL54
Grandy Village Community Center	:2971	Kimball Loop	:4.96	:1.27	:07-0079.2	Public	Bioretention Basins	:0.46	:76.25012755	:36.84112074	:Yes	:06/18/2010	:Active	:JL54
Grandy Village Community Center	:2971	Kimball Loop	:4.96	:1.27	:07-0079.3	Public	Bioretention Basins	:0.43	:76.25083566	:36.84046168	:Yes	:06/18/2010	:Active	:JL54
Mount Hermon Baptist Church Parking Addition	:2967	IARGONNE AVENUE	:0.207	:0.126	:09-0058.3	Private	Detention Basin	:0.207	:76.25823319	:36.87426956	:Yes	:06/21/2010	:Active	:JL56
Mount Hermon Baptist Church Parking Addition	:2967	IARGONNE AVENUE	:0.207	:0.126	:09-0058.4	Private	Extended Detention Basin	:0.338	:76.25776649	:36.87441546	:Yes	:06/21/2010	:Active	:JL56
Mount Hermon Baptist Church Parking Addition	:2967	IARGONNE AVENUE	:0.207	:0.126	:09-0058.5	Private	Detention Basin	:0.254	:76.25776649	:36.87441546	:Yes	:06/21/2010	:Active	:JL56
Multi-Family Housing Unit	:1516	NEVADA AVENUE	:0.37	:0.19	:08-0023.2	Private	Bioretention Basins	:0.37	:76.241649	:36.864777	:Yes	:07/23/2010	:Active	:JL56
Multi-Family Housing Unit	:1516	NEVADA AVENUE	:0.37	:0.19	:08-0023.3	Private	Grassed Swale	:0.001	:76.241407	:36.864939	:Yes	:07/23/2010	:Active	:JL54
Trail of the Tiger Exhibit	:3500	Granby Street	:6.1	:2.2	:552.1	Public	Manufactured BMP Systems	:6.52	:76.27678685	:36.87716769	:Yes	:08/03/2010	:Active	:JL56
Building Addition - Baker and Company	:5341	IARGONNE AVENUE	:1.681	:2.19	:03-0267.1	Private	Extended Detention Basin	:2.18	:76.25344813	:36.88930422	:Yes	:09/04/2010	:Active	:JL56
Blessed Sacrament Church addition	:6400	NEWPORT AVENUE	:4.52	:2.18	:10-0004.1	Private	Bioretention Basins	:0.28	:76.28183126	:36.90132992	:No	:06/16/2010	:Active	:JL56
Duplex Lot Y	:1529	Nevada Avenue	:0.1539	:0.067	:08-0090.1	Private	Bioretention Basins	:0.154	:76.24224186	:36.86501268	:Yes	:09/29/2010	:Active	:JL54
Shamrock Gardens	:8107	REDMOND ROAD	:0.43	:0.25	:06-0052.1	Private	General Infiltration Practices	:0.43	:76.19922892	:36.92187616	:Yes	:10/27/2010	:Active	:CB26
The Va Arts Festival	:440	FRANK STREET	:0.4	:0.33	:08-0040.1	Private	Manufactured BMP Systems	:0.17	:76.28642857	:36.85140644	:No	:11/04/2010	:Active	:JL56
2206 Pretty Lake Two Family	:4206	Pretty Lake Avenue	:0.21	:0.11	:08-0073.1	Private	General Infiltration Practices	:0.24</						

ALL ACTIVE SWMFs - CITY OF NORFOLK														
Norfolk Airport Garage	12200	INORVIEW AVENUE	87.84	62.3664	09-0020.1	Private	Retention Basin	87.84	76.20884836	36.89983115	Yes	01/01/2011	Active	CB26
Oakleaf Forest	1576	CAMPOSTELLA ROAD	16.22	10.4	09-0024.1	Private	Manufactured BMP Systems	5.14	76.25766993	36.82958478	Yes	01/01/2011	Active	JL53
Lambers Point 26th St. Improvements	1241	W. 26TH STREET	2.85	1.71	09-0072.1	Public	Manufactured BMP Systems	0.37	76.30435646	36.87701164	N/A	01/01/2011	Active	JL56
Lambert's Point Rec Center Parking Addition	1251	W. 42ND STREET	2.61	1.55	557.1	Public	General Infiltration Practices	0.53	76.303508	36.8817	No	01/01/2011	Active	JL56
Family Dollar	1809	WEBSTER AVENUE	0.77	0.54	04-0140.1	Private	Retention Basin	0.42	76.267595	36.869962	Yes	01/01/2011	Active	JL56
The Beauty Parlor	767	GRANBY STREET	0.043	0.039	08-0078.1	Private	Manufactured BMP Systems	0.043	76.28861189	36.85625689	Yes	01/05/2011	Active	JL56
Floor Busters	845	W. 40TH STREET	0.149	0.104	08-0047.1	Private	Grassed Swale	0.082	76.296784	36.881335	No	01/06/2011	Active	JL56
Floor Busters	845	W. 40TH STREET	0.149	0.104	08-0047.2	Private	Vegetated Filter Strip	0.038	76.296978	36.881136	No	01/06/2011	Active	JL56
Filipino Independent Baptist Church	5809	CHAMBERS STREET	0.82	0.59	09-0065.1	Private	Grassed Swale	0.07	76.206348	36.845283	Yes	02/07/2011	Active	JL54
Filipino Independent Baptist Church	5809	CHAMBERS STREET	0.82	0.59	09-0065.2	Private	General Infiltration Practices	0.3	76.205948	36.849403	Yes	02/07/2011	Active	JL54
City Line Self Storage	951	Ernies Way	1.99	1.47	07-0052.1	Private	Extended Detention Basin	1.99	76.18245104	36.85296007	Yes	03/15/2011	Active	JL54
HRT Newtown Park and Ride	120	BANGOR AVENUE	3.703	2.614	Light Rail.1	Private	Extended Detention Basin	3.7	76.18926823	36.84148137	No	05/15/2011	Active	JL54
HRT Park and Ride	5524	Curlew Drive	1.97	1.1	01-0197.1	Private	Retention Basin	2.6	76.21494009	36.84178832	Yes	08/01/2011	Active	JL54
Duplex	1278	LITTLE BAY AVENUE	0.172	0.062	03-0325.1	Private	General Infiltration Practices	0.051	76.287521	36.966433	No	08/01/2011	Active	CB26
Duplex	1278	LITTLE BAY AVENUE	0.172	0.062	03-0325.2	Private	General Infiltration Practices	0.051	76.287589	36.966214	No	08/01/2011	Active	CB26
Duplex	1278	LITTLE BAY AVENUE	0.172	0.062	03-0325.3	Private	General Infiltration Practices	0.051	76.287471	36.966212	No	08/01/2011	Active	CB26
HRT Park and Ride	5524	Curlew Drive	1.97	1.1	01-0197.2	Private	Infiltration 1	0.8	76.21173144	36.84174346	Yes	08/01/2011	Active	JL54
2nd Patrol Division	901	Asbury Avenue	6.5	3.19	553.1	Public	General Infiltration Practices	7.74	76.25135064	36.90984034	Yes	09/01/2011	Active	CB26
EVMS Parking Garage Addition	745	FAIRFAX AVENUE	0.61	0.51	09-0050	Private	Manufactured BMP Systems	0.61	76.30369127	36.85993936	Yes	09/01/2011	Active	JL56
Metro Machine Parking Addition	1200	LIGON STREET	0.2	3.17	09-0057.1	Private	Manufactured BMP Systems	0.345	76.29024782	36.83553233	Yes	09/01/2011	Active	JL53
Metro Machine Parking Addition Phase II	703	PEARL STREET	2.39	1.63	10-0025.1	Private	Manufactured BMP Systems	0.19	76.28988728	36.83567627	Yes	09/01/2011	Active	JL53
2nd Patrol Division	901	Asbury Avenue	6.5	3.19	553.2	Public	Extended Detention Basin	22.8	76.25014149	36.90891801	Yes	09/01/2011	Active	CB26
Metro Machine Parking Addition	1200	LIGON STREET	0.2	3.17	09-0057.2	Private	Manufactured BMP Systems	0.33	76.29065047	36.83551247	Yes	09/01/2011	Active	JL53
Metro Machine Parking Addition	1200	LIGON STREET	0.2	3.17	09-0057.3	Private	Manufactured BMP Systems	0.32	76.29073482	36.8354865	Yes	09/01/2011	Active	JL53
Metro Machine Parking Addition	1200	LIGON STREET	0.2	3.17	09-0057.4	Private	Manufactured BMP Systems	0.34	76.29109729	36.83537147	Yes	09/01/2011	Active	JL53
Metro Machine Parking Addition	1200	LIGON STREET	0.2	3.17	09-0057.5	Private	Manufactured BMP Systems	0.37	76.29118248	36.83534275	Yes	09/01/2011	Active	JL53
Metro Machine Parking Addition	1200	LIGON STREET	0.2	3.17	09-0057.6	Private	Manufactured BMP Systems	0.33	76.29151943	36.8350922	Yes	09/01/2011	Active	JL53
Metro Machine Parking Addition	1200	LIGON STREET	0.2	3.17	09-0057.7	Private	Manufactured BMP Systems	0.33	76.29132465	36.83547175	Yes	09/01/2011	Active	JL53
Metro Machine Parking Addition	1200	LIGON STREET	0.2	3.17	09-0057.8	Private	Manufactured BMP Systems	0.345	76.2910651	36.83630626	Yes	09/01/2011	Active	JL53
Metro Machine Parking Addition	1200	LIGON STREET	0.2	3.17	09-0057.9	Private	Manufactured BMP Systems	0.345	76.29100052	36.83613519	Yes	09/01/2011	Active	JL53
Metro Machine Parking Addition	1200	LIGON STREET	0.2	3.17	09-0057.10	Private	Manufactured BMP Systems	0.345	76.29168778	36.83611099	Yes	09/01/2011	Active	JL53
Grand Furniture	6359	E. VIRGINIA BEACH BOULEVARD	2.137	1.752	10-0052.1	Private	Retention Basin	1.8547	76.186284	36.8513106	Yes	10/27/2011	Active	JL54
Harris Teeter Store 378	1320	COLONIAL AVENUE	3.106	2.63	08-0072.1	Private	Manufactured BMP Systems	0.35	76.29214168	36.86493543	No	11/03/2011	Active	CB26
Meadowood Apartments	1560	INTERNATIONAL BOULEVARD	7.708	5.2	10-0059.1	Private	Retention Basin	5.24	76.228951	36.894404	Yes	12/07/2011	Active	CB26
Meadowood Apartments	1560	INTERNATIONAL BOULEVARD	7.708	5.2	10-0059.2	Private	Manufactured BMP Systems	2.47	76.228947	36.896247	Yes	12/07/2011	Active	CB26
Chesterfield Heights WW Pump Station	2633	WESTMINSTER AVENUE	0.199	0.034	555.1	Public	Bioretention Basins	0.058	76.25750899	36.84481706	Yes	01/01/2012	Active	JL54
Parking Lot	1227	W. LITTLE CREEK ROAD	0.556	0.366	11-0032.1	Public	General Infiltration Practices	0.556	76.29615963	36.91549428	N/A	01/01/2012	Active	JL56
Young Terrace - Site Accessibility	804	WHITAKER LANE	32.05	1.05	11-0046.1	Private	General Infiltration Practices	0	76.28312899	36.85584468	No	01/01/2012	Active	JL54
HRT Bus Maint. Facility	509	18TH STREET	9.72	8.44	09-0029.1	Private	Bioretention Basins	0.41	76.284411	36.864436	Yes	01/04/2012	Active	JL56
HRT Bus Maint. Facility	509	18TH STREET	9.72	8.44	09-0029.2	Private	Bioretention Basins	0.13	76.283802	36.864472	Yes	01/04/2012	Active	JL56
HRT Bus Maint. Facility	509	18TH STREET	9.72	8.44	09-0029.3	Private	Bioretention Basins	0.18	76.282916	36.864451	Yes	01/04/2012	Active	JL56
HRT Bus Maint. Facility	509	18TH STREET	9.72	8.44	09-0029.4	Private	Bioretention Basins	0.34	76.282204	36.864576	Yes	01/04/2012	Active	JL56
Lake Taylor Hospital Parking Lot Addition	1		2.334	0.88	11-0007.1	Private	Extended Detention Basin	1.2899	76.20756626	36.86545045	Yes	01/18/2012	Active	CB26
Lambers Point Townhouses	1208	W. 26TH STREET	1.061	0.497	10-0051.1	Private	General Infiltration Practices	1.06	76.30324256	36.87685716	No	02/22/2012	Active	JL56
Leigh Medical Office Building	1442	49TH STREET	0.58	10.19	10-0050.1	Private	Bioretention Basins	0.49	76.310888	36.887664	Yes	03/01/2012	Active	JL56
Leigh Medical Office Building	6275	E. VIRGINIA BEACH BOULEVARD	2.52	2.07	07-0061.1	Private	Manufactured BMP Systems	0.5	76.19050741	36.8544028	Yes	03/05/2012	Active	JL54
Leigh Medical Office Building	6275	E. VIRGINIA BEACH BOULEVARD	2.52	2.07	07-0061.2	Private	Manufactured BMP Systems	0.22	76.19008899	36.85436784	Yes	03/06/2012	Active	JL54
Leigh Medical Office Building	6275	E. VIRGINIA BEACH BOULEVARD	2.52	2.07	07-0061.3	Private	Manufactured BMP Systems	0.23	76.19008899	36.85437684	Yes	03/06/2012	Active	JL54
Leigh Medical Office Building	6275	E. VIRGINIA BEACH BOULEVARD	2.52	2.07	07-0061.4	Private	Bioretention Basins	0.6	76.19008899	36.85436784	Yes	03/06/2012	Active	JL54
CVS-E Va Bch Blvd. and Newton	6678	E. VIRGINIA BEACH BOULEVARD	1.56	1.24	10-0071.1	Private	Manufactured BMP Systems	0.36	76.17799759	36.85479795	Yes	03/12/2012	Active	JL54
BAE Systems Parking Lot Improvements	750	W. BERKLEY AVENUE	13.1	12.07	11-0072.1	Private	Manufactured BMP Systems	1.33	76.28750548	36.82816933	Yes	04/12/2012	Active	JL53
RT Body Shop Addition	7615	IMMERRITT STREET	0.517	0.462	10-0075.1	Private	Detention Basin	0.52	76.24664068	36.91343039	Yes	04/23/2012	Active	JL57
Pump Station 34 Replacement	7445	DIVEN STREET	0.056	0.032	554.1	Public	Grassed Swale	0.031	76.29343987	36.91163753	Yes	06/08/2012	Active	JL56
Norfolk Machine & Welding	1028	W. 27TH STREET	1.12	10.54	11-0045.1	Private	General Infiltration Practices	1.12	76.298503	36.87633	Yes	07/16/2012	Active	JL56
Norfolk General New Pavilion & Parking	600	GRESHAM DRIVE	6.49	4.43	09-0327.1	Private	Bioretention Basins	0.75	76.305327	36.862444	Yes	07/23/2012	Active	JL56
Norfolk General New Pavilion & Parking	600	GRESHAM DRIVE	6.49	4.43	09-0327.2	Private	Bioretention Basins	0.94	76.304176	36.863667	Yes	07/23/2012	Active	JL56
Norfolk General New Pavilion & Parking	600	GRESHAM DRIVE	6.49	4.43	09-0327.3	Private	Manufactured BMP Systems	0.75	76.305175	36.862586	Yes	07/23/2012	Active	JL56
Norfolk General New Pavilion & Parking	600	GRESHAM DRIVE	6.49	4.43	09-0327.4	Private	Manufactured BMP Systems	0.94	76.303772	36.863692	Yes	07/23/2012	Active	JL56
Norfolk General New Pavilion & Parking	600	GRESHAM DRIVE	6.49	4.43	09-0327.5	Private	Grassed Swale	0.32	76.30483526	36.86150427	Yes	07/23/2012	Active	JL56
HRT Bus Maint. Facility	509	18TH STREET	9.72	8.44	09-0029.5	Private	Bioretention Basins	0.15	76.281732	36.864665	Yes	07/25/2012	Active	JL56
HRT Bus Maint. Facility	509	18TH STREET	9.72	8.44	09-0029.6	Private	Bioretention Basins	0.15	76.281312	36.864675	Yes	07/25/2012	Active	JL56
O'Reilly Auto Parts	860	E. LITTLE CREEK ROAD	1.25	10.94	11-0015	Private	Extended Detention Basin	1.25	76.24842167	36.91567355	Yes	07/27/2012	Active	JL57
MacArthur Mall Museum Expansion	198	BANK STREET	0.79	10.55	564.1	Private	Manufactured BMP Systems	0.19	76.28888011	36.84742453	Yes	08/28/2012	Active	JL56
MacArthur Mall Museum Expansion	198	BANK STREET	0.79	10.55	564.2	Public	Detention Basin	0.31	76.28869772	36.84710516	Yes	08/28/2012	Active	JL54
US General Services Admin	5678	E. VIRGINIA BEACH BOULEVARD	1.94	1.19	563.1	Public	Extended Detention Basin	1.63	76.21078491	36.85613671	Yes	10/30/2012	Active	JL54
Autobell Carwash	5640	E. VIRGINIA BEACH BOULEVARD	1.27	0.8	11-0019.1	Private	General Infiltration Practices	0.14	76.20470382	36.85951133	Yes	10/30/2012	Active	JL54
Autobell Carwash	5640	E. VIRGINIA BEACH BOULEVARD	1.27	0.8	11-0019.2	Private	Manufactured BMP Systems	0.72	76.20475141	36.85957319	Yes	10/30/2012	Active	JL54
Tidewater Gymnastics Parking Lot	846	144TH STREET	0.29	0.16	11-0056	Private	General Infiltration Practices	0.26	76.25674301	36.88450145	Yes	01/01/2013	Active	JL56
Inglewood Elementary School Gymnasium	976	INGLESIDE DRIVE	2.4	0.72	NP523.1	Public	Detention Basin	2.4	76.23812199	36.85338958	N/A	01/01/2013	Active	JL53
Palmetto St. Drainage Improvement	3745	TAIT TERRACE	9.033	4.52	11-0071.1	Public	Detention Basin	9.033	76.24291979	36.87093996	N/A	01/01/2013	Active	

ALL ACTIVE SWMFs - CITY OF NORFOLK																
Park Crescent Apartments	6450	CRESCENT WAY	8.57	5.69	11-0012.1	Private	Manufactured BMP Systems	1.48	76.2281616	36.90054803	Yes	03/15/2013	Active	CB26		
Park Crescent Apartments	6450	CRESCENT WAY	8.57	5.69	11-0012.2	Private	Manufactured BMP Systems	1.48	76.22833192	36.9004366	Yes	03/15/2013	Active	CB26		
Park Crescent Apartments	6450	CRESCENT WAY	8.57	5.69	11-0012.3	Private	Manufactured BMP Systems	1.04	76.22710481	36.89915818	Yes	03/15/2013	Active	CB26		
Park Crescent Apartments	6450	CRESCENT WAY	8.57	5.69	11-0012.4	Private	Manufactured BMP Systems	1.66	76.22782901	36.89986708	Yes	03/15/2013	Active	CB26		
Park Crescent Apartments	6450	CRESCENT WAY	8.57	5.69	11-0012.5	Private	Manufactured BMP Systems	1.04	76.22705653	36.89903836	Yes	03/15/2013	Active	CB26		
Forest Law Cemetery	8100	GRANBY STREET	1.45	0.14	156.1	Public	General Infiltration Practices	0.69	76.26717567	36.92275859	No	03/27/2013	Active	JL57		
CON Small Brick Building	180	JE EVANS STREET	23.8	0	565.1	Public	General Infiltration Practices	0	76.258464	36.934448	N/A	04/05/2013	Active	CB26		
Solid Rock Church parking	1028	KENTON AVENUE	0.114	0.084	10-0034.1	Private	General Infiltration Practices	0.039	76.259794	36.853308	No	04/23/2013	Active	JL54		
Solid Rock Church parking	1028	KENTON AVENUE	0.114	0.084	10-0042.2	Private	General Infiltration Practices	0.045	76.259814	36.853202	No	04/23/2013	Active	JL54		
Guterman Iron Works	706	IMAY AVENUE	2.72	1.69	08-0075.1	Private	Manufactured BMP Systems	2.72	76.2728667	36.84978383	Yes	04/23/2013	Active	JL54		
Dollar General	4008	E LITTLE CREEK ROAD	0.717	0.57	12-0074.1	Private	Bioswale	0.187	76.195786	36.91820722	Yes	04/26/2013	Active	CB26		
Dollar General	4008	E LITTLE CREEK ROAD	0.717	0.57	12-0074.2	Private	Manufactured BMP Systems	0.216	76.19617492	36.91861573	Yes	04/26/2013	Active	CB26		
Suburban Park Subdivision-Redevelopment of Wards Corner	117	E LITTLE CREEK ROAD	8.37	6.88	12-0039.1	Private	Detention Basin	0.39	76.271896	36.914134	Yes	04/30/2013	Active	JL57		
Suburban Park Subdivision-Redevelopment of Wards Corner	117	E LITTLE CREEK ROAD	8.37	6.88	12-0039.2	Private	Manufactured BMP Systems	0.24	76.271896	36.914134	Yes	04/30/2013	Active	JL57		
Suburban Park Subdivision-Redevelopment of Wards Corner	117	E LITTLE CREEK ROAD	8.37	6.88	12-0039.3	Private	Manufactured BMP Systems	0.18	76.271896	36.914134	Yes	04/30/2013	Active	JL57		
Suburban Park Subdivision-Redevelopment of Wards Corner	117	E LITTLE CREEK ROAD	8.37	6.88	12-0039.4	Private	Manufactured BMP Systems	0.18	76.271896	36.914134	Yes	04/30/2013	Active	JL57		
Suburban Park Subdivision-Redevelopment of Wards Corner	117	E LITTLE CREEK ROAD	8.37	6.88	12-0039.5	Private	Manufactured BMP Systems	0.18	76.271896	36.914134	Yes	04/30/2013	Active	JL57		
Suburban Park Subdivision-Redevelopment of Wards Corner	117	E LITTLE CREEK ROAD	8.37	6.88	12-0039.6	Private	Manufactured BMP Systems	0.33	76.271896	36.914134	Yes	04/30/2013	Active	JL57		
YMCA Family Center on Granby Street	2900	GRANBY STREET	2.58	1.88	12-0024.2	Private	Manufactured BMP Systems	0.42	76.283735	36.873448	Yes	05/31/2013	Active	JL56		
YMCA Family Center on Granby Street	2900	GRANBY STREET	2.58	1.88	12-0024.3	Private	Manufactured BMP Systems	0.57	76.283122	36.873394	Yes	06/01/2013	Active	JL56		
Wells Fargo	440	Monticello Avenue	4.59	3.79	09-0039.1	Private	Manufactured BMP Systems	0.91	76.287491	36.851928	No	06/06/2013	Active	JL56		
Wells Fargo	440	Monticello Avenue	4.59	3.79	09-0039.2	Private	Manufactured BMP Systems	0.97	76.286964	36.850909	No	06/06/2013	Active	JL56		
Wells Fargo	440	Monticello Avenue	4.59	3.79	09-0039.3	Private	Manufactured BMP Systems	1.49	76.288569	36.851406	No	06/06/2013	Active	JL56		
Wells Fargo	440	Monticello Avenue	4.59	3.79	09-0039.4	Private	Manufactured BMP Systems	0.29	76.288808	36.850713	No	06/06/2013	Active	JL56		
Wells Fargo	440	Monticello Avenue	4.59	3.79	09-0039.5	Private	Manufactured BMP Systems	0.57	76.287758	36.850569	No	06/06/2013	Active	JL56		
Filipino Christian Church	5225	ELMHURST AVENUE	1.18	0.681	12-0014	Private	Detention Basin	0.52	76.22575164	36.88441349	Yes	06/09/2013	Active	CB26		
Bauer Compressors Expansion	1328	AZALEA GARDEN ROAD	5.01	3.62	12-0085.1	Private	Manufactured BMP Systems	0.23	76.233069	36.862875	Yes	06/19/2013	Active	JL56		
Bauer Compressors Expansion	1328	AZALEA GARDEN ROAD	5.01	3.62	12-0085.2	Private	Manufactured BMP Systems	1.34	76.233069	36.862875	Yes	06/19/2013	Active	JL56		
Bauer Compressors Expansion	1328	AZALEA GARDEN ROAD	5.01	3.62	12-0085.3	Private	Manufactured BMP Systems	1.42	76.233069	36.862875	Yes	06/19/2013	Active	JL56		
Valley Self Storage	1117	VALLEY DRIVE	1.22	1.63	13-0010.1	Private	Detention Basin	1.98	76.210327	36.800875	Yes	06/29/2013	Active	JL54		
Crossroads Elementary Rebuild	7920	TIDEWATER DRIVE	9.94	5.09	NPS22.1	School	Permeable Pavement 1	1.19	76.252428	36.919014	N/A	06/29/2013	Active	JL57		
Crossroads Elementary Rebuild	7920	TIDEWATER DRIVE	9.94	5.09	NPS22.2	School	Rainwater Harvesting	1.32	76.25125048	36.9184356	N/A	06/29/2013	Active	JL57		
Killam Avenue Eatery	3375	KILLAM AVENUE	0.068	0.028	12-0016.1	Private	General Infiltration Practices	0.74	76.298455	36.87685283	Yes	06/29/2013	Active	JL56		
Subdivision Plan for Bullock Park	401-499	W GOVERNMENT AVENUE	2.53	0.69	11-0023.1	Private	Extended Detention Basin	1.67	76.262016	36.955975	Yes	09/13/2013	Active	JL57		
Fine Arts Center - Norfolk Collegiate	7386	GRANBY STREET	15.999	0.83999	11-0002.1	Private	Permeable Pavement 1	0.899	76.27162352	36.90787582	Yes	09/30/2013	Active	JL56		
Kingdom Hall of Jehovah's Witness Humboldt Street Parking Lot	3660	HUMBOLDT STREET	0.316	0.15	11-0066	Private	Manufactured BMP Systems	0.15	76.23577927	36.88901057	No	10/01/2013	Active	CB26		
Seawells Point Mini Storage	7614	SEIWELLS POINT ROAD	3.49	1.23	11-0016.1	Private	Manufactured BMP Systems	1.49	76.24837875	36.91366629	Yes	10/02/2013	Active	JL56		
Sherwin Williams	7937	SHORE DRIVE	0.257	0.19	12-0066.1	Private	Extended Detention Basin	0.257	76.19321913	36.91964649	Yes	10/08/2013	Active	CB26		
WAWA	6301	IN MILITARY HIGHWAY	3.8	2.47	12-0025.1	Private	Detention Basin	2.5	76.22673284	36.89724898	Yes	10/21/2013	Active	CB26		
WAWA	6301	IN MILITARY HIGHWAY	3.8	2.47	12-0025.2	Private	Manufactured BMP Systems	0.22	76.22022	36.89576594	No	10/21/2013	Active	CB26		
WAWA	6301	IN MILITARY HIGHWAY	3.8	2.47	12-0025.3	Private	Manufactured BMP Systems	0.58	76.22589814	36.89692622	Yes	10/21/2013	Active	CB26		
Hammett Avenue BMP	8721	HAMMETT AVENUE	0.98	0.35	12-0026.1	Private	Detention Basin	0.409	76.256498	36.935342	Yes	10/21/2013	Active	JL57		
Hammett Avenue BMP	8721	HAMMETT AVENUE	0.98	0.35	12-0026.2	Private	Manufactured BMP Systems	2.47	76.226324	36.89728	Yes	10/21/2013	Active	CB26		
Norfolk Multi-Modal Transportation Center	150	PARK AVENUE	1.86	13.61	567.1	Public	Manufactured BMP Systems	0.59	76.277387	36.844025	N/A	11/14/2013	Active	JL54		
Towing Operations Center	1188	LANCE ROAD	3.3	1.97	568.1	Public	Bioswale	2.65	76.2163481	36.86609237	No	11/19/2013	Active	JL54		
R.E. Michel Building Addition	2735	ELLISMORE AVENUE	1.29	0.92	12-0030.1	Private	Extended Detention Basin	0.62	76.220537	36.881668	No	11/26/2013	Active	JL56		
Shorewood Shores Phase II	420	SHOREWOOD PLACE	0.402	0.201	06-0044.6	Private	Manufactured BMP Systems	0.402	76.213468	36.833454	Yes	12/02/2013	Active	JL56		
Shorewood Shores Phase II	420	SHOREWOOD PLACE	0.402	0.201	06-0044.5	Private	Manufactured BMP Systems	0.402	76.213543	36.833428	Yes	12/02/2013	Active	JL56		
Shorewood Shores Phase II	420	SHOREWOOD PLACE	0.402	0.201	06-0044.3	Private	Manufactured BMP Systems	0.402	76.213543	36.833428	Yes	12/02/2013	Active	JL56		
Shorewood Shores Phase II	420	SHOREWOOD PLACE	0.402	0.201	06-0044.4	Private	Manufactured BMP Systems	0.402	76.213549	36.832401	Yes	12/02/2013	Active	JL56		
Shorewood Shores Phase II	420	SHOREWOOD PLACE	0.402	0.201	06-0044.2	Private	Manufactured BMP Systems	0.402	76.213619	36.834236	Yes	12/02/2013	Active	JL56		
Shorewood Shores Phase II	420	SHOREWOOD PLACE	0.402	0.201	06-0044.4	Private	Manufactured BMP Systems	0.402	76.213679	36.834225	Yes	12/02/2013	Active	JL56		
HRT Transfer Military Circle	880	N MILITARY HIGHWAY	0.14	0.09	HRT Transfer Military Circle.1	Private	General Infiltration Practices	0	76.206633	36.850965	No	12/04/2013	Active	JL56		
Duplex	9516	14th Bay Street	0.22	0.11	06-0009.1	Private	Bioswale	0.22	76.20193329	36.92805546	Yes	01/01/2014	Active	CB26		
Filterra	428	CAROLINA AVENUE	0	0	559.1	Public	Manufactured BMP Systems	0.12	76.303517	36.87678	No	01/01/2014	Active	JL54		
Chick-Fil-A (Store #0189)	1600	Monticello Avenue	1.13	0.88	13-0020.2	Private	Manufactured BMP Systems	0.182	76.28491766	36.86355131	Yes	01/01/2014	Active	JL56		
Chick-Fil-A (Store #0189)	1600	Monticello Avenue	1.13	0.88	13-0020.3	Private	Manufactured BMP Systems	0.121	76.28526634	36.86361504	Yes	01/01/2014	Active	JL56		
United Disposal	161	WELLMAN STREET	1.248	1.142	12-0081.1	Private	Manufactured BMP Systems	0.469	76.20745922	36.84323255	Yes	01/01/2014	Active	JL54		
Bobbit Mid-Rise Site Improvements	5920	POPLAR HALL DRIVE	3.11	1.2	12-0029.1	Private	General Infiltration Practices	0.699	76.201853	36.850057	No	01/01/2014	Active	JL54		
Duplex Site Plan for Li Sheng	9621	12TH BAY STREET	0.34	0.15	12-0050.1	Private	General Infiltration Practices	0.28	76.20375206	36.93158271	No	01/01/2014	Active	CB26		
Greenway Stormwater Park	3901	LLEWELLYN AVENUE	19.07	8.2	12-0053.1	Public	Retention Basin	19.07	76.28512491	36.88167724	N/A	01/01/2014	Active	JL56		
7-Eleven	4500	E PRINCESS ANNE ROAD	0.74	0.512	13-0031.1	Private	Manufactured BMP Systems	0.069	76.234968	36.86739	No	01/02/2014	Active	JL56		
Shorewood Shores Phase II	460	Shorewood Court	3.21	1.53	541.1	Private	Manufactured BMP Systems	0.51	76.21354701	36.83344448	No	01/09/2014	Active	JL56		
Southside Aquatic Center	1750	CAMPOSTELLA ROAD	10.59	3.05	11-0020.1	Public	Detention Basin	10.59	76.25966549	36.82316468	No	01/09/2014	Active	JL54		
Zoo-Animal Wellness Center	2500	GRANBY STREET	1.47	0.66	566.1	Public	Detention Basin	0.56	76.228645	36.878791	Yes	01/13/2014	Active	JL56		
Zoo-Animal Wellness Center	3500	GRANBY STREET	1.47	0.66	566.2	Public	Detention Basin	0.19	76.228645	36.878791	Yes	01/13/2014	Active	JL56		
Zoo-Animal Wellness Center	3500	GRANBY STREET	1.47	0.66	566.3	Public	Detention Basin	0.11	76.228645	36.878791	Yes	01/1				

ALL ACTIVE SWMFs - CITY OF NORFOLK																
Norfolk International Airport, General Aviation Terminal Renovation	6101	MILLER STORE ROAD	6.3	4.12	10-0076.5	Private	Manufactured BMP Systems	0.14	76.19980956	36.88523602	No	03/05/2014	Active	CB26		
Norfolk International Airport, General Aviation Terminal Renovation	6101	MILLER STORE ROAD	6.3	4.12	10-0076.6	Private	Retention Basin	0.47	76.19940717	36.8855244	No	03/05/2014	Active	CB26		
Fayton-Sutherlin Bldg	1674	CHURCH STREET	0.39	0.27	08-0089.1	Private	General Infiltration Practices	0.28	76.278627	36.864007	Yes	03/28/2014	Active	JL56		
Fayton-Sutherlin Bldg	1674	CHURCH STREET	0.39	0.27	08-0089.2	Private	General Infiltration Practices	0.11	76.278438	36.863649	Yes	03/28/2014	Active	JL56		
Fayton-Sutherlin Bldg	1674	CHURCH STREET	0.39	0.27	08-0089.3	Private	Manufactured BMP Systems	0.28	76.278442	36.863879	Yes	03/28/2014	Active	JL56		
Cape Henry Filterra	2800	CAPE HENRY AVENUE	0.22	0.22	ISCHF 1	Public	Manufactured BMP Systems	0.22	76.252731	36.860687	No	05/02/2014	Active	JL56		
Promenade Pointe	6217	TIDEWATER DRIVE	5.8	3.52	10-0061.1	Private	Manufactured BMP Systems	0.39	76.25816345	36.89311886	No	05/14/2014	Active	JL56		
Promenade Pointe	6217	TIDEWATER DRIVE	5.8	3.52	10-0061.2	Private	Manufactured BMP Systems	0.44	76.25816345	36.89311886	No	05/14/2014	Active	JL56		
Point at Pickett Farm	5394	GREENPLAIN ROAD	17.397	8.259	12-0063.1	Private	Retention Basin	5.9	76.223032	36.861983	Yes	05/30/2014	Active	JL54		
Barrad Park	2540	BARRAUD AVENUE	25.16	12.79	S-07-0086.1	Public	General Infiltration Practices	0.79	76.266586	36.866003	No	06/12/2014	Active	JL56		
Shirley Avenue Parking Lot	1420	COLONIAL AVENUE	0.79	0.59	13-0049.1	Private	Manufactured BMP Systems	0.17	76.292603	36.865573	Yes	07/09/2014	Active	JL56		
Shirley Avenue Parking Lot	1420	COLONIAL AVENUE	0.79	0.59	13-0049.2	Private	Manufactured BMP Systems	0.13	76.292603	36.865573	Yes	07/09/2014	Active	JL56		
Shirley Avenue Parking Lot	1420	COLONIAL AVENUE	0.79	0.59	13-0049.3	Private	Retention Basin	0.36	76.292603	36.865573	Yes	07/09/2014	Active	JL56		
Mixed Use Building	401	GRANBY STREET	0.36	0.33	12-0082.1	Private	Manufactured BMP Systems	0.15	76.28991008	36.85134634	Yes	07/25/2014	Active	JL56		
Waterview 5 Lot Subdivision	901	WATERVIEW AVENUE	0.674	0.252	13-0004.1	Private	Grassed Swale	0	76.290834	36.889903	Yes	09/01/2014	Active	JL54		
71 Unit Multifamily	416	IBOUSH STREET	0.42	0.42	12-0083.1	Private	Manufactured BMP Systems	0.35	76.290393	36.85248	Yes	08/27/2014	Active	JL56		
821 W 26TH ST - Industrial Storage Building	821	W 26TH STREET	0.241	0.103	12-0006	Private	General Infiltration Practices	0.2244	76.29627228	36.8744812	Yes	09/10/2014	Active	JL56		
Ocean View Avenue Duplex	1400	W OCEAN VIEW AVENUE	0.149	0.076	13-0040.1	Private	Retention Basin	0.118	76.29104	36.96725	Yes	09/29/2014	Active	CB26		
Booker T. Washington Field House	1111	PARK AVENUE	0.29	0.13	14-0010.1	School	Grass Channel	0.29	76.26941275	36.85385877	N/A	10/01/2014	Active	JL54		
Lake Taylor Field House	1384	KEMPSVILLE ROAD	0.67	0.2	14-0009.1	School	Grass Channel	0.3	76.19924741	36.86855018	N/A	10/01/2014	Active	JL54		
Lake Taylor Field House	1384	KEMPSVILLE ROAD	0.67	0.2	14-0009.2	School	Rooftop (Impervious Surface) Disconnection	0.04	76.19908935	36.86865421	N/A	10/01/2014	Active	JL54		
Ray and Joan Kroc Center	1341	BALLENTINE BOULEVARD	8.25	3.94	11-0065.1	Private	Retention Basin	3.47	76.24963929	36.85696184	No	10/23/2014	Active	JL56		
Ray and Joan Kroc Center	1341	BALLENTINE BOULEVARD	8.25	3.94	11-0065.2	Private	General Infiltration Practices	3.47	76.25034739	36.85792916	No	10/23/2014	Active	JL56		
GE Mobile	4545	PATENT ROAD	9.843	2.158	10-0045.1	Private	Other SWMF	1.3061	76.22880936	36.85755531	No	01/01/2015	Active	JL54		
Chrysler Museum Expansion and Renovation	245	W OLNEY ROAD	1.05	0.83	11-0057.1	Private	Manufactured BMP Systems	0.29	76.292451	36.856921	Yes	01/01/2015	Active	JL56		
Chrysler Museum Expansion and Renovation	245	W OLNEY ROAD	1.05	0.83	11-0057.2	Private	Manufactured BMP Systems	0.38	76.292451	36.856921	Yes	01/01/2015	Active	JL56		
Element on Ghent	1700	GRANBY STREET	1.46	1.34	13-0000.1	Private	Manufactured BMP Systems	0.16	76.28595114	36.86471226	Yes	01/01/2015	Active	JL56		
Pretty Lake Greens	3112	Pretty Lake AVENUE	0.6993	0.296	13-0057.1	Private	Retention Basin	0.7	76.20452214	36.92937343	Yes	01/01/2015	Active	CB26		
Pretty Lake Condos	3216	Pretty Lake AVENUE	0.43	0.217	13-0089.1	Private	Extended Detention Basin	0.276	76.203779	36.929312	Yes	01/01/2015	Active	JL57		
Metro Machine Corporation Parking Lot Auditor	200	GIBSON STREET	18.12	15.55	13-0083.1	Private	Manufactured BMP Systems	0.51	76.22680445	36.85036154	Yes	01/01/2015	Active	JL55		
Car Storage Lot	3532	WWAY CROSS ROAD	0.718	0.373	14-0017.1	Private	Retention Basin	1.11	76.22261613	36.89239795	Yes	01/01/2015	Active	CB26		
EA's Daycare	956	BERKLEY AVENUE EX	0.153	0.112	14-0026.1	Private	Permeable Pavement 2	0.164	76.27448459	36.82819292	No	01/01/2015	Active	JL56		
3350 E. Princess Anne Rd. Walmart-Wawa	3350	E PRINCESS ANNE ROAD	7.45	6.22	13-0074.1	Private	Bioretention Basins	0.6	76.24479522	36.8631327	Yes	01/01/2015	Active	JL54		
3350 E. Princess Anne Rd. Walmart-Wawa	3350	E PRINCESS ANNE ROAD	7.45	6.22	13-0074.2	Private	Bioretention Basins	0.47	76.24498834	36.86317562	Yes	01/01/2015	Active	JL53		
Forest Lawn Mausoleum	8100	GRANBY STREET	0.157	0.072	14-0045.1	Public	Retention Basin	0.199	76.203323	36.92841161	N/A	01/01/2015	Active	JL57		
Slover Library	235	IE PLUME STREET	0.73	0.04	11-0027.1	Public	Manufactured BMP Systems	0.29	76.29034986	36.84662421	Yes	01/05/2015	Active	JL54		
Ghent Station	952	W 21ST STREET	3.568	3.108	13-0091.1	Private	Manufactured BMP Systems	0.169	76.29852	36.871913	Yes	08/11/2015	Active	JL56		
Lot 27 8025 Ransom Road	8025	RANSOM ROAD	0.23	0.07	08-0060.1	Private	Bioretention Basins	0.17	76.19478822	36.92067798	Yes	08/25/2015	Active	CB26		
Grandy Village-Phase V Site Improvements	3133	KIMBALL TERRACE	2.17	1.93	12-0028.1	Public	Extended Detention Basin	1.7	76.24906266	36.84233324	N/A	09/15/2015	Active	JL54		
Bolling Square Phase 2	1001	BOLLING AVENUE	0.25	0.56	13-0090	Private	Bioretention 1	1.12	76.25035357	36.89104883	Yes	11/05/2015	Active	JL56		
Glenrock SFR	462	FRIZZELL AVENUE	1.26	0.51	Glenrock SFR	Private	Grassed Swale	1.26	76.20314588	36.84902817	No	11/24/2015	Active	JL54		
BJ's Gas Station	5832	E VIRGINIA BEACH BOULEVARD	0.9	0.73	15-0018.1	Private	Bioretention 1	0.23	76.20575567	36.85603089	Yes	12/01/2015	Active	JL54		
BJ's Gas Station	5832	E VIRGINIA BEACH BOULEVARD	0.9	0.73	15-0018.2	Private	Other SWMF	0.06	76.20572005	36.85600701	Yes	12/01/2015	Active	JL56		
Sam's Club	741	E LITTLE CREEK ROAD	14.52	11.5	14-0049.1	Private	Manufactured BMP Systems	2.63	76.25931039	36.91420745	Yes	12/07/2015	Active	JL56		
Sam's Club	741	E LITTLE CREEK ROAD	14.52	11.5	14-0049.2	Private	Other SWMF	0	76.25253289	36.91522387	Yes	12/07/2015	Active	JL56		
Bus Transfer Station	434	SAINT PAULS BOULEVARD	4.56	3.84	13-0085.1	Public	Manufactured BMP Systems	0.18	76.28387393	36.85071399	No	12/22/2015	Active	JL54		
Bus Transfer Station	434	SAINT PAULS BOULEVARD	4.56	3.84	13-0085.2	Public	Manufactured BMP Systems	0.19	76.28354777	36.850655905	No	12/22/2015	Active	JL54		
Bus Transfer Station	434	SAINT PAULS BOULEVARD	4.56	3.84	13-0085.3	Public	Manufactured BMP Systems	0.11	76.28354777	36.850655905	No	12/22/2015	Active	CB26		
East Beach Marina	4921	Pretty Lake AVENUE	1.68	1.54	12-0036.1	Private	General Infiltration Practices	1.41	76.18380189	36.92378784	Yes	01/01/2016	Active	CB26		
Street Improvements for Asfar Homes	1262	PALL MALL STREET	1.21	0.44	12-0065.1	Private	Bioretention Basins	1.2	76.250586	36.892808	No	01/01/2016	Active	CB26		
Partrea Apartments	7408	TIDEWATER DRIVE	2.09	0.79	13-0026.1	Private	Manufactured BMP Systems	0.7	76.255503	36.907618	No	01/01/2016	Active	CB26		
Leigh Hall Assisted Living Building	890	POPLAR HALL DRIVE	1.82	1.142	13-0064.1	Private	Manufactured BMP Systems	1.033	76.197106	36.854901	Yes	01/01/2016	Active	JL57		
Parktowner Clubhouse	3857	FLOWERFIELD ROAD	1.41	1.03	14-0008.1	Private	Manufactured BMP Systems	0.38	76.19717	36.916977	No	01/01/2016	Active	CB26		
VA Dermatology and Skin Cancer Center	5630	LOWERY ROAD	0.78	10.61	14-0029.1	Private	Manufactured BMP Systems	0.57	76.21293058	36.86212888	Yes	01/01/2016	Active	JL54		
Street Improvements for Asfar Homes	1262	PALL MALL STREET	1.21	0.44	12-0065.2	Private	Retention Basin	1.2	76.250586	36.892808	No	01/01/2016	Active	CB26		
The Ballentine Expansion	7211	GRANBY STREET	2.34	1.24	14-0074.1	Private	Manufactured BMP Systems	0.67	76.27592494	36.90814106	Yes	01/01/2016	Active	JL56		
Balance Builders	3805	GRANBY STREET	0.26	0.15	13-0033.1	Private	Bioretention Basins	0.15	76.282233	36.880998	Yes	01/05/2016	Active	JL56		
Ghent Village	225	W PRINCESS ANNE ROAD	7.39	3.19	14-0096.1	Private	Grassed Swale	7.39	76.28974904	36.86072121	No	01/08/2016	Active	JL54		
Taco Bell	1649	IN NEWTON ROAD	0.78	0.56	14-0086.1	Private	Rooftop (Impervious Surface) Disconnection	0.05	76.18138654	36.84806055	Yes	01/29/2016	Active	JL54		
Sentara Leigh Nursing Tower Replacement	830	KEMPSVILLE ROAD	23.87	19.71	11-0077.1	Private	Extended Detention Basin	0.05	76.18888382	36.85169898	Yes	02/10/2016	Active	JL54		
Sentara Leigh Nursing Tower Replacement	830	KEMPSVILLE ROAD	23.87	19.71	11-0077.2	Private	Manufactured BMP Systems	0.42	76.19109061	36.85106967	Yes	02/10/2016	Active	JL54		
Sentara Leigh Nursing Tower Replacement	830	KEMPSVILLE ROAD	23.87	19.71	11-0077.3	Private	Manufactured BMP Systems	0.2	76.1910151	36.85073853	Yes	02/10/2016	Active	JL54		
Sentara Leigh Nursing Tower Replacement	830	KEMPSVILLE ROAD	23.87	19.71	11-0077.6	Private	Bioretention 2	0.68	76.18972947	36.84914727	Yes	02/10/2016	Active	JL54		
Sentara Leigh Nursing Tower Replacement	830	KEMPSVILLE ROAD	23.87	19.71	11-0077.7	Private	Bioretention 1	0.73	76.19024982	36.84924248	Yes	02/10/2016	Active	JL54		
Sentara Leigh Nursing Tower Replacement	830	KEMPSVILLE ROAD	23.87	19.71	11-0077.8	Private	Bioretention 12	0.78	76.19090428	36.84951753	Yes	02/10/2016	Active	JL54		
Sentara Leigh Nursing Tower Replacement	830	KEMPSVILLE ROAD	23.87	19.71	11-0077.9	Private	Bioretention 2	0.42	76.19059792	36.84992963	Yes	02/10/2016	Active	JL54		
Sentara Leigh Nursing Tower Replacement	830	KEMPSVILLE ROAD	23.87	19.71	11-0077.10	Private	Bioretention 2	0.48	76.19111885	36.85034172	Yes	02/10/2016	Active	JL54		
Sentara Leigh Nursing Tower Replacement	830	KEMPSVILLE ROAD	23.87	19.71	11-0077.11	Private	Extended Detention Basin	2.99	76.19105448	36.85						

ALL ACTIVE SWMFs - CITY OF NORFOLK														
Watermark at Talbot Park - Ph. I	7201	NEWPORT AVENUE	5.61	4.16	15-0036.1	Private	Bioretention 1	0.97	76.2806939	36.91008039	Yes	12/09/2016	Active	JL56
Watermark at Talbot Park - Ph. I	7201	NEWPORT AVENUE	5.61	4.16	15-0036.2	Private	Bioretention 1	0.51	76.2806939	36.91008039	Yes	12/09/2016	Active	JL56
Watermark at Talbot Park - Ph. I	7201	NEWPORT AVENUE	5.61	4.16	15-0036.3	Private	Bioretention 1	0.19	76.2806939	36.91008039	Yes	12/09/2016	Active	JL56
20th Bay Street Subdivision	9612-9626	20TH BAY STREET	1.03	10.5	16-0004.4	Private	Grass Channel	0.09	76.19395126	36.93011919	Yes	12/16/2016	Active	CB26
7-Eleven	735	E OCEAN VIEW AVENUE	1.04	10.72	15-0049.1	Private	Manufactured BMP Systems	0.11	76.24384035	36.9490771	Yes	01/01/2017	Active	CB26
7-Eleven	735	E OCEAN VIEW AVENUE	1.04	10.72	15-0049.2	Private	Manufactured BMP Systems	0.17	76.2437277	36.9491049	Yes	01/01/2017	Active	CB26
7-Eleven	735	E OCEAN VIEW AVENUE	1.04	10.72	15-0049.3	Private	Manufactured BMP Systems	0.44	76.24340315	36.94882957	Yes	01/01/2017	Active	CB26
7-Eleven	735	E OCEAN VIEW AVENUE	1.04	10.72	15-0049.4	Private	Other SWMF	0	76.24360568	36.94873905	Yes	01/01/2017	Active	CB26
Sewells Point GC Entrance	660	RUTHVEN ROAD	0.28	10.26	S71.1	Public	Detention Basin	0.14	76.28675988	36.92047165	N/A	01/01/2017	Active	JL57
Sewells Point GC Entrance	660	RUTHVEN ROAD	0.28	10.26	S71.2	Public	Detention basin	0.14	76.28625787	36.92053473	N/A	01/01/2017	Active	JL57
Milton Point at Kimball Terrace Shipyard	2401	KIMBALL TERRACE	14.66	15.53	15-0046.1	Private	Dry Swale 1	1.2	76.26224567	36.84267071	Yes	01/13/2017	Active	JL54
Milton Point at Kimball Terrace Shipyard	2401	KIMBALL TERRACE	14.66	15.53	15-0046.2	Private	Dry Swale 1	1.44	76.26088311	36.84234286	Yes	01/13/2017	Active	JL54
Milton Point at Kimball Terrace Shipyard	2401	KIMBALL TERRACE	14.66	15.53	15-0046.3	Private	Dry Swale 1	0.4	76.26119961	36.8429257	Yes	01/13/2017	Active	JL54
20th Bay Street Subdivision	9612-9626	20TH BAY STREET	1.03	10.5	16-0004.5	Private	Grass Channel	0.1	76.19395126	36.93011919	Yes	01/24/2017	Active	CB26
20th Bay Street Subdivision	9612-9626	20TH BAY STREET	1.03	10.5	16-0004.6	Private	Grass Channel	0.09	76.19395126	36.93011919	Yes	01/24/2017	Active	CB26
Norfolk Hotel and Conference Center	1120	E MAIN STREET	1.42	11.42	14-0047.1	Private	Manufactured BMP Systems	0.44	76.29167755	36.84624129	No	02/10/2017	Active	JL54
Roper Home Parking Lot	127	E 40TH STREET	0.615	10.08	15-0008.1	Private	Permeable Pavement 2	0.12	76.28037204	36.88308749	Yes	02/22/2017	Active	JL56
7-11 Colley Avenue	3805	COLLEY AVENUE	0.79	10.63	16-0020.1	Private	Other SWMF	0.79	76.29494716	36.88058917	N/A	03/01/2017	Active	JL56
Metro Towing Company, Inc.	5870	CURLEW DRIVE	0.89	10.79	14-0094.1	Private	Permeable Pavement 1	0.3	76.20362331	36.84203786	Yes	03/20/2017	Active	JL54
The Banks at Berkley	701	SOUTH MAIN STREET	2.648	14.77	14-0072.1	Private	Infiltration 2	1.21	76.28497771	36.83259913	Yes	03/31/2017	Active	JL57
The Banks at Berkley	701	SOUTH MAIN STREET	2.648	14.77	14-0072.2	Private	Infiltration 2	1.1	76.28470649	36.8328086	Yes	03/31/2017	Active	JL53
17th Bay Street Duplexes	9607	17TH BAY STREET	0.34	10.34	14-0092.1	Private	Dry Swale 2	0.14	76.19814624	36.92965414	Yes	04/19/2017	Active	CB26
17th Bay Street Duplexes	9607	17TH BAY STREET	0.34	10.34	14-0092.2	Private	Dry Swale 2	0.032	76.19814624	36.92965414	Yes	04/19/2017	Active	CB26
17th Bay Street Duplexes	9607	17TH BAY STREET	0.34	10.34	14-0092.3	Private	Dry Swale 2	0.031	76.19814624	36.92965414	Yes	04/19/2017	Active	CB26
17th Bay Street Duplexes	9607	17TH BAY STREET	0.34	10.34	14-0092.4	Private	Rooftop (Impervious Surface) Disconnection	0.02	76.19814624	36.92965414	Yes	04/19/2017	Active	CB26
Lots 5-12 Glenroie Ave. 3 SFR	7408	GLENROIE AVENUE	0.63	10.18	16-0016.1	Private	Other SWMF	0.63	76.29831924	36.91215638	N/A	04/21/2017	Active	JL56
Norfolk Christian Soccer Field	255	THOLE STREET	2.96	10.25	15-0058.1	Private	Grass Channel	0.8	76.2726444	36.90459989	Yes	05/12/2017	Active	JL56
Partrea Site Improvements	701	EASY STREET	0.6	10.36	15-0021.1	Private	Permeable Pavement 1	0.14	76.25467648	36.90804337	Yes	05/17/2017	Active	JL56
Lot 25 8033 Ransom Road	8033	TRANSOM ROAD	0.23	10.07	08-0062.1	Private	Bioretention Basins	0.15	76.19486868	36.92095073	Yes	05/23/2017	Active	CB26
Clarendon Apartments	1050	BERKLEY AVENUE EX	0.23	10.24	15-0008.0	Private	Retention Basin	0.10	76.27030388	36.82730599	Yes	05/31/2017	Active	JL54
Parkdale Channel Improvements	7400	EAST KENMORE DRIVE	2.28	10	15-0011.1	Public	Other SWMF	52.2	76.26706828	36.91095314	N/A	06/01/2017	Active	JL56
Larchmont Elementary School	1145	BOLLING AVENUE	20.4	4.9	14-0084.1	School	Retention Basin	7.34	76.29958947	36.89018058	N/A	06/02/2017	Active	JL56
Norfolk Academy Football Stadium	1585	WESLEYAN DRIVE	2.7	13.33	15-0059.1	Private	Bioretention Urban	0.13	76.19268124	36.87493863	Yes	06/28/2017	Active	JL54
Norfolk Academy Football Stadium	1585	WESLEYAN DRIVE	2.7	13.33	15-0059.2	Private	Permeable Pavement 1	0.13	76.19274293	36.87490921	Yes	06/28/2017	Active	JL54
Norfolk Academy Football Stadium	1585	WESLEYAN DRIVE	2.7	13.33	15-0059.3	Private	Grass Channel	0.21	76.19262223	36.87485063	Yes	06/29/2017	Active	JL54
Norfolk Academy Football Stadium	1585	WESLEYAN DRIVE	2.7	13.33	15-0059.4	Private	Rooftop (Impervious Surface) Disconnection	0.14	76.19301383	36.87477781	Yes	06/28/2017	Active	JL54
LIDL Grocery Store	6440	IN MILITARY HIGHWAY	6.18	4.35	15-0054.1	Private	Extended Detention Pond 1	5.85	76.22569789	36.90023158	Yes	06/30/2017	Active	CB26
20th Bay Street Subdivision	9612-9626	20TH BAY STREET	1.03	10.5	16-0004.2	Private	Grass Channel	0.09	76.19395126	36.93011919	Yes	08/10/2017	Active	CB26
1921 Parkview Avenue	1921	PARKVIEW AVENUE	0.34	10.15	16-0076.1	Private	Bioretention 2	0.12	76.22337732	36.93591375	Yes	08/10/2017	Active	CB26
1921 Parkview Avenue	1921	PARKVIEW AVENUE	0.34	10.15	16-0076.2	Private	Bioretention 2	0.11	76.22320072	36.93597439	Yes	08/10/2017	Active	CB26
1921 Parkview Avenue	1921	PARKVIEW AVENUE	0.34	10.15	16-0076.3	Private	Bioretention 2	0.11	76.22265895	36.93602229	Yes	08/10/2017	Active	CB26
20th Bay Street Subdivision	9612-9626	20TH BAY STREET	1.03	10.5	16-0004.3	Private	Grass Channel	0.09	76.19395126	36.93011919	Yes	08/11/2017	Active	CB26
Jehovah's Witnesses Parking Lot Improvements	959	SINGLESIDE ROAD	0.6837	0.3992	14-0057.1	Private	Grassed Swale	0.18	76.23847325	36.85176649	No	08/15/2017	Active	JL54
Jehovah's Witnesses Parking Lot Improvements	959	SINGLESIDE ROAD	0.6837	0.3992	14-0057.2	Private	Bioretention 1	0.24	76.28215839	36.87688372	Yes	08/28/2017	Active	JL56
Ocean View Elementary School	9501	MASON CREEK ROAD	25.8	5.03	14-0085.1	School	Wet Pond 1	5.4	76.28045932	36.95501876	N/A	08/31/2017	Active	JL57
JANAF Wawa	1146	IN MILITARY HIGHWAY	1.85	1.62	16-0010.1	Private	Manufactured BMP Systems	1.93	76.20395452	36.86051958	Yes	09/18/2017	Active	JL54
JANAF Wawa	1146	IN MILITARY HIGHWAY	1.85	1.62	16-0010.2	Private	Manufactured BMP Systems	1.37	76.20944347	36.86066526	Yes	09/18/2017	Active	JL54
JANAF Wawa	1146	IN MILITARY HIGHWAY	1.85	1.62	16-0010.3	Private	Other SWMF	0.5	76.20977663	36.86103552	Yes	09/18/2017	Active	JL54
New Horizon Outreach Ministries	1575	KERRY AVENUE	0.606	0.323	16-0082.1	Private	General Infiltration Practices	0.11	76.22987275	36.87078454	Yes	09/20/2017	Active	JL54
New Horizon Outreach Ministries	1575	KERRY AVENUE	0.606	0.323	16-0082.2	Private	Other SWMF	0.4791	76.22987275	36.87078454	Yes	09/20/2017	Active	JL54
Fairmount Park Phase 13B	2966	Lens Avenue	3.87	1.91	15-0010.1	Public	Manufactured BMP Systems	0.34	76.25742306	36.87144685	N/A	09/21/2017	Active	JL56
Fairmount Park Phase 13B	2966	Lens Avenue	3.87	1.91	15-0010.2	Public	Manufactured BMP Systems	0.23	76.25649501	36.87385338	N/A	09/21/2017	Active	JL56
Fairmount Park Phase 13B	2966	Lens Avenue	3.87	1.91	15-0010.3	Public	Manufactured BMP Systems	0.46	76.25732248	36.87405904	N/A	09/21/2017	Active	JL56
Fairmount Park Phase 13B	2966	Lens Avenue	3.87	1.91	15-0010.4	Public	Manufactured BMP Systems	0.41	76.25661706	36.87387397	N/A	09/21/2017	Active	JL56
Premium Outlets Boulevard	5992	INORTHAMPTON BOULEVARD	6.36	1.92	15-0043.1	Public	Manufactured BMP Systems	0.73	76.19316806	36.87763799	N/A	09/25/2017	Active	JL54
Premium Outlets Boulevard	5992	INORTHAMPTON BOULEVARD	6.36	1.92	15-0043.2	Public	Manufactured BMP Systems	1.19	76.19497075	36.88041857	N/A	09/25/2017	Active	JL54
901 Ballentine Boulevard Parking Lot	901	BALLENTINE BOULEVARD	0.78	10.45	15-0019.1	Private	Bioretention 1	0.1245	76.24907066	36.85035176	Yes	09/26/2017	Active	JL54
901 Ballentine Boulevard Parking Lot	901	BALLENTINE BOULEVARD	0.78	10.45	15-0019.2	Private	Bioretention 1	0.0872	76.24924232	36.85022998	Yes	09/26/2017	Active	JL54
901 Ballentine Boulevard Parking Lot	901	BALLENTINE BOULEVARD	0.78	10.45	15-0019.3	Private	Bioretention 2	0.1669	76.24870588	36.85000205	Yes	09/26/2017	Active	JL54
901 Ballentine Boulevard Parking Lot	901	BALLENTINE BOULEVARD	0.78	10.45	15-0019.4	Private	Bioretention 1	0.2188	76.24895264	36.85000703	Yes	09/26/2017	Active	JL54
Norfolk Premium Outlets	6282	INORTHAMPTON BOULEVARD	49.79	38.84	15-0045.1	Private	Retention Basin	19.38	76.19788875	36.8832248	No	09/26/2017	Active	CB26
Norfolk Premium Outlets	6282	INORTHAMPTON BOULEVARD	49.79	38.84	15-0045.2	Private	Retention Basin	24.4	76.20199789	36.87950889	Yes	09/26/2017	Active	CB26
Norfolk Premium Outlets	6282	INORTHAMPTON BOULEVARD	49.79	38.84	15-0045.3	Private	Retention Basin	4.55	76.19742741	36.88268416	Yes	09/26/2017	Active	CB26
Norfolk Premium Outlets	6282	INORTHAMPTON BOULEVARD	49.79	38.84	15-0045.4	Public	Bioretention 2	1.22	76.20336045	36.88032417	N/A	09/26/2017	Active	CB26
201 E. 22nd St. - 36 Apts.	1110	E 22ND STREET	0.07	10.46	16-0036.1	Private	Other SWMF	0.66	76.28258754	36.86778634	N/A	09/26/2017	Active	JL54
20th Bay Street Subdivision	9612-9626	20TH BAY STREET	1.03	10.5	16-0004.1	Private	Grass Channel	0.08	76.19395126	36.93011919	Yes	09/27/2017	Active	CB26
20th Bay Street Subdivision	9612-9626	20TH BAY STREET	1.03	10.5	16-0004.9	Private	Rooftop (Impervious Surface) Disconnection	0.12	76.19395126	36.93011919	Yes	09/27/2017	Active	CB26
Herbert St Subdivision	3214	HERBERT STREET	0.68	10.33	15-0031.1	Private	Infiltration Basins	0.34	76.22960319	36.88278558	No			

ALL ACTIVE SWMFs - CITY OF NORFOLK														
Berkley Basketball Court	706	WALKER AVENUE	0.16	0.07	109-0015.1	Public	General Infiltration Practices	0.12	76.27745363	36.8286339	No	12/12/2017	Active	JL53
Metro Machine - Lot D Parking	200	LUGON STREET	0.95	0.68	14-0060.1	Private	Detention Basin	0.96	76.2887048	36.83764426	Yes	12/12/2017	Active	JL53
Church Street Station Studios	2000	CHURCH STREET	2.29	0.96	15-0022.1	Private	Manufactured BMP Systems	0.32	76.27832283	36.86662805	N/A	12/12/2017	Active	JL56
Church Street Station Studios	2000	CHURCH STREET	2.29	0.96	15-0022.2	Private	Manufactured BMP Systems	0.11	76.27749135	36.86565736	N/A	12/12/2017	Active	JL56
East Coast Appliance	5671	RABY ROAD	0.91	0.73	16-0030	Private	Permeable Pavement 1	0.68	76.21146196	36.86046633	Yes	12/14/2017	Active	JL54
Popular Hall Trail		POPLAR HALL CIRCLE	0.92	0.42	16-0049.1	Public	Other SWMF	0.92	76.21207227	36.8488221	Yes	12/15/2017	Active	JL54
8011-8015 Woodall Rd Duplex	8011	WOODALL ROAD	0.41	0.213	17-0057.1	Private	Other SWMF	0.43	76.19803744	36.92053002	N/A	12/19/2017	Active	JCB6
2617 Pleasant Ave Duplex	2617	PLEASANT AVENUE	0.23	0.13	17-0036.1	Private	Other SWMF	0.18	76.20976718	36.93225417	N/A	12/19/2017	Active	JCB6
United Disposal Laydown Yard	5835	HARGROVE STREET	0.411	0.324	17-0064.2	Private	Other SWMF	0.411	76.20514134	36.84398592	N/A	12/19/2017	Active	JL54
Norfolk Courts Rear Access	811	E CITY HALL AVENUE	2.89	2.58	16-0105.1	Public	Infiltration 1	0.087	76.28462066	36.84639796	No	12/20/2017	Active	JL54
Dunkin Donuts	8410	HAMPTON BOULEVARD	0.33	0.27	15-0051	Private	Bioretention Basins	0.34	76.31765647	36.9294483	Yes	12/27/2017	Active	JL57
Starbucks - The Corner Shops	2000	COLONIAL AVENUE	0.39	0.29	16-0063.1	Private	Bioretention Urban	0.05	76.2918354	36.86845041	Yes	01/10/2018	Active	JL56
Starbucks - The Corner Shops	2000	COLONIAL AVENUE	0.39	0.29	16-0063.2	Private	Permeable Pavement 1	0.01	76.29189749	36.86854752	Yes	01/10/2018	Active	JL56
9535 6th Bay Duplex	9536	6TH BAY STREET	0.26	0.01	14-0095.1	Private	Rooftop (Impenous Surface) Disconnection	0.17	76.21417145	36.93121982	No	01/25/2018	Active	JCB6
Little Creek Storage	801	EW LITTLE CREEK ROAD	1.3	0.99	16-0027.1	Private	Other SWMF	0.215	76.28927161	36.91589201	N/A	01/31/2018	Active	JL54
Rockefeller Apartments	1252	IBOUSH STREET	0.23	0.22	16-0019.3	Private	Manufactured BMP Systems	0.2	76.29207183	36.84929492	Yes	02/07/2018	Active	JL56
CIRS Facility	900	IASBURY AVENUE	3.44	3.35	16-1061.1	Private	Wet Pond 1	4.32	76.25038494	36.91189902	Yes	03/05/2018	Active	JCB6
CIRS Facility	900	IASBURY AVENUE	3.44	3.35	16-1062.1	Private	Manufactured BMP Systems	4.32	76.25047614	36.91164426	Yes	03/05/2018	Active	JCB6
McCoy Duplex	2040	E OCEAN VIEW AVENUE	0.2663	0.0946	16-0018.1	Private	Infiltration 1	0.1854	76.21717383	36.93690573	Yes	03/07/2018	Active	JCB6
Newtowne South Townhomes	6601	Stoney Point Way	1.9	0.68	06-0036.1	Private	Detention Basin	1.13	76.19802152	36.85113987	N/A	03/19/2018	Active	JL54
Colonna's Shipyard New Spotico Creek Facility	151	South Main Street	6.74	2.68	15-0062.1	Private	Manufactured BMP Systems	0.7	76.28113994	36.83855112	Yes	03/21/2018	Active	JL54
Colonna's Shipyard New Spotico Creek Facility	151	South Main Street	6.74	2.68	15-0062.2	Private	Dry Swale 1	5	76.28303289	36.83714518	Yes	03/21/2018	Active	JL54
Norchester Pump Station No. 116 Replacement	935	INORCHESTER STREET	0.142	0.083	13-0023.1	Public	Grassed Swale	0.024	76.2552596	36.85007	Yes	03/22/2018	Active	JL54
Norchester Pump Station No. 116 Replacement	935	INORCHESTER STREET	0.142	0.083	13-0023.2	Public	Grassed Swale	0.048	76.25527857	36.84998197	Yes	03/22/2018	Active	JL54
Lafayette Boulevard Streetscape Improvements	2115	LAFAYETTE BOULEVARD	1.51	1	16-0025.1	Public	Manufactured BMP Systems	0.27	76.28104002	36.86793039	N/A	03/22/2018	Active	JL54
YMCA Gym Addition	312	W BUTE STREET	1.7	1.32	16-0117.1	Private	Manufactured BMP Systems	0.2	76.29462533	36.85333202	Yes	03/26/2018	Active	JL56
YMCA Gym Addition	312	W BUTE STREET	1.7	1.32	16-0117.2	Private	Manufactured BMP Systems	0.12	76.29460116	36.85310775	Yes	03/26/2018	Active	JL56
Barraud Park Pump Station #153	2509	HANSON AVENUE	0.24	0.07	14-0002.1	Public	Dry Swale 1	0.15	76.26450946	36.86486818	N/A	03/26/2018	Active	JL56
Barraud Park Pump Station #153	2509	HANSON AVENUE	0.24	0.07	14-0002.2	Public	Permeable Pavement 1	0.08	76.26450409	36.86474687	N/A	03/26/2018	Active	JL56
Duier Duplex Site plan for DSR Development LLC	1010-1011	E LITTLE BAY AVENUE	0.44	0.27	17-0021.1	Private	Other SWMF	0.44	76.278314	36.901822	Yes	04/10/2018	Active	JL54
Captain's Landing	929	E OCEAN VIEW AVENUE	3.57	2.06	15-0093.1	Private	Infiltration 1	3.59	76.24116887	36.94701224	Yes	04/23/2018	Active	JCB6
7th Bay St. Duplex	9565	7TH BAY STREET	0.17	0.103	17-0083.1	Private	Other SWMF	0.17	76.2098428	36.93185682	N/A	05/04/2018	Active	JCB6
1081 Military Hwy Retail Shops	1081	IN MILITARY HIGHWAY	0.825	0.65	15-0031.1	Private	Manufactured BMP Systems	0.2	76.21097525	36.85842429	Yes	06/07/2018	Active	JL54
Broad Creek Library	1425	INORCHESTER AVENUE	2.19	1.03	16-0057.1	Public	Dry Swale 2	0.57	76.25584886	36.85802862	N/A	06/13/2018	Active	JL56
Broad Creek Library	1425	INORCHESTER AVENUE	2.19	1.03	16-0057.2	Public	Bioretention 1	0.96	76.25574936	36.85737304	N/A	06/13/2018	Active	JL56
Broad Creek Library	1425	INORCHESTER AVENUE	2.19	1.03	16-0057.3	Public	Grassed Swale	0.44	76.25578155	36.85682364	N/A	06/13/2018	Active	JL56
Front Street Apartments	519	FRONT STREET	1.4	0.95	14-0064.1	Private	Manufactured BMP Systems	0.47	76.30034377	36.85363725	Yes	06/13/2018	Active	JL56
Gettsemane Community Fellowship Baptist Church Bldg Addition	1317	BRAMBLETON AVENUE	0.27	0.177	12-0064.1	Private	Constructed Stormwater Wetland	0.27	76.27273053	36.84693559	Yes	07/09/2018	Active	JL54
Food Bank Paving Addition	800	TIDEWATER DRIVE	0.37	0.19	15-0048.1	Private	Bioretention 1	0.15	76.21097525	36.85822476	Yes	07/19/2018	Active	JL54
Food Bank Paving Addition	800	TIDEWATER DRIVE	0.37	0.19	15-0048.2	Private	Detention Basin	0.29	76.27372353	36.83218283	Yes	07/19/2018	Active	JL54
General Aviation CBP Facility	6101	BURTON STATION ROAD	1.51	0.63	18-0002.1	Private	Other SWMF	1.51	76.19853182	36.88637369	N/A	07/30/2018	Active	JCB6
Dune Street Wetland	420	JOUNE STREET	1.01	0	16-0075.1	Public	Constructed Wetland 1	12.45	76.25226161	36.93599363	N/A	08/10/2018	Active	JL57
ODU Barry Art Museum	1075	143RD STREET	0.97	0.75	16-0094.1	Private	Bioretention 1	0.2	76.30185157	36.88317331	Yes	08/15/2018	Active	JL56
ODU Barry Art Museum	1075	143RD STREET	0.97	0.75	16-0094.2	Private	Wet Pond 1	0.44	76.30181898	36.88284721	Yes	08/15/2018	Active	JL56
3 SFR - 1100 Virgina Ave	1100	VIRGINIA AVENUE	0.34	0.145	17-0043.1	Private	Bioretention 1	0.1605	76.24036429	36.94488989	Yes	08/20/2018	Active	JCB6
3 SFR - 1100 Virgina Ave	1100	VIRGINIA AVENUE	0.34	0.145	17-0043.2	Private	Bioretention 2	0.1278	76.24036429	36.94488989	Yes	08/20/2018	Active	JCB6
3 SFR - 1100 Virgina Ave	1100	VIRGINIA AVENUE	0.34	0.145	17-0043.3	Private	Permeable Pavement 1	0.0248	76.24036429	36.94488989	Yes	08/20/2018	Active	JCB6
3 SFR - 1100 Virgina Ave	1100	VIRGINIA AVENUE	0.34	0.145	17-0043.4	Private	Permeable Pavement 2	0.0373	76.24036429	36.94488989	Yes	08/20/2018	Active	JCB6
Telecommunications Tower	1539	JOHNSTONS ROAD	0.057	0.05	18-0051.1	Private	Other SWMF	0.057	76.23164744	36.91011505	No	09/30/2018	Active	JCB6
Maker's Craft Brewery	735	JE 23RD STREET	1.32	0.78	18-0034.1	Private	Other SWMF	1.32	76.27857215	36.8826365	N/A	10/12/2018	Active	JL56
Checkered Flag Honda Expansion	6539	E VIRGINIA BEACH BOULEVARD	4.27	2.26	17-0039.1	Private	Manufactured BMP Systems	0.98	76.1816292	36.85345186	Yes	10/15/2018	Active	JL54
Checkered Flag Honda Expansion	6539	E VIRGINIA BEACH BOULEVARD	4.27	2.26	17-0039.2	Private	Manufactured BMP Systems	2.6	76.18158987	36.85292998	Yes	10/15/2018	Active	JL54
Checkered Flag Honda Expansion	6539	E VIRGINIA BEACH BOULEVARD	4.27	2.26	17-0039.3	Private	Other SWMF	2.6	76.18203153	36.85337622	Yes	10/15/2018	Active	JL54
Granby St and Bayview Blvd Intersection Improvements	105	EW BAYVIEW BOULEVARD	0.13	10.08	18-0031.1	Public	Other SWMF	0.15	76.20456258	36.93409919	N/A	10/18/2018	Active	JL57
Cherman Project	629	EW 24TH STREET	1.01	0.9	18-0036.1	Private	Other SWMF	0.86	76.29402593	36.87224279	N/A	10/24/2018	Active	JL56
Woodlawn Memorial Gardens	6309	E VIRGINIA BEACH BOULEVARD	0.73	0.47	15-0038.1	Private	Bioretention 1	1.11	76.18336139	36.84958622	Yes	10/29/2018	Active	JL54
Woodlawn Memorial Gardens	6309	E VIRGINIA BEACH BOULEVARD	0.73	0.47	15-0038.2	Private	Bioretention 1	1.32	76.18253042	36.84978655	Yes	10/29/2018	Active	JL54
Woodlawn Memorial Gardens	6309	E VIRGINIA BEACH BOULEVARD	0.73	0.47	15-0038.3	Private	Bioretention 1	1.52	76.183378	36.85140916	Yes	10/29/2018	Active	JL54
Woodlawn Memorial Gardens	6309	E VIRGINIA BEACH BOULEVARD	0.73	0.47	15-0038.4	Private	Bioretention 1	1.15	76.18410756	36.85082537	Yes	10/29/2018	Active	JL54
Sunshine Villas	1218	W OCEAN VIEW AVENUE	0.334	0.3	17-0016.1	Private	Bioretention Basins	0.03	76.28517588	36.96803587	Yes	11/02/2018	Active	JCB6
Carlton Homes LLC ROW Improvements	1100	VIRGINIA AVENUE	0.34	0.12	15-0001.1	Public	Infiltration 1	0.08	76.24052514	36.94458878	N/A	11/02/2018	Active	JCB6
Carlton Homes LLC ROW Improvements	1100	VIRGINIA AVENUE	0.34	0.12	15-0001.2	Public	Infiltration 1	0.11	76.24068607	36.9469186	N/A	11/02/2018	Active	JCB6
Carlton Homes LLC ROW Improvements	1100	VIRGINIA AVENUE	0.34	0.12	15-0001.3	Public	Infiltration 1	0.14	76.24083091	36.94471914	N/A	11/02/2018	Active	JCB6
13th Bay Street Duplex	9538	13TH BAY STREET	0.02	0.11	17-0081.1	Private	Other SWMF	0.2	76.20293676	36.92361693	N/A	11/06/2018	Active	JCB6
Valley Self Storage Additional Buildings	1117	VALLEY DRIVE	0.97	0.84	17-0012.1	Private	Other SWMF	0.11	76.21202023	36.88904652	Yes	11/26/2018	Active	JL54
Valley Self Storage Additional Buildings	1117	VALLEY DRIVE	0.97	0.84	17-0012.2	Private	Infiltration 1	0.36	76.21182014	36.86023469	Yes	11/26/2018	Active	JL54
8802 Chesapeake Blvd - 3 SFR	8802	CHESAPEAKE BOULEVARD	0.43	0.13	17-0072.2	Private	Bioretention 2	0.06	76.24423866	36.93710649	Yes	11/27/2018	Active	JL57
V8 Blvd Improvements at Newtown Rd	6602	E VIRGINIA BEACH BOULEVARD	1.57	1.14	18-0010.3	Public	Other SWMF	1.57	76.18089942	36.85462184	N/A	12/12/2018	Active	JL54
Mt Gildead Church parking addition	1057	Kennedy Street	0.08	0.61	18-003									

ALL ACTIVE SWMFs - CITY OF NORFOLK														
Didlake Expansion	8131	SHORE DRIVE	0.91	0.63	18-0077.2	Private	Wet Swale 1	0.316	76.19268061	36.92191985	Yes	01/18/2019	Active	CB26
941 Hillside Ave Subdivision	941	HILLSIDE AVENUE	0.59	0.27	18-0014.5	Private	Other SWMF	0.59	76.24182232	36.94646903	N/A	01/23/2019	Active	CB26
Virginia Zoo Exhibit Building Renovation	3500	GRANBY STREET	0.24	0.1	17-0019.1	Public	Bioretention 1	0.19	76.27553333	36.87649099	Yes	02/04/2019	Active	JL56
Rock Gym	7405	SEWELLS POINT ROAD	1.02	0.72	18-0077.1	Private	Other SWMF	1.02	76.24621143	36.91012329	N/A	02/08/2019	Active	JL56
2607 Colonial Ave.	2607	COLONIAL AVENUE	1.3738	1.132	17-0052.1	Private	Other SWMF	1.2	76.29041669	36.87369305	Yes	02/11/2019	Active	JL56
2607 Colonial Ave.	2607	COLONIAL AVENUE	1.3738	1.132	17-0052.2	Private	Other SWMF	0.37	76.29041669	36.87369305	Yes	02/11/2019	Active	JL56
8802 Chesapeake Blvd - 3 SFR	8802	CHESAPEAKE BOULEVARD	0.43	0.13	18-0072.3	Private	Bioretention 2	0.06	76.24407236	36.93713074	Yes	02/13/2019	Active	JL57
Harbor Park Picnic Area	150	PARK AVENUE	0.3	0.22	16-0065.1	Public	Manufactured BMP Systems	0.46	76.27753158	36.84278267	Yes	02/14/2019	Active	JL54
8802 Chesapeake Blvd - 3 SFR	8802	CHESAPEAKE BOULEVARD	0.43	0.13	17-0072.1	Private	Bioretention 2	0.06	76.24453337	36.93708223	Yes	03/14/2019	Active	JL57
St. Paul's Apartments	494	SAINT PAULS BOULEVARD	5.07	3.9	16-0098.1	Private	Permeable Pavement 1	0.06	76.2852047	36.85224047	Yes	04/02/2019	Active	JL59
St. Paul's Apartments	494	SAINT PAULS BOULEVARD	5.07	3.9	16-0098.2	Private	Permeable Pavement 1	0.05	76.28424515	36.8523079	Yes	04/02/2019	Active	JL56
St. Paul's Apartments	494	SAINT PAULS BOULEVARD	5.07	3.9	16-0098.3	Private	Infiltration 1	1.99	76.28415395	36.85201652	Yes	04/02/2019	Active	JL56
St. Paul's Apartments	494	SAINT PAULS BOULEVARD	5.07	3.9	16-0098.4	Private	Infiltration 1	1.14	76.28292014	36.85195642	Yes	04/02/2019	Active	JL56
St. Paul's Apartments	494	SAINT PAULS BOULEVARD	5.07	3.9	16-0098.5	Private	Other SWMF	5.52	76.283242	36.8518534	Yes	04/02/2019	Active	JL56
IKEA	5000	INORTHAMPTON BOULEVARD	18.87	15.41	17-0014.1	Private	Infiltration 2	5.22	76.20190133	36.87536368	Yes	04/04/2019	Active	CB26
IKEA	6000	INORTHAMPTON BOULEVARD	18.87	15.41	17-0014.2	Private	Infiltration 2	10.82	76.20089282	36.87589579	Yes	04/04/2019	Active	CB26
North Shore Gardens Fitness Center	1400	IMEADS ROAD	0.37	0.345	18-0003.1	Private	Permeable Pavement 1	0.02	76.29849929	36.9179025	Yes	04/08/2019	Active	JL57
North Shore Gardens Fitness Center	1400	IMEADS ROAD	0.37	0.345	18-0003.2	Private	Permeable Pavement 1	0.05	76.29829935	36.91805643	Yes	04/08/2019	Active	JL57
North Shore Gardens Fitness Center	1400	IMEADS ROAD	0.37	0.345	18-0003.3	Private	Other SWMF	0.6	76.2983736	36.91813576	N/A	04/08/2019	Active	JL57
4535 E Princess Anne Road-Tidewater Tech parking expansion	4535	E PRINCESS ANNE ROAD	3.31	2.86	18-0104.1	Private	Other SWMF	0	76.1406.4	36.515165	Yes	04/12/2019	Active	JL54
Arts Apartments	123	W VIRGINIA BEACH BOULEVARD	0.676	0.56	16-0052.1	Private	Detention Basin	0.2015	76.28902485	36.85715967	Yes	04/15/2019	Active	JL56
2714-2718 Pleasant Ave Duplex	2714	PLEASANT AVENUE	0.2	0.11	17-0015.1	Private	Infiltration 2	0.15	76.20836546	36.93212635	Yes	04/18/2019	Active	CB26
14th Bay Street Residential	9547 9553	14th Bay Street	0.373	0.242	16-0037.1	Private	Bioretention Urban	0.12	76.20222454	36.92936079	Yes	04/22/2019	Active	CB26
14th Bay Street Residential	9547 9553	14th Bay Street	0.373	0.242	16-0037.3	Private	Bioretention Basins	0.03	76.20220174	36.92936254	Yes	04/22/2019	Active	CB26
14th Bay Street Residential	9547 9553	14th Bay Street	0.373	0.242	16-0037.5	Private	Bioretention Urban	0.03	76.20216955	36.92938827	Yes	04/22/2019	Active	CB26
14th Bay Street Residential	9547 9553	14th Bay Street	0.373	0.242	16-0037.7	Private	Bioretention Urban	0.03	76.20216955	36.92938827	Yes	04/22/2019	Active	CB26
4535 E Princess Anne Road-Tidewater Tech parking expansion	4535	PRINCESS ANNE ROAD	3.38	2.86	18-0104.3	Private	Other SWMF	0	76.1406.4	36.515165	Yes	04/23/2019	Active	JL54
1424, 1426, & 1428 W Ocean View Ave.	1426	W OCEAN VIEW AVENUE	0.82	0.33	16-0102.1	Private	Infiltration 1	0.38	76.29216571	36.96733302	Yes	05/01/2019	Active	CB26
20 Nivanna Building Canopy & Drive Asic	8513	INORTH CENTER DRIVE	0.18	0.124	16-0003.1	Private	Permeable Pavement 1	0.08	76.19035345	36.84743501	Yes	05/02/2019	Active	JL54
1855 Kingston Ave. Duplex	1855	KINGSTON AVENUE	0.168	0.0804	16-0097.1	Private	Infiltration 2	0.12	76.22401871	36.93755918	Yes	06/07/2019	Active	CB26
1855 Kingston Ave. Duplex	1855	KINGSTON AVENUE	0.168	0.0804	16-0097.2	Private	Infiltration 1	0.05	76.22414644	36.93728732	Yes	06/07/2019	Active	CB26
WNOR Tower Replacement	600	E INDIAN RIVER ROAD	6.67	0.06	19-0006.1	Private	Other SWMF	0	76.2692	36.83396	Yes	06/07/2019	Active	JL56
3 SFR Columbia Avenue	1636	COLUMBIA AVENUE	0.35	0.155	17-0068.3	Private	Detention Basin	0.115	76.26572838	36.88172631	Yes	06/14/2019	Active	JL56
Coastal Villas by the Bay	7922	SHORE DRIVE	1.65	1.18	15-0025.2	Private	Grass Channel	0.33	76.19241704	36.91891579	Yes	06/15/2019	Active	CB26
Coastal Villas by the Bay	7922	SHORE DRIVE	1.65	1.18	15-0025.3	Private	Grass Channel	0.27	76.19241704	36.91891579	Yes	06/15/2019	Active	CB26
3 SFR Columbia Avenue	1636	COLUMBIA AVENUE	0.35	0.155	17-0068.2	Private	Detention Basin	0.117	76.26591265	36.88166827	Yes	06/15/2019	Active	JL56
Coastal Villas by the Bay	7922	SHORE DRIVE	1.65	1.18	15-0025.1	Private	Bioretention 2	0.77	76.19241704	36.91891579	Yes	06/19/2019	Active	CB26
941 Hillside Ave Subdivision	941	HILLSIDE AVENUE	0.59	0.27	18-0014.1	Private	Bioretention 2	0.14	76.24181217	36.94668464	Yes	09/17/2019	Active	CB26
941 Hillside Ave Subdivision	941	HILLSIDE AVENUE	0.59	0.27	18-0014.2	Private	Bioretention 2	0.12	76.24172022	36.94054792	Yes	09/17/2019	Active	CB26
941 Hillside Ave Subdivision	941	HILLSIDE AVENUE	0.59	0.27	18-0014.3	Private	Bioretention 2	0.12	76.24173811	36.94639201	Yes	09/17/2019	Active	CB26
941 Hillside Ave Subdivision	941	HILLSIDE AVENUE	0.59	0.27	18-0014.4	Private	Bioretention 2	0.12	76.24180198	36.94626207	Yes	09/17/2019	Active	CB26
1718 EV0 Duplex	1718	E OCEAN VIEW AVENUE	0.23	0.11	18-0009.1	Private	Bioretention 2	0.1	76.22665423	36.93986306	Yes	10/10/2019	Active	CB26
1718 EV0 Duplex	1718	E OCEAN VIEW AVENUE	0.23	0.11	18-0009.2	Private	Detention Basin	0.1	76.22655423	36.93982723	Yes	10/10/2019	Active	CB26
4535 E Princess Anne Road-Tidewater Tech parking expansion	4535	E PRINCESS ANNE ROAD	3.36	2.86	18-0104.1	Private	Manufactured BMP Systems	1.03	76.1406.4	36.515165	Yes	10/15/2019	Active	JL54
4535 E Princess Anne Road-Tidewater Tech parking expansion	4535	E PRINCESS ANNE ROAD	3.36	2.86	18-0104.2	Private	Manufactured BMP Systems	0	76.1406.4	36.515165	Yes	10/15/2019	Active	JL54
2330 Bowdens Ferry Road-IP Configuration	2330	BOWDEN'S FERRY ROAD	4.47	2.12	19-0035.1	Private	Other SWMF	0	76.30447	36.87554	Yes	11/08/2019	Active	JL54
Christ & St Luke's Episcopal Church-Outdoor Improvements	560	OLNEY ROAD	0.52	0.26	18-0095.2	Private	Other SWMF	0	76.175173	36.513635	Yes	11/22/2019	Active	JL54
4013 Colley Mixed Use	4013	COLLEY AVENUE	0.39	0.25	16-0109.1	Private	Permeable Pavement 1	0.19	76.29525375	36.8820088	Yes	11/25/2019	Active	JL56
4013 Colley Mixed Use	4013	COLLEY AVENUE	0.39	0.25	16-0109.2	Private	Other SWMF	0.39	76.29525375	36.8820088	Yes	11/25/2019	Active	JL56
Sentara Norfolk parking expansion	600	GRESHAM DRIVE	24.98	0.51	18-0076.1	Private	Permeable Pavement 2	0	12125167.22	3408568829	Yes	12/03/2019	Active	JL56
Sentara Norfolk parking expansion	600	GRESHAM DRIVE	24.98	0.51	18-0076.2	Private	Permeable Pavement 2	0	12125230.08	3408548.816	Yes	12/03/2019	Active	JL56
Sentara Norfolk parking expansion	600	GRESHAM DRIVE	24.98	0.51	18-0076.3	Private	Permeable Pavement 1	0.01	12125172.65	34085040.661	Yes	12/03/2019	Active	JL56
Sentara Norfolk parking expansion	600	GRESHAM DRIVE	24.98	0.51	18-0076.4	Private	Permeable Pavement 1	0.02	12125172.65	34085040.661	Yes	12/03/2019	Active	JL56
Sentara Norfolk parking expansion	600	GRESHAM DRIVE	24.98	0.51	18-0076.5	Private	Permeable Pavement 1	0.03	12125172.65	34085040.661	Yes	12/03/2019	Active	JL56
Sentara Norfolk parking expansion	600	GRESHAM DRIVE	24.98	0.51	18-0076.6	Private	Permeable Pavement 2	0.11	76.30414	36.8621	Yes	12/03/2019	Active	JL56
Sentara Norfolk parking expansion	600	GRESHAM DRIVE	24.98	0.51	18-0076.7	Private	Permeable Pavement 2	0.32	76.30414	36.8621	Yes	12/03/2019	Active	JL56
1st View St. - 3 SFR	9225	1ST VIEW STREET	0.432	0.162	17-0028.1	Private	Rooftop (Impervious Surface) Disconnection	0.07	76.26477424	36.94782749	Yes	12/10/2019	Active	JL57
1st View St. - 3 SFR	9225	1ST VIEW STREET	0.432	0.162	17-0028.2	Private	Rooftop (Impervious Surface) Disconnection	0.07	76.26462871	36.94788789	Yes	12/10/2019	Active	JL57
1st View St. - 3 SFR	9225	1ST VIEW STREET	0.432	0.162	17-0028.3	Private	Rooftop (Impervious Surface) Disconnection	0.07	76.26451117	36.94795719	Yes	12/10/2019	Active	JL57
Wawa at Newtown	701	IN NEWTOWN ROAD	2.58	2.03	18-0008.1	Private	Detention Basin	0.83	76.18052413	36.8489149	Yes	12/11/2019	Active	JL54
Wawa at Newtown	701	IN NEWTOWN ROAD	2.58	2.03	18-0008.2	Private	Manufactured BMP Systems	0.19	76.18037392	36.84912738	Yes	12/11/2019	Active	JL54
Wawa at Newtown	701	IN NEWTOWN ROAD	2.58	2.03	18-0008.3	Private	Other SWMF	2.58	76.18064751	36.84918202	N/A	12/11/2019	Active	JL54
VAMAC	5846	CURLIEW DRIVE	0.625	0.38	18-0039.1	Private	Dry Swale 2	0.33	76.20472838	36.84200121	Yes	12/11/2019	Active	JL54
1050 N Military Hwy-Air	1050	N IN MILITARY HIGHWAY	2.23	1.66	18-0092.1	Private	Other SWMF	1.11	76.1224	36.513	Yes	12/16/2019	Active	JL54
Coastal Services	805	FORD DRIVE	1.4	1.23	17-0056.1	Private	Rooftop (Impervious Surface) Disconnection	0.19	76.253118017	36.83234789	Yes	01/06/2020	Active	JL54
West 38th Street Apartments	1045	38TH STREET	2.21	1.72	19-0017.2	Private	Other SWMF	0	1212629.2	34078938	Yes	03/03/2020	Active	JL54
Villa Marina Apartments	8142	SHORE DRIVE	3.76	2.63	18-0085.1	Private	Permeable Pavement 1	0.57	76.19143921	36.9287748	Yes	06/01/2020	Active	CB26
Villa Marina Apartments	8142	SHORE DRIVE	3.76	2.63	18-0085.2	Private	Permeable Pavement 1	0.16	76.19124609	36.92241431	Yes	06/01/2020	Active	CB26
Villa Marina Apartments														



DEPARTMENT OF PUBLIC WORKS
OPERATIONS DIVISION
Storm Water Pollution Prevention Protocol for the
Maintenance of Roads, Streets and Parking Lots

DATE WRITTEN: September 18, 2018

DATE REVISED:

PREPARED BY: June Whitehurst, Environmental Programs Manager

REVIEWED BY: Peter Garner, Operations Engineering Manager

FILE PATH: <K:\0000 - PW\Admin\SOPs\0600 - Comb Ops\Operations SOPs\SOP 630 P2 Maintenance of Roads, Streets & Parking Lots\SOP 630 P2 Maintenance of Roads, Streets and Parking Lots.doc>

DISTRIBUTION: Public Works Operational Crews

PURPOSE / OBJECTIVE:

To define guidelines, protocols, and procedures Operations will utilize to prevent pollutants from entering the storm water system from roads, streets and parking lot maintenance.

To ensure compliance with the requirements outlined under Part I.B.2.c of the City's MS4 permit.

BACKGROUND:

The City of Norfolk is mandated by federal and state law, as well as the City's MS4 VPDES Permit, VA0088650, to monitor and control pollutants in storm water discharges from City storm water conveyances. Part I.B.2.c of the MS4 permit requires the City to *"develop and implement written protocols for permittee-maintained road, street, and parking lot maintenance designated to minimize pollutant discharge."* As part of the MS4 permit, general description of pollution prevention requirements for maintenance of roads, streets and parking lots are also covered under section 2.3 of the City's MS4 Program Plan, Dated June 2017.

The City is also mandated by the state through the City's Industrial Storm Water General Permit VAR051796, and General Vehicle Wash and Laundry Facilities Permit VAG750131 to ensure pollution prevention practices are implemented at the McKann yard to meet effluent limitations for sediment, oil and grease, and nutrients. The permit also regulates pH of the runoff from the site.

RESPONSIBILITIES:

Department of Public Works Operations is the administrator of the MS4 VPDES Permit, VA0088650. This Division also oversees the maintenance and repair of roads and streets, and some parking lot maintenance. **Environmental staff** ensures compliance with the VPDES MS4 permit associated with pollution prevention practices.

PROCEDURES:

Street Sweeping - The City has implemented an aggressive street sweeping program that prevents debris and pollutants from entering the storm water system from city-owned roads, streets and parking lots. The sweeping schedule is listed below.

- Downtown business district - Swept daily 11:00 p.m. and 6 a.m., Sunday night through Friday morning.
- City-wide streets with curb and gutters (except downtown) - Swept monthly Tuesday through Friday, with Monday as a make-up day. The monthly sweeping cycle is completed in four weeks.



**DEPARTMENT OF PUBLIC WORKS
OPERATIONS DIVISION**
**Storm Water Pollution Prevention Protocol for the
Maintenance of Roads, Streets and Parking Lots**

- Underpasses and dead ends – Swept by hand to support the street sweeping efforts.
- NRHA communities - Swept twice per month, once with a regular mechanical sweeper and once with a mini-vacuum sweeper.
- Primary roads - Swept once per month by regenerative air sweepers during night operations.
- Special event - Cleanups occur immediately following parades, races, and other events.
- Municipal yards - Swept based on storm water pollution prevention plans. These usually occur either quarterly or twice per year.
- Norfolk Public School parking lots - Swept twice per year.
- City Parks parking lots – Swept once per quarter.
- City Beach parking lots – Swept every Monday and Friday from Memorial Day to Labor Day.
- Other City parking lots – Swept on a special request basis.

Road, Street and Parking Lot Maintenance

- Proper E&S measures are implemented per the City's E&S program.
- Illicit discharges and/or spills are identified and addressed upon discovery to prevent the spills from reaching the storm drains. See section 2.5 of the MS4 Program Plan for further details.
- Storage of bulk material in the field will be managed in a manner to prevent pollution to the storm drains. For small maintenance projects that do not require lay-down areas or formal E&S measures, bulk materials such as sand, dirt, etc. will be stored away from storm drains and in a manner that will prevent the loss of the material to the storm drain.
- Concrete chute waste water will be captured in a bag for proper disposal.
- Inlet protection will be installed during saw cutting activities of concrete roadways. Collection of excess waste water will occur where applicable. Street sweeping will occur to collect dry materials associated with the operation.
- Inlet protection will be installed in areas where milling activities.

Snow Activities

- Salt is stored at two locations in covered buildings.
- Urea-based deicing agents are never used.
- Brine is applied on bridges, overpasses, and arterials when conditions dictate its use. The brine residue gets diluted when the snow and ice melt.
- Street sweeping efforts are made to remove residual materials from roadways, streets and parking lots following snow events.

Equipment Maintenance

- Pre-trip inspections are completed daily prior to vehicle and equipment usage to avoid spills/leaks while performing maintenance.
- Spill equipment is stored on vehicles and equipment to quickly respond to spills or leaks.

Training

- Annual training is performed for staff once per year that covers pollution prevention practices both in the field, as well as in the yard. Illicit discharge detection is covered as well as general spill response practices and good housekeeping
- Annual 8-Hour Awareness Hazwoper training is performed for specific staff that respond to spills/leaks for proper cleanup efforts.

Bulk Material Storage at the Yard

- The McKann yard is covered by individual storm water permits associated with the Asphalt operations and the Street Sweeping wash rack area. Best management practices are implemented throughout the yard to prevent sediment, oil and grease, and nutrients from discharging from the site. It also regulates the pH in the runoff from the site.

DEPARTMENT OF PUBLIC WORKS
OPERATIONS DIVISION
**Storm Water Pollution Prevention Protocol for the
Maintenance of Roads, Streets and Parking Lots**

- A Storm Water Pollution Prevention Plan (SWPPP) has been developed and implemented for the McKann yard. Outlined in the SWPPP are the requirements for storage of bulk material associated with maintenance for roads, streets and parking lots. Also outlined in the SWPPP are sweeping operations for the yard and proper measures that may be used to prevent sediment from entering the storm water system.
- Proper spill equipment is kept on hand at the yard to perform chemical spill cleanups either in the yard or in the field.
- Chemicals are stored in a manner to prevent the release to the storm drainage system.

Approved:



Peter S. Garner PE
Operations Engineering Manager
Public Works Operations

Attachments:





HIGH PRIORITY MUNICIPAL YARD STUDY



June Whitehurst,
Environmental Programs Manager

May 1, 2017

Introduction:

The City of Norfolk (City) is mandated by federal and state law, as well as the City's Municipal Separate Storm Sewer System (MS4), Virginia Pollutant Discharge Elimination System (VPDES) Permit, VA0088650 (effective July 1, 2016), to monitor and control pollutants in storm water discharges from City storm water conveyances. As outlined in Part I.B.2.i of the MS4 permit, the City is required to identify all City-owned high priority municipal facilities that have a high potential of discharging pollutants.

High priority municipal facilities are defined as those municipal yards that are owned and operated by the City which includes composting facilities, equipment storage and maintenance facilities, materials storage yards, pesticide storage facilities, public works yards, recycling facilities, salt storage facilities, solid waste handling and transfer facilities, and vehicle storage maintenance yards. A comprehensive analysis was conducted in Spring 2017 by the Department of Public Works, Division of Environmental Storm Water Management staff, to identify City-owned high-priority facilities that may require a separate VPDES industrial stormwater permit and/or a storm water pollution prevention plan (SWPPP). The analysis completed utilized a GIS table-top exercise, field verification, and Storm Water environmental staff professional knowledge of City operations. The initial list will be better refined throughout the 5-year permit term as comprehensive site evaluations are conducted and SWPPPs are developed.

High Priority Municipal Facility Analysis:

Facility parcel information was obtained from a layer within the City's GIS to locate all City-owned properties. The table-top analysis utilized the 2016 aerial photography to visually inspect each City-owned parcel. Specific parcel categories were excluded from the analysis, including vacant lots, office buildings, parking lots, streets, and sidewalks. During this exercise, a list of parcels that required additional field verification based on the nature of their business was compiled.

Initial field assessments of city facilities included public works yards, utilities yards, parks & forestry yards, facility maintenance, fleet maintenance, public schools, libraries, community centers, police stations, and fire stations. During the field assessment, the areas were inspected for the presence of equipment and/or material storage, outdoor stockpiles, bulk waste containers, above ground chemical storage tanks, and any other obvious pollution sources from standard operations. Table 1 outlines the facilities inspected, date inspected, and initial assessment as to whether it meets the requirements for the development of a SWPPP.

Table 1: City-owned Parcel Assessment for SWPPP Development

Site Name	Site Address	Date Assessed	High Priority SWPPP Requirement (Yes/No)
Facilities Management	2840 Dana Street	9/21/2016	Yes
Fleet Maintenance	1188 Lance Road	9/21/2016	Yes

Parks and Urban Forestry	2839 Dana Street	1/30/2017	Yes
Public Works Combined Ops	2233 McKann Avenue	N/A - VDPES Permit; SWPPP Already Developed	Yes
Public Works Waste Management	1176 Pineridge Road	N/A - VDPES Permit; SWPPP Already Developed	Yes
School Transportation Services	5555 Raby Road	9/23/2016	Yes
Utilities - Wastewater Combined Operations	1316 Ballentine Road	9/12/2016	Yes
Utilities Water Treatment - 37th Street	3719 Parker Avenue	9/20/2016	Yes
Utilities Water Treatment - Moores Bridges	6040 Water Works Road	9/21/2016	Yes
1st Precinct/Investigations/Records/EOC	3661 E Virginia Beach Blvd	9/8/2016	No
2nd Precinct / Training	2500 N Military Hwy	9/8/2016	No
Admin, environmental, lab and medical	830 South Hampton Ave	1/13/2017	No
Animal Management Center	5585 Sabre Road	8/26/2016	No
Attucks Theatre	1010 Church Street	8/18/2016	No
Azalea Gardens Middle School	7721 Azalea Garden Road	8/1/2016	No
Barrad Park	1136 Vista Street	8/18/2016	No
Barron F Black Branch Library	6700 E Tanners Creek Drive	8/2/2016	No
Bayview Elementary + Rec center	1434 E Bayview Blvd	8/1/2016	No
Berkley Campostella Early Childhood Center	1530 Cypress Street	8/31/2016	No
Berkley Community Park	903 South Main Street	8/26/2016	No
Blyden Branch Library	879 E Princess Anne Road	8/18/2016	No
Booker T Washington High School	111 Park Avenue	8/4/2016	No
Calcott Elementary School	137 E Westmont Ave	7/28/2016	No
Calvert Square early Childhood Center	975 Bagnale Road	8/23/2016	No
Camp Allen Elementary School	501 C Street	8/8/2016	No
Campostella Center	1130 Leake Street	8/16/2016	No
Campostella Elementary School	1106 Campostella Road	7/27/2016	No
Chesterfield Academy	2915 Westminster Ave	8/8/2016	No

Coleman Place Elementary School	2445 Palmyra Street	8/3/2016	No
Coronado School (Open campus)	1025 Widgeon Road	8/22/2016	No
Crossroads Rec Center + ES	7020 Tidewater Drive	8/5/2016	No
Diggs Town Park	1401 Melon Street	8/31/2016	No
Dream Keepers Academy-old building	2600 E Princess Anne Ave	8/4/2016	No
East Ocean View Community Center	9520 20th Bay Street	8/1/2016	No
Easton Preschool	6045 Curlew Drive	8/30/2016	No
Fairlawn Elementary School	1132 Wade Street	8/8/2016	No
Fairlawn Rec Center	1014 Kempsville Road	8/8/2016	No
Fire Station 1	736 Cecelia Street	8/23/2016	No
Fire Station 10	4100 E Virginia Beach Blvd	8/30/2016	No
Fire Station 11	3127 Verdun Court	8/18/2016	No
Fire Station 12	1650 W Little Creek Road	8/18/2016	No
Fire Station 13	176 Maple Avenue	8/26/2016	No
Fire Station 14	1460 Norview Ave	8/18/2016	No
Fire Station 16	7924 Camelia Road	8/22/2016	No
Fire Station 2	2501 Church Street	8/30/2016	No
Fire Station 7	1211 W 43rd Street	8/18/2016	No
Fire Station 9 and Training Center	115 Thole Street	8/22/2016	No
Fred Huette Center	1000 Botetourt Gardens	1/13/2017	No
Ghent Elementary School	200 Shirley Ave	8/8/2016	No
Granby Elementary School	7101 Newport Ave	8/5/2016	No
Granby High School	7101 Granby Street	8/5/2016	No
Granby Municipal Building	400 Granby Street	1/13/2017	No
Harrison Opera House	160 W Virginia Beach Blvd	1/13/2017	No
Horace C Downing Branch Library	555 E Liberty Street	8/26/2016	No
Human Services	741 Monticello Ave	1/13/2017	No
Huntersville Community Center	880 Goff Street	7/27/2016	No
Ingleside Elementary School	976 Ingleside Road	8/4/2016	No
Ingleside Rec Center	940 Ingleside Road	8/4/2016	No
Jacox Elementary School	1300 Marshall Ave	8/4/2016	No
James Blair Middle School	730 Spotswood Ave	8/8/2016	No
James Monroe Elementary	520 W 29th Street	8/9/2016	No
Janaf Branch Library	5900 E Virginia Beach Blvd	8/29/2016	No
Jordan-Newby Branch Library	961 Park Ave	8/4/2016	No

Lafayette Branch Library	1610 Cromwell Drive	8/3/2016	No
Lafayette Winona Middle School	1701 Alsace Ave	8/3/2016	No
Lake Taylor High School	1380 Kempsville Road	8/8/2016	No
Lake Taylor Middle School	1380 Kempsville Road	8/8/2016	No
Lake Taylor Transitional Care Hospital School	1309 Kempsville Road	8/29/2016	No
Lakewood Park and Athletics	1600 Willow Wood Drive	8/3/2016	No
Lamberts Point Community Center	1251 W 42nd Street	8/12/2016	No
Larchmont Branch Library	6525 Hampton Blvd	8/12/2016	No
Larchmont Elementary + Rec Center	1145 Bulling Ave	8/9/2016	No
Larrymore Elementary School	7600 Halprin Drive	8/9/2016	No
Lindenwood Elementary School	2700 Ludlow	7/27/2016	No
Little Creek Branch Library	7853 Tarpon Place	8/1/2016	No
Little Creek Elementary School	7900 Tarpon Place	8/1/2016	No
Louise W Eggleston Center	1161 Ingleside Road	Noncity Facility	No
Madison Career Center	3700 Bowden Ferry Road	8/18/2016	No
Mary D Pretlow Branch Library	9640 Granby Street	7/28/2016	No
Meadowbrook Building + ES	7620 Shirland Ave	8/15/2016	No
Merrimac Landing Rec Center	8809 Monitor Way	7/28/2016	No
Maury High School	322 Shirley Ave	8/8/2016	No
Norfolk Fitness and Wellness Center	7300 Newport Ave	8/15/2016	No
Norfolk Juvenile Detention Center / Home School	1260 Security Lane	8/15/2016	No
Norfolk Skills Center	922 W 21st Street	CLOSED 2009	No
Norfolk Technical Vocation Center	1330 N Military Highway	8/29/2016	No
Northside Community Center	8400 Tidewater Drive	8/1/2016	No
Northside Middle School	180 E Evans Street	7/28/2016	No
Norview ES and Rec Center	6380 Sewells Point RD	8/2/2016	No
Norview High School	6501 Chesapeake Blvd	8/2/2016	No
Norview Middle School	6325 Sewells Point Road	8/3/2016	No
NTVC Annex	1320 N Military Highway	8/29/2016	No
Oakwood Elementary School (abandoned?)	900 Ashbury Ave	8/22/2016	No
Ocean View Elementary School	9501 Mason Creek Road	being rebuilt	No

Oceanair Elementary School	600 Dudley Ave	8/1/2016	No
P.B. Young Elementary School	543 E Olney Road	8/13/2016	No
Park Place Community Center	606 West 29th Street	8/12/2016	No
Poplar Hall Elementary School	5523 Pebble Lane	8/8/2016	No
Richard Bowling Elementary School-old building soon to be SECEP	2861 E Princess Anne Road	8/5/2016	No
Public Works Salt Dome	7658 Central Business Park Drive	9/21/2016	No
Ruffner Middle School	610 May Ave	7/27/2016	No
Sarah Constant Shrine and Beach	324 W Ocean View Ave		No
SECEP Administrative Offices	6160 Kempsville Circle Ste 300B	8/30/2016	No
Sewells Point Elementary School	7928 Hampton Blvd	8/9/2016	No
Sherwood Forest Community Center	4537 Little John Drive	8/3/2016	No
Sherwood Forest Elementary School	3035 Sherwod Forest Lane	8/3/2016	No
Slover Library	235 E Plume Street	1/13/2017	No
St. Helena Elementary School	903 S Main Street	8/9/2016	No
St. Mary's home for disabled children	6171 Kempsville Circle	8/30/2016	No
Station 15	1425 Fisherman's Road	8/22/2016	No
Station 4	5909 Poplar Hall Drive	8/30/2016	No
Station 6	714 Pembroke Ave	1/13/2017	No
Station 8	526 Frederick Street	8/16/2016	No
Stuart Early Childhood Center	446 Virginia Ave	CLOSED	No
Suburban Park Elementary School	310 Thole Street	8/5/2016	No
Tanners Creek Elementary School	1335 Longdale Drive	8/2/2016	No
Tarrallton ES + Rec Center	2080 Tarrallton Drive	8/1/2016	No
Tarrallton Park		8/1/2016	No
Tidewater Park Elementary School	1045 E Brambleton Ave	7/27/2016	No
Titustown Rec Center	7545 Diven Street	8/15/2016	No
Van Wyck Branch Library	1368 Debree Ave	1/13/2017	No
Vivian Mason Center	700 E Olney Road	8/23/2016	No
W.H Taylor Elementary School	1122 W Princess Anne Road	8/9/2016	No
Wells Theatre	108 E Tazewell Street	1/13/2017	No

Willard Model School	1511 Willow Wood Drive	8/3/2016	No
Willoughby Elementary School	9500 4th View Street	7/28/2016	No
Young Terrace Community Center	804 Whitaker Lane	8/23/2016	No
Youth Resource Center	501 Boush Street	1/13/2017	No

Conclusion:

Through this process, the following nine facilities have been identified to meet the high priority municipal facility definition. VDPES Industrial permits and SWPPPs have previously been obtained for two of the facilities as outlined in Table 2. The additional seven facilities will be assessed for separate VDPES industrial permit coverage and SWPPPs developed outlined in Table 3.

Table 2: VDPES Industrial Permits Obtained with Corresponding SWPPPs:

Site Name	Site Address	VDPES Permit #	FINAL SWPPP Date
Public Works Combined Ops	2233 McKann Avenue	VAR051796	11/2008
Public Works Waste Management	1176 Pineridge Road	VAR052006	8/2010

Table 3: Municipal Facilities Requiring Further Assessment and SWPPPs:

Site Name	Site Address	FINAL SWPPP Date	Comments
Facilities Management	2840 Dana Street	6/2017	None
Fleet Maintenance	1188 Lance Road	6/2017	None
Parks and Urban Forestry	2839 Dana Street	6/2017	None
School Transportation Services	5555 Raby Road	6/2017	None
Utilities - Wastewater Combined Operations	1316 Ballentine Road	6/2017	None
Utilities Water Treatment - 37th Street	3719 Parker Avenue	6/2017	None
Utilities Water Treatment - Moores Bridges	6040 Water Works Road	6/2017	None

City of Norfolk
Department of Public Works
Division of Environmental Storm Water Management

Mobile Car Wash Application

Name of Business: _____

Owner Name: _____

Mailing Address: _____

Phone Number: _____

I have read and understand Sec. 41.1-4, Pollution of the Stormwater system, of the Norfolk City Code. I also understand that a violation of this section of code is a Class I Misdemeanor. In addition, I have received and agree to read the storm water information packet.

If ANY of the information on this form changes, a new application must be submitted within 10 days of the change.

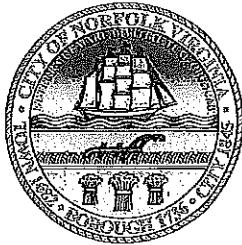
Owner Sign

Date

Witness Sign

Date

Please feel free to contact this division at, (757) 823-4000, between 7am and 3:30pm, Monday through Friday, if you have any questions.



N O R F O L K

Department of Public Works, Field Engineering & Environmental Management

Mobile Car Wash and Automotive Detailing Facilities

Dear Owner:

As a licensed business owner, it is your responsibility to read and understand the City Codes that may affect your business practices. We want to provide you with some educational material to ensure you avoid possible violations related with pollution of the storm water system.

While performing operations associated with mobile car washing or automotive detailing, please ensure that all rinse water is maintained on site, either through collection and discharge into a sanitary sewer system or infiltration into the ground. Functioning as a commercial entity, you are not authorized to discharge rinse water to the stormwater system; there are no exemptions. Absolutely nothing associated with vehicle washing may be discharged into the street or storm water system. This includes "clean" rinse water not containing detergents, and materials that are considered "Bio-Degradable" and "Environmentally Friendly."

Provided is a copy of the City code, Chapter 41.1, *Storm Water Management*, for your review. Section 41.1-4(c) of the code states that it is unlawful to discharge commercial rinse water into the City's storm water system, including streets, ditches, etc. unless permitted to do so by the Department of Environmental Quality. A violation of this code is a class 1 misdemeanor with a maximum penalty of \$2500/day and/or up to 1 year in jail.

Also provided is a brochure, *Remember You Are Not Just Washing a Car...*, that provides additional detail. If you have specific questions regarding this letter or requirements associated with your business, please feel free to contact the Environmental Management staff Monday through Friday 7:00am-3:30pm at 757-823-4000. Thank you for your assistance in this matter.

Sincerely,

Casey Magruder
Environmental Program Administrator

Cc: File



Mobile Car Wash/Detailing Requirements for Business License

(revised 04/06/18)

The following is our policy regarding individuals requesting a business license to operate a mobile car detailing and/or washing service:

1. Applicant must contact and meet with Natiara Satsatin in Storm Water Management (823-4010). Address:

2233 McKann Avenue
Norfolk, VA 23509
2. Natiara will review the applicant's equipment and wastewater runoff system and determine if it is sufficient. If it is, Natiara will provide a letter/form to the applicant indicating that they are in compliance with Storm Water requirements.
3. Any person wishing to obtain a business license for mobile car wash/detailing **MUST** have this letter/form from Natiara to be approved prior to obtaining a business license.
4. The applicant may operate from:
 - a. Their home as a home occupation subject to meeting all the necessary zoning requirements.
 - b. They may also operate from a commercial or industrial location subject to a valid lease.
 - c. Operation from a storage unit with a valid lease is also an option.
5. No more than two (2) vehicles shall ever be serviced at any one (1) location per day.

Organization/Event/Publication	Location	Topic/Title/Description	Speaker/Writer/Leader	Start Date	End Date	Hours	Number Attending	Intended Audience
Monarch Cobia Classic Fishing Tournament	ODU	Pump Out Don't Dump Out	Michelle Williams	07/11/2019			80	Boaters
HRUBS Insert		Bay Star Homes	Michelle Williams	09/01/2019	09/30/2019		20000	Norfolk Residents
Street Sweeping	YouTube	Street Sweeping Video	Michelle Williams	09/02/2019	01/18/2020		100000	Norfolk Residents
Norfolk Animal Care Center	5585 Sabre Rd.	Adoptions	Michelle Williams	09/09/2019			100	
Suburban Acres Civic League		Flooding/Street Sweeping	John White	09/09/2019		2	30	
Norview Civic League	Norview United Methodist Church, 1112 Norview Avenue	Street Sweepers/Grass Clippings	Michelle Williams	09/12/2019		2	25	Civic League
HRUBS Email		Bay Star Homes	Utilities	09/13/2019	09/30/2019		17619	Norfolk Residents
Norfolk Animal Care Center	Norfolk Fitness & Wellness Center	Dogs Gone Swimming	Michelle Williams	09/14/2019		5	300	Residents
Lochhaven Civic League	Norfolk Yacht Club	Street Sweepers/Grass Clippings/Leaves	John White	09/17/2019		2	35	Civic League
Estabrook/Coleman Place Civic League	3612 Robin Hood Road	Street Sweepers/Grass Clippings/Leaves	June Whitehurst	09/17/2019		2	30	Civic League
Pinewell Civic League	Mary Pretlow Library	Street Sweepers/Grass Clippings/Leaves	Michelle Williams	09/17/2019		2	32	
Ghent Neighborhood League		Stormwater	John White	09/19/2019		25	25	Civic League
Lake Taylor Civic League	1251 Kempville Rd.	Street Sweepers/Leaves/Grass Clippings	Michelle Williams	09/19/2019		3	32	Civic League
Active Older Adults Day	Granby YMCA	Stormwater	Michelle Williams	09/25/2019		4	100	Older Adults
Central Brambleton Civic League	Jordan Newby Library	New Retention Pond Development/Flooding	Rey Hernandez, CW Gaskill, Michelle Williams	09/26/2019		2	5	Residents of Central Brambleton
HRUBS Insert		Street Sweeping/Leaves	Michelle Williams	10/01/2019	10/31/2019		20000	Norfolk Residents
Hollywood Homes/Maple Hall Civic League	Faith Temple Church 1173 George Street	Street Sweepers/Grass Clippings/Leaves	Kyle Quick	10/03/2019		1	12	Civic League
Glenwood Park	133 Woodview Ave	Street Sweepers/Grass Clippings/Leaves	Michelle Williams	10/03/2019		1	11	Civic League
Colonial Place/Riverview Civic League	Eggleson Center, 110 Lavalette Ave.	Street Sweepers/Grass Clippings/Leaves	Peter Mack	10/14/2019		2	41	Civic League
HRUBS Email		Street Sweepers/Leaves	Utilities	10/14/2019			17619	
Lake Whitehurst West Civic League	Christ Luthern Church, 6510 N. Military Hwy	Street Sweepers/Grass Clippings/Leaves	Peter Mack	10/15/2019		2	21	Civic League
Virginia Pilot Compass		Street Sweepers/Leaves	Michelle Williams	10/20/2019			25000	Norfolk Residents
Oakdale Farms/Denby Park Civic League	550 E Little Creek Rd, Norfolk, VA 23505	Street Sweepers/Grass Clippings/Leaves	Michelle Williams	10/22/2019		2	6	Civic League
Video	YouTube	Leaves Video	Michelle Williams	10/29/2019	01/16/2021		100000	Norfolk Residents
Norfolk SPCA Dog Walk	Ocean View	Scoop the Poop	Michelle Williams	11/02/2019			200	Norfolk Residents
Virginia Pilot Compass		Street Sweepers/Leaves	Michelle Williams	11/03/2019			25000	Norfolk Residents
West Ocean View	Mary Pretlow Library	Street Sweepers/Grass Clippings/Leaves	Peter Mack	11/06/2019		2	19	Civic League
Coronado Civic League	Norview Community Center	Street Sweepers/Grass Clippings/Leaves	Michelle Williams	11/07/2019		2	8	Civic League
Olde Huntersville	Huntersville Community Center 830 Goff St.	Street Sweepers/Grass Clippings/Leaves	Chrisi VanLear	11/12/2019			8	Civic League
Tanners Creek Elementary School	1335 Longdale Dr, Norfolk, VA 23513	School Program - Fred the Fish	Michelle Williams	11/14/2019	11/15/2019	4	123	1st grade school children
South Bayview Civic League	3rd Presbyterian Church, 8065 Carlton St.	Street Sweepers/Grass Clippings/Leaves	Michelle Williams	11/14/2019		2	28	Civic League
Beacon Light/Berkley	Berkely Multi-Service Center, 925 Main St. Norfolk 23523	Street Sweepers/Grass Clippings/Leaves	Chrisi VanLear	11/18/2019		2	32	Civic League
Calvert Square Civic League	975 Bagnal Rd	Street Sweepers/Grass Clippings/Leaves	Michelle Williams	11/20/2019		1	13	Civic League
New Journal Guide		Street Sweepers/Leaves	Michelle Williams	11/21/2019			10000	Norfolk Residents
James Monroe Elementary School	520 W 29th St. Norfolk, 23508	School Program - Fred the Fish	Michelle Williams	11/22/2019		2	42	1st grade school children
Little Creek Elementary	7901 Nancy Dr, Norfolk, VA 23518	Career Day	Chris Taylor	12/05/2019		6	650	Elementary School Children
Storm Water Adopt-A-Tree Event	Storm Water 2233 McKann Ave	Tree Giveaway to Bay Star Homes and Businesses	Michelle Williams; Justin Shafer	12/09/2019	02/07/2020		195	Norfolk Residents
Social Media		Street Sweepers/Leaves - 4-week campaign	Michelle Williams	12/21/2019	01/18/2020		100000	Norfolk Residents
Mid-Atlantic Horticulture Short Course	Norfolk Botanical Gardens	AskhrGreen/Stormwater	Michelle Williams	01/14/2020		4	400	Gardners/Businesses
Mary Calcott Elementary School	137 E Westmont Ave, Norfolk, VA 23503	School Program - Fred the Fish	Michelle Williams	01/15/2020		2	75	1st grade school children
Mary Calcott Elementary	137 E Westmont Ave, Norfolk, VA 23503	School Program - Fred the Fish	Michelle Williams	01/16/2020		2	50	1st grade school children
Mid-Atlantic Horticulture Short Course	Norfolk Botanical Gardens	BMP Maintenance	Justin Shafer	01/16/2020		5	25	Gardners/Businesses
Jam'n Jamz	Lafayette Park 3500 Granby St	Tree Giveaway	Michelle Williams	01/25/2020		5	500	Norfolk Residents
HRUBS Insert		Illicit Discharge	Michelle Williams	02/01/2020	02/29/2020		20000	Norfolk Residents
Only Rain Down the Drain Rack Cards	East Ocean View Civic League	Keeping Gutters and /Storm Drains Clear	Michelle Williams	02/03/2020			500	Norfolk Residents
Richard Bowling Elementary School	2700 Princess Anne Rd	School Program - The Magic of Water	Michelle Williams	02/11/2020		3	52	3rd grade school children
Richard Bowling Elementary School	2700 E Princess Anne Rd	School Program - The Magic of Water	Michelle Williams	02/12/2020		3	53	
HRUBS Email		Illicit Discharge	Michelle Williams	02/15/2020			18000	Norfolk Residents
Mary Calcott Elementary School	137 East Westmont Ave	School Program - The Magic of Water	Michelle Williams	02/26/2020		2	51	3rd grade school children
Mary Calcott Elementary School	137 East Westmont Ave	School Program - The Magic of Water	Michelle Williams	02/27/2020		2	52	
Social Media	Nextdoor, Facebook, Twitter	Recycling Campaign	Michelle Williams	03/02/2020			50000	Norfolk Residents
Willard Model Elementary School	1511 Willow Wood Dr.	School Program - The Water Cycle	Michelle Williams	03/05/2020		2	47	3rd Grade School Children
Willard Model Elementary School	1511 Willow Wood Dr	School Program - The Magic of Water	Michelle Williams	03/06/2020		2	52	3rd Grade School Children
St. Helena Elementary School	903 S.Main St.	School Program - The Magic of Water	Michelle Williams	03/11/2020		2	48	3rd grade school children
Tanners Creek Elementary School	1335 Longdale Dr. Norfolk, VA 23513	School Program - The Magic of Water	Michelle Williams	03/12/2020		2	53	3rd grade school children
Social Media		Yard Debris in the Curbline	Michelle Williams	03/30/2020			100000	Norfolk Residents
HRUBS Insert		Recycling - What Goes in the Big Blue Bin	Michelle Williams	04/01/2020	04/30/2020		20000	Norfolk Residents
Social Media		Scoop the Poop - Even in Your Own Backyard	Michelle Williams	04/10/2020	04/17/2020		100000	Norfolk Residents
HRUBS Email	Online	Recycling	Michelle Williams	04/15/2020			18000	Norfolk Residents
Social Media		Scoop the Poop - Even in Your Own Backyard	Michelle Williams	04/23/2020	05/16/2020		100000	Norfolk Residents
Neighbors Building Neighbors Academy	Online	City Beautification During Covid-19	Michelle Williams	06/29/2020		1	15	Norfolk Residents

Communication Outline

Public Works Operations, Stormwater

MISSION: To improve water quality and reduce flooding city-wide

GOAL: To engage and reach every resident within the City to promote positive behaviors and actions that improve water quality and flooding. This will be achieved through educational programming, interactive outreach and teamwork.

IMPLEMENTATION PROCESS: Seasonal campaigns with a focused messaging.

Each seasonal campaign will touch on a different TMDL message and be designed with multiple sensory appeal. In addition, stormwater will continue to coordinate with Hampton Roads Planning District Commission campaigns through the HR Green initiative.

Storm Water will also continue to work with all City groups to combine Norfolk's environmental messages to provide a cohesive public outreach effort.

SUMMER 2019:

GRASS CLIPPINGS: Anything blown into the curb line has the potential to end up in our storm drains. This matter causes blockages and impact water quality due to the pollutants that it carries. Residents are asked to properly dispose of this waste and to keep their curb line clear.

Media sources: Community meetings/events, brochures, website, video, festivals, Bay Star Homes, Social Media Postings

HURRICANE PREP/EOC/FLOODING: Flood Awareness plays an active role in Norfolk's government initiatives. Making room for and living with water are essential to Norfolk's future. It is important to know what to expect and work towards proactive solutions that will ensure our long-term success. Outreach will include messages about what to do in preparation, what to do during an actual event, along with reminders not to drive through high water.

Media sources: Community meetings/events, website, social media, Bay Star Homes, HRUBS inserts

KEEP IT CLEAN-PUMP...DON'T DUMP: Boaters should use pump-out stations at local marinas instead of dumping waste over board. Though permitted by law, treated waste is still high in pollutants, and the treatment process does not reduce bacteria to a level that is safe for shellfish consumption.

Media sources: Community meetings/events, brochures, festivals, Bay Star Homes, boater forums, Summer HRSD Pump-out programs, handout/giveaways to local marinas

BAY STAR HOMES: This program is homeowner based and asks residents to make small behavioral changes to their lifestyle and homes in order to decrease their impact on the environment while improving water quality. Bay Star program is city-wide and regional.

Media Sources: Community meetings, mailings to specific neighborhoods, festivals, websites, civic leagues

SCOOP THE POOP: Pick up your pet waste, even in your own backyard. Pet waste increases bacteria and nutrient levels in waterways, leading to algae blooms, fish kills, fishing bans and beach closures.

Media Sources: Bags-on-board holders, tip cards, summer camps, festivals, Bay Star Homes, pet waste

station grants, community meetings, website, social media, video, providing scoop the poop giveaways to the SPCA, Animal Cares Center, Norfolk Admirals, and individual neighborhoods where needed.

HOUSEHOLD HAZARDOUS WASTE/ELECTRONICS RECYCLING: Disposing of hazardous material inappropriately does affect water quality. Norfolk encourages residents to take these materials to HHW collection centers versus disposing of this with your regular trash or via a storm drain.

Media sources: HRUBS insert and email, community meetings/events, Bay Star Homes, website

RETAIN YOUR RAIN: Resiliency focused outreach and workshops designed to encourage Norfolk's residents to take actions on their property to reduce flooding. This is being coordinated through the City Manager's Resiliency Office.

Media Sources: Community meetings/events, social media posts, website, print material-Decision Tree, Green Infrastructure video, Retain Your Rain App

FALL 2019:

TEST, DON'T GUESS ABOUT FERTILIZING: Homeowners and commercial property owners should only fertilize if needed and with quantities that are required. Coated and water-soluble slow-release fertilizers help roots develop and wash away less easily. Do not apply slow or time-released nitrogen at a rate above one pound per 1,000 square feet. Apply only what is needed.

Secondary Messaging: Soil Testing

Media Sources: Bay Star Homes, brochure, website, community meetings, festivals

LEAVES: Anything blown into the curb line has the potential to end up in our storm drains. This matter causes blockages and impact water quality due to the pollutants that it carries. Residents are asked to properly dispose of leaves and to keep their curb line clear.

Media sources: Community meetings/events, brochures, website, social media, video, Bay Star Homes, sweeper wraps, HRUBS insert, magazine ad

STREET SWEEPING PROGRAM: The Street Sweeping equipment used by the City is meant to collect small debris and litter that decrease water quality. It is the responsibility of citizens and property owners to collect their yard waste and properly dispose of it – the City's Street Sweeping program is not liable for large debris pile pickups.

Fall Message: Leaves in storm drains and resident's responsibility; proper yard waste disposal

Media sources: Community meetings, rack card, website, social media, Bay Star Homes, spotlights/news articles, social media postings, sweeper wraps, magazine ad, **new video, new sweeper mascot**

STORM DRAIN AWARENESS - ONLY RAIN DOWN THE STORM DRAIN: This slogan encompasses the stormwater message. Anything other than clean rainwater that enters the storm drain is a pollutant as well as a violation of a State-issued, EPA mandated permit. Pollutants that enter storm drains flow directly to our water bodies causing water quality problems.

Media sources: Compass ads, community meetings/events, brochures, website, social media, in-school field trip programming, City ordinance/codes, storm drain dedallion marking, HRUBS inserts, festivals

BAY STAR HOMES: This program is homeowner based and asks residents to make small behavioral changes to their lifestyle and homes in order to decrease their impact on the environment while improving water quality. Bay Star program is city-wide and regional.

Media Sources: Community meetings, mailings to specific neighborhoods, festivals, websites, HRUBS insert

HOUSEHOLD HAZARDOUS WASTE/ELECTRONICS RECYCLING: Disposing of hazardous material inappropriately does affect water quality. Norfolk encourages residents to take these materials to HHW collection centers versus disposing of this with your regular trash or via a storm drain.

Media sources: HRUBS insert/email, Community meetings/events, Bay Star Homes, in-school field trips, website, America Recycles Day

RETAIN YOUR RAIN: Resiliency focused outreach and workshops designed to encourage Norfolk's residents to take actions on their property to reduce flooding. This is being coordinated through the City Manager's Resiliency Office.

Media Sources: Community meetings/events, social media posts, website, print material-Decision Tree, Green Infrastructure video, Retain Your Rain App

Winter 2020:

Don't Feed Wild Ducks and Geese – Feeding wildlife discourages natural migration patterns and increases nutrient and bacteria pollution due to their waste.

Media sources: Community meetings, brochures, website, Bay Star Homes programming

STREET SWEEPING PROGRAM: The Street Sweeping equipment used by the City is meant to collect small debris and litter that decrease water quality. It is the responsibility of citizens and property owners to collect their yard waste and properly dispose of it – the City's Street Sweeping program is not liable for large debris pile pickups.

Winter Message: Holiday Schedules, Leaves/debris in curb line reminder

Media sources: Community meetings, brochures, website, Bay Star Homes, Sweeper wraps, spotlights/news articles, social media postings, new video

Optional-As Needed Winter Storm Awareness/Snow and Ice – Winter storm awareness is important to everyone. As needed, we will actively remind residents of their responsibility to clear their sidewalks and the protocol for Public Works snow removal. This will include the message of not following the plows too closely and to give us room to prep/clear the roadways.

Media sources: Community meetings, press releases, social media

BAY STAR HOMES: This program is homeowner based and asks residents to make small behavioral changes to their lifestyle and homes in order to decrease their impact on the environment while improving water quality. Bay Star program is city-wide and regional.

Media Sources: Community meetings, mailings to specific neighborhoods, festivals, websites

RETAIN YOUR RAIN: Resiliency focused outreach and workshops designed to encourage Norfolk's residents to take actions on their property to reduce flooding. This is being coordinated through the City Manager's Resiliency Office.

Media Sources: Community meetings/events, social media posts, website, print material-Decision Tree, Green Infrastructure video, Retain Your Rain App

SPRING 2020:

TEST, DON'T GUESS ABOUT FERTILIZING: Homeowners and commercial property owners should only fertilize if needed and with quantities that are required. Coated and water-soluble slow-release fertilizers help roots develop and wash away less easily. Do not apply slow or time-released nitrogen at a rate above one pound per 1,000 square feet. Apply only what is needed.

Secondary Messaging: Soil Testing, Plant More Plants

SPECIFIC MESSAGE FOR GOLF COURSES: Golf Courses and fertilizer/lawn maintenance.

Media Sources: HRUBS inserts, Bay Star Homes, brochure, website, community meetings, social media, HRPDC spring stormwater campaign.

SCOOP THE POOP: Pick up your pet waste, even in your own backyard. Pet waste increases bacteria and nutrient levels in waterways, leading to algae blooms, fish kills, fishing bans and beach closures.

Media Sources: Bags-on-board holders, Tip cards, festivals, Bay Star Homes, Pet waste station grants, community meetings, school education outreach programs, providing scoop the poop giveaways to the SPCA and Norfolk Animal Cares Center, partnership with Norfolk Admirals for Pucks & Paws games

BAY STAR HOMES: This program is homeowner based and asks residents to make small behavioral changes to their lifestyle and homes in order to decrease their impact on the environment while improving water quality. Bay Stars is city-wide and regional

Media Sources: Community meetings, mailings to specific neighborhoods, festivals/events, website, askHRgreen

BAY STAR BUSINESSES: Promote practices that will help with TMDL. Use with Industrial Permit.

Media Sources: askHRgreen, website, media press release, rack cards for automotive companies, landscaping companies and pet related companies

GRASS CLIPPINGS: Anything blown into the curb line has the potential to end up in our storm drains. This matter causes blockages and impact water quality due to the pollutants that it carries. Residents are asked to properly dispose of this waste and to keep their curb line clear.

Media sources: Community meetings/events, brochures, website, festivals, Bay Star Homes, workshops, spotlights/news articles, City ordinance/code, school education outreach programs

Grass clippings video - website, social media (Fb, Twitter, YouTube)

Know Where Your Car Wash Runoff Goes – Though commercial and mobile car washes are required to have permits in order to discharge soapy liquids, residents are not. We encourage residents to utilize car wash facilities or wash their vehicle on their lawn in order to minimize soapy runoff.

Media sources: HRUBS insert, Community meetings/events, tip card, school education outreach programs, City ordinance/codes, commercial/mobile car wash permit/license

ANNUAL REPORT

FISCAL YEAR 2019-2020



askHRgreen.org

EE 20 - 01

HAMPTON ROADS PLANNING DISTRICT COMMISSION

CHESAPEAKE

Steven Best
Robert Geis
Debbie Ritter
Ella Ward
Christopher Price

FRANKLIN

Frank Rabil
Amanda Jarratt

GLOUCESTER COUNTY

Phillip Bazzani
Brent Fedors

HAMPTON

Steve Brown
Donnie Tuck
Mary Bunting

ISLE OF WIGHT COUNTY

William McCarty
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Michael Hipple, Chair
Scott Stevens

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McKinley Price
Cynthia Rohlf

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Andria McClellan, Vice-Chair
Larry Filer

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Eugene Hunt
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William Gillette
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Melissa Rollins

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Robert Dyer
Barbara Henley
Louis Jones
Guy Tower
Rosemary Wilson
Sabrina Wooten
Patrick Duhaney

WILLIAMSBURG

Vacant
Andrew Trivette

YORK COUNTY

Sheila Noll
Neil Morgan

Robert A. Crum, Jr., Executive Director / Secretary

PROJECT STAFF

W. Keith Cannady	Deputy Executive Director
Shernita L. Bethea	Housing and Human Services Administrator
Katie R. Cullipher	Principal Environmental Education Planner
Greg C. Grootendorst	Chief Economist
Whitney S. Katchmark	Principal Water Resources Engineer
Kendall L. Miller	Administrator, Office of Community Affairs and Civil Rights
John A. Sadler	Emergency Management Administrator
Krista Lauro	Administrative Assistant II
Cynthia A. Mulkey	Administrative Assistant II
Christopher W. Vaigneur	Assistant General Services Manager



Report Documentation

TITLE:

askHRgreen.org Annual Report for Fiscal Year 2019-2020

REPORT DATE

September 2020

GRANT/SPONSORING AGENCY

Local Funds

AUTHORS:

Katie Cullipher

Rebekah Eastep

ORGANIZATION NAME,**ADDRESS AND TELEPHONE**

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Chesapeake, Virginia 23320

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ABSTRACT

The Hampton Roads Planning District Commission (HRPDC) is one of 21 Planning District Commissions in the Commonwealth of Virginia and is a regional organization representing the 17 local governments of the Hampton Roads area. This report provides an overview of the askHRgreen.org regional public outreach program and campaign results for fiscal year 2019-2020. It also provides an overview of the individual initiatives and results from each of the four askHRgreen.org environmental education committees: Recycling and Beautification, Stormwater Education, Water Awareness, and Fats, Oils & Grease Education.

ACKNOWLEDGEMENTS

This report was prepared by the HRPDC staff in cooperation with the member localities. Preparation of this report was included in the HRPDC Work Program for Fiscal Year 2020, approved by the Commission in May 2019.

About askHRgreen.org

Launched in 2011, askHRgreen.org is more than just a robust website; it is an award-winning comprehensive public outreach initiative. The program combines traditional and social media with grassroots outreach efforts to not only educate, but inspire residents of Hampton Roads to make changes that have a positive impact on the environment. By combining local expertise and taking advantage of economies of scale, the askHRgreen.org program is able to help local jurisdictions fulfill requirements of MS4 permits, groundwater withdrawal permits, and state consent orders to reduce sanitary sewer overflows. For citizens, it has become a “one-stop shop” to find answers, resources, and inspiration for a cleaner, greener Hampton Roads. From earth-friendly landscaping ideas and pointers for keeping local waterways clean to recycling tips and simple steps to make local living easy on the environment, all you have to do is askHRgreen.org.

Financial support for askHRgreen.org is made possible by the following member localities and agencies: the cities of Chesapeake, Franklin, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach and Williamsburg; the counties of Gloucester, Isle of Wight, James City, Southampton, Surry and York; the town of Smithfield and HRSD. Members of local staff and HRSD comprise four askHRgreen.org committees who meet monthly to develop and implement the regional program.

Recycling and Beautification Committee - *A coalition of local government staff members from across Hampton Roads who are working together to share ideas and pool resources for various education programs tailored towards community beautification, litter prevention, waste reduction, and recycling education. This group has been working cooperatively since 1981.*

Fats, Oils, and Grease (FOG) Education Committee - *A coalition of local government staff members working together with HRSD to protect wastewater infrastructure, reduce sanitary sewer overflows, and improve local water quality. The Committee shares both technical resources and educational strategies to prevent improper disposal of fats, oils, and grease. This cooperative effort has been underway since 2007 when 13 of the region's localities and*

HRSD entered into the Regional Special Order by Consent with the Virginia Department of Environmental Quality.

Water Awareness Committee - *Regional public utilities staff members who work together to educate citizens about aging infrastructure, the value of tap water, and the importance of water conservation. This cooperative effort to promote the vital role water plays in the quality of life of Hampton Roads and the need to conserve it assists localities in meeting requirements of various locality goals as well as water supply and ground water permit education requirements.*

Stormwater Education Committee - *A cooperative partnership of the region's seventeen member cities and counties which has served as a formal adjunct to the required public information component of the Virginia Pollution Discharge Elimination System Permits (VPDES) for Phase I and Phase II Municipal Separate Storm Sewer Systems (MS4) since 1997. Local government staff members work together to share ideas and pool resources for various education programs tailored to stormwater pollution prevention.*

A message about COVID-19

Like nearly every other operation around the globe, our askHRgreen.org public outreach program felt the impacts of the COVID-19 pandemic in FY20. Special events were cancelled, planned promotions were put on hold, and we shifted our focus to virtual outreach as much as possible. As people stayed home, waste reduction and responsible disposal practices became a major theme in communications. Public interest in gardening and landscaping surged. The pomp and circumstance that would have surrounded the 50th anniversary of Earth Day in April was replaced with “Fifty Ways to Celebrate Earth Day While Social Distancing.” And as schools shut down and remote learning began, askHRgreen.org published weekly virtual lesson plans to keep students at all levels engaged in environmental education principles. Despite the challenges, our regional team members continued to work together to find new, innovative ways to encourage the citizens of Hampton Roads to implement green practices in their daily lives...even in these most uncertain times.

HIGHLIGHTS

fourteen million *opportunities* to see or hear about askHRgreen.org

 73,379 visitors to askHRgreen.org

19 *community events* with over 86,000 people in attendance



 3,383 *homes*  50 *businesses*

 8,096 *students impacted* by \$10,073 in environmental education mini grants

awarded 33 *pet waste disposal stations* impacting in neighborhoods across the region



 Launched interactive *recycling lookup tool*

\$8,000 *grant funds* received for special projects



@askHRgreen

2,730



@HRgreen

1,686



@askHRgreen

389



eNews Subscribers

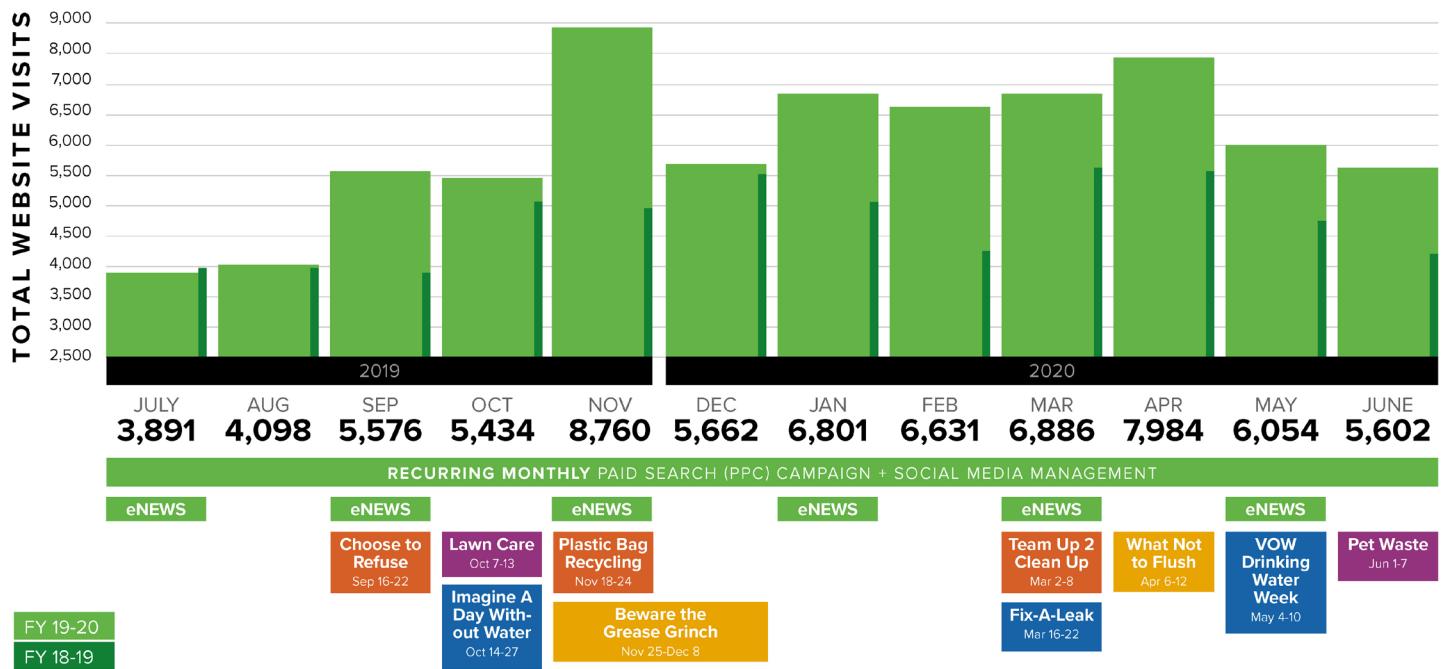
6,537

2019-2020 Media Calendar

COMMITTEE	CAMPAIGN	MEDIA	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE
R&B	Choose to Refuse	R, O, S				■								
STORMWATER	Lawn Care	PV, R, O, S					■							
WATER AWARENESS	Imagine A Day Without Water	PV, R, O, S				■	■							
R&B	Plastic Bags	PV, R, O, S					■							
FOG	Grease Grinch	PV, R, O, S						■	■					
R&B	Team Up 2 Clean Up	R, S								■				
WATER AWARENESS	Fix-A-Leak	PV, R, O, S									■	■		
FOG	What Not To Flush	PV, R, O, S									■			
WATER AWARENESS	Drinking Water Week	AT, PV, R, O, S										■		
STORMWATER	Pet Waste	AT, PV, R, O, S											■	
ALL	askHRgreen.org Newsletters	E	■	■	■		■	■	■	■	■	■		
ALL	Public Relations		■	■	■	■	■	■	■	■	■	■	■	■
ALL	Social Media Management		■	■	■	■	■	■	■	■	■	■	■	■
ALL	Search Engine Marketing		■	■	■	■	■	■	■	■	■	■	■	■
ALL	askHRgreen.org Blog Articles		■	■	■	■	■	■	■	■	■	■	■	■

MEDIA KEY / **AT** = Advanced TV **PV** = Preroll Video **R** = Radio **P** = Print **O** = Online **S** = Social Media **E** = Email **OD** = Outdoor

Promotions & Website Traffic



Website Analytics

The askHRgreen.org website continues to be the cornerstone of our outreach efforts where campaign news and events are featured prominently and content is delivered seamlessly to users on all types of devices. In FY20, we saw a 25% increase in website traffic over FY19

and a 36% increase in webpage views – up to over 117,000. The majority of web traffic continues to be new visitors, demonstrating the growing awareness and effectiveness of our outreach efforts.

	2019-20	2018-19	2017-18	2016-17	2015-16	2014-15
Visits	73,379	58,893	55,735	58,113	52,530	58,279
Unique Visitors	63,146	49,816	45,661	46,282	42,539	46,994
Pageviews	117,463	86,538	93,589	92,681	93,177	103,228
Pages per Visit	1.60	1.47	1.68	1.59	1.77	1.77
Average Visit Duration	1:02	1:03	1:27	1:12	1:32	1:26
Bounce Rate	79%	81%	77%	79%	75%	75%
% New Visits	86%	84%	81%	80%	80%	80%
Mobile Devices	58%	57%	54%	53%	40%	39%
Desktop Devices	42%	43%	46%	47%	60%	61%

**AVERAGE
322 PAGES
VIEWED/DAY**

We achieved a **25%** increase in traffic over FY18-19, and have the highest number of pageviews ever! The majority of traffic continues to be new visitors, demonstrating the growing awareness of our efforts.

Top Website Traffic Sources & Pages Visited

36.45%	Google Organic Search
25.59%	Direct +3%
22.77%	Paid
15.87%	Pay-Per-Click (SEM)
6.9%	Digital Ads (Media Campaigns)
4.56%	Facebook
1.24%	Bing
1.04%	PilotOnline.com

TOP TWENTY VISITED PAGES

9,877	Home +4% pageviews
5,945	Good to Know/Do: Recycling Lookup Brand New Tool!
3,830	Events +17% pageviews
3,739	Blog Article: Disposable/Flushable diaper liners +11% pageviews
2,779	Good to Know/Do: Electronics Recycling +15% pageviews
2,054	Good to Know/Do: Recycling Lookup - Virginia Beach
2,032	Good to Know/Do: Lawn & Garden Best Practices +86%
1,868	Good to Know/Do: Battery Disposal +23% pageviews
1,762	Blog +75% pageviews
1,708	Campaign: Choose to Refuse Single-Use Plastics ★ +55% pageviews
1,537	Programs: Great American Cleanup +10% pageviews
1,523	Good to Know/Do: Plant Native Plants +39% pageviews
1,499	Blog Article: 50 Ways to Celebrate Earth Day
1,291	Knowledge Center: Recycling/Reusing
1,271	Good to Know/Do: Recycling at Home
1,225	Good to Know/Do: Plastic Bag Recycling
1,224	Programs: Bay Star Homes
1,176	Good to Know/Do: Fat-Free Drains

Search Engine Marketing

The askHRgreen.org Search Engine Marketing (SEM) program employs Google pay-per-click advertising to increase traffic to the website. By bidding on select keywords and phrases, our ads direct search traffic to relevant content on the askHRgreen.org website. In FY20, we had more than 340,000 Google search impressions – up 63% over FY19. Those searches drove over 12,000 clicks to relevant content on the askHRgreen.org website. Our electronics disposal and recycling topics routinely lead the campaign in terms of impressions and clicks, but in FY20, we saw a substantial spike in search traffic for lawncare-related keywords - 62,000 ad impressions in that category between March and June. The stay-at-home orders in place during that time may have contributed to the increase. See appendix A for the full SEM campaign report for FY20.

The image shows a Google search results page for the query "askHRgreen". The results include a mix of organic and paid search results. On the right, there is a detailed screenshot of the askHRgreen.org Google My Business listing. The listing shows a map of the Hampton Roads area, a 5.0 rating, and a "Send" button. It also includes sections for "Website", "Save", and "Call". Below the map, there is a "Reviews" section with one entry and a "Write a review" button.

Search Engine Marketing Results

	2019-20	2018-19	2017-18	2016-17	
Impressions	342,690	210,695	169,140	107,920	+63%
Clicks	12,449	11,087	7,330	4,226	+12%
Click Thru Rate (CTR)	3.63%	5.26%	4.33%	3.92%	

Top 10 Keyword Ad Groups

	Impressions	Clicks	Impression Share	Click Thru Rate
Electronics Disposal	25,719	2,516	75%	9.78%
Recycling At Home	40,245	1,540	61%	3.83%
Native Plants	38,189	1,246	35%	3.26%
Lawn Care	67,630	1,012	55%	1.50%
Battery Disposal	12,353	1,006	69%	8.14%
Reduce Reuse Recycle	13,040	904	81%	6.93%
TMDL	12,800	680	62%	5.31%
AskHRGreen General	3,198	563	81%	17.60%
Medication Disposal	6,322	541	79%	8.56%
Plastic Bag Recycling	5,675	361	62%	6.36%

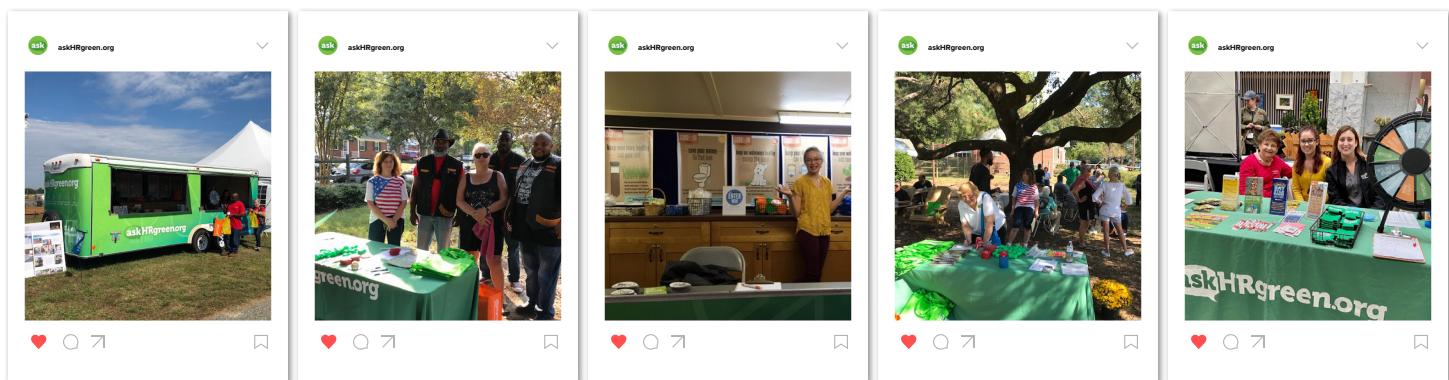
Community Outreach

Events

AskHRgreen.org is invited to attend a multitude of community events each year. These events serve as a vital opportunity for our regional committee members to interact with residents and visitors to Hampton Roads. The events span a variety of themes from eco-events to employee appreciation days, regional fairs, concerts, and more. Although some events have an environmental focus, many others appeal to the general public and allow interaction with new audiences who may be learning about eco-friendly behaviors for the very first time. The recently updated askHRgreen.org mobile outreach and education trailer is an important engagement tool for these events. Volunteers staff the trailer at special events and distribute a variety of resources from informational brochures and rack cards to reusable shopping bags, stainless steel straws, rain gauges, and a variety of other eco-themed promotional items. In addition, attendance at these events puts askHRgreen.org messages in front of large audiences.

In FY20, we had the opportunity to interact with more than 86,000 event goers across the Hampton Roads region. Due to COVID-19, our spring and early summer events were cancelled, but we look forward to more outreach events once these types of large gatherings can resume.

2019-2020 Community Events			Estimated Attendance
8/9	TGIF Summer Concert Series	Suffolk	3,000
9/7	Go Green Expo	Newport News	1,100
9/12	Isle of Wight County Fair	Windsor	35,170
9/14	Community Engagement Event @VB Sportsplex	Virginia Beach	4,000
9/19	Third Thursdays Live at City Center	Newport News	150
9/28	Bow Creek Block Party	Virginia Beach	130
9/28	Roland Park Civic League Fall Cookout	Norfolk	70
10/3	CNU Farmer's Market	Newport News	100
10/10 -	Peanut Festival	Suffolk	25,000
10/10	CNU Farmer's Market	Newport News	50
10/12	Lynnhaven River Now Fall Festival	Virginia Beach	3,000
10/12	Great Bridge High School Craft Show	Chesapeake	500
10/24	Public Works Fall Picnic	Virginia Beach	520
11/12	Anthem Eco Fair	Virginia Beach	150
11/14	Anthem Eco Fair	Norfolk	250
1/13 - 1/16	Mid Atlantic Horticulture Short Course & Home Gardener Day	Norfolk	762
1/25	Jam'n Jamz	Norfolk	500
1/28 - 1/29	Newport News Shipbuilding Health and Safety Expo	Newport News	4,076
3/7 - 3/8	Mid Atlantic Home & Outdoor Living Show	Virginia Beach	8,125
4/4 - 4/5	Daffodil Festival	Gloucester	Cancelled
4/11	Go Green Market	Yorktown	Cancelled
4/18	Virginia Living Museum Earth Day Festival	Newport News	Cancelled
4/21	TCC Cares Earth Day	Chesapeake	Cancelled
4/22	Poquoson Earth Day	Poquoson	Cancelled
4/22	Great Bridge High School Earth Day	Chesapeake	Cancelled
4/22	NSA Hampton Roads Headquarters Earth Day event	Norfolk	Cancelled
4/23	NSA Portsmouth Earth Day Event	Portsmouth	Cancelled
4/25	Paradise Creek Earth & Arbor Day	Portsmouth	Cancelled
4/25	12th Annual Community Empowerment Fair	Newport News	Cancelled
4/25	Spring Fling	Hampton	Cancelled



Bay Star Homes

FY20 was the fourth year of operation for the Bay Star Homes program. This community-based recognition program encourages residents to avoid environmentally-harmful behaviors in their home and be proactive about using voluntary stormwater management practices such as rain barrels, rain gardens, and downspout disconnects on their private property. Residents pledge to do at least eight environmentally-friendly practices as part of the program. Pledges include stormwater best practices as well as other desirable behaviors such as waste reduction, water conservation and energy reduction. In FY20, the total number of participating households for the Bay Star Homes program rose to 3,383, an increase of 279 new households over the previous year.

Bay Star Homes Registrants	
City/County	Number
Chesapeake	149
Franklin	13
Gloucester	19
Hampton	119
Isle of Wight	9
James City	12
Newport News	229
Norfolk	2301
Poquoson	17
Portsmouth	39
Smithfield	13
Southampton	4
Suffolk	139
Surry	3
Virginia Beach	236
Williamsburg	8
York	72
Total	3,383



Great American Cleanup

For a second year, the askHRgreen.org Recycling & Beautification Committee worked together to clean up and beautify Hampton Roads through the Great American Cleanup (GAC). A part of the committee's "Team Up 2 Clean Up" initiative, GAC engages the public and business community to get involved in beautification projects throughout the region. For FY20, Friday, March 27 and Saturday, March 28 were designated as the regional GAC dates. Over 350 volunteers, including businesses and military commands, signed up to participate in a variety of events during the two-day initiative. Planned projects included neighborhood cleanups, sprucing up local parks, removing litter from roads and waterways, mulching and weeding community gardens, and planting new gardens and trees.

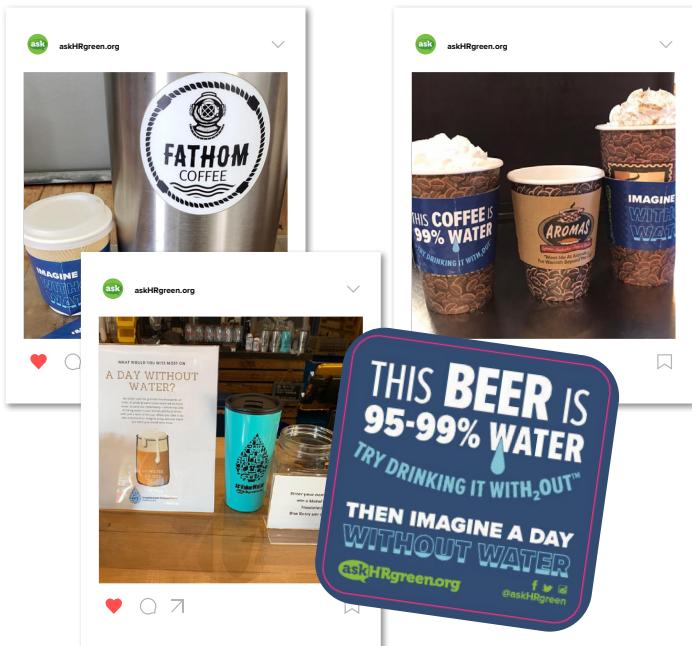
The regional effort caught the attention of state and national partners including Keep Virginia Beautiful, Keep America Beautiful, and the Earth Day Network. The GAC events paired well as a kick off to Earth Month in April 2020, leading to the celebration of the 50th Earth Day on April 22. Unfortunately, in the week leading up to the events, coronavirus began to spread across the United States and stay-at-home orders forced the cancellation of all planned activities. The committee hopes to reschedule the cleanup initiative for September 18-19, 2020 as litter pickup becomes increasingly important due to the growing amount of litter from personal protective equipment (PPE) and hand sanitizing supplies.



Imagine a Day Without Water

Municipal water services are vital for quality of life in Hampton Roads. Both residents and businesses rely on a consistent supply of tap water to power their days. Breweries and coffee shops are particularly dependent on clean, reliable tap water to brew their custom crafted beverages. For a second year, the askHRgreen.org Water Awareness Committee engaged these natural advocates for clean water as part of a national advocacy and awareness promotion, Imagine a Day Without Water, that addresses the importance of maintaining our water and wastewater systems. Partnering breweries and coffee shops were given branded coffee sleeves or coasters to distribute to customers. The coffee sleeves and coasters convey the message that coffee and beer are 95-99 percent water and neither would be possible without tap water.

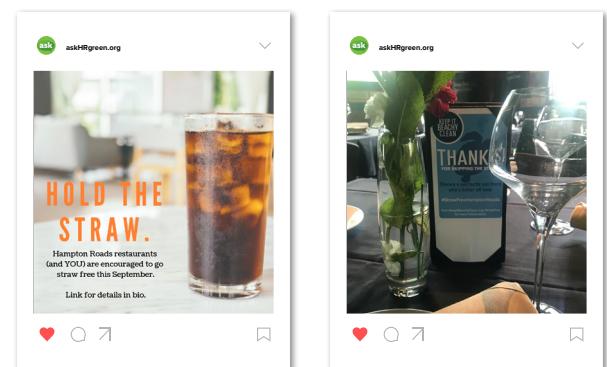
In total, the campaign engaged 25 breweries and coffee shops through this campaign. The coffee sleeves and coasters were distributed starting on October 23, 2019, the national recognition day for Imagine a Day Without Water, and continued while supplies lasted. The campaign also included a strong organic social media campaign with partnering businesses. All partners were offered a special #ValueWater tumbler to raffle off to customers or social media followers. The added giveaway component, new in FY20, increased the reach of the campaign through social media and resulted in positive co-branding opportunities



with coffee shops and breweries seen as trusted local brands that often have a dedicated following.

Straw-Free September

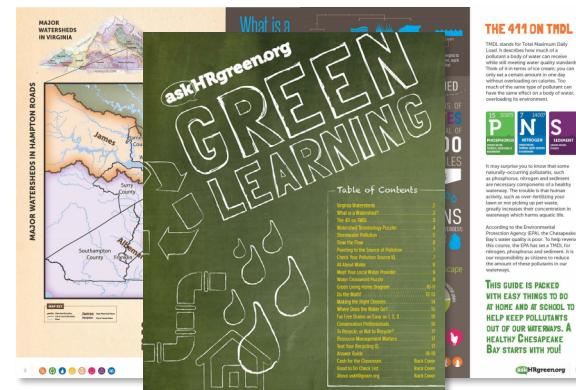
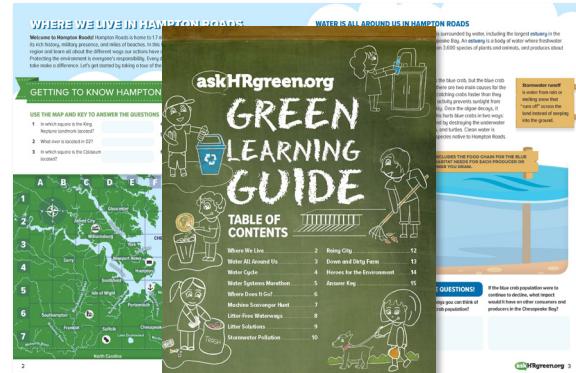
Following up on the success and popularity of Straw-Free Earth Day in April 2019, the askHRgreen.org Recycling & Beautification Committee continued to recruit restaurants to go straw-free in FY20. In a special partnership with Keep It Beachy Clean and Clean Virginia Waterways, the committee encouraged restaurants to be a part of "Straw-free September Days" and supply customers with straws only upon request during the month-long promotion. The initiative was coordinated in support of the International Coastal Cleanup, which happens annually in September. Participating restaurants received a supply of paper straws to provide to customers who requested a straw during the promotion, as well as branded window clings, menu cards, table tents, and educational placemats. All of the materials reinforced the "skip the straw" waste reduction message. Twenty restaurants across seven localities participated in the Straw-Free September Days initiative. While the 2019 Earth Day initiative focused solely on a specific straw-free weekend, FY20 promotional efforts shifted the focus to encouraging a lasting change to restaurant policy. Some restaurant partners have indicated that participating in the straw-free campaigns has led to permanent change in their policy towards providing straws to guests.



Student Outreach

Environmental Education Lesson Plans

In response to coronavirus safety protocols, public schools throughout Hampton Roads closed for in-person learning in late March. Public schools and parents scrambled to continue education via a virtual platform but few were prepared to operate in a completely online environment. In order to assist teachers and parents in need of content for daily lesson plans, askHRgreen.org crafted nine weeks of environmentally-themed lesson plans for elementary and middle school students. While not targeted at specific Virginia Standards of Learning (SOLs), the lesson plans covered topics such as the water cycle, watersheds, wastewater treatment, Earth Day, waste reduction, drinking water, marine debris, biodiversity and healthy habitats, and sustainable living. Many SOL-based activities were pulled from the previously published Green Learning Guides created by askHRgreen.org for third and sixth grade students. The lessons were well received by teachers and parents in need of new ways to keep their young learners engaged during this detour from a formal education atmosphere.

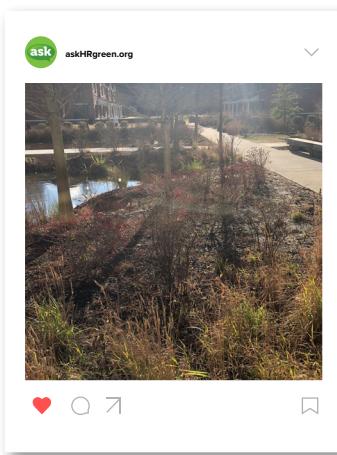
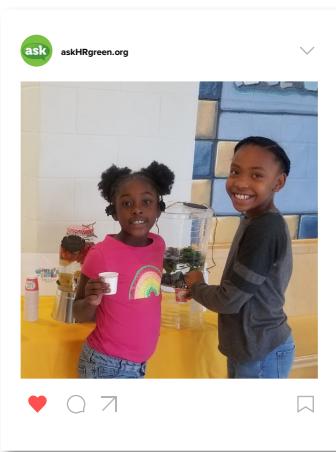
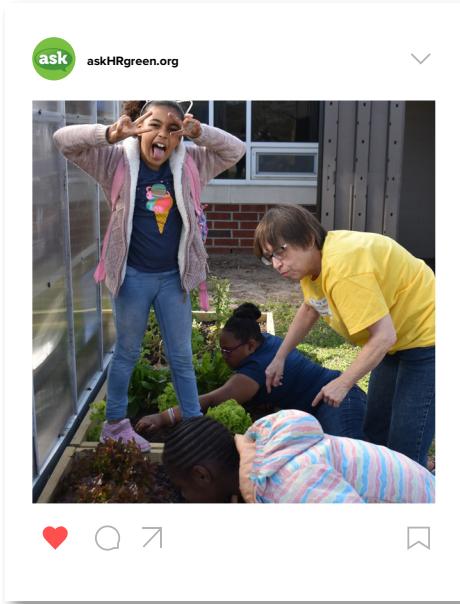


Environmental Education Mini Grant Program

Supporting environmental education in the classroom continues to be a priority of askHRgreen.org. The Mini Grant program offers all Hampton Roads teachers (K-12), youth leaders, or organizations working with youth mini grants of up to \$500 to provide funding for environmentally-themed projects. Providing educators with the funding necessary to bring to life environmental subjects has proven successful over the years but particularly in FY20. For the first time since the mini grant program was consolidated into a single, streamlined askHRgreen program, the entire \$10,000 budget was exhausted in one fiscal year. In all, the program supported 21 projects and awarded \$10,073 in grant funding. The funded projects reached nearly 8,100 students across Hampton Roads. While funded in FY20, many projects will be implemented in FY21 due to the early school closures caused by coronavirus. Examples of projects funded this fiscal year include pollinator gardens and habitat, meaningful watershed experiences, tap water tastings, native tree plantings, and support for in-school waste reduction programs such as composting and recycling.

A grid of six small images, each representing an environmental education article. The first image shows clouds. The second shows a field of tall grass. The third shows an underwater scene with marine debris. The fourth shows a close-up of a faucet. The fifth shows a group of people holding recycling symbols. The sixth shows a stylized Earth globe.

Environmental Education Mini Grant Projects

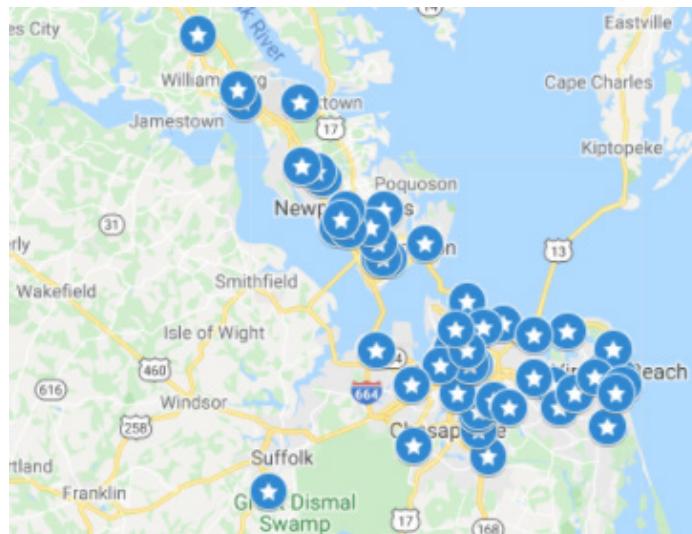


Project	Students	Project Description	School/Organization	City/County	Grant
Old Donation Eco-bus	1,500	This project will help fund a grease filtration system for Old Donation School's EcoBus (a functioning mobile sustainability classroom constructed from a decommissioned VBCPS school bus).	Old Donation School	Virginia Beach	\$500
Pollinator Garden for Girl Scouts	1	This project will help fund construction and planting of a garden to offer sanctuary, food, and water to native pollinators at the Norfolk Fitness and Wellness Center.	Girl Scout Council of the Colonial Coast Troop 176	Norfolk	\$413
Healthy Food, Healthy Life	530	This was Newtown Elementary School's fifth year in developing a vibrant learning garden for students to use as a real-world learning experience.	Newtown Elementary School	Virginia Beach	\$500
Get to Know Your Watershed	60	This project provided Green Run High School students a meaningful watershed educational experience through the Chesapeake Bay Foundation's boat field trip.	Green Run High School	Virginia Beach	\$440
Bee-utiful Learning Experiences	260	This project provided a new Bee Colony for Old Donation School.	Old Donation School	Virginia Beach	\$500
Drink More Water!	500	This project provided reusable water bottles and water tastings for Newtown Elementary School students.	Newtown Elementary School	Virginia Beach	\$500
Water for Caretakers and Children	500	The project provided an ecologically sensitive method of drinking water for children and caretakers by providing drinking water stations, a handwashing station, and paper cups for composting.	James River Elementary	Williamsburg	\$495
Vesting Up for Deeper Understanding	130	This project will fund youth life vests and dip nets for Old Donation School students to participate in an oyster restoration action project.	Old Donation School	Virginia Beach	\$450
Green Girls!	350	This project helped Girl Scout Council of the Colonial Coast Troop 1019 reinstate John G. Cary school's recycling program.	GSCCC Troop 1019	Hampton	\$260
Recycle for Change	900	This project will help establish four recycling bins in the Tabb High School Cafeteria and one recycling bin outside in the Tabb High School Sports Fields.	Tabb High School	Yorktown	\$500
Native Tree Project	84	This project provided funds for 100 native Eastern redbud bare-root seedlings, plastic nursery pots, and potting soil for Norfolk Academy.	Norfolk Academy	Norfolk	\$500
Green Readers – Kindergarten & Third Grade	1,900	This project provided a take-home book to every kindergarten and third grade student at 11 schools and volunteer guest reading in classrooms.	Norfolk Environmental Commission	Norfolk	\$1,000
Marlin Meadows	100	This project funded a Marlins Go Green environmental program on the Virginia Wesleyan University campus to incorporate a new sustainable garden on campus.	Virginia Wesleyan Uni-versity	Virginia Beach	\$500
The Bee Byway	2	This project will help establish a pollinator corridor called The Bee Byway through an unfragmented section of Newport News.	The Ruling Robot Falcons	Newport News	\$315
Hoffler Creek Polli-nator Program for Kids	25	This project funded the purchase of seeds, compost, and clay powder for each child to produce "seed bombs" (one egg carton of balls of compost, clay, and native wildflower seeds) for tossing at Hoffler Creek Wildlife Preserve to establish a pollinator garden.	Hoffler Creek Wildlife Foundation	Portsmouth	\$200
An Elizabeth River Project – Resilient River School	249	This project will help fund an ERP new Resilient River Star School program with Victory Elementary to green their schoolyard with over 100 native trees and 500 native water-tolerant plants to create new habitat and address frequent flooding.	Elizabeth River Project	Portsmouth	\$1000
Adopt-A-Pot	25	This project will restore the existing flower pots on the City of Hampton's main streets with pollinator-friendly plants.	Partnership for a New Phoebe	Hampton	\$500
Community Garden and Recycling Program	15	This project will restore Academy for Discovery at Lakewood's community garden to productivity and aesthetic standards as well as provide public awareness for recycling at the school.	Academy for Discovery at Lakewood	Norfolk	\$500
Composting Know-How	100	This project will provide signage for Williamsburg Community Grower's new three-part composting bin system that will educate community members regarding the three R's, how and why to compost, and how to properly use the composting system.	Williamsburg Community Growers	Lightfoot	\$500
Native Pollinator Habitat Stewardship	865	This project will provide native and pollinator plants to the Spratley Gifted Center's large schoolyard habitat.	Spratley Gifted Center	Hampton	\$500
8,096					\$10,073

Business Outreach

Bay Star Business Program

Since 2018, the askHRgreen.org Stormwater Education Committee has engaged local businesses committed to protecting the environment through the Bay Star Business Program. To become part of the free, pledge-based program, business owners sign up online by committing to environmental practices such as conserving water, recycling, cleaning up and preventing litter, properly maintaining company vehicles, organizing a community cleanup, and more. Participation in the program lets Hampton Roads consumers know a business is committed to implementing environmentally-friendly practices in their day-to-day operations. Most action items are also no- or low-cost changes which can help a business run more efficiently while conserving natural resources. Participating businesses receive a welcome packet filled with business-centric information from askHRgreen.org and Bay Star Business window clings to display in their office or on company vehicles. Bay Star Business Partners are also recognized through the askHRgreen.org website and social media accounts. The increased exposure is an incentive for participating and an easy way to thank businesses for doing their part to protect local environmental quality. In FY20, the Bay Star Business program added 15 new partners for a total of 50 diverse participants including multi-family housing developments, landscapers, industrial and professional service providers, plumbers, restaurants, and retail establishments



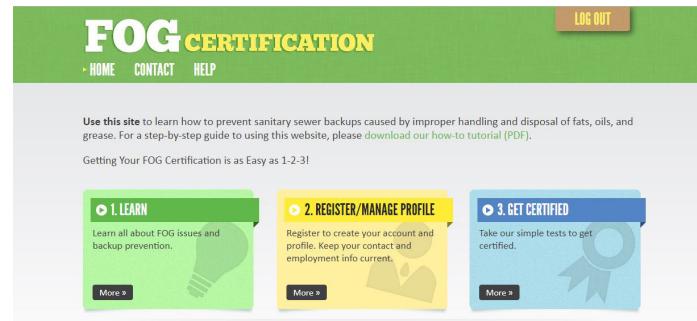
Fats, Oils, and Grease (FOG) Commercial Training and Certification Program

The regional FOG training and certification program is designed to educate local food service workers and grease haulers on how to prevent sanitary sewer backups caused by improper handling and disposal of fats, oils, and grease. FOG certification requirements vary by locality, and the free certification program is available to anyone through the HRFOG.com website.

Various updates and enhancements were made to HRFOG.com during FY20. The website was converted to a responsive design site, ensuring a user-friendly experience for visitors on any type of device: mobile, tablet, or desktop. In addition, the grease hauler and food service worker training programs and certification tests were updated to reflect modern changes in local FOG program administration and industry best practices.

In FY20, the FOG Education committee updated the Grease Control Device Enforcement Memorandum of Agreement (MOA) between HRSD and participating localities. The updated MOA was approved by the regional Directors of Utilities Committee and several localities have formally adopted it. Due to COVID-19, the adoption process was delayed in some municipalities but it is anticipated that all MOAs will be completed in the coming year.

In January, the FOG Education Committee hosted a full-day training course through Ken Loucks' Interceptor Whisperer FOG Institute Training Program. Registration for the training was open to utility employees across Hampton Roads as well as the general public and those



who attended received a comprehensive education in commercial grease interceptors: how they work, product standards, how they are regulated through the plumbing code, and how to properly size, select, and maintain them.

Illicit Discharge Rack Cards

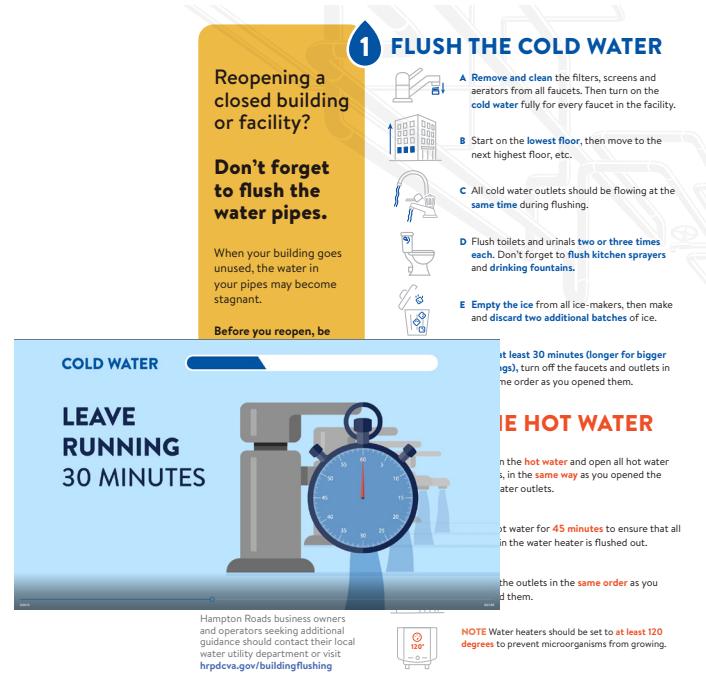
Certain industries have a greater potential to discharge harmful waste into the stormwater system and local waterways through the course of their work. The askHRgreen.org Stormwater Education Committee continued to distribute industry-specific rack cards for the following high priority industries: lawn care and landscaping, automotive services (such as car dealers, repair shops, and fleet maintenance), and animal services (including animal boarding facilities, animal shelters, pet groomers, and veterinary offices). Each rack card addresses potential sources of pollution and provides industry best practices to prevent illicit discharges.



COVID-19 Water Quality Outreach

When local businesses that closed due to COVID-19 began preparing to reopen, stagnant water was a concern for building plumbing systems. The Water Awareness Committee worked together with the region's utility directors and the Virginia Department of Health to develop proper flushing guidelines and coordinate

a communication strategy to reach building owners and operators with this important information. As a result, a detailed fact sheet, step-by-step instructional infographic, and how-to video were developed and distributed to media outlets and posted on local and regional websites. Because the group works together on other regional communication initiatives, we were able to coordinate this outreach effort and get that vital information disseminated in a timely fashion as businesses prepared to welcome back employees and customers.



Events

Each year, askHRgreen.org participates in a variety of corporate and industry events across the region. In FY20, askHRgreen.org volunteers had a presence at corporate events for Huntington Ingalls/Newport News Shipbuilding, Anthem, professional landscapers at the Mid-Atlantic Horticulture Association Short Course, and municipal employee events. Additionally, askHRgreen.org engaged businesses through promotions such as Imagine a Day Without Water and Straw-Free September Days. Recognizing restaurants, breweries, and coffee shops as important partners for communicating the value of tap water and waste reduction continued to be a key strategy in FY20.

2019-20 Promotional Campaigns

Waste Reduction

With turbulent recycling markets and changing municipal recycling contracts, the priority of the Recycling & Beautification Committee has increasingly focused on waste reduction. While recycling continues to be an important message, the waste reduction message helps residents decrease their waste contribution no matter the state of recycling. The committee's message for residents is that we should all choose to reduce our waste production first before focusing on what can and cannot be recycled.

Paid Media. A one-week radio and digital media campaign ran from September 16-22. The "Choose to Refuse" campaign focuses on single use plastics including bottled water, straws, utensils, take out containers, and plastic bags. Through this outreach, residents are urged to refuse disposable products and choose reusable alternatives. The campaign included radio, digital display ads and retargeting, native content ads, and social media. Throughout the year, specific waste reduction messages were also included in the Google SEM campaign, driving traffic to the askHRgreen.org website from relevant keyword searches.

Outreach Materials. In support of the waste reduction message, the committee purchased reusable bags and distributed portable cutlery sets and reusable stainless steel straws at outreach events. All items provide a practical alternative to help residents reduce their use of single use disposable plastics.

Public Relations. Public relations efforts supported the waste reduction message through a variety of media channels including news releases, print coverage (Suffolk News Herald), and articles in the askHRgreen.org newsletter.

Social Media. We engaged with the community via Facebook, Twitter, and Instagram. Outreach included sharing waste reduction tips, upcycling projects, and stories about the negative environmental impacts of plastics and our throw away culture. The paid social media and digital campaign was the one of the highest performing in FY20, achieving 1,810 clicks.

SEPTEMBER 16 - 22, 2019 ONE WEEK

Waste Reduction / Choose to Refuse



Plastic Bag Recycling

The plastic bag is Public Enemy No. 1 to materials recovery facilities in Hampton Roads and nationwide. When tossed in with comingled recyclables, they get caught in machines, increasing processing time and harming equipment while posing a danger to employees tasked with removing them. In order to combat this nuisance contaminating the recycling stream, the Recycling & Beautification Committee launched a new plastic bag recycling campaign in the fall of FY20. The message for residents is that thin plastic bags and wraps can be recycled, just not in curbside recycling bins. They must be returned to local stores for collection and processing.

Paid Media. A one-week radio and digital media campaign ran from November 18-24 and included radio, digital display ads and retargeting, native content ads, social media, and pre-roll video ads. Plastic bag recycling messages were also included in the Google SEM campaign, driving traffic to the askHRgreen.org website from relevant keyword searches.

Public Relations. Public relations efforts supported the plastic bag recycling message through interviews and articles in the askHRgreen.org newsletter.

Social Media. We engaged with the community via Facebook, Twitter, and Instagram by sharing plastic bag recycling tips and videos.

NOVEMBER 18 - 24, 2019 ONE WEEK
Back To Basics / Plastic Bags NEW



Litter Prevention

Litter is a main focal area for the Recycling & Beautification Committee. In FY20, we once again partnered with Keep Virginia Beautiful to host the national kickoff of the Great American Cleanup. While the region-wide cleanup events planned for March 27-28 had to be cancelled due to the coronavirus, we're looking to mobilize individuals, families, and small groups in the fall of 2020 to host their own cleanup events in their neighborhoods and communities while safely practicing social distancing. The "Team Up 2 Cleanup" campaign was promoted in the following ways:

Paid Media. A one-week media campaign ran from March 2-8 on radio and social media. The purpose of the campaign was to educate residents about local litter problems and recruit volunteers to take action by joining the local cleanup events planned for the Great American Cleanup National Kickoff in Hampton Roads. Throughout the year, specific litter prevention messages were included in our Google SEM campaign, driving traffic to the askHRgreen.org website from relevant keyword searches.

Outreach Materials. Through the Virginia Litter Prevention and Recycling Competitive Grant, the committee received \$5,000 to procure supplies needed to create 70 litter kits to distribute between 12 participating localities. Each litter kit includes one bucket, four litter grabbers, four safety vests, eight trash bags, 10 latex gloves, and one "Team Up 2 Clean Up" promotional

decal. The local litter control coordinators developed litter kit lending programs unique to their jurisdictions. Some simply hosted the lending program through their own litter control offices while others engaged various public-facing organizations including public libraries, community centers, and recreation centers to expand program access. The litter kit lending programs are a great way to encourage local cleanups by providing volunteers with the tools and resources to host their own.

Public Relations. Public relations outreach about litter prevention and cleanups was conducted via news releases and articles in the askHRgreen.org newsletter.

Social Media. We engaged with the community via Facebook, Twitter, and Instagram. Outreach topics included the negative impacts of litter, advertising cleanup opportunities, and reporting the results of local litter cleanups. The influx of masks and other personal protective equipment (PPE) ending up as litter in parking lots and sidewalks was a particularly hot topic on social media in the spring and early summer.

MARCH 2-8, 2020 ONE WEEK
Great American Cleanup / Team Up 2 Clean Up



Residential Recycling Practices

For many, household recycling has become a habit, albeit a good one. If there is a number on the bottom of that yogurt cup or take-out container, many haphazardly toss it into the recycling bin hoping that it will get recycled. That good habit of "wishful recycling" creates a lot of contamination in the recycling stream. To combat that, the Recycling & Beautification Committee launched

a new recycling and disposal guide in preparation for America Recycles Day, November 15, 2019. The new online tool, available at www.askHRgreen.org/recycle, connects residents with easy-to-understand visuals of what can and cannot go in the curbside recycling bin, according to individual locality guidelines. It also features helpful information about items residents can drop off at convenience centers, as well as specialty curbside services offered by some localities such as bulk waste pickup and yard waste composting. The recycling tool is easy to use and even includes a downloadable one-page guide residents can print and display in their homes.

Public Relations. A press release was distributed in November announcing the new tool available on the askHRgreen.org website. It was featured in the Sunday, November 17, edition of the Virginian-Pilot and also in the askHRgreen.org newsletter.

Social Media. We engaged with the community via Facebook, Twitter, and Instagram. Outreach included sharing news about the new recycling lookup tool, answering recycling questions, and promoting local recycling information and collection events.

Suffolk Your Guide to What You Can and Can't Recycle

Accepted for Curbside Recycling

Empty and rinse containers, wipe or scrape out food, drain liquids. Never bag recyclables.



Cardboard & Paper
Clean, Dry, Folded



Metal Cans
Empty & Rinsed



Plastic Bottles & Jugs
Empty & Rinsed



Cartons



Glass Bottles & Jars
Empty & Rinsed

These Recyclables Can be Dropped Off



Cardboard & Paper
Clean, Dry, Folded



Metal Cans
Empty & Rinsed



Plastic Bottles & Jugs
Empty & Rinsed



Cartons



Glass Bottles & Jars
Empty & Rinsed

Keep These Out of the Recycling Container



Plastic Bags
Return to store



Food Waste



Scrap Metal



Tanglers



Diapers



Styrofoam

Other Disposal Options



Electronics



Scrap Metal



Plastic Bags
Return to store



Yard Waste
Leaves, Clippings, Debris



Appliances



Clothes
Donate

Find more detailed information and other locality-specific resources at askHRgreen.org/recycling/suffolk

askHRgreen.org

Fats, Oils & Grease (FOG) Disposal

The FOG Committee focuses each year on helping residents and local restaurants understand the sources of FOG (fats, oils, and grease) and best management practices that should be followed in order to keep this waste from contributing to sewer blockages and backups. This focal area was addressed with the following strategies:

Paid Media. The “Grease Grinch” campaign ran online for two weeks from November 25 – December 8. Ads included radio, digital display ads and retargeting, native content, social media, video pre-roll, and digital streaming TV. Throughout the year, specific FOG messages were included in the Google SEM campaign, driving traffic to the askHRgreen.org website from relevant keyword searches.

Outreach Materials. The FOG Committee continued to distribute relevant promotional items including sink strainers, grease can lids, sponges, spatulas, and more.

Public Relations. Public relations supported public education and outreach through a variety of media channels including news releases, print coverage (The Virginian-Pilot Flavor Section), and multiple articles in the askHRgreen.org newsletter.

Social Media. We engaged with the community via Facebook, Twitter, and Instagram. Outreach topics included the negative impacts of improper grease disposal, fatbergs, canning the grease, and the importance of maintaining infrastructure.

NOVEMBER 25 - DECEMBER 8, 2019 TWO WEEKS
Grease Grinch



What Not to Flush

The FOG Committee continues to educate the public about proper flushing etiquette and the harmful side effects of flushing personal hygiene products, wipes, dental floss, cotton swabs, and more.

Paid Media. The committee created a new "What Not To Flush" media campaign that ran from April 6-12. The video shows a variety of commonly flushed items that should go in the trash, not down the toilet and reminds residents to only flush toilet paper along with their personal business. The engaging new video features colorful graphics and engaging audio to encourage people to do the right thing. The one-week media campaign included radio, digital display ads and retargeting, native content, social media, video pre-roll, and digital streaming TV ads. Throughout the year, specific what not to flush messages were included in the Google SEM campaign, driving traffic

to the askHRgreen.org website from relevant keyword searches.

Outreach Materials. The FOG Committee continued to distribute washcloths, toilet stress squeezers, and "what not to flush" stickers in support of the message. In addition, the committee developed a "flush it or not" magnet game to be used as an engagement tool for future school visits and public events.

Public Relations. Public relations supported the what not to flush message through a variety of media channels including news releases, local TV news coverage (WVEC article), and the askHRgreen.org newsletter.

Social Media. We engaged with the community via Facebook, Twitter, and Instagram. Outreach topics included the damaging side effects of flushing trash, photos showing clogs due to wipes and rags, proper medication disposal, and the myth of flushable wipes. With the increased use of disinfecting wipes due to health and safety concerns regarding COVID-19, proper disposal of wipes became an important topic to promote via all of our outreach channels.

APRIL 6-12, 2020 ONE WEEK
What Not To Flush NEW CREATIVE



Communicating the Value of Water

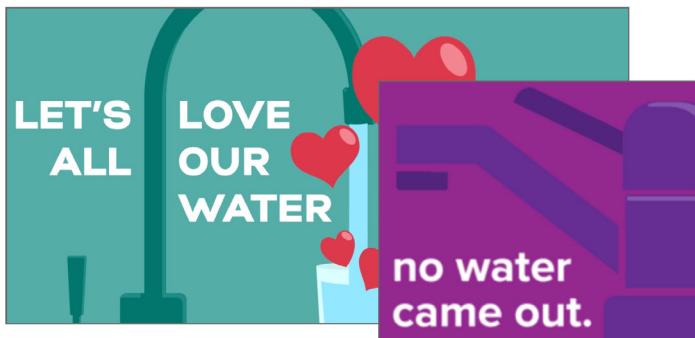
Water is the foundation of our community. From handwashing, a practice made exceptionally important during the COVID-19 pandemic, to cooking, and cleaning, water drives our quality of life in Hampton Roads. It's also vital for our economy, fire protection, and the continued fight against the spread of illness. The Water Awareness Committee continued to focus on communicating the vital role water plays in our lives in the following ways:

Paid Media. The Water Awareness Committee conducted two media campaigns during FY20 that leveraged national water awareness initiatives as an opportunity for local outreach.

Imagine a Day Without Water. Celebrated each October, Imagine a Day Without Water is a national outreach campaign designed to highlight all the ways we use water each day. A two-week media campaign ran from October 14-27 featuring radio, static and retargeted digital display ads, native content ads, social media, and video pre-roll. The campaign utilized new creative for both radio and video assets. The creative theme included a rhyming poem with vibrant video animation highlighting all the things we'd miss on a day without water. The paid media campaign was supported by grassroots outreach through the partnership with local breweries and coffee shops with branded coasters and coffee sleeves distributed on October 23.

OCTOBER 14-27, 2019 TWO WEEKS

Imagine a Day Without Water NEW CREATIVE



Drinking Water Week. A one-week media campaign ran from May 4-10 as part of the national Drinking Water Week awareness campaign from American Water Works Association. The campaign included radio, static and retargeted digital display ads, social media, video pre-roll, and digital advanced TV. The campaign utilized an existing radio ad that covered "the honest truth about public water systems" while the video component featured interviews asking Hampton Roads residents what water meant to them. The digital display ads drove home the important role water infrastructure plays in hygiene, business, health care, and fire protection.

MAY 4-10, 2020 ONE WEEK

Drinking Water Week



Outreach Materials. The committee continued to distribute a variety of promotional items including reusable water bottles, mood pencils, sponges, toothbrushes, and more. Hydro flasks were a particularly engaging outreach tool this year as popular giveaway items for social media contests.

Public Relations. Public relations exposure came from features on various media channels including news releases, print coverage (Williamsburg-Yorktown Daily, Southside Daily, Hampton Newport News Daily, The Virginia Gazette), interviews with local radio and TV shows, and articles in the askHRgreen.org newsletter. Of particular note, the Imagine a Day Without Water campaign was featured on WTKR's Coast Live program and in the Inside Business publication.

Social Media. We engaged with the community via Facebook, Twitter, and Instagram. The askHRgreen.org social media branding campaign promoted multiple value of water messages in support of both Drinking Water Week and Imagine a Day Without Water. Partnerships with local coffee shops and breweries got the value of water message in front of new and diverse audiences on social media. The hydro flask giveaways also drove engagement on social media.

Water Conservation

The Water Awareness Committee continued to raise awareness about conserving water in Hampton Roads. Central topics for this focal area include fixing leaks,

installing low flow WaterSense plumbing fixtures, and indoor/outdoor water conservation tips.

MARCH 16-22, 2020 ONE WEEK
Fix-A-Leak



Paid Media. As part of Fix-a-Leak Week, a nationwide campaign from EPA, a one-week radio and online media campaign ran from March 16-22. The campaign used existing creative including a “man on the street” video about water waste and how to find and fix a leaking toilet. The radio creative captured the similar tone of a “man on the street” interview parodying the sounds of household leaks. The campaign included radio, static and retargeted digital display ads, social media, and video pre-roll. Throughout the year, specific water conservation messages were also covered in our Google SEM campaign, driving traffic to the askHRgreen.org website from relevant keyword searches.

Outreach Materials. The Water Awareness Committee distributed numerous promotional items to help residents conserve water including rain gauges, shower timers, toilet leak detection dye tabs, seed bookmarks, and hose nozzles.

Public Relations. Conservation messages were weaved into public relations through news releases, print coverage, interviews with local radio and TV shows, and articles in the askHRgreen.org newsletter. Of particular note, the topic of native plants was a popular one, featured in multiple media interviews.

Social Media. We engaged with the community via Facebook, Twitter, and Instagram. The askHRgreen.

org social media branding campaign covered water conservation topics ranging from rain barrels to fixing leaks to household usage tips.

Storm Drains & Illicit Discharges

The Stormwater Education Committee continues to educate the public about storm drains: what they are, where they go, and how they can contribute to local water pollution. The popular “only rain down the drain” message was incorporated into a variety of outreach campaigns during FY20 as the best management practices for storm drains overlap with other committee focal areas.

Paid Media. Throughout the year, storm drain topics were included in our Google SEM campaign, driving traffic to the askHRgreen.org website from relevant keyword searches.

Outreach Materials. The committee added a new resource for the management of wild geese to its comprehensive library of informational brochures and rack cards addressing best management practices. askHRgreen.org also continued to promote the storm drain marking program.

Two informational cards from askHRgreen.org. The left card is titled "GOOD TO KNOW" and discusses the Migratory Bird Treaty Act. The right card is titled "GOOD TO DO" and lists strategies to discourage geese, including not feeding them, making habitat unattractive, and using repellents. Both cards feature a cartoon illustration of a Canada goose.

Public Relations. Public relations supported this focal area through news releases, print articles, interviews with local radio and TV shows, and features in the askHRgreen.org newsletter. Two planned public relations efforts were delayed due to COVID-19. First, the committee planned to launch a series of sidewalk decals to promote the message “Every Day We Love the Bay, Only Rain Down the Drain” in conjunction with the Chesapeake Bay Foundation’s Clean the Bay Day litter cleanup in June 2020. That effort has been rescheduled for June 2021. Similarly, the committee has coordinated with 38 car washes on a “Thank You for Washing Wisely” campaign. The campaign recognizes the value of washing cars at commercial establishments with runoff capture instead of at home on paved surfaces. Originally planned for late spring, this campaign has been rescheduled to August 2020.



Social Media. We engaged with the community via Facebook, Twitter, and Instagram. Outreach included awareness of local water quality problems and a diverse variety of best management practices. The askHRgreen.org social media branding campaign was responsible for the majority of creative to support social media outreach.

Chesapeake Bay Restoration Fund Grant (CBRF). The committee was awarded grant funds to host four rain barrel workshops in FY20. The first two workshops were held in October 2019 in Newport News and Chesapeake. Spring workshops were scheduled for April 2020 in Hampton and Suffolk, however, COVID-19 stay-at-home orders forced a postponement. Once reopening guidelines were announced, the workshops were reimaged with



safety in mind. The Hampton workshop was split into two smaller events to maintain social distancing among participants. The Suffolk workshop was transitioned to a “take and make” curbside pickup where residents safely picked up their rain barrel and assembly kit from the City of Suffolk and assembled the rain barrels in their own home with the help of instructional tools. All four workshops were popular, sold-out events. The modest \$20 registration fee is a strong incentive for residents to participate. Thanks to this grant from CBRF, 60 affordable rain barrels are now helping to improve water quality in Hampton Roads.

Pet Waste Disposal

In FY20, the Stormwater Education Committee continued to raise awareness about the importance of scooping the poop and the harmful impacts of bacteria-laden waste on local water quality.

Paid Media. The committee ran a one-week media campaign from June 1-7. The campaign used existing creative featuring a whimsical “poo-em” about cleaning up after your pet and the harmful impacts of pet waste on local water quality. The campaign included radio, static and retargeted digital display ads, social media, video pre-roll, and advanced TV. Throughout the year, pet waste and “scoop the poop” messages were also included in our Google SEM campaign, driving traffic

JUNE 1-7, 2020 ONE WEEK

Pet Waste



to the askHRgreen.org website from relevant keyword searches.

Outreach Materials. The committee purchased 5,000 dog waste bag holders to distribute at community events. The dog waste bag holders accompany scoop the poop rack cards with helpful information for residents.

Public Relations. The pet waste message was promoted in news releases, print articles, interviews with local radio and TV shows, and features in the askHRgreen.org newsletter.

Social Media. Social media is an important tool for sharing the “scoop the poop” message, and we utilized Facebook, Twitter, and Instagram in our outreach efforts. The public was encouraged to sign the scoop the poop pledge which resulted in 20 new pledges in just one week. Some who completed the pledge also included their pet’s name, a picture and their favorite place to walk. These pictures and details were used to extend the social media campaign through additional posts thanking residents who took the pledge and spotlighting their furry friends. The askHRgreen.org social media branding campaign was responsible for the majority of pet waste outreach on social media in FY20.

Pet Waste Station Grant Program. Since 2013, the askHRgreen.org Pet Waste Station Grant Program has made it easy for communities across Hampton Roads to add pet waste stations to their streets and common areas. Geared toward neighborhood associations, community groups, and property management companies, the regional program offers communities an opportunity to receive a free pet waste station to install and maintain in their neighborhoods. Approved applicants are responsible for installing the station, emptying the trash regularly,

and replacing the bags as needed. The neighborhood is also tasked with spreading the word about the location of the new pet waste station, the negative impact of pet waste on local water quality, and encouraging its use among dog-walking neighbors. Since the launch of the program, more than 382 pet waste stations have been awarded and installed across the region. Of those, 33 were awarded and installed during FY20.



New Pet Waste Stations in FY20	
Chesapeake	2
Hampton	1
James City	2
Newport News	6
Norfolk	2
Portsmouth	3
Suffolk	3
Virginia Beach	13
York	1
	33

Total Pet Waste Stations Awarded FY14 to FY20	
Chesapeake	41
Franklin/Southampton	8
Gloucester	5
Hampton	32
Isle of Wight	6
James City	32
Newport News	78
Norfolk	15
Poquoson	5
Portsmouth	21
Smithfield	8
Suffolk	36
Virginia Beach	70
Williamsburg	5
York	20
	382

Lawn Care & Fertilizer

Paid Media. After several years of reusing existing creative for lawn care campaigns, the committee invested in a new chalkboard art-inspired video and rhyming radio campaign. The creative highlights important best management practices including mulch mowing grass and fallen leaves, soil testing, composting, and keeping storm drains clear of yard waste and debris. The creative also highlights the negative impacts on aquatic life and marine habitat when best practices aren't followed. The new campaign creative was used in a one-week media campaign which ran from October 7-13. The campaign included radio, static and retargeted digital display ads, social media, and video pre-roll. Throughout the year, lawn care, native plants, fertilizing, and soil testing topics were included in our Google SEM campaign, driving traffic to the askHRgreen.org website from relevant keyword searches.

OCTOBER 7-13, 2019 ONE WEEK

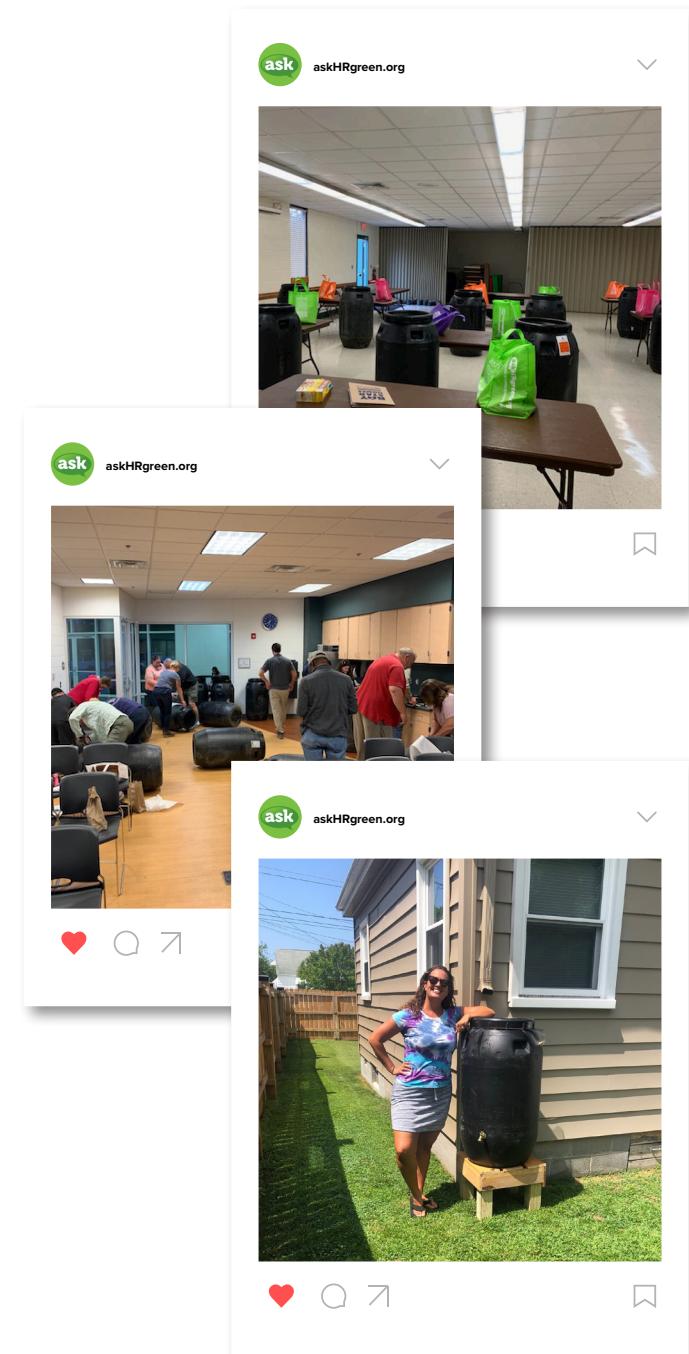
Lawn Care NEW CREATIVE



Outreach Materials. The committee distributes many brochures related to lawn care and fertilizer application including best management practices and how to take a soil test. Free soil test kits and native black-eyed Susan seed packets are made available to residents during public outreach events. The committee also conducts outreach to landscaping and lawn care professionals with a rack card specifically designed for more commercial applications.

Public Relations. Fertilizer and lawn care best management practices are commonly included in various public relations strategies throughout the year including news releases, print articles, interviews with local TV and radio stations, and features in the askHRgreen.org newsletter.

Social Media. Facebook, Twitter, and Instagram were utilized for sharing fertilizing and lawn care best management practices. Social media was also critical for promoting the four grant-funded rain barrel workshops held in FY20. The majority of lawn care and fertilizer messages shared through social media in FY20 were a part of the askHRgreen.org social media branding campaign.



2019-2020 Media Campaign Results

SEPTEMBER 16-22 “Choose to Refuse: Waste Reduction”

Radio, digital display ads, native content ads, social media

Impressions: 473,586
Clicks/Actions: 1,810

BUDGET: \$6,670 | VALUE: \$13,538 | CPM: \$14.09
ROI: 2.03:1

OCTOBER 14-27 “Imagine a Day Without Water”

Radio, digital display ads, native content ads, social media, preroll video

Impressions: 1,155,106
Video Views: 27,013
Clicks/Actions: 1,956

BUDGET: \$16,731 | VALUE: \$27,005 | CPM: \$14.48
ROI: 1.58:1

NOVEMBER 25 - DECEMBER 8 “Grease Grinch”

Radio, digital display ads, native content ads, social media, video preroll, advanced TV

Impressions: 1,773,160
Video Views: 62,705
Clicks/Actions: 1,166

BUDGET: \$16,670 | VALUE: \$23,993 | CPM: \$9.40
ROI: 1.44:1

MARCH 16-22 “Fix-a-Leak”

Radio, digital display ads, native content ads, social media, preroll video

Impressions: 1,337,483
Video Views: 29,191
Clicks/Actions: 1,735

BUDGET: \$12,821 | VALUE: \$27,217 | CPM: \$9.59
ROI: 2.12:1

MAY 4-10 “Drinking Water Week/Value of Water”

Radio, digital display ads, native content ads, social media, preroll video, advanced TV

Impressions: 1,377,444
Video Views: 54,204
Clicks/Actions: 1,056

BUDGET: \$12,822 | VALUE: \$19,504 | CPM: \$9.31
ROI: 1.52:1

OCTOBER 7-13 “Storm Drains & Lawn Care”

Radio, digital display ads, native content ads, social media, video preroll

Impressions: 737,850
Video Views: 33,140
Clicks/Actions: 1,552

BUDGET: \$12,333 | VALUE: \$18,704 | CPM: \$16.72
ROI: 1.52:1

NOVEMBER 18-24 “Plastic Bag Recycling”

Radio, digital display ads, native content ads, social media, preroll video

Impressions: 596,910
Video Views: 22,032
Clicks/Actions: 790

BUDGET: \$10,580 | VALUE: \$14,623 | CPM: \$17.72
ROI: 1.38:1

MARCH 2-8 “Great American Cleanup/Team Up 2 Clean Up”

Radio, social media

Impressions: 616,290
Clicks/Actions: 883

BUDGET: \$6,670 | VALUE: \$12,373 | CPM: \$10.82
ROI: 1.86:1

APRIL 6-12 “What Not To Flush”

Radio, digital display ads, native content ads, social media, video preroll, advanced TV

Impressions: 991,576
Video Views: 42,997
Clicks/Actions: 2,427

BUDGET: \$14,832 | VALUE: \$21,515 | CPM: \$14.96
ROI: 1.45:1

JUNE 1-7 “Pet Waste Disposal”

Radio, digital display ads, native content ads, social media, video preroll and FEP TV

Impressions: 830,246
Video Views: 23,809
Clicks/Actions: 1,394

BUDGET: \$8,420 | VALUE: \$12,819 | CPM: \$10.14
ROI: 1.52:1

2019-2020 askHRgreen.org Public Relations Value

Date	Media Outlet	Topic	Length	Circ./Imp	PR Value
Wednesday, October 23, 2019	WTKR-TV Coast Live	Imagine a day without water interview with Katie Cullipher and Mallory Rugg	4:45 minutes	6,000	\$2,295.00
Thursday, Sept. 19, 2020	Suffolk News-Herald	Restaurants support straw-free September	10 column inches	10,431	\$981.00
Monday, November 4, 2019	Inside Business	Try to imagine our modern lives without water experts column	30 column inches	9,000	\$7,740.00
Sunday, November 17, 2019	The Virginian-Pilot	Confused about what to recycle in Hampton Roads? This regional guide will help	36 column inches	328,434	\$23,250.00
Wednesday, November 27, 2019	The Virginian-Pilot, Flavor Section	Grease is the word, from the bird. Have you heard that you can recycle it?	36 column inches	279,187	\$17,755.00
Wednesday, Dec. 18, 2019	WCTV-48 City of Chesapeake	Green holiday gift ideas	1:10 minutes	1,500	\$600.00
Wednesday, Dec. 18, 2019	WHRV-FM "HearSay"	In the Garden interview with Katie Cullipher	5:00 minutes	11,000	\$3,750.00
Friday, Dec. 27, 2019	WTKR-TV	How to "treecycle" your natural Christmas tree in Hampton Roads	Online report	12,000	\$1,050.00
Monday, Dec. 30, 2019	WVEC-TV Online Report	What to do with your Christmas tree after the holidays	Online report	12,000	\$1,050.00
Saturday, Jan. 4, 2020	Williamsburg-York County Daily	Tree can be fire hazard. Here's how to get rid of it.	Online report	12,000	\$1,050.00
Sunday, Jan. 26, 2020	WVEC-TV Coastal Connections	Five ways to wipe out waste interview with Katie Cullipher	5:00 minutes	3,600	\$1,125.00
Wednesday, April 8, 2020	WCTV-48 City of Chesapeake	Native plants interview with Katie Cullipher	1:00 minute	1,500	\$600.00
Friday, April 10, 2020	WCTV-48 City of Chesapeake	What's flushable video	2:45 minutes	1,500	\$600.00
Wednesday, April 22, 2020	WTKR-TV Coast Live	Earth Day interview with Katie Cullipher	4:30 minutes	36,000	\$2,295.00
Wednesday, April 22, 2020	The Virginian-Pilot	Earth Day tips for the virus crisis	18 column inches	279,187	\$8,766.00
Wednesday, April 22, 2020	The Daily Press	Earth Day tips for the virus crisis	18 column inches	95,782	\$1,785.00
Wednesday, April 22, 2020	RVA/VCU magazine	Virginians spending 50th anniversary of Earth Day at home interview with Katie Cullipher	Online report	58,000	\$5,295.00
Saturday, May 9, 2020	The Virginian-Pilot, Home + Living	askHRgreen.org launches homeschool program	30 column inches	279,187	\$14,610.00
Wednesday, May 13, 2020	WVEC-TV	Public Utilities see items other than TP flushed down sewage system	Mentions ask in online report	12,000	\$1,050.00
					1,448,308 \$95,647

Total circulation or audience **1,448,308**

Total articles and interviews **19**

Total budget **\$6,986**

Total publicity value **\$95,647**

Return on Investment (ROI) **13.7:1**

Media Coverage

Suffolk News-Herald



Public Utilities seeing items other than toilet paper flushed down sewer system in Gloucester County

Public Utilities encourages residents to not flush items such as newspapers, paper towels, hygiene products, diapers, wipes or other trash into the system.

95°



Chesapeake Weekly, Green Gifts

Katie Cullipher
Environ. Education Planner, AskHRgreen.org

Grease is the word, from the bird, have you heard you can trash with feeling?

By THE VIRGINIAN-PILOT
THE VIRGINIAN-PILOT | NOV 27, 2019 at 11:04 AM



LATEST FOOD & DRINK

FOOD & DRINK COLUMNISTS



SECTIONS

The Virginian-Pilot

COLUMN | COLUMNS & GUEST COMMENTARY | OPINION & COMMENTARY

Katie Cullipher & Rebekah Eastep: Earth Day tips for the virus crisis

By KATIE CULLIPHER and REBEKAH EASTEP
FOR THE VIRGINIAN-PILOT | APR 22, 2020

Our Earth has experienced heart-breaking loss of life over the past few months. The COVID-19 virus has spread across the globe at a seemingly unstoppable pace. As inhabitants of this planet, we have been doing our part to slow the march by washing our hands, staying at home and keeping a safe distance from others.

We're anxious and yearning, frustrated and tired — not exactly in a celebratory mood — as we approach the 50th anniversary of Earth Day today. And while askHRgreen.org and the program won't be marking this golden year with the fervor and pageantry of years past, there are still things we can do on Earth Day — and every day — to address the crisis.

- Conserve water by turning off the faucet while you are singing "Happy Birthday" to your hands.
- Keep up with your recycling efforts; this service hasn't stopped.
- Be conscientious of what you flush down the toilet; so-called "flushable" items and facial tissue are not flushable.
- Plant a victory garden. Like Americans who weathered World War II, we can start by planting vegetables, fruits and herbs to help provide food for the community and for therapeutic experience of working in a garden.
- Enjoy a "lights off" hour in the evening. Dine by candlelight and make sure all electronics are turned off when not in use.
- If you're ordering a meal in, say "no thanks" to plastic utensils, condiments and packaging.
- Declutter your home and set aside the good stuff for donation.
- Reserve a quiet corner of your yard and let nature do its thing (but not in your neighbor's yard).
- And finally, for this Earth Day especially, take a moment to be present in your favorite outdoor spot.

FEEDBACK

This regional guide will offer local recycling tips for confused residents

Hampton Roads officials launch illustrated plan

By KATHERINE HAFNER
Staff writer

You don't want to be a "wishful recycler."

During the early days of the recycling industry, these people thought, "I know about anything that goes into the blue bin, hoping for the best. But at least a fifth of everything that goes in is a lie." Getting food and drink containers into recycling can have serious contaminating effects on other recyclable items or jam up machinery at your local recycling facility.

That's why the Hampton Roads Planning District Commission and AskHRgreen.org, a regional education initiative, just launched an illustrated online recycling and disposal guide in cooperation with 17 Hampton Roads localities, from Virginia Beach to Smithfield and James City County.

"Contamination has always been a hot topic in our recycling education efforts," said Katie Cullipher, who works in one city may or may not be the same as what you can recycle at home in a different city." Katie Cullipher, environmental education planner for the commission, said in an email.

"The goal of our new



SORTERS sift through recycling as it passes by on a conveyor belt, pulling out items that cannot be recycled or will damage the machinery at TFC Recycling in Chesapeake.

is a bit different.

You can click on your city or town, which items are accepted, as well as what are not dropped off or picked up by specialty curbside services.

It's especially important, she added, in a military community with people constantly moving "from one corner of the country to another, their curbside recycling programs may look really different from ours."

The short answer for what you should be recycling is paper, bottles and cans. Not anything with food waste — ahem, pizza boxes — or plastic wrapping and bags. But each city

is going to recover after the country stopped accepting most of our recycling early last year.

"With recycling programs across the nation struggling to turn a profit, improving the content of our curbside recycling bins is more important than ever," Cullipher said. It's "the perfect time to bring attention to the important issue of recycling contamination and what each of us can do to recycle right."

Katherine Hafner,
757-222-5208,
katherine.hafner@
pilotonline.com

Combined Media Results

PAID ADVERTISING WEEKS	52 consecutive
TOTAL MEDIA IMPRESSIONS	14,771,843
TOTAL VIDEO VIEWS	295,091
TOTAL CLICKS	32,596
TOTAL PROMOTIONAL CAMPAIGN BUDGET	\$176,735
TOTAL MEDIA ADDED VALUE	\$72,742
TOTAL MEDIA EXPOSURE VALUE	\$338,138
COST PER THOUSAND IMPRESSIONS	\$11.96
RETURN ON INVESTMENT (ROI)	1.91:1

ask askhrgreen.org
Published by Later [?] · June 25 · 4

If you've dedicated more time to your garden 🌿 during this pandemic, you might want to know how to make your own compost to keep it healthy. This rich, organic material, added to your soil to help plants grow, is made up of food scraps and yard waste. (It's a double win in that you keep all that out of the landfill!)

The secret? Equal amounts of "browns" and "greens," mixed with a little water. Browns include dead leaves, branches, and twigs, while greens include grass clippings... [See More](#)



askHRgreen.org

ask askhrgreen.org
Published by Rebekah Jones Eastep [?] · June 11 · 1

Willow and her human, Karen, always play it safe. That's why they've pledged to cleanup bacteria-filled pet waste! Will you pledge to scoop the poop and keep our communities poo-free?
<https://askhrgreen.org/campaign/pet-waste/#ScoopThePoop>



askHRgreen.org

ask askhrgreen.org
Published by Later [?] · June 11 · 1

It's a safe bet to say that you're probably staying home more than you used to. And, well, since it's June in Hampton Roads, you're probably getting outside and doing more in your yard. 😊

While you're doing all that beautifying, please keep grass 🌿 clippings, loose leaves 🍁 and yard waste out of the street. Not only will your neighbors appreciate it, so will our stormwater system; when all that debris gets washed or blown into the storm drains, it causes flooding. Not to mention... [See More](#)



askHRgreen.org

ask askhrgreen.org
Published by Later [?] · May 21 · 1

These days, there's a new kind of litter: Pandemic litter. ❤️ And by that, we mean the used masks, gloves and wipes that have been tossed to the ground, littering parking lots, grocery store entrances and other public spaces.

Sure, these are strange times. Everyone's working hard to protect themselves and their families. And that's good... [See More](#)



askHRgreen.org

ask askhrgreen.org
Published by Later [?] · May 29 · 1

What would happen if you turned on the water faucet in your home, and no water came out? Well... There'd be no showers, no scrubbing, no flushing, No rinsing of hands, no every-tooth brushing... [See More](#)



askHRgreen.org

ask askhrgreen.org
Published by Rebekah Jones Eastep [?] · May 11 · 1

It was the turtle seen around the world. In 2015, marine conservation biologist Christine Figgener posted a now viral video of an olive ridley sea turtle with a nearly five inch straw lodged in its nostril and changed the world. This week's easy environmental lesson plan covers the issue of litter and marine debris from land to sea, discussing the negative environmental impacts and the simple ways we can all make a difference.

Get the resources: <https://askhrgreen.org/big-oc...> [See More](#)



askHRgreen.org

ask askhrgreen.org
Published by Rebekah Jones Eastep [?] · May 3 · 1

This week we celebrate Drinking Water Week. 💧 Now more than ever, we are keenly aware of the value of this most precious resource and its support of public health. Preventing the spread of COVID-19 depends on handwashing and social distancing, two things made possible in part by tap water and the region's water systems. 🙌😊

So let's raise a glass of refreshing tap water to all the water professionals behind the scenes who bring us this life-sustaining service. 🎉

Learn more... [See More](#)



askHRgreen.org

ask askhrgreen.org
Published by Rebekah Jones Eastep [?] · June 24 · 1

We're so proud of our local government partners and their sustainability programs. Small changes DO make a difference. Way to lead by example! #GoGreen



WYDAILY.COM

Here's how localities are maintaining sustainable practices and saving taxpayer dollars | Williamsburg Yorktown Daily

ask askhrgreen.org
Published by Rebekah Jones Eastep [?] · April 13 · 1

Toilet paper shortages and homeschooling come together in this week's very timely easy-to-use environmental lesson plan.

Do your kids know where the water goes when the toilet is flushed? Students this week will discover the mystery behind the "flush" and just why it's so important to flush only TP and your "personal" contributions. 🤫💩

Virginia Beach Public Utilities Newport News Waterworks Norfolk Environmental Commission Keep Norfolk Beautiful Keep Suffolk Beautiful Gloucester... [See More](#)



ASKHRGREEN.ORG

Easy Environmental Lesson Plans: Wastewater Treatment - AskHRGreen

Terms

added value

Earned but unpaid advertising value.

ad group

In Search Engine Marketing (SEM), an ad group contains one or more ads which target a shared set of keywords.

average position

A ranking system that determines where your search engine marketing ad will display on a web search results page (i.e. top of page v. bottom of page).

bounce rate

The percentage of visitors who enter the site and "bounce" (leave the site) rather than continue viewing other pages within the same site.

click through rate (CTR)

A way of measuring online advertising. The CTR of an advertisement is defined as the number of clicks on an ad divided by its impressions, expressed as a percentage.

cost-per-click (CPC)

The cost associated with a person clicking on a display ad in search engine marketing.

exposure value

The combination of advertising cost, added value, and public relations value.

frequency

The number of times an individual (among the target audience) is exposed to the message.

impressions

The number of times an advertisement or public relations placement can be seen or heard by an audience.

public relations value

The equivalent advertising cost of a public relations article, interview, internet placement, etc. times three. Because a public relations placement has a higher value with an audience than advertising, it is assigned a higher value.

reach

The number or percentage of people within the target audience who are exposed to an advertising message at least once over a specific period of time.

search engine marketing (SEM)

The process of attracting traffic to a website from search engine results pages on a pay-per-click basis.

search engine marketing (SEO)

The process of improving the quality of a website so that it appears higher in natural ("organic") search results.

unique visitors (users)

The number of people who visit a website within a specific period of time. If they visit more than one time within the period, their initial visit as well as their subsequent visits are counted as sessions. A user may have one session or multiple sessions.

Appendix A

Search Engine & Online Marketing Results July 2019- Jun 2020



July 1, 2019 - June 30, 2020	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
Annual Campaign Totals	342,690	12,449	51%	3.63%

July 1, 2018 - June 30, 2019	210,695	11,087		5.26%
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Top 10 Keyword Groups	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
Electronics Disposal	25,719	2,516	75%	9.78%
Recycling At Home	40,245	1,540	61%	3.83%
Native Plants	38,189	1,246	35%	3.26%
Lawn Care	67,630	1,012	55%	1.50%
Battery Disposal	12,353	1,006	69%	8.14%
Reduce Reuse Recycle	13,040	904	81%	6.93%
TMDL	12,800	680	62%	5.31%
AskHRGreen General	3,198	563	81%	17.60%
Medication Disposal	6,322	541	79%	8.56%
Plastic Bag Recycling	5,675	361	62%	6.36%

July 1, 2019 - July 31, 2019		PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
Total Monthly Campaign		18,365	1,089	69%	5.93%

July 1, 2018 - July 31, 2018	18,091	920		5.09%
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Top 10 Keyword Groups	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
Electronics Disposal	2,702	208	75%	7.70%
Reduce Reuse Recycle	2,249	145	80%	6.45%
Native Plants	1,861	111	49%	5.96%
Battery Disposal	1,063	110	83%	10.35%
Recycling At Home	2,242	101	69%	4.50%
Great American Cleanup	1,221	70	58%	5.73%
TMDL	1,177	66	73%	5.61%
Medication Disposal	629	61	77%	9.70%
Tap Water	853	38	73%	4.45%
Plastic Bag Recycling	572	34	74%	5.94%

August 1, 2019 - August 31, 2019		PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
Total Monthly Campaign		17,329	1,050	68%	6.06%

Aug 1, 2018 - Aug 31, 2018	19,586	933		4.76%
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Top 10 Keyword Groups	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
Electronics Disposal	2,467	225	76%	9.12%
Reduce Reuse Recycle	2,273	160	81%	7.04%
Recycling At Home	2,160	99	72%	4.58%
Battery Disposal	1,102	91	84%	8.26%
Native Plants	1,982	83	48%	4.19%
Medication Disposal	663	56	76%	8.45%
TMDL	936	52	76%	5.56%
Great American Cleanup	921	50	50%	5.43%
AskHRGreen General	238	47	79%	19.75%
Plastic Bag Recycling	478	44	73%	9.21%

September 1, 2019 - September 30, 2019				
Total Monthly Campaign	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
	16,777	1,055	66%	6.29%

Sept 1, 2018 - Sept 30, 2018	15,484	764		4.93%
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Top 10 Keyword Groups	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
Electronics Disposal	2,230	233	73%	10.45%
Reduce Reuse Recycle	2,327	154	80%	6.62%
Recycling At Home	2,127	109	69%	5.12%
Battery Disposal	1,022	99	77%	9.69%
Native Plants	1,994	83	42%	4.16%
TMDL	767	72	84%	9.39%
AskHRGreen General	379	56	87%	14.78%
Medication Disposal	601	44	74%	7.32%
Great American Cleanup	911	38	53%	4.17%
Plastic Bag Recycling	394	30	71%	7.61%

October 1, 2019 - October 31, 2019				
Total Monthly Campaign	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
	17,037	993	69%	5.83%

Oct 1, 2018 - Oct 31, 2018	15,463	875		5.66%
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Top 10 Keyword Groups	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
Electronics Disposal	1,847	160	73%	8.66%
Reduce Reuse Recycle	2,249	140	83%	6.23%
Recycling At Home	2,322	114	70%	4.91%
Native Plants	2,065	103	49%	4.99%
Medication Disposal	1,011	75	84%	7.42%
Battery Disposal	836	70	78%	8.37%
AskHRGreen General	343	58	82%	16.91%
TMDL	700	43	83%	6.14%
Tap Water	512	36	75%	7.03%
Great American Cleanup	664	32	52%	4.82%

November 1, 2019 - November 30, 2019				
Total Monthly Campaign	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
	14,451	1,066	69%	7.38%

Nov 1, 2018 - Nov 30, 2018	17,312	848		4.90%
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Top 10 Keyword Groups	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
Electronics Disposal	1,954	207	74%	10.59%
Recycling At Home	2,561	164	71%	6.40%
AskHRGreen General	449	141	93%	31.40%
Reduce Reuse Recycle	1,463	114	85%	7.79%
Battery Disposal	835	82	81%	9.82%
Native Plants	1,345	57	47%	4.24%
TMDL	751	57	78%	7.59%
Medication Disposal	512	48	82%	9.38%
Tap Water	715	33	81%	4.62%
Plastic Bag Recycling	382	31	75%	8.12%

December 1, 2019 - December 31, 2019				
Total Monthly Campaign	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
	9,608	691	73%	7.19%

Dec 1, 2018 - Dec 31, 2018	15,457	793		5.13%
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Top 10 Keyword Groups	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
Electronics Disposal	1,671	155	75%	9.28%
Recycling At Home	2,268	129	72%	5.69%
Battery Disposal	678	65	82%	9.59%
TMDL	563	60	87%	10.66%
Reduce Reuse Recycle	486	55	93%	11.32%
Native Plants	777	39	44%	5.02%
Tap Water	453	32	87%	7.06%
AskHRGreen General	194	32	87%	16.49%
Medication Disposal	344	24	81%	6.98%
Plastic Bag Recycling	297	22	78%	7.41%

January 1, 2020 - January 31, 2020				
Total Monthly Campaign	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
	13,563	946	70%	6.97%

Jan 1, 2019 - Jan 31, 2019	16,956	944		5.57%
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Top 10 Keyword Groups	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
Electronics Disposal	2,213	228	73%	10.30%
Recycling At Home	3,176	175	71%	5.51%
Battery Disposal	840	91	82%	10.83%
TMDL	738	80	90%	10.84%
Reduce Reuse Recycle	755	65	93%	8.61%
Native Plants	1,472	56	44%	3.80%
Medication Disposal	454	46	84%	10.13%
AskHRGreen General	185	40	88%	21.62%
Great American Cleanup	526	35	60%	6.65%
Tap Water	472	23	77%	4.87%

February 1, 2020 - February 29, 2020				
Total Monthly Campaign	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
	17,526	994	54%	5.67%

Feb 1, 2019 - Feb 28, 2019	16,931	902		5.33%
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Top 10 Keyword Groups	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
Electronics Disposal	2,122	230	74%	10.84%
Recycling At Home	2,942	139	58%	4.72%
Native Plants	2,870	122	36%	4.25%
Battery Disposal	919	88	74%	9.58%
AskHRGreen General	246	65	82%	26.42%
Medication Disposal	496	57	78%	11.49%
TMDL	639	48	72%	7.51%
Plastic Bag Recycling	416	35	65%	8.41%
Reduce Reuse Recycle	502	34	69%	6.77%
Great American Cleanup	483	33	51%	6.83%

March 1, 2020 - March 31, 2020				
Total Monthly Campaign	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
	51,856	1,013	37%	1.95%

March 1, 2019 - March 31, 2019	17,931	962		5.37%
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Top 10 Keyword Groups	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
Electronics Disposal	1,904	166	74%	8.72%
Native Plants	5,401	159	35%	2.94%
Lawn Care	10,119	123	58%	1.22%
Recycling At Home	4,723	116	55%	2.46%
TMDL	1,423	61	50%	4.29%
Battery Disposal	1,211	60	40%	4.95%
Fertilizer Tips	2,494	56	66%	2.25%
Reduce Reuse Recycle	736	37	59%	5.03%
AskHRGreen General	311	35	81%	11.25%
Medication Disposal	387	32	76%	8.27%

April 1, 2020 - April 30, 2020				
Total Monthly Campaign	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
	53,932	1,081	36%	2.00%

April 1, 2019 -April 30, 2019	20,219	1,099		5.44%
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Top 10 Keyword Groups	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
Electronics Disposal	1,941	206	75%	8.72%
Native Plants	7,807	187	26%	2.94%
Recycling At Home	5,338	136	56%	1.22%
Lawn Care	13,539	124	42%	2.46%
Battery Disposal	1,278	78	49%	4.29%
Rain Barrels	3,044	57	29%	4.95%
Medication Disposal	419	44	75%	2.25%
TMDL	1,712	41	35%	5.03%
Fertilizer Tips	2,873	37	55%	11.25%
AskHRGreen General	328	31	67%	8.27%

May 1, 2020 - May 31, 2020				
Total Monthly Campaign	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
	52,544	1,226	45%	2.33%

May 1, 2019 -May 31, 2019	19,481	976		5.01%
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Top 10 Keyword Groups	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
Lawn Care	15,837	262	60%	1.65%
Electronics Disposal	2,165	217	78%	10.02%
Native Plants	6,803	183	29%	2.69%
Recycling At Home	4,671	130	54%	2.78%
Battery Disposal	1,109	85	61%	7.66%
TMDL	1,839	64	46%	3.48%
Soil Testing	1,215	52	54%	4.28%
Rain Barrels	2,665	39	33%	1.46%
Plastic Bag Recycling	508	33	48%	6.50%
Fertilizer Tips	2,636	28	61%	1.06%

June 1, 2020 - June 30, 2020				
Total Monthly Campaign	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
	59,702	1,245	47%	2.09%

June 1, 2019 -June 30, 2019	17,784	1,107		6.22%
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Top 10 Keyword Groups	PPC Impressions	PPC Clicks	Impression Share	Click Thru Rate
Lawn Care	22,846	396	59%	1.73%
Electronics Disposal	2,503	281	77%	11.23%
Recycling At Home	5,715	128	48%	2.24%
Battery Disposal	1,460	87	58%	5.96%
Native Plants	3,812	63	34%	1.65%
Soil Testing	1,013	53	63%	5.23%
Plastic Bag Recycling	524	38	66%	7.25%
TMDL	1,555	36	52%	2.32%
Medication Disposal	370	32	87%	8.65%
Rain Barrels	1,520	24	35%	1.58%

Summary for FY20 Environmental Education Mini Grants

Total Projects Funded in FY20: 21
 FY20 Mini Grant Budget: \$10,000.00
 Total Grant Funds Awarded: \$10,073.00

Name of Project	Number of Students	School/Facility	City/County	Awarded
<u>Old Donation Ecobus</u>	1,500	Old Donation School	Virginia Beach	\$500
<u>Pollinator Garden for Girl Scouts</u>	1	Girl Scout Council of the Colonial Coast Troop 176	Norfolk	\$413
<u>Healthy Food, Healthy Life</u>	530	Newtown Elementary School	Virginia Beach	\$500
<u>Get to Know Your Watershed</u>	60	Green Run High School	Virginia Beach	\$440
<u>Bee-utiful Learning Experiences</u>	260	Old Donation School	Virginia Beach	\$500
<u>Drink More Water!</u>	500	Newtown Elementary School	Virginia Beach	\$500
<u>Water for Caretakers and Children</u>	500	James River Elementary	Williamsburg	\$495
<u>Vesting Up for Deeper Understanding</u>	130	Old Donation School	Virginia Beach	\$450
<u>Green Girls!</u>	350	GSCCC Troop 1019	Hampton	\$260
<u>Recycle for Change</u>	900	Tabb High School	Yorktown	\$500
<u>Native Tree Project</u>	84	Norfolk Academy	Norfolk	\$500
<u>Green Readers – Kindergarten and Third Grade</u>	1,900	Norfolk Environmental Commission	Norfolk	\$1,000
<u>Marlin Meadows</u>	100	Virginia Wesleyan University	Virginia Beach	\$500
<u>The Bee Byway</u>	2	The Ruling Robot Falcons	Newport News	\$315
<u>Hoffler Creek Pollinator Program for Kids</u>	25	Hoffler Creek Wildlife Foundation	Portsmouth	\$200
<u>An Elizabeth River Project – Resilient River School</u>	249	Elizabeth River Project	Portsmouth	\$1000
<u>Adopt-A-Pot</u>	25	Partnership for a New Phoebe	Hampton	\$500
<u>Community Garden and Recycling Program</u>	15	Academy for Discovery at Lakewood	Norfolk	\$500
<u>Composting Know-How</u>	100	Williamsburg Community Growers	Lightfoot	\$500
<u>Native Pollinator Habitat Stewardship</u>	865	Spratley Gifted Center	Hampton	\$500
	8,096			\$10,073.00

Projects continued from FY19:

Name of Project	Number of Students	School/Facility	City/County	Awarded
<u>Community Learning Garden & Beautification Project</u>	40	Saunders Elementary/Youth Volunteer Corps of	Newport News	\$500

Name of Project	Number of Students	School/Facility	City/County	Awarded
		Hampton Roads		
<u>Plants & Air Quality</u>	100	York County Beautification Committee	Yorktown	\$500
<u>Creating, Conserving, & Protecting Monarch Habitats</u>	569	Great Bridge Primary School	Chesapeake	\$500
<u>Be Fantastic, Use Less Plastic</u>	1,200	Hugo Owens Middle School	Chesapeake	\$500
<u>Plastic Bottle Art</u>	150	Lakeland High School	Suffolk	\$500

Project	Pollinator Garden for Girl Scouts
Recipient	Girl Scout Council of the Colonial Coast Troop 176
Locality	Norfolk
Award	\$413

Project Description: This project will help fund construction and planting of a garden to offer sanctuary, food, and water to native pollinators at the Norfolk Fitness and Wellness Center.

This project was awarded in FY2020. It will be completed during FY2021 and included in the FY2021 summary.

Project	Native Tree Project
Recipient	Norfolk Academy
Locality	Norfolk
Award	\$500

Project Description: This project provided funds for 100 native Eastern redbud bare-root seedlings, plastic nursery pots, and potting soil for Norfolk Academy.

Project Outcomes: Coronavirus greatly changed the timeline of this project.

The topsoil and bare-root seedlings were delivered from the Virginia Department of Forestry during the last week that we had school in March. The plan had always been to have the soil delivered as soon as the seedlings arrived because there is no way to know exactly when the seedlings will ship. The school shutdown meant that I had seedlings but no students. I had to continue with the project or lose the seedlings.

I had the soil delivered to my driveway where my three children and I mixed the perlite (soil lightener) and topsoil and planted the bare-root seedlings. We care for the 100 potted seedlings at my house for 6-weeks before taking them to school and placing them in semi-shaded areas of the irrigated Lower School courtyard.

I will perform the native plant lesson plans with the 2020-21 5th grade class in September and distribute the redbuds to students who turn in a signed parent permission form that states the family has a good place to plant a redbud tree. This permission form will inform parents about the growth patterns and preferences of redbuds. I will make any remaining redbuds available to the students in the Upper School Environmental Club and staff.

The outcome of this project remains the same short of the students seeing and planting a bare-root seedling. Up to 100 students will be empowered to plant a native tree at home. I make sure to educate students about the benefits and importance of native plants and selecting the right tree for the right spot. Redbuds are great because they are native, tolerate full sun to shade, and do not grow big enough to damage houses or powerlines during storms.

What did the students enjoy the most about this project? Students are always enthralled to receive plants, especially trees. I rarely come across a student who has planted a tree. They typically take great pride in their tree and enjoy watching it grow over the years (who doesn't?). I have done this project several times and find that students gain a great connection to their yard through their tree. Parents often email me photos of former students' trees many years after they left my class.

How could a similar project be improved? I had planted a redbud tree in the Lower School courtyard 2-years ago. It will be nice when this tree grows larger so students can get an idea of what their tree will look like in the future. This will help when they pick a planting site. Native plants are a major theme in the Norfolk Academy 3rd grade science class. It is powerful to reinforce the benefits of native plants with this 5th-grade project.

Project	Green Readers – Kindergarten and Third Grade
Recipient	Norfolk Environmental Commission
Locality	Norfolk
Award	\$1,000 (Combined Total)



Project Description: This project provided a take-home book to every kindergarten and third-grade student at 11 schools and volunteer guest reading in classrooms.

In 2016, the Norfolk Environmental Commission (NEC) set out to reach every kindergarten and third-grade student in Norfolk Public Schools by guest reading environmental books in their classrooms. The group interacts with about 1/3 of the school district each year by requesting community volunteers such as City employees, police officers, Master Gardeners, high school students, and NEC Commissioners to read to the students, engage in thought-provoking conversation, and leave behind a copy of the book for further enjoyment.

Project Outcomes: 1) Read to and discussed selected books to 1,376 (664 kindergarten & 723 third grade) students in 11 NPS schools. 2) Books: kindergarten - "I Can Save the Earth:" by Allison Inches; third grade - "Michael Recycle and the Tree Top Cops" by Ellie Patterson. Books were selected by the Green Reader committee which included retired teachers. 3) 88 volunteer readers included Norfolk Fire-Rescue, NPD officers, Norfolk Master Gardeners, Norfolk city staff, NPS school board, NEC commissioners, Granby High School eighth grade students, and citizens at large.

What did the students enjoy the most about this project? 1) Having visitors come read to them, especially uniformed first responders. 2) Receiving a personal copy of the book to take home. For many, this was the first book they have ever owned. 3) Story: A third-grade boy who attended Friends of Norfolk's Environment "Jamn' Jamz" event at the Ernie Morgan Center spotted "Michael Recycle and the Tree Top Cops" and proudly announced to everyone within hearing distance that he had his own copy of this book at home.

How could a similar project be improved? 1) Provide each classroom and media center additional copies of these books for their permanent collections. 2) We currently read to one-third of the NPS elementary schools in three-year cycles, if the budget becomes more constrained, we would consider focusing on more at-risk schools. 3) Add elected officials to the volunteer pool.

Project	Community Garden and Recycling Program
Recipient	Academy for Discovery at Lakewood
Locality	Norfolk
Award	\$500

Project Description: This project will restore Academy for Discovery at Lakewood's community garden to productivity and aesthetic standards as well as provide public awareness for recycling at the school.

This project was awarded late in FY2020. It will be completed during FY2021 and included in the FY2021 summary.

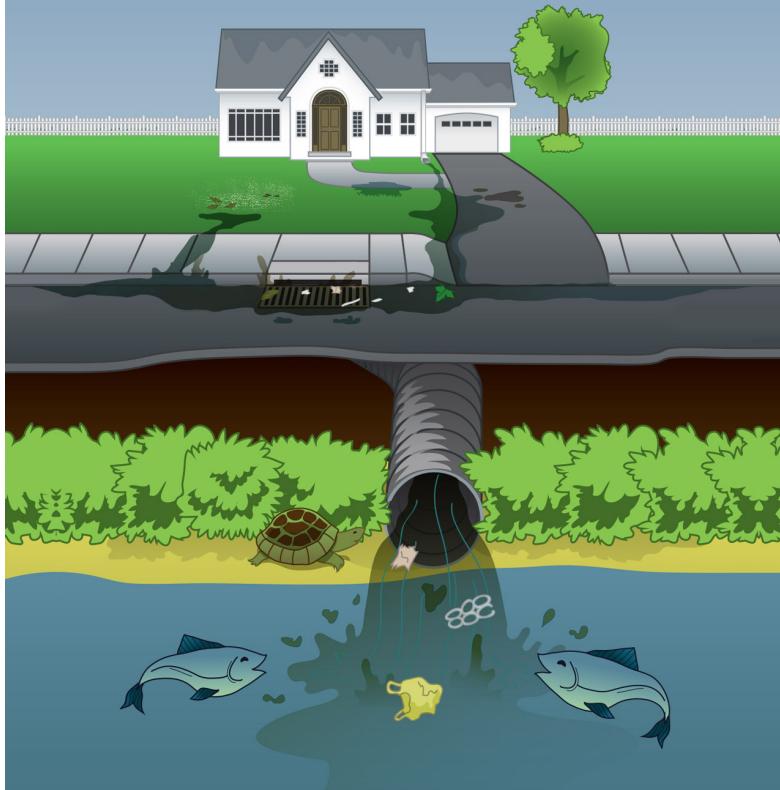
CITY OF NORFOLK PUBLIC WORKS

Fee Reduction Program



ways you can reduce your stormwater fee

This Policy supersedes and repeals all prior policies or regulations on this subject.



Why Norfolk has a Stormwater Fee...

The City of Norfolk is mandated under the Municipal Separate Storm Sewer System (MS4), Phase I Virginia Pollutant Discharge Elimination System (VPDES) permit to reduce pollutants from storm water runoff. In the absence of federal and state funding, revenue for the environmental storm water management program is derived primarily from storm water fees outlined in Chapter 41.1 of the City Code and §15.2-2114 of the Virginia Code. The

City currently assesses all property owners a fee based on a 2,000 square foot equivalent residential unit (ERU). This fee is utilized to cover the cost of services for the collection, treatment and discharge of storm water runoff. This fee structure is comparable to the fees charged by other Hampton Roads Phase I municipalities, including Newport News, Hampton, Chesapeake, Portsmouth and Virginia Beach.

Fee Reductions = Pollution Reductions

The City of Norfolk's Environmental Storm Water Fee Reduction policy is designed to encourage commercial, industrial, and residential property owners to take measures which can reduce the impact their properties have on the quality of our waterways by reducing the amount of pollutants entering the storm water system. It is important to note that the storm water fee reduction

program is intended to provide incentives for pollution reduction efforts.

In order to receive the reduction from the storm water utility, the property owner must submit an application including required supporting documentation to the Director of Public Works or his designee for review and approval.

How It Works....

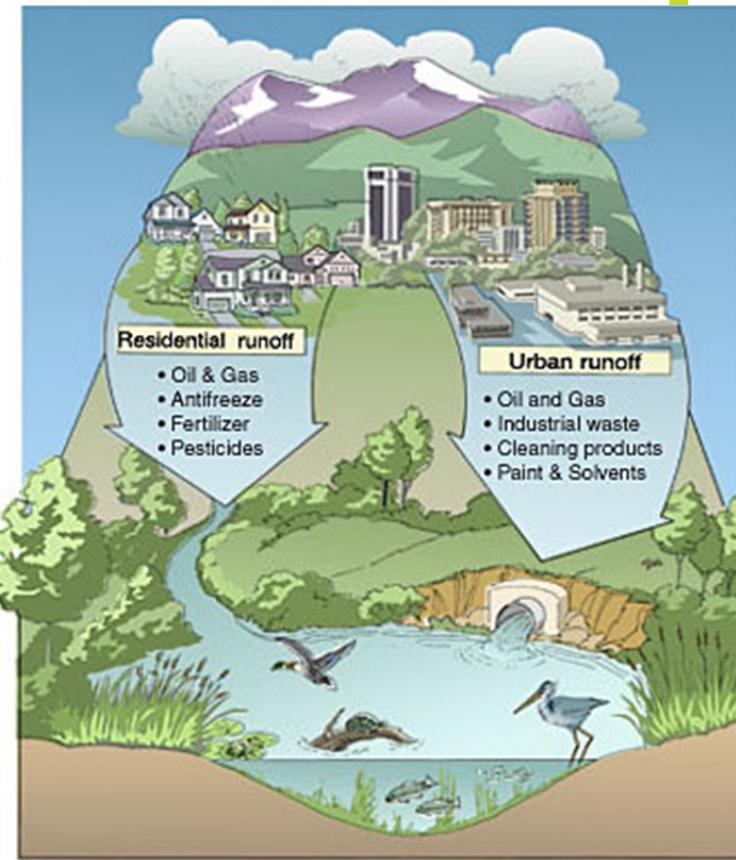
Fee charges under the Environmental Storm Water Management Program may be reduced under the following circumstances:

- Installation of **Residential** (one but no more than four residential/dwelling units) storm water management facilities
- Installation of **Non-residential** (property not meeting the residential criteria, including, but not limited to, industrial, commercial, recreational, cultural, multi-family-5 units or more) storm water management facilities

See City code 41.1-1 for complete definitions

Fee reduction criteria are routinely reviewed by City staff to ensure compliance with the reduction program. If the City determines the site characteristics surrounding the reduction are no longer valid, the discount shall be eliminated from the account. Because the reduction is designed to reduce pollutants entering the storm water system, the fee discount may be eliminated if the property owner is found to violate City Code 41.1-4, Pollution of the Storm Water System.

If a property owner desires to modify their request, a new application must be completed and submitted.



The maximum reduction any one entity may receive through this reduction program is a **60%** reduction in their total storm water utility fee. When comparing total land use of impervious area within Norfolk, 40% is publicly owned and is of benefit to all property owners within Norfolk. Therefore everyone must contribute to the maintenance of the system.

What is a SWMF?

Storm Water Management Facilities (SWMF) are facilities which have been shown to be effective in helping to remove pollutants from storm water runoff. As an incentive for SWMF construction, storm water fee reductions may be given for construction and maintenance of SWMFs as outlined in the current Norfolk Design & Construction Manual. These SWMFs, when properly constructed and maintained, have been shown to reduce runoff pollution from the site.



Residential Fee Reduction Program

The City is providing a discount to residential property owners who install storm water management facilities (SWMF) voluntarily on their property to aid in storm water (sw) runoff and/or pollutant removal. The discount will be based on the type of SWMF installed on the residential property and the area treated.

Once your SWMF has been approved and installed, homeowners are required to complete an annual inspection report on June 1st each year thereafter for continued fee reduction consideration.

In order to qualify for a storm water fee reduction, the SWMF design and related calculations must be developed and reviewed by the City's Storm Water Engineer or his designee. The design of the SWMF shall meet the minimum drainage requirements as outlined in Table I and comply with the Norfolk Design & Construction Manual, Virginia Storm Water BMP Clearing House Manual, Virginia Tech Rain

Garden Guide, or other City approved design specifications. Multiple SWMFs may be installed per property to stack load reductions; however, the stacked SWMFs may not treat the same drainage area. The maximum credit per site is 60%.

At A Glance:

Example:
Property owner installs
1 rain garden and 2 rain barrels

20% credit rain garden
+ **10% credit rain barrel**
+ **10% credit rain barrel**
= 40% fee reduction

Multiple SWMFs may be installed per property to stack load reductions, but they may not treat the same drainage area.

Residential SWMF Construction

The SWMF must be installed as outlined in the plan. Consultation with a qualified contractor is recommended, but not required. Property owners are required to follow all local, State, and Federal laws and acquire all required land disturbing, construction, and environmental permits. Site plan review may be required.

Right to Inspection

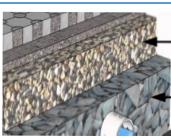
The City may inspect the SWMF at any time during the year. If the on-site stormwater storage is no longer functioning or has not been maintained, the City reserves the right to cancel the credit for up to three years.

Residential SWMF Inspections

The SWMF inspector will perform inspections throughout the installation process to ensure compliance with the approved plan requirements. Any supporting documents providing proof that the SWMF was installed and functioning as designed must be provided to the City prior to any rate reduction. The property must be fully stabilized to avoid sediment runoff prior to the reduction being approved.

The owner must complete an annual inspection of the SWMF. Inspections should include a photo of the SWMF and a written summary of any discrepancies with the SWMF and corrective actions taken. The inspection should be submitted to the Division no later than June 1 of each year and will be retained by the Division. Failure to submit the annual inspection will void the rate reduction starting on July 1.

Table 1: Residential SWMF Options

SWMF Types	Visual	% Credit	Min Drainage Area (sf)	Other Required Documentation
Rain Barrels		10	300	Barrel Volume Roof Area Treated (sf)
Grass Swale		10	500	Drainage Area Treated Swale length and average depth
Buffer Area		10	N/A	Planting Plan Drainage Area Buffer Length & Width
Nutrient Management Plan		10	100% of the site	Approved Plan
Cistern		10	300	Rain Cistern Volume Roof Area Treated (sf) Water Use
Bioswale		20	500	Planting Plan Drainage Area Treated Swale length and average depth
Rain Garden		20	500	Planting Plan Drainage area treated Surface area and average depth
Permeable Pavement with Underdrain		20	300	Drainage area treated Surface area of pavement
Rooftop Disconnect with Soil Amendments		20	300	Length & Width of flow path Amendment Depth
Green Roof		50	800	Green Roof Surface area Planting Plan
Living Shoreline		50	N/A	Planting Plan Applicable Permits Length and Width of shoreline project

Residential SWMF Definitions

Rain Barrels/Cisterns: A tank used to catch rainwater running off roofs from a downspout.

Nutrient Management Plan: Program designed to manage the amount, source, placement, form and timing of the application of nutrients and soil amendments

Vegetated Filters: Bioswale, Grass Swale, Buffer Area. These are areas of dense turf, meadow grasses, trees or other vegetation with a minimum slope to absorb runoff from roof downspouts.

Rain Garden: Rain gardens are landscaped areas slightly below ground level that capture and filter stormwater runoff from a roof or other impervious (paved) surface.

Permeable Pavement: Pervious pavement may include concrete blocks, grid pavers, or pervious concrete or asphalt with a stone

reservoir underneath. The reservoir temporarily stores surface runoff before seeping it into the soil below. Gravel is not considered pervious pavement.

Rooftop/Downspout Disconnect: This is the process of separating roof downspouts from the storm system and redirecting roof runoff onto pervious surfaces where soil amendments have been applied, most commonly a lawn.

Green Roof: Living roof is a roof of a building that is partially or completely covered with vegetation and a growing medium, planted over a waterproof membrane.

Living Shoreline: A shoreline protection option that allows for natural coastal processes to remain through the strategic placement of plants, stone, sand fill, and other structural and organic materials.



Non-Residential Property Fee Reduction Program

As an incentive for SWMF construction, fee reductions will be allowed for construction of approved SWMF's which reduce runoff pollution from the site. In order for a non-residential property to qualify for a storm water fee reduction, the SWMF design and related calculations must be developed and certified by a professional engineer or surveyor licensed to practice in the Commonwealth of Virginia. Pollutant loadings and SWMF effectiveness must be computed in accordance with the methods outlined in the Norfolk Design & Construction Manual.

The percent fee reduction will be computed to the nearest percent using the following formula:

$$\begin{aligned} \text{\% Fee Reduction} \\ = \\ (\% \text{ SWMF Efficiency Rating}) \\ (\text{Area served by SWMF in acres} / \text{Total Site Area}) \end{aligned}$$

Multiple SWMFs may be installed for each property to stack load reductions; however, the stacked SWMF may not treat the same drainage area.

Up to 60% maximum credit per site

Non-Residential SWMF Construction

When constructing SWMFs, site plan review requirements and criteria must be followed. The design will be reviewed and approved through the site plan review process. If the formal process is not required (due to size limitations), the requirements and criteria still apply and the Division's Storm Water Engineer or his/her designee must review the proposed site plan prior to installation. A Declaration of Covenants must be signed by the property owner and filed with the Clerk of the Court prior to approval from the Division (copy of the Declaration will be kept on file at the Division).

A pre-construction meeting shall be arranged with the City's SWMF inspector at a minimum 48-hours prior to construction. The SWMF must be installed as outlined in the plan. Any modifications must be made by the engineer of record and the site plan adjusted as such, with approval from the Division. All sediment control measures must be installed prior to any land disturbing activity. All land disturbing permits and General Construction and Environmental Permits must be obtained where necessary.



Non-Residential SWMF Inspections

The SWMF inspector will perform inspections throughout the installation process to ensure compliance with site plan requirements. Any as-built or certifications providing proof that the SWMF was installed and functioning as designed must be provided to the City prior to any rate reduction. The property must be fully stabilized to avoid sediment runoff prior to the reduction being approved.

The owner must complete annual inspections of the SWMF. Inspections must be completed by a certified inspector and documented along with all discrepancies noted and corrective actions taken. These annual reports will be submitted to the Division no later than June 1 of each year.

The inspection forms will be retained by the Division for the specific SWMF installed. Failure to submit the annual inspection reports will void the rate reduction starting on July 1.

The following items must be completed and submitted with your application to the Division to receive the reduction.

- Completed application for the Storm Water Fee Reduction/Waiver
- Proof of ownership of the facility
- Storm water system maintenance schedule
- Site Plan and Water Quality Calculations

Right to Inspection

The City may inspect the SWMF at any time during the year. If the on-site stormwater storage is no longer functioning or has not been maintained, the City reserves the right to cancel the credit for up to three years.

Residential and Non-Residential Application Checklist

- Applicant Name:**
Name of individual property owner
- Property Address:**
List address number and street name
Include city and zip code.
- Mailing address** include if different from
property address.
- Parcel ID number:**
Each piece of land has its own parcel ID
number. This information can be found on
the City's website under Norfolk Air
- Phone number:**
The primary contact for the applicant
- Email address:**
The primary contact for the applicant
- Credits applying for:**
Select the credit for which the applicant
is applying. If you are doing a residential
project, check the first box. The other
options relate to commercial properties
and apartment complexes.
- SWFM type applying for**
Check ALL that apply
- Attach ALL SWMF plans.**
- Checked and complied with all**
applicable City codes
- Applicant signature/date**

.....

**Questions? Call 823-4010 or send a letter
to SW Fee Reduction Program,
Attn., Storm Water Engineer,
2233 McKann Ave, Norfolk VA 23509**

Maintenance Requirements

Storm Water Management Facilities
(SWMFs) installed on a property must be
maintained to ensure continued function.

Restrictions on Credits

Transfer of credit:

The property credit applies only to the
applicant. Credits do not transfer if home
ownership changes. A new application must
be submitted for new account holders to
receive the credit.

The SWMF must meet all applicable City
of Norfolk building, planning and zoning
code requirements.

Right to Inspection

The City may inspect the SWMF at any time
during the year. If the on-site stormwater
storage is no longer functioning or has not
been maintained, the City reserves the right
to cancel the credit for up to three years.

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**Fee reductions associated with SWMF
installation on residential and
non-residential properties will become
effective starting the first day of the
following month after approval from
the Director of Public Works or his
designee. Retroactive rates reductions**

**will not be considered. Rate
reductions will be reviewed by the
Director of Public Works or his
designee annually during the month of
June to ensure continued compliance
with the rate reduction requirements.**

**Failure to submit annual inspection
reports for the previous year by
June 1 may void the storm water rate
reduction starting on July 1 and would
require reapplication.**

Stormwater Credit General Application

Applicant Name: _____

Property Address: _____

City/Zip: _____

Mailing address: (if different than property address) _____

City/Zip: _____

Parcel ID number: _____ Phone Number: _____

Email address: _____

Check One:

- This is the first credit application for this property.
- This is a credit renewal request.
- This is a reapplication after a credit suspension.

Credit applying for:

- Single-family residential property - **Complete Part 2 on next page**
- Multi-family/non-residential SWMF - **Supply Supporting Documentation**
 - Proof of ownership
 - Storm water maintenance schedule
 - Copy of approved site plan
 - Copy of storm water calculations
 - As built or certifications if applicable

Applicant/Contact Signature: _____

Date: _____

Mail to: City of Norfolk, Stormwater Utility, Attn: Stormwater Credit Applications
2233 McKann Avenue, Norfolk, VA 23509

Single Family Residential Stormwater Credit Application - Part 2

Applicant Name: _____ Parcel ID Number: _____

Credit Applying For: *Check all that apply*

RAIN GARDEN

Drainage Area Treated: _____ Surface area & average depth: _____

Date of construction: _____ Planting plan attached

ON-SITE STORMWATER STORAGE

Rain barrels Cistern other

Roof area treated (sf): _____ Volume of on-site storage _____ gallons

Water use: _____

PERMEABLE PAVEMENT WITH UNDERDRAIN

Paving blocks grid or grass pavers pervious concrete or asphalt

Surface area of pavement (sf): _____ Drainage area treated (sf): _____

Stone reservoir is at least 10 inches deep at all points Compliant with city code

VEGETATED FILTER

Bioswale Living Shoreline Buffer area Grass swale

Drainage area treated (sf): _____ Length & average depth: _____ Planting plan attached

LAWCARE NUTRIENT MANAGEMENT PLAN

Approved plan attached

GREEN ROOF

Roof surface area (sf): _____ Planting plan attached

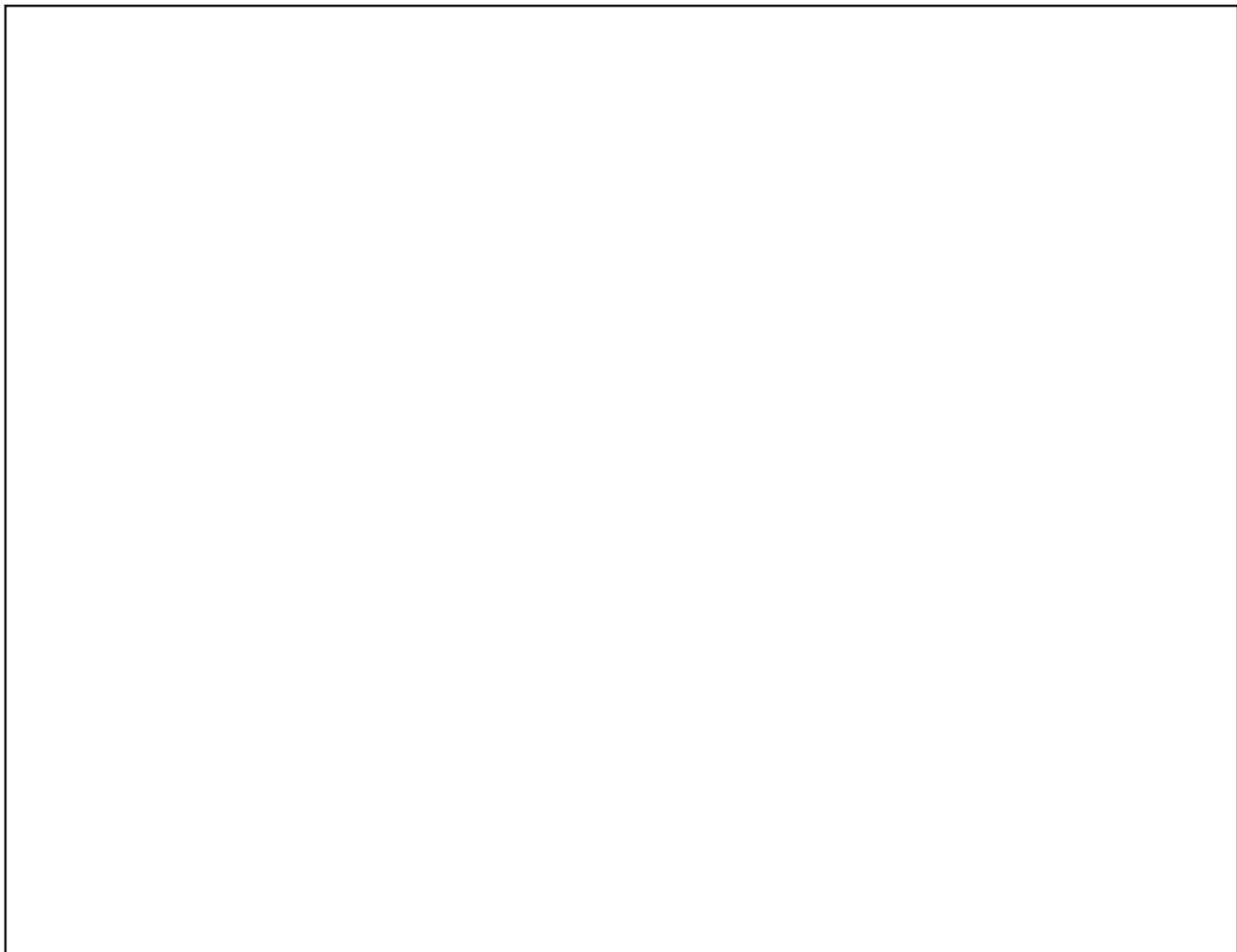
ROOFTOP DISCONNECTS WITH SOIL AMENDMENTS

Length & width of flow path (sf): _____ Amended soil depth (sf): _____

PHOTOGRAPH OF MEASURE AS INSTALLED IS ATTACHED

Single Family Residential Stormwater Credit Application - Part 2

Sketch of property with SWMF shown. (Attach additional plans as needed)



All applicable local codes:

(initial) I, the applicant, have complied with all local codes applicable to the installation of the SWMF.

Owner certification:

(initial) I hereby certify that I own and live at the property and I further declare, under penalty of perjury, that the information provided by me in this application is the truth to the best of my knowledge and belief.

Applicant/Owner Signature: _____ Date: _____

Mail to:

City of Norfolk Public Works, Stormwater Utility, Attn: Stormwater Credit Applications
2233 McKann Avenue, Norfolk VA 23509

**City of Norfolk,
Stormwater Utility
2233 McKann Avenue
Norfolk, VA 23509
757.823.4010
www.norfolk.gov**



Adopted: October 2016

Stormwater Fee Reduction Renewal Tracking									
Name	Address (Link to File)	Parcel ID (Account #)	Email	Telephone	Accepted Practices	Credit (Link to Tab)	Date Credit Application Approved	Date Approved/Received 2018 ReInspection Report	Date Approved/Received 2019 ReInspection Report
Ruth Amundsen	5614 Shenandoah Ave. Norfolk, VA 23509	49210700	rma@cox.net	757-858-8548	Cistern, Rain Garden, Permeable Pavement, & Green Roof	60%	1/18/2017	5/30/2018	5/2/2019
Peter Marshall & Diane Horowitz	934 Westover Ave. Norfolk, VA 23507	879005	marshall.d1@cox.net	757-623-7093	4 Rain Barrels	40%	4/3/2017	5/16/2018	5/1/2019
Thomas Scarpelli	923 Westover Ave. Norfolk, VA 23507	6718500	thomas.scarpelli@cox.net	757-627-3407	1 Rain Barrel	10%	4/12/2017	5/29/2018	5/8/2019
James & Josephine Cole	232 E. Westmont Ave. Norfolk, VA 23503	1530885205	jacole23@cox.net	757-588-8623	1 Rain Barrel & 1 Rain Garden	30%	4/11/2017	5/6/2018	5/29/2019
James & Rebekah Wackerny	5421 Powhatan Ave. Norfolk, VA 23508	1420224337	jameswackerny@gmail.com	757-440-5276	1 Rain Barrel	10%	6/29/2017	6/4/2018	5/2/2019
Michael Phillips	3809 Abingdon Cir. Norfolk, VA 23513	1449203708	merrillmichaelphillips@gmail.com	757-620-2875	1 Rain Barrel	10%	6/30/2017	6/1/2018	
John & Ellen Seniuk	9808 Grove Ave. Norfolk, VA 23503	1540783898	ellenseniuk@gmail.com	570-242-0175	1 Rain Barrel	10%	6/30/2017	6/1/2018	5/11/2019
Lucas Johnson	437 Rhode Island Ave. Norfolk, VA 23508	1438096855	lucasj24@gmail.com	703-216-4290	1 Rain Barrel, 1 Nutrient Management Plan, & 1 Rain Garden	40%	8/1/2017	5/29/2018	5/12/2019
Diane Ruhl	511 Suburban Pkwy. Norfolk, VA 23505	32810700	gldr@yahoo.com	757-531-9121	1 Rain Barrel & 1 Rain Garden	30%	8/1/2017		
Martha Verspille	525 Connecticut Ave. Norfolk, VA 23508	1438090761	mth728@gmail.com	757-353-8787	1 Rain Barrel	10%	2/15/2018	N/A	
Dan Villanueva	8553 Old Ocean View Ave. Norfolk, VA 23503	1540164943	danvill924@gmail.com	757-232-6127	1 Rain Barrel	10%	4/16/2018	N/A	5/30/2019
Jennifer Torres	404 Ridgeley Rd Norfolk, VA 23505	1438043474	jenifferdavertorres@yahoo.com	757-286-1527	3 Rain Barrels	30%	5/14/2018	N/A	
Rachel Neese	1627 Ashland Ave Norfolk, VA 23509	1438671947	rachelneese@gmail.com	618-604-0301	1 Rain Barrel	10%	5/7/2018	N/A	
Matthew Hall	4810 Newport Ave Norfolk, VA 23508	14286010	mhall@odu.edu	757-338-0869	1 Rain Barrel	10%	8/23/2018	N/A	
Timothy Hixon	1409 Armistead Bridge Rd Norfolk, VA 23507	19490800	timandjanet@lenai.net	757-630-9130	2 Rain Barrel's	20%	4/8/2019	N/A	N/A
Elizabeth Burns	9500 Hammett Parkway Norfolk, VA 23509	26129250	burns228@cox.net	757-409-1272	1 Rain Barrel	10%	6/18/2019	N/A	N/A

Chemical Spill Response Training
Instructor: Chris Pappas, Sigma Consulting & Training, Inc.
Norfolk, VA Session: Monday, September 30, 2019

	Employee Last Name	Employee First Name	Department	Employee Signature
1	Andrews	Samuel	PW Operations Sweeping	<i>Samuel Andrews</i>
2	Arnold	Robert	PW Waste Management	<i>Robert Arnold</i>
3	Banks	Craig	PW Waste Management	<i>Craig Banks</i>
4	Baum	Terry	RPOS	<i>Terry Baum</i>
5	Bell	Sadae	PW Operations Sweeping	
6	Boiden	Thomas	UTIL - Water Production	<i>Thomas Boiden</i>
7	Boose	Tommie	PW Waste Management	
8	Bright	Levon	Public Works Streets and Bridges	<i>Levon Bright</i>
9	Brooks	Lawrence	Facilities Maintenance	<i>Lawrence Brooks</i>
10	Bryant	Jamonda	PW Operations Sweeping	
11	Buckhalter	Robert	Facilities Maintenance	<i>Robert Buckhalter</i>
12	Bullock	Clarence	PW Waste Management	<i>Clarence Bullock</i>
13	Carter	Michael	PW Operations Sweeping	
14	Carter	Donnie	PW Waste Management	<i>Donnie Carter</i>
15	Childress	Andrew	Parking	<i>Andrew Childress</i>
16	Coston	Alvin	PW Waste Management	<i>Alvin Coston</i>
17	Cross	Thomas	Public Works Streets and Bridges	<i>Thomas Cross</i>
18	Delahaya	Robert	Public Works Streets and Bridges	<i>Robert Delahaya</i>
19	DePietro	Joseph	RPOS/Cemeteries	<i>Joseph DePietro</i>
20	Dierks	Lindsay	UTIL - Water Production	<i>Lindsay Dierks</i>
21	Dill	John	RPOS/Cemeteries	<i>John Dill</i>
22	Dodd	Eric	PW Waste Management	<i>Eric Dodd</i>
23	Eddins	Jerold	PW Waste Management	<i>Jerold Eddins</i>
24	Fentress	Roger	PW Operations Storm Water	

Chemical Spill Response Training
Instructor: Chris Pappas, Sigma Consulting & Training, Inc.
Norfolk, VA Session: Monday, September 30, 2019

Employee Last		Employee First	Department	Employee Signature
	Name			
25	Fiedorczyk	Mercinda	Facilities Maintenance	
26	Filipowski	Catherine	UTIL - Water Production	<i>Cathleen Filipowski</i>
27	Fisher	Wallace	PW Operations Storm Water	<i>Wallace Fisher</i>
28	Foster	Stephen	Parking	<i>Stephen Foster</i>
29	Green	Timothy	PW Operations Sweeping	<i>Timothy Green</i>
30	Hawkins	William	Parking	<i>William Hawkins</i>
31	Hawley	Gary	Facilities Maintenance	<i>Gary Hawley</i>
32	Hudgins	Ryan	PW Operations Storm Water	<i>Ryan Hudgins</i>
33	Ingram	Ryan	PW Operations Pump Station	<i>Ryan Ingram</i>
34	Inman	Ray	Facilities Maintenance	<i>Raymond Inman</i>
35	James-Parson	Alfred	PW Waste Management	<i>Alfred James-Parson</i>
36	Jefferson	Androse	PW Waste Management	
37	Johnson	Anthony	Public Works Streets and Bridges	<i>Anthony Johnson</i>
38	Johnson	Clifford	PW Waste Management	<i>Clifford Johnson</i>
39	Latimer	Jasmine	PW Waste Management	<i>Jasmine Latimer</i>
40	Lewis	Robert	UTIL - Water Production	<i>Robert Lewis</i>
41	Mack	Peter	PW Operations Storm Water	<i>Peter Mack</i>
42	Magruder	Casey	PW Operations Storm Water	<i>Casey Magruder</i>
43	May	Pierre	PW Operations Sweeping	
44	Mays	Joshua	PW Operations Sweeping	<i>Joshua Mays</i>
45	Mead	Kacy	Public Works Streets and Bridges	<i>Kacy Mead</i>
46	Mills	Jonathan	PW Waste Management	<i>Jonathan Mills</i>
47	Montgomery	Joseph	PW Operations Sweeping	<i>Joseph Montgomery</i>
48	Mullings	Juan	Public Works Streets and Bridges	<i>Juan Mullings</i>

Chemical Spill Response Training
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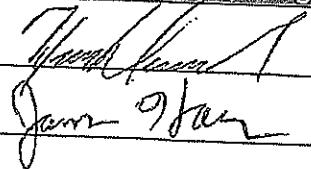
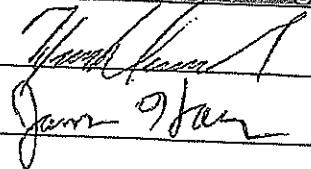
	Employee Last Name	Employee First	Department	Employee Signature
49	Nixon	Jon	Facilities Maintenance	
50	Perry	James	PW Waste Management	<i>James</i>
51	Pope	Elpaul	PW Operations Sweeping	<i>Elpaul Pope</i>
52	Postrell	Troy	Parking	<i>Troy Post</i>
53	Quick	Kyle	PW Operations Sweeping	
54	Robinson	James	Facilities Maintenance	<i>J. G. R. I.</i>
55	Shafer	Justin	PW Operations Storm Water	<i>Justin</i>
56	Sharp	Charles	PW Waste Management	<i>Charles</i>
57	Shoulders	George	RPOS	<i>George R. Shoulders</i>
58	Siemering	Christopher	PW Operations Storm Water	<i>Christopher</i>
59	Slater	Matthew	PW Waste Management	<i>Matthew</i>
60	Smith	Fred	PW Operations Sweeping	<i>Fred A. Smith</i>
61	Smythe	Bryan	Public Works Streets and Bridges	<i>Bryan</i>
62	Speller	Eric	PW Operations Storm Water	<i>Eric Speller</i>
63	Speifer	Alan	PW Waste Management	<i>Alan</i>
64	Stewart	Roeger	PW Operations Sweeping	
65	Sutherby	Jacob	PW Waste Management	<i>Jacob</i>
66	Taylor	Christopher	PW Operations Storm Water	<i>Christopher</i>
67	Thetga	Joshua	RPOS/Cemeteries	<i>Joshua</i>
68	Thomas	Shawn	PW Waste Management	<i>Shawn</i>
69	Thomas	Steven	RPOS	<i>Steven Thomas</i>
70	Thompson	Calvin	Public Works Streets and Bridges	<i>Calvin</i>
71	Tressler	Joseph	PW Waste Management	<i>Joseph</i>
72	VanLear	Christina	PW Operations Storm Water	<i>Christina</i>

P. 1 of 2017

Chemical Spill Response Training
Instructor: Chris Pappas, Sigma Consulting & Training, Inc.
Norfolk, VA Session: Monday, September 30, 2019

Employee Last		Employee First	Department	Employee Signature
73	Vaughan	Alton	PW Operations Sweeping	<i>Alton Vaughan</i>
74	Watford	Nathaniel	PW Operations Sweeping	<i>Nathaniel Watford</i>
75	Watson	Brian	Facilities Maintenance	
76	White	Jeff	Facilities Maintenance	
77	Whitehurst	June	PW Operations Storm Water	<i>June Whitehurst</i>
78	Whittaker	Darrell	PW Operations Sweeping	
79	Williams	Michelle	PW Operations Storm Water	<i>Michelle Williams</i>
80	Williams	Anthony	PW Operations Sweeping	
81	Williams	Thomas	PW Waste Management	<i>Thomas Williams</i>
82	Williams	James	PW Waste Management	<i>James Williams</i>
83	Williams	Elliott	PW Operations Sweeping	
84	Winborne	Mac	RPOS	<i>Mac Winborne</i>
85	Woods	Ralph	PW Operations Sweeping	<i>Ralph Woods</i>
86	Wooten	Donte	PW Operations Storm Water	<i>Donte Wooten</i>
87			RPOS Tree Shop 1	
88			RPOS North Shop 1	
89	Wilson	Travon	Storm - Water (P.S.)	<i>Travon Wilson</i>
90	Foster	WILLIAM	STORM WATER, P.W	
91	AMOS	DONALD	ST + BRIDGES	
92	White	Calvin	Waste Water UTILITIES	<i>Calvin White</i>
93	Chris	Rawhings	WW, waste water	<i>Chris Rawhings</i>
94	Tillmon	Albert	Storm Water	<i>Albert Tillmon</i>
95	HENRY	SHAWN	STORM WATER	<i>Shawn Henry</i>
96				

Chemical Spill Response Training
Instructor: Chris Pappas, Sigma Consulting & Training, Inc.
Norfolk, VA Session: Monday, September 30, 2019

Employee Last Name	Employee First Name	Department	Employee Signature
97. Hower	Tyron	RPOS	
98. Hower	James	W Water	
99.			
100.			
101.			
102.			
103.			
104.			
105.			

Lester Carl Cherry, Lester Carl Cherry
 Greg Kramer *Greg Kramer* City of Norfolk

Lester Cherry

Water Distribution

City of Norfolk				
	Bailey	Brittany		
Parkling 0899	Bell	Gary	<i>Loy E. Bell</i>	
	Earley	Joseph	<i>Joseph Earley</i>	
	Foster	Nathaniel	<i>Nathaniel</i>	
	Gershon	Patrick		
	Hall	Forrest		
	Jackson	Keith	<i>Lester E. Jackson</i>	
	Mujsce	Michael	<i>Michael Mujsce</i>	
	Mullings	Juan		
	Newsome	Billy	<i>Billy Newsome</i>	
	Parker	Richard	<i>Richard Parker</i>	
	Pasiliao	Jon		
	Reid	Tyrone	<i>Tyrone Reid</i>	
	Bonnie Taylor	Tommie Jeff	<i>Tommie Jeff</i>	
	Turns	Dennis	<i>Dennis Turns</i>	
	Vincent	Keith	<i>Keith Vincent</i>	
	Wasson Wasson	Joshua	<i>Joshua Wasson</i>	
	Wynn	Ronnie		

J Garcia

*Bonnie, Tommie
Spith, Richard, John Unti*

42300 Waste Management			
	125772	Bunt	Steve
	113021	Green	Albert
	114257	Hughes	Lillie
Chesapeake Mosquito Control			
	120386	Cato	Joe
	123605	Cole	John
	118335	Geoge	Jerry
	114871	Jones	Richard
	119393	Russell	Zollie
	122571	Scott	Patricia
	118561	White	Martel

Timothy Flythe - water distribution

Angela Hairston / Angela Haas City of Norfolk
Water Distribution

**City of Norfolk - Public Works Operations Environmental Storm
Water Management**

DRY WEATHER MONITORING - FY20

Date	Address or Intersection	Findings	Resolution Date	Resolution
7/1/19	1250 N MILITARY HWY	No Findings		
7/1/19	1250 N MILITARY HWY	No Findings		
7/1/19	1250 N MILITARY HWY	No Findings		
7/1/19	1250 N MILITARY HWY	No Findings		
7/1/19	6137 MILLER STORE RD	No Findings		
7/1/19	6137 MILLER STORE RD	No Findings		
7/1/19	774 W LITTLE CREEK RD	No Findings		
7/1/19	1033 W LITTLE CREEK RD	No Findings		
7/1/19	1230 N MILITARY HWY	No Findings		
8/1/19	3210 CHESAPEAKE BLVD	No Findings		
8/1/19	5217 ARGALL AVE	No Findings		
9/4/19	1203 W LITTLE CREEK RD	No Findings		
9/4/19	1307 MILTON STREET	No Findings		
9/4/19	7720 ENFIELD AVE	No Findings		
9/4/19	7720 HAMPTON BOULEVARD	No Findings		
11/1/19	1417 N MILITARY HWY	No Findings		
11/1/19	301 NAVAL BASE RD	No Findings		
12/2/19	2335 AZALEA GARDEN RD	No Findings		
12/2/19	2675 AZALEA GARDEN RD	No Findings		
12/2/19	3112 AZALEA GARDEN RD	No Findings		
12/2/19	6100 TIDEWATER DR	No Findings		
1/2/20	418 SAINT PAULS BLVD	No Findings		
1/2/20	600 Church Street	No Findings		
1/2/20	800 E BRAMBLETON AVE	No Findings		
1/2/20	800 E BRAMBLETON AVE	No Findings		
1/2/20	800 E BRAMBLETON AVE	No Findings		
1/2/20	900 E BRAMBLETON AVE	No Findings		
2/3/20	201 E CITY HALL AVE	No Findings		
2/3/20	201 W TAZEWELL STREET	No Findings		
2/3/20	259 GRANBY STREET	No Findings		
2/3/20	425 MONTICELLO AVE	No Findings		
2/3/20	751 MONTICELLO AVE	No Findings		
2/3/20	770 BOUSH STREET	No Findings		
2/3/20	770 BOUSH STREET	No Findings		
2/3/20	857 MONTICELLO AVE	No Findings		
3/2/20	2628 TIDEWATER DR	No Findings		
3/2/20	2655 Tidewater Drive	No Findings		
3/2/20	2801 LAFAYETTE BOULVARD	No Findings		
3/2/20	3106 PERONNE AVE	No Findings		
3/2/20	3212 TIDEWATER DR	No Findings		
3/18/20	145 E LEICESTER AVE	No Findings		
3/18/20	167 E EVANS STREET	No Findings		
3/18/20	6101 N MILITARY HWY	No Findings		
3/18/20	6301 N MILITARY HWY	No Findings		
3/3/20	6949 SEWELLS POINT RD	No Findings		
3/3/20	7419 SEWELLS POINT RD	No Findings		
3/3/20	7425 SEWELLS POINT RD	No Findings		
6/1/20	3800 GRANBY STREET	No Findings		
6/1/20	3930 GRANBY STREET	No Findings		
6/1/20	4002 GRANBY STREET	No Findings		

City of Norfolk Storm Water MS4 and VDOT Infrastructure Coordination

The City of Norfolk is required to coordinate with the Virginia Department of Transportation (VDOT) regarding issues of MS4 physical-interconnectivity as described below:

(1) Annual Coordination Meeting – Norfolk shall meet annually with VDOT for purposes of overall coordination on priority issues for Norfolk’s MS4 program plan (including operations and maintenance elements) and TMDL action planning relevant to the interconnectivity of the MS4s.

The City of Norfolk will participate with VDOT in a regional web conference call meeting on 5/7/2020.

(2) Mapping – Norfolk shall inform VDOT of the status of its mapping program, identifying any uncertainty regarding ownership or actual location of MS4 components associated with the physically-interconnected MS4s, and working to resolve such uncertainty. Norfolk shall coordinate with VDOT to identify any areas within the municipal boundaries that drain to the VDOT MS4.

The City of Norfolk performs routine updates to the GIS infrastructure system. Norfolk GIS staff with coordinate with VDOT GIS staff outside of the annual coordination meeting to obtain an updated VDOT MS4 service area layer. Norfolk GIS will identify and confirm areas of connectivity based on the VDOT GIS layer.

(3) Chesapeake Bay TMDL Action Plans – Norfolk shall inform VDOT of the means, methods, and schedule by which Norfolk will implement the reductions required by the Chesapeake Bay TMDL Special Condition (Part I.D.1) when those means and methods may impact the physically-interconnected MS4s. The parties are encouraged to cooperate with one another where the siting or design of best management practices (BMPs) may be accelerated or otherwise improved by mutual cooperation.

Norfolk shall coordinate with VDOT to identify any areas within the permittee’s municipal boundaries that drain to the VDOT MS4 and are unaccounted for in the Chesapeake Bay TMDL Action Plan developed by VDOT or the permittee. The unaccounted areas shall be quantified (acres) in the Chesapeake Bay TMDL Action Plan submitted by Norfolk.

The City of Norfolk continues to implement the June 2018 Chesapeake TMDL action plan. The Norfolk Bay TMDL Action Plan addresses specific projects identified to account for required load reductions. At this time, there are not VDOT coordinated projects identified in the Action Plan. Additionally, Norfolk excluded VDOT as part of the City’s MS4 Service Area. VDOT may view the City’s Bay TMDL action plan provided on the City’s website at:
https://www.norfolk.gov/DocumentCenter/View/38025/Final-Report---Chesapeake-Bay-TMDL-Action-Plan---06_28_2018_FINAL?bidId=

The City of Norfolk designed the Norfolk International Terminal (NIT) shoreline project utilizing a National Fish and Wildlife Foundation grant. This project was designed by Norfolk to assist with addressing Bay TMDL requirements. However, Norfolk was unable to fund the construction of the shoreline project due to limited grant funding. Norfolk coordinated with the Port of Virginia and VDOT on the development of the NIT shoreline project. VDOT, Norfolk and the Port of Virginia is considering entering into an MOA where VDOT may be able to utilize a portion of the credits for TMDL compliance.

The City of Norfolk is also designing the Pleasant Point shoreline. This design is currently underway. The project extends up to the VDOT land (I-264 underpass). It is unlikely that this

project would be extended on to VDOT land. The VDOT portion of the shoreline appears to have been restored in the past 10-years and is a securely armored revetment. Hazen & Sawyer has requested a VDOT point of contact for project coordination. They will be reaching out to Jennifer Dail with VDOT on the project coordination.

There are no known lands identified as "unaccounted areas" between VDOT and Norfolk's MS4. Norfolk is in the process of reviewing and where necessary, updating the MS4 service area as required by the MS4 permit. Norfolk will coordinate with VDOT to obtain an up to date MS4 VDOT service area. Norfolk's updated service area is due to DEQ in December 2020. Once completed, Norfolk will provide VDOT a full set of the Norfolk updated service area.

(4) Other TMDL Action Plans – Norfolk shall inform VDOT of TMDL Action Plans and major milestones implemented for other (i.e., non-Chesapeake Bay) TMDLs when those plans may impact the physically-interconnected MS4s. The parties are encouraged to cooperate with one another where the siting or design of BMPs may be accelerated or improved by mutual cooperation.

The City of Norfolk currently has a TMDL for bacteria in the Elizabeth River. Norfolk's Elizabeth River Bacteria TMDL action plan is geared toward education, outreach, and program implementation with no structural BMPs identified. Norfolk is willing to partner with VDOT on any education, outreach and/or programs throughout the City. If VDOT currently has a bacteria TMDL, Norfolk encourages VDOT to participate in the Hampton Roads Planning District Commission HRStorm subcommittee to discuss education and outreach.

Norfolk's Elizabeth River TMDL Action Plan may be found on the City's website.
https://www.norfolk.gov/DocumentCenter/View/38026/Norfolk-ER-Bacteria-TMDL---Final-Action-Plan---06-28-2018_FINAL?bId=1

(5) Credit for TMDL Implementation – Permit specific BMP retrofit requirements shall not be doublecounted in the calculation of load reductions. If the permittee undertakes the project, the permittee shall be entitled to full credit for the project, but may share credit with VDOT on mutually agreeable terms, which shall be in writing.

The City of Norfolk and VDOT coordinated the design and implementation of the BMP associated with the Continuous Flow Interchange (CFI) at Military Highway and Northampton Blvd/Princess Anne Road. The City of Norfolk and VDOT came to an agreement that Norfolk would take ownership of and long-term maintenance of the BMP, and therefore would receive the credit towards TMDL compliance.

The City of Norfolk designed the Norfolk International Terminal (NIT) shoreline project utilizing a National Fish and Wildlife Foundation grant. This project was designed by Norfolk to assist with addressing Bay TMDL requirements. However, Norfolk was unable to fund the construction of the shoreline project due to limited grant funding. Norfolk coordinated with the Port of Virginia and VDOT on the development of the NIT shoreline project. VDOT, Norfolk and the Port of Virginia are considering entering into an MOA where VDOT may be able to utilize a portion of the credits for TMDL compliance credits.

(6) Illicit Discharge Detection & Elimination – Norfolk shall continue to be responsible for implementing a program for illicit discharge detection and elimination, including dry weather field screening, for the permittee's portion of the physically-interconnected MS4. As part of the annual coordination meeting, described in item (1) above, Norfolk shall coordinate with VDOT on the identification of high risk industrial facilities. Norfolk shall establish procedures for notifying VDOT when an illicit discharge is identified in the VDOT MS4.

The City of Norfolk maintains a list of high risk industrial facilities as required by the MS4 permit. Norfolk will provide a GIS layer of the industrial high risk facilities to VDOT as part of our GIS coordination efforts.

The City of Norfolk currently functions under an SOP that outlines the requirements of the IDDE program. This SOP is reviewed annually by Norfolk staff and includes procedures for VDOT staff notification during IDDE in areas where interconnectivity may occur.

(7) Water Quality Monitoring – Norfolk shall conduct water quality monitoring as required by Part I.B.2.l) and Part I.C of this state permit. The permittee shall make available to VDOT all monitoring data collected from areas where the physically-interconnected MS4 discharges to the VDOT MS4 or received flow from the VDOT MS4. Norfolk and VDOT are encouraged to cooperate with one another to establish a joint monitoring network.

The City of Norfolk has three (3) different monitoring requirements to fulfill for the MS4 permit.

1. Dry Weather Monitoring is performed on 50 sites throughout the city annually. Additionally, the City has implemented a preventative maintenance inspection program. During this PM inspection program, if any dry weather flow is identified in addition to the 50-sites, the discharge is addressed. If the discharge has been identified to impact the VDOT MS4 service area, VDOT will be notified under the IDDE SOP. Data associated with this monitoring is documented in the City's MS4 annual report and may be found at the City's website: <https://www.norfolk.gov/1689/Stormwater>
2. The City partners with the Hampton Roads Planning District Commission (HRPDC), Hampton Roads Sanitation District (HRSD) and USGS in the development of the Regional Wet Weather Monitoring study. HRPDC staff compile the findings from HRSD and USGS and compile a trend analysis report annually that may be found at the City's MS4 annual report found on the City's website: <https://www.norfolk.gov/1689/Stormwater>
3. The City also performs a Street Sweeping Monitoring program as part of the MS4 permit compliance. This program is designed to address sweeping efficiencies in the Coastal Plain that may be used for TMDL compliance. The City performs quarterly sampling as outlined in the sweeping monitoring program criteria and provides a trend analysis summary each year in the MS4 annual report. Norfolk will provide the final findings of the study to DEQ during the application process of the new MS4 permit. This data is also included in the City's annual report posted on the City's website: <https://www.norfolk.gov/1689/Stormwater>

(8) Annual Reports – As part of its Annual Report, Norfolk shall document coordination efforts with VDOT that occurred during the reporting year pursuant to requirements (1) through (7) above.

The City of Norfolk will provide meeting minutes pertaining to the coordination efforts with VDOT in the annual report.

2020 Annual MS4 Coordination Meeting Minutes

May 7, 2020

Norfolk provided program update to VDOT on 5/6/2020 via e-mail to cover many of the coordination topics due to webinar limitations. See email notes as well as meeting minutes below.

- Introductions
VDOT – Jennifer Dail, Alex Foraste, Chris Swanson, Jennifer Lightfoot, Andrew Scott, Scott Crafton, Tracey Harmon,
Norfolk – June Whitehurst, Justin Shafer
- Chesapeake Bay TMDL Special Condition requirement and any updates or Changes to SWIFT – Provided by cities. Coastal Resiliency efforts or projects which are undergoing or scheduled and any associated dual benefits with MS4 or other programs? –Provided by Cities
Norfolk completed a number of retrofit projects throughout the City. Will probably lose some of our anticipated credits based on DEQ new action plans guidance document. Norfolk anticipates meeting 40% of the load reductions through retrofits. Norfolk plans to utilize SWIFT to assist with addressing the last 60% of the load reduction that will be required.

Norfolk coordinates with the City's Resiliency group. We focus most of our coordination on flood reduction projects. During this coordination projects are identified where water quality credits may be obtained. Looking at VA Beach's new quantity requirements for Norfolk, but have not proceeded very far at this point.

VDOT must address 36% in their permit cycle; In the James River VDOT has current exceeded the P&N reductions, but may need some sediment credits. VDOT partnering with Norfolk on shoreline project at Norfolk International Terminal.

VDOT has not considered rain fall quantity study yet. VDOT coordinated with UVA to develop rainfall intensity study. Legislative change requires VDOT to study in the NDRC planning area. VDOT look at a number of studies to see if there are any changes that need to be made about their design manual.

VDOT requested to know more information about SWIFT credits - Each municipality in Hampton Roads utilizes different amount of credits depending on the need. Municipalities continue to implement water quality projects to decrease the SWIFT /HRSD credit needs. Credits from HRSD are actually annual waste water credits from HRSD under their existing permit reduction. SWIFT not actually in place yet. Once SWIFT is in place, the credits will be permanent.

VDOT following TMDL Draft Action Guidance Document. VDOT sent letter to DEQ about major changes. VAMSA also sent letter. Hampton Roads looking to send letter from HRPDC. VDOT

requested being copied on letters. Hampton Roads concerns are on septic, street sweeping and baseline.

- Points of Interconnectedness
 - Provided by Cities-Location and structure type/maps?
 - VDOT to provide-Location and structure type/maps?
 - Maintenance needs-Locations of interconnectedness where maintenance is needed to relieve drainage/flooding /nuisance issues-Provided by Cities and VDOT

VDOT came up with a survey 1,2,3 form to identify interconnectivity with municipalities. Share as an inter-location map. Able to place different indicators, data, pictures, etc. Good way to do special work and coordination. Able to have VDOT and municipal data in one system to ID interconnection. VDOT to figure out how they can share with each locality.

VDOT to send out 311 website information following the meeting for reporting maintenance concerns. Municipalities may continue to reach out to Jennifer Dail as well.

- Permit Cycle/Updates-Provided by Cities
City MS4 on permit year 4; reapplications with updated GIS data and draft Action Plans due to DEQ in December 2020. Permit expires June 2021.

VDOT - Permit expires June 2022

VDOT and Municipalities following Arlington permit. Requested that VDOT be copied on communications with DEQ about permit negotiations.

- IDDE Updates-Provided by Cities and VDOT
VDOT has on-line reporting system and the IDDE e-mail address that was sent out last year following the coordination meeting.

VDOT updated field guide and training video for staff. VDOT putting together a coordinated training effort to fulfill permit requirements. VDOT is happy to provide copy of the pdf training digital copy. Reach out to VDOT to obtain a copy of IDDE books.

- HRBT and coordination efforts-Provided by VDOT
HRBT is large project. Coordination or concerns go through VDOT Central Office. VDOT POC could be Chris or Alex for assistance. Jennifer Dail can provide contact information on project managers. HRBT – Paula Miller is the VDOT communications coordinator for the HRBT project.
- Substantial map updates?

VDOT BMPs and outfalls are up on VDOT open portal. Outfalls have not been currently updated. 2016 information is the latest. Starting to update them on different avenues through

construction and local assistance program. Good site to get any GIS VDOT data. Creating an external storage map for the MS4 program for public. VDOT to send out url for open portal.

- Other TMDL Action Plans-Coordination efforts with adjacent MS4's-Provided by VDOT

Water quality monitoring covered by municipalities.

VDOT Hot Lane Project - HOV conversion from NN to VA Beach. Advertising in June - 2025

**REGIONAL WATER QUALITY MONITORING PROGRAM
ANNUAL REPORT**

FISCAL YEAR 2019-2020

**This effort was included in the HRPDC Work Program for FY 2019-2020, approved by the
Commission at its Executive Committee Meeting on May 16, 2019**

**Prepared by the staff of the
Hampton Roads Planning District Commission
in cooperation with the
Regional Stormwater Workgroup**

September 2020

REPORT DOCUMENTATION

TITLE

Regional Water Quality Monitoring Program
Annual Report

REPORT DATE

September 2020

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GRANT/SPONSORING AGENCY

LOCAL FUNDS

ABSTRACT

This document describes activities and findings related to the Regional Water Quality Monitoring Program. The program was developed to better inform scientific models in the Coastal Plain for the purposes of Chesapeake Bay Total Maximum Daily Load (TMDL) compliance. Six Phase I MS4 permittee holders in Hampton Roads participate in this program for permit compliance.

ACKNOWLEDGMENTS

The Hampton Roads Planning District Commission, in cooperation with the Regional Stormwater Workgroup, the US Geological Survey (USGS) and the Hampton Roads Sanitation District (HRSD) prepared this report. Figures found in this report courtesy of Aaron Porter, USGS.

Preparation of this report was included in the HRPDC Unified Planning Work Program for FY 2019-2020, approved by the Commission at its Executive Committee Meeting of May 16, 2019.

Funding was provided by the six local governments that are Phase I MS4 permittees, through the HRPDC Regional Stormwater Management Program.

Regional Water Quality Monitoring Program Annual Report

Introduction

In order to characterize nutrient and sediment concentrations related to urban stormwater, the six Phase I MS4 localities within Hampton Roads, in partnership with the U.S. Geological Survey (USGS) and the Hampton Roads Sanitation District (HRSD), created a regional stormwater monitoring network. This network is dual-purposed, simultaneously addressing local water quality issues and fulfilling MS4 permit requirements, while providing useful data to support Chesapeake Bay Program modeling efforts. This report was developed to fulfill the requirements stated in the Phase I localities' MS4 permits. The Chesapeake Bay Program's watershed model is responsible for estimating loads of total nitrogen (TN), total phosphorus (TP), and total suspended solids (TSS) throughout the Bay watershed. While monitoring began with the non-tidal network (NTN), primarily covering rural areas, there are no calibration stations within the Coastal Plain, nor stations that reflect urban centers, and therefore no verifiable loading rates of these constituents. USGS now has multiple sites to inform future versions of the Bay model, representing a range of percent impervious land cover (Fig. 1). In 2018, localities agreed to another five-year commitment of monitoring to obtain a long-term data series. By providing high frequency and high quality data through the USGS quality control and quality assurance framework, the Hampton Roads region will be well-represented with accurate estimates of loading rates for future phases of the model. Towards the latter part of FY20, the region was impacted by COVID-19, forcing many to work from home, however the monitoring program was not impacted and samples continued to be obtained and analyzed.

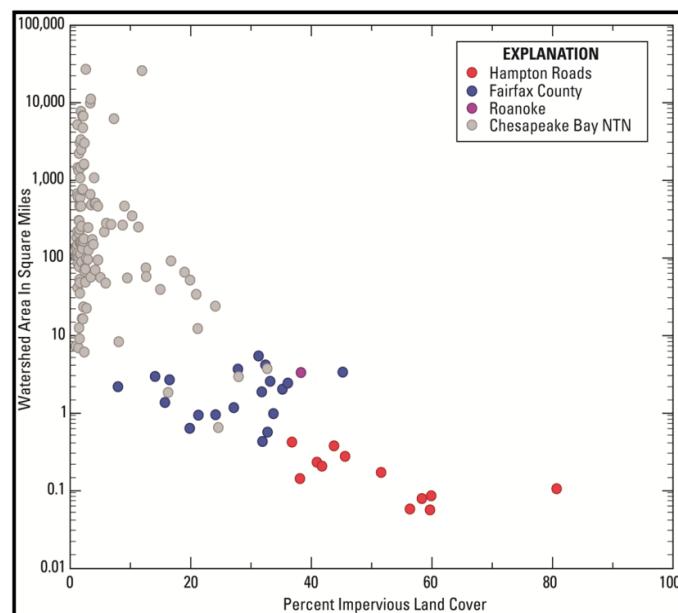


Figure 1. Representation of USGS monitoring stations within the Chesapeake Bay watershed, including the non-tidal network (NTN), based on percent impervious land cover.

Monitoring Network

The six Phase I MS4 localities (Chesapeake, Hampton, Newport News, Norfolk, Portsmouth, and Virginia Beach) participate in the Hampton Roads Regional Water Quality Monitoring Program (RWQMP). Each locality has two monitoring sites, draining land between 30 and 300 acres with no tidal water influence, representative of three types of urban land uses (high-density residential, single-family residential, and commercial/industrial), and ranging between 36% and 80% imperviousness (Fig. 2; Table 1). Site selection was also based on the goal of having very few, if any, best management practices (BMPs) upstream of the sampling area. By characterizing the range in loadings that are typical of a given land-use type that do not yet have BMPs implemented, variability can be assessed within land use types, and meaningful comparisons can be made between the three dominant land use types in the region. This should significantly enhance the understanding of how management activities can be directed efficiently in the future.

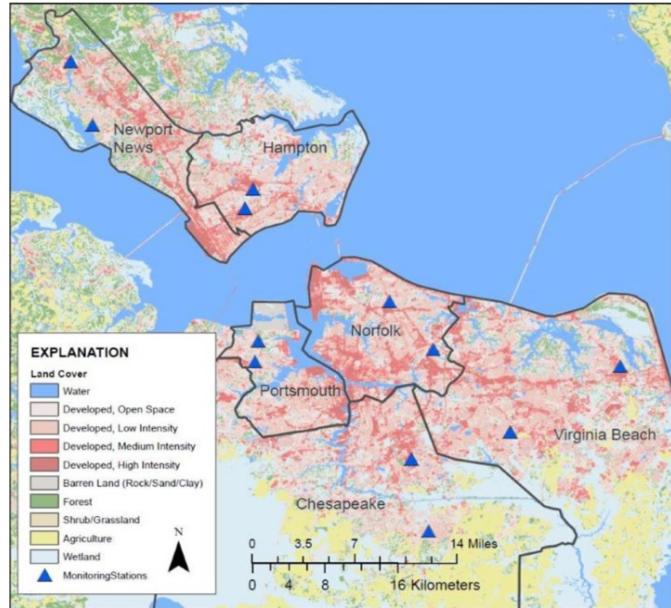


Figure 2. Locations of the 12 water quality monitoring stations, overlaid on land cover, in Hampton Roads, VA.

Table 1. Locality names, station names, and land use types for all localities participating in the monitoring program.

Locality	Station Name	Land Use Type
Chesapeake	Professional Place	Commercial
Chesapeake	Ramsgate Lane	Single-family Residential
Hampton	Coliseum Drive	Commercial
Hampton	Garrett Drive	Single-family Residential
Newport News	Lakewood Park Drive	Single-family Residential
Newport News	Rivers Ridge Circle	High Density Residential
Norfolk	Sheppard Avenue	Single-family Residential
Norfolk	USAA Drive	Commercial
Portsmouth	Craneybrook Lane	High Density Residential
Portsmouth	Daisy Drive	Single-family Residential
Virginia Beach	Lindsley Drive	High Density Residential
Virginia Beach	Ludlow Drive	Single-family Residential

Operation of the monitoring network is the joint responsibility of USGS and HRSD. Data collection is supervised by the USGS Virginia Water Science Center to ensure that data quality meets the requirements established by USGS. Discrete sample collection and analysis plus system maintenance are conducted by HRSD's Central Environmental Laboratory (CEL) while data analysis, interpretation, and reporting are conducted by USGS. All 12 stations collect real-time, high frequency data including flow (stage, velocity, and discharge), turbidity, specific conductance, and water temperature. Discrete samples for nutrients and sediments are taken during storm events over a range of flows and for quarterly baseflow sampling. Nutrient concentrations consist of measurements of TN, total Kjeldahl nitrogen (TKN), organic nitrogen, nitrate + nitrite, ammonia + ammonium, TP, and orthophosphate. Sediments are measured as TSS.

Monitoring Protocols

Each station is equipped with a continuous flow meter, a water quality sonde for continuous water quality monitoring, a refrigerated automated sampler for the collection of stormwater water quality samples, an internal data logger for recording and storing all measured values, a satellite telemetry unit to transmit data hourly, a power system supporting all components (AC power with battery backup), and a ruggedized housing that protects all equipment (Fig. 3). Continuous flow is measured at 5 minute intervals and flow meters are connected to the data logger and satellite telemetry system to provide data in near real time. Instruments are operated in accordance to manufacturer guidance, and USGS guidance (see <http://water.usgs.gov/osw/pubs.html>). Continuous water quality monitors measure water temperature, specific conductance, and turbidity and are operated in accordance to standard protocol (Wagner et al. 2006).

Discrete sampling for nutrients and sediment are triggered by the datalogger when stormflow conditions exist (as indicated by flow and water quality conditions). Samples are retained in the refrigerated sampler ($\leq 6^{\circ}\text{C}$) until retrieved by HRSD field staff. Samples are retrieved within 24 hours of collection, transported in coolers ($\leq 6^{\circ}\text{C}$), and delivered to the laboratory for preservation and analysis. The analytes measured have defined laboratory methods within 40 CFR Part 136 and TN is calculated as the sum of TKN and nitrate + nitrite. Detailed standard operating procedures for nutrient and sediment analysis are maintained at HRSD's CEL and are available upon request.

All data collected for this monitoring program, including continuous time series data and discrete sample data, is retained in the USGS National Water Information System (NWIS) and made publicly available online via NWISweb (<http://waterdata.usgs.gov/HRStormwater>). Continuous data from the flow meter and water quality monitors are transmitted via GOES



Figure 3. Ruggedized housing and components present at each stormwater monitoring station.

satellite hourly and uploaded directly into NWIS via automated processes. These data are made publicly available on NWISweb within minutes of the hourly transmission. Discrete sample data is entered into the Laboratory Information Management System (LIMS) at HRSD. These data are electronically transferred monthly to USGS for entry into NWIS, at which time they are publicly accessible via NWISweb.

Results

Monitoring station installation began in April 2015 with all stations online and collecting data by December 2016. Between July 1, 2019 and June 30, 2020, across 28 storm events, over 480 event-triggered samples were collected for nutrients (Fig. 4). The intent of the program is to quantify loads during non-storm and storm events, to compare baseline loads to high intensity or prolonged rainfall events. During the FY 20 sampling season, two major rain events were captured. Of note, during Hurricane Dorian (9/8/19), key flow measurements were made and 39 samples were collected. During an intense April storm (4/30/20), 31 samples were collected. Monthly samples are collected at each station on a fixed schedule regardless of hydrologic condition to capture storm versus baseflow characteristics. These samples can be used to characterize spatial and temporal patterns, load contributions from discharging groundwater, and trends in concentration.

In past years, we observed that the greatest amount of stormflow is associated with stations that have the greatest amount of impervious surface within the watershed. Commercial sites had the greatest amount of impervious surface compared to other land use types with turf grass and tree cover. As watershed imperviousness increases, the proportion of flow from storm runoff increases, and the proportion of flow from groundwater decreases. Impervious cover also increases the speed and volume of runoff and limits groundwater recharge. In the Hampton

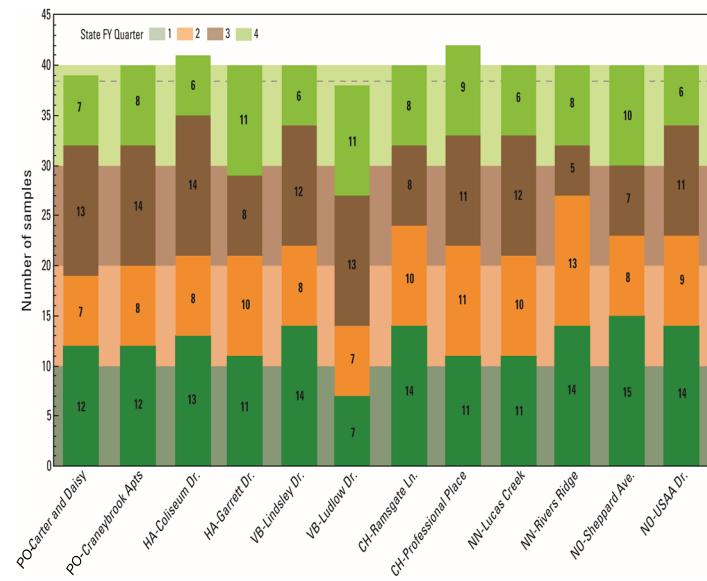


Figure 4. Total sampling events per quarter for each station between July 1, 2019 and June 30, 2020.

Roads network, groundwater accounts for 5-55% of total flow. In past years, we reported that even though commercial sites generated more stormflow per acre, TN concentrations were greater in the single-family and high-density residential land use compared to commercial land use and that normalized annual TN yields (lbs/acre) were slightly higher on commercial landscapes but not significantly different between land use types on average. These trends haven't changed and this year's analysis focuses more on nutrient composition and comparisons with other monitoring networks. The monitoring networks compared comprised of the Chesapeake Bay's non-tidal network (NTN), a network in Atlanta and in Fairfax County, all run by USGS. Comparisons are inclusive of baseflow and stormflow across the years in which they were sampled. For the Hampton Roads network, this data is inclusive of all sampling since 2016.

TN yields in Hampton Roads are comparable across the monitoring networks, with no significant differences observed among the median concentrations (Fig. 5A). Hampton Roads TN samples are composed primarily of organic N while inorganic N (in the form of nitrate) dominates in Fairfax County's monitoring network (Fig. 5B).

This may be related to streamflow characteristics as slow-moving waters, as in the Hampton Roads network, increase residence time of allochthonous inputs, and/or there is an absence of organisms that process colored particulate organic matter (CPOM). Nitrate yields in Hampton Roads are comparable to Atlanta and significantly lower than Fairfax

County and the NTN (Fig. 5B).

This may be due to a lack of septic infrastructure. As has been seen in studies in Atlanta, nitrate concentrations can be high in areas that have high geographic densities of septic systems (Hoghoogi et al, 2016). The Hampton

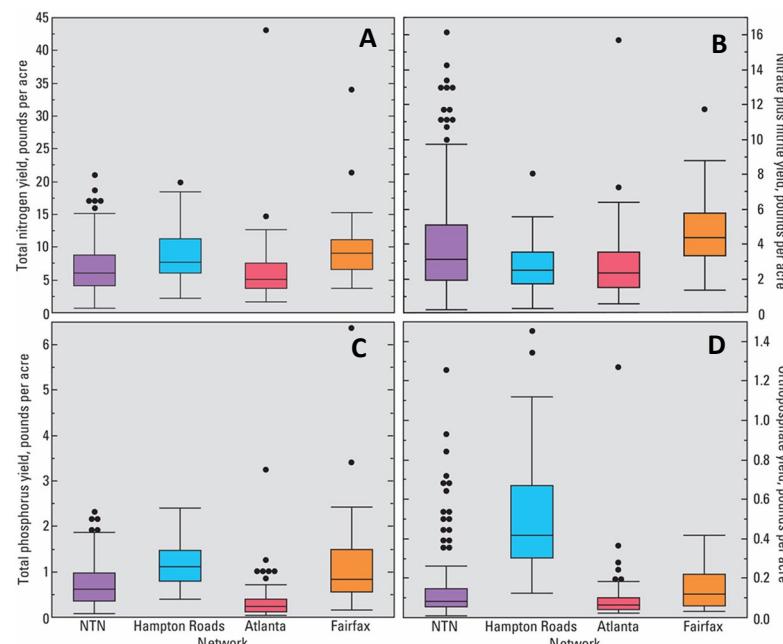


Figure 5. Total nitrogen (A), nitrate, total phosphorus, and orthophosphate yields (lbs/acre) across various monitoring networks.

Roads network does not have many, if any, septic systems within the drainage areas of these urban monitoring systems.

Total phosphorus yields in Hampton Roads are higher than the NTN and ATL and comparable to Fairfax County (Fig. 5C). Orthophosphate yields in Hampton Roads are significantly higher than other networks (Fig. 5D). A larger proportion of TP yields in Hampton Roads are composed of PO_4^{3-} compared to Fairfax County (which is comprised primarily of particulate P). This could be a function of source types, the Hampton Roads region is mostly sandy soils which have a low sorptive capacity. Additionally, sediment yields in Hampton Roads are significantly lower than all other networks (Fig. 6). Coastal Plain watersheds have a more limited source of sediment and the topography does not generate the energy required to mobilize as much sediment as compared to the Piedmont.

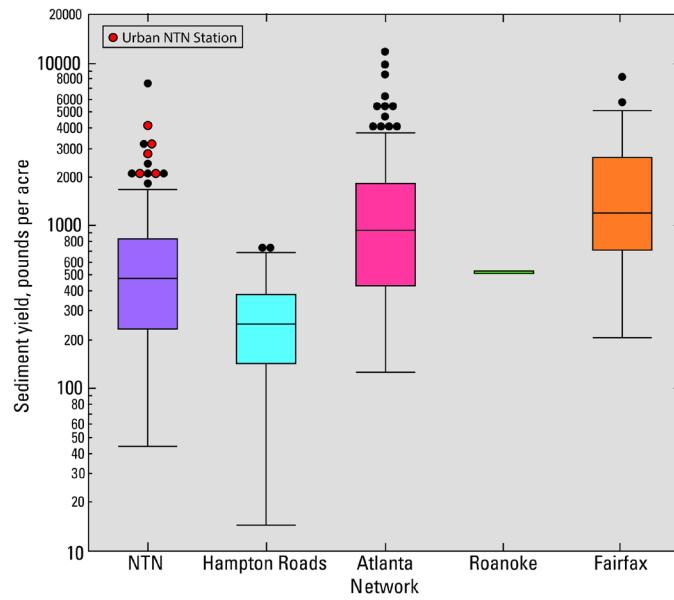


Figure 6. Sediment yield (lbs/acre) across various tidal monitoring networks.

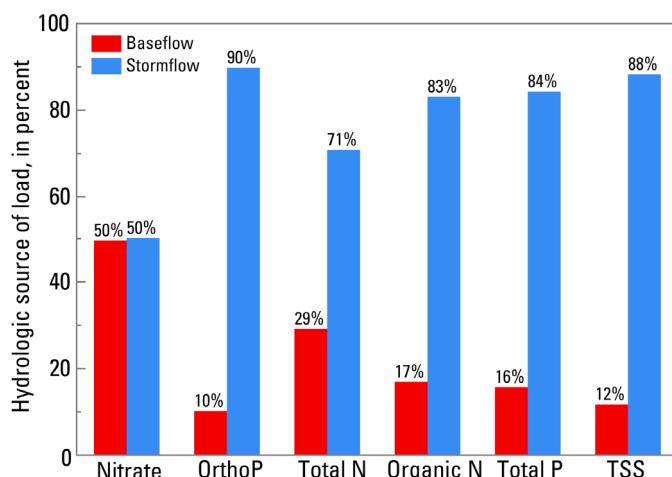


Figure 7. Proportion of constituent loads based on hydrologic source, baseflow or stormflow for the Hampton Roads monitoring network.

runoff with sources from atmospheric deposition, pet waste, leaf litter, lawn clippings, and excess fertilizer. Orthophosphate loadings occur during periods of runoff as orthophosphate is washed off the land surface (Fig. 7). TP is transported by overland flows rather than groundwater sources and approximately 2/3 of loads are from particulate bound P (not shown in figure). The vast majority of suspended solids (sediment and coarse particulates such as decomposing leaf litter) are mobilized by storm runoff, the proportion transported during low flows may be algae and/or fine particulate organic matter.

The monitoring network results were also looked at to determine how much precipitation generates loads. On average for this network, there are 250 “dry” (< 0.1 inches), 40 “wet” (0.25 – 1.0 inches), and 8 “extreme” (>1.5 inches) days per year. The percent of annual loads for TN doesn’t vary as a function of dry, wet, or extreme precipitation events (Fig. 8A) but more inorganic nitrogen is generated during dry times (Fig. 8B). This makes sense as inorganic nitrogen is a large component of the baseflow, which is primarily groundwater. However, organic nitrogen is generated during wet and extreme events (Fig 8C), suggesting BMP measures can be put in place to mitigate the transport of organic nitrogen to receiving waters if necessary. It is yet to be determined, however, if this type of organic nitrogen is bioavailable to organisms in the surface waters in the lower portion of the Bay. Typically, the lower portion of the Bay is limited by nitrogen and inorganic nitrogen is the preferred source of nitrogen for algal growth (Fisher et al., 1992). There is research on-going linking certain harmful algae growth to

Comparisons were made to look at the composition of nitrogen in baseflow (dry weather conditions) versus stormflow (wet weather conditions). The nitrate load is equally generated during baseflow and stormflow while TN, primarily comprised of organic nitrogen, is transported more during stormflow (Fig. 7). Organic N and other forms of particulate bound N is generally thought to be mobilized by overland

mixotrophy, or the ability of algae to prefer organic and inorganic nitrogen as their nutrient source (Hofmann et al., submitted, Mulholland et al. 2009). For TP (Fig. 8D), orthophosphate (Fig. 8E), and TSS (Fig. 8F), the majority of the loads are mobilized during wet and extreme events. BMPs that can capture these events would be ideal as they are capturing all of the relevant constituents necessary to limit eutrophication in the lower part of the Bay. Many urban BMPs are designed to mitigate nutrients and sediment conveyed during periods of moderate rainfall, suggesting further research needs to be done to adapt BMPs for higher rainfall events or allow for the capture of larger stormwater events in the urban landscape.

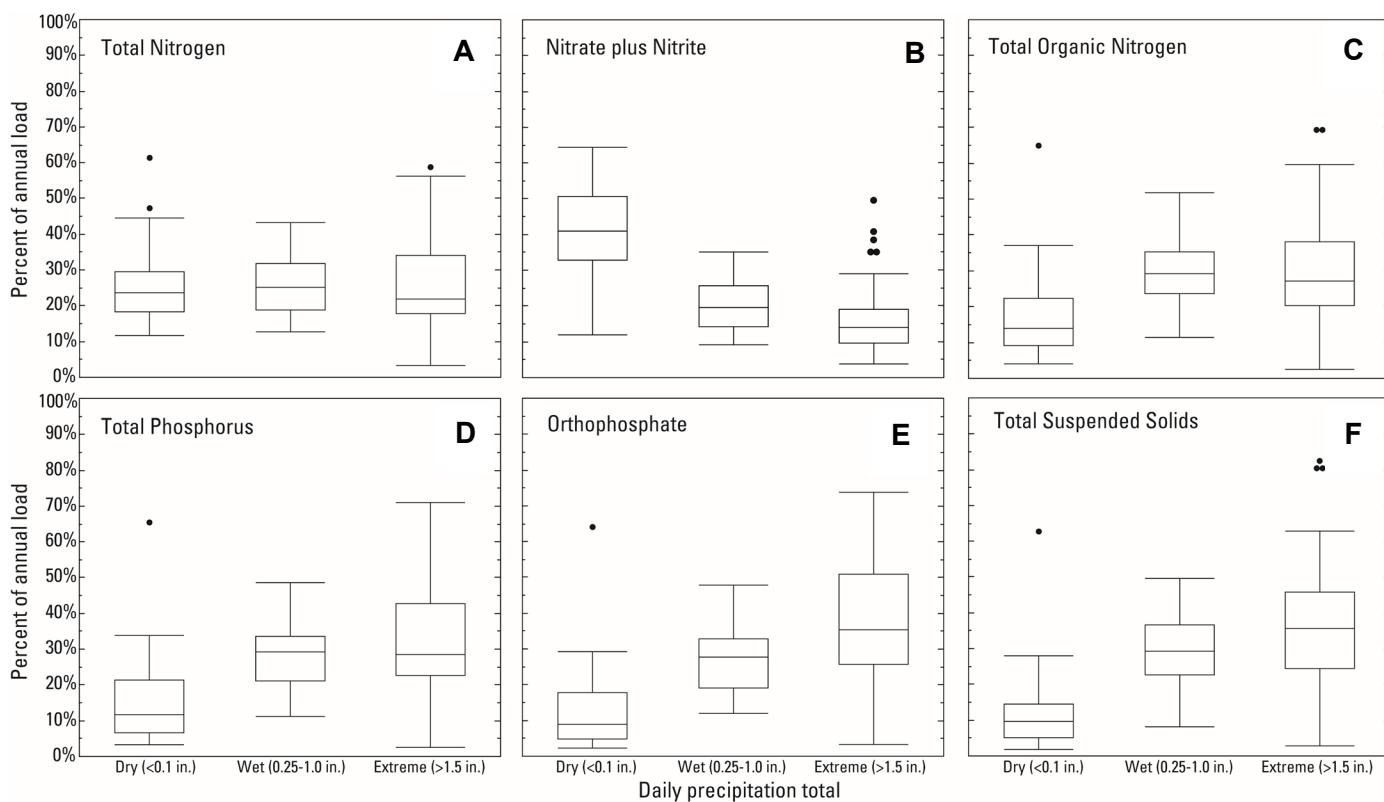
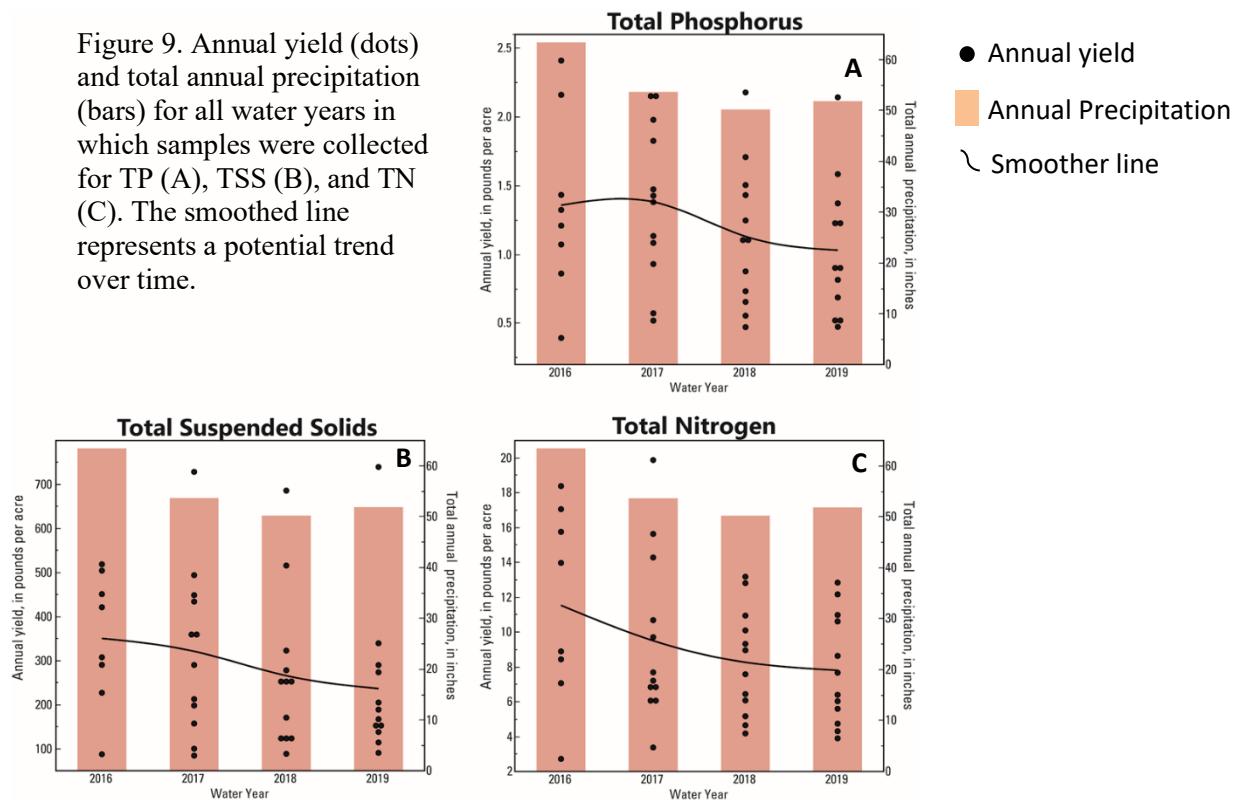


Figure 8. Percent of annual load as a function of dry (<0.1 in.), wet (0.25 – 1.0 in.), and extreme (>0.5 in) precipitation conditions for TN (A), nitrate plus nitrite (B), total organic N (C), TP (D), orthophosphate (E), and TSS (F).

While it is too soon to evaluate trends over time, patterns are emerging relating total constituent yields to precipitation. As expected, wetter years result in higher yields for TP, TSS, and TN (Fig. 9). Precipitation patterns decreased over the course of the monitoring program, and the smoothed line fit of the annual yields appeared to decrease as well. However, the data is still extremely variable and assessing trends over only 4 years is not typical.

Figure 9. Annual yield (dots) and total annual precipitation (bars) for all water years in which samples were collected for TP (A), TSS (B), and TN (C). The smoothed line represents a potential trend over time.



Discussion

The Regional Water Quality Monitoring Program has almost five years of data collected and each year of analysis confirms findings from the previous year while also prompting new questions and allowing for better comparisons with other urban networks. Annual discharges as well as nutrient concentration variability among land use types is still evident. As shown in the past, generally, constituent concentrations are greatest at sites with single-family and high-density residential sites compared to commercial sites, in contrast, annual yields normalized to drainage size tend to be higher at commercial sites. This variability is likely a function of percent imperviousness and may be due to runoff volume rather than the concentration of inputs. It is likely that high inorganic N found at residential sites is simply getting diluted during stormflow events.

As more data accumulates, we can continue to compare yields from runoff volume to baseflow, or groundwater. This monitoring program is unique in that it captures dry weather baseflow that is primarily groundwater comprised of inorganic N. Other monitoring programs run by USGS capture the baseflow of natural streams. Runoff or stormflow in the Hampton

Roads network is mostly comprised of organic N and storms can account for nearly 50% of the total annual flow in the monitoring system. Organic N also makes up the bulk of the TN pool and is transported more during wet and extreme events. Therefore, it may be valuable to understand the bioavailability of the organic N fraction in the receiving waters of the stormwater system. Different types of organic N, whether naturally formed, from runoff, or as a byproduct of wastewater treatment, can be bioavailable in estuarine communities, but it depends heavily on the type and composition of organic N (Seitzinger et al. 2002, Filippino et al. 2011). Organic N in this system could be from algae formed inside the pipe, resuspension of material as it travels through the system, or from outside sources washed from lawns and impervious surfaces. These types of bioassays are costly and a consistent laboratory method has yet to be developed, however project partners are looking for ways to explore finding funding for this research.

Once bioavailability is determined, managing for organic N on commercial sites for stormflow versus inorganic N on residential sites could be a valuable strategy. For management purposes, approved BMPs do not have load reduction estimates for specific forms of nitrogen, they only account for bulk nutrient removal. However, some practices could be better at removing organic N versus inorganic N. For example, any BMP that is associated with settling of particles could remove more organic N and any BMP that performs denitrification (converting nitrate to nitrogen gas) would remove more nitrate. Many BMPs could fall into these categories however (living shorelines, floating treatment wetlands, oyster reefs, etc.), and more research is needed to determine efficiencies associated with nitrate or organic N removal and how to maximize those reductions. Evaluating BMPs that are able to reduce nitrogen during more extreme events and considering alternatives, like water storage, is a future research need that could be addressed within the Chesapeake Bay Program partnership.

Like TN, TP loads are generated at higher yields from commercial sites and are also being transported more during storm events as opposed to the baseflow. Also like TN, with less imperviousness there is less particulate and dissolved organic P. Inorganic P can come from a variety of sources, like fertilizer, mineralization of organic materials, and desorption from soil particles. Looking at bioavailability of TP constituents versus TN constituents would also help managers decide on strategies that may reduce TN versus TP. While BMP reduction efficiencies in Virginia are tied to TP, production of algae in receiving waters in the Coastal Plain are likely due to increased TN, as it is the limiting nutrient. Understanding better the sources of organic P,

whether or not it is tied to particles or dissolved, and its bioavailability in relation to TN would be helpful to understand for management purposes. Conversely, TSS did not vary from site to site. In comparison to other monitoring programs across the state conducted by the USGS, TSS concentrations are much lower in the Coastal Plain.

This monitoring program is allowing us to see a more holistic picture of baseflow and runoff for the region and the importance of TN versus TP across different land uses. It is also allowing for comparisons of other urban networks to provide better insights in the types of nutrients entering the Bay from the Coastal Plain. We are also starting to see trends in annual yields in relation to annual precipitation, while acknowledging the extremes that occur and produce the majority of the loads. Through continued monitoring and research, we can get closer to calculating runoff ratios based on impervious surfaces, investigate and apply management strategies that target the bioavailable nutrients, and inform decision-makers using the best available science for the region. It is the goal of this monitoring program to factor in storm variability, baseflow, and land use type over an extended period of time to establish demonstrable loading rates in the Coastal Plain. This will provide valuable data to a future version of the Chesapeake Bay watershed model and contribute to current calibrations of the Phase 6 model. Over the course of the next few years, localities will continue to collaborate with USGS and HRSD to collect data and evaluate loading rates over the long term.

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MEMORANDUM

Date: September 15, 2020

To: Norfolk Department of Public Works
Environmental Stormwater Management
2233 McKann Avenue
Norfolk, VA 23509

From: Whitman, Requardt & Associates, LLP

Subject: Year 3 Street Sweeping Sample Data Summary

Work Order Number: 19515.006

Contract Number: 27566

Project: Norfolk WO.6 Street Sweeping
Sampling – Year 3 Data Analysis

BACKGROUND

The City of Norfolk is required by the terms of Municipal Separate Storm Sewer System (MS4) Permit No. VA0088650 issued by the Virginia Department of Environmental Quality (DEQ) to develop and implement a street sweeping monitoring program to evaluate pollutant reductions attributable to the sweeping program. Whitman, Requardt & Associates, LLP was retained by the City of Norfolk to compile and summarize the data collected during the multi-year sampling program for inclusion in the City's Annual Report to the Virginia DEQ. WRA has compiled and summarized the data collected and reported for the entire sampling period ending with samples collected in Q2 2020.

A summary of the sampling program and findings keyed to previously developed monitoring program objectives is summarized on the following pages.

PERMIT REQUIREMENTS

This Memorandum summarizes the results of a multi-year effort to collect and analyze street sweeping sampling data in fulfillment of the requirements of Part I.C.2, Street Sweeping Program Monitoring, of VSMP MS4 Permit No. VA0088650 having an effective date of July 1, 2016. Specific permit requirements include collecting and analyzing street sweeping material for total nitrogen (TN) and total phosphorus (TP) concentrations from at least three (3) sites within the City of Norfolk to determine the efficiency of both mechanical broom sweepers and regenerative air vacuum sweepers. Monitoring is required to be performed a minimum of once per quarter between January 1 and December 31.

MONITORING PROGRAM OBJECTIVES

The objectives of the street sweeping monitoring program were formalized in a monitoring plan guiding the work. The selected objectives, consistent with the terms of the MS4 permit, include:

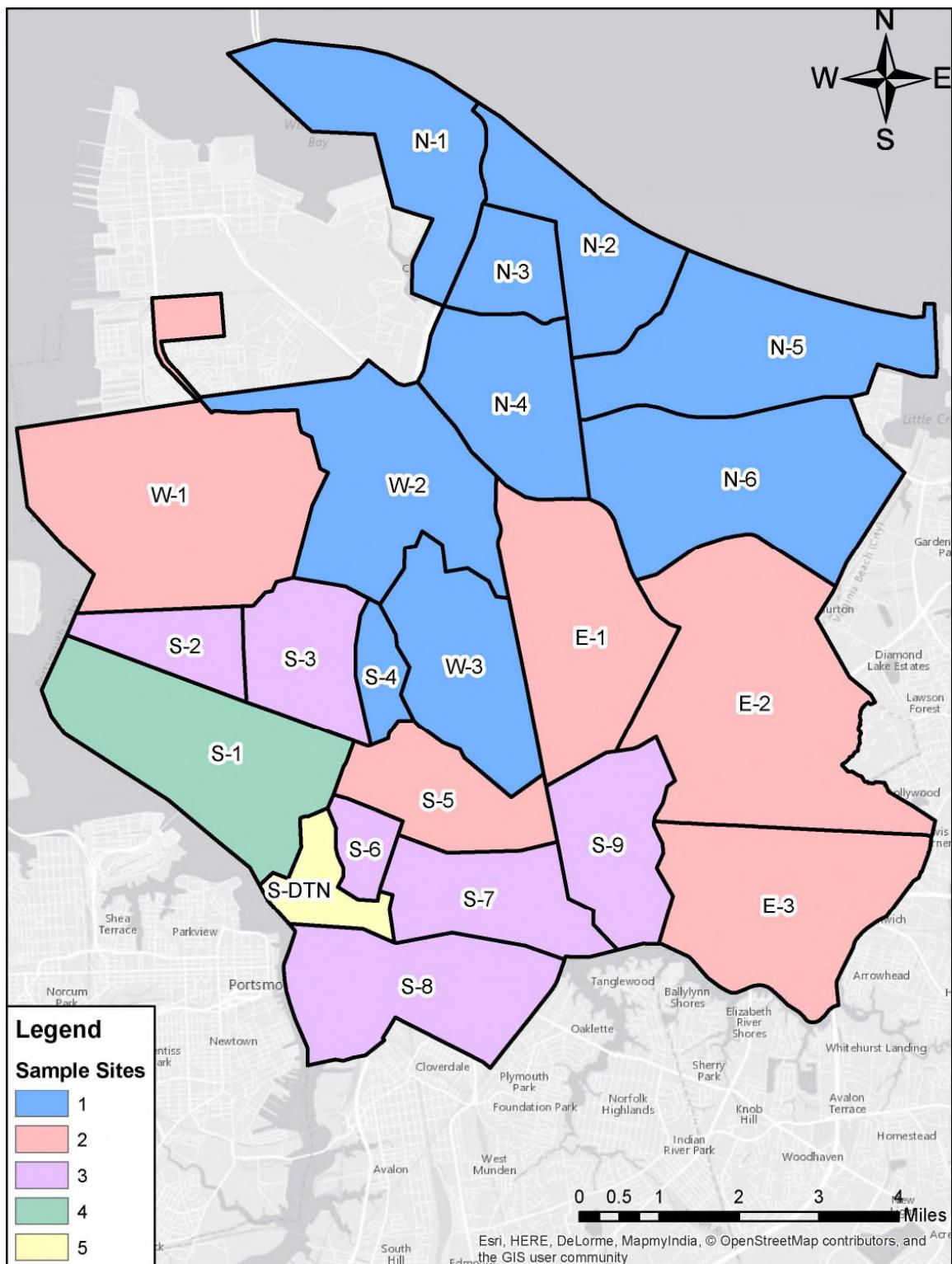
- Objective 1: Collect data from both regenerative air vacuum sweepers and mechanical broom sweepers to permit comparisons between sweepers and against previous expert panel findings;
- Objective 2: Collect data to enable assessment of the efficiency of operational practices such as performing a single pass with a mechanical broom sweeper followed by a second pass of either a mechanical broom sweeper or a regenerative air vacuum sweeper; and,

- Objective 3: Collect data to assess material on the street prior to sweeping and material remaining on the street following sweeping operations.

MONITORING SITE SELECTION

The definition of a site as applied to the street sweeping monitoring program was not defined within VSMP MS4 Permit No. VA0088650. For the purpose of the street sweeping monitoring program, a “site” was deemed to be a geographical area sharing common characteristics of land use and impervious cover. The primary advantages of treating an area as a site include: (1) the fusion of the sampling results tends to smooth out any irregularities associated with sampling small areas; (2) the practicality of obtaining a sample from a “site” is less impacted by poor weather or on-street parking on any given day; and (3) the results are more broadly applicable to a larger area with a commensurate reduction in data tracking for permit compliance.

Figure 1 illustrates the five (5) selected sampling sites along with the street sweeping zones comprising each site.

Figure 1. Street Sweeping Zones and Monitoring Sites

MONITORING OBJECTIVE 1 RESULTS:

Objective 1 of the monitoring program was to collect data from both regenerative air vacuum sweepers and mechanical broom sweepers to permit comparisons between sweepers and against previous expert panel findings. To meet this objective, both regenerative air vacuum sweepers and mechanical broom sweepers were used on the same day within the applicable sweeping zone. Multiple grab samples of sweeper waste from both pieces of equipment were appropriately composited and sent for laboratory analysis. Samples were analyzed for TP, TKN, and Nitrate. Samples were sieved prior to analyses and all analyses were performed on each sieved fraction.

This objective was met through eight (8) separate sampling events as described in the monitoring plan. To meet this objective, sweeper waste samples were collected from both broom and vacuum sweepers as follows:

- Site 1 (Q4 – 2017, Sweeping Zone N-2);
- Site 1 (Q2 – 2018, Sweeping Zone N-5);
- Site 2 (Q1 – 2018, Sweeping Zone E-3);
- Site 2 (Q3 – 2019, Sweeping Zone S-5);
- Site 3 (Q3 – 2018, Sweeping Zone S-9);
- Site 3 (Q4 – 2018, Sweeping Zones S-2/S-3);
- Site 4 (Q2 – 2019, Sweeping Zone S-1); and,
- Site 4 (Q1 – 2020, Sweeping Zone S-1).

A summary of the data associated with monitoring objective 1 is provided in **Table 1**.

Sample data were compared using paired t-tests to investigate potential differences in the population means of the broom and vacuum sweeper waste samples. Tests were performed on grain size fractions and on both TN and TP concentrations for each grain size fraction. There was insufficient analytical TP and TN data to permit analysis of similarities/differences between sweeper types for the fine-grained fraction. A significance level of $p=0.05$ was used for all analyses under the null hypothesis that the sample means are drawn from the same population.

A summary of the test results is provided in **Table 2**.

In analyzing the results of t-tests, the calculated P-value is compared to the significance level ($p=0.05$). If the P-value exceeds the significance level, we accept the null hypothesis, i.e., there is no difference in the population means. Conversely, when the P-value is less than the significance level we reject the null hypothesis and conclude that there is a difference in the population means. Based on the information provided in **Table 2**, we can state the following with 95% confidence:

- there are no differences in the mean percentages of the fine-, medium-, and coarse-grained fractions of the vacuum and broom sweeper wastes;
- there is no difference in the mean TN concentrations in the medium- and coarse-grained fractions of the vacuum and broom sweeper wastes;
- there is no difference in the mean TP concentrations in the medium- and coarse-grained fractions of the vacuum and broom sweeper wastes;
- for the vacuum sweepers, there is no difference in the mean TN and TP concentrations in the medium- and coarse-grained soil fractions;
- for the broom sweepers, there is no difference in the mean TN concentrations in the medium- and coarse-grained soil fractions; and,

- for the broom sweepers, the TP concentration of the coarse-grained soil fraction is greater than that of the medium-grained soil fraction.

The mass of dirt collected per unit area was not measured during the sampling program. Therefore, it is unknown if the vacuum sweepers are more “efficient” than the broom sweepers or vice versa. However, based on the street dirt present on Norfolk streets, the above results suggest that the material collected by the broom sweepers possesses the same characteristic grain sizes and pollutants concentrations as the material collected from the vacuum sweepers.

Table 1. Monitoring Objective 1 – Data Summary

Year	Quarter	Site	Sweeping Zone	Vacuum SW Sample ID	Broom SW Sample ID	Fine		Medium		Coarse	
						Vacuum	Broom	Vacuum	Broom	Vacuum	Broom
2017	Q4	1	N-2	17-Q4-N2-V-SW	17-Q4-N2-B-SW	Sieve Fraction (%)	8.5	27.1	69.4	52.5	22.1
						TN (mg/kg)	4,200	3,670	3,190	1,850	1,100
						TP (mg/kg)	859	800	244	313	526
2018	Q1	2	E-3	18-Q1-E3-V-SW	18-Q1-E3-B-SW	Sieve Fraction (%)	13.6	2.1	29.0	24.0	57.4
						TN (mg/kg)			1,513	3,290	1,853
						TP (mg/kg)			200	300	700
2018	Q2	1	N-5	18-Q2-N5-V-SW	18-Q2-N5-B-SW	Sieve Fraction (%)	1.5	6.3	90.0	33.1	8.5
						TN (mg/kg)	118,165		3,377	2,495	2,820
						TP (mg/kg)	31,200		354	336	544
2018	Q3	3	S-9	18-Q3-S9-V-SW	18-Q3-S9-B-SW	Sieve Fraction (%)	0.4	4.8	82.5	67.5	17.1
						TN (mg/kg)			2,890	1,280	4,500
						TP (mg/kg)			359	234	361
2018	Q4	3	S-2/S-3	18-Q4-S23-V-SW	18-Q4-S23-B-SW	Sieve Fraction (%)	1.1	5.4	68.8	69.9	30.1
						TN (mg/kg)			5,921	1,710	6,820
						TP (mg/kg)			481	380	457
2019	Q2	4	S-1	19-Q2-S1-V-SW	19-Q2-S1-B-SW	Sieve Fraction (%)	1.5	2.2	46.4	65.8	52.1
						TN (mg/kg)			4,795	8,451	16,500
						TP (mg/kg)			487	613	4,912
2019	Q3	2	S-5	19-Q3-S5-V-SW	19-Q3-S5-B-SW	Sieve Fraction (%)	1.7	1.8	78.5	68.4	19.8
						TN (mg/kg)			2,880	396	5,170
						TP (mg/kg)			1,210	74	2,200
2020	Q1	4	S-1	20-Q1-S1-V-SW	20-Q1-S1-B-SW	Sieve Fraction (%)	0.7	4.5	83.6	11.8	15.7
						TN (mg/kg)			4,220	3,180	7,300
						TP (mg/kg)			660	509	13,400

Table 2. Monitoring Objective 1 - Statistical Test Results

Parameter	Grain Size Fraction	Mean Values		P Value
		Vacuum	Broom	
Sieve (%)	Fine	3.6	6.8	0.315
	Medium	68.5	49.1	0.112
	Coarse	27.8	44.1	0.165
TN (mg/kg)	Fine			
	Medium	3,288	2,863	0.627
	Coarse	5,758	4,534	0.558
	Medium	Vacuum	3,288	0.147
	Coarse	Vacuum	5,758	
	Medium	Broom	2,863	0.272
TP (mg/kg)	Coarse	Broom	4,534	
	Fine		375	0.726
	Medium		589	0.623
	Coarse	Vacuum	357	0.272
	Medium	Vacuum	588	
	Coarse	Broom	375	<u>0.014</u>
			662	

MONITORING OBJECTIVE 2 RESULTS

Objective 2 of the monitoring program was to collect data to enable assessment of the efficiency of operational practices such as performing a single pass with a broom sweeper followed by a second pass by either a mechanical broom sweeper or a regenerative air vacuum sweeper. Practicality dictated that mechanical broom sweepers were used for the second pass of each sampling event as the equipment was already available and on site. This monitoring objective was met through four (4) separate sampling events, one each at:

- Site 1 (Q1 – 2019, Sweeping Zone W-2);
- Site 2 (Q3 – 2018, Sweeping Zone W-1);
- Site 3 (Q2 – 2020, Sweeping Zone S-6); and,
- Site 4 (Q4 – 2018, Sweeping Zone S-1).

To meet the monitoring objective, samples were collected from the sweepers performing only a single pass on selected streets and sweepers performing two passes on selected streets. Multiple grab samples from both pieces of equipment were composited and sent for laboratory analysis. Samples were analyzed for TP, TKN, and Nitrate. Samples were sieved prior to analyses and all analyses were performed on each sieved fraction.

A summary of the data associated with monitoring objective 2 is provided in **Table 3**.

Table 3. Monitoring Objective 2 – Data Summary

Year	Quarter	Site	Sweeping Zone	Pass 1 SW Sample ID	Pass 2 SW Sample ID	Fine		Medium		Coarse	
						Pass 1	Pass 2	Pass 1	Pass 2	Pass 1	Pass 2
2018	Q3	2	W-1	18-Q3-W1-B-SW-1P18-Q3-W1-B-SW-2P	Sieve Fraction (%)	11.8	8.9	74.8	82.4	13.4	8.7
					TN (mg/kg)			2,820	3,310	3,790	4,750
					TP (mg/kg)			236	378	429	416
2018	Q4	4	S-1	18-Q4-S1-B-SW-1P 18-Q4-S1-B-SW-2P	Sieve Fraction (%)	0.8	0.6	47.5	44.3	51.7	55.1
					TN (mg/kg)			3,844	1,692	5,900	8,817
					TP (mg/kg)			395	258	386	227
2019	Q1	1	W-2	19-Q1-W2-B-SW-1P19-Q1-W2-B-SW-2P	Sieve Fraction (%)	6.4	6.2	36.5	23.8	57.1	70.0
					TN (mg/kg)			1,910	2,630	1,710	2,810
					TP (mg/kg)			132	321	254	328
2020	Q2	3	S-6	20-Q2-S6-B-SW-1P 20-Q2-S6-B-SW-2P	Sieve Fraction (%)	8.4	1.4	26.3	39.3	65.3	59.3
					TP (mg/kg)			53	395	254	361
					TN (mg/kg)			443	1,210	855	1,530

Sample data were compared using t-tests to investigate potential differences in the population means of the broom sweeper waste samples collected after the first and second passes of the sweeper. Tests were performed on grain size fractions and on both TN and TP concentrations for each grain size fraction. There was insufficient analytical TP and TN data to permit analysis of similarities/differences for the fine-grained fraction. A significance level of $p=0.05$ was used for all analyses under the null hypothesis that the sample means are drawn from the same population.

A summary of the results is provided in **Table 4**.

As before, if the P-value exceeds the significance level ($p=0.05$), we accept the null hypothesis, i.e., there is no difference in the population means. Conversely, when the P-value is less than the significance level we reject the null hypothesis and conclude that there is a difference in the population means. Based on the information provided in **Table 4**, we can state the following with 95% confidence:

- there are no differences in the mean percentages of the fine-, medium-, and coarse-grained fractions of the broom sweeper wastes after one and two sweeper passes;
- there is no difference in the mean TN concentrations in the medium- and coarse-grained fractions of the broom sweeper waste after one and two sweeper passes; and,
- there is no difference in the mean TP concentrations in the medium- and coarse-grained fractions of the broom sweeper waste after one and two sweeper passes.

The above results suggest that while additional street dirt is being collected during the second pass of sweeping by the broom sweeper, the material possesses the same characteristic grain sizes and pollutants concentrations as the material collected following one pass of the sweeper.

Table 4. Monitoring Objective 2 - Statistical Test Results

Parameter	Grain Size Fraction	Mean Values		P Value
		Pass 1	Pass 2	
Sieve (%)	Fine	6.9	4.3	0.208
	Medium	46.3	47.4	0.850
	Coarse	46.8	48.3	0.769
TN (mg/kg)	Fine			
	Medium	2,254	2,210	0.954
	Coarse	3,064	4,476	0.069
TP (mg/kg)	Fine			
	Medium	204	388	0.272
	Coarse	331	333	0.972

MONITORING OBJECTIVE 3 RESULTS

Objective 3 of the monitoring plan was to collect data to assess material on the street prior to sweeping and material remaining on the street following sweeping operations. This objective was met through the same eight (8) sampling events listed in "Monitoring Objective 1 Results", above.

Both regenerative air vacuum sweepers and mechanical broom sweepers were used on the same day within the applicable sweeping zone. Street dirt samples were collected both before and after sweeping operations. Samples were collected using an industrial vacuum cleaner (Shop-Vac TM) capable of moving a minimum of 100 cubic feet per minute of air with a minimum of 90 inches of sealed suction pressure.

Street dirt samples were collected by vacuuming from the curb to the crown of the street until sufficient volume was obtained to fill a 2-gallon plastic freezer bag. Samples were subsequently sieved into fine-, medium-, and coarse-grained fractions.

Monitoring Objective 3 was met through the following eight (8) sampling events:

- Site 1 (Q4 – 2017, Sweeping Zone N-2);
- Site 1 (Q2 – 2018, Sweeping Zone N-5);
- Site 2 (Q1 – 2018, Sweeping Zone E-3);
- Site 2 (Q3 – 2019, Sweeping Zone S-5);
- Site 3 (Q3 – 2018, Sweeping Zone S-9);
- Site 3 (Q4 – 2018, Sweeping Zones S-2/S-3);
- Site 4 (Q2 – 2019, Sweeping Zone S-1);
- Site 4 (Q1 – 2020, Sweeping Zone S-1).

A summary of the data associated with changes in the distribution of grain sizes on the street, both before and after sweeping operations is provided in **Table 5**.

As with the other monitoring objectives, samples were compared using t-tests to investigate potential differences in the population means of the street dirt both prior to and following sweeping with both vacuum and broom sweepers. Tests were performed on each grain size fraction. A significance level of $p=0.05$ was used for all analyses under the null hypothesis that the sample means are drawn from the same population.

A summary of the results is provided in **Table 6**.

As before, if the P-value exceeds the significance level ($p=0.05$), we accept the null hypothesis, i.e., there is no difference in the population means. Conversely, when the P-value is less than the significance level we reject the null hypothesis and conclude that there is a difference in the population means. Based on the information provided in **Table 6**, we can state the following with 95% confidence:

- there are no differences in the mean percentages of the fine-, medium-, and coarse-grained fractions of the street dirt prior to and following sweeping operations by broom sweepers;
- there is no difference in the mean percentages of the fine-, medium-, and coarse-grained fractions of the street dirt prior to and following sweeping operations by vacuum sweepers; and,
- there are no differences in the mean percentages following sweeping operations of the broom and vacuum sweepers for the fine-, medium-, and coarse-grained fractions of the street dirt.

While it may be particular to the street dirt present in the city of Norfolk, the sampling and analysis program results suggest that there is no difference between the street dirt grain size composition remaining on the street following sweeping operations for either broom or vacuum sweepers. Further, it appears that both types of sweepers remove street dirt soil grain size fractions consistent with those present on the street prior to sweeping.

Table 5. Monitoring Objective 3 – Data Summary – Grain Size Distribution

Year	Quarter	Site No.	Sweeping Zone	Parameter	Fine			Medium			Coarse		
					Before	After - Vacuum	After - Broom	Before	After - Vacuum	After - Broom	Before	After - Vacuum	After - Broom
2017	Q4	1	N-2	Sieve (%)	9.8	15.4	86.1	71.6	4.1	13.0			
2017	Q4	1	N-2	Sieve (%)	23.3	26.9	55.2	48.3	21.5	24.8			
2018	Q1	2	E-3	Sieve (%)	15.0	20.3	81.3	79.5	3.7	0.2			
2018	Q1	2	E-3	Sieve (%)	15.3	32.2	73.3	67.1	11.4	0.7			
2018	Q2	1	N-5	Sieve (%)	12.0	4.5	80.0	87.5	8.0	8.0			
2018	Q2	1	N-5	Sieve (%)	13.6	0.0	84.7	88.1	1.7	11.9			
2018	Q3	3	S-9	Sieve (%)	7.3	9.3	87.3	87.2	5.4	3.5			
2018	Q3	3	S-9	Sieve (%)	4.9	0.3	90.4	94.5	4.7	5.2			
2018	Q4	3	S-2/S-3	Sieve (%)	22.2	4.2	73.9	91.7	3.9	4.1			
2018	Q4	3	S-2/S-3	Sieve (%)	21.7	16.8	73.6	74.6	4.7	8.6			
2019	Q2	4	S-1	Sieve (%)	6.0	6.6	87.5	84.5	6.5	8.9			
2019	Q2	4	S-1	Sieve (%)	11.5	7.0	82.7	88.2	5.8	4.8			
2019	Q3	2	S-5	Sieve (%)	5.0	7.7	74.7	90.1	20.3	2.2			
2019	Q3	2	S-5	Sieve (%)	3.7	10.8	92.8	80.1	3.5	9.1			
2020	Q1	4	S-1	Sieve (%)	5.6	8.3	38.8	90.0	55.6	1.7			
2020	Q1	4	S-1	Sieve (%)	6.2	5.7	81.2	50.1	12.6	44.2			

Table 6. Monitoring Objective 3 - Statistical Test Results – Grain Size Distribution

Grain Size Fraction	Mean Values			P Value
	Before Sweeping	Vacuum - After	Broom - After	
Fine	12.5	12.5		0.985
Medium	79.2	73.9		0.254
Coarse	8.2	13.7		0.249
Fine	10.4		9.5	0.780
Medium	76.2		85.3	0.241
Coarse	13.4		5.2	0.281
Fine		12.5	9.5	0.544
Medium		73.9	85.3	0.120
Coarse		13.7	5.2	0.147

ADDITIONAL FINDINGS:

Additional analysis of street dirt monitoring data was performed to determine if there are spacial or seasonal differences (trends) which can provide further insight to the street sweeping program. In particular, investigations into differences of grain size distributions and TN and TP concentrations with each grain size fraction were evaluated. These evaluations were performed across all sites and seasons.

A summary of the data associated with spacial and seasonal variations of street dirt grain sizes is provided in **Table 7**, while variations in TN and TP concentrations within each grain size fraction are provided in **Table 8** and **Table 9**, respectively.

Based on the information provided in **Table 7**, we can state the following with 95% confidence:

- across all sites and seasons, the mean value of the percentage of the medium-grained size of street dirt is greater than the mean values for both the fine and coarse-grained fractions; and,
- with one exception, across all sites and seasons, there is no difference in the mean value of the percentages of the fine- and coarse-grained sizes of street dirt. The exception being that the fine-grained fraction mean of 10.8% exceeds the coarse-grained fraction mean of 5.5% for Q2.

Based on the information provided in **Table 8**, we can state the following with 95% confidence:

- with one exception, across all sites and seasons, there is no difference in the mean value of the TN concentrations for the fine-, medium, and coarse-grained soil fractions. The exception being that for Site 2, the coarse-grained fraction TN mean concentration of 8,103 mg/kg exceeds both the fine- and medium-grained fraction means of 3,465 and 2645 mg/kg, respectively.

Based on the information provided in **Table 9**, we can state the following with 95% confidence:

- across all sites and seasons, there is no difference in the mean value of the TP concentrations for the fine- and coarse-grained soil fractions; and,
- in Q3 and Q4, and at Sites 2 and 3, the TP concentration in the fine-grained soil fraction exceeds the mean TP value in the medium-grained fraction.

A common premise is that fine-grained soils must be removed during street sweeping operations for effective pollutant removal. However, as demonstrated above the medium-grained soil fraction of Norfolk street dirt exceeds the fine-and-coarse-grained percentages across all sites and seasons – typically by a factor of 6 to 10.

It is noteworthy that TN concentrations in the street dirt fractions are nearly universally consistent across all sites and seasons. The ramifications of this are that TN removal is driven by the mass of dirt removed and not by any particular size fraction.

TP concentrations in fine-grained soils exceed TP concentrations in medium-grained soils above half of the time, but only by a factor of 2 to 3. There is no difference in TP concentrations between fine- and coarse-grained dirt. These results, coupled with the findings from Table 6, suggest that effective TP removal is not dominated by the removal of any particular size fraction but by consistent removal across all size fractions

Table 7. Street Dirt - Statistical Test Results – Grain Size Distribution

	Sieve Fraction (%)			
	Fine	Medium	Coarse	P value
Q1	10.5	68.6		<u>0.012</u>
	10.5		20.8	0.456
		68.6	20.8	<u>0.022</u>
Q2	10.8	83.7		<u>>>0.001</u>
	10.8		5.5	<u>0.048</u>
		83.7	5.5	<u>>>0.001</u>
Q3	5.2	86.3		<u>>>0.001</u>
	5.2		8.5	0.479
		86.3	8.5	<u>>>0.001</u>
Q4	19.2	72.2		<u>0.002</u>
	19.2		8.6	0.093
		72.2	8.6	<u>>>0.001</u>
Site 1	14.7	76.5		<u>0.001</u>
	14.7		8.8	0.322
		76.5	8.8	<u>>>0.001</u>
Site 2	9.8	80.5		<u>>>0.001</u>
	9.8		9.7	0.996
		80.5	9.7	<u>>>0.001</u>
Site 3	14.0	81.3		<u>>>0.001</u>
	14.0		4.7	0.136
		81.3	4.7	<u>>>0.001</u>
Site 4	7.3	72.6		<u>0.011</u>
	7.3		20.1	0.364
		72.6	20.1	<u>0.019</u>

Table 8. Street Dirt - Statistical Test Results – TN Concentrations

	TN (mg/kg)			
	Fine	Medium	Coarse	P value
Q1	4,920	3,225		0.055
	4,920		5,878	0.308
		3,225	5,878	0.055
Q2	4,733	6,288		0.534
	4,733		11,764	0.184
		6,288	11,764	0.268
Q3	2,911	2,425		0.579
	2,911		6,358	0.184
		2,425	6,358	0.134
Q4	5,072	4,144		0.688
	5,072		3,814	0.514
		4,144	3,814	0.844
Site 1	3,894	4,983		0.626
	3,894		13,044	0.202
		4,983	13,044	0.249
Site 2	3,465	2,645		0.462
	3,465		8,103	<u>0.018</u>
		2,645	8,103	<u>0.013</u>
Site 3	4,977	4,448		0.703
	4,977		3,198	0.208
		4,448	3,198	0.275
Site 4	4,834	4,215		0.846
	4,834		5,776	0.774
		4,215	5,776	0.573

Table 9. Street Dirt - Statistical Test Results – TP Concentrations

		TP (mg/kg)			
		Fine	Medium	Coarse	P value
Q1	850	404			0.163
	850		537		0.278
		404	537		0.143
Q2	890	728			0.698
	890		1,051		0.823
		728	1,051		0.643
Q3	854	428			<u>0.040</u>
	854		868		0.971
		428	868		0.288
Q4	926	349			<u>0.031</u>
	926		708		0.340
		349	708		0.119
Site 1	838	545			0.236
	838		1,145		0.638
		545	1,145		0.382
Site 2	822	310			<u>0.011</u>
	822		953		0.705
		310	953		0.124
Site 3	860	438			<u>0.048</u>
	860		530		0.226
		438	530		0.705
Site 4	1,050	666			0.502
	1,050		536		0.388
		666	536		0.620

Cumulative Progress Towards Compliance Targets Through June 2020

James River Basin

Description	Pollutant of Concern (POC)			
	(lb/yr)	TN	TP	TSS
<u>Required POC Reductions:</u>				
Baseline Requirement		540	144.6	68,195
Additional 15% Requirement		81	21.7	10,229
Total Reduction Requirement	621	166.3	78,424	
<u>Reduction Credits:</u>				
BMPs Installed on Unregulated Lands		313	53.6	41,804
BMPs Installed to Meet Redevelopment Requirements		827.81	208.25	116,656
BMPs Installed Prior to July 1, 2009		325	82	46,146
BMPs Retrofitting Prior Developed Lands		1,717	2658.7	604,319
POC Reductions by Street Sweeping		22,283	8,913	2,673,922
Total Reduction Credits	25,465	11,916	3,482,847	

Cumulative Progress Towards Compliance Targets Through June 2020

Little Creek Watershed & Chesapeake Bay Beaches

Description	Pollutant of Concern (POC)			
	(lb/yr)	TN	TP	TSS
<u>Required POC Reductions:</u>				
Baseline Requirement		129.8	29.4	11,345
Additional 15% Requirement		19.5	4.4	1,702
Total Reduction Requirement	149.3	33.8	13,047	
<u>Reduction Credits:</u>				
BMPs Installed on Unregulated Lands		184.8	24.1	7,991
BMPs Installed to Meet Redevelopment Requirements		202.37	67.713	12,235
BMPs Installed Prior to July 1, 2009		1,003	158	54,491
BMPs Retrofitting Prior Developed Lands		156.5	52.4	3,199
POC Reductions by Street Sweeping		4,892	1,957	586,958
Total Reduction Credits	6,439	2,259	664,874	

Control Measures Implemented During FY20 Reporting Period													
Site ID	SWMF ID	Site Title	Street Number	Street Name	Zip	HUC	Date Online	SWMF Type	Phosphorus Removed (lbs/yr)	Nitrogen Removed (lbs/yr)	Sediment Removed (lbs/yr)	Retrofit Type (if applicable)	
15-0025	15-0025.1	Coastal Villas by the Bay	7922	Shore Drive	23518	CB26	8/19/2019	Bioretention 2	1.32	9.62	254.46		
15-0025	15-0025.2	Coastal Villas by the Bay	7922	Shore Drive	23518	CB26	8/19/2019	Grass Channel	0.13	1.11	92.56		
15-0025	15-0025.3	Coastal Villas by the Bay	7922	Shore Drive	23518	CB26	8/19/2019	Grass Channel	0.13	1.11	75.73		
16-0047	16-0047.1	Central Business Park	910	Denison Ave	23513	JL56	11/14/2019	Wet Pond 2	9.83	38.84	1201.10	Retrofit of Existing BMP	
16-0055	16-0055.1	Roberts Road Pond Retrofit	1398	Roberts Rd	23504	JL56	11/14/2019	Wet Pond 2	21.22	62.81	1576.90	Retrofit of Existing BMP	
16-0099	16-0099.1	Villa Circle Living Shoreline	2618	Villa Circle	23504	JL56	5/1/2020	Other SWMF- Shoreline Management	67.43	225.47	107387.50	Shoreline Restoration	
16-0109	16-0109.1	4013 Colley Mixed Use	4013	Colley Avenue	23508	JL56	11/25/2019	Permeable Pavement 1	0.23	1.62	53.29		
16-0109	16-0109.2	4013 Colley Mixed Use	4013	Colley Avenue	23508	JL56	11/25/2019	Other SWMF- Credit Purchase	0.20	0.44	NA ¹		
17-0004	17-0004.1	Lake Taylor	1380	Kempsville Road	23502	JL54	6/19/2020	Wet Pond 2	477.50	1719.14	63464.85	Retrofit of Existing BMP	
17-0023	17-0023.1	North Shore Living Shoreline	7612	North Shore Road	23505	JL56	7/2/2019	Other SWMF- Shoreline Management	126.77	266.61	206077.81	Shoreline Restoration	
17-0028	17-0028.1	1st View St. - 3 SFR	9225	1st View Street	23503	JL57	12/10/2019	Rooftop (Impervious Surface) Disconnection	0.11	0.76	19.63		
17-0028	17-0028.2	1st View St. - 3 SFR	9225	1st View Street	23503	JL57	12/10/2019	Rooftop (Impervious Surface) Disconnection	0.11	0.76	19.63		
17-0028	17-0028.3	1st View St. - 3 SFR	9225	1st View Street	23503	JL57	12/10/2019	Rooftop (Impervious Surface) Disconnection	0.11	0.76	19.63		
17-0056	17-0056.1	Coastal Services	805	Ford Drive	23523	JL54	01/06/2020	Rooftop (Impervious Surface) Disconnection	0.18	1.25	53.29		
17-0063	17-0063.1	Hermitage Living Shoreline	7637	North Shore Road	23505	JL56	7/2/2019	Other SWMF- Shoreline Management	33.69	140.82	52910.12	Shoreline Restoration	
17-0068	17-0068.1	3SFR Columbia Avenue	1636	Columbia Avenue	23509	JL56	1/27/2020	Other SWMF- Credit Purchase	0.12	0.26	NA ¹		
17-0068	17-0068.2	3 SFR Columbia Avenue	1638	Columbia Avenue	23509	JL56	8/15/2019	Other SWMF- Quantity Only	NA ²	NA ²	NA ²		
18-0003	18-0003.1	North Shore Gardens Fitness Center	1400	Meads Road	23505	JL57	4/8/2019	Permeable Pavement 1	0.03	0.18	5.61		
18-0003	18-0003.2	North Shore Gardens Fitness Center	1400	Meads Road	23505	JL57	4/8/2019	Permeable Pavement 1	0.06	0.45	14.02		
18-0003	18-0003.3	North Shore Gardens Fitness Center	1400	Meads Road	23505	JL57	4/8/2019	Other SWMF- Credit Purchase	0.10	0.22	NA ¹		
18-0008	18-0008.1	Wawa at Newtown	701	N Newtown Road	23502	JL54	12/11/2019	Other SWMF- Quantity Only	NA ²	NA ²	NA ²		
18-0008	18-0008.2	Wawa at Newtown	701	N Newtown Road	23502	JL54	12/11/2019	Other SWMF- Oil-Water Serperator	NA ²	NA ²	NA ²		
18-0008	18-0008.3	Wawa at Newtown	701	N Newtown Road	23502	JL54	12/11/2019	Other SWMF- Credit Purchase	0.52	1.14	NA ¹		
18-0009	18-0009.1	1718 EOV Duplex	1718	E Ocean View Avenue	23503	CB26	10/10/2019	Bioretention 2	0.10	0.71	33.05		
18-0009	18-0009.2	1718 EOV Duplex	1718	E Ocean View Avenue	23503	CB26	10/10/2019	Other SWMF- Quantity Only	NA ²	NA ²	NA ²		
18-0009	18-0009.3	1718 EOV Duplex	1718	E Ocean View Avenue	23503	CB26	10/10/2019	Other SWMF- Credit Purchase	0.03	0.26	NA ¹		
18-0013	18-0013.1	Priority Ford	3340	N Military Highway	23518	CB26	6/1/2020	Manufactured BMP Systems	2.17	11.68	675.19		
18-0014	18-0014.1	941 Hillside Ave Subdivision	941	Hillside Avenue	23503	CB26	09/17/2019	Bioretention 2	0.13	0.98	46.27		
18-0014	18-0014.2	941 Hillside Ave Subdivision	941	Hillside Avenue	23503	CB26	09/17/2019	Bioretention 2	0.11	0.78	39.66		
18-0014	18-0014.3	941 Hillside Ave Subdivision	941	Hillside Avenue	23503	CB26	09/17/2019	Bioretention 2	0.09	0.66	39.66		
18-0014	18-0014.4	941 Hillside Ave Subdivision	941	Hillside Avenue	23503	CB26	09/17/2019	Bioretention 2	0.12	0.86	46.27		
18-0029	18-0029.1	1101 E Leicester Ave-3 lot SF subdivisivon	1101	E. Leicester Ave	23503	CB26	6/8/2020	Rooftop (Impervious Surface) Disconnection	0.03	0.20	14.02		
18-0029	18-0029.2	1101 E Leicester Ave-3 lot SF subdivisivon	1101	E. Leicester Ave	23503	CB26	6/8/2020	Rooftop (Impervious Surface) Disconnection	0.03	0.20	14.02		
18-0029	18-0029.3	1101 E Leicester Ave-3 lot SF subdivisivon	1101	E. Leicester Ave	23503	CB26	6/8/2020	Rooftop (Impervious Surface) Disconnection	0.03	0.20	14.02		
18-0029	18-0029.4	1101 E Leicester Ave-3 lot SF subdivisivon	1101	E. Leicester Ave	23503	CB26	6/8/2020	Rooftop (Impervious Surface) Disconnection	0.03	0.20	14.02		
18-0029	18-0029.5	1101 E Leicester Ave-3 lot SF subdivisivon	1101	E. Leicester Ave	23503	CB26	6/8/2020	Rooftop (Impervious Surface) Disconnection	0.03	0.20	14.02		
18-0029	18-0029.6	1101 E Leicester Ave-3 lot SF subdivisivon	1101	E. Leicester Ave	23503	CB26	6/8/2020	Rooftop (Impervious Surface) Disconnection	0.03	0.20	14.02		
18-0039	18-0039.1	VAMAC	5846	Curlew Drive	23502	JL54	12/11/2019	Dry Swale 2	0.37	2.57	96.94		
18-0076	18-0076.1	Sentara Norfolk parking expansion	600	Gresham Drive	23507	JL56	12/03/2019	Permeable Pavement 2	0.01	0.00	0.00		
18-0076	18-0076.2	Sentara Norfolk parking expansion	600	Gresham Drive	23507	JL56	12/03/2019	Permeable Pavement 2	0.03	0.00	0.00		
18-0076	18-0076.3	Sentara Norfolk parking expansion	600	Gresham Drive	23507	JL56	12/03/2019	Permeable Pavement 1	0.01	0.00	2.80		
18-0076	18-0076.4	Sentara Norfolk parking expansion	600	Gresham Drive	23507	JL56	12/03/2019	Permeable Pavement 1	0.03	0.00	5.61		
18-0076	18-0076.5	Sentara Norfolk parking expansion	600	Gresham Drive	23507	JL56	12/03/2019	Permeable Pavement 1	0.03	0.00	8.41		
18-0076	18-0076.6	Sentara Norfolk parking expansion	600	Gresham Drive	23507	JL56	12/03/2019	Other SWMF- Quantity Only	NA ²	NA ²	NA ²		
18-0076	18-0076.7	Sentara Norfolk parking expansion	600	Gresham Drive	23507	JL56	12/03/2019	Other SWMF- Quantity Only	NA ²	NA ²	NA ²		
18-0080	18-0080.1	5764 E Virginia Beach Blvd-Discount Tire	5764	E Virginia Beach Boulevard	23502	JL54	6/9/2020	Other SWMF- Quantity Only	NA ²	NA ²	NA ²		
18-0080	18-0080.2	5764 E Virginia Beach Blvd-Discount Tire	5764	E Virginia Beach Boulevard	23502	JL54	6/9/2020	Other SWMF- Quantity Only	NA ²	NA ²	NA ²		
18-0085	18-0085.1	Villa Marina Apartments	8142	Shore Drive	23518	CB26	6/1/2020	Permeable Pavement 1	0.72	5.18	159.87		
18-0085	18-0085.2	Villa Marina Apartments	8142	Shore Drive	23518	CB26	6/1/2020	Permeable Pavement 1	0.20	1.46	44.88		
18-0085	18-0085.3	Villa Marina Apartments	8142	Shore Drive	23518	CB26	6/1/2020	Manufactured BMP Systems	0.48	1.18	68.04		
18-0085	18-0085.4	Villa Marina Apartments	8142	Shore Drive	23518	CB26	6/1/2020	Other SWMF- Credit Purchase	1.89	4.16	NA ¹		
18-0092	18-0092.1	1050 N Military HWY-Aldi	1050	N Military Highway	23502	JL56	12/16/2019	Manufactured BMP Systems	0.41	4.98	287.87		
18-0101	18-0101.1	Ingleside Ditch Retrofit	925	Ingleside Road	23502	JL54	6/1/2020	Other SWMF- Submerged Gravel Wetland	0.46	2.58	181.97	New SWM Retrofit	
18-0104	18-0104.1	4535 E Princess Anne Road-Tidewater Tech parking expansion	4535	E Princess Anne Road	23502	JL54	10/15/2019	Manufactured BMP Systems	0.53	4.66	269.55		
18-0104	18-0104.2	4535 E Princess Anne Road-Tidewater Tech parking expansion	4535	E Princess Anne Road	23502	JL54	10/15/2019	Manufactured BMP Systems	0.56	0.00	0.00		
19-0035	19-0035.1	2330 Bowdens Ferry Road-IP Configuration	2330	Bowdens Ferry Road	23508	JL56	11/08/2019	Other SWMF- Credit Purchase	0.66	0.00	NA ¹		

Control Measures Implemented During FY20 Reporting Period												
Site ID	SWMF ID	Site Title	Street Number	Street Name	Zip	HUC	Date Online	SWMF Type	Phosphorus Removed (lbs/yr)	Nitrogen Removed (lbs/yr)	Sediment Removed (lbs/yr)	Retrofit Type (if applicable)
		1- Credit Purchase. No TSS Reduction Provided.							Total Phosphorous Removed (lbs/yr)	Total Nitrogen Removed (lbs/yr)	Total TSS Removed (lbs/yr)	
		2- Quantity or Oil Management Practice.							749.08	2517.24	435316.32	

Control Measures Expected to be Implemented and Cumulative Progress Through FY21

Redevelopment construction activity and associated pollutant reductions slowed in Norfolk in the last half of FY20 and first quarter of FY21 due to the Covid-19 pandemic. Below are redevelopment and retrofits projects currently under construction which should reach completion by the end of FY21. Other small projects may start and complete in FY21, but cannot be estimated at this time. Assuming the projects below all complete construction, by end of FY21 Norfolk will have achieved 12,155 lbs/yr TP, 25,500 lbs/yr TN, and 3,495,348 lbs/yr TSS in the James River watershed. In the Little Creek and Chesapeake Bay Beaches watershed Norfolk will have achieved 2,377 lbs/yr TP, 6,459 lbs/yr TN, and 671,662 lbs/yr TSS. This cumulative progress far exceeds 1st permit cycle required reductions for all pollutants of concern in both river basins, but Norfolk continues to plan, implement and track projects and programs of all types towards required pollutant reduction targets.

Site ID	SWMF ID	Site Description	HUC	SWMF Type	TP Removal (lbs/yr)	TN Removal (lbs/yr)	TSS Removal (lbs/yr)
15-0016	15-0016.1	Maiden's Watch 7 Lot Subdivision	CB26	Infiltration 1	0.080	0.671	24.121
15-0016	15-0016.2	Maiden's Watch 7 Lot Subdivision	CB26	Infiltration 1	0.080	0.663	23.840
15-0016	15-0016.3	Maiden's Watch 7 Lot Subdivision	CB26	Infiltration 1	0.100	0.897	32.255
15-0016	15-0016.4	Maiden's Watch 7 Lot Subdivision	CB26	Infiltration 1	0.070	0.593	21.316
15-0016	15-0016.5	Maiden's Watch 7 Lot Subdivision	CB26	Infiltration 1	0.100	0.897	32.255
15-0016	15-0016.6	Maiden's Watch 7 Lot Subdivision	CB26	Infiltration 1	0.090	0.772	27.767
15-0031	15-0031.1	1081 Military Hwy Retail Shops	JLS4	Manufactured BMP Systems	0.155	0.502	83.332
15-0044	15-0044.1	Norfolk Academy Football Field	JLS4	Permeable Pavement 1	2.263	9.942	1,027.060
15-0044	15-0044.2	Norfolk Academy Football Field	JLS4	Infiltration 1	1.280	8.450	1,027.060
15-0052	15-0052.1	Norfolk Academy Leadership Center	JLS4	Bioretention Urban	0.226	0.994	102.706
16-0013	16-0013.1	5th-7th Bay Redevelopment	CB26	Infiltration 2	0.649	5.147	185.114
16-0013	16-0013.2	5th-7th Bay Redevelopment	CB26	Infiltration 2	1.554	12.321	443.152
16-0013	16-0013.3	5th-7th Bay Redevelopment	CB26	Infiltration 2	1.535	11.980	437.543
16-0013	16-0013.4	5th-7th Bay Redevelopment	CB26	Infiltration 2	1.190	9.410	339.376
16-0013	16-0013.5	5th-7th Bay Redevelopment	CB26	Infiltration 2	0.384	3.041	109.386
16-0013	16-0013.6	5th-7th Bay Redevelopment	CB26	Manufactured BMP Systems	0.460	6.155	355.916
16-0026	16-0026	Replacement Pump Station No. 4A	JLS6	Dry Swale 1	0.240	1.945	200.946
16-0031	16-0031.1	Norfolk Academy Lower School Addition	JLS4	Bioretention Urban	0.187	0.821	84.844
16-0031	16-0031.2	Norfolk Academy Lower School Addition	JLS4	Rooftop (Impervious Surface) Disconnection	0.050	0.390	89.310
16-0031	16-0031.3	Norfolk Academy Lower School Addition	JLS4	Bioretention 1	0.420	2.075	214.343
16-0031	16-0031.4	Norfolk Academy Lower School Addition	JLS4	Dry Swale 1	0.170	0.994	102.706
16-0034	16-0034.1	Grandy Village Phase VI	JLS4	Bioretention Basins	7.587	62.682	2,163.033
16-0034	16-0034.2	Grandy Village Phase VI	JLS4	Vegetated Filter Strip	5.441	43.123	1,551.033
16-0034	16-0034.3	Grandy Village Phase VI	JLS4	Constructed Wetland 1	9.813	57.450	3,322.061
16-0048	16-0048.1	Sunset Dr. at Chesapeake Blvd Drainage	CB26	Manufactured BMP Systems	1.739	10.183	588.832
16-0060	16-0060.1	Kennebaeck Ave Azalea Garden Rd Drainage	JLS6	Manufactured BMP Systems	0.711	4.164	240.767
17-0030	17-0030.1	Apple Retail Properties	CB26	Wet Pond 1	6.130	19.500	2,104.094
17-0044	17-0044.1	Sentara Leigh Cancer Center	JLS4	Manufactured BMP Systems	1.129	11.360	656.875
17-0044	17-0044.2	Sentara Leigh Cancer Center	JLS4	Manufactured BMP Systems	1.129	6.608	382.087
17-0044	17-0044.3	Sentara Leigh Cancer Center	JLS4	Manufactured BMP Systems	2.304	13.487	779.876
17-0051	17-0051.1	Norfolk Square Contractor's Office	JLS4	Infiltration 2	0.526	4.790	143.020
18-0006	18-0006.1	EVMS Ed. & Admin. Bldg	JLS6	Bioretention 1	0.531	4.389	151.457
18-0049	18-0049.1	Kempsville Behavioral Health Additions	JLS4	Bioretention 2	0.571	5.258	152.016
18-0049	18-0049.2	Kempsville Behavioral Health Additions	JLS4	Detention Basin	0.077	0.453	26.170
19-0025	19-0025.1	Tru-Hotel Property	CB26	Wet Pond 1	6.091	35.663	2,062.222
					Total Expected FY21 Removal	55.063	357.766
					TP (lbs/yr)	TN (lbs/yr)	TSS (lbs/yr)

Elizabeth River Bacteria TMDL Implementation

July 2019 - June 2020

In FY20 the City of Norfolk continued implementation of a variety of actions to reduce bacterial impairments, as outlined in the City's Elizabeth River TMDL Action Plan. Although only portions of the Elizabeth River watershed have a bacterial TMDL in Norfolk, activities to reduce these pollutants are conducted city-wide. Implementation activities are broken into two broad categories: 1) Illicit Discharge Detection & Elimination and 2) Programmatic Activities and Monitoring. Information on implementation activity under each category in FY20 is included below.

Illicit Discharge Detection & Elimination Activities:

In FY20 the City of Norfolk continued an aggressive program of addressing and reducing illicit discharges to address both bacterial impairments and other pollutants of concern. Department of Utilities inspected 685,205 linear feet of sanitary sewer pipe to identify deficiencies likely to lead to overflows and addressed 98 sanitary sewer overflows. Department of Public Works (DPW) staff visually inspected 21,467 stormwater system structures, including more than 50 under dry weather conditions, and addressed 19 illicit discharges in the stormwater system. DPW also inspected 7 high risk commercial/industrial facilities and continued its use of remote-operated camera for pipe inspection.

Programmatic and Monitoring Activities:

Norfolk continued its extensive education and outreach program in FY20, including presentations to 28 school groups, 1 civic leagues, and 6 other outreach events that touched directly on management of pet waste and wildlife to reduce bacteria pollution. 21 other outreach events, social media posts, or mailers focused on other stormwater topics, where pet or wildlife waste may also have been partially addressed. Compared to past years, in person outreach was reduced in the last half of FY20 due to the Covid-19 pandemic.

Staff focused heavily on the topic of "backyard" pet waste in FY20, continuing with planned spring social media activities throughout the Covid-19 pandemic. While residents have grown better at picking up after their pets on walks, many are surprised to hear that not picking up in their backyard or other places away from paved roads can still have a negative impact on water quality. This became a timely education opportunity with the increased work-from-home and quarantining requirements during the pandemic. Several social media posts on the topic were posted by the City, the Norfolk Animal Care Center, and the Hampton Roads Planning District Commission's AskHRGreen program on numerous occasions throughout April and May. Partners organizations such as the Elizabeth River Project were also helpful in re-posting the information to their audiences. Through regional efforts on the topic, AskHRGreen also ran additional blogs, videos and radio spots in the last half of FY20, and updated their educational materials to include a pledge by homeowners to pick up after their pets, wherever they pooped. Full details, examples, and links are provided below.

To address the issue of bacterial pollution from wildlife whose behavior is altered by human activity, such as Canada Geese who remain in the area year round, the City and partners have continued to review and implement several options. Vegetated buffers are now required for all stormwater pond upgrades or shoreline restorations to discourage congregation of geese in these areas where they frequently feed. Efforts to enhance language in City code to allow and promote buffers are underway. Additionally, an outreach campaign and signage are planned for FY21.

In FY20, Norfolk continued its partnership with Hampton Roads Sanitation District, Virginia Department of Health, and other local governments to run the Hampton Roads Boater Pump Out and Education Program. The program works to educate boaters at local marinas and events about proper disposal of sanitary waste on vessels of all sizes. The program also offers pump outs of boats and marinas by appointment. In FY20 in Norfolk, the program provided education to 64 individuals or small groups, conducted 826 pump outs, and collected 10,830 gallons of sewage that may otherwise have found it's way into local waters due to equipment failure or discharge. Numbers for direct outreach and education were significantly lower than previous years due to the Covid-19 pandemic.

Norfolk continued partnership with Hampton Roads Sanitation District in FY20 on HRSD's bacterial source tracking program, with focus on Broad Creek in the Eastern Branch of the Elizabeth. The study assessed wet and dry-weather flow from outfalls into Broad Creek. Results to date have identified one sanitary overflow during dry-weather, which was quickly resolved, and several weak wet-weather signals, which are under further investigation. The study generally suggests pet waste or wildlife may represent the majority of bacterial load in the watershed. Further analysis and refinement of techniques, such as improved quantification of canine fecal loads, continues into FY21.

Enhanced Scoop the Poop Campaign (Even in Your Own Backyard)

POSTED April 10, 2020 City Facebook, Twitter, Nextdoor

POSTED April 14, 2020 AskHRgreen Facebook

POSTED April 17, 2020 NACC Facebook

When on walks with your dog, you are probably prepared to scoop the poop, but have you thought about your own backyard? It is just as important to properly dispose of the waste there too. Before it rains, remember to scoop it, bag it, trash it – even in your own backyard.



POSTED April 23, 2020 City Facebook, Twitter, Nextdoor

POSTED May 15, 2020 NACC Twitter

POSTED May 16, 2020 NACC Facebook

One member of your family doesn't need toilet paper, but they do need you! Keep your backyard clean, and our waterways healthy, by scooping the poop before a rainstorm. Bag it and trash it.



POSTED AskHRgreen facebook 4/15/2020

Blog Post: <https://askhrgreen.org/doody-duty/>

POSTED AskHRgreen facebook 4/16/2020

“Pooem” Video: https://www.youtube.com/watch?v=7kY12doWjwM&feature=emb_title

RAN June 1st-7th

“Pooem” Radio spot: <https://soundcloud.com/askhrgreen/askhrgreenorg-petwaste-60-radiomp3>

Pet Waste Rack Card: <https://askhrgreen.org/wp-content/uploads/2017/06/askHRgreen-POOP-4x9-v01.pdf>

Scoop the Poop Pledge page: <https://askhrgreen.org/campaign/pet-waste/>