VSMP General Permit for
Municipal Separate Storm Sewer Systems

Permit # VAR040029

Permit Year Four Annual Report

July 1, 2016-June 30, 2017

Permit # VAR040029
Permit Year Four Annual Report
July 1, 2016 - June 30, 2017

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Introduction and Summary

The City of Suffolk submits the following information in accordance with 9VAC25-890-40 Section II.E.3 items (a) through (e). To aid in the organization of this report, this section serves as a summary and is supported by supplemental information in the form of attached appendices where appropriate.

Permit requirements for annual reporting

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

a. Background Information.
(1) The name and state permit number of the program submitting the annual report;
(2) The annual report permit year;
(3) Modifications to any operator's department's roles and responsibilities;
(4) Number of new MS4 outfalls and associated acreage by HUC added during the permit year; and
(5) Signed certification;
b. The status of compliance with state permit conditions, an assessment of the appropriateness of the identified best management practices and progress towards achieving the identified measurable goals for each of the minimum control measures;
c. Results of information collected and analyzed, including monitoring data, if any, during the reporting period;
d. A summary of the stormwater activities the operator plans to undertake during the next reporting cycle;
e. A change in any identified best management practices or measurable goals for any of the minimum control measures including steps to be taken to address any deficiencies;
f. Notice that the operator is relying on another government entity to satisfy some of the state permit obligations (if applicable);
g. The approval status of any programs pursuant to Section II C (if appropriate), or the progress towards achieving full approval of these programs; and
h. Information required for any applicable TMDL special condition contained in Section I.

Summary of City actions to meet reporting requirements

a. Background
   (1) City of Suffolk General Permit No.: VAR040029
   (2) Permit Year Four; July 1, 2016 – June 30, 2017
   (3) There have been no changes to the operator's departmental roles and responsibilities pertaining to this permit.
   (4) The 2010 Census increased the Urbanized Area in Suffolk from 13.7 square miles to 47.3 square miles. With this increase in size comes much more required stormwater conveyance system to map. 1,349 MS4 outfalls have been identified. A complete outfall information table and maps are attached in Appendix E. Detailed outfall maps and the outfall information table can be

viewed on the City of Suffolk website at this address: http://www.suffolkva.us/270/Illicit-Discharge-IDDE

(5) The signed certification statement is in Appendix A of this report.

b. The City maintains a Program Plan Matrix to assess compliance with permit conditions, assess the appropriateness of best management practices, and to track progress towards measureable goals for minimum control measures. The Program Plan Matrix with progress updates is attached in Appendix B.

c. Monthly sampling of the Nansemond River and its tributaries continued with a continued partnership between the City, The Virginia Department of Health Division of Shellfish Sanitation (VDH DSS) and the Nansemond River Preservation Alliance (NRPA). This partnership expanded to include Hampton Roads Sanitation District and shifted from coordinating sampling efforts on the Nansemond to actively searching for human sources of bacteria in the stormwater conveyance system. The sampling results for the Nansemond River, and details about the other sampling program are attached in Appendix I.

d. The City plans to maintain its partnership with Hampton Roads localities through the Hampton Roads Planning District Commission to improve and coordinate education and outreach efforts. The City Plans to continue the surface water monitoring program on the Nansemond River. The City will continue to work with Suffolk Public Schools in accordance with the Memorandum of Understanding between the City of Suffolk and Suffolk Public Schools approved July 2010. This memorandum has been provided in previous reports and has not changed since being adopted.

e. The updated Program Plan Matrix for PY5 is located in Appendix J. Changes to Best Management Practices or measurable goals are identified within the PY4 Program Plan Matrix located in Appendix B. The City intends to continue its partnership with the Hampton Roads Planning District Commission to seek enhancements or modifications to existing Best Management Practices throughout PY5.

f. The City continues a close relationship with the Hampton Roads Planning District Commission and its affiliate localities for the purpose of meeting certain permit requirements. The Hampton Roads Regional Stormwater Management Program Memorandum of Agreement executed June 2013 outlines the cooperation between the City and the Hampton Roads Planning District Commission. Most of the functions of this partnership exist through the askHRgreen.org Stormwater Education Subcommittee, the Stormwater Workgroup, and the Regional Environmental Committee.

g. The City of Suffolk does not operate or follow any programs that are intended to replace any of the minimum control measures required under Section II B.

h. TMDL requirements

(1) In PY3 a TMDL Action Plan was submitted for the following bacteria TMDLs: Upper Nansemond River and Shingle Creek; Hoffler Creek; Elizabeth River; Chuckatuck Creek and Brewers Creek; Bleakhorn Creek, Bennett Creek, and Knotts Creek.

i) Pet waste Stations: 6 pet waste stations granted to neighborhoods in TMDL watersheds by Public Works Engineering. 2 pet waste stations installed by Parks and Recreation on the Seaboard Coastline Trail.

Neighborhood	Watershed	Number of Stations
Harbor Breeze Estates	Knotts Creek	2
Wexford Downs	Upper Nansemond River	1
Bennetts Creek Square	Knotts Creek	1
Nansemond River Estates	Upper Nansemond River	1
Woodlake North	Upper Nansemond River	1
Seaboard Coastline Trail	Bennetts Creek	2

ii) IDDE: Four illicit discharges related to sewage or septage were investigated inside the TMDL watersheds. Details are included in the illicit discharge summary in Appendix E.

iii) Employee Training: Training for operations employees includes recognizing and reporting illicit discharges. Examples discussed include septic and sewage overflows, and pet waste. A training summary is included in Appendix H.

iv) Public Education and Outreach: Efforts in this area are discussed in detail in Appendix C. Pet waste is a main topic discussed at these events, especially events for students. Regional advertising campaigns run by askHRgreen.org focus on pet waste, and best management practices for the home that can reduce sewer system issues. 135 dog waste bag holders and 74 pet waste rack cards were given away during permit year four.

(2) The City of Suffolk has met the required reductions for the first permit cycle. Street sweeping practices continued in Permit Year 4 as outlined in the action plan; 7276.6 cubic yards of debris were collected. This equates to 9,468.29 pounds of total nitrogen, 4,019.31 pounds of total phosphorus, and 1,063,887.72 pounds of total suspended solids. These efforts exceed the City of Suffolk's level of commitment identified in the Action Plan. No additional structural practices were implemented.

Appendix A

Signed Certification Statement

Certification Statement

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

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

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

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

Duly Authorized Representatives

A person is a duly authorized representative only if:

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

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

3. The written authorization is submitted to the department.

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.

Sherry B Earley 9/27/17

Responsible Official Signature Date

VAR040029 City of Suffolk

Permit Number MS4 Name

Appendix B

MS4 Program Plan with Permit Year 4 Status

City of Suffolk MS4 Program Plan Permit Year 4

1. Public Outreach and Education							
BMP	**BMP Description**	**Measurable Goals**	**Metric**	**Responsible Party**	**Timeline**	**Associated Documents**	**PY4 Status**
1.b	Design plan to educate citizens on techniques to reduce impacts of stormwater pollution on public waterways with an emphasis on impaired waters.						
1.b.1	Regional Media Campaign	Participate in the **askHRgreen.org** regional media campaign which will make impressions with a stormwater message via print, television (local municipal access, cable and local affiliate), radio, and social media	Demographic, reach and frequency	**askHRgreen.org** Stormwater Education Subcommittee	Annually	Copies of ads within **askHRgreen.org** Annual Report	Participated in the regional askHRgreen.org program. See askHRgreen annual report attached in Appendix C.
1.b.2	Educate homeowners on hazards and legal implications of illegal discharges and improper disposal of waste.	Promote **askHRgreen.org** for list of locality contacts for citizens to report illicit discharges and to learn about proper disposal methods.	Number of page visits	**askHRgreen.org** Stormwater Education Subcommittee	Post New info in PY1	**askHRgreen.org** website	askHRgreen.org website visits are detailed in the askHRgreen.org Annual Report attached in Appendix C.
1.c	Updated Public Education and Outreach Program						
1.c.1	High-priority water quality issues	Identify at least 3 high priority water quality issues that contribute to the discharge of stormwater	Number of high-priority issues	**askHRgreen.org** Stormwater Education Subcommittee	End of PY1 & Annually thereafter	**askHRgreen.org** Annual Report	Leaves & pet waste, fertilizing and soil testing, and fats oil and grease reduction were identified as high priority issues.
1.b.3 1.c.2	Target Audience	Identify and estimate the population size of target audience(s) who are likely to have significant impacts for each high priority issue	Estimated target audience population	**askHRgreen.org** Stormwater Education Subcommittee	End of PY1 & Annually thereafter	**askHRgreen.org** Annual Report	Target audience reach discussed in askHRgreen.org annual report and summary preceding report attached in Appendix C.
1.c.3	Relevant Message Development						
1.c.3a	Stormwater materials	Develop relevant message(s) and associated educational and outreach materials for distribution to target audience	Message Materials	**askHRgreen.org** Stormwater Education Subcommittee	End of PY1 & Annually thereafter	**askHRgreen.org** Annual Report	Detailed in askHRgreen annual report in Appendix C.
1.c.5	Relevant Message Implementation	Conduct sufficient education and outreach activities designed to reach an equivalent 20% of each high priority audience.	Percentage of target audience reached through activities.	**askHRgreen.org** Stormwater Education Subcommittee	End of PY1 & Annually thereafter	**askHRgreen.org** Annual Report	At least 20% of the target audiences for pet waste, fertilizing and soil testing, and fats oil and grease reduction was reached by various media outlets funded through askHRgreen.org. More details in askHRgreen.org annual report and summary preceding the report in Appendix C.
1.c.5a	Distribute educational materials developed through **askHRgreen.org**	Distribute materials developed through **askHRgreen.org** to target audience in locality.	Number of materials distributed	**askHRgreen.org** Representative	Continuously		Distrubuted 2,301 promotional and educational items developed throurgh askHRgreen.org
1.c.5b	Maintain and enhance **askHRgreen.org** website	Increase website visits to industry standard by end of permit cycle.	Annual askHRgreen.org website visits	HRPDC & **askHRgreen.org**	Permit Cycle	**askHRgreen.org** Annual Report	Detailed in askHRgreen annual report in Appendix C.
1.c.5c	*Scoop the Poop* campaign	Make *Scoop the Poop* information and giveaways available where citizens receive animal licenses and at pet-related events as appropriate	Number of giveaways distributed	**askHRgreen.org** Representative	Annually	Rack cards, dog waste bag holders	74 Scoop the Poop rack cards, 135 dog waste bag holders, and 7 pet waste stations distributed.
1.c.5d	Promote Lawn Care campaign	Run media campaigns and make lawn care best management practice guides available.	Demographic, reach and frequency	**askHRgreen.org** Stormwater Education Subcommittee	Annually	**askHRgreen.org** Annual Report	The stormwater education subcomitee radio and online ad campaign to reach the target audience of men aged 35+ about fertilizer and soil testing. A 38.4% target audience reach was achieved. Details are on page 21 of the askHRgreen annual report.

City of Suffolk MS4 Program Plan Permit Year 4

1. Public Outreach and Education							
BMP	**BMP Description**	**Measurable Goals**	**Metric**	**Responsible Party**	**Timeline**	**Associated Documents**	**PY4 Status**
1.c.6	Provide for adjustment of target audiences and messages to address any observed weaknesses or shortcomings	Website feedback reports, regional meeting feedback	Demographic, reach, frequency, & website click-through rates	**askHRgreen.org** Stormwater Education Subcommittee	Annually	**askHRgreen.org** Annual Report	The target audiences for the Fertilizer/Soil Testing and Holiday FOG/Reducing SSOs and What Not To Flush/Reducing SSOs were adjusted from PY3. Details are in the askHRgreen Annual Report and Summary in Appendix C.
1.d	Participate in regional committees: **askHRgreen.org**, RSMC, and SW Phase II Subcommittee			PW Engineering & **askHRgreen.org** Representative		**askHRgreen.org** Annual Report, MOA, HRPDC Regional Cooperation in Stormwater Management	addressed in 1.d.1, 1.d.2, and 1.d.3 below.
1.d.1	Regional Cooperation	Renew MOA with the HRPDC to participate in the regional processes, including the Regional Stormwater Management Committee, Stormwater Phase II Subcommittee and **askHRgreen.org**	Maintain valid MOA	HRPDC	Every 5 years (concurrent with MS4 permit cycle).	MOA	The Hampton Roads Regional Stormwater Management Program MOA was revised and signed by all permitted Hampton Roads localities in 2013
1.d.2	***askHRgreen.org***	Participate in at least 50% of **askHRgreen.org** Stormwater Education Subcommittee meetings	Number of meetings attended/Number of meetings held	**askHRgreen.org** Representative	Annually	**askHRgreen.org** Annual Report	12 meetings held, 10 meetings attended.
1.d.3	Stormwater Phase II Subcommittee	Participate in at least 50% of Stormwater Phase II Subcommittee Meetings.	Number of meetings attended/Number of meetings held	PW Engineering	Annually	Attendance chart	9 meetings held, 9 meetings attended.
1.e	Update Program Plan	Update Public Outreach and Education plan as necessary to maintain compliance with the permit effective on July 1, 2013		PW Engineering, **askHRgreen.org, askHRgreen.org** Representative & HRPDC	As scheduled in permit	Revised Program Plan	After review, the PublicOutreach and Education Program Plan was found to be sufficient for meeting Permit requirements and no changes were made.
1.f	Evaluation and Assessment	Evaluate and assess progress towards meeting measurable goals.	In accordance with Section II E of General Permit VAR040029	PW Engineering	Annually	Annual Report	Compliance with this measurable goal is met with the submission of this report.

City of Suffolk MS4 Program Plan Permit Year 4

2. Public Involvement/Participation							
BMP	**BMP Description**	**Measurable Goals**	**Metric**	**Responsible Party**	**Timeline**	**Associated Documents**	**PY4 Status**
2.a	Public Involvement						
2.a.1	Provide Public Notice of Program Plan and Modifications	Promote the availability of the operator's MS4 Program Plan and any modifications for public review and comment in accordance with public law.	Public notice of modifications.	PW Engineering	As necessary	Virginia Code reference, updated plan	http://www.suffolkva.us/265/MS4-Program-Overview
2.a.2	Make Program Plan and other Stormwater Program Information Available to Public						
2.a.2a	Updated Program Plan	Post copies of updated program plan to City website within 30 days of submittal of annual report.	Presence of materials on website	PW Engineering	Annually	Locality website	http://www.suffolkva.us/265/MS4-Program-Overview
2.a.2b	Annual Report	Post copies of annual report to City website within 30 days of submittal to DEQ.	Presence of materials on website	PW Engineering	Annually	Locality website	http://www.suffolkva.us/265/MS4-Program-Overview
2.a.2c	Reapplication Public Involvement	Prior to reapplying for coverage, notify public and provide for receipt of comments on the proposed MS4 Program Plan.	Presence of materials on website	PW Engineering	6 mo. prior to end of permit cycle	Locality website	not applicable for this permit year.
2.b	Public Participation in a minimum of four local activities annually	Clean the Bay Day, Stormwater Medalion Placement events, Recycling and Electronic Drives, Tire Amnesty days, Clean-Up events	# events, # of items distributed, # of participants, # of pounds collected, or # of volunteer hours	PW Engineering	Annually		City staff held, participated in, or helped coordinate 93 public participation events with 2,673 volunteer hours. These events collected 2,071 pounds of recyclable batteries, 3,659 scrap tires, and picked up 1,581 bags of trash. Event details attached in Appendix D. Staff gave away 2,301 promotional items. Promotional giveaway details attached in Appendic C.
2.c	Update Program Plan	Update Public Involvement/ Participation plan as necessary to maintain compliance with the permit effective on July 1, 2013		PW Engineering	As scheduled in permit		After review, the Public Involvement/ Participation Program Plan was found to be sufficient for meeting Permit requirements and no changes were made.
2.d	Evaluation and Assessment	Evaluate and assess progress towards meeting measurable goals.	In accordance with Section II E of General Permit VAR040029	PW Engineering	Annually	Annual report	Compliance with this measurable goal is met with the submission of this report.

City of Suffolk MS4 Program Plan Permit Year 4

3. Illicit Discharge Detection and Elimination							
BMP	**BMP Description**	**Measurable Goals**	**Metric**	**Responsible Party**	**Timeline**	**Associated Documents**	**PY4 Status**
3.a	Storm Sewer System Map						
3.a.1	MS4 outfall map	Maintain and update mapping including location and name of waters receiving discharges	Updated Map	PW Engineering	Annually	Outfall map	http://www.suffolkva.us/270/Illicit-Discharge-IDDE
3.a.2	MS4 outfall information table	Table listing outfall ID, acreage served, receiving water, applicable TMDL(s).	Updated Table	PW Engineering	Annually	Information Table	1349 MS4 Outfalls. MS4 Outfall Information Table is attached in Appendix E.
3.a.3	MS4 boundaries map and information table	Map and information table identifying MS4 watershed within 2010 urbanized area.	Boundary Map	PW Engineering	End of PY4	MS4 Catchments Map	Attached in Appendix E
3.a.4	Public information	Make MS4 map and information table available to the public	Presence of materials on website or refer to availability location	PW Engineering	Annually	Locality website	http://www.suffolkva.us/270/Illicit-Discharge-IDDE
3.a.5	New outfalls	Identify new points of discharge	List of new outfalls	PW Engineering	Annually	New outfall list	1349 total MS4 Outfalls have been identified. MS4 Outfall Information Table is attached in Appendix E.
3.a.5a	Cooperation with adjacent MS4s	Identify and notify, in writing, any downstream regulated MS4 to which the small regulated MS4 is physically interconnected.	Develop map, Regional Phase II Stormwater Subcommittee Meetings, letters	PW Engineering	Annually	Letters; meeting attendance	Stormwater Education Subcommittee meeting, Stormwater Regional Workgroup, and Phase II Regional Subcomitte meeting attendance included in Appendix C.
3.b	Illicit Discharge Detection & Elimination Ordinance	Continue implementing and enforcing the illicit discharge/stormwater ordinance.	Current Ordinance	PW Engineering/ Fire Dept	As necessary	Ordinance	Sec.35-52 and Sec.35-53 of the Suffolk Municipal Code
3.c	Dry Weather Screening						
3.c.1	Dry Weather Screening Procedures	Develop written dry weather field screening methodologies for IDDE.	SOP	PW Engineering	End of PY1	DWS Protocol	Most recent procedures were submitted with the Permit Year 2 annual report.
3.c.2	Field Screening	Perform dry weather screening of a minimum of 50 outfalls.	Documentation of screening performed and results	PW Engineering/ SW Inspector	Annually	Map and ORI Field sheets	178 dry weather outfall screenings conducted. Screening details attached in Appendix E.
3.d	Promote, Publicize, and facilitate public reporting of illicit discharges into or from MS4s						
3.d.1	Public IDDE Reporting	Promote & Publicize IDDE reporting	Presence of phone number & information on website	PW Engineering	Continuously	Locality website	http://www.suffolkva.us/9/How-Do-I
3.d.2	Prevent or minimize the discharge of hazardous substances and oil in the MS4 stormwater discharge.	Yard inspections; Develop/enhance reporting relationship with FD/Haz Mat Team; targeted education	Number of responses/ number of inspections	PW Engineering/ Fire Dept	Continuously	Inspection forms	Conducted 11 city-wide municipal facility inspections, summary included in Appendix H.
3.e	Illicit Discharge Detection & Elimination Procedures						
3.e.1	IDDE program implementation	Continue implementing an illicit discharge detection and elimination program for the municipally-owned MS4 within the Urbanized Area.	Develop written protocol for responding and investigating IDDE	PW Engineering/ Fire Dept	End of PY1	IDDE Protocol	Included in PY1 Annual Report
3.e.2	IDDE activity tracking	Track illicit discharge detection and elimination activities.	Number of investigations and actions taken	PW Engineering/ Fire Dept	Ongoing	List of Activities	42 illicit discharge investigations by Public Works Engineering. 35 HAZMAT incidents investigated by Suffolk Fire Dept. Reports attached in Appendix E
3.e.3	Report spills that reach state waters to DEQ						
3.e.3a	Report non sewer spills and releases from small MS4 operated properties that reach State waters to DEQ.	Report spills to the DEQ's Pollution Response Program (PREP).	Number of internal reports. If applicable, obtain PREP number.	PW Engineering / Fire Dept	Fire Dept. Report in accordance to Section III. G.	Internal Summary Report	Fire Department HAZMAT Report Summary included in Appendix E.

City of Suffolk MS4 Program Plan Permit Year 4

3. Illicit Discharge Detection and Elimination							
BMP	**BMP Description**	**Measurable Goals**	**Metric**	**Responsible Party**	**Timeline**	**Associated Documents**	**PY4 Status**
3.e.3b	Report Sanitary Sewer Overflows through SSORS database.	Continue to utilize SSORS to report Sanitary Sewer Overflows	Number of overflows	Public Utilities	Continuously	List from SSORS	99 sanitary sewer overflows reported. Map and summary of SSORS reports included in Appendix E.
3.f	Update Program Plan	Update Illicit Discharge Detection and Elimination plan as necessary to maintain compliance with the permit effective on July 1, 2013		PW Engineering/ Fire Dept	As scheduled in permit		After review, the Illicit Discharge Detection and Elimination Plan was found to be sufficient for meeting Permit requirements and no changes were made.
3.g	Evaluation and Assessment	Evaluate and assess progress towards meeting measurable goals.	In accordance with Section II E of General Permit VAR040029	PW Engineering	Annually	Annual report	Compliance with this measurable goal is met with the submission of this report.

City of Suffolk MS4 Program Plan Permit Year 4

4. Construction Site Storm Water Runoff Control							
BMP	**BMP Description**	**Measurable Goals**	**Metric**	**Responsible Party**	**Timeline**	**Associated Documents**	**PY4 Status**
4.a	Legal Authorities						
4.a.1	LD Activities > 10,000 SF	Continue to implement the Stormwater Management Ordinance & the Erosion and Sedimentation Control Ordinance	Stormwater Management Ordinance & Erosion and Sedimentation Control Ordinance	PW Engineering	Continuously	SWM & E&SC Ordinances	Stormwater- Ch. 35 Stormwater Management ESC-Ch. 34 Environment Article II. Erosion and Sedimentation Control
4.a.2	CBPA LD Activities >2,500 SF	Continue to implement the Chesapeake Bay Preservation Ordinance and Stormwater Management Ordinance	Chesapeake Bay Preservation Ordinance & Stormwater Management Ordinance	PW Engineering	Continuously	CBPA & SWM Ordinance	Stormwater- Ch. 35 Stormwater Management CBPA- UDO Article 4. Zoning-Sec 31-415 Chesapeake Bay Preservation Overlay District
4.a.4	Individual Lot or CPOD LD Activities > 10,000 SF	Continue to implement the SWM, E&SC, & CBPA ordinances	SWM, E&SC, & CBPA Ordinances	PW Engineering	Continuously	Ordinances	Stormwater- Ch. 35 Stormwater Management ESC-Ch. 34 Environment Article II. Erosion and Sedimentation Control. CBPA-UDO Article 4. Zoning Sec 31-415 Chesapeake Bay Preservation Overlay District
4.b	Local Programs						
4.b.1	E&SC Plan Reviews	Continue to implement the site plan review, LID implementation where deemed appropriate, provisions of the local SWM, E&SC, and CBPA Ordinances.	# plan reviews	Planning/ PW Engineering	Annually	Summary from Locality tracking system	213 plan submittals reviewed. 62 plans recommended for approval.
4.c	Compliance and Enforcement						
4.c.1	E&SC Inspections	Continue to inspect land-disturbing activities for compliance with an approved erosion and sediment control plan.	# of inspections	PW Engineering	Annually	Summary from Locality tracking system	6908 ESC Inspections and 796 Enforcement Actions. Details attached in Appendix F.
4.c.2	E&SC Inspection Schedule	Continue to implement inspection schedule per Erosion and Sediment Control Law	# of inspections; # enforcement actions	PW Engineering	Annually	Summary from Locality tracking system	Updated inspection procedures were reported with the PY3 Annual Report. 6908 ESC Inspections and 796 Enforcement Actions in PY4.
4.c.3	Certifications						
4.c.3a	E&SC Certifications	Ensure that plan reviewers, inspectors, and program administrators obtain the appropriate certifications as required under the Erosion and Sediment Control Law	Certifications obtained	PW Engineering	Ongoing	Certifications	There is a continuos effort to maintain certifications and to certify new personnel. Certified personnel listed in Appendix F.
4.c.3b	SWM Certifications	Ensure that plan reviewers, inspectors, and program administrators obtain the appropriate certifications as required under the Stormwater Management Act	Certifications obtained	PW Engineering	Beginning in PY2	Certifications	There is a continuous effort to maintain certifications and to certify new personnel. Certified personnel listed in Appendix F.
4.c.4	Public Inquiry	Continue to receive and respond to information from citizens relating to the local erosion and sediment control program through personal visits, email, telephone, and the City web page.	# of calls/requests, #site visits	PW Engineering	Annually	Summary from Locality tracking system	17 inquiries were received in permit year four, details are included in Appendix F
4.c.5	E&SC Enforcement	Continue to implement enforcement provisions of the local Erosion and Sediment Control and Stormwater Management Ordinance.	# enforcement actions	PW Engineering	Annually	Summary from Locality tracking system	796 enforcement actions for ESC violations. Details in Appenndix F.
4.c.6	E&SC Modifications due to inadequacy	Continue to implement provisions of the local Erosion and Sediment Control Ordinance and Stormwater Mangement Ordinance requiring changes to the plan due to inadequacy.	~~# of inspections; # enforcement actions~~ # of Field Changes	PW Engineering	Annually	Summary from Locality tracking system	21 approved ESC field changes
4.c.7	VSMP Inspections	Implement inspection provisions of the local Stormwater Management Ordinance for VSMP authority permits including Pollution Prevention Plans contained within the SWPPP	# of inspections; # enforcement actions	PW Engineering	Beginning in PY2	Summary from Locality tracking system	56 SWPP inspections. SWPPP enforcement actions are included in the reported E&S enforcement actions.
4.d	VSMP Authority Permits						

City of Suffolk MS4 Program Plan Permit Year 4

4. Construction Site Storm Water Runoff Control							
BMP	**BMP Description**	**Measurable Goals**	**Metric**	**Responsible Party**	**Timeline**	**Associated Documents**	**PY4 Status**
4.d.2	Local VSMP program (after July 1, 2014)	Implement the site plan review, construction site BMP, and inspection provisions of the local Stormwater Management Ordinance.	#of permit applications and permits issued.	PW Engineering	Beginning in PY2	VSMP permit numbers	29 Construction General Permits issued.
4.e	Update Program Plan	Update Construction Site Stormwater Runoff Control plan as necessary to maintain compliance with the permit effective on July 1, 2013		PW Engineering & HRPDC	As scheduled in permit	Project Inspection (Land Disturbance) SOP	The Metric for 4.c.6 was changed to "# of Field Changes". Otherwise, the Construction Site Stormwater Runoff Control Program Plan was found to be sufficient for meeting Permit requirements and no changes were made.
4.f	Tracking and Reporting	Continue to track and report the total number of permitted land disturbing activities as well as the total disturbed acreage.	Number of permits & acres disturbed	PW Engineering	Annually	Annual Report	135 permitted activities disturbing 327.62 acres of land. Monthly reports have been submitted to DEQ.
4.g	Evaluation and Assessment	Evaluate and assess progress towards meeting measurable goals.	In accordance with Section II E of General Permit VAR040029	PW Engineering	Annually	Annual Report	Compliance with this measurable goal is met with the submission of this report.

City of Suffolk MS4 Program Plan Permit Year 4

5. Post Construction Storm Water Management in New Development and Redevelopment							
BMP	**BMP Description**	**Measurable Goals**	**Metric**	**Responsible Party**	**Timeline**	**Associated Documents**	**PY4 Status**
5.a 5.d.2	Applicable oversight requirements	Address post-construction stormwater runoff from new development and redevelopment from large or small construction activities and CBPA Land disturbing activities < 1 Ac but >2,500 SF.	Stormwater Management Ordinance	PW Engineering	Continuously	SWM Ordinance Plan Review Procedures	No change to previosly reported ordinance or procedures
5.b	Stormwater Management Ordinance	Implement the stormwater criteria of the Stormwater Management Ordinance for new development and redevelopment, and update ordinance to comply with Section II.B.5 of the General Permit.	Stormwater Management Ordinance	PW Engineering	Update in PY1	SWM Ordinance	No change to previosly reported ordinance.
5.c	BMP Inspection and O&M Verification						
5.c.1	Non-operator (Private) BMPs						
5.c.1a	BMP Maintenance Agreements	Require BMP maintenance agreements as directed by the Stormwater Management Ordinance.	# of Agreements & Inspection Schedules	PW Engineering	Ongoing	List of Maintenance Agreements	10 new maintenance agreements executed in PY4, summary attached in Appendix G
5.c.1b 5.d.3 5.e.9	Inspection activities	Conduct BMP site inspections in accordance with written policies and procedures	Inspection Schedule	PW Engineering	Annually	Inspection Report Summary; Inspection Procedures	No change to previously reported inspection procedures.
5.c.1c 5.d.4 5.e.9	Enforcement activities	Enforce BMP maintenance responsibilities in accordance with written policies and procedures	# of Reinspections & NOVs	PW Engineering	Annually	Inspection Report Summary; Enforcement Procedures	300 inspections, 26 Re-inspections, 9 Major Deficiency letters sent, 0 NOVs. (city-wide)
5.c.2 5.d.5	Inspection & Maintenance Schedules for City-Owned BMPs	Continue to adhere to procedures for regular inspection and maintenance of locally owned stormwater control structures in accordance with SWM regulations.	Inspection Schedule	PW Engineering/ PW Operations	Annually	Inspection Report Summary; Inspection Procedures	City and School owned BMPs are inspected annually.
5.e	Tracking and Reporting						
5.e.1-9	BMP Tracking	Track all known permanent stormwater management facilities that discharge to the regulated small MS4 and submit the information per General Permit No. VAR040029.	Data as required by Permit (print & spreadsheet/database)	PW Engineering	Annually	BMP Report	BMPs that discharge to the MS4 or are accessable through a Deed of Easement or Maintenance Agreement are inspected.
5.e.9	New BMP tracking	BMPs brought online within the past year	Database or spreadsheet with new BMP information	PW Engineering	Annually	BMP Report	20 BMPs were brought online in PY4, details in Appendix G. Data will be submitted into the BMP Warehouse managed by DEQ
5.f	Update Program Plan	Update the Post Construction Storm Water Management in New Development and Redevelopment plan as necessary to maintain compliance with the permit effective on July 1, 2013		PW Engineering & HRPDC	As scheduled in permit		After review, the Post Construction Program Plan was found to be sufficient for meeting Permit requirements and no changes were made.
5.g	Evaluation and Assessment	Evaluate and assess progress towards meeting measurable goals.	In accordance with Section II E of General Permit VAR040029	PW Engineering	Annually	Annual report	Compliance with this measurable goal is met with the submission of this report.

City of Suffolk MS4 Program Plan Permit Year 4

6. Pollution Prevention/Good Housekeeping for Municipal Operations							
BMP	**BMP Description**	**Measurable Goals**	**Metric**	**Responsible Party**	**Timeline**	**Associated Documents**	**PY4 Status**
6.a	Operations and Maintenance Activities						
6.a.1	Plans and Procedures	Continue to implement and update plans describing spill prevention and control and pollution prevention procedures for municipal facilities specifically to prevent illict discharges	SOP(s)/SWPPP	Public Works	Continuously	"Operations and Maintenance: Pollution Prevention Guide" http://www.suffolkva.us/files/5714/4976/3991/P2_and_Good_Housekeeping_Guide.pdf	Operations and Maintenance Pollution Prevention Guide completed and submitted with PY2 Annual Report.
6.a.2	Waste Disposal	Continue to implement and update procedures for proper waste disposal, including yard waste	SOP(s)/ SWPPP	Public Works	Continuously	"Operations and Maintenance: Pollution Prevention Guide "	Operations and Maintenance Pollution Prevention Guide completed and submitted with PY2 Annual Report.
6.a.3	Manage Municipal Vehicle Wash Water	Develop and implement procedures to prevent the discharge of municipal vehicle wash water into the MS4 without a separate VPDES permit	Procedures	Operations Personnel	Continuously	"Operations and Maintenance: Pollution Prevention Guide "	Operations and Maintenance Pollution Prevention Guide completed and submitted with PY2 Annual Report.
6.a.4	Manage Wastewater	Prevent the discharge of wastewater to MS4 without a separate VPDES permit	Procedures	Public Works	Continuously	"Operations and Maintenance: Pollution Prevention Guide "	Operations and Maintenance Pollution Prevention Guide completed and submitted with PY2 Annual Report.
6.a.5	Utility Construction and Maintenance	Require BMPs when discharging water pumped from utility construction and maintenance activities	Procedures	Public Utilities	Continuously	"Operations and Maintenance: Pollution Prevention Guide "	Operations and Maintenance Pollution Prevention Guide completed and submitted with PY2 Annual Report.
6.a.6	Bulk Storage BMPs	Require BMPs for bulk storage areas (salt storage, top soil stockpiles)	BMPs Used	PW Operations	Continuously	"Operations and Maintenance: Pollution Prevention Guide "	Operations and Maintenance Pollution Prevention Guide completed and submitted with PY2 Annual Report.
6.a.7	Manage Leaking Municipally-owned Vehicles	Prevent the discharge of pollutants to the MS4	BMPs Used	PW Fleet Maintenance/ PW Operations	Continuously	"Operations and Maintenance: Pollution Prevention Guide "	Operations and Maintenance Pollution Prevention Guide completed and submitted with PY2 Annual Report.
6.a.8	Manage Fertilizers and Pesticides	Implement procedures to ensure materials are applied in accordance with manufacturer's recommendations	Procedures	PW Operations/ Mosquito Control/ Parks and Recreation	Continuously	"Operations and Maintenance: Pollution Prevention Guide "	Operations and Maintenance Pollution Prevention Guide completed and submitted with PY2 Annual Report. Certified pesticide applicators are detailed in Appendix H.
6.b	Storm Water Pollution Prevention Plans (SWPPP)						
6.b.1	High-priority facilities	Identify municipal high-priority facilities of types listed in General Permit No. VAR040029	# & type of high-priority facility	PW Engineering	End of PY1	List of high-priority facilities	Refuse, Fleet Maintenance, and the Bus Parking Facility have been identified as high priority sites
6.b.2	SWPPP Locations	Identify municipal high-priority facilities that have a high potential of discharging pollutants	# & type of high-priority facility	PW Engineering	End of PY1	List of SWPPP Sites	Refuse, Fleet Maintenance, and the Bus Parking Facility have been identified for SWPPP develpoment.
6.b.3	SWPPP development & Implementation	Develop and Implement SWPPPs for identified high-priority facilities	SWPPP	PW Engineering/ PW Refuse/ PW Fleet Maintenance	PY4	SWPPP	SWPPPs have been developed for the following identified high priority facilities: Fleet Management, Bus Parking Facility, and Waste Management Facility (Refuse).
6.c	Nutrient Management Plans						
6.c.1	NMP Implementation						

City of Suffolk MS4 Program Plan Permit Year 4

6. Pollution Prevention/Good Housekeeping for Municipal Operations							
BMP	**BMP Description**	**Measurable Goals**	**Metric**	**Responsible Party**	**Timeline**	**Associated Documents**	**PY4 Status**
6.c.1a	NMP Locations	Identify locations of municipally owned properties where nutrient management plans can be performed	Number of sites & area	PW Engineering	End of PY1	List of managed turf sites > 1 Ac.	6 sites totaling 197.31 acres. Details in Appendix H.
6.c.1b	NMP development & implementation	Develop and Implement NMPs for identified turf and landscape (15% by PY2, 40% by PY3; 75% by PY4; & 100% by PY5)	% of identified area under NMP	PW Engineering	PY2 - PY5	List of NMP Covered Sites	PY4 goal met with the Nutrient Management Plans developed in PY3 which cover an additional 125.31 acres. There are currently 174.31 acres under plan, with only 147.98 acres required for PY4. Permit cycle NMP requirements are attached in Appendix H.
6.c.2	NMP Tracking	Track the total acreage of lands where turf and landscape NMPs are required and implemented	Acreage required & Acreage implemented	PW Engineering	Annually	List of managed turf sites > 1 Ac.	147.98 acres required, 174.31 acres under nutrient management plans.
6.c.3	Deicing agents	Operator shall not apply deicing agents containing urea or other forms of nitrogen or phosphorus to parking lots, roadways, and sidewalks, or other paved surfaces	Statement of non-use of nutrient containing deicing agents	PW Operations	Annually	Statement	The City's deicing agents do not contain urea or other forms of nitrogen or phosporous.
6.d	Employee Education & Training						
6.d.1	IDDE Training for field personnel	Provide training to field personnel in the recognition of Illicit discharges	# of training sessions / # Employees trained	PW Engineering/HRPDC	Biennial	Attendance list, Summary of Training	IDDE training was done in conjuntion with Pollution Prevention and Good housekeeping training. Training Summary attached in Appendix H
6.d.2	Streets & parking lot maintenance training	Provide training to Streets & Landscape Divisions for road, street & parking lot maintenance	# of training sessions / # Employees trained	PW Engineering/HRPDC	Biennial	Attendance list, Summary of Training	Training conducted, see Training Summary in Appendix H
6.d.3	Public Works Facilities training	Provide training to PW personnel on good housekeeping and pollution prevention practices	# of training sessions / # Employees trained	PW Engineering/HRPDC	Biennial	Attendance list, Summary of Training	Training conducted, see Training Summary in Appendix H
6.d.4	Pesticides & herbicide certifications	Maintain certifications and training for pesticide and herbicide applicators in accordance with Virginia Pesticide Control Act	Certifications obtained	PW Operations	Continuously	Certifications	List of certified personnel attached in Appendix H
6.d.5 & 6.d.6	E&SC & SWM Training	Ensure that plan reviewers, inspectors, and program administrators obtain the appropriate certifications as required under the Erosion and Sediment Control Law	Certifications obtained	PW Engineering	Continuously	Certifications	All employees conducting plan review are required to be certified by departmental policy. Certifications list included in Appendix F
6.d.7	Parks and Recreation employee training	Provide training to P&R personnel on good housekeeping and pollution prevention practices	# of training sessions / # Employees trained	PW Engineering/HRPDC	Biennial	Attendance list, Summary of Training	No training done this permit year. Training was done in PY3 and will be done in PY5.
6.d.8	Emergency Response employee training	Provide training and certification in spill response to emergency response employees	Certifications obtained	Fire Department	PY1	Certifications	All firefighters receive Hazardous Materials Operations Level Training in Fire Academy as well as in service training
6.d.9	Tracking						
6.d.9a	Training Needs Assessment	Determine any educational needs for employees and develop appropriate training and/or materials.	Training assessment	HRPDC & Phase II Stormwater Committee	1X per permit cycle	Training Schedule	Discussed in a Phase II meeting on 5/17/2017. The group chose to pool resources to purchase training materials.
6.d.9b	Training Schedule	Identify and prioritize pollution prevention education and training needs for municipal employees based on relative risk for stormwater pollution from municipal operations through the HRPDC Stormwater Phase II Subcommittee.	Training Schedule	HRPDC, Phase II SW Committee & PW Engineering	Annually	Training schedule	A training summary and PY5 training needs are attached in Appendix H.

City of Suffolk MS4 Program Plan Permit Year 4

6. Pollution Prevention/Good Housekeeping for Municipal Operations							
BMP	**BMP Description**	**Measurable Goals**	**Metric**	**Responsible Party**	**Timeline**	**Associated Documents**	**PY4 Status**
6.d.9c	Training Materials	Distribute pollution prevention educational materials developed through the HRPDC/**askHRgreen.org** to municipal employees engaging in operations with a high risk of discharging pollutants into the MS4.	# of items distributed	HRPDC & PW Engineering	Annually	E-newsletter, training materials	No specific materials were distributed. Information was conveyed during site inspections and trainings.
6.e	Contractor Training	Participate in the development of at least one regional contractor training session during the life of the permit.	Training session	HRPDC & Phase II Stormwater Committee	Once per permit cycle	Training sessions and evaluation forms	9 regional trainings weres held or hosted at HRPDC. Details are attached in Appendix H.C.
6.f	Update Program Plan	Update Pollution Prevention/Good Housekeeping for Municipal Operations plan as necessary to maintain compliance with the permit effective on July 1, 2013		PW Engineering & HRPDC	As scheduled in permit		After review, the Pollution Prevention/Good Housekeeping Program Plan was found to be sufficient for meeting Permit requirements and no changes were made.
6.g	Evaluation and Assessment	Evaluate and assess progress towards meeting measurable goals.	In accordance with Section II E of General Permit VAR040029	PW Engineering	Annually	Annual report	Compliance with this measurable goal is met with the submission of this report.

City of Suffolk MS4 Program Plan Permit Year 4

TMDL Special Conditions							
BMP	**BMP Description**	**Measurable Goals**	**Metric**	**Responsible Party**	**Timeline**	**Associated Documents**	**PY4 Status**
SC-1	TMDL						
SC-1a	Develop Chesapeake Bay TMDL Action Plan	Develop a TMDL Action Plan consistent with the Virginia Ph I and II WIPs to meet the Level 2 (L2) reductions of pollutants of concern (POC)	TMDL Action Plan	SW Program Administrator	End of PY2	TMDL Action Plan	Submitted with PY2 Annual Report, resubmitted with PY3 Annual Report.
SC-1b	Implement Chesapeake Bay TMDL Action Plan	Implement the TMDL Action Plan to meet 5% of the Level 2 (L2) reductions of pollutants of concern (POC) by the end of the permit cycle.	Per TMDL Action Plan	SW Program Administrator	End of PY5	TMDL Action Plan	Update included in the Introduction and Summary.
SC-2	Upper Nansemond/Shingle Creek	Develop and Implement a TMDL Action Plan for the POC.	TMDL Action Plan	SW Program Administrator	End of PY3	TMDL Action Plan	Submitted with PY3 Annual Report. Update included in the Introduction and Summary.
SC-3	Bleakhorn Creek, BennettsCreek & Knotts Creek	Develop and Implement a TMDL Action Plan for the POC.	TMDL Action Plan	SW Program Administrator	End of PY3	TMDL Action Plan	
SC-4	Chuckatuck Creek and Brewers Creek	Develop and Implement a TMDL Action Plan for the POC.	TMDL Action Plan	SW Program Administrator	End of PY3	TMDL Action Plan	
SC-5	Hoffler Creek	Develop and Implement a TMDL Action Plan for the POC.	TMDL Action Plan	SW Program Administrator	End of PY3	TMDL Action Plan	
SC-6	Elizabeth River	Develop and Implement a TMDL Action Plan for the POC.	TMDL Action Plan	SW Program Administrator	End of PY3	TMDL Action Plan	
SC-7	Evaluation and Assessment	Evaluate and assess progress towards meeting measurable goals.	In accordance with Section II E of General Permit VAR040029	SW Program Administrator	Annually	Annual report	Compliance with this measurable goal is met with the submission of this report.

Appendix C

Supporting Documentation for Minimum Control Measure 1: Public Education and Outreach

FY17 Stormwater Permit Requirements
Target Audience Percentages

See pages 20-23 and 26-27 in the FY17 askHRgreen.org Annual Report

- **Leaves & Pet Waste**. For that focal area, we ran a 2-week radio and online media campaign designed to reach the target audience of adults 35-64. The reach of that campaign was 35.1% with a frequency of 2.4. For leaves and pet waste, we were able to reach 35.1% of the target audience a total of 2.4 times. See page chart on page 20.

- **Fertilizer/Soil Testing**. For that focal area, we ran a 2-week radio and online media campaign designed to reach the target audience of men, 35+. The reach of that campaign was 38.4% with a frequency of 3.0. For fertilizer/soil testing, we were able to reach 38.4% of the target audience a total of 3 times. See page chart on page 21.

- **Holiday FOG/Reducing SSOs**. For that focal area, we ran a 1-week radio and online campaign designed to reach the target audience of adults 25-64. The reach of that campaign was 23.4% with a frequency of 3.1. For holiday FOG/SSO prevention messaging, we were able to reach 23.4% of the target audience a total of 3.1 times. See page chart on page 26.

- **What Not to Flush/Reducing SSOs**. For that focal area, we ran a 1-week television and online media campaign designed to reach the target audience of women 25-54. The reach of that campaign was 36.3% with a frequency of 3.5. With the campaign, we were able to reach 36.3% of the target audience a total of 3.5 times. See page chart on page 27.

- **Down the Drain/Reducing SSOs**. For that focal area, we ran a 1-week television and online media campaign designed to reach the target audience of adults 25-54. The reach of that campaign was 36.8% with a frequency of 3.4. For that focal area, we were able to reach 36.8% of the target audience a total of 3.4 times. See page chart on page 27.

askHRgreen.org Stormwater Education Meeting Attendance

July	August	September	9/29 All-Hands	October	November
	Jamie Durden, Wayne Jones	Jamie Durden		Jamie Durden	Jamie Durden
December	**January**	**February**	**March**	**April**	**May**
Jamie Durden	Jamie Durden	David Keeling	Jamie Durden	Jamie Durden	Jamie Durden
June					

askHRgreen.org Annual Report FOR Fiscal Year 2017

HAMPTON ROADS PDC PLANNING DISTRICT COMMISSION

PEP17-03

HAMPTON ROADS PLANNING DISTRICT COMMISSION
ROBERT A. CRUM JR
EXECUTIVE DIRECTOR

CHESAPEAKE
JAMES E. BAKER
LONNIE CRAIG
DEBBIE RITTER
ELLA P. WARD
ROBERT GEIS

FRANKLIN
BARRY CHEATHAM
R. RANDY MARTIN

GLOUCESTER COUNTY
PHILLIP BAZZANI
BRENT FEDORS

HAMPTON
MARY BUNTING
JAMES GRAY
DONNIE TUCK

ISLE OF WIGHT COUNTY
REX ALPHIN
RANDY KEATON

JAMES CITY COUNTY
BRYAN J. HILL
MICHAEL J. HIPPLE

NEWPORT NEWS
MCKINLEY L. PRICE
SHARON P. SCOTT
CYNTHIA ROHLF

NORFOLK
KENNETH C. ALEXANDER
MAMIE B. JOHNSON
ANDRIA P. MCCLELLAN
THOMAS R. SMIGIEL
DOUGLAS SMITH

POQUOSON
DAVID A. HUX
J. RANDALL WHEELER

PORTSMOUTH
LYDIA PETTIS PATTON
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SMITHFIELD
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SOUTHAMPTON COUNTY
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BARRY PORTER

SUFFOLK
LINDA T. JOHNSON
PATRICK ROBERTS

SURRY COUNTY
TYRONE W. FRANKLIN
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VIRGINIA BEACH
WILLIAM SESSOMS
ROBERT M. DYER
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BARBARA M. HENLEY
LOUIS R. JONES
JOHN MOSS
JOHN E. UHRIN

WILLIAMSBURG
MARVIN C. COLLINS
PAUL FREILING

YORK COUNTY
NEIL MORGAN
THOMAS G. SHEPPERD JR.

Report Documentation

TITLE:
askHRgreen.org Annual Report for Fiscal Year 2016-2017

REPORT DATE
September 2017

GRANT/SPONSORING AGENCY
Local Funds

AUTHORS:
Katie Cullipher
Rebekah Eastep

ORGANIZATION NAME, ADDRESS AND TELEPHONE
Hampton Roads Planning
District Commission
723 Woodlake Drive
Chesapeake, Virginia 23320
(757) 420-8300
www.hrpdcva.gov

ABSTRACT
This report provides a summary of the sixth year of the askHRgreen.org public outreach and education initiative. The report contains five major sections. The first section provides background about askHRgreen.org and an overview of overall campaign results for fiscal year 2016-2017. The second through fifth sections provide an overview of the individual initiatives and results from each of the four askHRgreen.org subcommittees: Recycling & Beautification, Stormwater Education, Water Awareness, and Fats, Oils & Grease Education.

ACKNOWLEDGEMENTS
This report was prepared by the Hampton Roads Planning District Commission (HRPDC) staff in cooperation with the member localities. Preparation of this report was included in the HRPDC Unified Planning Work Program for Fiscal Year 2016-2017, approved by the Commission on May 18, 2017.

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Fiscal Year 2016-2017 At a Glance

About askHRgreen.org...

askHRgreen.org was developed to help Hampton Roads residents find their inner green with just the click of a mouse. For years, the HRPDC facilitated a variety of environmental education efforts to assist localities in notifying residents and meeting regulatory requirements. Developing consistent regional messaging affords localities an economy of scale that they could not otherwise achieve. Coupled with various emerging issues beginning to overlap, like sanitary sewer overflows and stormwater pollution, we knew it was time to develop an umbrella brand to tie all of the messages together. askHRgreen.org began with offering just the green basics, but people craved more information. Once you show someone an easy, green alternative, they get hooked and want to add something else. Now we make the connections for people by illustrating not just what they can do, but why they should care and how their actions impact the larger environment. askHRgreen.org is powered by the 17 localities of Hampton Roads, HRSD, and the Hampton Roads Planning District Commission.

You can "like" askHRgreen.org on Facebook at Facebook.com/askHRgreen, tweet and retweet at Twitter.com/HRgreen, "tune in" at YouTube.com/HRgreenVA, follow on Instagram at Instagram.com/askHRgreen and read and comment on the blog, askHRgreen.org/blog.

2016-2017 Campaign Schedule and Results

Nine environmentally-themed media campaigns and a Search Engine Marketing campaign ran for a combined total of 52 weeks of exposure in FY17. There were also regularly scheduled newsletters, blog posts, social media postings and ongoing public relations strategy and support, including a partnership with Coastal Virginia Magazine and the "Write as Rain" outdoor campaign.

2017 BY THE NUMBERS

58,113 visitors to askHRgreen.org

16.9 million opportunities
to see or hear askHRgreen.org in the media

5,106 students impacted
by environmental education grants

1,987
Facebook

1,742
Twitter

7,268
eNewsletter Subscribers

2,409 households enrolled
in the regional Bay Star Homes program

27 neighborhoods impacted
by the installation of pet waste stations

Fiscal Year 2016-2017 Results

Campaign	Media	jul	aug	sep	oct	nov	dec	jan	feb	mar	apr	may	jun
Leaves/Pet Waste	R-O-S												
Holiday FOG Down the Drain	R-O-S												
What Not to Flush	T-O-S												
FOG Down the Drain	T-O-S												
Fix a Leak Week	T-O-S												
Recycle More, Trash Less	O-S												
Lawncare/Work Smarter	R-O-S												
Write as Rain	P-O-T-S												
Value of Water	T-O-S												
Infrastructure	T-O-S												
Coastal Virginia Magazine	P-O												
askHRgreen.org E-Newsletters													
Public Relations													
Search Engine Marketing													
askHRgreen.org Blog Articles													

Media Key: T = Television R = Radio P = Print O = Online S = Social Media

Total Advertising Weeks	
Impressions	
Television	11.3 million
Radio	1.96 million
Online (media website display, native content, targeted display, video pre-roll)	1.05 million
Search Engine Marketing (SEM)	107,920
Facebook	865,210
Public Relations	1.13 million
Added Value	406,393
Budget	
Media	$126,137
Public Relations	$17,711
Mobile Responsive Website Redesign & Development Project	$37,556
Creative & Web Hosting/Maintenance	$24,299
Consulting & Management	$5,064
Value	
Media Added Value	$41,858
Public Relations Value	$171,711
Totals	
Impressions	16.95 million
Total Campaign Budget	$210,767
Campaign/Exposure Value	$426,107
Cost per Thousand Impressions	$13.09
Return on Investment	1.92 : 1

Website Analytics

askHRgreen.org Website Visitation Statistics

	2011-12	2012-13	2013-14	2014-15	2015-16	**2016-17**
Visits	27,424	32,697	55,505	58,279	52,530	**58,113**
Unique Visitors	19,920	25,092	43,547	46,994	42,539	**48,468**
Pageviews	67,047	72,270	116,818	103,228	93,177	**92,681**
Pages per Visit	2.42	2.21	2.10	1.77	1.77	**1.66**
Average Visit Duration	2:19	2:10	1:48	1:26	1:32	**1:17**
Bounce Rate	61.24%	61.27%	64.37%	74.80%	74.92%	**78.23%**
% New Visits	70.78%	75.50%	77.74%	79.87%	80.44%	**80.27%**

Top 10 Website Traffic Sources

	#	%
Google (organic)	21,527	37.0%
WTKR (display)	10,758	18.5%
Direct	8,710	15.0%
Google cpc (SEM)	3,887	6.7%
m.facebook.com (referral)	2,956	5.1%
Bing (organic)	1,495	2.6%
facebook.com (referral)	932	1.6%
hrfog.com/referral	831	1.4%
WTKR (targeting)	755	1.3%
Yahoo (organic)	754	1.3%

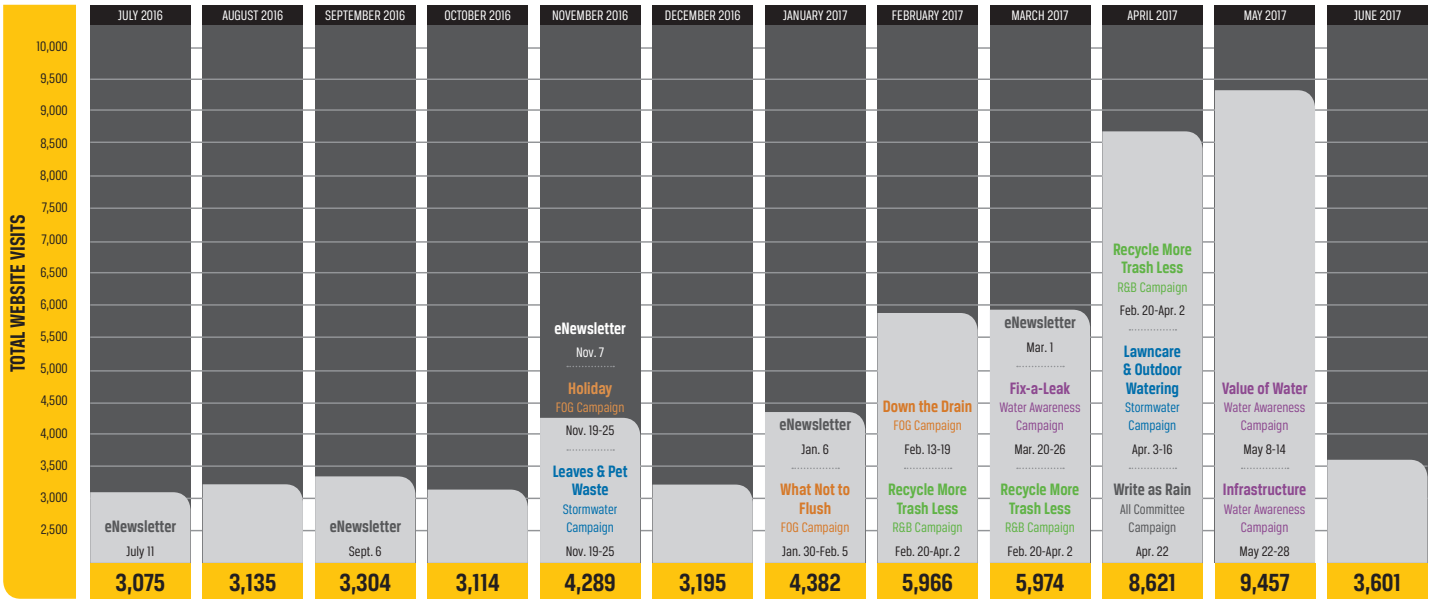
askHRgreen.org Website Visitors by Locality*

	Number	% of Total Visitation
Virginia Beach	13,033	19.5%
Norfolk	4,348	9.2%
Chesapeake	3,904	7.7%
Newport News	3,398	6.1%
Hampton	2,200	4.1%
Suffolk	1,537	2.9%
James City County/ Williamsburg	1,274	2.1%
Portsmouth	1,094	2.0%
Poquoson	439	0.6%
Smithfield	301	0.5%
Gloucester	155	0.3%
Yorktown	36	0.2%
Other	26,394	44.7%

*Locality determined by the geolocation of a user's IP address and may not reflect the actual boundaries of a locality. IP-based locations are approximate.

MONTHLY PROMOTIONS & WEBSITE VISITATION

AS OF JUNE 30, 2017



SEARCH ENGINE MARKETING July 1, 2016 - June 30, 2017

Online Search

In FY17, askHRgreen.org continued Search Engine Optimization (SEO) tactics and Search Engine Marketing (SEM) campaigns to increase traffic to and improve the website.

SEO improves the askHRgreen.org website's organic (unpaid) search rankings. Optimization tactics included editing/adding keyword-rich content to the site, identifying and eliminating any barriers to search engine indexers, and promoting the site to increase the number of inbound links from other sources.

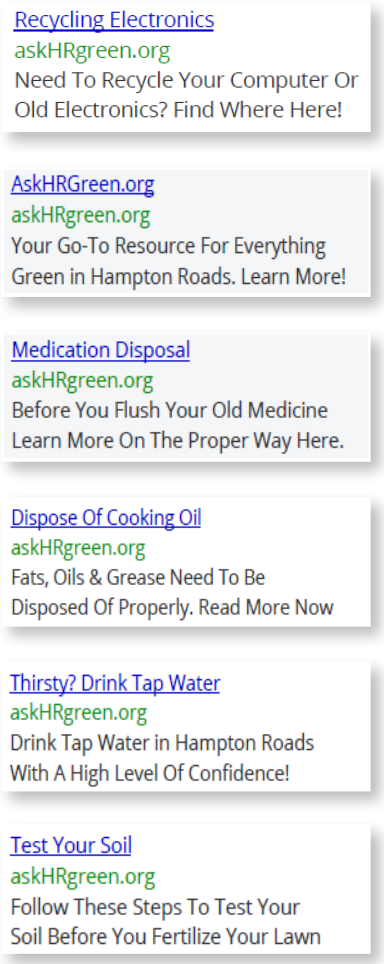
The askHRgreen.org SEM program utilizes Google AdWords and Bing Ads pay-per-click advertising to increase traffic to the askHRgreen.org website. By bidding on select keywords and phrases, search ads direct search traffic to relevant content on the askHRgreen.org site. In total, the active SEM campaigns garnered 107,920 impressions and 4,226 clicks to the askHRgreen.org website in FY17. To view the full SEM report for FY17, please see Appendix A.

Organic Search Results

	2012-13	2013-14	2014-15	2015-16	**2016-17**
Clicks	8,513	14,842	20,637	21,274	**23,858**

SEM Campaigns

Google & Bing Ad Campaigns	Impressions	Clicks	CTR	Avg. CPC	Avg. Ad Position
Recycling & Beautification	38,336	1,621	4.23%	$3.13	1.38
Stormwater	22,432	1,168	5.21%	$2.70	1.34
askHRgreen.org	12,839	784	6.11%	$1.77	1.11
Water Awareness	33,299	625	1.88%	$4.06	2.09
FOG	1,014	28	2.76%	$2.58	2.04
Total	**107,920**	**4,226**	**3.92%**	**$2.89**	**1.56**



Coastal Virginia Magazine Partnership

For a second year, askHRgreen.org partnered with Coastal Virginia (CoVA) Magazine to develop articles and infographics specific to the campaign's messaging – and of interest to the magazine's readers. askHRgreen.org team leaders and committee members worked closely with the CoVA staff to select article topics, provide sources for the writers, and review the finished copy. The special askHRgreen.org editorial features appeared in each edition of Coastal Virginia Magazine from April 2016 to February 2017 and covered a variety of topics including green gardening practices, drinking water awareness, smart water use, Bay Star Homes, the askHRgreen.org mini grant program, recycling beyond the bin, green art, sustainable food and engaging infographics and puzzlers. Once all the content had been featured in the main magazine, it was compiled into Green Magazine and printed as a unique public outreach tool.

Social Media

Social media continues to be a key strategy for reaching the public. Facebook, Twitter, Instagram and YouTube were all used to promote askHRgreen.org messages in FY17. Social media was also used to promote various locality events, respond to citizen inquiries, share blog articles, and promote important programs and initiatives like the Bay Star Homes workshops, America Recycles Day, the Great American Cleanup, Imagine a Day Without Water and the Write as Rain campaign. Instagram was a new addition for askHRgreen.org in FY17. The Write as Rain campaign proved to be the perfect project to use for the launch of an Instagram account since the sidewalk messages provided visually interesting pictures to share with followers. Through the "Let's Talk Green" blog, which is written by askHRgreen.org team members and guest bloggers, 57 green living articles were published throughout the year covering topics ranging from cloth diapers to the environmental impact of bottled water.

e-Newsletter

The askHRgreen.org e-newsletter is shared via email to media contacts and an ever-growing list of citizens whose email addresses have been collected at events and through online promotions. In FY17, a total of five e-newsletters covering seasonal "green" tips, events, and askHRgreen.org campaign updates were sent out. By the end of FY17, the askHRgreen.org subscriber list reached more than 7,200 subscribers and continues to grow.

askHRgreen.org E-Newsletter Statistics	
Subscribers	7,268
Total Emails Sent	35,808
Total Opens	5,200
Open Rate	17.1%
Total Clicks	556
CTR (Click Through Rate)	1.6%

Online Toolkit

The askHRgreen.org Online Media Toolkit continues to be especially useful to committee members, civic leagues, community groups, homeowners associations, schools, clubs, businesses—and any organization or individual with an interest in improving neighborhoods and communities. Ideal for both online and print reproduction, the toolkit items are professionally designed and carry the signature askHRgreen.org graphic look. The materials are organized so it is easy for users to browse and select the topic they seek in the medium of their choice. In addition to logos, ads, rack cards, brochures, tip cards, and posters, there are feature articles, publications, infographics, radio ads, videos, and stickers available.

Events

Each year, askHRgreen.org participates in numerous regional events as part of the campaign's education and outreach efforts. These events take place throughout the year and range from small workplace eco fairs to large countywide festivals and almost everything in between. Committee members volunteer to staff either the askHRgreen.org mobile education trailer or a table display at these events and hand out educational materials and promotional items to those in attendance. In FY17, team members represented askHRgreen.org at 29 community events with an estimated attendance of over 90,000 people.

2016-2017 Regional Events			Estimated Attendance
9/10	Newport News Go Green Expo	Newport News	Unavailable
9/15-9/18	Isle of Wight County Fair	IOW	38,000
9/24	VBMG Fall Gardening Festival	Virginia Beach	1,200
10/7-10/9	Peanut Festival	Suffolk	20,000
10/19	Energy & Water Expo	NASA Langley Research Center	500
10/20	CNU Farmer's Market	Newport News	Unavailable
10/22	HRSLE	Virginia Beach	800
10/22	3rd Annual Litter & Recycling Expo	James City County	400
2/11-2/12	Hampton Roads Home Show	Hampton	5,000
3/11	Community Association Day	Virginia Beach	Unavailable
3/11-12	Virginia Aquarium Trash Bash	Virginia Beach	5,466
3/25-3/26	Williamsburg Home Show	Williamsburg	4,000
4/2	Wings & Things Spring Fling @ Hoffler Creek Wildlife Preserve	Portsmouth	350
4/4	ODU Public Health Fair	Norfolk	200
4/18	Anthem Eco Fair	Norfolk	Unavailable
4/19	Anthem Eco Fair	Virginia Beach	Unavailable
4/20	TCC Cares	Chesapeake	40
4/22	Virginia Living Museum Earth Day Event	Newport News	940
4/22	9th Annual Community Empowerment Fair	Newport News	470
4/28	JBB Elementary School Spring Event	James City County	100
5/6	Norfolk Utilities Employee Appreciation Event	Norfolk	115
5/10	VBPU Public Service Week & DWW Celebration	Virginia Beach	335
5/18	VB Public Works Employee Event	Virginia Beach	685
5/25	Sensible Seafood Festival	Virginia Beach	500
6/6	CMA-CGM Fair	Norfolk	600
6/8	NASA Langley Safety & Health Expo	Hampton	400
6/17	MOCA Family Fest Day	Virginia Beach	Unavailable
6/24	Olden Days	Smithfield	10,000
6/24	Noland Trail Celebration	Newport News	500

Grant Programs

Environmental Education Mini Grants

The askHRgreen.org Environmental Education Mini Grant Program provides grants of up to $500.00 for environmentally-themed projects. All Hampton Roads school teachers (K-12), youth leaders or organizations working with youth are eligible to apply. Eligible projects must relate to one or more of the askHRgreen.org program focal areas. In FY17, a total of $6,335.00 was awarded through 13 mini grants reaching more than 5,000 students in 10 localities across Hampton Roads.

Pet Waste Station Grants

Since 2013, the askHRgreen.org Pet Waste Station Grant Program has given citizens the opportunity to receive a free pet waste station to install and maintain in their neighborhoods. The program is geared toward neighborhood associations, community groups, and property managers who are managing communities with a pet waste problem. The pet waste stations come ready to install and include a post, sign, bag dispenser, waste can, hardware, 400 dog waste bags, and 50 can liners. The property manager or community group is responsible for installing the station, emptying the trash regularly, and replacing the bags as needed. The neighborhood is also tasked with promoting to residents the purpose of the stations and the impact pet waste has on local water quality. Since the launch of the program, 258 pet waste stations have been installed across the region. Of those, 27 were awarded and installed during FY17.

Fiscal Year 2016-2017 Results

2016-2017 Environmental Education Mini Grants				
Project	**# Students**	**School/Organization**	**City/County**	**Grant $**
Art in the Park	25	Western Branch Middle School	Chesapeake	$ 500.00
Students refurbished four park benches and completed murals on each of them as a beautification project.				
Cradock Community Care Project	120	Cradock Middle School	Portsmouth	$ 500.00
Cradock students identified areas with litter and participated in a community clean-up project.				
KinderGarden	100	Strawbridge Elementary School	Virginia Beach	$ 500.00
This project established a community garden on school grounds with a sensory path and various learning stations. Students sponge painted pavers with letters and numbers; planted and cared for native plants; and observed plant growth.				
Lafayette High School Beautification Project	1000	Lafayette High School	James City County	$ 500.00
Students, teachers, and parents participated in a beautification project around Lafayette High School to plant native plants, drought-tolerant plants, and repurposed plants, as well as add a recycling can and trash can in the student drop-off area.				
Learning/Vertical Palette Garden*	550*	Newtown Elementary School	Virginia Beach	$ 500.00*
Students used recycled palettes to create gardens with plants of their choice and provided water and maintenance.				
Lower School Children's Learning Garden	128	Walsingham Academy	Williamsburg	$ 500.00
This project engaged older and younger students to create a pollinator garden bed. After, the garden was used to teach students about plant growth and for other class activities such as reading time and journaling.				
Native Habitat – Pollinators, Pathways, and Prevention	650	Spratley Gifted Center	Hampton	$ 500.00
Students planted a successful vegetable garden and provided the school with a salad lunch and pesto. The project also featured native plants, sunflowers, and a pond. The garden is used to teach students about wildlife, as well as during reading time and instruction outside the classroom.				
Reading to Save the Earth	494	Oakland Elementary School	Suffolk	$ 500.00
Grant funds were used to purchase 31 library books related to Earth Day, recycling, and water conservation. The books are available for checkout to students, parents, and teachers.				
Recycling Plastic in the Classroom	500	Ghent School	Norfolk	$ 475.00
This project established a plastic recycling incentives program at Ghent School, which awarded prizes to individual students, classes, and grade levels for those who recycled the most each month. After six months, a total of 748 pounds of plastic were collected.				
Red Mill Community Garden	110	Red Mill Elementary School	Virginia Beach	$ 500.00
Students identified the Community Learning Garden as overgrown and underutilized & took steps to plant and clean in the garden. They also decorated with old bowling balls painted to look like insects. Since, they have used the garden for weekly outdoor lessons, plant growth observations, and searching/hunting around the garden.				
School Learning Garden	425	Booker T. Washington Middle School	Newport News	$ 500.00
This project will establish a learning garden/outdoor classroom for students. The teacher has requested an extension until after school begins in Fall 2017 to complete the project.				
To Our Schoolyard Watershed and Beyond!	400	Gloucester County Public Schools	Gloucester	$ 500.00
4th grade students from each of the five Gloucester County elementary schools visited Beaverdam Park for an outdoor field experience to learn about the Chesapeake Bay Watershed.				
Willoughby's Flower Garden	204	Willoughby Elementary School	Norfolk	$ 500.00
Students planted more than 200 flowers in on school grounds and maintained plants afterwards.				
Wolfgang Goes Green	400	Saint Patrick Catholic School	Norfolk	$ 360.00
This project will fund twelve 30-gallon recycling bins to be placed throughout the school to increase recycling awareness and to educate students about recycling. It is part of a larger initiative to become Project Learning Tree Green School-certified. Project will be completed in Fall 2017.				
	5,106			**$ 6,335.00**
Recycling & Beautification Subcommittee awarded $5,085 • Water Awareness Subcommittee awarded $1,250				

*Awarded in FY16, completed in FY17

Public Relations

FY17 was another busy year for askHRgreen.org in the media. A total of seven news releases and media advisories were issued through the program covering seasonal topics, news, events, and promotions which were picked up by a variety of media outlets. We also had several guest columns in various publications and team members participated in a number of informative interviews throughout the year. The total value of this publicity for FY17 was over $170,000.

Media	Date	Media Outlet	Topic	Length	Circ./ Imp	PR Value
P/O	July-August 2016	Coastal Virginia Magazine - Green Scene	Earn a Green Star - Bay Star Homes	1/3 page	35,000	$7,233.00
P/O	July-August 2016	Coastal Virginia Magazine - Green Scene	Energetic About Energy - Reducing energy consumption in Virginia	1/6 page	35,000	$5,043.00
P/O	July-August 2016	Coastal Virginia Magazine - Green Scene	Events and the Environment - Environmentally-friendly events	1/6 page	35,000	$5,043.00
P/O	July-August 2016	Coastal Virginia Magazine - Green Scene	Beyond the Bin - Community resource centers	1/6 page	35,000	$5,043.00
P/O	July-August 2016	Coastal Virginia Magazine - Green Scene	Grants for Plants - askHRgreen.org mini grant program	1/2 page	35,000	$9,963.00
P/O	July-August 2016	Coastal Virginia Magazine - Green Scene	Leaving Their Mark - askHRgreen.org storm drain marker project	2/3 page	35,000	$11,133.00
P/O	September-October 2016	Coastal Virginia Magazine - Green Scene	Eco-Artists at Work	1 + 3/4 pages	35,000	$20,523.00
P/O	Sunday, July 31, 2016	WTVZ-TV Our Issues Hampton Roads	askHRgreen.org interview	30:00 minutes	6,000	$2,250.00
T/O	Sun., September 18, 2016	WTVZ-TV Our Issues Hampton Roads	askHRgreen.org interview	30:00 minutes	6,000	$2,250.00
T/O	Thurs., December 01, 2016	WCTV-TV A Closer Look (aired 8x in Dec)	Green Holiday Tips - interview with Katie Cullipher	8:30 minutes	1,500	$600.00
P/O	Sat., Dec. 17, 2016	The Virginian-Pilot Home Section	A Letter to Santa from the Earth	28.2 col. inches	284,008	$9,948.00
T/O	Mon., Dec. 26, 2016	WTKR-TV	Christmas Tree Recycling and Pickup Schedules	Online page	15,000	$900.00
T/O	Winter 2017 Issue	Distinction Magazine	Online Advice for the Curious, askHRgreen.org	1/8 page	65,000	$2,763.00
T/O	January-February 2017	Coastal Virginia Magazine - Green Scene	Going Locavore	2 pages	35,000	$24,453.00
R	Jan. 3, 2017	Tidewater Comm. WNOR, WAFX, WJOI	New Years Resolutions from askHRgreen.org	30:00 minutes	15,600	$1,425.00
O	Fri., Feb. 17, 2017	Suffolk Sun Facebook Page	Environmental Action Awards	Online page	7,500	$450.00
P/O	Tues., Feb. 28, 2017	Suffolk News-Herald	Suffolk School Wins Recycling Award	21.8 col. inches	30,000	$1,440.00
P/O	Sat., April 22, 2017	Southside Daily	Spring Showers Will Reveal Write as Rain Messages	15.5 col. inches	20,000	$1,200.00
O	Mon., April 24, 2014	Newport News Now Blog	Write as Rain Surfaces this Week on a Sidewalk Near You	Online page	1,500	$135.00
P/O	Tues., April 25, 2017	Suffolk News-Herald	Write as Rain Campaign Launches	16.8 col. inches	30,000	$1,110.00
PO	Tues., April 25, 2017	WTKR-TV The Coast Live	A Rainy Day Messasge to Make Us All Live Greener	4:39 minutes	28,000	$2,100.00
PO	Thurs., April 27, 2017	The Virginian-Pilot	When it Rains, it Pours Messages at Your Feet	92.5 col. inches	284,008	$52,836.00
PO	Tues., May 02, 2017	WAVY-TV The Hampton Roads Show	Write as Rain Secret Messages	4:37 minutes	42,000	$3,000.00
PO	Tues., May 2, 2017	VA AWWA Newsletter	Just Add Water -- Rain Activated Environmental Messages	N/A	5,000	$525.00
P/O	Wed., June 14, 2017	Smithfield Times	Green Messages Appear After Rain	8.25 col. inches	6,345	$210.00
P/O	Thurs., June 29, 2017	City of Chesapeake Website	askHRgreen.org Receives Grants for Regional Projects	Online page	1,500	$135.00
					1,128,961	**$171,711.00**

"Write as Rain" Campaign

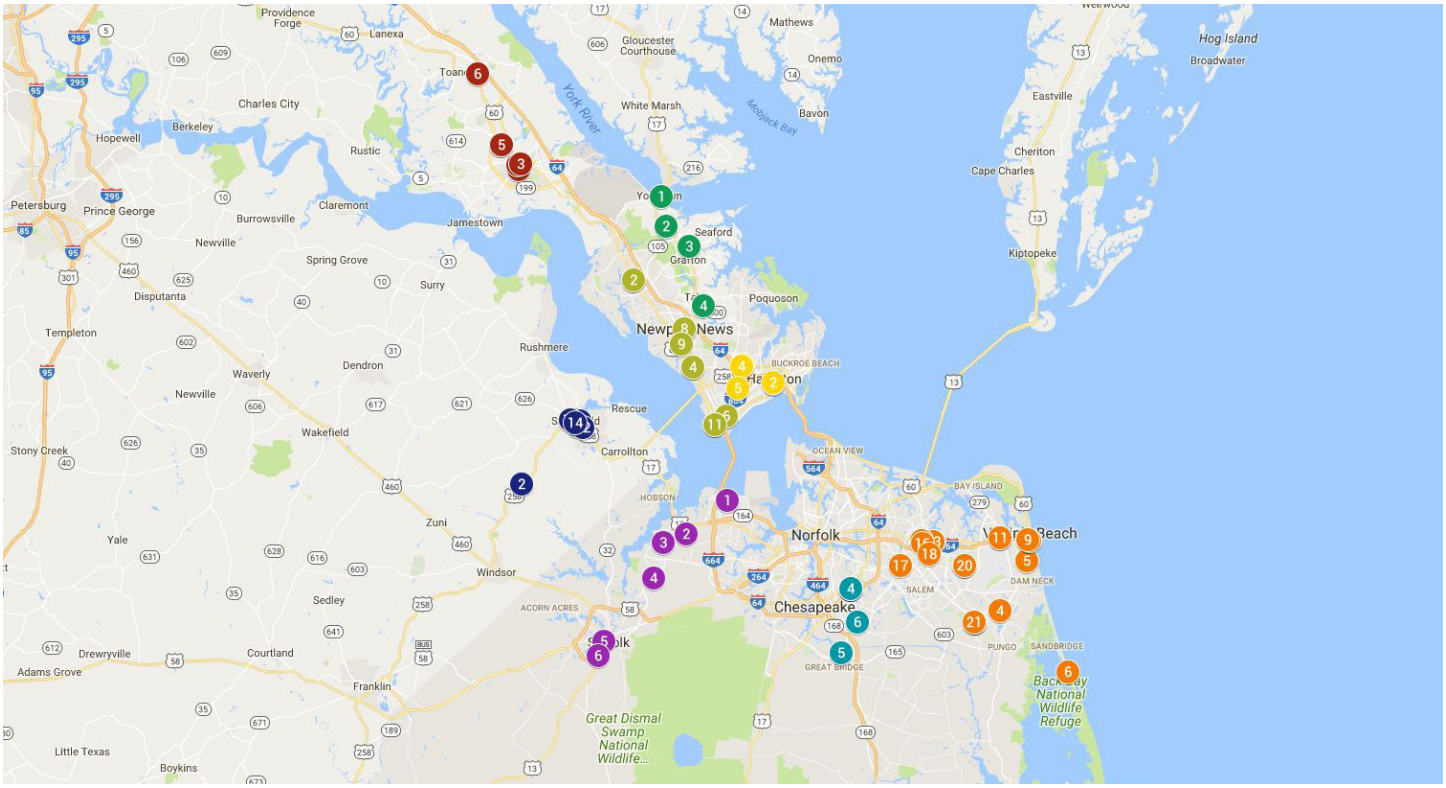
In April 2017, askHRgreen.org took its message to the streets of Hampton Roads with the "Write as Rain" campaign. The motivational campaign placed hidden good-to-know "green" messages on more than 60 sidewalks, streetscapes and thoroughfares across the region that became visible when wet. The goal of the campaign was to inspire people to think about our local environment in new ways.

The messages carried the hashtag #askhrgreen along with such sayings as: Only Rain Down the Storm Drain; No Wipes in Our Pipes; Your Morning Coffee Starts with Tap Water; and No Such Thing as a Little Litter. A map of participating locations was made available at www.askHRgreen.org/rainyday so residents could easily find the hidden messages throughout the region.

News of this innovative campaign spread across the region through various media outlets with a prominent feature in The Virginian-Pilot, on local news stations (WTKR-TV and WAVY-TV), and in several local newspapers. The "Write as Rain" campaign had a $6,600 budget and a public relations exposure value of over $60,000.

Write as Rain Stencil Locations

Locality	Number of Locations
Chesapeake	6
Gloucester	1
Hampton	5
Isle of Wight County	2
James City County	3
Newport News	11
Smithfield	7
Suffolk	6
Virginia Beach	21
Williamsburg	3
York County	4
	69



Write as Rain Public Relations		
Publications	**Impressions**	**PR Value**
Southside Daily	20,000	$1,200
Newport News Now Blog	1,500	$135
Suffolk News-Herald	30,000	$1,110
WTKR-TV The Coast Live	28,000	$2,100
The Virginian-Pilot	284,008	$52,836
WAVY-TV The Hampton Roads Show	42,000	$3,000
Virginia Section American Waterworks Association Newsletter	5,000	$525
Smithfield Times	6,345	$210
	416,853	**$61,116**

Write as Rain Online	
Facebook (April - September 7, 2017)	
Post Impressions	6,345
Post Clicks	400
Post Actions (Like/Share/Comment)	236
Video Views	2,076
Unique Video Views - 4/21/17 Video	1,220
Unique Video Views - 5/5/17 Video	509
Twitter (April - May 2017)	
Post Impressions	3,386
Post Engagement (Clicks/Retweet/Like)	42
Google Maps (April - September 7, 2017)	
Map Views	3,824
Website (April - September 7, 2017)	
Blog Post Views	536

Environmental Action Awards

In FY17, askHRgreen.org recognized two local schools and educators for their commitment to environmental stewardship and leadership. Ms. Wendy VanHosen, assistant principal at John Yeates Middle School in Suffolk, and Ms. Amber LaMonte, teacher at York High School in Yorktown, each received the Environmental Action Award from askHRgreen.org on Thursday, February 16, at the Hampton Roads Planning District Commission meeting in Chesapeake.

The Environmental Action Award was developed to recognize individuals who inspire youth (K-12) to have a positive impact on the environment by taking action in their schools or communities. The winning projects had previously received funding through the askHRgreen.org mini grant program and were selected as outstanding projects by a panel of askHRgreen.org committee members. John Yeates Middle School and York High School were two of 19 projects funded by askHRgreen.org in FY16 and considered for the award.

John Yeates Middle School was recognized for Ms. VanHosen's leadership of a school-wide recycling program. Not only did the project focus on the importance of recycling and reducing landfill contributions, but also on integrating diverse studies from art to science to social studies. The project itself is a sustainable initiative that will continue to impact students and the environment for years to come.

At York High School, Ms. LaMonte helped the school's green team improve availability and access to tap water and reduce plastic bottle waste by installing a water bottle filling station. The students tracked data on water usage and challenged their peers to reduce waste. Because of their efforts, the school experienced a 75 percent increase in the number of students carrying reusable water bottles.

In addition to the award, each school received a check for $100.00 to be spent to further their project or to launch a new environmental initiative.

York High School Teacher, Ms. Amber LaMonte, accepts the askHRgreen.org Environmental Action Award.

John Yeates Middle School Assistant Principal, Ms. Wendy VanHosen, accepts the askHRgreen.org Environmental Action Award.

Recycling & Beautification Subcommittee

The Recycling and Beautification Subcommittee is 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, and recycling education.

Great American Cleanup

Spring is cleanup season and most localities held multiple events starting in March and wrapped up with a final cleanup push for Clean the Bay Day on Saturday, June 3rd. Keep America Beautiful's Great American Cleanup theme, Clean Your Block, encouraged people to clean up litter and take ownership of their neighborhoods and businesses. The Subcommittee supported regional Great American Cleanup events by featuring event details for each locality prominently on the website along with general promotions on social media, the Let's Talk Green blog and the askHRgreen.org e-newsletter.

America Recycles Day

Each fall the Subcommittee promotes Keep America Beautiful's America Recycles Day, a national celebration on November 15th that promotes the importance of recycling. Locally, nearly every city and county hosted a recycling and/or education event. In addition to the popular paper shredding and electronics recycling services, many localities added the option for residents to bring donations of clothing and housewares. Increasingly, localities offer electronics recycling and other specialty recycling services year-round through permanent collection facilities or events held in different locations each month/quarter, etc. Local America Recycles Day events were promoted by the Subcommittee with a news release and promotion on the website, social media, the Let's Talk Green blog and askHRgreen.org e-newsletter.

AMERICA RECYCLES DAY

Christmas Tree Recycling

In FY17, the Subcommittee encouraged residents to take advantage of Christmas tree recycling programs across the region. Most Hampton Roads localities provide free Christmas tree pickup and disposal for residents. Some localities are able to compost or mulch the trees to reduce landfill contributions. To promote these free municipal programs, a media advisory was issued and collection schedules were featured prominently on the website, social media, the Let's Talk Green blog and the askHRgreen.org e-newsletter.

Cigarette Litter Prevention

Following the 2015-2016 award winning Cigarette Litter Prevention Program (CLPP), several Subcommittee members were interested in implementing the program in new places. This included some localities that had not previously participated in the program. Due to the high cost of procuring ash receptacles, the Subcommittee researched and applied for several grants. In June 2017, the Subcommittee learned that they had been selected as a recipient of a Keep Virginia Beautiful 30-in-30 grant. The Keep Virginia Beautiful 30-in-30 grant awards grants of $500-$1,000 for projects in these four categories: Community Beautification and Greening, Litter Prevention, Recycling, and Cigarette Litter Prevention. Additionally, the Subcommittee learned they had been selected as one of five recipients awarded a bonus grant of $2,000. The Subcommittee is planning to implement the CLPP project regionally during FY18.

Recycling Contamination

In FY17, the Subcommittee continued work on a regional strategy to improve the quality and quantity of recycled materials recovered through residential recycling. The participating localities of James City County, Suffolk and Newport News performed recycling audits during FY17. The findings of the audits were paired with demographic data from the targeted recycling routes to identify trends in curbside recycling behavior and help tailor outreach priorities. For example, the materials recycled in one

downtown Suffolk route were too contaminated to audit while materials recycled in a more suburban area of Suffolk revealed very specific types of contamination in the recycled materials including plastic bags and yard debris. Armed with this new insight, the Subcommittee will take the information gathered in the audit process and target outreach to specific routes based on specific needs.

Litter and Marine Debris

During FY17, the Subcommittee continued work on developing a region-wide litter campaign. The ongoing campaign will center around printed materials the committee members can use to promote cleanups like Adopt-a-Spot and Great American Cleanup in addition to general outreach to residents and businesses. The Subcommittee agreed to the production of a series of posters and rack cards targeting litter from youth, adults, and businesses. Additional tools and materials are scheduled for production in FY18.

Residential Recycling

The Subcommittee continued to expand the Recycle More, Trash Less campaign during FY17. The Recycle More, Trash Less media campaign includes radio and display ads as well as branded posters and rack cards. New in 2017 were the development of a Recycle More, Trash Less video and updates to the rack cards and posters. The new video was developed using the existing Dr. Seuss-inspired radio campaign and adding fun graphics to accompany the audio. Updates were needed to the posters and rack cards after TFC Recycling announced they would begin accepting cartons for recycling.

The new Recycle More, Trash Less video was used as part of a six-week online campaign that ran from February 20 to April 2 and included digital ads, targeted display, native ads, video pre-roll and Facebook. As added value for the paid media campaign, additional display ads were posted on WTKR.com.

Recycle More Trash Less Video Campaign	
Paid Media – 6 weeks (Online)	
Target Audience: Adults 25-54	
Audience Targeted Display	
Impressions	218,627
Clicks	473
CTR (Click Through Rate)	0.22%
Online Display Ads	
Impressions	80,012
Clicks	89
CTR (Click Through Rate)	0.11%
Video Pre-roll Ads	
Impressions	52,778
Clicks	708
CTR (Click Through Rate)	1.34%
Native Ad Content	
Impressions	80,005
Clicks	539
CTR (Click Through Rate)	0.67%
Facebook	
Impressions	72,838
Clicks	1,386
CTR (Click Through Rate)	1.90%
Unpaid Media	
Added Value	$2,286
Added Value Impressions	99,405
Overall Campaign	
Total Impressions	603,665
Total Video Views	52,778
Total Clicks	3,195
Total Budget	$7,500
Total Exposure Value	$9,786
Return on Investment	$1.30:1
Cost per Thousand Impressions	$12.42

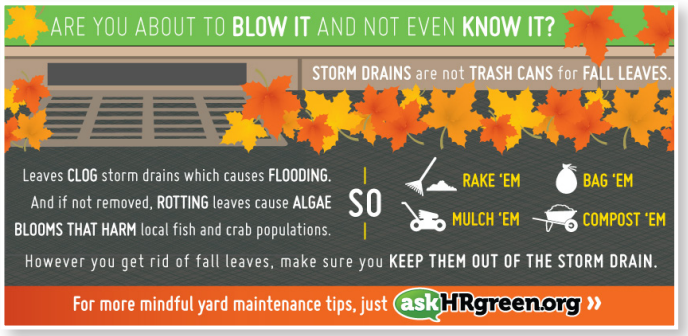
Stormwater Education Subcommittee

The Stormwater Education Subcommittee is a cooperative partnership of the region's seventeen member cities and counties. This effort has been underway since 1997 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). Local government staff members work together to share ideas and pool resources for various education programs tailored to stormwater pollution prevention.

Leaf and Pet Waste Disposal

The Stormwater Education Subcommittee ran a two-week campaign from November 7 through November 20 reminding Hampton Roads residents that storm drains are not the proper disposal option for fallen leaves and pet waste. The campaign message also explained the role leaves play in localized flooding caused by clogged drains and the role both leaves and pet waste play in degrading local water quality. Because leaf disposal methods vary by locality, citizens are encouraged to rake, bag, mulch, or compost the leaves.

The campaign included radio ads, targeted online display ads, native content, and Facebook ads. There was also an on-air contest with Max Media included as added value. The winner of a true/false leaf disposal quiz won an askHRgreen.org gift bag, movies passes and was entered to win a $100 gift card to Taylor's Do-It Center. This also included a minimum of 25 mentions per station (100 total) and inclusion on the website contest page.



Leaves/Pet Waste Campaign Results	
Paid Media – 2 weeks (Radio and Online)	
Target Audience: Adults 35-64	
Radio	
Impressions	526,100
Reach	35.10%
Frequency	2.4
Online	
Audience Targeted Display	
Impressions	74,955
Clicks	29
CTR (Click Through Rate)	0.04%
Native Content Ads	
Impressions	20,007
Clicks	653
CTR (Click Through Rate)	3.26%
Facebook Ads	
Impressions	98,516
Clicks	1,262
CTR (Click Through Rate)	1.28%
Unpaid Media	
Added Value	$8,116
Overall Campaign	
Total Impressions	719,578
Total Clicks	1,944
Total Budget	$9,558
Total Exposure Value	$17,674
Return on Investment	$1.85 : 1
Cost per Thousand Impressions	$13.28

Lawn Care Practices

The Stormwater Education Subcommittee encouraged residents to "work smarter, not harder" with their spring campaign promoting residential lawn care best management practices. The campaign covered tips such as testing soil before applying fertilizer, seeding bare spots, leaving grass clippings on the lawn, replacing turf grass with flower beds, planting native plants, and more.

The two-week campaign ran from April 3 through April 16 and included radio ads, targeted display ads, digital ads

on WTKR.com, and Facebook ads. As added value for the paid media campaign, the Subcommittee also received inclusion in contests held by the station with gift cards to local home improvement stores and nurseries to the winning participants.

Lawn Care Campaign Results	
Paid Media – 2 weeks (Radio and Online)	
Target Audience: Men 35+	
Radio	
Target Audience Impressions	440,100
Target AudienceReach	38.40%
Target Audience Frequency	3.0
Total Campaign Impressions	792,600
Online	
Audience Targeted Display	
Impressions	32,533
Clicks	86
CTR (Click Through Rate)	0.26%
Online Display Ads	
Impressions	2,394
Clicks	23
CTR (Click Through Rate)	0.96%
Facebook Ads	
Impressions	140,482
Clicks	4,787
CTR (Click Through Rate)	3.41%
Unpaid Media	
Added Value	$11,762
Overall Campaign	
Total Impressions	968,009
Total Clicks	4,896
Total Budget	$10,450
Total Exposure Value	$22,212
Return on Investment	$2.13 : 1
Cost per Thousand Impressions	$10.80

Pet Waste Disposal

Pet waste continued to be a high priority topic for the Stormwater Education Subcommittee. In addition to the fall paid media campaign on pet waste and leaf disposal, the Subcommittee also distributed "scoop the poop" branded materials such as dog waste bag holders and hand sanitizer to pet owners in the region. The scoop the poop message was also included in general askHRgreen.org promotions such as newsletters, blog posts, social media and multiple community events.

The Subcommittee also continued the ever popular Pet Waste Station Grant program. Since the launch of the program, 258 pet waste stations* have been awarded and installed across the region. Of those, 27 were awarded and installed during FY17.

New Pet Waste Stations in FY17	
City/County	Number
Chesapeake	5
Gloucester	2
Hampton	7
James City County	9
Newport News	4
Total	**27**

*This total may reflect additional pet waste stations issued by locality-funded programs.

Bay Star Homes

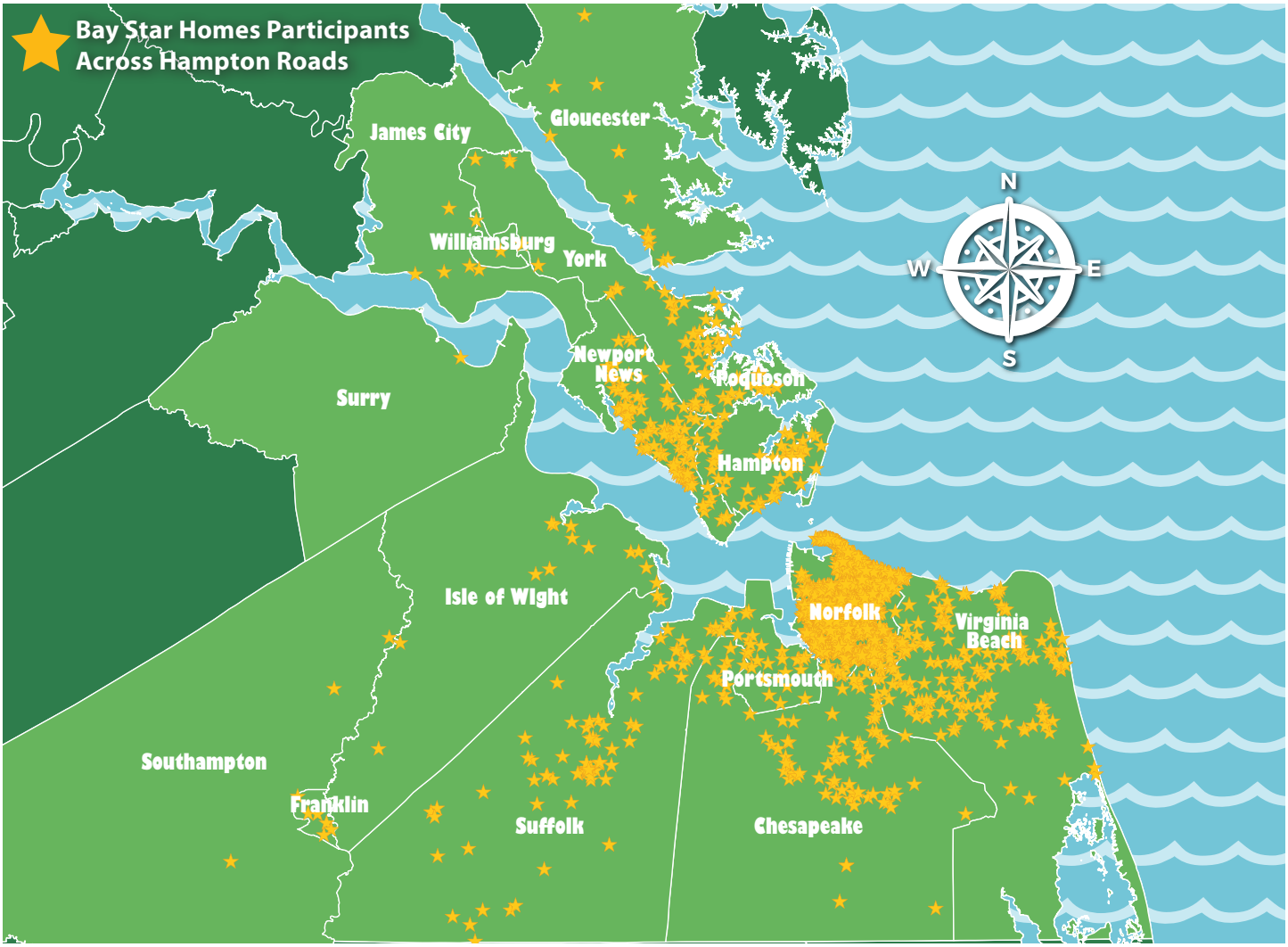
The Bay Star Homes (BSH) program continued in FY17. The program recognizes residents who pledge to avoid behaviors that are harmful to local waterways and encourages private property owners to implement voluntary stormwater management techniques such as rain barrels, rain gardens and downspout disconnects. Residents are also encouraged to begin incorporating more environmentally-friendly choices into their daily routine. Because the BSH program incorporates broad environmentally-friendly behaviors from all askHRgreen.org education programs, the program focuses not just on clean waterways, but also green living and clean communities in general.

New in 2017, the Subcommittee was able to offer three Bay Star Home workshops as part of a grant from the Chesapeake Bay Restoration Fund (CBRF) for southside and peninsula residents. Topics included soil testing, environmentally-friendly lawncare practices, techniques for tree siting and pruning, and rain barrels. The workshops helped clarify the connection between stormwater infrastructure and local waterways, including the Chesapeake Bay. The "Plant Smarter: Landscaping and Lawncare for the Peninsula" workshop was conducted in partnership with the City of Hampton and the City of Newport News on March 23, 2017 at Sandy Bottom Nature Park in Hampton. There, 36 participants learned about soil testing, environmentally-friendly methods for lawncare, and techniques for tree siting and pruning. Participants received Eastern redbud seedlings (a total of 66 seedlings were given away), askHRgreen.org informational brochures, DCR brochures on native plants and invasive species, and information on additional upcoming opportunities, including rain barrel workshops and native plant sales. In addition, rain barrel workshops were conducted in partnership with the City of Suffolk on May 20, 2017 at the Suffolk Art Gallery and on June 10, 2017 at Bennett's Creek Park in Suffolk. The workshops hosted a total of 74 participants and 37 rain barrels were given away. As a result of the workshops, the City of Suffolk was also able to create a "How-to" video to assist others in creating their own rain barrels.

As another part of the CBRF grant, Bay Star Homes was able to offer free soil testing for those who signed up during the months of July and October. Each winner received a letter congratulating them for being selected along with a soil test kit, instructions on how to collect the soil sample, and information on where to return the sample. Respondents' soil samples were tracked and sent off to the Virginia Cooperative Extension for analysis. They later received a personalized letter with their detailed soil test reports and an easy-to-read chart providing an overview of how their soil measured up. While 77 participants were contacted about the offer for free soil testing, only nine residents returned a soil sample for processing.

Bay Star Homes Registrants
(as of June 30, 2017)

City/County	Number
Chesapeake	83
Franklin	9
Gloucester	15
Hampton	55
Isle of Wight	6
James City	4
Newport News	137
Norfolk	1,763
Poquoson	12
Portsmouth	28
Smithfield	6
Southampton	1
Suffolk	83
Surry	1
Virginia Beach	153
Williamsburg	5
York	48
Total	**2,409**



Storm Drain Medallion Program

With thousands of storm drains across Hampton Roads that lead directly to local waterways, the Storm Drain Medallion Program is a great way to help people remember that "only rain belongs down the drain." Volunteers from local schools, youth groups, civic groups and others work to identify storm drains without markings in their area then adhere medallions stating "No Dumping: Leads to Waterway" directly onto the storm drain. The Subcommittee promotes the program to schools, community associations, youth clubs, and volunteer groups of all ages across the region using the askHRgreen.org website and e-newsletter, social media, and more. The program is particularly popular with schools and Boy Scout and Girl Scout troops.

Approved applicants through the Storm Drain Medallion Program each receive medallions, adhesive, a lesson plan, and PowerPoint presentation about stormwater and how individual actions affect local water quality. Each locality is involved in finding areas in need of markers and documenting the new ones that are applied. This fiscal year, the Subcommittee helped place 52 new medallions in Hampton Roads. Many more medallions were also placed through locality-initiated activities and programs.

Water Awareness Subcommittee

The Water Awareness Subcommittee is an education committee comprised of local government staff members who are committed to promoting and educating citizens about aging infrastructure, the value of tap water, and the importance of being good water stewards. This cooperative effort to promote conservation and awareness of the importance of water assists localities in meeting requirements of various water supply and ground water permits.

Fixing Leaks

Each year the Subcommittee promotes Fix-a-Leak Week in partnership with the EPA WaterSense program. The annual water conservation week encourages citizens to chase down leaks in their home and make simple repairs to worn out fixtures. The Subcommittee reused the fixing leaks TV campaign produced in FY16 for a TV and online campaign. The one-week campaign ran from March 20 to 26 on WVEC, WAVY, Cox Cable, and WTKR.com.

Value of Water

The Subcommittee used the value of water TV campaign produced in FY16 for a TV and online campaign in FY17. The value of water TV campaign explains that tap water is amazingly inexpensive and a great value when considering all the ways we depend on it each day. The one-week campaign ran from May 8 to 14 on WVEC, WAVY, Cox Cable, and WTKR.com.

Infrastructure

The Subcommittee used the infrastructure TV campaign produced in FY16 for a TV and online campaign in FY17. The infrastructure TV campaign describes the water infrastructure required to provide reliable, convenient tap water services to residents in Hampton Roads and the importance of investing in the maintenance of these systems. The one-week campaign ran from May 22 to 28 on WVEC, WAVY, Cox Cable, and WTKR.com.

Imagine A Day Without Water

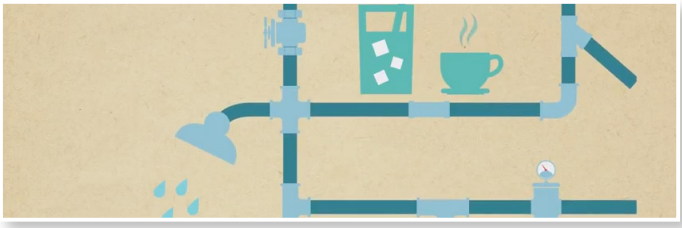
The Subcommittee joined with municipal water authorities across the U.S. to promote "Imagine a Day Without Water." On September 15, 2016, the U.S. Water Alliance, through its Value of Water Campaign, raised awareness about the importance of water and the often invisible challenges to water infrastructure. The purpose of the campaign was to get citizens thinking about how much their daily routine would change if they did not have readily available tap water. It explained a day without water is also a day

Fix-a-Leak Week Campaign Results	
Paid Media – 1 Week (TV and Online)	
Target Audience: Adults 25-54	
Television	
Target Audience Impressions	1,093,000
Target AudienceReach	37.70%
Target Audience Frequency	4
Total Campaign Impressions	2,457,300
Online	
Audience Targeted Display	
Impressions	57,321
Clicks	290
CTR (Click Through Rate)	0.51%
Online Display Ads	
Impressions	14,669
Clicks	110
CTR (Click Through Rate)	0.75%
Native Content Ads	
Impressions	29,000
Clicks	288
CTR (Click Through Rate)	0.99%
Facebook Ads	
Impressions	58,500
Clicks	1,233
CTR (Click Through Rate)	2.11%
Unpaid Media	
Added Value	$3,517
Added Value Impressions	168,881
Overall Campaign	
Total Impressions	2,785,671
Total Clicks	1,921
Total Budget	$16,641
Total Exposure Value	$20,158
Return on Investment	$1.21 : 1
Cost per Thousand Impressions	$5.97

without showers, coffee, flushing toilets, sanitary hospitals, fire protection and more. The Subcommittee promoted "Imagine a Day Without Water" with a blog entitled "It's Not Just Water" on the Let's Talk Green blog and social media postings about investing in water infrastructure.

Value of Water/Drinking Water Week Campaign Results	
Paid Media – 1 Week (TV and Online)	
Target Audience: Adults 25-54	
Television	
Target Audience Impressions	1,069,000
Target AudienceReach	40.60%
Target Audience Frequency	3.7
Total Campaign Impressions	2,355,700
Online	
Audience Targeted Display	
Impressions	56,918
Clicks	262
CTR (Click Through Rate)	0.46%
Online Display Ads	
Impressions	14,324
Clicks	95
CTR (Click Through Rate)	0.66%
Native Content Ads	
Impressions	42,099
Clicks	1,091
CTR (Click Through Rate)	2.59%
Facebook Ads	
Impressions	182,641
Clicks	5,083
CTR (Click Through Rate)	2.78%
Unpaid Media	
Added Value	$1,617
Added Value Impressions	7,500
Overall Campaign	
Total Impressions	2,659,182
Total Clicks	6,531
Total Budget	$16,641
Total Exposure Value	$18,258
Return on Investment	$1.10 : 1
Cost per Thousand Impressions	$6.26

Infrastructure Campaign Results	
Paid Media – 1 Week (TV and Online)	
Target Audience: Adults 25-54	
Television	
Target Audience Impressions	1,069,000
Target AudienceReach	40.60%
Target Audience Frequency	3.7
Total Campaign Impressions	2,355,700
Online	
Audience Targeted Display	
Impressions	32,834
Clicks	156
CTR (Click Through Rate)	0.48%
Online Display Ads	
Impressions	11,166
Clicks	79
CTR (Click Through Rate)	0.71%
Native Content Ads	
Impressions	42,307
Clicks	342
CTR (Click Through Rate)	0.81%
Facebook Ads	
Impressions	133,117
Clicks	2,604
CTR (Click Through Rate)	1.96%
Unpaid Media	
Added Value	$354
Added Value Impressions	7,500
Overall Campaign	
Total Impressions	2,582,624
Total Clicks	3,181
Total Budget	$16,641
Total Exposure Value	$16,995
Return on Investment	$1.02 : 1
Cost per Thousand Impressions	$6.44



Fats, Oils & Grease Education Subcommittee

The Fats, Oils, and Grease (FOG) Education Subcommittee is a coalition of local government staff members and HRSD working together to share ideas and pool resources for various education programs tailored to preventing sanitary sewer overflows and backups caused by 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.

Holiday FOG

Each holiday season, the Subcommittee encourages Hampton Roads residents to practice kitchen BMPs for keeping fats, oils and grease out of drains. With the increase in holiday cooking this is an important time of year to promote the FOG message. The holiday-themed promotion ran from November 19 to November 25 and advised the public to keep fats, oils and grease out of the drain. It also discouraged garbage disposal use. The one-week campaign included 60-second radio ads, Facebook ads, targeted display ads, and native content ads.

As added value for the paid campaign, 92.9 The Wave and Eagle 97 recorded a video about keeping grease out of the drain and directing people to visit askHRgreen.org. Other added value included sponsorship of the Greatest Hits Weekend and Best of Dick Lamb and the Morning Wave show on 92.9 The Wave.

What Not to Flush

The Committee reused the "It came from beneath the streets" campaign previously used for movie theater ads for a one-week TV and online media campaign. Themed after a classic horror movie, the campaign alludes to the potential for sanitary sewer overflows to occur when the public uses the toilet as a trash can. Wipes, cotton balls/swabs and other personal hygiene can all play a role in clogging sanitary sewer lines and damaging wastewater machinery. The one-week campaign ran for the week leading up to the Super Bowl, January 30 to February 5, on local stations WVEC, WAY, Cox Cable, and WTKR.com.

Holiday FOG Campaign Results	
Paid Media – 1 week (Radio and Online)	
Target Audience: Adults 25-64	
Radio	
Impressions	637,780
Reach	23.40%
Frequency	3.1
Online	
Audience Targeted Display	
Impressions	59,717
Clicks	26
CTR (Click Through Rate)	0.04%
Native Content Ads	
Impressions	9,890
Clicks	292
CTR (Click Through Rate)	2.95%
Facebook Ads	
Impressions	59,249
Clicks	1,259
CTR (Click Through Rate)	2.12%
Unpaid Media	
Added Value	$8,663
Added Value Impressions	N/A
Overall Campaign	
Total Impressions	766,636
Total Clicks	1,577
Total Budget	$5,738
Total Exposure Value	$14,401
Return on Investment	$2.51:1
Cost per Thousand Impressions	$7.48

What Not to Flush Campaign Results	
Paid Media – 1 week (TV and Online)	
Target Audience: Adults 18+	
Television	
Target Audience Impressions	904,000
Target Audience Reach	36.30%
Target Audience Frequency	3.5
Total Campaign Impressions	2,076,800
Online	
Audience Targeted Display	
Impressions	24,126
Clicks	60
CTR (Click Through Rate)	0.25%
Online Display Ads	
Impressions	14,999
Clicks	5
CTR (Click Through Rate)	0.03%
Native Content Ads	
Impressions	25,627
Clicks	288
CTR (Click Through Rate)	1.12%
Facebook Ads	
Impressions	56,461
Clicks	2,421
CTR (Click Through Rate)	4.29%
Unpaid Media	
Added Value	$1,360
Added Value Impressions	47,754
Added Value Clicks	12
Overall Campaign	
Total Impressions	2,245,767
Total Clicks	2,786
Total Budget	$13,546
Total Exposure Value	$14,906
Return on Investment	$1.10:1
Cost per Thousand Impressions	$6.03

Down the Drain Campaign Results	
Paid Media – 1 week (TV and Online)	
Target Audience: Adults 25-54	
Television	
Target Audience Impressions	904,000
Target Audience Reach	36.80%
Target Audience Frequency	3.4
Total Campaign Impressions	2,038,800
Online	
Audience Targeted Display	
Impressions	41,400
Clicks	87
CTR (Click Through Rate)	0.21%
Online Display Ads	
Impressions	15,000
Clicks	8
CTR (Click Through Rate)	0.05%
Native Content Ads	
Impressions	52,263
Clicks	469
CTR (Click Through Rate)	0.90%
Facebook Ads	
Impressions	63,406
Clicks	1,568
CTR (Click Through Rate)	2.47%
Unpaid Media	
Added Value	$4,183
Added Value Impressions	75,353
Added Value Clicks	24
Overall Campaign	
Total Impressions	2,286,222
Total Clicks	2,156
Total Budget	$13,546
Total Exposure Value	$17,729
Return on Investment	$1.31:1
Cost per Thousand Impressions	$5.93

Down the Drain

The Subcommittee reused the Down the Drain TV ad produced in FY16 for a TV and online media campaign in FY17. The campaign message includes two focus areas: proper disposal of FOG and what not to flush. The ad tells residents to keep FOG, food scraps, and personal hygiene products like wipes out of the drains and demonstrates how blockages can contribute to sanitary sewer overflows. The one-week campaign ran from February 13 to 19 on local stations WVEC, WAY, Cox Cable, and WTKR.com.

Fats, Oils and Grease Regional Training Program

In FY17, the FOG Education Subcommittee continued to utilize the regional website, www.HRFOG.com, for training and certification. Through the website, grease haulers and food service industry employees receive free training and certification on proper maintenance of grease control devices and the harmful effects of FOG on the region's sanitary sewer systems. The website helps locality staff manage, train and enforce the FOG ordinances present in some Hampton Roads municipalities.

The Subcommittee continued work on improving compliance with the regional FOG program. In FY17, the Subcommittee hosted a Regional Grease Hauler Forum that took the form of a lunch and learn workshop and roundtable. Grease haulers were offered lunch and an updated HRFOG certification for attending certification refresher training followed by a roundtable discussion between grease haulers, HRSD and locality staff. Grease haulers were encouraged to ask any questions they had about complying with local FOG ordinances. About 30 employees from local grease hauler companies attended the training.

Glossary of 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

SEM 12-Month Report

askHRgreen - 12 Month for askHRgreen

Date range July 01, 2016 to June 30, 2017

Created on July 10, 2017

Search Engine Marketing (SEM): **Executive Summary**

Over the past 12 months, your campaign has continued to perform well, growing clicks, Click Through Rate and Ad Position while maintaining Search Impression Share. The majority of clicks come from the Recycling at Home/Residential Recycling, Medication Disposal and Electronics Recycling ad groups, along with your Branded ad group.

During this period we have updated your ads to align with promotions on your website and in your newsletters. We have also spent time reviewing bids to ensure you are paying the most efficient price for each click, as well as reviewing search terms to ensure your ads are showing to the most relevant audience.

Traffic to your website was up 10% over the past 12 months compared to this same period the previous year, with a significant increase in Goal Completions. Top Traffic Channels included Organic Search, Other (appears to be local media campaigns) and Direct, with Paid Search driving 80% New Sessions with a double digit conversion rate. You also saw a 60% increase in mobile traffic, with mobile going from 30% of your site traffic to 44%. This increase in mobile has caused some declines in your Behavior metrics since users have trouble navigating to more pages and staying on site for a long period of time when on a mobile device. Your new mobile friendly website will help dramatically with this.

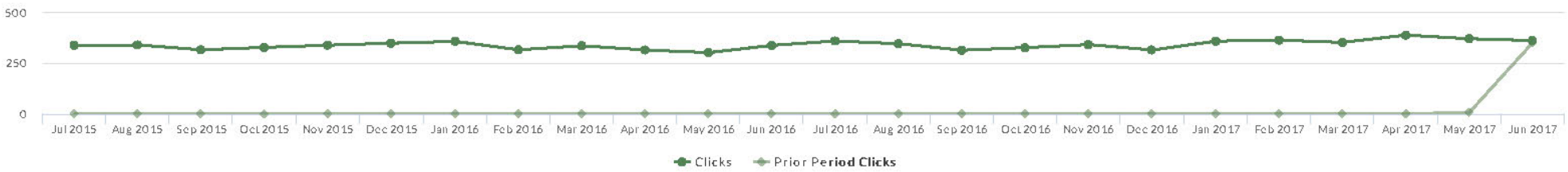
AdWords Search KPIs

Google Adwords Search campaigns

Clicks	Impressions	CTR	Avg. CPC	Average Position	Avg. Daily Search Impr. Share
4.23K	107.92K	3.92%	$2.89	1.56	45.52%
4.00K	158.28K	2.53%	$2.26	1.81	39.11%
▲6%	▼32%	▲55%	▲28%	▼13%	▲16%

Clicks Over Time

Google Adwords campaigns data grouped by month



Top Traffic Sources

Google Analytics traffic sources

Default Channel Grouping	Sessions	New Users	% New Sessions	Bounce Rate	Avg. Session Duration	Pages/Session	Goal Completions	Goal Conversion Rate
Organic Search	23,858	20,255	84.90%	77.82%	01:12	1.60	6,622.00	27.76%
(Other)	11,625	8,143	70.05%	89.82%	00:32	1.17	7,375.00	63.44%
Direct	8,710	7,094	81.45%	73.69%	01:23	1.81	3,049.00	35.01%
Referral	5,032	3,894	77.38%	68.36%	02:16	2.10	2,473.00	49.15%
Social	4,532	3,472	76.61%	84.55%	01:01	1.48	891.00	19.66%

Pilot MEDIA

askHRgreen - 12 Month for askHRgreen

Date range July 01, 2016 to June 30, 2017

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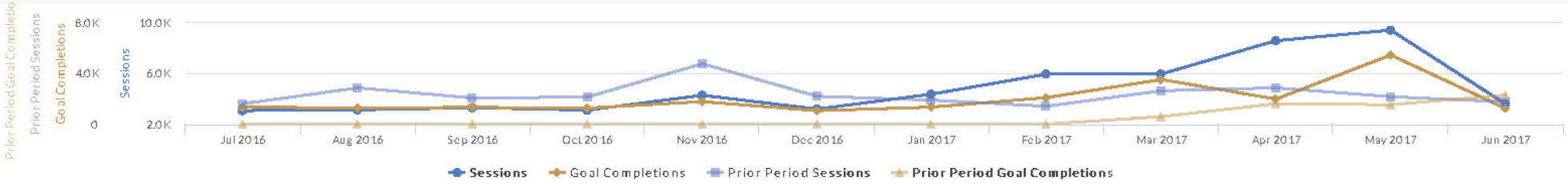
Traffic Trends

Google Analytics campaigns data grouped by month



Analytics KPIs

Google Analytics traffic sources

Sessions	New Users	% New Sessions	Bounce Rate	Pages/Session	Avg. Session Duration	Goal Completions	Goal Conversion Rate
58.11K	46.28K	79.64%	79.07%	1.59	01:11	23.81K	40.97%
52.53K	42.27K	80.46%	74.92%	1.77	01:31	6.07K	11.55%
▲11%	▲10%	▼1%	▲6%	▼10%	▼22%	▲292%	▲255%

Goal Completions

Google Analytics goal

Goal Name	Completions	Conversion Rate
Average Page Views Per Session	6,420	11.05%
Time on Site	4,897	8.43%
Healthy Drinking Water Page	4,079	7.02%
Recycle More Trash Less RMTL Page	2,611	4.49%
Recycling at Home Page	2,611	4.49%
Fats, Oils, and Grease Disposal Page	2,003	3.45%
Let's Talk Green Blog Page	415	0.71%
Stormwater Run-off Page	299	0.51%
Mini Grant Application Package Page	202	0.35%
Scoop the Poop Page	155	0.27%

askHRgreen - 12 Month for askHRgreen

Date range July 01, 2016 to June 30, 2017

Created on July 10, 2017

Top 5 Campaigns By Clicks

Google Adwords campaigns

Campaign Name	Clicks	Impressions	CTR	Avg. CPC	Average Position	Avg. Daily Search Impr. Share
R&B	1,621	38,336	4.23%	$3.13	1.38	30.29%
Stormwater	1,168	22,432	5.21%	$2.70	1.34	60.93%
askHRgreen.org	784	12,839	6.11%	$1.77	1.11	59.08%
Water	625	33,299	1.88%	$4.06	2.09	31.23%
FOG	28	1,014	2.76%	$2.58	2.04	49.59%

Top 10 Ad Groups By Clicks

Google Adwords ad groups

Ad Group	Clicks	Impressions	CTR	Avg. CPC	Average Position	Avg. Daily Search Impr. Share
Recycling at Home/Residential Recycling	1,086	28,546	3.80%	$3.46	1.41	26.93%
Medication Disposal	611	6,520	9.37%	$2.31	1.48	60.97%
askHRgreen.org	336	1,040	32.31%	$0.51	1.02	88.64%
Electronics Recycling	293	3,278	8.94%	$2.39	1.62	30.77%
Environmental Education	248	6,877	3.61%	$3.14	1.07	57.78%
Drinking Water/Tap Water	247	11,841	2.09%	$3.88	1.34	32.53%
Soil Testing	224	6,627	3.38%	$3.13	1.21	67.27%
TMDL	220	4,381	5.02%	$2.49	1.04	66.47%
What to Recycle	189	5,555	3.40%	$2.65	1.11	47.65%
Water Filters/Filtration	125	9,205	1.36%	$3.96	3.26	24.21%

Pilot MEDIA

askHRgreen - 12 Month for askHRgreen

Date range July 01, 2016 to June 30, 2017

Created on July 10, 2017

Top 10 Keywords by Clicks

Google Adwords keyword breakdown

Keyword	Ad Group	Clicks	Total Impressions	CTR	Avg. CPC	Average Position
recycle	Recycling at Home/Residential Recycling	995	64,262	1.55%	$3.50	1.37
medicine disposal	Medication Disposal	413	12,142	3.40%	$2.64	1.45
environmental issues	Environmental Education	201	12,587	1.60%	$3.29	1.06
tap water	Drinking Water/Tap Water	125	11,712	1.07%	$3.88	1.20
recycling centers	What to Recycle	121	9,633	1.26%	$2.88	1.06
chesapeake bay watershed	TMDL	117	6,260	1.87%	$2.21	1.05
"soil sample testing"	Soil Testing	110	7,803	1.41%	$3.40	1.10
safe drinking water	Drinking Water/Tap Water	98	13,538	0.72%	$3.95	1.34
how to dispose of old medication	Medication Disposal	95	1,586	5.99%	$1.48	1.10
askhrgreen	askHRgreen.org	91	641	14.20%	$0.25	1.00
electronics recycling	Electronics Recycling	90	2,142	4.20%	$3.13	1.21
water filters	Water Filters/Filtration	90	11,232	0.80%	$4.12	3.16
hr green	askHRgreen.org	73	640	11.41%	$0.80	1.02
going green	Green Home/Practices	73	6,701	1.09%	$2.84	1.14
hampton roads recycling	Hampton Roads Environment	70	1,261	5.55%	$1.16	1.16
best bottled water	Bottled Water	67	4,189	1.60%	$4.87	1.28
recycling	Recycling at Home/Residential Recycling	59	3,554	1.66%	$2.49	1.37
ask hr green	askHRgreen.org	59	473	12.47%	$0.79	1.03
hrgreen	askHRgreen.org	53	342	15.50%	$0.53	1.00
askhrgreen.org	askHRgreen.org	52	422	12.32%	$0.26	1.02
dispose of old medicine	Medication Disposal	48	987	4.86%	$1.69	1.14
environmental problems	Environmental Education	43	3,068	1.40%	$2.49	1.10
"recycling computers"	Electronics Recycling	42	1,424	2.95%	$2.50	1.64
disposing of medicine	Medication Disposal	40	1,057	3.78%	$2.00	1.15
go green	Green Home/Practices	40	3,185	1.26%	$2.37	1.25

Pilot MEDIA

askHRgreen - 12 Month for askHRgreen

Date range July 01, 2016 to June 30, 2017

Created on July 10, 2017

Top 10 Ads by Clicks

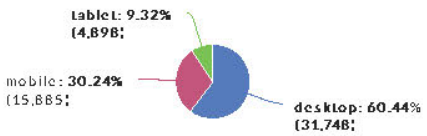
Google Adwords ads

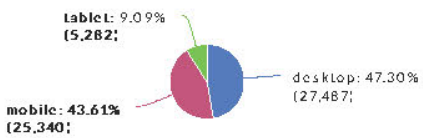
Ad Preview	Ad Group	Clicks	Impressions	CTR	Avg. CPC	Ad ID
Residential Recycling - Recycle More, Trash Less askhrgreen.org/ --/ -- askHRgreen.org Offers Tips & Suggestions To Make Recycling Easier! Learn Today.	Recycling at Home/Residential Recycling	855	18,069	4.73%	$3.36	94716463090
AskHRGreen.org askHRgreen.org Your Go-To Resource For Everything Green in Hampton Roads. Learn More!	askHRgreen.org	320	963	33.23%	$0.51	23631155050
Medication Disposal askHRgreen.org Before You Flush Your Old Medicine Learn More On The Proper Way Here.	Medication Disposal	316	3,228	9.79%	$2.38	24017044090
Proper Medication Disposal - askHRgreen.org askhrgreen.org/ --/ -- Before You Throw Out Or Flush Your Old Medications, Find Out The Proper Way!	Medication Disposal	254	2,871	8.85%	$2.19	94878897010
Environmental Issues askHRgreen.org Want to Learn More About The Environment & Issues? We Can Help!	Environmental Education	225	6,027	3.73%	$3.13	24017087410

Website Traffic by Device

Prior Period

Google Analytics device

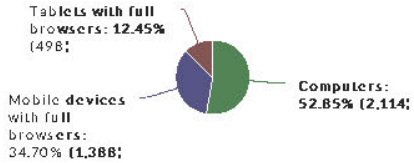


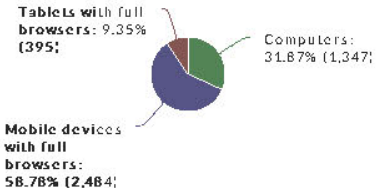


AdWords Clicks by Device

Prior Period

Google Adwords campaign breakdown





REGIONAL COOPERATION IN STORMWATER MANAGEMENT

FISCAL YEAR 2016-2017

A STATUS REPORT

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

Prepared by the staff of the
Hampton Roads Planning District Commission
in cooperation with the
Regional Stormwater Workgroup

September 2017

REPORT DOCUMENTATION

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

REPORT DATE
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LOCAL FUNDS

AUTHORS:
Katherine C. Filippino
Whitney S. Katchmark
Jillian C. Sunderland

ORGANIZATION NAME, ADDRESS AND TELEPHONE
Hampton Roads Planning
District Commission
723 Woodlake Drive
Chesapeake, Virginia 23320
(757) 420-8300
http://www.hrpdcva.gov

ABSTRACT

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

ACKNOWLEDGMENTS

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

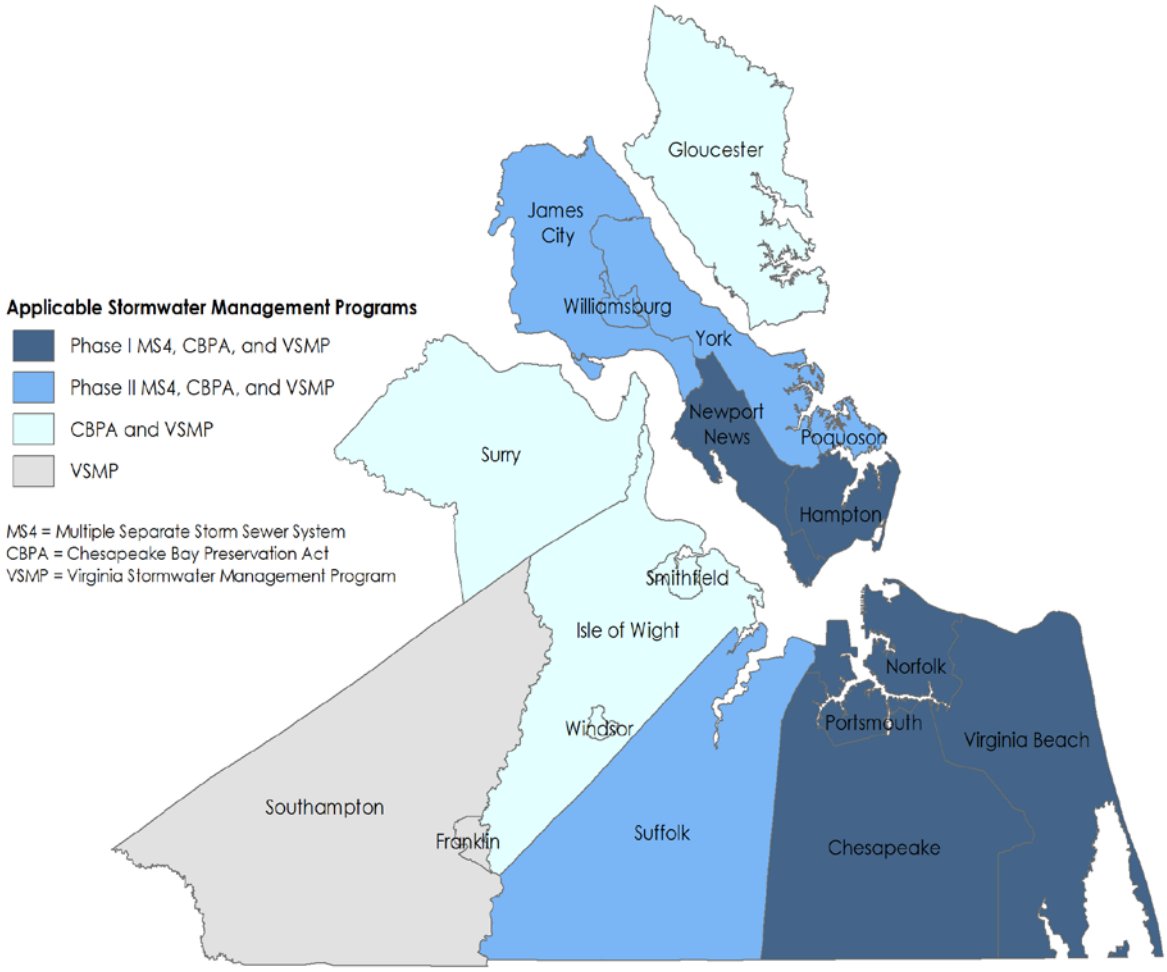
Preparation of this report was included in the HRPDC Unified Planning Work Program for FY 2016-2017, approved by the Commission at its Executive Committee Meeting of June 16, 2016.

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

INTRODUCTION

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

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



REGIONAL STORMWATER MANAGEMENT PROGRAM GOALS

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

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

THE REGIONAL PROGRAM

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

Phase I Localities

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

Phase II Localities

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

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

INFORMATION EXCHANGE

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

Monthly Meetings

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

State and Federal Agency Program Briefings

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

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

Regional Water Quality Technical Workgroup

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

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

PUBLIC EDUCATION

askHRgreen.org

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

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

TRAINING

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

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

Webcasts

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

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

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

The first video, *Identifying Illicit Discharges in the Coastal Plain*, is geared towards municipal staff from departments, such as Parks and Recreation, Utilities, Fire, and Police, who may

witness and report discharges. The video addresses what a suspected illicit discharge might look like and runs for 15 minutes.

The second video, *Tracking and Eliminating Illicit Discharges in the Coastal Plain*, is targeted to environmental staff who will conduct investigations to determine the source of a suspected illicit discharge and take steps to eliminate it. The video covers storm drain mapping, how to account for tidal influences, and field testing parameters. The video is 12 minutes long.

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

Stormwater Pollution Prevention Videos

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

LEGISLATIVE & REGULATORY MONITORING

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

Fees Related to the Consolidated Virginia Erosion and Stormwater Management Program

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

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

Proprietary BMPs for Stormwater Compliance

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

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

Phase II MS4 General Permit Reissuance

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

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

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

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

Virginia Department of Transportation Individual MS4 Permit

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

Virginia Nutrient Trading Regulations

In 2012, the Virginia General Assembly passed legislation requiring the State Water Control Board to adopt regulations for the certification of nonpoint source nutrient credits. Nonpoint credits include credits generated from agricultural and urban stormwater BMPs, management of animal feeding operations, land use conversion, stream or wetlands restoration, shellfish aquaculture, and other established or innovative methods of nutrient control or removal. Virginia's current trading program involves exchanges between point sources. This regulation is another step towards a successful trading program because it will make additional nonpoint source nutrient credits available for point source or nonpoint source trades. This expanded trading program is part of the overall goal of meeting the reductions assigned by the Chesapeake Bay TMDL.

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

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

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

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

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

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

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

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

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

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

The EPA established the Chesapeake Bay TMDL on December 29, 2010 that included a Phase I Watershed Implementation Plan (WIP) developed by Virginia that outlined the statewide strategies that would be implemented by each source sector to achieve TMDL compliance. In March 2012, Virginia submitted its final Phase II WIP to EPA that outlined the management actions that will be implemented by local governments. The HRPDC participated in both efforts on behalf of the local governments and submitted regional input for the Phase II WIP entitled, *Hampton Roads Regional Planning Framework, Scenario, and Strategies.*

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

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

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

REGIONAL STUDIES

Water Quality Monitoring Study

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

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

Stormwater Program Matrix

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

Local TMDL and Implementation Plan Development

The state has developed a substantial number of TMDL Studies and TMDL Implementation Plans. This work follows the classification of the waters by the state as meeting or failing to

meet water quality standards. Water bodies that fail to meet water quality standards are classified as "impaired," triggering the requirement to prepare the TMDL study. HRPDC staff has coordinated regional involvement in the "impaired waters" listing and TMDL development process. This has entailed providing opportunities through the Regional Environmental Committee for education of local government staff on the TMDL process, response to the development of TMDLs themselves, and participation in the development of implementation plans.

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

HRSD Bacteria Source Tracking

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

TECHNICAL ASSISTANCE

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

MEMORANDUM OF AGREEMENT

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

PERMIT ADMINISTRATION AND REPORTING SYSTEM (PARS)

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

RELATED PROGRAMS AND PROJECTS

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

Chesapeake Bay Program Participation

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

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

Chesapeake Bay Preservation Act Program

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

HRSD - Sustainable Water Initiative for Tomorrow (SWIFT)

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

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

CONCLUSION

Through the Hampton Roads Planning District Commission, the seventeen localities of Hampton Roads have established a comprehensive Regional Stormwater Management Program. This program provides technical assistance, coordination, comprehensive technical studies and policy analyses and stormwater education. The Regional Stormwater Management Program enables the region's localities to participate actively and effectively in state and federal regulatory matters. It has enhanced the ability of the eleven localities with VPDES Permits for their Municipal Separate Storm Sewer Systems to comply with permit requirements.

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

Giveaway Tracking Permit Year 4

	Peanut Fest	Harbor View, Pet waste Station	Nansemond River Estates, Pet waste station	Woodlake North, pet waste station	Harbor Breeze Estates, pet waste station	Wexford Downs, pet waste station	Bennett's Creek Square Property Owners Association	NRHS Teacher packet	Yappy Hour	Trunk or Treat Library	Suffolk Humane Society
Pens	145							1			
Residential Guide Brochures (Healthy Bay Starts at Home)	89										
Seed Packets (Bookmarks)											
Medallions											
Native Plants VA Coastal Plain (Blue)	11										
Native Plants VA Riparian Buffer Zones	12										
Native Plant Guide											
Native plant sheet											
Car Wash Brochure	2							1		10	
Plant More Plants Brochure/Card											
Plant More Plants Bumper Sticker											
Dog Waste Bags	36								25		25
Dog Wast Rack Cards	24								25		25
Dog Waste Stickers											
Green Living Brochure								1			
Crossword Puzzle											
Hrgreen Bag	123							1			
Green Learning Guides								1			
Tape Measure Key Ring											
Teachers Guides								1			
Down the Drain Brochure	38										
Time to Fertilize Brochure	16									10	
Garden Kneelers	27							1			
Coastal Virginia Magazine								1			
Hampton Roads TMDL Rack Card											
Bay Star Homes Flag Pole											
Bay Star Home Stickers											
Bay Star Homes Flag											
Illicit Discharge Business Card								1		30	
Soil Testing Kit											
Hand Sanitizer								1			
Smoking Litter cup ash try	20										
Smoking Litter pocket ash tray	20										
Household recycling made easy	7									10	
Gold fish crackers											
Sewedish Fish Candy	22									86	
Water in HR	2										
Choose Tap	5										
Hampton Roads Defined by Water	22										
Waterwise Book	10									60	
Coloring Work Sheets											
Pet Waste Stations		1	1	1	2						
Total	**631**	**1**	**1**	**1**	**2**	1	1	**10**	**50**	**206**	**50**

Giveaway Tracking Permit Year 4

	Partnership with J.M. Smuckers Sustainability Expo	Go green spring clean	Nansmond Suffolk Academy STEM night	Library seed exchange	Rain Barrel Workshop (2)	TGIF 6-23-17	TGIF 6-30-17	Bay Star Homes (25 New Bay Star Home)	Total Giveaways
Pens									146
Residential Guide Brochures (Healthy Bay Starts at Home)	50	40	100	100	40	4	3	25	451
Seed Packets (Bookmarks)									0
Medallions									0
Native Plants VA Coastal Plain (Blue)						2	1		14
Native Plants VA Riparian Buffer Zones									12
Native Plant Guide					40				40
Native plant sheet				100				25	125
Car Wash Brochure								25	38
Plant More Plants Brochure/Card									0
Plant More Plants Bumper Sticker									0
Dog Waste Bags						15	9	25	135
Dog Wast Rack Cards									74
Dog Waste Stickers									0
Green Living Brochure									1
Crossword Puzzle									0
Hrgreen Bag	50	40						25	239
Green Learning Guides									1
Tape Measure Key Ring									0
Teachers Guides									1
Down the Drain Brochure								25	63
Time to Fertilize Brochure		40		100		5	3	25	199
Garden Kneelers									28
Coastal Virginia Magazine									1
Hampton Roads TMDL Rack Card						2	3		5
Bay Star Homes Flag Pole								25	25
Bay Star Home Stickers	50							25	75
Bay Star Homes Flag								25	25
Illicit Discharge Business Card		40			40			25	136
Soil Testing Kit					40			25	65
Hand Sanitizer									1
Smoking Litter cup ash try									20
Smoking Litter pocket ash tray									20
Household recycling made easy								25	42
Gold fish crackers						19	11		30
Sewedish Fish Candy									108
Water in HR								25	27
Choose Tap								25	30
Hampton Roads Defined by Water								25	47
Waterwise Book									70
Coloring Work Sheets									0
Pet Waste Stations									5
Total	**150**	**160**	**100**	**300**	**160**	**47**	**30**	**400**	2301

Appendix D

Supporting Documentation for Minimum Control Measure 2: Public Involvement/ Participation

Outreach and Involvement Events Permit Year 4

Event Name	Date	Event Description
Peanut Fest	10/6-7/2016	This festival honors the cities' agriculture practices and long history of peanuts, as well as bringing the community together for an exciting and fun filled weekend. Public Works Engineering representatives worked along side other city and local vendors while offering information on storm water run off, lawn care practices, used oil, native plants, scooping the poop, water quality, TMDLs and recycling/litter prevention. Reached 631 Citizens
NRPA Marshfield Study Fall	10/17-18/2016	Educated 7th graders in Suffolk Public Schools (fall classes) about pollution in stormwater runoff using the Enviroscape model. Reached 160 Students
Nansemond River Earth Science Class	10/13-14/2016	Used the Enviroscape watershed model to help demonstrate the stormwater water runoff and pollution. Used powerpoints to go over illicit discharge examples and preventive techniques. Reached 150 students
Northern Shores Elementary, Quest	10/24-25/2016	Educated the 4th and 5th grade quest students about being an Environmental Steward. Teaching them that stormwater drains do not go to a treatment facility, medallion program, as well as picking up litter around the school yard, and teaching them better practices for stormwater runoff. Also we went over that all jobs use water in some way, so we need to keep a high quality of water. Reached 80 Students
Yappy Hour	10/27/2016	Gave pet waste bag holders and informational rack cards to event organizers to be given away at the event to encourage pet owners to pick up after their pets. Reached 25 pet owners
Internantional Coastal Cleanup	10/29/2016	6 volunteers in kayaks, a canoe, and a boat participated in a cleanup on the Nansemond River by Constance Wharf. Volunteers removed several bags of trash and some other debris.
Trunk or Treat Suffolk Library	10/29/2016	Gave "Save the Fish" Swedish Fish and coloring sheets to Suffolk Library event organizers so they can give to kids. Also handed out rack cards and IDDE Business Cards. Reached 206 people
Volunteer Medallion NRHS	11/1/2016	Worked with Science Club students, educated them about the medellion program, walked the schoolyard to show storm drains and outfalls. Brought litter sticks and bag, filled entire bag up of litter, and educated them how long it takes materials to decompose and how dangerous it can be to our waterways. Reached 15 Students
State of the Art Science Fair/Hilton Garden	11/3/2016	Educated students with enviroscape, they taught School/City leaders what I taught them. Reached 200 people.
Northern Shores Elementary, 4th-5th	11/7,10/2016	Educated 4th and 5th grade students about pollution in stormwater runoff using the Enviroscape model. Reached 160 Students
Farm Days	11/16 -17/2016	Educated 2nd grade students about pollution in stormwater runoff using the Enviroscape model. Students were also taught about recycling and litter prevention. Reached approx. 1200 second grade students.
Oakland Elmentary	12/14-15/2016	Educated 4th and 5th grade students about pollution in stormwater runoff using the Enviroscape model. Reached approx. 160 Students
Suffolk Humane Society	1/11/2017	Gave pet waste bag holders and informational rack cards to society to be givin away to encourage pet owners to pick up after their pets. Reached 25 pet owners
City of Suffolk and Smuckers partnership	2/15/2017	Gave away 50 of each: HR green bags, Bay Star Homes Stickers, green residential guide.
Hampton Public Works Academy	2/28/2017	Used the Enviroscape watershed model to help demonstrate the stormwater water runoff and pollution. Used powerpoints to go over illicit discharge examples and preventive techniques. Reached 20 students
Virginia Aquarium Trash Bash	3/11/2017	Participated with other HRPDC member localities to distribute educational materials at event.

Outreach and Involvement Events Permit Year 4

Event Name	Date	Event Description
Volunteer Workshop on BMP designs and GIS	3/15/2017	Worked with Science Club students, educated them about different types of BMP designs and how stormwater uses GIS in their day to day activiites.
Go Green Spring Clean, Suffolk Library	3/7,14,17/2017	Informational rack cards about Bay Star Homes, A Clean healthy bay starts at home, fertilizer, and adopt a spot were given to class organizers to distribute to participants in a spring cleaning classes.
Nansemond Suffolk Academy	3/22/2017	Used the Enviroscape watershed model to help demonstrate the stormwater water runoff and pollution to Pre-k through 5th grade and their parents. Reached 175 students/parents.
Suffolk Library Seed exchange program	3/29/2017	Gave seed book marks, native plant sheets, and when to fertilize rack card holders to library for their seed exchange program. Reached 300 people.
Recycling Drive and Tire Amnesty Days	4/16/2017 and 9/7/2016	These two events were organized by Keep Suffolk Beautiful and hosted by Lowes. Over 600 people showed up to recycle or dispose properly paper, plastic, batteries, tires, household hazardous waste, or donate items to Goodwill.
Safety & Eco Fair Virginia Beach, askHRgreen	4/19/2017	Participated with other HRPDC member localities to distribute educational materials at event.
NRPA Marshfield Study Spring	5/1-2/2017	Educated 7th graders in Suffolk Public Schools (Spring classes) about pollution in stormwater runoff using the Enviroscape model. Reached 160 Students
Mutt Strutt	5/7/2017	Gave pet waste bag holders and informational rack cards to event organizers to be given away at the event to encourage pet owners to pick up after their pets.
Rainy Day sidewalk Campaign	May-July	Messeges on sidewalks, streetscapes and thoroughfares throughout Hampton Roads, the motivational campaign will reveal many good-to-know "green" messages that become visible when wet.
Nansemond River High School Science Club	5/9/2017	Volunteer activity after school with the science club. Demonstrated drain fields, ground water, how vegetation filters water and slows down running water. Reached 8 Students.
Pruden Center	5/18/2017	Educated students about our watershed and pollution prevention with the enviroscape and illicit discharge pictures. Reached 25 students
Rain Barrel Workshops	5/20/2017 & 6/10/2017	Participants built a rain barrel to take home. Gave away soil test kits and Bay Star Home info. 38 Rain barrels were built and taken home by participants.
Forest Glen 6th Graders	5/30/2017	Educated 6th grade science students about our watershed and pollution prevention with enviroscape. Illicit discharge pictures were used to demonstrate real life pollution. Walked outside with litter sticks to promote environmental stewardship around their school.
Paul D Camp Community College	5/1/2017	Participated in a volunteer event to install storm drain medallions.
Elementary Students	5/26/2017	Participated in a volunteer event to install storm drain medallions.
Clean the Bay Day	6/3/2017	Cleanups took place at 7 locations in Suffolk including several local parks and trails, and two different sections of the Nansemond River. Over 200 volunteers collected approximately 4000 ponds of trash, including 50 tires and several shopping carts.
Northern Shores Elementary, Quest	6/7/2017	Worked with Nansemond River Preservation Alliance to educate 4th and 5th grade students about our watershed and how to protect local waterways. Reached 80 students
Ecology Club	6/22/2017	Educated 2nd grade students about pollution in stormwater runoff using the Enviroscape model. Students were also taught about recycling and litter prevention. Used Litter sticks to practice picking up litter. Reached approx. 25 fourth grade students from Public/ Homeschool.

Outreach and Involvement Events Permit Year 4

Event Name	Date	Event Description
Suffolk TGIF Summer Concert Series	7/8/2016, 7/15/2016, 7/29/2016, 8/5/2016, 8/12/2016, 8/19/2016, 6/16/2017, 6/23/2017, 6/30/2017	Summer concerts held at Suffolk Parks. Free and open to the public. Public Works Engineering representatives presented information regarding stormwater runoff, lawn care practices, used oil disposal, native plants, scooping the poop, water quality, TMDLs, and recycling/litter prevention.
Volunteer Medallion Installation at Kings Fork Farms	6/26/2017	Participated in a volunteer event to install storm drain medallions.
Adopt-a-Programs	Year Round	This free program engages the public to take responsibility fro keeping their local community free of litter. The program currently helps keep over 100 miles of Suffolk streets, City parks, and one section of the Nansemond River litter free. In the last year volunteers donated 2,531 hours and collected 1,581 bags of trash.

Appendix E

Supporting Documentation for Minimum Control Measure 3: Illicit Discharge Detection and Elimination

MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-268-DE-0119	36.73237189330	-76.55887913290	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	4.35
JR-268-SD-0001	36.73439996860	-76.55847186160	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.35
JR-268-SD-0002	36.73447640740	-76.55851013200	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.80
JR-217-OF-0011	36.82584100450	-76.46971265680	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	4.39
JR-268-OF-0041	36.74275245910	-76.54735023010	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	2.51
JR-268-OF-0042	36.74264892420	-76.54729066630	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	7.06
JR-268-OF-0043	36.74088174340	-76.55147844770	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	11.59
JR-241-OF-0166	36.77900307480	-76.59472732590	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	59.80
JR-241-OF-0167	36.77899959980	-76.59473363830	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	59.80
JR-241-OF-0164	36.75264483210	-76.58357066950	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.47
JR-216-OF-0091	36.83138330390	-76.50505594000	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	10.72
JR-216-OF-0088	36.82406909320	-76.50287810420	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	3.97
JR-216-OF-0093	36.82755068400	-76.53275650930	Nansemond River and Shingle Creek	NANESMOND	JL49	YES	0.99
JR-216-OF-0094	36.82766826140	-76.53331441030	Nansemond River and Shingle Creek	NANESMOND	JL49	YES	0.53
JR-216-OF-0097	36.83159532680	-76.54926552760	Nansemond River and Shingle Creek	NANSEMOND	JL49	YES	4.61
JR-216-OF-0092	36.83159108930	-76.54941122660	Nansemond River and Shingle Creek	NANSEMOND	JL49	YES	8.17
JR-216-OF-0098	36.82829910000	-76.53632558740	Nansemond River and Shingle Creek	NANESMOND	JL49	YES	1.23
JR-216-OF-0099	36.82847911700	-76.53729523770	Nansemond River and Shingle Creek	NANSEMOND	JL49	YES	6.27
JR-216-OF-0095	36.82817442920	-76.53629309210	Nansemond River and Shingle Creek	NANESMOND	JL49	YES	1.30
JR-216-OF-0096	36.82841038110	-76.53750508570	Nansemond River and Shingle Creek	NANSEMOND	JL49	YES	12.26
JR-217-OF-0235	36.82409571490	-76.49778758260	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	20.48
JR-217-OF-0236	36.82409723400	-76.49780850910	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	20.48
JR-217-OF-0237	36.82409864610	-76.49782788850	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	20.48
JR-217-OF-0239	36.82027077620	-76.47437106490	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	0.79
JR-216-OF-0087	36.81872300940	-76.50290030630	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	8.70
JR-242-OF-0148	36.80525313350	-76.51094272770	Nansemond River and Shingle Creek	STAR CREEK	JL49	YES	15.20
JR-242-OF-0147	36.80483110590	-76.51156321180	Nansemond River and Shingle Creek	STAR CREEK	JL49	YES	0.53
JR-242-OF-0146	36.80480544980	-76.51160039020	Nansemond River and Shingle Creek	STAR CREEK	JL49	YES	1.61
JR-242-OF-0149	36.79988200380	-76.51881059180	Nansemond River and Shingle Creek	STAR CREEK	JL49	YES	7.06
JR-242-OF-0150	36.78682948080	-76.53346767010	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	9.49
JR-242-OF-0151	36.78371442910	-76.53217851430	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.29
JR-242-OF-0145	36.78080056140	-76.53033085360	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	6.42
JR-242-OF-0155	36.76972787430	-76.52886117380	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.58
JR-242-OF-0156	36.76971954430	-76.52886840400	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.65
JR-242-OF-0144	36.76765038270	-76.53052731350	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.16
JR-242-OF-0140	36.76216765210	-76.53438992690	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	3.33
JR-242-OF-0141	36.75633276800	-76.53775069490	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	2.90
JR-242-OF-0142	36.75545876230	-76.53806847640	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	1.58
JR-242-OF-0143	36.75544002440	-76.53791628240	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	1.66
JR-241-OF-0174	36.75709102830	-76.59089297510	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	3.44
JR-241-OF-0175	36.75811032900	-76.59592606060	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	1.60
JR-241-OF-0176	36.75717844530	-76.59152391530	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	0.32
JR-266-OF-0167	36.72122913090	-76.64512665900	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	0.06

All outfalls are in the Chesapeake Bay Watershed

MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-266-OF-0164	36.72118867370	-76.64501878460	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	4.03
JR-266-OF-0165	36.72125495510	-76.64512234600	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	2.88
JR-266-OF-0166	36.72129874680	-76.64507166000	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	1.30
JR-266-OF-0156	36.72496126470	-76.64196281890	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	6.95
JR-266-OF-0157	36.72752319850	-76.64266905420	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	3.88
JR-266-OF-0158	36.72888428170	-76.64063182210	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	5.78
JR-267-OF-0242	36.73391848180	-76.60135468320	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	8.09
JR-266-OF-0163	36.72086362410	-76.64514117540	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	2.10
JR-268-OF-0044	36.74528174770	-76.54066154070	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.66
JR-242-OF-0163	36.75605717170	-76.53344775550	Nansemond River and Shingle Creek	BEAMONS MILL POND	JL48	YES	7.98
JR-267-OF-0024	36.74309529760	-76.58677063710	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	53.25
JR-267-OF-0039	36.72673194890	-76.60536540800	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	0.68
JR-267-OF-0040	36.72638442350	-76.60471995190	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	0.19
JR-267-OF-0041	36.72623480590	-76.60410180470	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	5.87
JR-267-OF-0042	36.72625968420	-76.60290743010	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	5.39
JR-267-OF-0043	36.72632416560	-76.60291120120	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	0.11
JR-267-OF-0044	36.72701206250	-76.60277735310	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	9.71
JR-267-OF-0045	36.72711916080	-76.60312271740	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	2.07
JR-267-OF-0046	36.72777281540	-76.60068697250	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	4.97
JR-267-OF-0047	36.72803032590	-76.59948844690	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	0.18
JR-267-OF-0062	36.72160541380	-76.57362954610	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	16.24
JR-196-OF-0002	36.88260215500	-76.42485223040		STREETER CREEK	JL50	YES	4.20
JR-217-OF-0038	36.86375960910	-76.44328778410	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	1.59
JR-217-OF-0039	36.86362059390	-76.44331653270	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	2.11
JR-196-OF-0004	36.88416431510	-76.41949411760		STREETER CREEK	JL50	YES	0.69
JR-217-OF-0033	36.86220607120	-76.47098425520	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	1.08
JR-217-OF-0040	36.85178877430	-76.46747234260	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	2.44
JR-217-BD-0005	36.85381993500	-76.46938926470	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	20.34
JR-218-BD-0002	36.87097524830	-76.41668192630	Hoffler Creek	HOFFLER CREEK	JL50	YES	81.14
JR-217-OF-0041	36.85217142830	-76.46903060580	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	2.30
JR-217-BD-0006	36.85263145290	-76.47847675440	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	17.77
JR-217-OF-0042	36.85384494400	-76.47187345600	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	18.64
JR-196-OF-0005	36.87804507460	-76.41309682880	Hoffler Creek	HOFFLER CREEK	JL50	YES	1.72
JR-217-BD-0007	36.82758369950	-76.47961993370	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	8.37
JR-217-OF-0043	36.82873633380	-76.49614361730	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	0.28
JR-217-OF-0044	36.83144047450	-76.49892551530	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	6.25
JR-196-BD-0009	36.87923541400	-76.40992648160	Hoffler Creek	Hoffler Creek	JL50	YES	63.53
JR-196-BD-0010	36.87751411040	-76.41279469880	Hoffler Creek	HOFFLER CREEK	JL50	YES	4.79
JR-217-OF-0045	36.85574391880	-76.47468274500	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	0.92
JR-217-OF-0046	36.85435127260	-76.47914096790	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	0.98
JR-217-OF-0047	36.85485180270	-76.48045627560	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	0.95
JR-217-BD-0008	36.85800266810	-76.48014509780	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	25.77
JR-217-OF-0048	36.85534539780	-76.47290587360	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	0.76

All outfalls are in the Chesapeake Bay Watershed

MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-195-OF-0052	36.90987535170	-76.49570188120	Bleakhorn Creek, Bennett Creek, Knotts Creek	NANSEMOND RIVER	JL49	YES	7.14
JR-195-OF-0053	36.91785595930	-76.49053466430	Chuckatuck Creek and Brewers Creek	CHUCKATUCK CREEK	JL42	YES	16.38
JR-195-OF-0054	36.91048102120	-76.49303253910	Bleakhorn Creek, Bennett Creek, Knotts Creek	NANSEMOND RIVER	JL49	YES	2.36
JR-194-OF-0031	36.88681960390	-76.51266011860		NANSEMOND RIVER	JL49	YES	1.18
JR-194-OF-0034	36.90555297750	-76.50672028460	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	1.94
JR-194-OF-0035	36.90377066220	-76.50753865930	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	1.88
JR-194-OF-0036	36.90331705140	-76.50912790330	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	4.17
JR-194-OF-0037	36.90250230770	-76.50905830130	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	2.78
JR-194-OF-0033	36.90279919730	-76.50498205680	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	0.48
JR-194-OF-0062	36.90207849100	-76.50519266330	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	2.67
JR-194-OF-0032	36.89954345540	-76.50420352720	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	2.38
JR-194-OF-0039	36.89996260260	-76.50344613220	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	3.86
JR-217-OF-0049	36.86281313730	-76.45133416480	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	1.18
JR-217-BD-0010	36.85382667840	-76.45951416000	Bleakhorn Creek, Bennett Creek, Knotts Creek	Knotts Creek	JL49	YES	32.61
JR-195-OF-0055	36.89299818770	-76.45129935010		NANSEMOND RIVER	JL49	YES	6.37
JR-196-OF-0008	36.88321298200	-76.41396530270	Hoffler Creek	HOFFLER CREEK	JL50	YES	3.74
JR-196-OF-0010	36.89561438470	-76.40733389810	Hoffler Creek	HOFFLER CREEK	JL50	YES	0.87
JR-196-BD-0017	36.89298177480	-76.40741000490	Hoffler Creek	HOFFLER CREEK	JL50	YES	11.22
JR-218-BD-0001	36.87192604570	-76.41572623220	Hoffler Creek	HOFFLER CREEK	JL50	YES	29.17
JR-217-OF-0180	36.87352917370	-76.48737635390	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	4.62
JR-217-OF-0182	36.87474642270	-76.48420650740	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	1.68
JR-217-OF-0181	36.87374433010	-76.48494195490	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	5.02
JR-195-OF-0061	36.87698172450	-76.48632171220	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	17.78
JR-242-BD-0007	36.75512499830	-76.53771257670	Nansemond River and Shingle Creek	BEAMONS MILL POND	JL48	YES	3.72
JR-242-BD-0008	36.75573857300	-76.53602062080	Nansemond River and Shingle Creek	BEAMONS MILL POND	JL48	YES	7.23
JR-217-OF-0055	36.86300052930	-76.48801796480	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	1.01
JR-241-OF-0015	36.77086817690	-76.57712516900	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.56
JR-241-OF-0016	36.76987494200	-76.57865010450	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	21.04
JR-241-OF-0017	36.77026720840	-76.57650180630	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	6.16
JR-241-OF-0018	36.77148634090	-76.57495198210	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	0.95
JR-241-OF-0019	36.77017903980	-76.57499502270	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.21
JR-241-OF-0020	36.77084130910	-76.57458684040	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.08
JR-241-OF-0021	36.77253087720	-76.57236120890	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.51
JR-241-OF-0022	36.77131936990	-76.57276205230	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.86
JR-241-OF-0023	36.77080834740	-76.57234279340	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	5.13
JR-242-BD-0009	36.75204448970	-76.55815670380	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	23.18
JR-242-OF-0011	36.77188855820	-76.53000834020	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	9.53
JR-242-OF-0012	36.77220178860	-76.53249182350	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	5.19
JR-242-BD-0010	36.78013970100	-76.53771557900	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	7.56
JR-242-OF-0005	36.77401294450	-76.53533487730	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	0.93
JR-242-OF-0006	36.77640933310	-76.53261755800	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	13.02
JR-242-OF-0007	36.77599142420	-76.53180228960	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.14
JR-242-OF-0008	36.77529298510	-76.53273466480	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.38

All outfalls are in the Chesapeake Bay Watershed

MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-267-OF-0022	36.74449001300	-76.58991948640	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	4.38
JR-267-OF-0025	36.74155765810	-76.58725863150	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	4.89
JR-267-OF-0026	36.74107874030	-76.59239741800	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	8.53
JR-267-OF-0027	36.74088187330	-76.59277101910	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	8.89
JR-267-OF-0028	36.73846715960	-76.59554381510	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	2.82
JR-267-OF-0116	36.73501314870	-76.59285882510	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	2.00
JR-267-OF-0135	36.74034326490	-76.57410191930	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.68
JR-267-OF-0133	36.73977526890	-76.57104372710	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	9.00
JR-267-OF-0029	36.73904035870	-76.57379444710	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.95
JR-267-OF-0136	36.73897017480	-76.57414341960	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	4.40
JR-267-OF-0030	36.73818634010	-76.57295347450	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	7.63
JR-267-OF-0137	36.73697317250	-76.58157367080	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.32
JR-267-OF-0031	36.73744825990	-76.57447797320	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	7.57
JR-267-OF-0032	36.73473321420	-76.57677961640	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.87
JR-267-OF-0140	36.73300975390	-76.57806991290	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	3.05
JR-267-OF-0033	36.73624862470	-76.58513568040	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	0.91
JR-267-OF-0034	36.73695155560	-76.58529858700	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.42
JR-267-OF-0035	36.73906931640	-76.58276478170		NANSEMOND RIVER	JL48	YES	6.32
JR-267-OF-0036	36.73404027190	-76.58304480710	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	62.82
JR-267-OF-0037	36.72743703960	-76.59768396190	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	35.89
JR-267-OF-0038	36.72435508570	-76.59671242120	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	9.73
JR-267-OF-0048	36.72870421070	-76.60020017300	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	1.98
JR-267-OF-0049	36.72971277430	-76.59966225670	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	3.19
JR-267-OF-0050	36.72975688310	-76.59955207630	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	1.30
JR-267-OF-0051	36.73107950400	-76.60418097140	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	11.82
JR-267-OF-0053	36.73131933650	-76.57518690970	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	3.33
JR-267-OF-0054	36.73186077520	-76.58861808600	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	16.46
JR-267-OF-0055	36.73171520280	-76.58983743880	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	0.99
JR-267-OF-0056	36.73183795730	-76.58906747370	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.35
JR-267-OF-0058	36.73270877440	-76.58743695540	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.58
JR-267-OF-0059	36.73339007280	-76.58667367990	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	5.80
JR-267-OF-0061	36.72168264310	-76.57405492230	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	69.67
JR-267-OF-0063	36.72561090640	-76.57076906520	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	4.83
JR-267-OF-0064	36.72804475360	-76.57281145220	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	12.89
JR-267-OF-0065	36.71905737610	-76.57963303220	Nansemond River and Shingle Creek	SHINGLE CREEK	JL43	YES	17.30
JR-267-OF-0066	36.73556258530	-76.58536595580	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	0.92
JR-267-OF-0067	36.73674683130	-76.58388307570	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	0.68
JR-242-OF-0001	36.75583192100	-76.53781028790	Nansemond River and Shingle Creek	BEAMONS MILL POND	JL48	YES	3.64
JR-240-BD-0001	36.78330928290	-76.62581473980	Nansemond River and Shingle Creek	WESTERN BRANCH	JL46	YES	16.49
JR-196-BD-0002	36.89507845530	-76.43333927980		STREETER CREEK	JL50	YES	16.83
JR-241-OF-0011	36.79952123060	-76.62406290330	Nansemond River and Shingle Creek	WESTERN BRANCH RESERVOIR	JL46	YES	3.47
JR-241-OF-0012	36.79804091240	-76.62423307730	Nansemond River and Shingle Creek	WESTERN BRANCH RESERVOIR	JL46	YES	5.17
JR-241-OF-0013	36.79576475420	-76.62144331190	Nansemond River and Shingle Creek	WESTERN BRANCH RESERVOIR	JL46	YES	4.75

All outfalls are in the Chesapeake Bay Watershed

MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-241-OF-0014	36.79495041230	-76.62492252710	Nansemond River and Shingle Creek	WESTERN BRANCH RESERVOIR	JL46	YES	3.34
JR-242-OF-0004	36.75840259180	-76.53634155480	Nansemond River and Shingle Creek	BEAMONS MILL POND	JL48	YES	5.48
JR-241-OF-0024	36.77546130050	-76.58713585040	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	11.52
JR-242-OF-0009	36.77422323390	-76.53369010940	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	0.78
JR-242-OF-0010	36.77342180650	-76.53302419700	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.46
JR-242-BD-0011	36.80502678130	-76.52160700070	Nansemond River and Shingle Creek	STAR CREEK	JL49	YES	17.74
JR-242-BD-0013	36.78143249670	-76.53442645750	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	14.48
JR-242-OF-0023	36.77464751260	-76.53943158050	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	6.64
JR-242-OF-0024	36.77443372450	-76.53803857030	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.45
JR-242-OF-0025	36.77472268980	-76.53610098260	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	7.11
JR-241-BD-0010	36.77828899120	-76.59680823010	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	38.22
JR-241-OF-0032	36.77596877100	-76.57159527560	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.36
JR-241-OF-0033	36.77681000140	-76.56965863870	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	6.46
JR-241-OF-0034	36.77769797990	-76.57085362940	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	3.36
JR-241-OF-0035	36.77444303490	-76.57096167880	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.87
JR-241-OF-0036	36.77501858980	-76.56852717210	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	10.77
JR-241-OF-0037	36.77412342020	-76.56919150950	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.78
JR-241-BD-0012	36.78129632360	-76.56582530360	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	34.53
JR-242-BD-0015	36.75045653640	-76.55392129110	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	8.77
JR-242-BD-0016	36.75087062890	-76.55142869870	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	6.33
JR-242-BD-0017	36.80523201320	-76.52392550150	Nansemond River and Shingle Creek	STAR CREEK	JL49	YES	7.54
JR-217-BD-0012	36.83201040640	-76.48253692340	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	19.67
JR-217-OF-0001	36.83346787870	-76.48382769560	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	4.04
JR-217-OF-0003	36.83511622750	-76.48044549230	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	2.03
JR-217-BD-0013	36.83546569080	-76.47926321720	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	25.22
JR-241-OF-0048	36.77458465540	-76.56607719000	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.79
JR-241-OF-0049	36.77556450870	-76.57018105910	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	0.96
JR-266-BD-0002	36.71620641710	-76.65278526800	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	16.22
JR-267-BD-0001	36.71954890880	-76.56837273770	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	17.44
JR-241-OF-0050	36.77116255470	-76.57692444370	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.13
JR-241-OF-0051	36.77296070010	-76.57608798920	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	0.65
JR-241-OF-0052	36.77233694070	-76.57447856470	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	3.89
JR-241-OF-0053	36.77363482090	-76.57344979730	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.34
JR-216-BD-0001	36.84007078620	-76.50366834840	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	18.58
JR-217-OF-0056	36.84186612190	-76.49626046540	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	16.09
JR-216-BD-0002	36.83621650190	-76.53140831040	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	20.30
JR-217-OF-0057	36.84103396100	-76.46367394040	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	16.57
JR-217-BD-0014	36.84114572570	-76.46488841890	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	11.68
JR-217-BD-0015	36.84127779700	-76.46688093130	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	25.74
JR-217-OF-0058	36.84158105460	-76.47015614080	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	4.89
JR-217-OF-0059	36.84130900730	-76.47075369860	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	7.76
JR-241-OF-0054	36.75810476140	-76.58220728770	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	3.01
JR-241-OF-0055	36.76076712260	-76.58422264440	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	17.70

All outfalls are in the Chesapeake Bay Watershed

MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-241-OF-0056	36.75818626540	-76.57985965870	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	7.17
JR-241-OF-0057	36.76191187780	-76.58040431720	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	4.83
JR-216-OF-0038	36.83938977520	-76.52750049490	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	2.59
JR-216-OF-0039	36.83752622830	-76.52765205380	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	3.72
JR-216-OF-0040	36.83860206020	-76.52880090000	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	4.00
JR-216-OF-0041	36.83749273060	-76.53165061020	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	5.68
JR-216-OF-0034	36.84021647180	-76.52841076680	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	1.90
JR-216-OF-0033	36.83976103550	-76.52849530600	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	5.55
JR-216-OF-0050	36.83282641560	-76.52917357320	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	4.54
JR-216-OF-0032	36.84026314620	-76.50012135740	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	7.30
JR-216-OF-0056	36.83300061330	-76.50685227480	Nansemond River and Shingle Creek	BENNETTS CREEK	JL49	YES	5.06
JR-216-OF-0001	36.83295571080	-76.50564135960	Nansemond River and Shingle Creek	BENNETTS CREEK	JL49	YES	20.97
JR-217-OF-0061	36.86059638820	-76.46417153000	Bleakhorn Creek, Bennett Creek, Knotts Creek	Knotts Creek	JL49	YES	2.04
JR-217-OF-0062	36.86201379350	-76.46341475330	Bleakhorn Creek, Bennett Creek, Knotts Creek	Knotts Creek	JL49	YES	3.60
JR-217-OF-0063	36.86200310220	-76.46301256000	Bleakhorn Creek, Bennett Creek, Knotts Creek	Knotts Creek	JL49	YES	2.33
JR-217-BD-0016	36.85264329310	-76.46977055000	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	4.44
JR-241-OF-0065	36.77641415750	-76.57815812630	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	4.44
JR-196-OF-0013	36.88314397690	-76.41425747330	Hoffler Creek	HOFFLER CREEK	JL50	YES	5.54
JR-196-BD-0011	36.88775181040	-76.41676626190		STREETER CREEK	JL50	YES	24.69
JR-196-BD-0012	36.88577354840	-76.41735548010		STREETER CREEK	JL50	YES	19.66
JR-196-OF-0014	36.89255576350	-76.40840279050	Hoffler Creek	HOFFLER CREEK	JL50	YES	1.81
JR-216-OF-0061	36.83730538330	-76.52876792630	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	1.03
JR-216-OF-0057	36.83373830080	-76.51316025250	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	2.01
JR-216-OF-0003	36.83692567390	-76.51243974070	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	1.63
JR-216-OF-0060	36.83687232160	-76.51345634490	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	1.56
JR-216-OF-0043	36.83994265740	-76.51111383550	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	4.74
JR-216-OF-0044	36.84171297260	-76.51092864400	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	4.35
JR-216-OF-0045	36.84400789140	-76.51151629110	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	2.86
JR-216-OF-0046	36.84325058640	-76.51375712310	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	4.69
JR-216-OF-0062	36.84120008950	-76.51332337890	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	4.08
JR-216-OF-0018	36.83952187730	-76.51381581810	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	4.42
JR-196-OF-0015	36.89793805330	-76.41432994220		STREETER CREEK	JL50	YES	19.27
JR-196-OF-0016	36.89572375130	-76.40917481280	Hoffler Creek	HOFFLER CREEK	JL50	YES	9.20
JR-196-OF-0017	36.89163045830	-76.40917646310	Hoffler Creek	HOFFLER CREEK	JL50	YES	1.08
JR-196-OF-0018	36.89012836920	-76.40826198460	Hoffler Creek	HOFFLER CREEK	JL50	YES	1.57
JR-196-OF-0019	36.88939376250	-76.40876055390	Hoffler Creek	HOFFLER CREEK	JL50	YES	1.48
JR-196-OF-0020	36.88920464600	-76.41025646630	Hoffler Creek	HOFFLER CREEK	JL50	YES	2.96
JR-241-OF-0038	36.75062312850	-76.56965740080	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	3.39
JR-267-OF-0079	36.74793101120	-76.57417589830	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	3.91
JR-267-OF-0182	36.74952934350	-76.57682124160	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.53
JR-241-OF-0039	36.75016397250	-76.57539458420	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	5.99
JR-241-OF-0040	36.75886127330	-76.57419942860	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	3.26
JR-241-OF-0041	36.75165147890	-76.56627148300	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.29

All outfalls are in the Chesapeake Bay Watershed

MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-241-OF-0042	36.75198646640	-76.56949783560	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	5.01
JR-241-OF-0043	36.75431764870	-76.57212292200	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	6.79
JR-241-OF-0044	36.75512806040	-76.57161322460	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	0.88
JR-241-OF-0045	36.75441313320	-76.57018626200	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.59
JR-241-OF-0046	36.75322677310	-76.56908803340	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	0.87
JR-241-BD-0013	36.75344269250	-76.56914094210	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.39
JR-266-OF-0002	36.70922828930	-76.63244634260	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	5.08
JR-266-OF-0003	36.70922725940	-76.63021852950	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	7.03
JR-266-OF-0005	36.71438267280	-76.64184297250	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	1.59
JR-266-OF-0006	36.71402990630	-76.64219435260	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	22.64
JR-267-OF-0082	36.72370019150	-76.62237560360	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	2.15
JR-267-OF-0099	36.72597827130	-76.62302995910	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	2.76
JR-266-OF-0010	36.72607662860	-76.62557199940	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	5.84
JR-267-OF-0083	36.72295294770	-76.62408199780	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	7.74
JR-267-OF-0084	36.72298694560	-76.62408555950	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	3.54
JR-267-OF-0085	36.72091273370	-76.61929746250	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	9.64
JR-267-OF-0086	36.72045036770	-76.61845937050	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	4.54
JR-268-OF-0007	36.74906972960	-76.55785298210	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	2.22
JR-268-OF-0008	36.74895853460	-76.55765588230	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	1.71
JR-268-BD-0030	36.74838119620	-76.55611719110	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	0.85
JR-242-OF-0026	36.75240750050	-76.55361651950	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	2.42
JR-242-BD-0014	36.75262416350	-76.55402127560	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	2.42
JR-268-OF-0009	36.74871696050	-76.55574140120	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	10.17
JR-268-OF-0010	36.74896942560	-76.55119905500	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	7.01
JR-267-OF-0087	36.72446402790	-76.56394078340	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	2.12
JR-267-OF-0088	36.72581932500	-76.56262850300	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	5.97
JR-267-OF-0089	36.72534696450	-76.56255438890	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.68
JR-241-OF-0058	36.77669186470	-76.59405571790	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	1.18
JR-241-OF-0059	36.77697277700	-76.59396963780	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	0.84
JR-241-OF-0047	36.77865368500	-76.57082821380	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	16.94
JR-266-BD-0003	36.71775786550	-76.64630612850	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	10.32
JR-267-OF-0092	36.73604870760	-76.60718880220	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	1.55
JR-267-OF-0093	36.73711142630	-76.60666743960	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	0.83
JR-267-OF-0094	36.73838795890	-76.60402878960	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	2.91
JR-267-OF-0095	36.73987191940	-76.60661523160	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	0.84
JR-267-OF-0100	36.74114672110	-76.60724457960	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	1.03
JR-266-OF-0012	36.71440741290	-76.65707374220	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	5.73
JR-267-OF-0102	36.70134067060	-76.62264125720	Nansemond River and Shingle Creek	LAKE KLIBY	JL44	YES	2.93
JR-267-OF-0103	36.70150044440	-76.62007431200	Nansemond River and Shingle Creek	LAKE KLIBY	JL44	YES	2.76
JR-267-OF-0096	36.70359448300	-76.61824337100	Nansemond River and Shingle Creek	LAKE KLIBY	JL44	YES	5.51
JR-267-OF-0104	36.70141235030	-76.61957055380	Nansemond River and Shingle Creek	LAKE KLIBY	JL44	YES	6.57
JR-267-OF-0105	36.70137599750	-76.62083913580	Nansemond River and Shingle Creek	LAKE KLIBY	JL44	YES	1.58
JR-196-OF-0021	36.89454575310	-76.41548488730		STREETER CREEK	JL50	YES	0.90

All outfalls are in the Chesapeake Bay Watershed

MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-196-OF-0022	36.89280392350	-76.41474327990		STREETER CREEK	JL50	YES	2.00
JR-196-OF-0023	36.89178404660	-76.41478485360		STREETER CREEK	JL50	YES	0.84
JR-196-BD-0015	36.88898011350	-76.41143288580	Hoffler Creek	HOFFLER CREEK	JL50	YES	23.50
JR-217-OF-0066	36.86273227820	-76.47701845580	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	1.74
JR-195-OF-0063	36.89915600580	-76.49619969890		NANSEMOND RIVER	JL49	YES	10.59
JR-194-OF-0038	36.89649393770	-76.50254605610		NANSEMOND RIVER	JL49	YES	10.30
JR-196-OF-0025	36.89054820790	-76.41620432540		STREETER CREEK	JL50	YES	3.05
JR-196-OF-0026	36.88802970680	-76.41842740280		STREETER CREEK	JL50	YES	1.28
JR-196-OF-0027	36.89069557110	-76.41792798470		STREETER CREEK	JL50	YES	0.95
JR-196-OF-0028	36.89147474530	-76.41471679970		STREETER CREEK	JL50	YES	1.89
JR-196-OF-0029	36.89209476500	-76.41525951850		STREETER CREEK	JL50	YES	1.01
JR-216-OF-0052	36.82969708140	-76.50658764250	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	0.98
JR-216-BD-0007	36.82942123240	-76.50698909460	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	20.78
JR-216-OF-0051	36.82840643840	-76.50890688960	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	7.30
JR-266-BD-0005	36.71442233030	-76.65704958790	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	7.71
JR-194-BD-0001	36.89610619430	-76.50042301980		NANSEMOND RIVER	JL49	YES	20.41
JR-242-BD-0019	36.80638317500	-76.51691158000	Nansemond River and Shingle Creek	STAR CREEK	JL49	YES	15.86
JR-195-BD-0003	36.88135847160	-76.45235385250	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	12.86
JR-196-BD-0018	36.89252974390	-76.41075568610	Hoffler Creek	HOFFLER CREEK	JL50	YES	37.13
JR-196-OF-0030	36.88797939630	-76.41006993040	Hoffler Creek	HOFFLER CREEK	JL50	YES	2.65
JR-196-OF-0031	36.88641977600	-76.40861948900	Hoffler Creek	HOFFLER CREEK	JL50	YES	8.86
JR-196-OF-0032	36.88476200020	-76.41016370110	Hoffler Creek	HOFFLER CREEK	JL50	YES	2.01
JR-196-OF-0033	36.88449777870	-76.41126857590	Hoffler Creek	HOFFLER CREEK	JL50	YES	4.18
JR-196-OF-0034	36.88427335220	-76.41211920580	Hoffler Creek	HOFFLER CREEK	JL50	YES	5.76
JR-196-OF-0035	36.89529972170	-76.40922950650	Hoffler Creek	HOFFLER CREEK	JL50	YES	1.90
JR-196-OF-0036	36.89530332590	-76.40920788520	Hoffler Creek	HOFFLER CREEK	JL50	YES	1.48
JR-196-OF-0037	36.88318476040	-76.41188099210	Hoffler Creek	HOFFLER CREEK	JL50	YES	5.52
JR-196-OF-0038	36.88393481440	-76.41106011750	Hoffler Creek	HOFFLER CREEK	JL50	YES	1.54
JR-195-OF-0079	36.91564687940	-76.48290956470	Bleakhorn Creek, Bennett Creek, Knotts Creek	NANSEMOND RIVER	JL49	YES	1.74
JR-196-BD-0006	36.89398778860	-76.41508944040		STREETER CREEK	JL50	YES	3.97
JR-242-BD-0024	36.80389208310	-76.52751649360	Nansemond River and Shingle Creek	STAR CREEK	JL49	YES	9.53
JR-242-BD-0003	36.77345657590	-76.56184320910	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	5.10
JR-241-BD-0027	36.77282766240	-76.56439617330	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	6.54
JR-195-OF-0066	36.87598398170	-76.43871156130	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	27.56
JR-195-OF-0067	36.91637452960	-76.48335380770	Bleakhorn Creek, Bennett Creek, Knotts Creek	NANSEMOND RIVER	JL49	YES	1.64
JR-196-BD-0016	36.87654934180	-76.41682232900	Hoffler Creek	HOFFLER CREEK	JL50	YES	7.10
JR-195-OF-0068	36.88094337100	-76.48958727070	Bleakhorn Creek, Bennett Creek, Knotts Creek	NANSEMOND RIVER	JL49	YES	4.61
JR-195-OF-0069	36.87771390010	-76.48741353060	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	8.12
JR-195-OF-0070	36.87902520370	-76.48812953310	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	6.59
JR-195-BD-0004	36.87915791910	-76.44634670680		NANSEMOND RIVER	JL49	YES	40.67
JR-195-BD-0005	36.87695710960	-76.45220512730	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	13.64
JR-195-BD-0006	36.87674942200	-76.44389429790	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	13.95
JR-196-OF-0039	36.88395612950	-76.40912714610	Hoffler Creek	HOFFLER CREEK	JL50	YES	3.98

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MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-196-OF-0040	36.88551706180	-76.40727331740	Hoffler Creek	HOFFLER CREEK	JL50	YES	2.12
JR-196-OF-0041	36.88477163630	-76.40526002530	Hoffler Creek	HOFFLER CREEK	JL50	YES	5.10
JR-196-OF-0042	36.88279419990	-76.40623108270	Hoffler Creek	HOFFLER CREEK	JL50	YES	3.77
JR-216-OF-0002	36.83677602730	-76.51233198960	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	32.56
JR-216-BD-0005	36.83768370050	-76.51194336490	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	24.98
JR-216-OF-0004	36.84023684310	-76.51048463080	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	22.16
JR-195-OF-0071	36.88949401920	-76.45050132460		NANSEMOND RIVER	JL49	YES	8.17
JR-217-OF-0002	36.83422275320	-76.48102223390	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	3.37
JR-195-BD-0001	36.87867966780	-76.45422767600	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	11.51
JR-195-BD-0002	36.88355236640	-76.45017368410		NANSEMOND RIVER	JL49	YES	28.87
JR-242-OF-0029	36.80418593580	-76.51959986280	Nansemond River and Shingle Creek	STAR CREEK	JL49	YES	16.79
JR-196-OF-0043	36.87807530480	-76.41508536250	Hoffler Creek	HOFFLER CREEK	JL50	YES	4.84
JR-218-OF-0002	36.87023187410	-76.41748635050	Hoffler Creek	HOFFLER CREEK	JL50	YES	0.52
JR-195-OF-0075	36.87713870160	-76.48666817130	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	8.19
JR-195-OF-0076	36.87934360570	-76.48667628390	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	3.52
JR-218-OF-0011	36.86403326510	-76.43742194320	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	24.40
JR-196-OF-0044	36.89785881210	-76.40886116630		HOFFLER CREEK	JL50	YES	2.42
JR-196-OF-0045	36.88245909530	-76.41442544650	Hoffler Creek	HOFFLER CREEK	JL50	YES	25.31
JR-242-OF-0031	36.80445869760	-76.51920093880	Nansemond River and Shingle Creek	STAR CREEK	JL49	YES	2.43
JR-241-BD-0004	36.75070441350	-76.56547384640	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	11.72
JR-196-OF-0046	36.88414296200	-76.41348808900	Hoffler Creek	HOFFLER CREEK	JL50	YES	5.80
JR-196-OF-0047	36.88109254670	-76.42067340350		STREETER CREEK	JL50	YES	11.86
JR-195-OF-0077	36.87538008590	-76.48588924840	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	2.50
JR-242-BD-0025	36.80029253920	-76.52443883380	Nansemond River and Shingle Creek	STAR CREEK	JL49	YES	29.45
JR-196-OF-0048	36.87798538380	-76.41428160960	Hoffler Creek	HOFFLER CREEK	JL50	YES	1.92
JR-196-OF-0049	36.87766327170	-76.41194290780	Hoffler Creek	HOFFLER CREEK	JL50	YES	1.82
JR-196-OF-0050	36.87761997510	-76.41122406640	Hoffler Creek	HOFFLER CREEK	JL50	YES	2.13
JR-242-BD-0026	36.77809852230	-76.53643470840	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	10.68
JR-267-BD-0011	36.71699161430	-76.62429922530	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	33.51
JR-195-OF-0078	36.91634103730	-76.48813191790	Chuckatuck Creek and Brewers Creek	CHUCKATUCK CREEK	JL42	YES	7.88
JR-217-OF-0070	36.85760864680	-76.46082718700	Bleakhorn Creek, Bennett Creek, Knotts Creek	Knotts Creek	JL49	YES	11.32
JR-217-OF-0071	36.85831579850	-76.46338872190	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	7.78
JR-195-BD-0008	36.91032061450	-76.49888660560	Bleakhorn Creek, Bennett Creek, Knotts Creek	NANSEMOND RIVER	JL49	YES	6.54
JR-195-OF-0001	36.91228363440	-76.49880440080	Chuckatuck Creek and Brewers Creek	CHUCKATUCK CREEK	JL42	YES	4.83
JR-195-OF-0002	36.92010627810	-76.48895845590		CHUCKATUCK CREEK	JL43	YES	3.41
JR-217-OF-0072	36.85463601100	-76.49685724620	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	0.49
JR-217-OF-0073	36.85486965050	-76.49732445440	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	0.74
JR-195-OF-0003	36.91609567210	-76.48577760760	Bleakhorn Creek, Bennett Creek, Knotts Creek	NANSEMOND RIVER	JL49	YES	3.04
JR-195-OF-0004	36.91603494600	-76.48584159850	Bleakhorn Creek, Bennett Creek, Knotts Creek	NANSEMOND RIVER	JL49	YES	0.74
JR-195-OF-0005	36.90979246990	-76.49355332380	Bleakhorn Creek, Bennett Creek, Knotts Creek	NANSEMOND RIVER	JL49	YES	2.71
JR-195-OF-0006	36.90928193910	-76.49649163010	Bleakhorn Creek, Bennett Creek, Knotts Creek	NANSEMOND RIVER	JL49	YES	2.04
JR-195-OF-0007	36.90819779560	-76.49711875770	Bleakhorn Creek, Bennett Creek, Knotts Creek	NANSEMOND RIVER	JL42	YES	2.95
JR-218-OF-0009	36.87474811440	-76.41277716250	Hoffler Creek	HOFFLER CREEK	JL50	YES	12.77

All outfalls are in the Chesapeake Bay Watershed

MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-196-OF-0051	36.89003683460	-76.41739109200		STREETER CREEK	JL50	YES	2.83
JR-196-OF-0052	36.88800593860	-76.41779104400		STREETER CREEK	JL50	YES	3.66
JR-196-OF-0053	36.89206270840	-76.41728902290		STREETER CREEK	JL50	YES	0.56
JR-217-OF-0004	36.81836880110	-76.47818190610	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	1.95
JR-195-OF-0008	36.89871256130	-76.48344481010		NANSEMOND RIVER	JL49	YES	1.09
JR-217-BD-0030	36.86035196910	-76.45271998340	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	25.34
JR-217-OF-0074	36.86300245580	-76.44793946640	Bleakhorn Creek, Bennett Creek, Knotts Creek	Knotts Creek	JL49	YES	0.63
JR-217-OF-0075	36.86301857270	-76.44779522200	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	0.39
JR-195-OF-0009	36.90471281970	-76.48681198130	Bleakhorn Creek, Bennett Creek, Knotts Creek	NANSEMOND RIVER	JL49	YES	21.91
JR-195-OF-0010	36.90349546190	-76.48246985110		NANSEMOND RIVER	JL49	YES	6.27
JR-195-OF-0012	36.90727698260	-76.48809799940	Bleakhorn Creek, Bennett Creek, Knotts Creek	NANSEMOND RIVER	JL49	YES	3.82
JR-216-OF-0006	36.84683375710	-76.50592346520	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	4.95
JR-216-OF-0007	36.84690493480	-76.50905613390	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	8.38
JR-216-OF-0008	36.84464127170	-76.50999208570	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	5.04
JR-216-OF-0009	36.84366939040	-76.50941747320	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	8.85
JR-216-OF-0019	36.84551100280	-76.50361792160	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	14.50
JR-217-BD-0031	36.84636953810	-76.47439638580	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	6.68
JR-217-BD-0032	36.84938856600	-76.47489136720	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	5.32
JR-217-BD-0033	36.85001937610	-76.46553693290	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	45.22
JR-217-OF-0077	36.84959060320	-76.46876660070	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	6.23
JR-195-OF-0013	36.90834023650	-76.49211997210	Bleakhorn Creek, Bennett Creek, Knotts Creek	NANSEMOND RIVER	JL49	YES	7.04
JR-195-OF-0014	36.91334459790	-76.48635125600	Bleakhorn Creek, Bennett Creek, Knotts Creek	NANSEMOND RIVER	JL49	YES	1.99
JR-195-OF-0015	36.91356845740	-76.48643172830	Bleakhorn Creek, Bennett Creek, Knotts Creek	NANSEMOND RIVER	JL49	YES	0.13
JR-242-OF-0038	36.75269382620	-76.55672508370	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	0.59
JR-195-OF-0016	36.90220617750	-76.49992299540	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	1.50
JR-195-OF-0017	36.90223146040	-76.49973292510	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	0.60
JR-194-OF-0004	36.90346662260	-76.50116401610	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	2.19
JR-195-OF-0018	36.90549273660	-76.48896343840	Bleakhorn Creek, Bennett Creek, Knotts Creek	NANSEMOND RIVER	JL49	YES	11.79
JR-195-OF-0019	36.90811162180	-76.49025031150	Bleakhorn Creek, Bennett Creek, Knotts Creek	NANSEMOND RIVER	JL49	YES	5.07
JR-195-OF-0020	36.90639632950	-76.49477094810	Bleakhorn Creek, Bennett Creek, Knotts Creek	NANSEMOND RIVER	JL49	YES	13.57
JR-195-OF-0021	36.90543037570	-76.49584927780	Bleakhorn Creek, Bennett Creek, Knotts Creek	Nansemond River	JL49	YES	7.64
JR-195-BD-0010	36.90113064170	-76.49136639720		NANSEMOND RIVER	JL49	YES	8.22
JR-195-OF-0051	36.90115545320	-76.49135598640		NANSEMOND RIVER	JL49	YES	0.63
JR-217-BD-0035	36.83692287710	-76.47671888340	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	38.54
JR-195-OF-0022	36.91652771490	-76.49020288730	Chuckatuck Creek and Brewers Creek	CHUCKATUCK CREEK	JL42	YES	1.60
JR-217-OF-0078	36.84779556280	-76.47486816740	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	2.06
JR-195-OF-0023	36.91371427890	-76.48432517520	Bleakhorn Creek, Bennett Creek, Knotts Creek	NANSEMOND RIVER	JL49	YES	0.85
JR-217-OF-0079	36.86443060240	-76.44315685430	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	0.40
JR-217-OF-0080	36.86568656260	-76.44309142310	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	2.56
JR-217-OF-0081	36.86536828870	-76.44390212080	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	1.56
JR-217-OF-0082	36.86835562330	-76.44385285240	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	1.16
JR-195-OF-0024	36.91322113740	-76.48498318560	Bleakhorn Creek, Bennett Creek, Knotts Creek	NANSEMOND RIVER	JL49	YES	1.64
JR-195-OF-0025	36.91816763790	-76.48783302180	Chuckatuck Creek and Brewers Creek	CHUCKATUCK CREEK	JL42	YES	7.31

All outfalls are in the Chesapeake Bay Watershed

MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-195-OF-0026	36.90001189950	-76.48860586020		NANSEMOND RIVER	JL49	YES	0.17
JR-195-OF-0027	36.89989532350	-76.48869344520		NANSEMOND RIVER	JL49	YES	1.97
JR-195-OF-0028	36.89286656210	-76.49204148990		NANSEMOND RIVER	JL49	YES	3.02
JR-217-BD-0036	36.84500603590	-76.47024035920	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	11.95
JR-217-BD-0037	36.85112571690	-76.47452599140	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	20.66
JR-195-OF-0029	36.91210676920	-76.49017839060	Bleakhorn Creek, Bennett Creek, Knotts Creek	NANSEMOND RIVER	JL49	YES	4.24
JR-195-OF-0030	36.91056908730	-76.49026798250	Bleakhorn Creek, Bennett Creek, Knotts Creek	NANSEMOND RIVER	JL49	YES	5.34
JR-195-OF-0031	36.91791630000	-76.48398917590	Bleakhorn Creek, Bennett Creek, Knotts Creek	JAMES RIVER	JL43	YES	5.73
JR-195-OF-0032	36.91589308470	-76.49261559750	Chuckatuck Creek and Brewers Creek	CHUCKATUCK CREEK	JL42	YES	2.91
JR-195-OF-0033	36.91484904730	-76.48943132450	Chuckatuck Creek and Brewers Creek	CHUCKATUCK CREEK	JL42	YES	1.31
JR-195-OF-0034	36.91491216020	-76.48931320800	Chuckatuck Creek and Brewers Creek	CHUCKATUCK CREEK	JL42	YES	11.22
JR-241-OF-0067	36.77164981680	-76.59431013230	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	0.54
JR-241-OF-0068	36.77054148760	-76.59481957910	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	0.78
JR-241-OF-0069	36.77026349320	-76.59496815590	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	2.27
JR-217-BD-0038	36.84831364750	-76.46731783090	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	30.83
JR-217-OF-0093	36.84927900010	-76.47076716210	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	2.24
JR-217-OF-0094	36.84763529940	-76.47216500710	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	5.18
JR-195-OF-0035	36.90197731480	-76.49966110750	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	0.28
JR-194-OF-0003	36.90442192610	-76.50103274450	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	3.90
JR-194-OF-0007	36.90659361750	-76.50018860820	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	1.90
JR-217-OF-0190	36.87380129930	-76.43966496670	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	2.19
JR-217-OF-0191	36.87423655940	-76.43947517740	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	2.06
JR-217-OF-0192	36.87471194720	-76.43858891890	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	1.73
JR-196-OF-0055	36.89861193330	-76.41447079660		STREETER CREEK	JL50	YES	0.87
JR-194-OF-0011	36.89916161160	-76.50353120290	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	7.61
JR-195-OF-0036	36.89595638250	-76.48997379570		NANSEMOND RIVER	JL49	YES	6.32
JR-194-OF-0017	36.90151186630	-76.50900323590	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	3.39
JR-194-OF-0018	36.90618564920	-76.50582605380	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	1.05
JR-195-OF-0037	36.89877023830	-76.48983841400		NANSEMOND RIVER	JL49	YES	1.80
JR-195-OF-0038	36.89881897520	-76.48976235690		NANSEMOND RIVER	JL49	YES	5.78
JR-195-OF-0039	36.89720246330	-76.49143738970		NANSEMOND RIVER	JL49	YES	5.87
JR-194-OF-0010	36.90703137850	-76.50775849080	Chuckatuck Creek and Brewers Creek	CHUCKATUCK CREEK	JL42	YES	0.51
JR-194-OF-0016	36.90575409080	-76.50883798930	Chuckatuck Creek and Brewers Creek	CHUCKATUCK CREEK	JL42	YES	0.65
JR-194-OF-0022	36.90453975850	-76.51066266100	Chuckatuck Creek and Brewers Creek	CHUCKATUCK CREEK	JL42	YES	0.95
JR-194-OF-0021	36.90454852720	-76.51064652360	Chuckatuck Creek and Brewers Creek	CHUCKATUCK CREEK	JL42	YES	0.59
JR-194-OF-0020	36.90453801960	-76.51064699690	Chuckatuck Creek and Brewers Creek	CHUCKATUCK CREEK	JL42	YES	1.56
JR-241-OF-0070	36.75912565440	-76.57883408030	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.45
JR-194-OF-0002	36.90078646980	-76.50014541180	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	4.34
JR-194-OF-0014	36.90372569790	-76.50750136220	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	0.03
JR-194-OF-0013	36.90342992420	-76.50912683770	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	0.59
JR-194-OF-0048	36.88789645770	-76.51206366770		NANSEMOND RIVER	JL49	YES	1.46
JR-194-OF-0027	36.88916847780	-76.51255750470		NANSEMOND RIVER	JL49	YES	4.10
JR-194-OF-0019	36.90910559420	-76.50653026420	Chuckatuck Creek and Brewers Creek	CHUCKATUCK CREEK	JL42	YES	0.13

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MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-216-OF-0030	36.86587022010	-76.50418593980		NANSEMOND RIVER	JL49	YES	9.38
JR-216-OF-0021	36.86555858520	-76.50732533050		NANSEMOND RIVER	JL49	YES	6.32
JR-216-OF-0017	36.86482766690	-76.50051179220		Nansemond River	JL49	YES	20.47
JR-217-OF-0128	36.84638384750	-76.49832583270	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	17.51
JR-217-OF-0129	36.84473557920	-76.49504129470	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	1.25
JR-217-OF-0130	36.85027749320	-76.49392153940	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	0.94
JR-217-OF-0131	36.84923335210	-76.49649096170	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	10.04
JR-217-OF-0137	36.84655410620	-76.49399778510	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	2.47
JR-217-OF-0138	36.84730597490	-76.49514018450	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	4.71
JR-217-OF-0139	36.85082475300	-76.49771665320	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	10.36
JR-217-OF-0140	36.85113556820	-76.49893051860	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	3.54
JR-217-OF-0141	36.86243288360	-76.49918174550		NANSEMOND RIVER	JL49	YES	14.74
JR-196-OF-0060	36.88117782820	-76.42133488700		Streeter Creek	JL50	YES	17.19
JR-196-OF-0061	36.88131383470	-76.42432832330		STREETER CREEK	JL50	YES	9.05
JR-216-OF-0022	36.86271189140	-76.50360432740		NANSEMOND RIVER	JL49	YES	0.54
JR-216-OF-0023	36.86245275850	-76.50327962870		NANSEMOND RIVER	JL49	YES	1.31
JR-216-OF-0025	36.86215497210	-76.50218191050		NANSEMOND RIVER	JL49	YES	1.28
JR-216-OF-0024	36.86201462160	-76.50104870280		NANSEMOND RIVER	JL49	YES	9.73
JR-216-OF-0026	36.86713994230	-76.50186664610		NANSEMOND RIVER	JL49	YES	0.31
JR-267-BD-0017	36.71259684010	-76.62426828940	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	7.92
JR-216-OF-0027	36.83015138190	-76.53966323670	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	3.55
JR-216-OF-0028	36.83259114310	-76.53950314450	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	2.92
JR-216-OF-0029	36.83250762610	-76.54271580060	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	13.58
JR-217-OF-0155	36.87061666680	-76.48468820490	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	0.55
JR-217-OF-0156	36.86848537810	-76.48413712580	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	2.67
JR-217-OF-0157	36.86859410700	-76.48692500620	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	7.45
JR-217-OF-0158	36.86851632240	-76.48726726630	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	0.49
JR-217-OF-0160	36.86713043670	-76.49990964510		Nansemond River	JL49	YES	18.54
JR-266-OF-0018	36.71521734830	-76.62849262930	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	10.88
JR-266-BD-0013	36.71489633860	-76.62795909000	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	47.13
JR-216-OF-0031	36.86384062000	-76.50477315470		NANSEMOND RIVER	JL49	YES	12.17
JR-242-OF-0071	36.75287530160	-76.53851448590	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	8.88
JR-267-OF-0143	36.71913491770	-76.57397847590	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	1.44
JR-267-OF-0014	36.72793811280	-76.59980480570	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	0.13
JR-196-OF-0071	36.88412953960	-76.41389215000	Hoffler Creek	HOFFLER CREEK	JL50	YES	6.19
JR-194-OF-0064	36.91015995070	-76.50661707960	Chuckatuck Creek and Brewers Creek	CHUCKATUCK CREEK	JL42	YES	0.13
JR-194-OF-0053	36.90761185420	-76.50659314910	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	0.40
JR-216-OF-0058	36.83239354890	-76.50490522810	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	7.09
JR-195-OF-0047	36.89832981940	-76.49235622070		NANSEMOND RIVER	JL49	YES	8.18
JR-195-OF-0060	36.90274693470	-76.49338117640		NANSEMOND RIVER	JL49	YES	6.88
JR-194-OF-0012	36.89963522920	-76.51002141020	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	28.55
JR-194-OF-0005	36.90004486950	-76.50692093890	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	1.99
JR-194-OF-0008	36.89979334200	-76.50707051390	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	0.83

All outfalls are in the Chesapeake Bay Watershed

MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-194-OF-0054	36.89211607380	-76.51207213670		NANSEMOND RIVER	JL49	YES	0.78
JR-266-BD-0006	36.71483721270	-76.65167302670	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	5.40
JR-194-OF-0059	36.89693229270	-76.50952759440	Chuckatuck Creek and Brewers Creek	NANSEMOND RIVER	JL49	YES	13.24
JR-194-OF-0028	36.89319083670	-76.51336676580		NANSEMOND RIVER	JL49	YES	7.92
JR-194-OF-0055	36.90040402620	-76.50503986000	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	9.60
JR-217-OF-0096	36.87018615300	-76.46143652750	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	18.09
JR-196-OF-0056	36.87540018050	-76.43291284270	Bleakhorn Creek, Bennett Creek, Knotts Creek	STREETER CREEK	JL49	YES	0.42
JR-194-OF-0001	36.90056928210	-76.50080697210	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	5.97
JR-194-OF-0029	36.90090160160	-76.50114075460	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	3.28
JR-195-OF-0040	36.90220815840	-76.49797396850	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	13.93
JR-217-BD-0039	36.87296897270	-76.44945506490	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	81.62
JR-194-OF-0026	36.88867949140	-76.51482950070		NANSEMOND RIVER	JL49	YES	7.10
JR-217-OF-0085	36.87095243860	-76.46349294660	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	4.90
JR-217-OF-0087	36.86692779870	-76.45203702250	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	0.71
JR-217-OF-0088	36.86561648350	-76.45371901890	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	1.69
JR-217-OF-0089	36.86276910380	-76.45198386330	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	1.00
JR-194-OF-0052	36.89047804880	-76.51628907970		NANSEMOND RIVER	JL49	YES	1.05
JR-194-OF-0063	36.89883010380	-76.50678293690	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	5.40
JR-194-OF-0006	36.89785207210	-76.50546035340		NANSEMOND RIVER	JL49	YES	0.88
JR-194-OF-0023	36.91018799830	-76.50654124130	Chuckatuck Creek and Brewers Creek	CHUCKATUCK CREEK	JL42	YES	0.08
JR-217-OF-0092	36.86638478340	-76.46880206230	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	14.35
JR-217-OF-0097	36.86340336140	-76.46919763000	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	1.47
JR-217-OF-0098	36.86389231490	-76.46758329650	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	13.49
JR-217-OF-0099	36.86296157620	-76.46758532450	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	0.88
JR-194-OF-0015	36.90483276770	-76.50638125610	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	1.43
JR-217-OF-0169	36.84542644400	-76.43982328830	Elizabeth River	ELIZABETH RIVER	JL55	YES	1.60
JR-217-OF-0100	36.85429149510	-76.44486921290	Elizabeth River	ELIZABETH RIVER	JL55	YES	33.24
JR-217-OF-0170	36.85356925550	-76.44470332700	Elizabeth River	ELIZABETH RIVER	JL55	YES	15.80
JR-217-OF-0171	36.85266017650	-76.44367894610	Elizabeth River	ELIZABETH RIVER	JL55	YES	79.01
JR-194-OF-0060	36.90727929700	-76.50723372650	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	0.24
JR-194-OF-0049	36.90572917030	-76.50851918150	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	0.51
JR-194-OF-0050	36.90647895180	-76.50787290680	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	0.22
JR-194-OF-0061	36.90926452840	-76.50647819390	Chuckatuck Creek and Brewers Creek	CHUCKATUCK CREEK	JL42	YES	1.34
JR-194-OF-0051	36.89103751220	-76.51310506640		NANSEMOND RIVER	JL49	YES	1.88
JR-217-OF-0172	36.85005067180	-76.43946743380	Elizabeth River	ELIZABETH RIVER	JL55	YES	13.05
JR-217-OF-0173	36.85149444410	-76.44100893710	Elizabeth River	ELIZABETH RIVER	JL55	YES	7.81
JR-216-OF-0048	36.83506867220	-76.53308674730	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	2.91
JR-216-OF-0049	36.83357663470	-76.52877856280	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	14.46
JR-216-OF-0047	36.83616810620	-76.52697188890	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	9.97
JR-217-OF-0102	36.84673614880	-76.44082949820	Elizabeth River	ELIZABETH RIVER	JL55	YES	2.66
JR-217-OF-0103	36.84408532260	-76.44254667980	Elizabeth River	ELIZABETH RIVER	JL55	YES	67.26
JR-217-OF-0104	36.84532200610	-76.44517582110	Elizabeth River	ELIZABETH RIVER	JL55	YES	28.52
JR-194-OF-0025	36.89090288610	-76.51326196500		NANSEMOND RIVER	JL49	YES	2.64

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MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-217-OF-0105	36.84621156600	-76.44305008650	Elizabeth River	ELIZABETH RIVER	JL55	YES	9.96
JR-217-OF-0106	36.84365739340	-76.44414326180	Elizabeth River	ELIZABETH RIVER	JL55	YES	8.75
JR-217-OF-0107	36.86005466880	-76.45848203410	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	8.67
JR-217-OF-0108	36.85440795070	-76.45723325340	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	10.27
JR-217-OF-0109	36.85728668350	-76.45519997510	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	1.39
JR-217-OF-0110	36.84022146940	-76.45267744210	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	8.76
JR-217-OF-0111	36.83953933100	-76.46069335720	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	4.83
JR-217-OF-0112	36.83939972730	-76.46173940650	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	1.73
JR-217-OF-0113	36.84174200310	-76.47365981850	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	2.26
JR-217-OF-0114	36.84046306460	-76.47441519670	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	8.13
JR-217-OF-0115	36.83937316010	-76.47258581250	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	6.02
JR-217-BD-0043	36.84191511390	-76.46035867870	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	10.65
JR-217-OF-0116	36.84166967220	-76.44770169460	Bleakhorn Creek, Bennett Creek, Knotts Creek	ELIZABETH RIVER	JL55	YES	3.06
JR-194-OF-0024	36.90603565540	-76.50088704560	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	4.65
JR-242-OF-0072	36.75305062500	-76.53380068680	Nansemond River and Shingle Creek	BEAMONS MILL POND	JL48	YES	4.38
JR-217-BD-0044	36.82645390200	-76.49934471980	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	49.02
JR-195-OF-0042	36.91502679160	-76.48747886500	Chuckatuck Creek and Brewers Creek	CHUCKATUCK CREEK	JL42	YES	1.27
JR-195-OF-0043	36.91457404710	-76.48756168100	Chuckatuck Creek and Brewers Creek	CHUCKATUCK CREEK	JL42	YES	3.88
JR-195-OF-0044	36.91374197100	-76.48986782820	Chuckatuck Creek and Brewers Creek	CHUCKATUCK CREEK	JL42	YES	3.00
JR-267-BD-0014	36.71517044380	-76.57106576650	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	13.37
JR-217-BD-0045	36.84578232000	-76.47184543680	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	4.22
JR-217-BD-0047	36.84690891740	-76.46957877270	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	16.72
JR-218-OF-0005	36.87109293460	-76.43191453550	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	3.80
JR-218-OF-0006	36.87112658850	-76.43118187490	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	4.60
JR-218-OF-0007	36.87120871860	-76.43015398790	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	78.62
JR-218-OF-0008	36.86881020580	-76.42827509610	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	12.70
JR-241-OF-0073	36.77121573670	-76.57826536370	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	13.02
JR-241-OF-0074	36.77239879450	-76.57679250730	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	3.91
JR-241-OF-0075	36.77066576530	-76.56983870000	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.91
JR-241-OF-0076	36.77108033380	-76.57161414610	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	3.43
JR-241-BD-0020	36.76790431730	-76.57114848390	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	68.24
JR-217-OF-0118	36.85973822450	-76.45862901050	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	0.81
JR-217-BD-0049	36.86070911430	-76.45861241740	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	4.90
JR-217-OF-0119	36.84125066410	-76.46251652310	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	126.08
JR-217-BD-0052	36.85094575730	-76.47463857220	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	13.46
JR-216-OF-0054	36.83934898940	-76.50359412980	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	18.61
JR-216-OF-0053	36.83882939840	-76.50148212100	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	6.26
JR-194-OF-0056	36.90708290210	-76.50096076700	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	0.86
JR-217-OF-0020	36.83629609480	-76.48846360050	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	6.43
JR-217-BD-0053	36.84727096650	-76.47760483410	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	5.08
JR-267-OF-0020	36.74037195620	-76.57007246330	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	1.60
JR-217-OF-0027	36.83849481880	-76.49728682510	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	14.09
JR-217-OF-0026	36.83663474480	-76.49642503610	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	8.64

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MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-217-OF-0025	36.83563470710	-76.49462614230	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	8.23
JR-217-OF-0024	36.83500530250	-76.49201329540	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	5.95
JR-217-OF-0121	36.83826804250	-76.49988941390	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	4.84
JR-217-OF-0021	36.83753304340	-76.48258892630	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	4.84
JR-217-OF-0023	36.83817425010	-76.48092630670	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	3.75
JR-217-OF-0022	36.83821309410	-76.48685068730	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	13.60
JR-217-OF-0017	36.83419158680	-76.48854471570	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	0.28
JR-217-OF-0018	36.83433247310	-76.48663968100	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	3.60
JR-217-OF-0019	36.83574157500	-76.48439407900	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	5.17
JR-217-OF-0122	36.84747731790	-76.44111372460	Elizabeth River	ELIZABETH RIVER	JL55	YES	1.66
JR-217-OF-0189	36.85855654590	-76.44355102460	Bleakhorn Creek, Bennett Creek, Knotts Creek	Knotts Creek	JL49	YES	13.29
JR-217-OF-0124	36.84247098860	-76.44112901980	Elizabeth River	ELIZABETH RIVER	JL55	YES	2.06
JR-218-OF-0004	36.87426548410	-76.41332506640	Hoffler Creek	HOFFLER CREEK	JL50	YES	1.43
JR-242-OF-0045	36.76198373330	-76.55202094160	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	1.12
JR-242-OF-0046	36.76223748000	-76.54965751800	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	1.15
JR-242-OF-0048	36.76160547820	-76.54800715620	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	1.74
JR-242-OF-0049	36.76246166840	-76.54670303870	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	2.75
JR-217-OF-0125	36.84639697880	-76.46245826540	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	28.73
JR-217-OF-0194	36.84493609980	-76.46420723970	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	4.02
JR-217-OF-0195	36.84324969060	-76.46516406100	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	6.12
JR-217-OF-0142	36.84310736840	-76.47019753050	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	1.94
JR-217-OF-0143	36.84331971540	-76.46758205750	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	2.42
JR-217-OF-0146	36.84270136800	-76.46446670680	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	1.67
JR-217-OF-0147	36.84383676230	-76.46365948270	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	2.77
JR-217-OF-0196	36.84527003290	-76.46356973050	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	2.39
JR-217-OF-0148	36.84523375830	-76.49668160750	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	4.73
JR-217-OF-0149	36.86767271600	-76.49898694830		Nansemond River	JL49	YES	7.40
JR-217-OF-0150	36.86827477890	-76.49513520850		Nansemond River	JL49	YES	5.67
JR-217-OF-0151	36.86595639680	-76.49531210270		Nansemond River	JL49	YES	13.18
JR-217-OF-0152	36.86637016330	-76.49287803440		Nansemond River	JL49	YES	8.49
JR-217-OF-0153	36.84371720800	-76.46827433540	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	5.67
JR-216-OF-0020	36.86610850700	-76.50131369710		NANSEMOND RIVER	JL49	YES	2.16
JR-217-OF-0161	36.84627825570	-76.43923996130	Elizabeth River	ELIZABETH RIVER	JL55	YES	1.86
JR-217-OF-0162	36.86540818790	-76.46507676100	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	2.40
JR-217-OF-0164	36.84490974050	-76.44146391650	Elizabeth River	ELIZABETH RIVER	JL55	YES	0.22
JR-194-OF-0065	36.90975223850	-76.50649283120	Chuckatuck Creek and Brewers Creek	CHUCKATUCK CREEK	JL42	YES	0.02
JR-242-BD-0029	36.77128018000	-76.54756167720	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	5.37
JR-217-OF-0165	36.86243110720	-76.47312446320	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	0.96
JR-218-BD-0003	36.87357345990	-76.43296648920	Bleakhorn Creek, Bennett Creek, Knotts Creek	STREETER CREEK	JL49	YES	14.22
JR-217-OF-0032	36.85431975050	-76.45476804970	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	7.67
JR-217-OF-0031	36.85666615410	-76.45823872620	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	8.25
JR-217-OF-0029	36.85998628660	-76.46014610630	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	6.31
JR-242-OF-0085	36.77218237600	-76.53245026810	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	5.19

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MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-217-OF-0009	36.82038859760	-76.47584260110	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	1.68
JR-241-OF-0134	36.77317294400	-76.56687302330	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	4.60
JR-217-OF-0014	36.81970489130	-76.46937799910	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	45.21
JR-217-OF-0120	36.82077927770	-76.46825819170	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	2.78
JR-217-OF-0224	36.86596241470	-76.49214871780		NANSEMOND RIVER	JL49	YES	2.54
JR-217-OF-0212	36.85924163900	-76.49666494290	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	2.19
JR-217-OF-0117	36.85728040380	-76.48866154880	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	7.01
JR-217-OF-0008	36.86027263570	-76.49033920350	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	9.52
JR-217-OF-0006	36.86415196620	-76.43984969190	Bleakhorn Creek, Bennett Creek, Knotts Creek	Knotts Creek	JL49	YES	2.07
JR-217-OF-0202	36.86477814160	-76.43753468860	Bleakhorn Creek, Bennett Creek, Knotts Creek	knotts Creek	JL49	YES	1.80
JR-196-OF-0081	36.89692199370	-76.42845775490		JAMES RIVER	JL50	YES	3.57
JR-267-OF-0218	36.73092102360	-76.61932357410	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	0.67
JR-267-OF-0219	36.73091761390	-76.61943880790	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	0.61
JR-217-OF-0206	36.86042659340	-76.49286843060	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	8.72
JR-217-OF-0168	36.85639215150	-76.48751191320	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	2.60
JR-217-OF-0215	36.86202650390	-76.46262073650	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	2.41
JR-217-OF-0204	36.86250052080	-76.45658695800	Bleakhorn Creek, Bennett Creek, Knotts Creek	Knotts Creek	JL49	YES	2.05
JR-217-OF-0198	36.86229198240	-76.46278536220	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	2.18
JR-194-OF-0068	36.91167384780	-76.50053598500	Chuckatuck Creek and Brewers Creek	CHUCKATUCK CREEK	JL42	YES	2.01
JR-217-AP-0020	36.86265932160	-76.44328558360	Bleakhorn Creek, Bennett Creek, Knotts Creek	Knotts Creek	JL49	YES	0.48
JR-217-AP-0205	36.86263367130	-76.44309044960	Bleakhorn Creek, Bennett Creek, Knotts Creek	Knotts Creek	JL49	YES	2.52
JR-217-OF-0219	36.82086170190	-76.46889264400	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	6.23
JR-217-OF-0222	36.85853748040	-76.49708155940	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	0.36
JR-217-OF-0223	36.85607684580	-76.49873983640	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	0.68
JR-242-OF-0124	36.75289391150	-76.56159355960	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.71
JR-242-OF-0125	36.75323087150	-76.56140546410	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.08
JR-242-OF-0126	36.75329476210	-76.56135247370	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	0.25
JR-242-OF-0122	36.75492405130	-76.56047793680	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	0.46
JR-242-OF-0123	36.75491306810	-76.56048585630	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.15
JR-242-OF-0119	36.75575061720	-76.56001648390	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	0.41
JR-242-OF-0120	36.75584633510	-76.55995025390	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	0.13
JR-242-OF-0121	36.75648922030	-76.55961084390	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.62
JR-242-OF-0115	36.75963386960	-76.55786531180	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	0.54
JR-242-OF-0116	36.76002905820	-76.55765987810	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.25
JR-242-OF-0013	36.76240063590	-76.55629052750	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	8.79
JR-242-OF-0111	36.76544083220	-76.55290430320	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	4.97
JR-242-OF-0112	36.76543612730	-76.55290717290	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	4.97
JR-242-OF-0114	36.76462555070	-76.55381189330	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	9.84
JR-242-OF-0113	36.76461608940	-76.55382243190	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	9.84
JR-242-OF-0110	36.76695301530	-76.55109379690	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.27
JR-242-OF-0109	36.76960502890	-76.54802086920	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.57
JR-242-OF-0107	36.77418355260	-76.54374884680		NANSEMOND RIVER	JL48	YES	0.86
JR-242-OF-0108	36.77414686670	-76.54377966630		NANSEMOND RIVER	JL48	YES	1.25

All outfalls are in the Chesapeake Bay Watershed

MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-242-OF-0106	36.77645939890	-76.54157743520	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	0.26
JR-242-OF-0129	36.77454944410	-76.54311641690	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	0.80
JR-242-OF-0128	36.76013766400	-76.55738184200	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	0.85
JR-196-OF-0072	36.87583597930	-76.43281328750		STREETER CREEK	JL49	YES	2.43
JR-217-OF-0166	36.86925476080	-76.48411322110	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	0.11
JR-196-OF-0062	36.87724995190	-76.42658734010		STREETER CREEK	JL50	YES	42.66
JR-196-OF-0063	36.87665925390	-76.42918584190		STREETER CREEK	JL50	YES	9.45
JR-216-OF-0059	36.86476511140	-76.50086134460		NANSEMOND RIVER	JL49	YES	2.62
JR-217-OF-0167	36.86224506620	-76.47154137830	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	6.25
JR-196-OF-0066	36.88249731760	-76.42477649520		STREETER CREEK	JL50	YES	1.35
JR-242-OF-0078	36.77321338870	-76.53079854140	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.43
JR-242-OF-0079	36.77468300240	-76.53013452780	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.47
JR-242-OF-0027	36.77853455720	-76.52973328910	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	14.54
JR-242-OF-0028	36.77858417730	-76.53042776850	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	12.45
JR-242-BD-0020	36.79727513650	-76.52250057350	Nansemond River and Shingle Creek	STAR CREEK	JL49	YES	11.64
JR-266-BD-0012	36.72308050790	-76.65187889890	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	22.61
JR-241-BD-0036	36.76870851240	-76.59091036410	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	62.58
JR-242-OF-0033	36.80012325500	-76.51900318380	Nansemond River and Shingle Creek	STAR CREEK	JL49	YES	7.30
JR-267-OF-0132	36.73211076530	-76.58019386440	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	77.16
JR-267-OF-0098	36.72394462790	-76.62237903460	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	4.89
JR-216-OF-0042	36.84327460310	-76.50845589590	Nansemond River and Shingle Creek	NANSEMOND	JL49	YES	0.65
JR-242-OF-0035	36.75036764330	-76.55552328720	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	2.32
JR-195-OF-0050	36.90113188980	-76.49131082800		NANSEMOND RIVER	JL49	YES	0.51
JR-194-OF-0030	36.90114624330	-76.50847537780	Chuckatuck Creek and Brewers Creek	SLEEPY LAKE	JL42	YES	1.76
JR-267-OF-0197	36.71924413090	-76.57534618310	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	22.34
JR-266-OF-0013	36.71636579100	-76.65370293950	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	7.66
JR-266-OF-0014	36.71543271540	-76.65302577270	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	1.63
JR-217-BD-0058	36.86603833570	-76.47107554010	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	1.00
JR-267-OF-0106	36.73853623860	-76.59574755150	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	9.51
JR-267-OF-0117	36.74048343950	-76.59406231170	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	4.71
JR-267-OF-0113	36.74106977980	-76.59256947090	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	2.93
JR-217-OF-0217	36.85724196900	-76.45520258460	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	5.70
JR-267-OF-0107	36.73545967710	-76.59371593310	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	6.42
JR-267-OF-0108	36.73570912100	-76.59784866010	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	1.35
JR-242-OF-0073	36.77512521740	-76.52990648990	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.92
JR-242-OF-0074	36.77549308010	-76.53363349630	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	4.86
JR-242-OF-0075	36.77788566720	-76.53039617500	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	6.06
JR-242-OF-0076	36.77675802590	-76.53098593700	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.16
JR-267-BD-0015	36.72574127450	-76.57820423480	Nansemond River and Shingle Creek	SHINGLE CRREK	JL48	YES	0.19
JR-242-BD-0002	36.75971865970	-76.53839986020	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	17.15
JR-217-OF-0218	36.84358037190	-76.45870547800	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	23.23
JR-242-OF-0050	36.76393131320	-76.54587238380	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	1.26
JR-242-OF-0051	36.76269121170	-76.54841921000	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	3.65

All outfalls are in the Chesapeake Bay Watershed

MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-242-OF-0052	36.76304205430	-76.54943497280	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	3.37
JR-242-OF-0053	36.76397522420	-76.55031486590	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	2.05
JR-242-OF-0054	36.76341190110	-76.55082475360	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	2.36
JR-242-OF-0055	36.76205638110	-76.55280162810	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	0.91
JR-242-OF-0056	36.76435623550	-76.54569983830	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	5.71
JR-242-OF-0057	36.76333739060	-76.54497467740	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	0.83
JR-242-OF-0058	36.76055298260	-76.54737279960	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	1.57
JR-266-BD-0008	36.72263475810	-76.65606490760	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	26.12
JR-242-OF-0059	36.75506531050	-76.53571407120	Nansemond River and Shingle Creek	BEAMONS MILL POND	JL48	YES	3.75
JR-266-OF-0016	36.71326036960	-76.62692334890	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	6.25
JR-266-OF-0017	36.71436032130	-76.62700668640	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	15.75
JR-266-BD-0014	36.71289110920	-76.62519425490	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	30.64
JR-267-OF-0114	36.73420110320	-76.59560353690	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	3.86
JR-267-OF-0115	36.73421107840	-76.59559173620	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	3.86
JR-267-OF-0111	36.73578622950	-76.59617233240	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	2.78
JR-267-OF-0112	36.73577890480	-76.59617711400	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	2.78
JR-268-OF-0002	36.73239969420	-76.55869088030	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	6.62
JR-268-OF-0003	36.72765045180	-76.56062350870	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	23.83
JR-267-OF-0119	36.72657336030	-76.56271700240	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	1.77
JR-267-OF-0120	36.72894282870	-76.56477476620	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	28.00
JR-267-OF-0122	36.72172424920	-76.56715340510	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	2.79
JR-267-OF-0124	36.72122207770	-76.56710630260	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	14.95
JR-267-OF-0125	36.71730292720	-76.57178486350	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	1.62
JR-267-OF-0141	36.71674035090	-76.57242404290	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	1.68
JR-267-OF-0142	36.71629722490	-76.57515031120	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	2.62
JR-267-OF-0144	36.71714304870	-76.57408777450	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.58
JR-267-OF-0145	36.71691715300	-76.57445340150	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	2.41
JR-267-OF-0232	36.71371480150	-76.57530365270	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	2.32
JR-267-OF-0233	36.71503941120	-76.57356229970	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	2.80
JR-267-OF-0146	36.71455902530	-76.57266767340	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	1.30
JR-267-OF-0234	36.71676135030	-76.57331076830	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	4.84
JR-267-OF-0235	36.71654204420	-76.57259669980	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	4.84
JR-267-OF-0236	36.71519551310	-76.57408816630	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	3.06
JR-267-OF-0237	36.71631597920	-76.57496457940	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.90
JR-267-OF-0238	36.71484912170	-76.57254484650	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	1.93
JR-267-OF-0147	36.71367738930	-76.57529108800	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	4.87
JR-267-OF-0148	36.73524636850	-76.56279061700	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	2.62
JR-268-OF-0076	36.73504870720	-76.55987012540	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	1.62
JR-268-OF-0005	36.73253659410	-76.56109789100	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	7.84
JR-267-OF-0150	36.73172209530	-76.56280923440	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	2.21
JR-267-OF-0151	36.73169777660	-76.56294785840	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	6.52
JR-267-OF-0155	36.72104050930	-76.56713279650	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.81
JR-267-OF-0156	36.71903692870	-76.57966303600	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	26.64

All outfalls are in the Chesapeake Bay Watershed

MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-267-OF-0157	36.71898313190	-76.58053026660	Nansemond River and Shingle Creek	SHINGLE CREEK	JL43	YES	6.80
JR-267-OF-0002	36.71436848330	-76.59093284460	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	13.53
JR-267-OF-0003	36.71384419670	-76.58823437400	Nansemond River and Shingle Creek	LAKE KLIBY	JL44	YES	11.86
JR-267-OF-0007	36.72145894050	-76.60266831600	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	2.11
JR-267-OF-0008	36.72138299090	-76.60202455860	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	1.92
JR-267-OF-0009	36.72271760140	-76.59926579210	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	1.69
JR-267-OF-0010	36.72272560910	-76.59925787830	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	10.71
JR-267-OF-0011	36.72293698240	-76.59633318020	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	4.49
JR-241-OF-0078	36.77289602400	-76.60856103470	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	7.10
JR-267-OF-0012	36.73805358420	-76.57924332360	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.64
JR-267-OF-0013	36.73801436720	-76.57921105210	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	39.00
JR-267-OF-0016	36.73802710740	-76.57918672870	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	0.30
JR-267-OF-0017	36.73163407130	-76.59026212060	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	16.63
JR-241-BD-0022	36.77310862370	-76.57771606010	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	48.57
JR-217-BD-0046	36.82783793620	-76.49713632680	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	17.95
JR-196-OF-0064	36.88315227580	-76.41396907660	Hoffler Creek	HOFFLER CREEK	JL50	YES	1.46
JR-196-OF-0065	36.88313627660	-76.41396456240	Hoffler Creek	HOFFLER CREEK	JL50	YES	0.76
JR-241-BD-0021	36.78678638760	-76.58671254010	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	9.72
JR-266-OF-0024	36.72386942700	-76.65738671080	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	5.56
JR-266-OF-0025	36.72383244660	-76.65741017930	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	5.56
JR-242-OF-0080	36.77522346990	-76.52847010980	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	4.09
JR-242-OF-0081	36.77899080150	-76.52438825220	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.11
JR-242-OF-0082	36.77880181450	-76.52718433960	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	3.66
JR-242-OF-0094	36.77902896060	-76.52524556550	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	4.21
JR-242-OF-0077	36.77899717610	-76.52834357220	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	8.06
JR-242-OF-0083	36.77563925600	-76.52877342850	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	24.01
JR-217-OF-0174	36.85356717260	-76.44292224050	Elizabeth River	ELIZABETH RIVER	JL55	YES	0.40
JR-217-OF-0175	36.85349270420	-76.44276772000	Elizabeth River	ELIZABETH RIVER	JL55	YES	0.40
JR-217-OF-0176	36.85299970600	-76.44157687540	Elizabeth River	ELIZABETH RIVER	JL55	YES	0.47
JR-217-OF-0177	36.85290163940	-76.44143842560	Elizabeth River	ELIZABETH RIVER	JL55	YES	0.41
JR-217-OF-0178	36.85232301050	-76.44069757230	Elizabeth River	ELIZABETH RIVER	JL55	YES	0.74
JR-217-OF-0179	36.85223325650	-76.44056569880	Elizabeth River	ELIZABETH RIVER	JL55	YES	0.90
JR-217-OF-0185	36.85098849990	-76.43905576280	Elizabeth River	ELIZABETH RIVER	JL55	YES	0.41
JR-217-OF-0186	36.85092454750	-76.43899289730	Elizabeth River	ELIZABETH RIVER	JL55	YES	0.69
JR-217-OF-0187	36.86309714870	-76.44665718620	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	60.03
JR-241-BD-0003	36.77293502560	-76.56442331040	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	4.68
JR-242-BD-0034	36.77414390700	-76.56219721490	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	15.92
JR-241-OF-0116	36.77967432690	-76.57437556980	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	3.57
JR-242-OF-0095	36.76040143410	-76.55917862760	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	3.89
JR-241-OF-0114	36.75439339450	-76.58866776750	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	2.83
JR-216-OF-0074	36.84423482870	-76.51749744820	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL49	YES	1.48
JR-267-OF-0176	36.74225754480	-76.60576230770	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	0.86
JR-241-OF-0124	36.76681562080	-76.59287194810	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	6.02

All outfalls are in the Chesapeake Bay Watershed

MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-241-OF-0120	36.76488439690	-76.59297632890	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	21.01
JR-241-OF-0123	36.76573612940	-76.58771401310	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL45	YES	12.98
JR-241-OF-0125	36.75937329930	-76.59088046460	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	2.98
JR-241-OF-0126	36.75882929380	-76.59202408810	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	1.79
JR-241-OF-0128	36.75893082000	-76.59304136780	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	0.32
JR-241-OF-0129	36.75819639240	-76.59290628750	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	0.37
JR-241-OF-0127	36.75940785920	-76.59285673610	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	9.22
JR-241-OF-0131	36.76255640500	-76.58843297720	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	0.69
JR-241-OF-0132	36.76094038300	-76.58550644540	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	0.57
JR-241-OF-0133	36.76256019440	-76.58469116560	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	4.68
JR-268-OF-0028	36.74785044030	-76.56055925110	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	2.02
JR-268-OF-0022	36.74920892070	-76.56153712140	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	1.00
JR-242-OF-0103	36.75722377000	-76.55667192670	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	1.43
JR-268-OF-0033	36.72975336160	-76.54711947930	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	3.53
JR-268-OF-0034	36.72987538240	-76.54589884290	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	3.21
JR-242-BD-0036	36.77826946000	-76.56109109450	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	16.27
JR-218-OF-0012	36.86549177940	-76.42953797810	Bleakhorn Creek, Bennett Creek, Knotts Creek	Knotts Creek	JL49	YES	2.35
JR-217-OF-0015	36.86278396290	-76.45170759450	Bleakhorn Creek, Bennett Creek, Knotts Creek	Knotts Creek	JL49	YES	3.17
JR-217-OF-0035	36.86236403360	-76.45226387160	Bleakhorn Creek, Bennett Creek, Knotts Creek	Knotts Creek	JL49	YES	0.36
JR-217-OF-0200	36.86218010670	-76.47094066290	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	0.13
JR-217-OF-0145	36.86227538080	-76.47162524310	Bleakhorn Creek, Bennett Creek, Knotts Creek	DEANES BRANCH	JL49	YES	2.88
JR-217-OF-0013	36.86240795550	-76.47269401840	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	1.78
JR-217-OF-0060	36.86390821320	-76.48397474720	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	2.60
JR-217-OF-0203	36.86374597310	-76.48318460100	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	1.74
JR-217-OF-0016	36.86319630970	-76.48108928420	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	0.57
JR-217-OF-0012	36.86509222090	-76.48672282240	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	2.75
JR-217-OF-0159	36.86662670020	-76.48881522240	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	2.62
JR-217-OF-0005	36.86664115800	-76.48881055130	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	7.13
JR-217-OF-0201	36.86935247800	-76.49025933220		NANSEMOND RIVER	JL49	YES	1.88
JR-217-OF-0076	36.87235441610	-76.48996114090		NANSEMOND RIVER	JL49	YES	3.46
JR-217-OF-0197	36.87462724610	-76.49005485110		NANSEMOND RIVER	JL49	YES	5.42
JR-195-OF-0080	36.88003177720	-76.49186501200		NANSEMOND RIVER	JL49	YES	2.75
JR-195-OF-0081	36.88073776530	-76.49153088050		NANSEMOND RIVER	JL49	YES	4.80
JR-195-OF-0059	36.89199737930	-76.49312569990		NANSEMOND RIVER	JL49	YES	2.73
JR-195-OF-0082	36.89184738990	-76.49343021140		NANSEMOND RIVER	JL49	YES	1.38
JR-195-OF-0083	36.89445648380	-76.49398461230		NANSEMOND RIVER	JL49	YES	7.19
JR-195-OF-0084	36.89842528240	-76.49489450110		NANSEMOND RIVER	JL49	YES	7.44
JR-195-OF-0085	36.90611450310	-76.49807012960	Chuckatuck Creek and Brewers Creek	CHUCKATUCK CREEK	JL42	YES	1.78
JR-194-OF-0067	36.91135476090	-76.50084163980	Chuckatuck Creek and Brewers Creek	CHUCKATUCK CREEK	JL42	YES	5.25
JR-217-OF-0220	36.82156193640	-76.47100261610	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	13.19
JR-216-OF-0076	36.84854707600	-76.50140568550	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL49	YES	1.70
JR-216-OF-0072	36.84839213430	-76.50144079300	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL49	YES	14.85
JR-217-OF-0221	36.85515687150	-76.49934612770	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	13.35

All outfalls are in the Chesapeake Bay Watershed

MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-216-OF-0077	36.84824265320	-76.50148367710	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL49	YES	0.74
JR-242-OF-0044	36.75597148110	-76.53166897730	Nansemond River and Shingle Creek	BEAMONS MILL POND	JL48	YES	14.01
JR-242-OF-0039	36.76545979650	-76.55633209330	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	9.23
JR-242-OF-0041	36.76630448590	-76.55503336870	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	7.80
JR-242-OF-0030	36.76545009920	-76.54512781700	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	4.53
JR-218-AP-0007	36.86182605870	-76.43060810180	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	23.60
JR-218-OF-0026	36.86499343430	-76.43399457740	Bleakhorn Creek, Bennett Creek, Knotts Creek	Knotts Creek	JL49	YES	4.97
JR-216-OF-0005	36.83990570230	-76.50419355650	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	4.46
JR-216-OF-0078	36.83314671820	-76.50819711680	Nansemond River and Shingle Creek	BENNETTS CREEK	JL40	YES	9.31
JR-242-OF-0084	36.77664621280	-76.52794585820	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	5.88
JR-242-OF-0086	36.77241944150	-76.53049597040	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.13
JR-196-OF-0074	36.87653942690	-76.41681408590	Hoffler Creek	HOFFLER CREEK	JL50	YES	7.10
JR-241-OF-0098	36.77632903340	-76.56569588990	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	13.47
JR-268-OF-0001	36.73972696860	-76.55194407410	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	41.96
JR-267-OF-0158	36.73403511630	-76.58627771340	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	9.64
JR-241-OF-0096	36.78843325010	-76.61062080610	Nansemond River and Shingle Creek	WESTERN BRANCH RESERVOIR	JL47	YES	2.67
JR-241-OF-0091	36.78729896570	-76.61068335220	Nansemond River and Shingle Creek	WESTERN BRANCH RESERVOIR	JL47	YES	3.05
JR-240-OF-0011	36.79355111560	-76.62669032530	Nansemond River and Shingle Creek	LAKE MEADE	JL46	YES	3.66
JR-240-OF-0010	36.79152003220	-76.63091402590	Nansemond River and Shingle Creek	LAKE MEADE	JL46	YES	7.26
JR-240-OF-0009	36.78744099800	-76.63331478950	Nansemond River and Shingle Creek	LAKE MEADE	JL46	YES	51.27
JR-241-OF-0086	36.78176109340	-76.62303870490	Nansemond River and Shingle Creek	WESTERN BRANCH RESERVOIR	JL46	YES	7.18
JR-217-OF-0207	36.86299176040	-76.44784522390	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	3.55
JR-241-BD-0031	36.78008085650	-76.57499794810	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	18.87
JR-241-OF-0117	36.78375569300	-76.58069062000	Nansemond River and Shingle Creek	WESTERN BRANCH	JL48	YES	1.05
JR-266-BD-0017	36.71554819530	-76.65429174780	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	3.22
JR-241-OF-0112	36.75353073900	-76.58601114780	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	1.03
JR-241-OF-0118	36.75467075770	-76.59029599440	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	0.40
JR-242-OF-0096	36.76078702250	-76.56017736290	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.45
JR-266-OF-0044	36.72691228360	-76.64599067870	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	0.76
JR-266-OF-0031	36.72610766620	-76.64509271560	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	4.39
JR-266-OF-0053	36.72595842700	-76.64517005240	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	1.27
JR-266-OF-0022	36.71831138740	-76.65788738980	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	2.05
JR-266-OF-0023	36.71833492040	-76.65773498870	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	2.05
JR-241-OF-0110	36.75097831180	-76.58859494960	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	0.58
JR-241-OF-0119	36.78203821450	-76.59751696090	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	3.78
JR-266-OF-0067	36.72008855810	-76.63333766110	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	0.21
JR-266-OF-0066	36.71944247380	-76.63500268840	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	6.92
JR-266-OF-0058	36.71997105220	-76.63649767880	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	2.20
JR-266-OF-0040	36.71918249940	-76.64588072900	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	3.70
JR-266-OF-0045	36.72056535100	-76.64450783810	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	3.32
JR-266-OF-0059	36.71958592300	-76.64071783890	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	2.59
JR-267-OF-0181	36.71240575230	-76.58012579100	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	3.38
JR-266-OF-0030	36.72498466380	-76.64194566240	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	0.87

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MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-266-OF-0063	36.72496964320	-76.64194595580	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	2.42
JR-266-OF-0034	36.72492034820	-76.64247286170	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	2.55
JR-266-OF-0038	36.72675497920	-76.64367900290	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	2.49
JR-266-OF-0062	36.72520906580	-76.64099929280	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	1.73
JR-266-OF-0029	36.72521554380	-76.64095684780	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	4.09
JR-266-OF-0039	36.72483642160	-76.65032827360	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	6.32
JR-266-OF-0054	36.72306665070	-76.64485986060	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	1.52
JR-266-OF-0035	36.72376074220	-76.64436609020	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	1.94
JR-266-OF-0036	36.72374360140	-76.64431296110	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	0.73
JR-266-OF-0037	36.72364595190	-76.64432491230	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	1.68
JR-266-OF-0061	36.72364725770	-76.64438055190	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	0.19
JR-266-DD-0004	36.72883392650	-76.63998766500	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	2.24
JR-266-OF-0028	36.72730323870	-76.63307915050	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	2.28
JR-266-OF-0033	36.71550150160	-76.65960647430	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	5.32
JR-266-OF-0073	36.70831392820	-76.65678081320	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	4.17
JR-266-OF-0075	36.72304839270	-76.64703398850	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	0.64
JR-266-OF-0074	36.72303885800	-76.64685052950	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	0.57
JR-266-OF-0071	36.72210022190	-76.64602430560	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	1.09
JR-266-OF-0076	36.72201961790	-76.64586157740	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	1.29
JR-266-OF-0072	36.71882834190	-76.66102785060	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	2.31
JR-266-BD-0021	36.72354291090	-76.63168607220	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	6.15
JR-266-BD-0020	36.72810708210	-76.63030868300	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	16.90
JR-266-OF-0087	36.71708117240	-76.66405154620	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	4.94
JR-266-OF-0100	36.73152214740	-76.62833998050	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	0.41
JR-266-OF-0089	36.73099676560	-76.62735925890	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	0.41
JR-266-OF-0094	36.72982799620	-76.62867145450	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	0.32
JR-266-OF-0095	36.73016211370	-76.62956977810	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	0.36
JR-241-OF-0121	36.75622233210	-76.57394842570	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.50
JR-241-OF-0122	36.75362966790	-76.57440589230	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	8.41
JR-266-OF-0088	36.72781809170	-76.63059267240	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	0.59
JR-266-OF-0092	36.72021756540	-76.63218642630	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	14.49
JR-266-OF-0079	36.72527680900	-76.62861210410	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	5.97
JR-266-OF-0077	36.72399147670	-76.62651161970	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	2.20
JR-267-OF-0195	36.72298875040	-76.61998118660	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	6.80
JR-267-OF-0196	36.72146404800	-76.61945872390	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	1.74
JR-267-OF-0192	36.72126251070	-76.62052833810	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	27.25
JR-268-OF-0023	36.74760242210	-76.55934094850	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	2.84
JR-268-OF-0029	36.74762095100	-76.55950390740	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.40
JR-268-OF-0027	36.74897537560	-76.53403438180	Nansemond River and Shingle Creek	BEAMONS MILL POND	JL48	YES	0.82
JR-268-OF-0021	36.74938522880	-76.53314063240	Nansemond River and Shingle Creek	BEAMONS MILL POND	JL48	YES	2.96
JR-268-OF-0030	36.72655855920	-76.54914001280	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	10.97
JR-268-OF-0032	36.72641419630	-76.54955466180	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	6.29
JR-268-OF-0012	36.72928210900	-76.54925627180	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	6.33

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MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-268-OF-0024	36.73145003130	-76.55294807070	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	7.89
JR-268-OF-0013	36.72925669830	-76.55466312380	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	9.54
JR-268-OF-0014	36.72714549800	-76.55262843620	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	12.14
JR-268-OF-0035	36.72706675580	-76.55281090450	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	2.70
JR-268-OF-0016	36.72526824410	-76.55431895900	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	4.64
JR-268-OF-0017	36.72672725380	-76.55480715970	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	10.35
JR-268-OF-0018	36.72333437530	-76.55485701330	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	7.89
JR-268-OF-0019	36.72186331110	-76.55821686540	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	9.36
JR-268-OF-0020	36.72820403900	-76.55454922740	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	2.21
JR-268-OF-0036	36.72797315080	-76.55682889240	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	4.81
JR-268-OF-0025	36.72667128610	-76.55896549540	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	9.11
JR-267-OF-0193	36.72434163570	-76.56249959500	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	1.74
JR-267-OF-0194	36.72417803910	-76.56315047300	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	2.77
JR-241-OF-0130	36.77448836830	-76.58287688030	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.87
JR-266-OF-0104	36.71477237760	-76.65503889180	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	1.36
JR-266-OF-0112	36.71680566980	-76.65659418050	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	5.31
JR-266-OF-0107	36.71461177040	-76.65525453090	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	4.70
JR-266-OF-0110	36.71256349490	-76.62742809000	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	3.12
JR-266-OF-0106	36.71041029530	-76.62686720760	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	1.83
JR-266-OF-0103	36.70671717110	-76.62830960600	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	1.09
JR-266-OF-0111	36.70652295450	-76.62852608920	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	1.74
JR-266-OF-0108	36.70532441290	-76.62695244160	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	1.03
JR-266-OF-0102	36.70379131320	-76.62692249180	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	0.50
JR-266-OF-0113	36.70324947970	-76.62641774190	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	0.67
JR-266-OF-0109	36.71027688480	-76.62713669990	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	1.79
JR-266-OF-0105	36.70372525560	-76.62710434890	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	0.70
JR-267-OF-0199	36.70044782240	-76.62309145760	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	7.60
JR-267-OF-0200	36.70100675590	-76.62383214080	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	0.99
JR-267-OF-0201	36.69838246420	-76.61858510800	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	1.55
JR-267-OF-0207	36.69816328980	-76.61834914650	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	2.70
JR-266-OF-0132	36.70247451800	-76.66722014670	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	1.12
JR-266-OF-0135	36.71089069490	-76.66786301220	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	0.53
JR-266-OF-0140	36.70392246280	-76.66721285920	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	1.14
JR-266-OF-0121	36.71466734040	-76.65425016290	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	1.71
JR-266-OF-0115	36.71883389220	-76.63855120290	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	1.15
JR-266-OF-0129	36.71613726690	-76.63810460060	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	0.68
JR-266-OF-0124	36.71880444370	-76.63866632230	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	3.72
JR-266-OF-0114	36.71542853900	-76.63814413720	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	1.38
JR-266-OF-0117	36.71282077210	-76.63897989930	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	16.61
JR-267-OF-0206	36.73025864440	-76.62323896160	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	0.22
JR-267-OF-0210	36.74202643510	-76.56697973000	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.98
JR-267-OF-0211	36.74350427800	-76.56688935650	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.80
JR-267-OF-0212	36.74165123630	-76.56686195920	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	4.26

All outfalls are in the Chesapeake Bay Watershed

MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-267-OF-0213	36.74064089950	-76.56899519870	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	4.73
JR-268-OF-0037	36.73771584790	-76.55469982540	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	1.53
JR-268-OF-0038	36.73881302220	-76.55439642900	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	2.95
JR-268-OF-0039	36.73907849550	-76.55608296040	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	3.04
JR-268-DD-0002	36.73541088360	-76.55951351900	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	1.69
JR-268-DD-0003	36.73813987040	-76.56153546810	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.35
JR-268-DD-0004	36.73805028420	-76.56151765150	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.40
JR-268-DD-0006	36.73767596810	-76.55920880840	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.69
JR-268-DD-0007	36.73870904110	-76.55769410710	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	3.80
JR-268-DD-0011	36.73244250010	-76.56189720040	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.38
JR-268-DD-0012	36.73243769640	-76.56203343130	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.29
JR-266-OF-0142	36.72384844370	-76.64697205210	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	4.77
JR-266-OF-0141	36.72370303920	-76.64860241100	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	4.76
JR-242-BD-0041	36.80678277430	-76.52533603750	Nansemond River and Shingle Creek	STAR CREEK	JL49	YES	26.47
JR-266-OF-0136	36.71336320120	-76.63832820830	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	6.44
JR-242-BD-0042	36.75588193820	-76.53831417280	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	2.98
JR-242-OF-0127	36.75973215440	-76.55759359260	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.43
JR-267-OF-0220	36.74299502020	-76.56371642190	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	4.76
JR-267-OF-0221	36.74354771980	-76.56312306350	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	1.77
JR-267-OF-0222	36.74442303000	-76.56269036310	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	1.87
JR-267-OF-0223	36.74685009570	-76.56280737260	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	1.76
JR-267-OF-0224	36.74763416080	-76.56280831240	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	3.62
JR-241-OF-0152	36.76884241410	-76.59566644180	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	12.20
JR-241-OF-0152	36.76884241410	-76.59566644180	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	12.20
JR-241-OF-0155	36.76865182280	-76.59805544580	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	3.09
JR-266-OF-0145	36.73196034030	-76.62649653980	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	1.77
JR-268-OF-0040	36.74786253860	-76.53525243150	Nansemond River and Shingle Creek	BEAMONS MILL POND	JL48	YES	23.25
JR-242-OF-0043	36.75594975520	-76.53165269210	Nansemond River and Shingle Creek	BEAMONS MILL POND	JL48	YES	16.79
JR-242-OF-0032	36.76530272350	-76.54659681970	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	11.75
JR-241-OF-0138	36.76599158340	-76.58457880000	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	12.54
JR-241-OF-0139	36.76565827680	-76.58553523950	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	18.83
JR-241-OF-0140	36.76508514900	-76.57714023800	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.64
JR-241-OF-0141	36.76489715740	-76.57118439850	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	9.42
JR-241-OF-0142	36.76516675470	-76.60533416150	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	36.67
JR-241-OF-0144	36.76823928980	-76.59164190290	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	15.67
JR-241-OF-0145	36.76511233180	-76.57784824320	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	9.64
JR-241-OF-0147	36.76471646400	-76.56892542370	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	7.33
JR-241-OF-0148	36.76466644750	-76.56595942940	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.26
JR-240-OF-0096	36.78262896270	-76.62953290000	Nansemond River and Shingle Creek	LAKE MEADE	JL46	YES	41.67
JR-241-OF-0143	36.76140074040	-76.58968073020	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	2.90
JR-241-OF-0149	36.76327171900	-76.59383522230	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	4.83
JR-266-OF-0008	36.71428330290	-76.66558047700	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	13.73
JR-266-OF-0009	36.72065754880	-76.64965626360	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	8.01

All outfalls are in the Chesapeake Bay Watershed

MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-266-OF-0224	36.72086183470	-76.64502806230	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	13.03
JR-216-OF-0069	36.83993784960	-76.50418860930	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	1.17
JR-217-OF-0225	36.86309846790	-76.44659561080	Bleakhorn Creek, Bennett Creek, Knotts Creek	Knotts Creek	JL49	YES	0.69
JR-242-OF-0135	36.80668941420	-76.51990097890	Nansemond River and Shingle Creek	STAR CREEK	JL49	YES	0.56
JR-242-OF-0138	36.80686449310	-76.52013268400	Nansemond River and Shingle Creek	STAR CREEK	JL49	YES	1.25
JR-216-OF-0081	36.83996221610	-76.50411413400	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	0.19
JR-242-OF-0136	36.80584905000	-76.51245408930	Nansemond River and Shingle Creek	STAR CREEK	JL49	YES	4.69
JR-241-OF-0156	36.77663732470	-76.58207789530	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	0.44
JR-216-DC-0027	36.83173704720	-76.52863923550	Nansemond River and Shingle Creek	NANSEMOND	JL49	YES	1.00
JR-241-OF-0158	36.77763534500	-76.58330471020	Nansemond River and Shingle Creek	WESTERN BRANCH	JL48	YES	17.35
JR-216-OF-0086	36.82728202200	-76.53021250740	Nansemond River and Shingle Creek	NANSEMOND	JL49	YES	9.51
JR-216-OF-0085	36.82952612470	-76.52994659240	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL49	YES	0.58
JR-216-OF-0084	36.82963432840	-76.52988741890	Nansemond River and Shingle Creek	NANSEMOND	JL49	YES	9.03
JR-216-OF-0083	36.82975388180	-76.52983521850	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL49	YES	0.90
JR-241-OF-0163	36.75911221500	-76.58650514880	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	8.78
JR-242-AP-0012	36.77682646920	-76.54116470850	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	9.63
JR-218-DC-0006	36.86543885480	-76.43274618280	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	2.67
JR-195-IN-0017	36.87746262220	-76.44044101890	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	7.71
JR-195-BU-0015	36.87904988160	-76.44021848810	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	6.48
JR-195-BU-0002	36.87926625010	-76.43952029210	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	1.66
JR-267-OF-0004	36.73210872300	-76.58013498500	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	43.45
JR-242-OF-0167	36.76970269470	-76.52757081750	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	3.78
JR-267-DE-0010	36.72001758090	-76.58491205080	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	1.18
JR-267-DE-0011	36.71999887840	-76.58490689690	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	159.85
JR-267-DE-0008	36.71980982570	-76.58140854890	Nansemond River and Shingle Creek	SHINGLE CREEK	JL43	YES	17.82
JR-267-DE-0067	36.72045286910	-76.56921657980	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	6.05
JR-217-DE-0001	36.82225053350	-76.47186831670	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	5.46
JR-266-AP-0007	36.71635203750	-76.66014300590	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	12.59
JR-266-OF-0172	36.70880468650	-76.63124878460	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	6.13
JR-266-OF-0041	36.72057627840	-76.63582117720	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	3.65
JR-242-AP-0006	36.77196428150	-76.54589221590	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.92
JR-216-OF-0101	36.84344918530	-76.51021187090	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	4.93
JR-216-OF-0100	36.84238604970	-76.50995555090	Nansemond River and Shingle Creek	Nansemond River	JL49	YES	3.93
JR-217-IN-0222	36.82343400520	-76.47699746750	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	8.39
JR-216-OF-0102	36.83295060210	-76.51382456160	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL49	YES	4.34
JR-241-OF-0195	36.77405302230	-76.56564286200	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	3.62
JR-241-OF-0193	36.77910157480	-76.57178775090	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	9.56
JR-241-OF-0194	36.77945139840	-76.57272443790	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	6.19
JR-241-IN-0125	36.76667074860	-76.57837644650	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	23.92
JR-241-IN-0126	36.76593239870	-76.57785513000	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	8.36
JR-242-OF-0165	36.75407297770	-76.56193307520	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	1.23
JR-267-OF-0080	36.72459535270	-76.56564700590	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	2.89
JR-267-OF-0068	36.72455146150	-76.56554741170	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	1.74

All outfalls are in the Chesapeake Bay Watershed

MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-267-OF-0081	36.72392113790	-76.56627952910	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	2.92
JR-267-OF-0216	36.72339227780	-76.56783419710	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	1.36
JR-267-OF-0184	36.72344673580	-76.56781831940	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	1.45
JR-268-OF-0031	36.72526701120	-76.55092277600	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	4.80
JR-242-BD-0021	36.75173293000	-76.53293425930	Nansemond River and Shingle Creek	BEAMONS MILL POND	JL48	YES	21.12
JR-268-DE-0439	36.74686376500	-76.53600145210	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	7.63
JR-268-OF-0060	36.74058995130	-76.55795419580	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	1.28
JR-267-OF-0252	36.73461190790	-76.59611585560	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	0.27
JR-267-OF-0175	36.74205592650	-76.60619178220	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	7.92
JR-242-OF-0164	36.77072442590	-76.54141000200	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.75
JR-217-VP-0005	36.81686644650	-76.45621807590	Elizabeth River	QUAKER NECK CREEK	JL55	YES	8.38
JR-217-VP-0004	36.81697783760	-76.45615285780	Elizabeth River	QUAKER NECK CREEK	JL55	YES	38.76
JR-217-OF-0028	36.86263021500	-76.44352002680	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	1.26
JR-268-OF-0004	36.74469155780	-76.54133812350	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	0.55
JR-268-OF-0046	36.74382698430	-76.54248355630	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	6.62
JR-268-OF-0048	36.74384691210	-76.54526858590	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	9.88
JR-268-OF-0047	36.74205467020	-76.54563724080	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	3.28
JR-268-OF-0049	36.74093279060	-76.54539285170	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	3.76
JR-268-OF-0058	36.73962387520	-76.55811286030	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	2.57
JR-268-OF-0059	36.73971088960	-76.55819466150	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	1.15
JR-268-OF-0055	36.73436796730	-76.55632970620	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	6.53
JR-268-OF-0053	36.73377291830	-76.55622290190	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	3.65
JR-268-OF-0057	36.73348416200	-76.55656270810	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.78
JR-268-OF-0056	36.73342886930	-76.55634944820	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.63
JR-267-OF-0246	36.73714252580	-76.56282585150	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	1.03
JR-267-OF-0245	36.73593399680	-76.56377660180	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.37
JR-267-OF-0255	36.73595300520	-76.56380634620	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.43
JR-268-OF-0050	36.73632648280	-76.56152320330	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	3.44
JR-268-OF-0051	36.73549829670	-76.56124337090	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	2.31
JR-268-OF-0045	36.73538977960	-76.56180368770	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.22
JR-267-OF-0247	36.73630618440	-76.59812999270	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	0.48
JR-267-OF-0248	36.73793616950	-76.59810851840	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	0.74
JR-267-OF-0249	36.73799831630	-76.59833335960	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	0.64
JR-267-OF-0250	36.73948282370	-76.59890370910	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	1.73
JR-241-OF-0191	36.75728819150	-76.59157241720	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	0.28
JR-267-OF-0256	36.74007925940	-76.59974528920	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	11.16
JR-268-OF-0071	36.72277030710	-76.55604372460	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	19.20
JR-268-OF-0072	36.72577359170	-76.55256890780	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	6.41
JR-241-OF-0178	36.78180286040	-76.57776952730	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.46
JR-267-OF-0258	36.73492928730	-76.58889957070	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.46
JR-268-OF-0073	36.72345538180	-76.55499804850	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	7.89
JR-268-OF-0074	36.74080561410	-76.55818245010	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	1.20
JR-268-OF-0075	36.74198534920	-76.55269100650	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	6.76

All outfalls are in the Chesapeake Bay Watershed

MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-266-OF-0206	36.72472858550	-76.64357463150	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	1.25
JR-267-OF-0259	36.71743464180	-76.56665181450	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	3.39
JR-267-OF-0006	36.72104085160	-76.56699405410	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.17
JR-267-OF-0005	36.72119737630	-76.56695513060	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	4.47
JR-267-OF-0268	36.71787389080	-76.56662739540	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.96
JR-267-OF-0269	36.71909913100	-76.56639586670	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.75
JR-242-DE-0579	36.78422339640	-76.60946447620	Nansemond River and Shingle Creek	WESTERN BRANCH RESERVOIR	JL47	YES	3.67
JR-242-DE-0578	36.78269261260	-76.61393483630	Nansemond River and Shingle Creek	WESTERN BRANCH RESERVOIR	JL46	YES	6.43
JR-266-OF-0208	36.72579382770	-76.65054074990	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	3.59
JR-266-OF-0209	36.72279128820	-76.64389149940	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	5.52
JR-266-OF-0210	36.72445051760	-76.64258895990	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	2.57
JR-266-OF-0211	36.72655774940	-76.63935384620	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	10.59
JR-266-OF-0212	36.72672673110	-76.63985524830	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	1.58
JR-266-OF-0213	36.72519774590	-76.64095201360	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	4.09
JR-266-OF-0214	36.72899012000	-76.63878739170	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	4.45
JR-266-OF-0215	36.72380685270	-76.65723436850	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	3.02
JR-242-YD-0025	36.77169035120	-76.54436223170	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	3.77
JR-267-OF-0270	36.74946611370	-76.58308717480	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	6.20
JR-267-DE-0051	36.72299636160	-76.56852998850	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	5.71
JR-267-CE-0450	36.72300200450	-76.56853422700	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	5.71
JR-217-OF-0051	36.86198969610	-76.45234724040	Bleakhorn Creek, Bennett Creek, Knotts Creek	NANSEMOND RIVER	JL49	YES	0.92
JR-241-OF-0181	36.78366970760	-76.58178795270	Nansemond River and Shingle Creek	WESTERN BRANCH	JL48	YES	28.76
JR-241-OF-0183	36.75135981460	-76.58211682740	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.46
JR-196-OF-0103	36.89204244080	-76.43120973390		STREETER CREEK	JL50	YES	2.33
JR-242-DE-0597	36.76573256590	-76.53415965660	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	0.86
JR-267-OF-0271	36.73155985540	-76.58955700290	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	11.18
JR-267-OF-0272	36.72314305240	-76.59555284710	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	2.19
JR-241-IN-0094	36.77568561300	-76.60697424040	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	13.66
JR-241-DE-0229	36.77628250920	-76.60658491760	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	88.20
JR-241-DE-0231	36.77529886900	-76.60516204820	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	2.20
JR-241-IN-0056	36.77804983000	-76.61584328350	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	54.00
JR-241-IN-0057	36.77744390210	-76.61702323350	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	7.69
JR-242-IN-0027	36.76071506080	-76.54210501330	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	7.61
JR-242-IN-0028	36.76262423960	-76.54345926620	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	3.56
JR-242-IN-0051	36.76275171460	-76.53771595110	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	9.09
JR-242-IN-0053	36.76449518290	-76.54048569640	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	1.16
JR-242-IN-0054	36.76442928940	-76.54161520890	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	0.91
JR-242-IN-0055	36.76414147040	-76.54208829370	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	4.65
JR-242-IN-0061	36.76198803820	-76.54372230160	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	7.71
JR-266-MH-0069	36.70491620860	-76.66701055340	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	1.62
JR-266-DI-0515	36.70942454500	-76.66736751710	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	4.18
JR-266-IN-0012	36.71678368590	-76.65063671360	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	10.45
JR-267-DE-0849	36.72979133710	-76.61403537320	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	8.75

All outfalls are in the Chesapeake Bay Watershed

MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-267-AP-0049	36.71907263240	-76.58179912220	Nansemond River and Shingle Creek	SHINGLE CREEK	JL43	YES	47.59
JR-267-OF-0273	36.71890491810	-76.58340820980	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	1.13
JR-267-DE-0068	36.71937378850	-76.57078557830	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	2.95
JR-268-DE-0023	36.72104410070	-76.55988886860	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	9.20
JR-267-OF-0134	36.73772507150	-76.57896570800	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.63
JR-267-DE-0017	36.73767200290	-76.57831597430	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.43
JR-267-OF-0274	36.73941041750	-76.58312509630		NANSEMOND RIVER	JL48	YES	3.53
JR-267-OF-0254	36.74954083360	-76.57218309830	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	9.03
JR-242-DC-0064	36.81154597520	-76.50512337710	Bleakhorn Creek, Bennett Creek, Knotts Creek	STAR CREEK	JL49	YES	3.10
JR-216-DE-0434	36.82250024580	-76.50611929320	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	2.25
JR-195-IN-0018	36.89546083000	-76.49757281750		NANSEMOND RIVER	JL49	YES	10.04
JR-195-IN-0016	36.89378008140	-76.49829504220		NANSEMOND RIVER	JL49	YES	31.41
JR-217-DE-0969	36.86318123890	-76.46480664550	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	1.56
JR-217-DC-0002	36.86808836000	-76.46250950180	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	5.18
JR-217-DE-0149	36.86861051930	-76.45972999350	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	1.25
JR-217-OF-0231	36.86862484030	-76.43979728210	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	24.76
JR-217-OF-0233	36.86700174930	-76.44007700870	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	6.06
JR-217-OF-0232	36.86677456590	-76.43920075320	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	6.15
JR-217-IN-0067	36.87274423640	-76.44328463750	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	7.54
JR-217-IN-0105	36.87269781890	-76.44326332380	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	10.83
JR-195-IN-0053	36.87794410980	-76.44106169350	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	9.94
JR-195-IN-0035	36.89080005090	-76.44392194850		NANSEMOND RIVER	JL49	YES	13.95
JR-195-IN-0033	36.88896964480	-76.44436856150		NANSEMOND RIVER	JL49	YES	0.96
JR-195-IN-0034	36.88845600810	-76.44469955340		NANSEMOND RIVER	JL49	YES	15.38
JR-195-IN-0042	36.88629560890	-76.44283522140		NANSEMOND RIVER	JL49	YES	25.26
JR-195-IN-0015	36.88534821920	-76.44018745050		NANSEMOND RIVER	JL49	YES	36.39
JR-195-IN-0028	36.89518936010	-76.44450093580		JAMES RIVER	JL49	YES	23.85
JR-195-IN-0029	36.89596287910	-76.44362690200		JAMES RIVER	JL49	YES	47.71
JR-195-IN-0030	36.89549495390	-76.44116016810		JAMES RIVER	JL49	YES	4.59
JR-195-IN-0032	36.89265474660	-76.44106905850		JAMES RIVER	JL49	YES	19.25
JR-196-MH-0079	36.88693963350	-76.43697605630		STREETER CREEK	JL50	YES	5.18
JR-196-MH-0081	36.88486897690	-76.43677632390		STREETER CREEK	JL50	YES	2.50
JR-196-IN-0025	36.89162220140	-76.43172106070		STREETER CREEK	JL50	YES	13.72
JR-196-IN-0001	36.87995830650	-76.42492094470		STREETER CREEK	JL50	YES	15.62
JR-196-OF-0105	36.88047105220	-76.42522116690		STREETER CREEK	JL50	YES	0.14
JR-196-OF-0106	36.88017814390	-76.42502847590		STREETER CREEK	JL50	YES	0.16
JR-196-OF-0107	36.88123074650	-76.42508270060		STREETER CREEK	JL50	YES	0.78
JR-196-IN-0065	36.88257541720	-76.42480570250		STREETER CREEK	JL50	YES	3.08
JR-217-IN-0041	36.86117269580	-76.45348625920	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	3.95
JR-217-IN-0228	36.86097463930	-76.45346560090	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	2.25
JR-241-AP-0011	36.76322650240	-76.59468543360	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	1.71
JR-241-DE-0242	36.75626597740	-76.58884367610	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	0.62
JR-241-DE-0245	36.75564154840	-76.58860103560	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	2.30

All outfalls are in the Chesapeake Bay Watershed

MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-241-DE-0241	36.75530813580	-76.58848675740	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	1.08
JR-241-HW-0008	36.75505032860	-76.58528377730	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	6.20
JR-266-OF-0229	36.72175403100	-76.63607321990	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	5.92
JR-266-DE-1243	36.72380447470	-76.63601423260	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	20.80
JR-266-DE-1244	36.72346558110	-76.63623148120	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	4.32
JR-266-OF-0230	36.71058516010	-76.65939741660	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	11.70
JR-266-OF-0231	36.70879388390	-76.65876025820	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	1.70
JR-267-OF-0275	36.73469326730	-76.59586220870	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	4.18
JR-267-DE-0101	36.73317689570	-76.56770898010	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	2.28
JR-267-DE-0103	36.73181256700	-76.56732380810	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	1.69
JR-267-CE-0382	36.73322253610	-76.56597763670	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.55
JR-267-DE-0467	36.73322782210	-76.56587599320	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.54
JR-194-DE-0325	36.89125850610	-76.51616986880		NANSEMOND RIVER	JL49	YES	6.03
JR-194-DE-0358	36.89072122560	-76.51702308140		NANSEMOND RIVER	JL49	YES	3.57
JR-194-DE-0360	36.88782133840	-76.51799190840		NANSEMOND RIVER	JL49	YES	3.55
JR-194-OF-0070	36.88611820950	-76.51914397130	Chuckatuck Creek and Brewers Creek	NANSEMOND RIVER	JL42	YES	7.66
JR-195-OF-0011	36.90146401450	-76.48256204180		NANSEMOND RIVER	JL49	YES	12.48
JR-217-AP-0011	36.87085433240	-76.49007672220		NANSEMOND RIVER	JL49	YES	0.20
JR-217-AP-0012	36.87071194590	-76.49009541530		NANSEMOND RIVER	JL49	YES	0.23
JR-267-DE-0374	36.73480268840	-76.56460553950	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	1.80
JR-267-OF-0159	36.73404395490	-76.58629211670	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	0.42
JR-267-OF-0276	36.73455596140	-76.59617926410	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	1.58
JR-267-IN-0031	36.73944443540	-76.61078950420	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	6.77
JR-267-IN-0032	36.73884206800	-76.60817954280	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	2.65
JR-267-IN-0033	36.73932672500	-76.61081960720	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	3.75
JR-267-IN-0034	36.73778060980	-76.60906444830	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	4.54
JR-267-IN-0035	36.74115409090	-76.60928153690	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	9.39
JR-267-IN-0036	36.74029182640	-76.60770392400	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	1.44
JR-267-DE-0028	36.73367035710	-76.59281849290	Nansemond River and Shingle Creek	LAKE MEADE	JL48	YES	9.55
JR-267-MH-0288	36.73288260880	-76.59771462880	Nansemond River and Shingle Creek	LAKE MEADE	JL48	YES	15.43
JR-267-DE-0009	36.72571053280	-76.58870375350	Nansemond River and Shingle Creek	LAKE KILBY	JL48	YES	8.55
JR-267-IN-0042	36.71728681750	-76.59506173200	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	45.95
JR-267-IN-0006	36.71623138110	-76.60054918040	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	10.07
JR-267-AP-0050	36.71428635670	-76.58933783400	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	4.77
JR-267-DE-0114	36.71415397120	-76.57885942690	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	2.28
JR-267-IN-0090	36.71856368000	-76.60081723550	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	12.84
JR-266-OF-0232	36.71315332470	-76.65724457270	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	6.86
JR-217-DE-1038	36.86434377590	-76.43765539980	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	1.47
JR-217-DE-0722	36.82706729060	-76.46432382410	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	0.58
JR-217-DE-0723	36.82707574450	-76.46432414160	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	2.26
JR-242-DC-0080	36.76704483290	-76.53350980230	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	7.51
JR-267-OF-0281	36.72067546280	-76.57259147940	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	11.05
JR-241-OF-0197	36.77841034900	-76.57867588100	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	21.21

All outfalls are in the Chesapeake Bay Watershed

MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-241-OF-0198	36.77378988770	-76.61420109660	Nansemond River and Shingle Creek	LAKE CAHOON	JL45	YES	25.24
JR-241-OF-0199	36.76134640920	-76.58950056260	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	1.25
JR-241-OF-0200	36.76139625080	-76.58960331290	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	0.96
JR-241-OF-0201	36.77229498110	-76.61178986730	Nansemond River and Shingle Creek	LAKE CAHOON	JL45	YES	3.75
JR-241-OF-0203	36.76309052770	-76.59396005670	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	3.11
JR-241-OF-0204	36.76334671270	-76.59400513870	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	9.45
JR-217-OF-0249	36.82056334190	-76.47561954580	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	8.24
JR-217-OF-0250	36.82603661260	-76.47592398830	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	5.02
JR-217-OF-0251	36.82741792110	-76.47476902320	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	8.37
JR-217-OF-0252	36.82724704170	-76.47030729660	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	2.92
JR-217-OF-0253	36.82552593630	-76.46915475880	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	2.76
JR-217-OF-0254	36.82507778150	-76.46912991750	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	5.66
JR-217-OF-0255	36.82463047880	-76.46827174530	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	10.13
JR-217-OF-0256	36.82736316110	-76.46638257260	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	2.85
JR-217-OF-0257	36.82712847630	-76.46449810590	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	15.38
JR-217-OF-0258	36.82412134010	-76.47425872620	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	7.96
JR-217-OF-0259	36.82711668790	-76.47355010060	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	3.85
JR-267-DE-0530	36.73368266540	-76.57996579020	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	0.77
JR-267-OF-0282	36.73703146360	-76.56286159010	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.77
JR-267-OF-0277	36.74634739410	-76.58362765860	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.07
JR-267-OF-0278	36.74236164280	-76.58414670530	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	0.72
JR-241-OF-0205	36.75201929100	-76.58416174460	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.85
JR-241-IN-0051	36.75067863100	-76.58844373540	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	2.58
JR-267-DI-1802	36.74290367730	-76.58340015510	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.15
JR-268-DI-0391	36.72056223950	-76.56101522210	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	28.13
JR-267-OF-0283	36.72419690250	-76.56460398200	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	1.36
JR-267-OF-0284	36.72420406580	-76.56448191860	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.53
JR-268-DE-0008	36.72721439890	-76.56180811540	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.87
JR-267-OF-0279	36.73030044440	-76.56990239840	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	2.55
JR-267-OF-0280	36.73115137880	-76.56920214160	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	1.40
JR-267-OF-0287	36.73116373950	-76.56913589700	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.75
JR-267-DE-0019	36.73790885910	-76.58762415210	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	12.58
JR-266-PE-0037	36.72189109710	-76.64287548150	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	1.81
JR-267-OF-0152	36.73152079490	-76.56299363220	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.64
JR-267-OF-0153	36.73154022530	-76.56303303480	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.15
JR-267-OF-0154	36.73130750610	-76.56316818460	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	22.18
JR-217-OF-0010	36.86326090470	-76.47773203790	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	1.21
JR-217-MH-0452	36.85828470990	-76.45830376580	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	5.04
JR-195-OF-0089	36.87658708390	-76.43765085060	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	1.65
JR-195-DI-0147	36.87874746150	-76.43771873310	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	5.37
JR-216-DE-0433	36.82257920390	-76.50889348340	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL49	YES	2.76
JR-242-DC-0053	36.80376249820	-76.51309494510	Nansemond River and Shingle Creek	STAR CREEK	JL49	YES	4.35
JR-242-MH-0208	36.78215724620	-76.53141558640	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	0.75

All outfalls are in the Chesapeake Bay Watershed

MS4 Outfall Information Table

FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-242-DE-0024	36.77425307400	-76.52717456760	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.42
JR-242-DE-0019	36.77305361060	-76.52734511060	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.95
JR-242-DI-1264	36.76906079640	-76.53873362170	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	4.22
JR-268-OF-0064	36.74328808330	-76.54905821540	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	12.00
JR-196-OF-0007	36.87654570330	-76.43465367450	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	0.88
JR-268-IN-0001	36.74758103580	-76.55703654120	Nansemond River and Shingle Creek	BURNETTS MILL CREEK	JL48	YES	4.68
JR-196-OF-0006	36.88081566310	-76.42488610270		STREETER CREEK	JL50	YES	16.21
JR-217-IN-0042	36.86105567650	-76.44078537900	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	79.00
JR-217-OF-0086	36.86492706080	-76.47009260830	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	5.73
JR-242-OF-0173	36.76834421000	-76.53266845730	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.63
JR-216-DE-0472	36.82260966660	-76.50270700230	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	0.22
JR-216-DE-0481	36.82160557840	-76.50266494940	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	1.91
JR-216-DE-0482	36.82178876540	-76.50268751990	Bleakhorn Creek, Bennett Creek, Knotts Creek	BENNETTS CREEK	JL49	YES	2.07
JR-267-OF-0291	36.73604823630	-76.58685250460	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	1.91
JR-266-DI-0651	36.72622961220	-76.63037215060	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	18.63
JR-267-OF-0057	36.73163269370	-76.58964425800	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	2.21
JR-267-OF-0023	36.73828332210	-76.60683795940	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	1.04
JR-267-AP-0016	36.72386768650	-76.56742856640	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	8.13
JR-241-IN-0017	36.77847771610	-76.58760772560	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	15.63
JR-241-IN-0015	36.77808129470	-76.58653776350	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	4.20
JR-241-IN-0065	36.77341203810	-76.59194811630	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	0.77
JR-241-IN-0066	36.77378977710	-76.58973017040	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	3.33
JR-241-IN-0067	36.77404937330	-76.59218468060	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	1.33
JR-241-IN-0068	36.77534703720	-76.59139699470	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	3.32
JR-241-IN-0069	36.77542204190	-76.59089543780	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	0.84
JR-241-IN-0070	36.77525423440	-76.59098442790	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	4.58
JR-241-IN-0071	36.77391042780	-76.59111793550	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	0.95
JR-241-IN-0085	36.77636843940	-76.59213511250	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	6.19
JR-241-IN-0007	36.77674616540	-76.59145671630	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	6.04
JR-241-IN-0008	36.77722274220	-76.59097253980	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	3.65
JR-241-IN-0009	36.77719594010	-76.59051125430	Nansemond River and Shingle Creek	LAKE MEADE	JL45	YES	5.28
JR-241-IN-0011	36.77425288230	-76.58897993730	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	1.55
JR-241-IN-0012	36.77395617800	-76.59008273470	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	1.54
JR-241-IN-0038	36.77345843240	-76.59233965400	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	8.76
JR-241-IN-0131	36.77381355660	-76.58910820300	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	11.34
JR-241-IN-0132	36.77304652680	-76.59112148810	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	2.60
JR-241-IN-0010	36.77434192600	-76.58863406150	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	10.51
JR-241-DC-0011	36.76921497900	-76.59838386840	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	11.09
JR-268-OF-0077	36.72779266730	-76.55908566590	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	0.98
JR-267-DE-0692	36.72602209030	-76.56980675380	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	9.46
JR-267-CE-0008	36.72967387110	-76.56387606680	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	6.36
JR-267-DE-0808	36.72935667170	-76.56582004680	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	8.40
JR-266-DE-0578	36.72720788750	-76.62941581390	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	6.99

All outfalls are in the Chesapeake Bay Watershed

MS4 Outfall Information Table

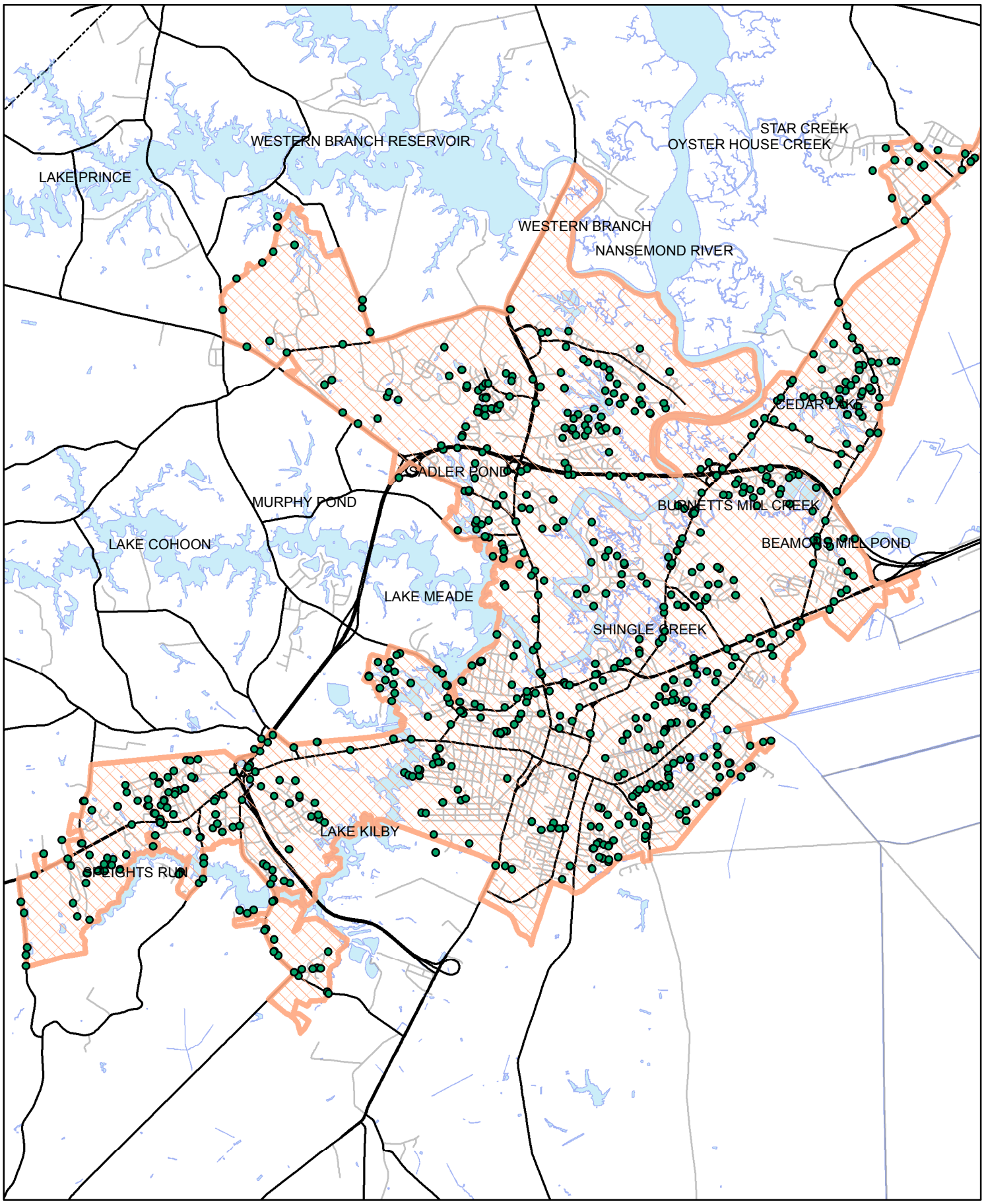
FACILITYID	LATITUDE	LONGITUDE	TMDL	Receiving Water	VA HUC 6	Impaired Yes/No	Est. Acreage
JR-266-DE-0579	36.72720866080	-76.62948530230	Nansemond River and Shingle Creek	LAKE KILBY	JL44	YES	2.90
JR-217-DE-0766	36.83188322470	-76.46426153250	Bleakhorn Creek, Bennett Creek, Knotts Creek	QUAKER NECK CREEK	JL49	YES	2.09
JR-217-OF-0234	36.83846832050	-76.48080961590	Bleakhorn Creek, Bennett Creek, Knotts Creek	Quaker Neck Creek	JL49	YES	4.57
JR-241-OF-0030	36.78379779880	-76.57734412910	Nansemond River and Shingle Creek	WESTERN BRANCH	JL48	YES	9.45
JR-217-IN-0180	36.86840726530	-76.44331088520	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	0.28
JR-217-IN-0179	36.86876512450	-76.44330026310	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	0.71
JR-217-MH-0147	36.86965632590	-76.44229440350	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	3.34
JR-217-MH-0077	36.85107974580	-76.46082698680	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	3.31
JR-268-OF-0078	36.72795265450	-76.55917000400	Nansemond River and Shingle Creek	SHINGLE CREEK	JL44	YES	0.40
JR-242-OF-0157	36.75109834700	-76.53205709110	Nansemond River and Shingle Creek	BEAMONS MILL POND	JL48	YES	56.81
JR-241-IN-0135	36.77746648120	-76.58671387330	Nansemond River and Shingle Creek	SADLER POND	JL45	YES	7.46
JR-268-DI-0629	36.71968442770	-76.55990032680	Nansemond River and Shingle Creek	SHINGLE CREEK	JL48	YES	3.22
JR-242-SU-0001	36.78049573610	-76.53071037070	Nansemond River and Shingle Creek	NANSEMOND RIVER	JL48	YES	4.35
JR-196-OF-0108	36.88079500080	-76.43679769830	Bleakhorn Creek, Bennett Creek, Knotts Creek	KNOTTS CREEK	JL49	YES	4.59
JR-267-OF-0296	36.73118416990	-76.60702440630	Nansemond River and Shingle Creek	LAKE MEADE	JL44	YES	6.62
JR-266-DI-0549	36.72429002440	-76.63476919060	Nansemond River and Shingle Creek	SPEIGHTS RUN	JL44	YES	2.94

All outfalls are in the Chesapeake Bay Watershed

MS4 Outfalls - Downtown Suffolk

MS4 Outfalls

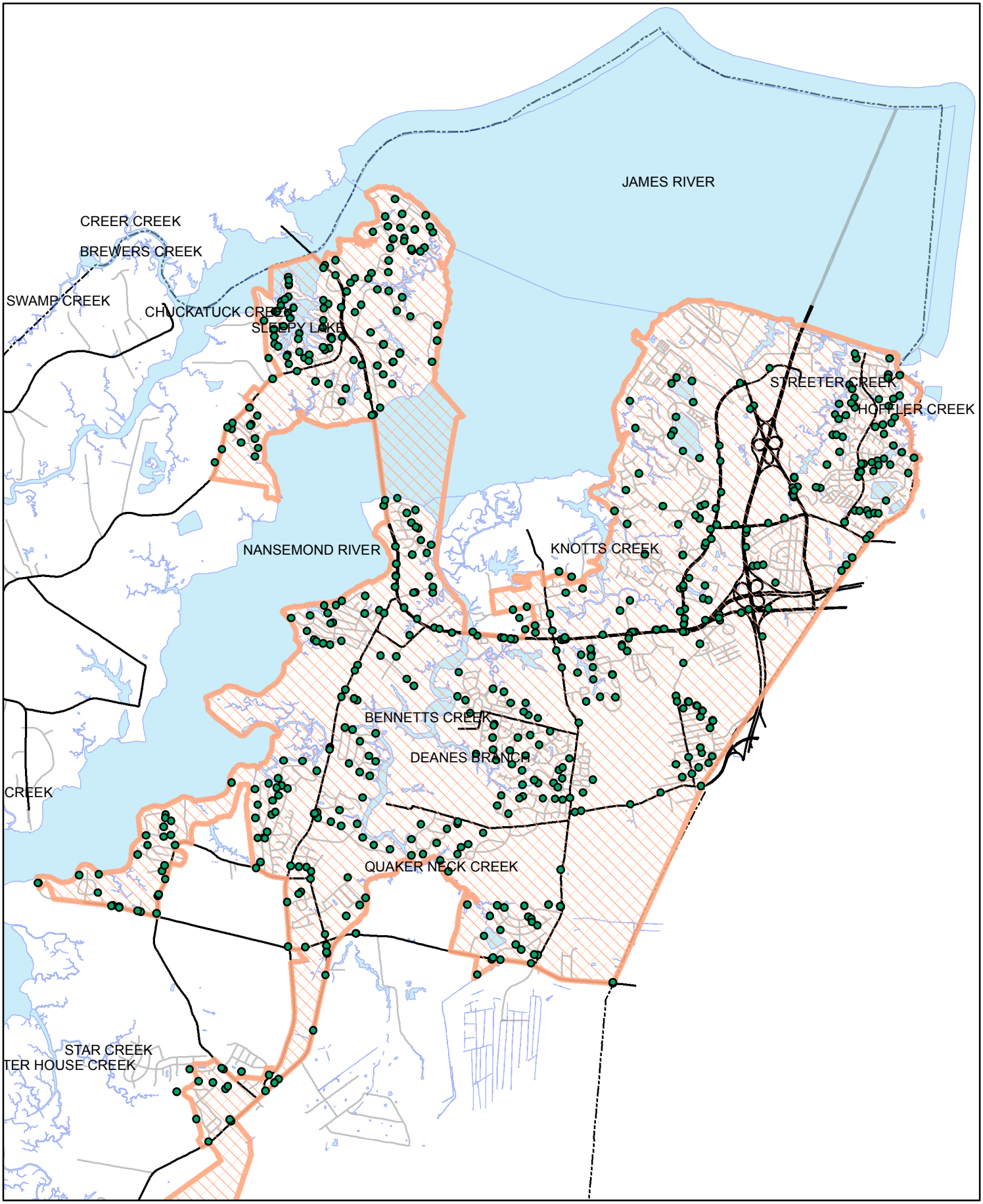
2010 Census Urbanized Area



MS4 Outfalls - North Suffolk

MS4 Outfalls

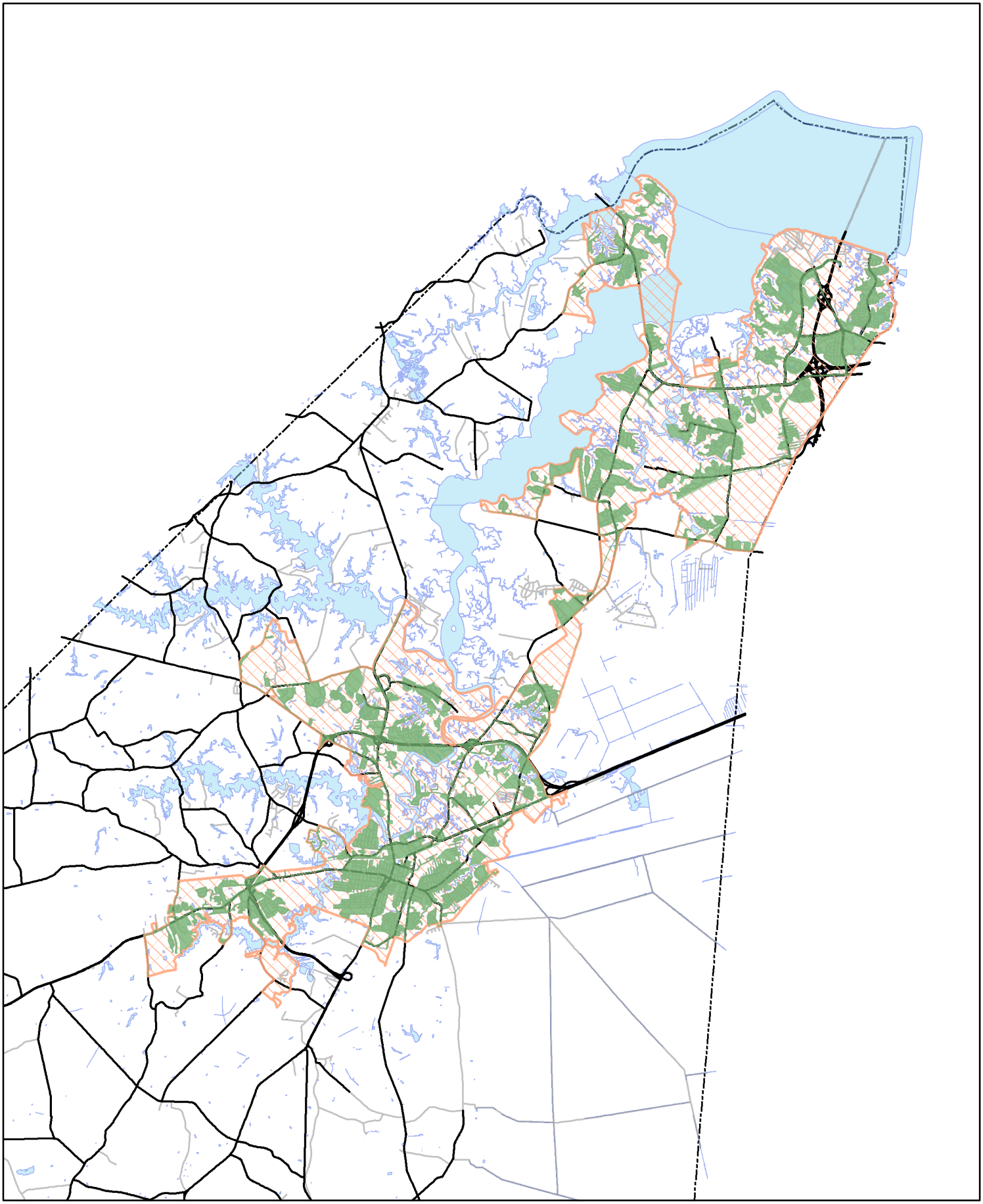
2010 Census Urbanized Area



MS4 Regulated Service Area

MS4 Regulated Service Area

2010 Census Urbanized Area



Dry Weather Screenings Permit Year 4

Date Inspected	Inspected By	Observations	Facility ID
07/15/2016 11:21	WESLEY, SAMUEL	None.	JR-217-OF-0128
07/15/2016 11:10	WESLEY, SAMUEL	None.	JR-217-OF-0129
07/15/2016 10:30	WESLEY, SAMUEL	None	JR-217-OF-0130
07/15/2016 10:41	WESLEY, SAMUEL	None.	JR-217-OF-0131
07/15/2016 10:55	WESLEY, SAMUEL	None.	JR-217-OF-0138
07/15/2016 10:24	WESLEY, SAMUEL	None.	JR-217-OF-0139
07/15/2016 10:19	WESLEY, SAMUEL	None.	JR-217-OF-0140
07/15/2016 11:18	WESLEY, SAMUEL	Unable to locate.	JR-217-OF-0148
07/15/2016 07:23	WESLEY, SAMUEL	None.	JR-216-OF-0017
07/15/2016 07:29	WESLEY, SAMUEL	None.	JR-216-OF-0020
07/15/2016 08:08	WESLEY, SAMUEL	None	JR-216-OF-0021
07/15/2016 07:43	WESLEY, SAMUEL	None.	JR-216-OF-0022
07/15/2016 07:55	WESLEY, SAMUEL	None	JR-216-OF-0023
07/15/2016 08:04	WESLEY, SAMUEL	None	JR-216-OF-0024
07/15/2016 10:01	WESLEY, SAMUEL	Viewed from a distance unable to open gate.	JR-217-OF-0160
07/15/2016 10:16	WESLEY, SAMUEL	Dead branch in concrete flume.	JR-217-OF-0152
07/15/2016 10:26	WESLEY, SAMUEL	None.	JR-217-OF-0151
07/15/2016 10:41	WESLEY, SAMUEL	None.	JR-217-OF-0150
07/15/2016 10:56	WESLEY, SAMUEL	None.	JR-217-OF-0149
07/15/2016 02:31	WESLEY, SAMUEL	None.	JR-217-OF-0141
07/15/2016 11:15	WESLEY, SAMUEL	Tree growing next to structure; dead log on front of structure.	JR-216-OF-0059
07/15/2016 11:31	WESLEY, SAMUEL	None.	JR-216-OF-0031
07/15/2016 11:45	WESLEY, SAMUEL	None.	JR-216-OF-0030
07/15/2016 11:57	WESLEY, SAMUEL	Structure is covered with heavy vegetation.	JR-216-OF-0026
07/15/2016 12:21	WESLEY, SAMUEL	None.	JR-216-OF-0025
07/26/2016 09:01	WESLEY, SAMUEL	Note: informed by neighbor (#149) plastic pipe was installed by resident next door to fill-in existing ditch.	JR-217-OF-0024
07/26/2016 09:20	WESLEY, SAMUEL	Woody vegetation around structure	JR-217-OF-0025
07/26/2016 09:33	WESLEY, SAMUEL	Unable to locate, unchained dog in yard.	JR-217-OF-0026
07/26/2016 09:43	WESLEY, SAMUEL	Note: Curb inlet at street being repaired.	JR-217-OF-0027
07/26/2016 10:06	WESLEY, SAMUEL	None.	JR-216-OF-0032
07/26/2016 09:05	WESLEY, SAMUEL	None.	JR-216-OF-0053
07/26/2016 09:57	WESLEY, SAMUEL	None.	JR-216-OF-0054
07/26/2016 09:48	WESLEY, SAMUEL	None.	JR-217-OF-0121
07/26/2016 10:14	WESLEY, SAMUEL	None.	JR-217-OF-0056
10/19/2016 02:50	DURDEN, JAMIE L		JR-242-OF-0054
10/19/2016 01:46	DURDEN, JAMIE L	Concrete Wash out in storm drain, Across from 1721 Mill Wood	JR-242-OF-0053
10/19/2016 03:11	DURDEN, JAMIE L		JR-242-OF-0056
10/19/2016 03:24	DURDEN, JAMIE L	Could Not Access. Tree Down	JR-242-OF-0057
10/19/2016 03:28	DURDEN, JAMIE L		JR-242-OF-0051
10/20/2016 09:38	DURDEN, JAMIE L	About 25% full with sand. Vegetation growing inside pipe on sand. Also cracked structure, not blocking water flow.	JR-242-OF-0055
10/20/2016 09:36	DURDEN, JAMIE L		JR-242-OF-0045
10/20/2016 09:40	DURDEN, JAMIE L		JR-242-OF-0046
10/20/2016 09:43	DURDEN, JAMIE L	RCP collapsing on itself. About 40% full of sediment. Not blocking water at this time.	JR-242-OF-0048
10/20/2016 09:49	DURDEN, JAMIE L		JR-242-OF-0049
11/21/2016 11:38	DURDEN, JAMIE L		JR-242-OF-0050
11/21/2016 01:01	DURDEN, JAMIE L	Pipe outfall is creating a pond at base, holding water.	JR-242-OF-0052
11/21/2016 01:11	DURDEN, JAMIE L		JR-242-OF-0058
11/21/2016 01:49	DURDEN, JAMIE L		JR-268-OF-0036
11/21/2016 02:13	DURDEN, JAMIE L		JR-268-OF-0025
11/21/2016 02:23	DURDEN, JAMIE L	Sitting in water. The grass and sediment around the pipe itself is eroding. Was told by owner of house that it started during the last flood, October or 2016.	JR-267-OF-0193
11/21/2016 02:29	DURDEN, JAMIE L		JR-267-OF-0194
11/21/2016 10:33	DURDEN, JAMIE L		JR-267-OF-0087
11/21/2016 02:40	DURDEN, JAMIE L	Could not locate at time.	JR-267-OF-0089
11/21/2016 02:43	DURDEN, JAMIE L	Could not locate at time	JR-267-OF-0088
11/21/2016 02:49	DURDEN, JAMIE L		JR-267-OF-0119
11/21/2016 02:51	DURDEN, JAMIE L	Concrete headwall. Groundwater was flowing. A lot of trash was also around the outfall.	JR-268-OF-0003
12/27/2016 10:30	DURDEN, JAMIE L		JR-217-OF-0112
12/27/2016 11:00	DURDEN, JAMIE L		JR-217-OF-0111
12/27/2016 11:04	DURDEN, JAMIE L		JR-217-OF-0119

Dry Weather Screenings Permit Year 4

Date Inspected	Inspected By	Observations	Facility ID
12/27/2016 11:42	DURDEN, JAMIE L		JR-217-OF-0110
12/27/2016 11:49	DURDEN, JAMIE L	Clear Ground water coming from outfall.	JR-217-OF-0057
12/27/2016 11:01	DURDEN, JAMIE L		JR-217-OF-0147
12/27/2016 11:08	DURDEN, JAMIE L		JR-217-OF-0146
12/27/2016 11:15	DURDEN, JAMIE L		JR-217-OF-0195
12/27/2016 01:36	DURDEN, JAMIE L	Could not locate due to fence.	JR-217-OF-0143
12/27/2016 01:53	DURDEN, JAMIE L		JR-217-OF-0153
12/27/2016 02:17	DURDEN, JAMIE L	Could not locate due to fence.	JR-217-OF-0142
12/27/2016 02:24	DURDEN, JAMIE L	Clear Ground water	JR-217-OF-0058
12/27/2016 02:31	DURDEN, JAMIE L		JR-217-OF-0059
12/27/2016 02:35	DURDEN, JAMIE L	Failed Outfall. Broken, cracked, sinkhole now.	JR-217-OF-0115
12/27/2016 02:46	DURDEN, JAMIE L	1/2 full of sediment.	JR-217-OF-0113
12/27/2016 03:01	DURDEN, JAMIE L	Hose buried in ground. Looks to be running from 4908 Fennel Ct. Spoke with owners of property, they had just moved in the last week of December 2016. Unaware of hose. I educated them on what can go in the storm drain/outfall.	JR-217-OF-0114
12/27/2016 08:38	DURDEN, JAMIE L	Small sink hole on top of structure. Could be coming from apartment roof leader draining down hill and washing sediment away. Could not determine how deep sink hole was.	JR-217-OF-0218
12/27/2016 09:20	DURDEN, JAMIE L	Sink hole in persons backyard, up against the outfall structure.	JR-217-OF-0093
12/27/2016 09:08	DURDEN, JAMIE L		JR-217-OF-0077
12/27/2016 09:27	DURDEN, JAMIE L		JR-217-OF-0094
12/27/2016 09:39	DURDEN, JAMIE L	Sink hole at street, next to storm drain.	JR-217-OF-0078
02/14/2017 09:20	DURDEN, JAMIE L	Can not locate	JR-194-OF-0063
02/14/2017 09:44	DURDEN, JAMIE L		JR-194-OF-0008
02/14/2017 09:49	DURDEN, JAMIE L		JR-194-OF-0005
02/14/2017 10:18	DURDEN, JAMIE L		JR-194-OF-0039
02/14/2017 10:29	DURDEN, JAMIE L		JR-194-OF-0011
02/14/2017 10:33	DURDEN, JAMIE L		JR-194-OF-0032
02/14/2017 10:35	DURDEN, JAMIE L		JR-194-OF-0055
02/14/2017 11:11	DURDEN, JAMIE L		JR-194-OF-0062
02/14/2017 11:14	DURDEN, JAMIE L	Could not access	JR-194-OF-0033
02/14/2017 01:02	DURDEN, JAMIE L	Ground Water	JR-194-OF-0001
02/14/2017 01:30	KEELING, DAVID		JR-195-OF-0085
02/14/2017 02:47	DURDEN, JAMIE L		JR-194-OF-0007
02/14/2017 02:50	DURDEN, JAMIE L	Heavy Brush, could not locate	JR-194-OF-0056
02/14/2017 02:53	DURDEN, JAMIE L	Can not access due to private property	JR-194-OF-0024
02/14/2017 02:57	DURDEN, JAMIE L		JR-194-OF-0003
02/14/2017 03:01	DURDEN, JAMIE L		JR-194-OF-0004
02/14/2017 03:04	DURDEN, JAMIE L		JR-195-OF-0017
02/14/2017 03:07	DURDEN, JAMIE L	Outfall has failed. Collapsed. Needs repair immediately	JR-195-OF-0016
02/14/2017 03:11	DURDEN, JAMIE L	Can not locate	JR-195-OF-0035
02/14/2017 03:15	DURDEN, JAMIE L		JR-194-OF-0029
02/14/2017 03:17	DURDEN, JAMIE L	Ground Water	JR-194-OF-0002
06/27/2017 10:26	WESLEY, SAMUEL	End of pipe structure chipped	JR-268-OF-0001
06/27/2017 08:26	WESLEY, SAMUEL	Has rubber collar clamped at the end, one tree growing over pipe structure, some trash upstream in channel.	JR-268-OF-0002
06/27/2017 09:17	WESLEY, SAMUEL		JR-267-OF-0153
06/27/2017 09:10	WESLEY, SAMUEL	Area has been weed eated.	JR-267-OF-0152
06/27/2017 08:51	WESLEY, SAMUEL		JR-267-OF-0150
06/27/2017 11:39	WESLEY, SAMUEL	Unable to locate	JR-267-OF-0018
06/27/2017 09:03	WESLEY, SAMUEL	Three pipe structures 24" HDPE (with flow); 42" RCP (circular) and 60" eliiptical.	JR-267-OF-0151
06/27/2017 09:21	WESLEY, SAMUEL	Erosion over corrugated pipe, timbers rotten installed over pipe	JR-267-OF-0154
06/27/2017 09:43	WESLEY, SAMUEL	Structure covered with vegetation	JR-267-OF-0149
06/27/2017 09:40	WESLEY, SAMUEL	Unable to locate a structure, photographed end of ditch	JR-267-OF-0148
06/27/2017 10:02	WESLEY, SAMUEL	Structure covered with sediment and pine straw	JR-268-OF-0037
06/27/2017 10:43	WESLEY, SAMUEL	Unable to locate	JR-267-OF-0031
06/27/2017 10:52	WESLEY, SAMUEL	Unable to locate excessive vines (kudzu)	JR-267-OF-0030
06/27/2017 11:01	WESLEY, SAMUEL	Rip-rap added around structure	JR-267-OF-0135
06/27/2017 11:19	WESLEY, SAMUEL	Structure is drop inlet in street; wooden fence installed along roadway.	JR-267-OF-0209
06/27/2017 11:42	WESLEY, SAMUEL	Unable to locate	JR-267-OF-0136
06/27/2017 11:34	WESLEY, SAMUEL	Unable to locate excessive vegetation	JR-267-OF-0029
06/27/2017 09:00	WESLEY, SAMUEL		JR-268-OF-0005

Dry Weather Screenings Permit Year 4

Date Inspected	Inspected By	Observations	Facility ID
06/28/2017 10:29	WESLEY, SAMUEL	Small chip at top of structure	JR-268-OF-0018
06/28/2017 11:27	WESLEY, SAMUEL		JR-268-OF-0033
06/28/2017 11:35	WESLEY, SAMUEL	Unable to locate yard fenced	JR-268-OF-0012
06/28/2017 11:42	WESLEY, SAMUEL		JR-268-OF-0024
06/28/2017 11:27	WESLEY, SAMUEL		JR-268-OF-0033
06/27/2017 10:09	WESLEY, SAMUEL	Unable to locate, covered by concrete rumble and heavy vegetation	JR-268-OF-0039
06/27/2017 10:22	WESLEY, SAMUEL	Unable to locate heavy vegetation, vines (kudzu)	JR-268-OF-0038
06/28/2017 10:55	WESLEY, SAMUEL		JR-267-OF-0213
06/29/2017 09:57	WESLEY, SAMUEL	Dual HDPE pipe structures on other side of chain link fence	JR-268-OF-0015
06/29/2017 11:32	WESLEY, SAMUEL	Unable to locate	JR-268-OF-0013
06/29/2017 09:39	WESLEY, SAMUEL		JR-267-OF-0133
06/12/2017 01:23	DURDEN, JAMIE L	Could not locate outfall. Inspected structure uphill. No flow.	JR-267-OF-0051
06/12/2017 01:30	DURDEN, JAMIE L		JR-267-OF-0181
06/12/2017 01:37	DURDEN, JAMIE L	No access, Fence/ Private Property	JR-267-OF-0118
06/12/2017 01:56	DURDEN, JAMIE L	Excessive Trash	JR-267-OF-0157
06/12/2017 01:59	DURDEN, JAMIE L		JR-267-OF-0065
06/12/2017 02:17	DURDEN, JAMIE L		JR-267-OF-0156
06/12/2017 02:36	DURDEN, JAMIE L		JR-267-OF-0061
06/12/2017 02:47	DURDEN, JAMIE L		JR-267-OF-0062
06/29/2017 10:01	WESLEY, SAMUEL	Unable to locate	JR-267-OF-0020
06/29/2017 10:09	WESLEY, SAMUEL	Channel scouring around pipe structure	JR-268-OF-0017
06/29/2017 10:19	WESLEY, SAMUEL	Structure buried by branches	JR-268-OF-0019
06/29/2017 10:29	WESLEY, SAMUEL	Small chip on top of structure	JR-268-OF-0016
06/12/2017 03:10	DURDEN, JAMIE L	Cannot Access	JR-267-OF-0060
06/12/2017 03:13	DURDEN, JAMIE L	Could not locate	JR-267-OF-0064
06/12/2017 03:16	DURDEN, JAMIE L	Can not locate	JR-267-OF-0032
06/29/2017 10:37	WESLEY, SAMUEL	Unable to locate-yard fence (beware of dog sign posted)	JR-268-OF-0036
06/12/2017 03:27	DURDEN, JAMIE L	Can not locate. Located pipe on other side of road. That pipe was dry.	JR-267-OF-0135
06/13/2017 03:34	DURDEN, JAMIE L	Can not see end of outfall due to bricks/block/trash. Dry downstream in concrete swale.	JR-268-OF-0039
06/13/2017 03:39	DURDEN, JAMIE L		JR-268-OF-0023
06/13/2017 03:45	DURDEN, JAMIE L		JR-268-OF-0029
06/13/2017 03:53	DURDEN, JAMIE L	Roof liter also draining into outfall ditch.	JR-268-OF-0028
06/13/2017 03:59	DURDEN, JAMIE L		JR-267-OF-0078
06/13/2017 04:05	DURDEN, JAMIE L	Cannot Access, Dry at storm drain	JR-267-OF-0079
06/13/2017 04:12	DURDEN, JAMIE L	Cannot locate	JR-217-OF-0001
06/27/2017 08:36	DURDEN, JAMIE L	Could not locate	JR-195-OF-0028
06/27/2017 08:53	DURDEN, JAMIE L		JR-195-OF-0063
06/27/2017 09:55	DURDEN, JAMIE L	Ditch	JR-195-OF-0084
06/27/2017 10:14	DURDEN, JAMIE L	No Flow, but looked wet. Possible Trickle.	JR-195-OF-0060
06/27/2017 10:24	DURDEN, JAMIE L		JR-195-OF-0051
06/27/2017 11:45	DURDEN, JAMIE L		JR-195-OF-0050
06/27/2017 11:47	DURDEN, JAMIE L	Private, did not inspect.	JR-195-OF-0026
06/27/2017 11:47	DURDEN, JAMIE L	Private, did not inspect	JR-195-OF-0027
06/27/2017 10:53	DURDEN, JAMIE L	Thick Ivy covering ground, could not locate outfall.	JR-195-OF-0038
06/27/2017 10:56	DURDEN, JAMIE L	Heavy ivy on ground. Could not locate outfall.	JR-195-OF-0037
06/27/2017 12:01	DURDEN, JAMIE L	Only found a ditch	JR-195-OF-0047
06/27/2017 12:02	DURDEN, JAMIE L		JR-195-OF-0039
06/27/2017 11:18	DURDEN, JAMIE L		JR-195-OF-0036
06/27/2017 09:15	DURDEN, JAMIE L	Could not locate	JR-241-OF-0130
06/27/2017 09:39	DURDEN, JAMIE L		JR-241-OF-0024
06/27/2017 09:48	DURDEN, JAMIE L	Inaccessible, fence	JR-241-OF-0058
06/27/2017 09:51	DURDEN, JAMIE L	inaccessible, fence	JR-241-OF-0059
06/27/2017 10:02	DURDEN, JAMIE L		JR-241-OF-0067
06/27/2017 10:07	DURDEN, JAMIE L	Inaccessible, Fence	JR-241-OF-0068
06/27/2017 10:08	DURDEN, JAMIE L	Inaccessible	JR-241-OF-0069
06/27/2017 08:40	DURDEN, JAMIE L	Ditch pipe	JR-241-DE-0423
06/27/2017 08:50	DURDEN, JAMIE L	No longer an outfall. It is a parking lot drain, see pictures. Inspected	JR-241-OF-0078
06/27/2017 08:59	DURDEN, JAMIE L	Did not inspect, BMP	JR-241-OF-0108
06/27/2017 09:35	WESLEY, SAMUEL	Broken bottles covering structure.	JR-268-OF-0076
06/29/2017 09:30	WESLEY, SAMUEL	Woody vegetation covering structure	JR-268-OF-0014
06/29/2017 09:50	WESLEY, SAMUEL		JR-268-OF-0035
06/29/2017 11:25	WESLEY, SAMUEL	Unable to locate	JR-267-OF-0068

178 Dry Weather Screenings conducted in Permit Year 4

HAZMAT Response Report Permit Year 4

Incident Info	Close Date	Resolution
Incident Date 12/4/2016 Incident Number 1600013318 Incident Type Gasoline or other flammable liquid spill Incident Address 211 Berry Ridge Ln	12/4/2016	Nothing Found
Incident Date 10/29/2016 Incident Number 1600011902 Incident Type Gasoline or other flammable liquid spill Incident Address 303 Berry Ridge Ln	10/29/2016	Tow company
Incident Date 9/22/2016 Incident Number 1600010203 Incident Type Gasoline or other flammable liquid spill Incident Address 612 Madison Ave	9/22/2016	Nothing Found
Incident Date 9/21/2016 Incident Number 1600010188 Incident Type Gasoline or other flammable liquid spill Incident Address 2100 Patrick Dr	9/21/2016	Nothing Found
Incident Date 8/30/2016 Incident Number 1600009340 Incident Type Gasoline or other flammable liquid spill Incident Address 1 Blair Brothers Rd	8/30/2016	Nothing Found
Incident Date 8/13/2016 Incident Number 1600008678 Incident Type Gasoline or other flammable liquid spill Incident Address 702 Ashley Ave	8/13/2016	Nothing Found

HAZMAT Response Report Permit Year 4

Incident Info	Close Date	Resolution
Incident Date 8/9/2016 Incident Number 1600008494 Incident Type Gasoline or other flammable liquid spill Incident Address 1516 Holland Rd	8/9/2016	Cleanup Company
Incident Date 8/8/2016 Incident Number 1600008468 Incident Type Gasoline or other flammable liquid spill Incident Address 801 Second Ave	8/8/2016	Owner Cleanup
Incident Date 7/3/2016 Incident Number 1600006951 Incident Type Gasoline or other flammable liquid spill Incident Address 1401 N Main St	7/3/2016	Tow Company
Incident Date 12/25/2016 Incident Number 1600014142 Incident Type Gasoline or other flammable liquid spill Incident Address 6273 Holland Rd	12/25/2016	Owner Cleanup
Incident Date 6/19/2017 Incident Number 1700006618 Incident Type Gasoline or other flammable liquid spill Incident Address 1160 PORTSMOUTH Boulevard	6/19/2017	Cleanup company
Incident Date 6/10/2017 Incident Number 1700006279 Incident Type Gasoline or other flammable liquid spill Incident Address 1504 HOLLAND Road	6/10/2017	Tow company

HAZMAT Response Report Permit Year 4

Incident Info	Close Date	Resolution
Incident Date 6/6/2017 Incident Number 1700006138 Incident Type Gasoline or other flammable liquid spill Incident Address 1204 North MAIN Street	6/6/2017	Nothing found
Incident Date 5/4/2017 Incident Number 1700004792 Incident Type Gasoline or other flammable liquid spill Incident Address 1516 HOLLAND Road	5/4/2017	Nothing found
Incident Date 5/4/2017 Incident Number 1700004800 Incident Type Gasoline or other flammable liquid spill Incident Address 1900 PORTSMOUTH Boulevard	5/4/2017	Nothing found
Incident Date 3/28/2017 Incident Number 1700003346 Incident Type Gasoline or other flammable liquid spill Incident Address 2759 BURNING TREE Lane	3/28/2017	Nothing found
Incident Date 3/11/2017 Incident Number 1700002653 Incident Type Gasoline or other flammable liquid spill Incident Address 1391 PROGRESS Road	3/11/2017	Cleanup company
Incident Date 3/11/2017 Incident Number 1700002662 Incident Type Gasoline or other flammable liquid spill Incident Address 100 KENSINGTON Boulevard	3/11/2017	Public works

HAZMAT Response Report Permit Year 4

Incident Info	Close Date	Resolution
Incident Date 2/16/2017 Incident Number 1700001744 Incident Type Gasoline or other flammable liquid spill Incident Address 899 RT 58 Suffolk	2/16/2017	Tow company
Incident Date 1/29/2017 Incident Number 1700001073 Incident Type Gasoline or other flammable liquid spill Incident Address 400 PITCHKETTLE Road	1/29/2017	Cleanup company
Incident Date 9/8/2016 Incident Number 1600009644 Incident Type Chemical spill or leak Incident Address 6701 College Dr	9/8/2016	Non-hazardous spill owner cleanup
Incident Date 6/26/2017 Incident Number 1700006912 Incident Type Chemical hazard (no spill or leak) Incident Address 6703 BURBAGE LANDING Circle	6/26/2017	Nothing found
Incident Date 6/4/2017 Incident Number 1700006036 Incident Type Chemical spill or leak Incident Address 599 PITCHKETTLE Road	6/4/2017	Tow company
Incident Date 5/29/2017 Incident Number 1700005786 Incident Type Chemical spill or leak Incident Address 521 JONES Street	5/29/2017	Nothing found

HAZMAT Response Report Permit Year 4

Incident Info	Close Date	Resolution
Incident Date 5/28/2017 Incident Number 1700005775 Incident Type Chemical spill or leak Incident Address 5099 GARDNER Lane	5/28/2017	Tow company
Incident Date 4/8/2017 Incident Number 1700003798 Incident Type Chemical spill or leak Incident Address 8999 South QUAY Road and Holy Neck Road	4/8/2017	Oil leak product soaked into pavement
Incident Date 12/27/2016 Incident Number 1600014202 Incident Type Chemical spill or leak Incident Address 5516 BUCKHORNE Crescent	12/29/2016	Cleaned up by owner
Incident Date 9/3/2016 Incident Number 1600010473 Incident Type Oil or other combustible liquid spill Incident Address 1027 Maryland Ave	9/3/2016	Cleanup company
Incident Date 9/28/2016 Incident Number 1600009508 Incident Type Oil or other combustible liquid spill Incident Address 713 N Main St	9/28/2016	Cleanup company
Incident Date 8/30/2016 Incident Number 1600009339 Incident Type Oil or other combustible liquid spill Incident Address 3128 Kings Hwy	8/30/2017	Owner Cleanup

HAZMAT Response Report Permit Year 4

Incident Info	Close Date	Resolution
Incident Date 7/8/2016 Incident Number 1600007208 Incident Type Oil or other combustible liquid spill Incident Address 100 Finney Ave	7/8/2016	Owner Cleanup
Incident Date 5/10/2017 Incident Number 1700005040 Incident Type Oil or other combustible liquid spill Incident Address 3608 PRUDEN Boulevard	5/10/2017	Nothing found
Incident Date 4/11/2017 Incident Number 1700003893 Incident Type Oil or other combustible liquid spill Incident Address 3342 Nansemond River Drive	4/11/2017	Nothing found
Incident Date 12/13/2016 Incident Number 1600013646 Incident Type Oil or other combustible liquid spill Incident Address 199 GENERAL EARLY Drive	12/15/2016	Cleanup company
Finished Incident Date 12/5/2016 Incident Number 1600013330 Incident Type Oil or other combustible liquid spill Incident Address 2099 East WASHINGTON Street	12/5/2016	Nothing found

Sanitary Sewer Overflows Permit Year 4

DEQ_IR	SSORS_ID	Date of Incident	Date Under Control	Date Reported	Site Name	Site Address	Description	Category	Possible Receptor	Spill Duration	Latitude	Longitude	Corrective Action	Quantity Spilled (gal.)	Amount Reached Waterway (gal.)
SSORS#2017-T-104580	104580	7/1/2016	7/1/2016	7/4/2016	PS 003 Riverview # 2:	806A East Riverview Drive	PS 003 had a power fault that occurred that caused both pumps to trip out. This incident occurred during wet weather conditions.	Other	Nansemond River	0 hour(s) 26 minute(s)	36.741989	-76.58694	Staff reset both pumps and the wet well levels returned to normal level. PS 003 is now back in normal operation. -----July 4, 2016 11:07 AM-----	20	20
SSORS#2017-T-104585	104585	7/12/2016	7/12/2016	7/13/2016	806 Cripple Creek Ln	806 Cripple Creek Ln	Sewer Lateral stoppage	Maintenance-Debris	Shingle Creek	0 hour(s) 20 minute(s)	36.716611	-76.568744	Cleared sewer lateral blockage, cleaned spill site. -----July 13, 2016 10:01 AM-----	25	25
SSORS#2017-T-104594	104594	7/31/2016	7/31/2016	8/1/2016	Barrett Acres:	Manning Rd	PS 023 had both pumps and the emergency pump operating during a heavy rain event. There was an increase in the force main pressure which resulted in the manhole on Manning Rd overflowing.	Capacity-Weather Related	Speight Run	1 hour(s) 6 minute(s)	36.719027	-76.638494	PS 023 is back in normal operation. The force main conditions have return back to normal operation level for PS 023. -----August 1, 2016 09:30 AM-----	1650	1650
SSORS#2017-T-104595	104595	7/31/2016	7/31/2016	8/1/2016	Kilby Shores:	1404 1/2 Planters Dr.	PS 017 the gasket for pump 1 discharge line between the check and gate valve failed.The result of this failure caused a spill at PS 017.	Other	Lake Kilby	0 hour(s) 20 minute(s)	36.723002	-76.620001	PS 017 the gasket has been replaced on pump 1 discharge line.PS 017 is back in normal operation. -----August 1, 2016 10:07 AM----- -----August 8, 2016 12:00 PM-----	1000	1000
SSORS#2017-T-104600	104600	8/2/2016	8/2/2016	8/3/2016	1050 Belle Orchard Lane	1050 Belle Orchard Lane	SSO caused by gravity main stoppage. Rags and grease removed from gravity main.	Maintenance-Debris	James River	5 hour(s) 5 minute(s)	36.860342	-76.445275	Cleared and cleaned gravity sewer main. Spill site cleaned. -----August 3, 2016 10:47 AM-----	15100	15100
SSORS#2017-T-104602	104602	8/8/2016	8/8/2016	8/8/2016	CC 532-004-005	2404 East Washington Street	Sewer overflow at customer cleanout.	Maintenance-Debris	Shingle Creek	0 hour(s) 45 minute(s)	36.736944	-76.553348	Retrieved paper products, debris, and flushed cleanout. -----August 8, 2016 12:03 PM-----	20	10
SSORS#2017-T-104603	104603	8/10/2016	8/10/2016	8/10/2016	Lakeland High School:	242 Kenyon Rd.	PS 062 has an emergency pump on site in preparation for when we experience high force main conditions during heavy rain events. The discharge hose on this this emergency pump burst and it resulted in a spill at this station. The emergency pump was not ru	Other	Speight Run	0 hour(s) 3 minute(s)	36.723735	-76.658431	The discharge hose on the emergency pump has been replaced with another hose. -----August 10, 2016 10:51 AM----- -----August 15, 2016 07:16 AM-----	200	200
SSORS#2017-T-104609	104609	8/23/2016	8/23/2016	8/23/2016	Cove Point #2:	109 Lakefront Drive	PS 072 had a hole in the station discharge line.The result of this failure caused a spill at PS 072.	Infrastructure	Speight Run	2 hour(s) 20 minute(s)	36.718574	-76.649045	PS 072 station discharge line has been repaired and is back in normal operation. -----August 23, 2016 05:07 PM----- -----August 25, 2016 12:10 PM-----	200	200
SSORS#2017-T-104610	104610	8/24/2016	8/24/2016	8/24/2016	CC 013-023-001;	2007 Meade Parkway	Sewer overflow at customer cleanout	Maintenance-Debris	Lake Meade	0 hour(s) 21 minute(s)	36.762106	-76.595241	Retrieved paper products, debris, and flushed cleanout. -----August 24, 2016 03:25 PM-----	20	10
SSORS#2017-T-104611	104611	8/24/2016	8/24/2016	8/25/2016	CC 110-030-003	6307 Sandgate Drive	Sewer overflow at customer cleanout.	Maintenance-Debris	James River	2 hour(s) 2 minute(s)	36.884726	-76.41153	Flushed cleanout and washed down. -----August 25, 2016 02:25 PM-----	20	15
SSORS#2017-T-104612	104612	8/25/2016	8/25/2016	8/26/2016	CC 004-244-009	656 First Avenue	Sewer overflow at customer cleanout.	Maintenance-Debris	Nansemond River	0 hour(s) 10 minute(s)	36.731987	-76.594325	Flushed cleanout and washed down. -----August 26, 2016 12:00 PM-----	2	2
SSORS#2017-T-104615	104615	8/27/2016	8/27/2016	8/29/2016	CC 048-381-001	408 Central Avenue	Sewer overflow at customer cleanout	Maintenance-Debris	Nansemond River	0 hour(s) 40 minute(s)	36.731621	-76.575892	Flushed cleanout and washed down. -----August 29, 2016 06:37 PM-----	50	20
SSORS#2017-T-104616	104616	8/27/2016	8/27/2016	8/29/2016	CC 048-169-005	115 North Main Street	Sewer overflow at customer cleanout.	Maintenance-Grease	Nansemond River	0 hour(s) 25 minute(s)	36.728551	-76.583205	Flushed cleanout and washed down. -----August 29, 2016 06:46 PM-----	20	15
SSORS#2017-T-104622	104622	9/3/2016	9/3/2016	9/6/2016	Riverview #1:	525 West Riverview Drive	PS 003 loss electrical power during a heavy rain event. The result of this failure caused a spill at PS 003.	Power Outages	Nansemond River	0 hour(s) 45 minute(s)	36.741989	-76.58694	Staff used an emergency pump to maintain PS 003 during this rain event. PS 003 is now back in normal operation. -----September 6, 2016 12:38 PM-----	300	300
SSORS#2017-T-104623	104623	9/3/2016	9/3/2016	9/6/2016	Constance Road Sanitary Sewer:	216 Dumville Lane	PS 146 failed to operate normal due to high head conditions during a rain event. The distributed rainfall amount for PS 146 between 6:00 pm on 9/2/2016 and 6:00 pm 9/3/2016 was 3.72â€. Based on City of Suffolk rain data, the rain event is being iden	Other	Nansemond River	0 hour(s) 7 minute(s)	36.736758	-76.584646	Staff used an emergency pump to help maintain the station during this rain event. PS 146 is back in normal operation. The force main conditions have returned back to normal level. -----September 6, 2016 01:02 PM----- -----September 8, 2016 11:07 AM-----	300	300
SSORS#2017-T-104625	104625	9/3/2016	9/3/2016	9/6/2016	Holland Heights:	1090 Holland Rd.	PS 136 had a rental emergency pump on site in anticipation of a heavy rain event. This pump failed to operate during the rain event due to an oil sensor failure. The result of this failure caused MH 136-033 to overflow.	Maintenance-Other	Lake Meade	0 hour(s) 48 minute(s)	36.73085	-76.606925	PS 136 is back in normal operation. The faulted issue has been rectified and the force main conditions have returned back to normal range. -----September 6, 2016 01:39 PM----- -----September 7, 2016 03:38 PM--------	2400	2400
SSORS#2017-T-104629	104629	9/14/2016	9/14/2016	9/15/2016	CC 048-129-038	254 Pine Street	Sewer overflow at customer cleanout.	Maintenance-Debris	Nansemond River	0 hour(s) 30 minute(s)	36.732151	-76.585174	Flushed cleanout and retrieved debris and liquid. -----September 15, 2016 12:18 PM-----	20	10
SSORS#2017-T-104639	104639	9/21/2016	9/21/2016	9/21/2016	Riverview #2:	806A East Riverview Drive	PS 003 failed to operate normal during a heavy rain event. The terminal PS that PS 003 pumps to was experiencing high head conditions during this rain event. The terminal station was unable to overcome the head condition and it caused PS 003 to surcharge	Capacity-Weather Related	Nansemond Rivers	13 hour(s) 52 minute(s)	36.741989	-76.58694	Staff used an emergency pump to help maintain the station during this rain event. PS 003 is now back in normal operation. -----September 21, 2016 02:40 PM------ -----September 26, 2016 08:31 AM-----	2500	2500
SSORS#2017-T-104640	104640	9/21/2016	9/21/2016	9/21/2016	MH 004-029	424 South Main Street	Sewer overflow at manhole.	Capacity-Weather Related	Shingle Creek	9 hour(s) 30 minute(s)	36.720499	-76.586175	Vacuumed sewer water at manhole. -----September 21, 2016 03:10 PM----- -----September 23, 2016 11:12 AM-----	48000	36000

Sanitary Sewer Overflows Permit Year 4

DEQ_IR	SSORS_ID	Date of Incident	Date Under Control	Date Reported	Site Name	Site Address	Description	Category	Possible Receptor	Spill Duration	Latitude	Longitude	Corrective Action	Quantity Spilled (gal.)	Amount Reached Waterway (gal.)
SSORS#2017-T-104644	104644	9/21/2016	9/21/2016	9/21/2016	MH 004-288	412 York Street	Overflow at manhole.	Capacity-Weather Related	Shingle Creek	7 hour(s) 30 minute(s)	36.721174	-76.587527	Vacuumed sewer water at manhole. -----September 21, 2016 03:24 PM-----	48000	36000
SSORS#2017-T-104649	104649	9/21/2016	9/21/2016	9/21/2016	North Main Street # 2:	Northgate Lane	PS 012 failed to operate normal due to high conditions during a heavy rain event. The result of these conditions caused the manhole on Northgate Lane to overflow.	Capacity-Weather Related	Lake Meade	8 hour(s) 58 minute(s)	36.754686	-76.588421	Staff utilized a pump n haul truck an emergency pump. PS 012 is now back in normal operation. -----September 21, 2016 04:04 PM----- -----September 23, 2016 10:03 AM----- -----September 26, 2016 08:40 AM-----	6500	6500
SSORS#2017-T-104650	104650	9/21/2016	9/21/2016	9/21/2016	Barrett Acres:	133 Manning Road	PS 023 failed to operate normal due to high head conditions during a rain event. The result of this failure caused the manhole on Manning Road to overflow. The average rainfall amount as collected from 15 rain gauges throughout the City between 12:00 pm	Capacity-Weather Related	Speights Run	0 hour(s) 21 minute(s)	36.719027	-76.638494	Staff utilized an emergency pump to maintain the station during this rain event. PS 023 is now back in normal operation. -----September 21, 2016 04:15 PM----- -----September 26, 2016 08:46 AM-----	500	500
SSORS#2017-T-104651	104651	9/21/2016	9/21/2016	9/21/2016	Wilroy Road:	2273 Wilroy Road	PS 031 failed to operate normal due to high head conditions during a rain event. The manhole on Wilroy Rd overflowed due to these conditions.The average rainfall amount as collected from 15 rain gauges throughout the City between 12:00 pm on 9/19/2016 an	Capacity-Weather Related	Nansemond River	5 hour(s) 5 minute(s)	36.775185	-76.542854	Staff used an emergency pump to maintain PS 031 during this rain event. PS 031 is now back in normal operation. -----September 21, 2016 04:27 PM----- -----September 26, 2016 08:55 AM-----	4500	4500
SSORS#2017-T-104652	104652	9/21/2016	9/21/2016	9/21/2016	Westhaven Lakes #1:	White Herons Lane	PS 120 failed to operate normal due to high head conditions during a rain event. The manhole on White Heron Lane overflowed due to these conditions. The average rainfall amount as collected from 15 rain gauges throughout the City between 12:00 pm on 9/19	Capacity-Weather Related	Lake Meade	16 hour(s) 50 minute(s)	36.741541	-76.601043	Staff used an emergency pump to maintain PS 120 during this rain event. PS 120 is back in normal operation. -----September 21, 2016 04:37 PM----- -----September 26, 2016 09:06 AM-----	8500	8500
SSORS#2017-T-104653	104653	9/21/2016	9/21/2016	9/21/2016	Reid Crossing:	Mountainside Ave	PS 126 failed to operate normal due to high head conditions during a rain event. The manhole on Mountainside Ave overflowed due to these conditions. The average rainfall amount as collected from 15 rain gauges throughout the City between 12:00 pm on 9/19	Capacity-Weather Related	Speight Run	3 hour(s) 27 minute(s)	36.722719	-76.654499	Staff used an emergency pump to main PS 126 during this rain event. PS 126 is back in normal operation. -----September 21, 2016 05:00 PM----- -----September 26, 2016 09:16 AM-----	3500	3500
SSORS#2017-T-104654	104654	9/21/2016	9/21/2016	9/21/2016	Holland Heights:	1090 Holland Road	PS 136 failed to operate normal due to high head conditions during a rain event. The manhole on Holland Road overflowed due to these conditions. The average rainfall amount as collected from 15 rain gauges throughout the City between 12:00 pm on 9/19/201	Capacity-Weather Related	Lake Kilby	5 hour(s) 1 minute(s)	36.73085	-76.606925	staff used an emergency pump and a pump n haul truck to maintain the station during this rain event. PS 136 is back in normal operation. -----September 21, 2016 05:08 PM----- -----September 26, 2016 09:20 AM-----	4500	4500
SSORS#2017-T-104655	104655	9/21/2016	9/21/2016	9/21/2016	Constance Road Sanitary Sewer:	West Constance Road	PS 146 failed to operate normal due to high head conditions during a rain event. Telog data indicates that an overflow occurred, but it was not observed by staff.The average rainfall amount as collected from 15 rain gauges throughout the City between 12:	Capacity-Weather Related	Nansemond Rd	18 hour(s) 15 minute(s)	36.736885	-76.585073	Staff used an emergency pump to help maintain the station during this rain event. PS 146 is back in normal operation. -----September 21, 2016 05:32 PM----- -----September 26, 2016 09:29 AM-----	0	0
SSORS#2017-T-104656	104656	9/20/2016	9/21/2016	9/21/2016	Boston:	Garfield Ave.	PS 004 failed to operate normal due to high head conditions during a rain event. The manhole on Garfield Ave. overflowed due to these conditions.The average rainfall amount as collected from 15 rain gauges throughout the City between 12:00 pm on 9/19/201	Capacity-Weather Related	Lake Meade	3 hour(s) 45 minute(s)	36.7345	-76.601937	Staff used an emergency pump and pump n haul to help maintain the station during this rain event. PS 004 is now back in normal operation. -----September 21, 2016 05:39 PM----- -----September 26, 2016 09:34 AM-----	5500	5500
SSORS#2017-T-104657	104657	9/21/2016	9/21/2016	9/21/2016	Barrett Acres:	133 Manning Road	PS 023 failed to operate normal due to high head conditions during a rain event. The manhole on Manning Road overflowed due to these conditions. The average rainfall amount as collected from 15 rain gauges throughout the City between 12:00 pm on 9/19/201	Capacity-Weather Related	Speight Run	0 hour(s) 21 minute(s)	36.719027	-76.638494	Staff used an emergency pump to help maintain the station during this rain event. -----September 21, 2016 05:44 PM-----	1050	1050
SSORS#2017-T-104658	104658	9/21/2016	9/21/2016	9/21/2016	Berkshire Meadows:	Keaton Way	PS 037 failed to operate normal due to high head conditions during a rain event. The manhole on Keaton Way overflowed due to these conditions.The average rainfall amount as collected from 15 rain gauges throughout the City between 12:00 pm on 9/19/2016 a	Capacity-Weather Related	Nansemond River	5 hour(s) 42 minute(s)	36.771626	-76.593843	Staff used an emergency pump to help maintain the station during this rain event. PS 037 is now back in normal operation. -----September 21, 2016 05:49 PM----- -----September 26, 2016 09:49 AM-----	8550	8550
SSORS#2017-T-104659	104659	9/21/2016	9/21/2016	9/21/2016	Huntersville #1:	Huntersville Pl	PS 054 failed to operate normal due to high head conditions during a rain event. Telog data indicates that an overflow occurred, but it was not observed by staff.The average rainfall amount as collected from 15 rain gauges throughout the City between 12:	Capacity-Weather Related	Knotts Creek	0 hour(s) 20 minute(s)	36.872788	-76.43173	Staff used an emergency pump to maintain the station during this rain event. -----September 21, 2016 06:00 PM-----	1000	1000
SSORS#2017-T-104660	104660	9/21/2016	9/21/2016	9/21/2016	Pughsville # 1:	4424 Queen Street	PS 056 failed to operate normal due to high head conditions during a rain event. Telog data indicates that an overflow occurred, but it was not observed by staff.The average rainfall amount as collected from 15 rain gauges throughout the City between 12:	Capacity-Weather Related	Knott Creek	0 hour(s) 23 minute(s)	36.846145	-76.439963	Staff used emergency pump to help maintain the station during this rain event. PS 056 is now back in normal operation. -----September 21, 2016 06:06 PM----- -----September 26, 2016 10:01 AM-----	0	0

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DEQ_IR	SSORS_ID	Date of Incident	Date Under Control	Date Reported	Site Name	Site Address	Description	Category	Possible Receptor	Spill Duration	Latitude	Longitude	Corrective Action	Quantity Spilled (gal.)	Amount Reached Waterway (gal.)
SSORS#2017-T-104661	104661	9/20/2016	9/20/2016	9/21/2016	Cove Point # 2:	Lake Front Drive	PS 072 failed to operate normal due to high head conditions during a rain event. The manhole on Lake Front Drive overflowed due to these conditions.The average rainfall amount as collected from 15 rain gauges throughout the City between 12:00 pm on 9/19/	Capacity-Weather Related	Speight Run	0 hour(s) 7 minute(s)	36.717954	-76.647812	Staff used an emergency pump to help maintain the station during this rain event. PS 072 is now back in normal operation. -----September 21, 2016 06:13 PM-------- -----September 26, 2016 10:08 AM-----	200	200
SSORS#2017-T-104669	104669	9/21/2016	9/21/2016	9/22/2016	Cove Point #1:	Cove Point Drive	PS 071 failed to operate normal due to high head conditions during a rain event. Telog data indicates that an overflow occurred, but it was not observed by staff. The average rainfall amount as collected from 15 rain gauges throughout the City between 12	Capacity-Weather Related	Speight Run	9 hour(s) 10 minute(s)	36.716934	-76.650775	Staff used an emergency to help maintain the station during this rain event. PS 071 is back in normal operation. -----September 22, 2016 03:59 PM----- ----- September 26, 2016 10:18 AM----- -----September 26, 2016 12:24 PM-----	0	0
SSORS#2017-T-104670	104670	9/22/2016	9/22/2016	9/23/2016	Harbour View West Village # 1:	Marsh Landing Lane	PS 116 failed to operate normal due to high head conditions during a rain event. Telog data indicates that an overflow occurred, but it was not observed by staff.The average rainfall amount as collected from 15 rain gauges throughout the City between 12:	Capacity-Weather Related	Knotts Creek	1 hour(s) 5 minute(s)	36.877186	-76.444042	Staff used an emergency pump to maintain PS 116 during this rain event. PS 116 is now back in normal operation. -----September 23, 2016 08:33 AM----- ----- September 26, 2016 10:35 AM-----	0	0
SSORS#2017-T-104671	104671	9/22/2016	9/22/2016	9/23/2016	Burbage Drive Extended:	Burbage Drive	PS 151 failed to operate normal due to high head conditions during a rain event.Telog data indicates that an overflow occurred, but it was not observed by staff.The average rainfall amount as collected from 15 rain gauges throughout the City between 12:0	Capacity-Weather Related	Nansemond Rivers	0 hour(s) 25 minute(s)	36.880167	-76.423127	Staff used an emergency pump to maintain PS 151 during this rain event. PS 151 is now back in normal operation. -----September 23, 2016 08:43 AM----- ----- September 26, 2016 10:40 AM-----	0	0
SSORS#2017-T-104672	104672	9/21/2016	9/21/2016	9/23/2016	Elephant Fork:	Jordan Circle	PS 052 failed to operate normal due to high head conditions during a rain event. Telog data indicates that an overflow occurred, but it was not observed by staff.The average rainfall amount as collected from 15 rain gauges throughout the City between 12:	Capacity-Weather Related	Lake Meade	4 hour(s) 3 minute(s)	36.760977	-76.585566	Staff used an emergency pump to maintain PS 052 during this rain event. PS 052 is now back in normal operation. -----September 23, 2016 08:55 AM----- ----- September 26, 2016 10:45 AM-----	0	0
SSORS#2017-T-104673	104673	9/20/2016	9/20/2016	9/23/2016	Turlington Rd.	651 Turlington Road	PS 162 failed to operate normal due to high head conditions during a rain event. The manhole on Turlington Rd overflow due to these conditions.The average rainfall amount as collected from 15 rain gauges throughout the City between 12:00 pm on 9/19/2016	Capacity-Weather Related	Speight Run	10 hour(s) 0 minute(s)	36.698125	-76.618435	Staff used an emergency pump to maintain PS 162 during this rain event. PS 162 is now back in normal operation. -----September 23, 2016 09:16 AM----- ----- September 26, 2016 10:58 AM-----	3000	3000
SSORS#2017-T-104674	104674	9/21/2016	9/21/2016	9/23/2016	Riverview # 2:	806A East Riverview Drive	PS 003 failed to operate normal due to a capacity issue. The terminal pump station that PS 003 pumps into was experiencing high head condition during a rain event. The result of this issue caused PS 003 to overflow.The average rainfall amount as collecte	Capacity-Weather Related	Nansemond River	3 hour(s) 18 minute(s)	36.741989	-76.58694	Staff used an emergency pump to maintain PS 003.during this rain event. PS 003 is now back in normal operation. -----September 23, 2016 09:31 AM-------- -----September 26, 2016 11:08 AM-----	5000	5000
SSORS#2017-T-104675	104675	9/21/2016	9/21/2016	9/23/2016	Riverview #2:	806A East Riverview	PS 003 failed to operate due to a capacity issue. The terminal pump that PS 003 pumps into was experiencing high head condition during a rain event. The result of this issue caused PS 003 system to surcharge and to overflow.The average rainfall amount as	Capacity-Weather Related	Nansemond River	0 hour(s) 24 minute(s)	36.741989	-76.58694	Staff used an emergency pump to maintain PS 003 during this rain event. PS 003 is back in normal operation. -----September 23, 2016 09:35 AM----- ----- September 26, 2016 11:19 AM-----	1200	1200
SSORS#2017-T-104676	104676	9/22/2016	9/22/2016	9/23/2016	Riverview #2:	806A East Riverview	PS 003 overflowed due to a capacity issue. The terminal station that PS 003 pumps into was experiencing high head conditions. This resulted in PS 003 system being surcharged. This resulted in PS 003 overflowing. The average rainfall amount as collected f	Capacity-Weather Related	Nansemond River	1 hour(s) 51 minute(s)	36.741989	-76.58694	Staff used an emergency pump to maintain PS 003 during this rain event. -----September 23, 2016 09:39 AM-----	2775	2775
SSORS#2017-T-104680	104680	9/21/2016	9/21/2016	9/23/2016	North Main St # 2:	Northgate Ln	PS 012 failed to operate normal due to high head conditions during a rain event. The manhole on Northgate Lane overflowed due to these conditions.The average rainfall amount as collected from 15 rain gauges throughout the City between 12:00 pm on 9/19/20	Capacity-Weather Related	Lake Meade	1 hour(s) 49 minute(s)	36.754686	-76.588421	Staff used an emergency pump and a pump n haul truck to maintain PS o12 during this rain event. PS 012 is now back in normal operation. -----September 23, 2016 10:16 AM----- -----September 26, 2016 11:37 AM-----	2725	2725
SSORS#2017-T-104682	104682	9/21/2016	9/21/2016	9/23/2016	MH 023-041	Manning Road	PS 023 failed to operate normal due to high head conditions during a rain event. The manhole on Manning Rd overflowed due to these conditions.The average rainfall amount as collected from 15 rain gauges throughout the City between 12:00 pm on 9/19/2016 a	Capacity-Weather Related	Speight Run	1 hour(s) 1 minute(s)	36.719027	-76.638494	Staff used an emergency pump to maintain PS 023 during this rain event. PS 023 is now back in normal operation. -----September 23, 2016 10:23 AM----- ----- September 26, 2016 11:40 AM-----	1525	1525
SSORS#2017-T-104684	104684	9/21/2016	9/21/2016	9/23/2016	Wilroy Road:	2273 Wilroy Road	PS 031 failed to operate normal due to high head conditions during a rain event. Telog data indicates that an overflow occurred, but it was not observed by staff.The average rainfall amount as collected from 15 rain gauges throughout the City between 12:	Capacity-Weather Related	Nansemond Rivers	0 hour(s) 27 minute(s)	36.775185	-76.542854	Staff used an emergency pump to maintain PS 031. ----September 23, 2016 10:33 AM-----	0	0

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DEQ_IR	SSORS_ID	Date of Incident	Date Under Control	Date Reported	Site Name	Site Address	Description	Category	Possible Receptor	Spill Duration	Latitude	Longitude	Corrective Action	Quantity Spilled (gal.)	Amount Reached Waterway (gal.)
SSORS#2017-T-104686	104686	9/20/2016	9/20/2016	9/23/2016	MH 072-002	109 Lakefront Drive	PS 072 failed to operate normal due to high head conditions during a rain event.Telog data indicates that an overflow occurred, but it was not observed by staff.The average rainfall amount as collected from 15 rain gauges throughout the City between 12:0	Capacity-Weather Related	Speight Run	0 hour(s) 4 minute(s)	36.717954	-76.647812	Staff used an emergency pump to maintain PS 072 during this rain event. PS 071 is now back in normal operation. -----September 23, 2016 10:42 AM----- ----- September 26, 2016 11:45 AM-----	0	0
SSORS#2017-T-104687	104687	9/21/2016	9/21/2016	9/23/2016	Reids Crossing:	Mountainside Ave.	PS 126 failed to operate normal due to high head conditions during a rain event. The manhole on Mountainside Ave overflowed due to these conditions.The average rainfall amount as collected from 15 rain gauges throughout the City between 12:00 pm on 9/19/	Capacity-Weather Related	Speight Run	0 hour(s) 30 minute(s)	36.722719	-76.654499	Staff used an emergency pump to maintain the station during this rain event. PS 126 is now back in normal operation. -----September 23, 2016 11:03 AM----- -----September 26, 2016 11:52 AM-----	750	750
SSORS#2017-T-104688	104688	9/21/2016	9/21/2016	9/23/2016	MH 126-011	1902 Kyle Court	PS 126 failed to operate normal due to high head conditions during a rain event. The manhole on Mountainside Ave overflowed due to these conditions.The average rainfall amount as collected from 15 rain gauges throughout the City between 12:00 pm on 9/19/	Capacity-Weather Related	Speight Run	3 hour(s) 56 minute(s)	36.722719	-76.654499	Staff used an emergency pump to help maintain the station during this rain event. PS 126 is now back in normal operation. -----September 23, 2016 11:10 AM----- -----September 26, 2016 11:56 AM-----	5900	5900
SSORS#2017-T-104689	104689	9/21/2016	9/21/2016	9/23/2016	MH 136-033	1090 Holland Road	PS 136 failed to operate normal due to high head conditions during a rain event. The manhole on Holland Road overflowed due to these conditions.The average rainfall amount as collected from 15 rain gauges throughout the City between 12:00 pm on 9/19/2016	Capacity-Weather Related	Lake Kilby	0 hour(s) 3 minute(s)	36.73085	-76.606925	Staff used an emergency pump and a pump n haul truck to maintain PS 136. PS 136 is now back in normal operation. -----September 23, 2016 11:25 AM----- -----September 26, 2016 11:59 AM-----	50	50
SSORS#2017-T-104690	104690	9/21/2016	9/21/2016	9/23/2016	MH 136-033	1090 Holland Road	PS 136 failed to operate normal due to high head conditions during a rain event. The manhole on Holland Rd overflowed due to these conditions.The average rainfall amount as collected from 15 rain gauges throughout the City between 12:00 pm on 9/19/2016 a	Capacity-Weather Related	Lake Kilby	3 hour(s) 8 minute(s)	36.73085	-76.606925	Staff used an emergency pump and a pump n haul truck to help maintain PS 136 during the rain event. PS 136 is now back in normal operation. ----- September 23, 2016 11:33 AM----- -----September 26, 2016 12:03 PM-----	4200	4200
SSORS#2017-T-104719	104719	9/25/2016	9/25/2016	9/26/2016	CC 048-257-003	129 OAKDALE TERRACE	Sewer overflow at customer cleanout.	Maintenance-Debris	Nansemond River	0 hour(s) 40 minute(s)	36.731049	-76.5801	Flushed sewer cleanout and recovered debris. ----- September 26, 2016 03:26 PM-----	10	5
SSORS#2017-T-104724	104724	10/3/2016	10/3/2016	10/4/2016	108 Stayley DR	108 Stayley DR	Sewer lateral stoppage to be cause of overflow. There is evidence that this spill overflowed prior to times stated in above. Overflow amounts may be more than 100 gallons.	Maintenance-Debris	Lake Speight	0 hour(s) 47 minute(s)	36.723838	-76.634446	Cleared sewer stoppage, clean spill site. -----October 4, 2016 08:45 AM-----	100	100
SSORS#2017-T-104768	104768	10/3/2016	10/4/2016	10/4/2016	Kilby Shores:	1404 1/2 Planters Dr.	PS 017 had one pump out of service resulting in only one pump in operation on the day of this incident. This remaining pump failed to operate due to the control breaker tripping. Staff failed to have a standby emergency pump in place per Division Policy	Other	Lake Kilby	10 hour(s) 1 minute(s)	36.723002	-76.620001	PS 017 now has both pumps back in normal operation. Staff has been counseled on this issue. ----- October 4, 201603:41 PM----- -----October 11, 2016 04:11 PM-----	6000	6000
SSORS#2017-T-104769	104769	10/5/2016	10/5/2016	10/5/2016	Kilby Shores:	1404 1/2 Planters Dr.	PS 017 had a stand by emergency pump on site due to one of the station pumps not working. This emergency pump had new hoses connected to it. The discharge hose connections were found to be leaking when the station pump was running. Staff found the proble	Maintenance-Other	Lake Kilby	0 hour(s) 20 minute(s)	36.723002	-76.620001	Staff changed the gaskets in the discharge hose and it rectified the leak problem. The pump issue at PS 017 has been repaired and the station is now back in normal operation. -----October 5, 2016 04:42 PM----- -----October 7, 2016 04:20 PM-----	20	20
SSORS#2017-T-104845	104845	10/8/2016	10/9/2016	10/11/2016	Berkshire Meadows:	100 Berkshire Blvd.	Telog data indicates that PS 037 overflowed during a storm event. This overflow was not observed by staff.	Capacity-Weather Related	Lake Meade	11 hour(s) 14 minute(s)	36.771626	-76.593843	PS 037 is now back in normal operation. -----October 11, 2016 01:08 PM-----	0	0
SSORS#2017-T-104847	104847	10/8/2016	10/9/2016	10/11/2016	Westhaven Lakes # 1:	White Herons Lane	Telog data indicates that PS 120 overflowed during a storm event. This overflow was not observed by staff.	Capacity-Weather Related	Lake Meade	23 hour(s) 50 minute(s)	36.741541	-76.601043	PS 120 is now back in normal operation. -----October 11, 2016 01:23 PM-----	0	0
SSORS#2017-T-104848	104848	10/8/2016	10/8/2016	10/11/2016	Pine Valley Point:	Pine Valley Drive	PS 015 failed to operate normal during a storm event due to high force main pressure. The manhole on Pine Valley Drive overflowed due to this incident.	Capacity-Weather Related	Lake Kilby	3 hour(s) 10 minute(s)	36.726464	-76.605684	PS 015 is now back in normal operation. -----October 11, 2016 01:38 PM-----	1000	1000
SSORS#2017-T-104849	104849	10/8/2016	10/9/2016	10/11/2016	Reid Crossing:	Mountainside Ave	Telog data indicates that PS 126 overflowed during a storm event. This overflow was not observed by staff.	Capacity-Weather Related	Speights Run	10 hour(s) 42 minute(s)	36.722719	-76.654499	PS 126 is now back in normal operation. -----October 11, 2016 01:51 PM-----	0	0
SSORS#2017-T-104850	104850	10/9/2016	10/9/2016	10/11/2016	Cove Point #1:	112 Cove Point	Telog data indicates that PS 071 overflowed during a storm event. This overflow was not observed by staff.	Capacity-Weather Related	Speights Run	4 hour(s) 25 minute(s)	36.716934	-76.650775	PS 071 is now back in normal operation. -----October 11, 2016 02:06 PM-----	0	0
SSORS#2017-T-104855	104855	10/8/2016	10/9/2016	10/11/2016	Cove Point # 2:	Lakefront Drive	Telog data indicates that PS 072 overflowed during a storm event. This overflow was not observed by staff.	Capacity-Weather Related	Speights Run	13 hour(s) 36 minute(s)	36.718138	-76.647023	PS 072 is now back in normal operation. -----October 11, 2016 02:44 PM-----	0	0
SSORS#2017-T-104856	104856	10/8/2016	10/9/2016	10/11/2016	Wilroy Rd:	2273 Wilroy Rd (At Ciba)	Telog data indicates that PS 031 overflowed during a storm event. This overflow was not observed by staff.	Capacity-Weather Related	Nansemond River	10 hour(s) 13 minute(s)	36.775185	-76.542854	PS 031 is now back in normal operation. -----October 11, 2016 02:57 PM-----	0	0
SSORS#2017-T-104857	104857	10/8/2016	10/9/2016	10/11/2016	North Main St #2:	Northgate Lane	Telog data indicates that PS 012 overflowed during a storm event. This overflow was not observed by staff.	Capacity-Weather Related	Lake Meade	9 hour(s) 5 minute(s)	36.754686	-76.588421	PS 012 is now back in normal operation. -----October 11, 2016 03:13 PM-----	0	0
SSORS#2017-T-104860	104860	10/8/2016	10/9/2016	10/11/2016	Barrett Arces #1:	133 Manning Road	Telog data indicates that PS 023 overflowed during a storm event. This overflow was not observed by staff.	Capacity-Weather Related	Speights Run	18 hour(s) 14 minute(s)	36.719027	-76.638494	PS 023 is now back in normal operation. -----October 11, 2016 03:25 PM-----	0	0
SSORS#2017-T-104861	104861	10/8/2016	10/9/2016	10/11/2016	Oak Ridge:	Sumner Ave.	Telog data indicates that PS 024 overflowed during a storm event. This overflow was not observed by staff.	Capacity-Weather Related	Speight Run	16 hour(s) 21 minute(s)	36.723277	-76.646921	PS 024 is now back in normal operation -----October 11, 2016 03:39 PM-----	0	0
SSORS#2017-T-104862	104862	10/9/2016	10/9/2016	10/11/2016	Oak Lake:	Darlington Court	Telog data indicates that PS 033 overflowed during a storm event. This overflow was not observed by staff.	Capacity-Weather Related	Speights Run	13 hour(s) 9 minute(s)	36.714192	-76.651487	PS 033 is now back in normal operation. -----October 11, 2016 04:03 PM-----	0	0

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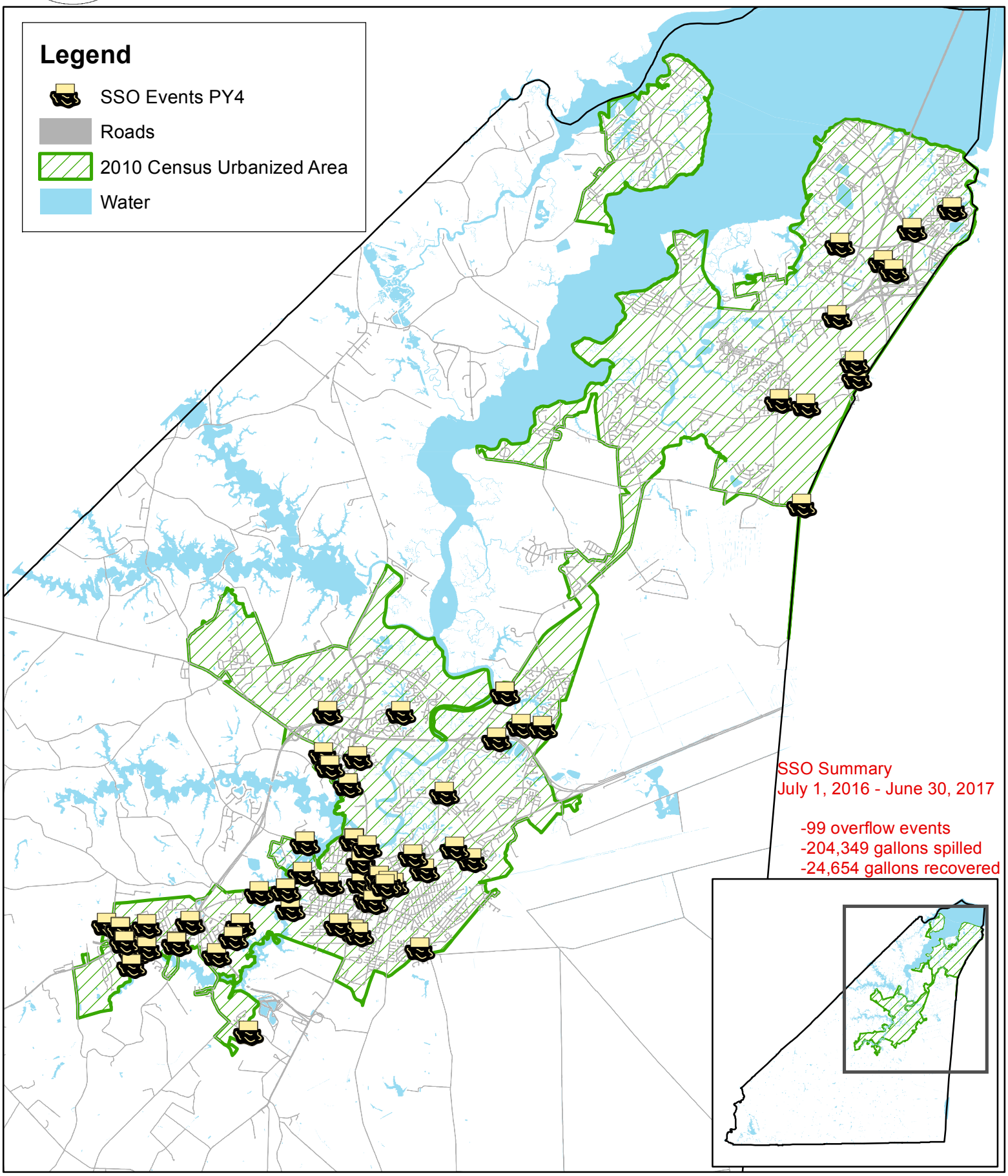
DEQ_IR	SSORS_ID	Date of Incident	Date Under Control	Date Reported	Site Name	Site Address	Description	Category	Possible Receptor	Spill Duration	Latitude	Longitude	Corrective Action	Quantity Spilled (gal.)	Amount Reached Waterway (gal.)
SSORS#2017-T-104863	104863	10/8/2016	10/9/2016	10/11/2016	Turlington Rd:	651 Turlington Rd	Telog data indicates that PS 162 overflowed during a storm event. This overflow was not observed by staff.	Capacity-Weather Related	Lake Kilby	7 hour(s) 0 minute(s)	36.698232	-76.618395	PS 162 is now back in normal operation. -----October 11, 2016 04:28 PM-----	0	0
SSORS#2017-T-104864	104864	10/8/2016	10/9/2016	10/11/2016	Kilby Shores:	1404 1/2 Planters Drive	Telog data indicates that PS 017 overflowed during a storm event. This overflow was not observed by staff.	Capacity-Weather Related	Lake Kilby	9 hour(s) 18 minute(s)	36.723002	-76.620001	PS 017 is now back in normal operation. -----October 11, 2016 04:38 PM-----	0	0
SSORS#2017-T-104865	104865	10/8/2016	10/9/2016	10/11/2016	Philadelphia:	Ashley Ave.	Telog data indicates that PS 022 overflowed during a storm event. This overflow was not observed by staff.	Capacity-Weather Related	Lake Kilby	8 hour(s) 23 minute(s)	36.722489	-76.591875	PS 022 is now back in normal operation. -----October 11, 2016 04:45 PM-----	0	0
SSORS#2017-T-104867	104867	10/9/2016	10/9/2016	10/11/2016	Burnetts Mills # 2:	Widgeon Ct.	Telog data indicates that PS 025 overflowed during a storm event. This overflow was not observed by staff.	Capacity-Weather Related	Lake Meade	0 hour(s) 1 minute(s)	36.771268	-76.572838	PS 025 is now back in normal operation. -----October 11, 2016 04:58 PM-----	0	0
SSORS#2017-T-104868	104868	10/8/2016	10/9/2016	10/11/2016	Wilroy Acres:	Larry Anne Drive	Telog data indicates that PS 046 overflowed during a storm event. This overflow was not observed by staff.	Capacity-Weather Related	Shingle Creek	23 hour(s) 31 minute(s)	36.75238	-76.560906	PS 046 is now back in normal operation. -----October 11, 2016 05:03 PM-----	0	0
SSORS#2017-T-104869	104869	10/8/2016	10/9/2016	10/11/2016	Bayberry Cove:	Shoulders Hill Rd.	Telog data indicates that PS 130 overflowed during a storm event. This overflow was not observed by staff.	Capacity-Weather Related	Bennetts Creek	8 hour(s) 10 minute(s)	36.841274	-76.46231	PS 130 is now back in normal operation. -----October 11, 2016 05:12 PM-----	0	0
SSORS#2017-T-104870	104870	10/10/2016	10/10/2016	10/11/2016	Palmyra # 1:	Beechwood Ave.	Telog data indicates that PS 137 overflowed during a storm event. This overflow was not observed by staff.	Capacity-Weather Related	Lake Meade	0 hour(s) 7 minute(s)	36.758968	-76.593498	PS 137 is now back in normal operation. -----October 11, 2016 05:20 PM-----	0	0
SSORS#2017-T-104871	104871	10/9/2016	10/9/2016	10/11/2016	Holland Heights:	1090 Holland Road	Telog data indicates that PS 136 overflowed during a storm event. This overflow was not observed by staff.	Capacity-Weather Related	Lake Meade	11 hour(s) 25 minute(s)	36.73085	-76.606925	PS 136 is back in normal operation. -----October 11, 2016 05:25 PM-----	0	0
SSORS#2017-T-104872	104872	10/9/2016	10/9/2016	10/11/2016	Brewers Meadow:	Brians Lane	Telog data indicates that PS 129 overflowed during a storm event. This overflow was not observed by staff.	Capacity-Weather Related	Speights Run	1 hour(s) 1 minute(s)	36.71629	-76.627074	PS 129 is now back in normal operation. -----October 11, 2016 05:35 PM-----	0	0
SSORS#2017-T-104873	104873	10/8/2016	10/8/2016	10/11/2016	Riverview # 2:	806 A East Riverview Dr.	PS 003 loss normal power during a storm event. Staff had a rental stand by emergency pump on site. The emergency pump float control box faulted and it prevented the pump from working. The pump representative came out and made the necessary repairs to the	Capacity-Weather Related	Lake Meade	1 hour(s) 45 minute(s)	36.741989	-76.58694	PS 003 is now back in normal operation. -----October 11, 2016 06:11 PM-----	1050	1050
SSORS#2017-T-104874	104874	10/8/2016	10/9/2016	10/11/2016	Constantance Road Sanitary Sewer:	Constance Road	Telog data indicates that PS 146 overflowed during a storm event. This overflow was not observed by staff.	Capacity-Weather Related	Nansemond River	14 hour(s) 56 minute(s)	36.736885	-76.585073	PS 146 is now back in normal operation. -----October 11, 2016 06:34 PM-----	0	0
SSORS#2017-T-104875	104875	10/9/2016	10/9/2016	10/11/2016	Constance Road Sanitary Sewer:	Constance Road	Telog data indicates that PS 146 overflowed during a storm event. This overflow was not observed by staff.	Capacity-Weather Related	Nansemond River	3 hour(s) 49 minute(s)	36.736885	-76.585073	PS 146 is now back in normal operation. -----October 11, 2016 06:38 PM-----	0	0
SSORS#2017-T-104876	104876	10/9/2016	10/9/2016	10/11/2016	Constance Road Sanitary Sewer:	Constance Road	Telog data indicates that PS 146 overflowed during a storm event. This overflow was not observed by staff.	Capacity-Weather Related	Nansemond River	4 hour(s) 48 minute(s)	36.736885	-76.585073	PS 146 is back in normal operation. -----October 11, 2016 06:43 PM-----	0	0
SSORS#2017-T-104877	104877	10/10/2016	10/10/2016	10/11/2016	Constance Road Sanitary Sewer:	Constance Road	Telog data indicates that PS 146 overflowed during a storm event. This overflow was not observed by staff.	Capacity-Weather Related	Nansemond River	7 hour(s) 33 minute(s)	36.736885	-76.585073	PS 146 is now back in normal operation. -----October 11, 2016 06:51 PM-----	0	0
SSORS#2017-T-104878	104878	10/8/2016	10/9/2016	10/11/2016	North Jericho:	Bethlehem Street	Telog data indicates that PS 076 overflowed during a storm event. This overflow was not observed by staff.	Capacity-Weather Related	Shingle Creek	8 hour(s) 19 minute(s)	36.734684	-76.566963	PS 076 is now back in normal operation. -----October 11, 2016 07:06 PM-----	0	0
SSORS#2017-T-104879	104879	10/8/2016	10/9/2016	10/11/2016	Huntersville #1:	Huntersville Place	Telog data indicates that PS 054 overflowed during a storm event. This overflow was not observed by staff.	Capacity-Weather Related	Streeter Creek	10 hour(s) 24 minute(s)	36.872788	-76.43173	PS 054 is now back in normal operation -----October 11, 2016 07:17 PM-----	0	0
SSORS#2017-T-104880	104880	10/9/2016	10/10/2016	10/11/2016	Dayle Acres:	Nansemond Parkway	Telog data indicates that PS 108 overflowed during a storm event. This overflow was not observed by staff.	Capacity-Weather Related	Quaker Neck Creek	7 hour(s) 21 minute(s)	36.817064	-76.456558	PS 108 is now back in normal operation. -----October 11, 2016 07:30 PM----- -----October 14, 2016 10:56 AM-----	0	0
SSORS#2017-T-104881	104881	10/8/2016	10/9/2016	10/11/2016	Wynnewood:	Magnolia Drive	Telog data indicates that PS 020 overflowed during a storm event. This overflow was not observed by staff.	Capacity-Weather Related	Streeter Creek	19 hour(s) 27 minute(s)	36.870816	-76.42866	PS 020 is now back in normal operation. -----October 11, 2016 07:38 PM-----	0	0
SSORS#2017-T-104902	104902	10/8/2016	10/9/2016	10/12/2016	424 S. Main St	424 S. Main St	Lateral overflowed, no structural defects found in lateral.	Capacity-Weather Related	Nansemond River	10 hour(s) 0 minute(s)	36.72036	-76.586215	Spill site cleaned. Should be noted that this spill was not observed. Dates and times based on customer input and other observations as to possible Date under control information. Unable to determine released amounts. -----October 12, 2016 12:10 PM-----	-1	-1
SSORS#2017-T-104903	104903	10/8/2016	10/9/2016	10/12/2016	111 Grayson Ct	111 Grayson Ct: Rear of property	SSO at sewer manhole.	Capacity-Weather Related	Nansemond River	10 hour(s) 0 minute(s)	36.733346	-76.579921	Spill site cleaned. Spill Dates start and under control are estimates based on storm duration and impacts. Spill was unobserved. Unable to determine Amount released. -----October 12, 2016 12:21 PM-----	-1	-1
SSORS#2017-T-104904	104904	10/9/2016	10/9/2016	10/12/2016	North Main St #1:	713 North Main Street	Telog data indicates that PS 063 overflowed during a storm event. Staff did not witness the actual overflow due to the site being submerged under water.	Capacity-Weather Related	Nansemond River	19 hour(s) 7 minute(s)	36.740464	-76.583293	PS 063 is back in normal operation. -----October 12, 2016 03:57 PM-----	0	0

Sanitary Sewer Overflows Permit Year 4

DEQ_IR	SSORS_ID	Date of Incident	Date Under Control	Date Reported	Site Name	Site Address	Description	Category	Possible Receptor	Spill Duration	Latitude	Longitude	Corrective Action	Quantity Spilled (gal.)	Amount Reached Waterway (gal.)
SSORS#2017-T-104947	104947	1/4/2017	1/4/2017	1/5/2017	Pughsville 2:	4519 Ellington Avenue	Staff was cleaning the check valves at PS 106. They turned both pump controls on the main control panel to the off position, but failed to turn the VFD controls to the off position. The failure to turn the VFD controls off allowed the pumps to be able to	Maintenance-Other	Knotts Creek	0 hour(s) 5 minute(s)	36.849851	-76.44045	Staff pulled the float in the wet well and the pump shut off for this incident. PS 106 is back in normal operation. -----January 5, 2017 09:48 AM----- ----- January 10, 2017 10:42 AM-----	200	200
SSORS#2017-T-104956	104956	2/4/2017	2/4/2017	2/6/2017	CC 136-023-002	1234 Holland Road	Sewer overflow at customer cleanout.	Maintenance-Debris	Nansemond River	2 hour(s) 0 minute(s)	36.730372	-76.614544	Flushed sewer cleanout and recovered debris. ----- February 6, 2017 03:02 PM-----	10	5
SSORS#2017-T-104957	104957	2/9/2017	2/9/2017	2/10/2017	CC 048-243-011	308 Central Ave	Sewer overflow at customer cleanout.	Maintenance-Grease	Nansemond River	0 hour(s) 19 minute(s)	36.732086	-76.577464	Flushed cleanout and recovered debris. -----February 10, 2017 10:00 AM-----	10	0
SSORS#2017-T-104970	104970	3/15/2017	3/15/2017	3/16/2017	MH 022-009	509 Ashley Avenue	Sewer overflow at sanitary sewer manhole.	Maintenance-Debris	Shingle Creek	2 hour(s) 0 minute(s)	36.722489	-76.591875	Cleaned sewer main and cleared blockage. -----March 16, 2017 02:41 PM-----	100	100
SSORS#2017-T-104978	104978	1/31/2017	3/18/2017	3/31/2017	MH 048-209	157 East Washington St/Amicis Pizza Cafe	The presence of an SSO was provided through the HRSD bacterial tracking program. Notification was made to the City on 1/31/2017. The source tracking identified storm sewer drop inlet asset JR-267-DI-0442 as the possible SSO location.	Infrastructure	Nansemond River	1088 hour(s) 17 minute(s)	36.727712	-76.581878	Subsequent to notification by HRSD, field investigations were conducted to determine the possible bacterial source. Dye testing and CCTV was used to locate an abandoned pipe that entered the drop inlet. The abandoned pipe was cut and plugged both at the	-1	0
SSORS#2017-T-104986	104986	4/11/2017	4/11/2017	4/13/2017	MH 515-010	2222 Alabama Ave	Sewer overflow at sanitary sewer manhole.	Maintenance-Debris	Shingle Creek	0 hour(s) 20 minute(s)	36.739654	-76.558226	Cleaned sewer main and cleared debris. -----April 13, 2017 08:57 AM-----	100	90
SSORS#2017-T-104988	104988	4/18/2017	4/18/2017	4/20/2017	MH 048-245	118 Finney Avenue	Sewer overflow at sanitary sewer manhole.	Maintenance-Grease	Nansemond River	2 hour(s) 0 minute(s)	36.73138	-76.578277	Cleaned sewer main and cleared debris. -----April 20, 2017 10:45 AM-----	200	150
SSORS#2017-T-104989	104989	4/18/2017	4/18/2017	4/20/2017	MH 005-020	Nansemond Avenue	Sewer overflow at sanitary sewer manhole.	Maintenance-Debris	Nansemond River	1 hour(s) 0 minute(s)	36.738025	-76.570199	Cleaned sewer main and cleared debris. -----April 20, 2017 10:58 AM-----	100	100
SSORS#2017-T-104990	104990	4/25/2017	4/25/2017	4/26/2017	MH 014-055	101 QVC Drive	Sewer overflow at sanitary sewer manhole.	Maintenance-Debris	Nansemond River	0 hour(s) 53 minute(s)	36.767655	-76.538412	Cleaned sewer main and cleared blockage. -----April 26, 2017 07:44 AM-----	100	100
SSORS#2017-T-104995	104995	5/12/2017	5/12/2017	5/12/2017	PS 014:Wilroy Industrial Park	1488 Progress Rd.	PS 014 buffer tank was being maintained by an emergency pump due to PS 014 suction valves failing. The yard valve for the emergency discharge connecting had a fault which caused it to leak. This failure resulted in a spill at PS 014.	Maintenance-Other	Cedar Lake	1 hour(s) 15 minute(s)	36.767032	-76.532258	The emergency discharge yard valve has been replaced. The suction valves fault has been repaired. PS 014 is now back in normal operation. -----May 12, 2017 03:35 PM----- -----May 15, 2017 09:23 AM----- ----- -May 16, 2017 07:02 AM-----	2000	1500
SSORS#2017-T-104998	104998	5/20/2017	5/20/2017	5/20/2017	PS 035:Dogwood Estates	509 Kilby Shores Drive	PS 035 was being maintained with an emergency pump. There was a spill at this station due to a hole in the discharge hose on the pump. The spill only occurred when the emergency pump was in operation.	Maintenance-Other	Lake Kilby	0 hour(s) 5 minute(s)	36.71996	-76.622051	Staff replaced the discharge hose on the emergency pump. The emergency pump is now back in normal operation at PS 035. -----May 20, 2017 02:26 PM-----	50	50
SSORS#2017-T-105017	105017	6/18/2017	6/18/2017	6/19/2017	1836 Holland Road	1836 Holland Road	Blow off broke.	Maintenance-Other	Speight Run	3 hour(s) 35 minute(s)	36.719515	-76.653397	Temporarily shut off valve. Currently scheduling repairs. -----June 19, 2017 08:45 AM----- completed repairs 6/21/17 utility is back in service. -----June 22, 2017 01:48 PM-----	1800	1800
SSORS#2017-T-105019	105019	6/22/2017	6/22/2017	6/23/2017	MH 123-029	1741 Millwood Way	Manhole overflow	Maintenance-Grease	Nansemond River	1 hour(s) 29 minute(s)	36.764754	-76.54552	Cleared stoppage and cleaned line. -----June 23, 2017 08:36 AM-----	200	200
SSORS#2017-T-105021	105021	6/29/2017	6/29/2017	6/30/2017	CC 001-001-006	3924 Pughsville Road	Sewer overflow at customer cleanout.	Maintenance-Debris	James River	2 hour(s) 1 minute(s)	36.840232	-76.454759	Flushed sewer cleanout and recovered debris. ----- June 30, 2017 03:23 PM-----	30	25

Sanitary Sewer Overflows
Permit Year 4



Public Works Engineering Illicit Discharge Response Permit Year 4

Actual Start	Actual Finish	Address	Location	Comments	ENFORCEMENT ACTION	RESOLUTION
08/8/2016 12:00	08/12/2016 12:00	100 Rochdale Ln.	Mansfield Farms	neighbors are blowing grass clippings into storm drains.	Education	Contacted HOA property Manager who addressed the issue during HOA meeting.
03/13/2017 10:31	03/15/2017 08:36	1238 HOLLAND RD	Between 1238 and 1260 Holland Road	Caller said untreated sewage is spilling out of sewer man hole and has been for about a month.	Verbal Warning	Informed property manager that sewer manhole was leaking. They sent out A Clean BAY plumbing and fixed the problem from the private structure to the city structure. Notes attached.
07/21/2016 01:57	08/9/2017 07:43	1258 PORTSMOUTH BLVD	Studios 4 Less Motel	Call received from Frankies Auto that motel was pumping sewage into the creek. David Keeling met VDH staff on-site. VDH is writing formal letter requiring septic tank repair.	Referred to other Department or Agency	Referred to VDH who required pumping of holding tanks, and servicing of pumps and alarms
10/11/2016 07:45	10/11/2016 08:31	1555 HOLLAND RD	Speedway gas station	Complaint of sewage spill at private sewage pump station.	Education	Not an illicit discharge, no spill at time of visit. Spoke with location manager to make them aware of the complaint and the purpose of the alarms on their private pump station.
01/30/2017 12:00	03/21/2017 12:00	157 E WASHINGTON ST	JR-267-DI-0442 at corner of Commerce St and E Washington	8-10 inch clay pipe discharging grey water with strong sewage smell and extremely high HF183 marker numbers.	Referred to other Department or Agency	Referred to Public Utilities. Subsequent to notification by HRSD, field investigations were conducted to determine the possible bacterial source. Dye testing and CCTV was used to locate an abandoned pipe that entered the drop inlet. The abandoned pipe was plugged and a gravity main failure in the vicinty was repaired.
10/13/2016 09:52	10/31/2016 09:52	205 RED DUCK CIR	205 RED DUCK CIR	Complaint that resident at 205 Red Duck Cir is dumping dirt in the ditch behind their house.	Verbal Warning	Jute mad and seed placed on denuded areas for stabilization
09/22/2016 01:01	09/28/2016 08:01	212 maple st. Suffolk va 23434	Outfall pipe JR-267-OF-0061 at the dead end of maple street.	Received report of fuel leak from Birdsong Peanuts area. Discovered oil sheen in manhole off Mulberry St. and Maple St., end in drainage ditch end of Maple St., installed three absorbent booms	Referred to other Department or Agency	Referred to Fire Department. Origin of oil spill was not determined. Absorbent booms were deployed at the end of the outfall pipe until no more oil was seen exiting the pipe.
08/24/2016 12:00	08/24/2016 12:00	2460 PRUDEN BLVD	Lida Ave. and Pruden Blvd.	Church between Lida and Edward Ave., dont clean up their grass clippings and it stops up the storm drain on corner of Pruden Blvd. and Lida Ave.	Education	Never found evidence of the illicit discharge. Educated pastor and Asst. pastor on illicit discharges.
10/17/2016 12:00	10/20/2016 12:00	2504 WOODLAND TRL	2504 WOODLAND TRL	Pallets that washed up during the hurricane are blocking the pond inlet according to caller	Referred to other Department or Agency	Storm washed up pallet onto structure. Pulled pallet out of structure and placed at street for refuse pick-up.
11/2/2016 08:05	02/28/2017 12:00	303 GREAT FORK RD	303 Great Fork Rd	Investigated site, septic tank has damage, contacted Carey Horne (VDH), she is issuing a 30-day NOV for replacement of damaged septic tank.	Verbal Warning	abated, new tank installed
11/9/2016 09:12	11/9/2016 10:23	304 DOCK CT	304 DOCK CT Suffolk 23435	Both stormdrains at 304 Dock Ct. and 2404 Waters Edge Ln. were dry, noticed mint colored effluent down from outfall (Osprey lake). Spoke with complaintant to get more information on company treating lake with copper sulfate.	Education	Not an IDDE, no effluent found in drains
12/21/2016 10:20	01/10/2017 11:34	305 COPELAND RD	305 COPELAND RD Suffolk 23434	Alleged wash water coming from house, draining to city ditch. Found washing machine plumbed to drain to City ditch	Education	Owner advised that he dug up the pipes and rerouted the sink water and wash water to his septic tank.
12/21/2016 10:28	01/10/2017 11:36	309 COPELAND RD	309 COPELAND RD Suffolk 23434	Alleged wash water coming from house going into ditch. Found washing machine plumbed to drain to City ditch.	Education	McCoy White advised me that he took the washing machine out of the house, and that was the only line running to the pipe.
04/11/2017 12:00	04/24/2017 11:35	3342 NANSEMOND RIVER DR	Stormdrain in front of 3342 NANSEMOND RIVER DR	Motor oil dumped in storm drain near 3342 Nansemond River Dr. traced to BMP (JR-242-WP-0004) absorbent booms added to BMP inlet	Education	Boom put around BMP inlet to absorb oil. Educated Neighbors on illlicit discharge city ordiance. Referred to Fire Marshalls office for investigation

Public Works Engineering Illicit Discharge Response Permit Year 4

Actual Start	Actual Finish	Address	Location	Comments	ENFORCEMENT ACTION	RESOLUTION
02/3/2017 09:39	07/25/2017 12:00	3400 HOLLAND RD	3400 Holland Road Septic System	Neighbor reported to DEQ, a resident pumping sewage into woods behind home (3400 Holland Rd.) Verified sewage being pumped by resident from distribution box to woods	Referred to other Department or Agency	referral to VDH (home unoccupied at time of closing incident)
05/11/2017 12:00	05/11/2017 12:00	3608 PRUDEN BLVD	Kings Fork Diesel Truck Service 3608 Pruden Blvd.	Complainant reports vehicle oil and antifreeze are being dumped into storm drain.	No Action	Investigation by US Coast Guard, Suffolk Fire Marshall, and Suffolk Public Works revealed no evidence of improper disposal ofwaste oil or fluids.
07/18/2016 09:44	09/23/2016 12:00	3708 KNOTTS CREEK LN	public drainage ditch in front of 3708 Knotts Creek ln	resident has filled ditch, possibly to create a temporary driveway. required them to remove material, if they are installing a driveway, they need a permit	Notice of Violation	Fill dirt removed from City ditch
03/4/2017 01:48	03/6/2017 01:48	4032 BRIANS LN	4032 BRIANS LN suffolk 23434	carpet cleaning water being put down storm drain	Education	No evidence of an illicit discharge. Unhappy customer. Company understood Clean water act and knows the responsible way to clean up waste water.
02/1/2017 01:00	02/1/2017 01:59	442 W WASHINGTON ST	DI on Henley Place outside of the back door/loading dock area at City Hall	Erin witnessed a City contractor emptying his floor cleaner machine into the storm drain on Henley Place right outside of the back entrance	Verbal Warning	I talked directly with the guy and made known that no wash water is to be placed in the storm drain. Both here or at City Hall or anywhere in the City
02/24/2017 12:00	02/27/2017 12:00	443 W WASHINGTON ST	443 W WASHINGTON ST	report of improper concrete washout at construction site.	Verbal Warning	Educated employees and gave a verbal warning. Also instructed employees to clean up concrete slurry and other concrete debrs.
11/22/2016 01:29	11/22/2016 01:50	445 N MAIN ST	Leaf litter and trash blown from parking lot.	Investigated leaf litter/trash complaint. Very little leaf litter in gutter pan, no storm drains around Post Office, spoke with management who will address Postmaster.	Verbal Warning	Postmaster will be informed by management to bag leaves and pick up trash.
02/22/2017 11:15	02/22/2017 12:15	4609 MAPLEWOOD DR	Storm drain across the street from 4609 Maplewood Dr	Report trash in storm drain.	No Action	no evidence of the reported illicit discharge. several pieces of litter were removed by City staff.
04/4/2017 09:57	04/4/2017 09:57	4721 SCHOONER BLVD	4721 SCHOONER BLVD Suffolk	Neighbor draining pool water	Education	Not an illicit discharge, Pool water had been sitting all winter with no chemicals being added.
12/7/2016 02:01	12/12/2016 01:37	4920 MARINA DR	4920 MARINA DR Suffolk 23435	Unloading Household waste to yard at night.	Education	Spoke with neighbors. Asked them to stack in 6'x6'x'6' piles for trash pickup, and to put it closer to the road for easy pickup. This was not an illicit Discharge, it is a dispute between neighbors. Refuse picked up trash.
12/19/2016 08:37	12/20/2016 08:50	4920 MARINA DR	4920 MARINA DR Suffolk 23435	M. May complains that his neighbors are dumping trash and filling up the stormwater ditches. There is no ditch there, only an old driveway pipe that is failing	Education	Operations knows about the sink holes. Informed complaintant to call refuse about neighbor dispute with trash being left out all week.
06/14/2017 12:00	06/15/2017 12:00	5382 WHALEYVILLE BLVD	Front of house, Porta-Jon on right side of driveway.	Caller advised that a contractor was pumping raw sewage out of an older style porta-john to the back of the house near the woods.	Referred to other Department or Agency	Referred to Jayme at VDH, Education.
12/1/2016 12:00	12/8/2016 12:00	6019 Newington Pl	6019 Newington Pl	Report workers washing paint brushes in storm drain 6019 Newington Pl.Met with Land Developer Mr. Markowski, he said he would educate painters.	Verbal Warning	No more paint spills, met with Land Developer who ensured compliance by paint crews
05/2/2017 10:47	06/14/2017 02:00	6038 NEWINGTON PL	Construction site	Investigating paint spill complaint at 6038 Newington Pl. (Balmoral)	Verbal Warning	Superintendant added wash-out station for paint disposal
09/1/2016 12:00	09/30/2016 12:00	610 W CONSTANCE RD	610 W CONSTANCE RD	Complaint cut branches from Dental Office 610 W. Constance Rd. throwing waste in ditch, that could impede flow of water. Owner had contractor clear ditch	Verbal Warning	Notified owner that throwing yard waste in ditch is an illicit discharge. He had the contractor clean it up.
09/7/2016 10:26	03/20/2017 06:39	715 N MAIN ST	Express Lube oil change and tire business	tip received from someone who claims the Express Oil on Main Street is putting used oil into the sanitary sewer system or storm drain	No Action	Not impacting MS4 system, Public Utilities investigated sanitary system

Public Works Engineering Illicit Discharge Response Permit Year 4

Actual Start	Actual Finish	Address	Location	Comments	ENFORCEMENT ACTION	RESOLUTION
03/10/2017 02:52	04/25/2017 12:00	812 Ashley Avenue	Storm inlet in front of 812 Ashley St was identified as the source of the oil. Outfall at corner of Ashley and Hull had oil in it.	Suspect Trespasser dumped Oil in the amount of approximately 5 gallons into a City of Suffolk Stormwater intake at the Corner of Ashley and Hull Street	Referred to other Department or Agency	Had an environmental hazard company clean up the oil and as reffered to the fire department for additional investigation.
08/30/2016 09:25	01/31/2017 10:03	881 CAROLINA RD	881 Carolina Road Septic Tank	Investigated sewage discharge at 881 Carolina Rd., reported by Carey Horne (VDH). Rilco repaired private station, lime to be added to area	Verbal Warning	repaired, replacement pump installed
09/20/2016 12:00	09/20/2016 12:00	8912 New Road	Farmers field/ditch to the right of driveway at 8912 New Road	A farmers field is eroding and filling the ditch and right of way	Referred to other Department or Agency	Referred to Public Works Operations to clean out ditch.Not an illicit discharge.
07/29/2016 01:12	07/29/2016 02:12	921 Lake Kennedy Drive	921 Lake Kennedy Drive	Resident dumping fish heads and cooler water in a stormdrain	Education	Made contact with resident and explaint the nature of the violation and the illicit discharge ordinance. Resident informed of alternative disposal methods.
10/5/2016 11:08	10/5/2016 01:08	970 PORTSMOUTH BLVD	Mickies Car Wash Facility	Anonymous complaint, wash water from car wash draining to storage place behind it.	Education	No evidence of illicit discharge, facility has a VPDES car wash permit. No runoff observed entering private properties. Made sure operators were aware of there responsibilities under their VPDES permit.
03/14/2017 03:08	04/4/2017 12:00	Ashley Street	JR-267-OF-0010, outfall at the end of Ashley Street	possible sewer cross connection.	Referred to other Department or Agency	Possible sewer leak referred to Public Utilities for repair.
10/31/2016 00:00	11/4/2017 00:00	343 & 345 Cedar St	stormwater junction box behind these addresses	PVC pipe and hoses are connected from the houses directly to the stormwater system	No Action	Hoses are run from basement sump pumps. Residents allowed inspection of their basements and no plumbing was seen to be connected to these hoses.
12/14/2017 00:00	12/14/2017 00:00	1370 Progress Rd	Massimo Zannetti coffee roaster	received complaint of odor, and stained fluid going into stormdrain	Education	No visible fluid was seen in stormdrains. Odor was from beans thrown in the garbage dumpster. Made sure staff were aware of Illicit Discharge ordiance.
09/14/2016 00:00	09/19/2016 00:00	4840 Manning Rd	driveway culvert erosion	Complaint of horse manure being used to fill erosion in a City maintained stormwater ditch.	Verbal Warning	Responsible party agreed to remove manure. Public Works Operations was contacted to repair erosion.
08/17/2016 00:00	08/17/2016 00:00	8520 Southwestern Blvd	pond outfall channel	green tint seen in water draining from a private pond	Education	Owner of pond stated he used an algeacide. He was advised to follow manufacturers recommendations, and not to over apply.
08/30/2016 00:00	08/30/2016 00:00	Nansemond Parkway	truck driving along Nansemond parkway	fuel was seen splashing out of a trucks open saddlebag tank.	Verbal Warning	Contact was made with the driver. The tank was closed and absorbant was applied on the spills.
01/18/2017 02:14	02/3/2017 11:58	near 1902 Freeney Ave.	2001 E. Washington St. (rear of property)	3 trash bags left near street.Verified and called refuse to collect trash bags at curb.(12th and Freeney Ave.)	Education	bags picked up by Refuse Mgt

Appendix F

Supporting Documentation for Minimum Control Measure 4: Construction Site Stormwater Runoff Control

ESC and SWM Certified Personnel Permit Year 4

Employee Name	Certification Type	Cert. No	Expires
Bradshaw, Charles	Dual Inspector	#DIN0176	12/2/2020
Cereske, Farris	Erosion and Sediment Control Inspector, Stormwater Management Inspector	#5560, #SWIN0466	5/31/2018, 12/29/2018
Earley, Sherry P.E.	Erosion and Sediment Control Program Administrator, Stormwater Management Program Administrator	#446, #SWPA0129	11/30/2017, 06/18/2018
Gambito, Edwin P.E.	Stormwater Management Plan Reviewer	#SWPR0137	7/8/2018
Weil, Charles P.E.	Erosion and Sediment Control Plan Reviewer, Stormwater Management Plan Reviewer	#ESPR0121, #SWPR0244	6/3/2019, 9/16/2019
Heide, Edward	Dual Plan Reviewer	#DPR0106	8/20/2018
Hunt, Ryan	Dual Plan Reviewer	#DPR0103	3/26/2018
Jarriel, David	Dual Inspector	#DIN0124	11/30/2018
Keeling, David	Dual Inspector	#DIN0241	10/16/2018
Liverman, Dyan	Dual Inspector	#DIN0186	8/12/2018
Madray, Louis	Dual Inspector	#DIN0184	7/27/2018
Mushett, George Alan	Dual Plan Reviewer	#DPR0120	4/5/2019
Ross, Beth	Dual Plan Reviewer	#DPR0113	7/9/2018
Rountree, Adam	Dual Plan Reviewer	#DPR0107	9/10/2018
Rountree, Erin	Dual Plan Reviewer	#DPR0108	7/8/2018
Joseph Rountree	Dual Inspector	#DIN0489	3/5/2019
Trimyer, Jason	Dual Inspector	#DIN0179	7/9/2018
Gill, Beth	Erosion and Sediment Control Plan Reviewer	#8044	11/30/2019
Durden, Jamie	Stormwater Management Inspector	SWIN0949	2/18/2020
Wesley, Samuel	Dual Inspector	#DIN0234	11/21/2018
Weaver, James	Erosion and Sediment Control Inspector	#5875	11/30/2018
Adams, Dean	Erosion and Sediment Control Inspector	#3963	5/31/2020
Evans, Carlton	Erosion and Sediment Control Inspector	#3647	5/31/2019
Orvis, Michael	Erosion and Sediment Control Inspector	#5822	11/30/2018
Wells, Dale	Erosion and Sediment Control Inspector	#5876	11/30/2018
Williams, Victor	Erosion and Sediment Control Inspector	#6046	5/31/2019
Allison, Earl	Dual Inspector	#DIN0471	8/25/2019
Jordan, Antonio	Erosion and Sediment Control Combined Administrator	#6191	5/31/2019
Oxton, Chad	Erosion and Sediment Control Inspector	#5825	11/30/2018
Medley, Amanda	Erosion and Sediment Control Plan Reviewer, Stormwater Management Plan Reviewer	#ESPR0114, #SWPR0229	3/25/2019, 5/17/2019

ESC and SWM Certified Personnel Permit Year 4

Employee Name	Certification Type	Cert. No	Expires
Wiggins, Michael	Erosion and Sediment Control Inspector, Stormwater Management Inspector (provisional)	#6043	5/31/2019
Adkins, John M	Erosion and Sediment Control Inspector	#ESIN0497	11/3/2019
Chris Maxwell	Stormwater Management Inspector, Erosion and Sediment Control Inspector	#SWIN0394, #ESIN0376	11/5/2018, 3/29/2019
Skinner, Stanley I	Erosion and Sediment Control Combined Administrator	#437	11/30/2019
Thywenston, Swain	Erosion and Sediment Control Inspector	#ESIN0451	8/16/2019

ESC and SWM Enforcement Actions Summary Permit Year 4

Yearly Inspection Tracking

Month/Year: July 1, 2016 to June 30, 2017

SINGLE FAMILY

HUC	Total Inspections	Yearly Complete	Total Enforcements	Stop Work Orders
AS02	90	10	6	
AS03				
AS04				
AS05	33			
AS06	4			
CL01	53	4	4	
CL02	39			
CL03	12			
CL05	11			
CU66				
CU69	42	6	3	
CU70	20	1		
JL42				
JL43				
JL44	489	23	34	
JL45	159	3	10	
JL46				
JL47				
JL48	1109	83	89	
JL49	3138	65	256	3
JL50	12	1		
JL55	74	4	3	
JL59				
Total	5285	200	405	3

Total Inspections	6908	Total Enforcement Actions	796

PROJECTS - SP, EP, ESC

HUC	Total Yearly Inspections	MS Violations	Notice to Comply	Stop Work Orders	SWPPP Inspections
AS02					
AS03					
AS04					
AS05					
AS06					
CL01	3				
CL02					
CL03					
CL05					
CU66					
CU69					
CU70					
JL42	1				
JL43					
JL44	156	46	5	8	11
JL45	204	36		6	3
JL46	7				1
JL47					
JL48	351	99	4	15	17
JL49	555	85		6	16
JL50	346	76	1	1	8
JL55					
JL59					
Total	1623	342	10	36	56

ESC Complaint Tracking Log Permit Year 4

#	Date of Complaint	Inspector	Location	Date Complete	Complaint Origination	Brief Discription of Complaint and Resolution
1	7/11/2016	DJ	Main Street	7/11/2016	phone	Complaint of Alligator grass within private pond. Complaint not substantiated during visit to the site
2	8/9/2016	JT	907 Truman Road	9/10/2016	phone	Complaint of flooding at rear of property. SF Development behind Mrs Johnson's home is under construction. Mrs. Johnson has complained that it is flooding her rear yard. The City feels that this is an existing issue, but discussed with the developer and they have installed sideyard swales to pull all water away from her yard. We feel the problem has been corrected upon grading of the rear lots.
3	10/7/2016	CDJ	305 red duck circle	10/8/2016	David Keeling	top soil has been place at ditch along back side of lot, it look as if the home owner is trying to ensure that there is no run off into wet area, gave back to David Keeling to follow up with.
4	10/8/2016	JT	1713 Mill Wood Way		email	Johnny Oliver sent a complaint about water ponding within the drainage easement between his home and his neighbors home at 1715. Investigated the complaint and it looks like the current drainage area for this easement could be much larger than the orginal plans intended. Looking into drainage area calculations. May need to have area surveyed and re-engineer pipe crossing.
5	10/18/2016	CDJ	Pitchkettle Farms BMP	10/18/2017	Lynn Barrett @ 6100 Gardenbrook Pl	The BMP is flooding the Pitchkettl Lane wth a heavry rain. Found out fall was 70% block at spillway and at outfall pass on to Wes in stormwater.
6	10/18/2016	CDJ	3100 Godwin Blvd	10/18/2016	Mr. Weeks @ 934-0425	Spoke to Vico rep about using the 2nd CE this seen to cut down on the amount of dust that was crossing the road to his house
7	10/19/2016	CDJ	4433 Godwin Blvd	10/20/2016	Mr Dennis @ 377-7235	call about flooding issue, Jason and I review the issue and will pass it on to Maintenance, we also gave the owner the # to contact Maintanence
8	10/19/2016	CDJ	3100 Godwin Blvd	10/19/2016	Mr. Weeks @ 934-0425	Frank Grubbs went out and spoke to the contractor about dust control, they started using the 2nd CE , they also slow their driver down on site to keep dust down, there is a water truck on site that can be used.
9	10/28/2016	CDJ	708 Dumville lane	10/29/2016	Chris @252-333-8191	Call Chris @ 252-333-8191 left message, But did speak to their neighbor @ 706 Drumville Lane, she said that there is a spring that keeps the yard wet all year, and with all rain it just getting worst, look at DI's and ditch seem no obstruction at this time.
10	1/4/2017	CDJ	2725 Nansemond Crest	1/19/2017	phone	Owner building bulkhead on the Nansemond River & cutting trees

ESC Complaint Tracking Log Permit Year 4

#	Date of Complaint	Inspector	Location	Date Complete	Complaint Origination	Brief Discription of Complaint and Resolution
11	1/12/2017	DNL	4117 River Park Drive	2/1/2017	email	Buider of residence at 4115 graded yard to drain towards 4117. Builder working to fix issue now.
12	3/30/2017	L.M.	Rivershore Dr. JL42	3/31/2017	Email	Customer concerned of stormwater backing up, ditch not flowing
13	3/20/2017	CDJ	1640-1628 Moore Point Rd	3/20/2017	Jennifer Sorensen @514-7600	Ditches to back up along the roadway between 1628 & 1640. 1644 Moore Point Rd. is the high point of the ditch line. You can tell this by the way the water is setting in the ditch. The ditch drains to West Av. Maintance is going clean out pipe at driveways & ditch will be cleaned.
14	5/2/2017	LM	Balmoral Subdivision	5/3/2017	email	Citizen reported contractor washing brushes out into stormdrain. RLD provided new washout stations and instructed pain crews to utilize them immediately.
15	5/26/2017	DL	Sunfall development	5/26/2017	email	Resident complained about Inlet Protection clogged and not working. At this time, we already had the contractor written up for this violation.
16	6/21/2017	LM	Crittenden Road	6/22/2017	Email	Citizen complaint for tracking on the street. This is at the entrance to Sand Pit/Borrow area. Requested that the owner sweep the road.
17	6/30/2017	DL	7009 Darby Court	6/30/2017	phone	Citizen complained of Land Disturbance behind her home. Investigated but did not observe any disturbance. Trying to get in touch with homeowwner again to get more information on location of work.

Appendix G

Supporting Documentation for Minimum Control Measure 5: Post-Construction Stormwater Management

Maintenance Agreements Recorded in Permit Year 4

PLANNING FILE #	TAX MAP/PARCEL	PARCEL ID NO (PIN)	PROJECT NAME	PROJECT LOCATION	REVIEWING ENGINEER	AGREEMENT DATE
SP-2016-00010	#20*43A	304222100	Northern Suffolk Elementary School	Nansemond Pkwy	Ryan Hunt	7/11/2016
SP-2016-00006	6*11	110015740	Northern Suffolk Middle School	Burbage Drive	Ryan Hunt	7/11/2016
SP-2016-00019	25*29E*1	253085500	Suffolk Family YMCA Renovation Plans	2777,2769,2765 Godwin Blvd	Ryan Hunt	7/18/2016
SP-2015-00022	13*10A	3002336600	Belleville Meadows Apartments	5609 Plummer Boulevard	Ryan Hunt	7/25/2016
SP-2016-00021	25*38, 25*38A	251391000, 2540001640	Virginia Regional Commerce Park Building B	2930 Pruden Blvd./5401 VA Regional Dr	Ryan Hunt	8/15/2016
SP-2016-00037	12*49	303623200	Decoys at Bennetts Creek	3305 Ferry Road	Ryan Hunt	11/22/2016
SP-2016-00009	12*34C and 12*34C*CA	306001304 and 306002817	Bennett's Creek Commons	3345 Bridge Rd	Ryan Hunt	12/12/2016
SP-2017-00003	6*ID	304219400	HRSD SWIFT Demostration Facility	6906 Armstead Road	Ryan Hunt	2/16/2017
SP-2015-00028	11A*A*B*C	303317050	BLR of Suffolk, LLC	5501 Bennetts Pasture Road	Ryan Hunt	2/17/2017
SP-2017-00002	35G(B)A*3+*7+()52616000)	52616000	Family Dollar	823 E Washington St	Ryan Hunt	6/14/2017

Includes facilities inside and outside of MS4 Service Area

Stormwater Management Facilities Accepted During Permit Year 4

BMP ID	Date Installed	BMP Name	Measurement Name	Measurement Unit	BMP Extent	*Impervious Acres Treated*	*Locality*	*VAHU6*	*Latitude*	*Longitude*	*Ownership Type*	*Maintenance Agreement*	*Action Plan*
JR-266-MB-0013	8/26/2016	Wet Pond	Area Treated	ACRE	2.92	1.21	SUFFOLK	JL44	36.875360000000	-76.420310000000	Private	Yes	Chesapeake Bay Action Plan
JR-242-WP-0034	12/19/2016	Wet Pond	Area Treated	ACRE	10.93	7.38	SUFFOLK	JL48	36.772395000000	-76.537426000000	Private	Yes	Chesapeake Bay Action Plan
JR-268-PP-0001	10/19/2016	Permeable Pavement	Permeable Pavement w/ Sand, Veg. - A/B soils, no underdrain	ACRE	0.84	0.525	SUFFOLK	JL48	36.746110000000	-76.420310000000	Private	Yes	Chesapeake Bay Action Plan
JR-218-BR-0004	1/24/2017	Bioretention	Area Treated, underdrain, C/D soils	ACRE	0.96	0.79296	SUFFOLK	JL49	36.866733000000	-76.423581000000	Private	Yes	Chesapeake Bay Action Plan
JR-218-BR-0003	1/24/2017	Bioretention	Area Treated, underdrain, C/D soils	ACRE	0.229	0.12595	SUFFOLK	JL49	36.866502000000	-76.422830000000	Private	Yes	Chesapeake Bay Action Plan
JR-218-BR-0002	1/24/2017	Bioretention	Area Treated, underdrain, C/D soils	ACRE	0.381	0.258318	SUFFOLK	JL49	36.866157000000	-76.422794000000	Private	Yes	Chesapeake Bay Action Plan
JR-218-BR-0001	1/24/2017	Bioretention	Area Treated, underdrain, C/D soils	ACRE	0.263	0.16043	SUFFOLK	JL49	36.865829000000	-76.422737000000	Private	Yes	Chesapeake Bay Action Plan
JR-218-PP-0001	1/24/2017	Permeable Pavement	Permeable Pavement w/o Sand, Veg. - C/D soils, underdrain	ACRE	3.15	2.49	SUFFOLK	JL49	36.865960000000	-76.423573000000	Private	Yes	Chesapeake Bay Action Plan
JR-241-MB-0018	2/17/2017	Wet Pond	Area Treated	ACRE	12.31	8.3	SUFFOLK	JL48	36.755560000000	-76.584170000000	Private	Yes	Chesapeake Bay Action Plan
JR-218-DB-0001	8/26/2016	Dry Detention Ponds	Area Treated	ACRE	21.8	16.35	SUFFOLK	JL50	36.874170000000	-76.419990000000	Private	Yes	Chesapeake Bay Action Plan
JR-267-MB-0063	9/1/2016	Filtering Practices	Area Treated	ACRE	0.59	0.395	SUFFOLK	JL48	36.730952000000	-76.589465000000	Public		Chesapeake Bay Action Plan
JR-267-MB-0064	9/1/2016	Filtering Practices	Area Treated	ACRE	0.58	0.447	SUFFOLK	JL48	36.730726000000	-76.588245000000	Public		Chesapeake Bay Action Plan
JR-267-MB-0002	3/9/2015	Filtering Practices	Area Treated	ACRE	0.19	0.171	SUFFOLK	JL48	36.730858000000	-76.590367000000	Public		Chesapeake Bay Action Plan
JR-267-MB-0003	3/9/2015	Filtering Practices	Area Treated	ACRE	0.22	0.198	SUFFOLK	JL48	36.730706000000	-76.590389000000	Public		Chesapeake Bay Action Plan
JR-267-MB-0005	3/9/2015	Filtering Practices	Area Treated	ACRE	0.13	0.117	SUFFOLK	JL48	36.730656000000	-76.589864000000	Public		Chesapeake Bay Action Plan
JR-267-MB-0007	3/9/2015	Filtering Practices	Area Treated	ACRE	0.17	0.153	SUFFOLK	JL48	36.730806000000	-76.589841000000	Public		Chesapeake Bay Action Plan
JR-267-MB-0008	3/9/2015	Filtering Practices	Area Treated	ACRE	0.24	0.24	SUFFOLK	JL48	36.730385000000	-76.590334000000	Public		Chesapeake Bay Action Plan
JR-217-WP-0078	6/30/2014	Wet Pond	Area Treated	ACRE	12.7	1.73	SUFFOLK	JL49	36.819021000000	-76.469904000000	Public		Chesapeake Bay Action Plan
JR-217-WP-0080	6/30/2014	Wet Pond	Area Treated	ACRE	32.5	4.33	SUFFOLK	JL49	36.818680000000	-76.468768000000	Public		Chesapeake Bay Action Plan
JR-217-RB-0009	6/30/2014	Dry Detention Ponds	Area Treated	ACRE	2.08	0.29	SUFFOLK	JL49	36.820690000000	-76.467537000000	Public		Chesapeake Bay Action Plan

All facilities are located in the Chesapeake Bay Watershed

BMP Inspections Permit Year 4

Date Inspected	Inspected By	Feature Uid
08/9/2016 10:26	WESLEY, SAMUEL	CH-317-DB-0001
08/9/2016 09:46	WESLEY, SAMUEL	CH-317-MB-0001
08/9/2016 10:07	WESLEY, SAMUEL	CH-317-MB-0002
07/21/2016 10:45	WESLEY, SAMUEL	JR-194-DB-0001
09/13/2016 09:45	WESLEY, SAMUEL	JR-194-NT-0001
06/8/2017 09:11	WESLEY, SAMUEL	JR-195-IP-0003
01/12/2017 09:41	WESLEY, SAMUEL	JR-195-MB-0001
05/1/2017 09:07	WESLEY, SAMUEL	JR-195-MB-0002
05/1/2017 10:00	WESLEY, SAMUEL	JR-195-MB-0003
05/1/2017 10:01	WESLEY, SAMUEL	JR-195-MB-0003
01/3/2017 09:51	WESLEY, SAMUEL	JR-195-MB-0004
01/3/2017 10:13	WESLEY, SAMUEL	JR-195-MB-0005
01/3/2017 10:29	WESLEY, SAMUEL	JR-195-MB-0006
01/3/2017 10:59	WESLEY, SAMUEL	JR-195-MB-0007
01/3/2017 11:09	WESLEY, SAMUEL	JR-195-MB-0008
01/3/2017 11:24	WESLEY, SAMUEL	JR-195-MB-0009
01/3/2017 11:51	WESLEY, SAMUEL	JR-195-MB-0010
01/3/2017 12:01	WESLEY, SAMUEL	JR-195-MB-0011
01/3/2017 12:19	WESLEY, SAMUEL	JR-195-MB-0012
01/3/2017 12:23	WESLEY, SAMUEL	JR-195-MB-0013
01/12/2017 11:49	WESLEY, SAMUEL	JR-195-MB-0014
01/12/2017 10:37	WESLEY, SAMUEL	JR-195-MB-0015
01/12/2017 10:17	WESLEY, SAMUEL	JR-195-MB-0016
01/12/2017 09:56	WESLEY, SAMUEL	JR-195-MB-0017
09/13/2016 07:32	WESLEY, SAMUEL	JR-195-NT-0001
01/12/2017 10:19	WESLEY, SAMUEL	JR-195-RB-0001
05/8/2017 10:24	WESLEY, SAMUEL	JR-195-SF-0001
05/8/2017 10:31	WESLEY, SAMUEL	JR-195-SF-0002
05/4/2017 09:01	WESLEY, SAMUEL	JR-195-WP-0001
02/10/2017 10:23	WESLEY, SAMUEL	JR-195-WP-0002
05/8/2017 11:07	WESLEY, SAMUEL	JR-195-WP-0004
05/9/2017 09:13	WESLEY, SAMUEL	JR-195-WP-0005
05/11/2017 11:03	WESLEY, SAMUEL	JR-195-WP-0006
05/4/2017 09:25	WESLEY, SAMUEL	JR-195-WP-0008
05/4/2017 09:53	WESLEY, SAMUEL	JR-195-WP-0009
05/4/2017 10:20	WESLEY, SAMUEL	JR-195-WP-0010
05/4/2017 11:01	WESLEY, SAMUEL	JR-195-WP-0011
05/4/2017 11:34	WESLEY, SAMUEL	JR-195-WP-0012
06/2/2017 09:21	WESLEY, SAMUEL	JR-195-WP-0013
06/2/2017 10:28	WESLEY, SAMUEL	JR-195-WP-0014
02/13/2017 11:00	WESLEY, SAMUEL	JR-196-CW-0001
06/6/2017 08:41	WESLEY, SAMUEL	JR-196-MB-0001
06/6/2017 09:21	WESLEY, SAMUEL	JR-196-MB-0002
06/6/2017 09:53	WESLEY, SAMUEL	JR-196-MB-0003
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03/8/2017 10:17	WESLEY, SAMUEL	JR-196-RB-0001
06/6/2017 10:17	WESLEY, SAMUEL	JR-196-WP-0001
05/2/2017 08:46	WESLEY, SAMUEL	JR-196-WP-0002
05/2/2017 08:41	WESLEY, SAMUEL	JR-196-WP-0003
05/2/2017 08:54	WESLEY, SAMUEL	JR-196-WP-0004
05/2/2017 09:08	WESLEY, SAMUEL	JR-196-WP-0005
05/2/2017 09:45	WESLEY, SAMUEL	JR-196-WP-0006
05/2/2017 10:17	WESLEY, SAMUEL	JR-196-WP-0007
05/2/2017 10:37	WESLEY, SAMUEL	JR-196-WP-0008
05/11/2017 11:04	WESLEY, SAMUEL	JR-196-WP-0009
05/5/2017 12:34	WESLEY, SAMUEL	JR-196-WP-0015
06/9/2017 09:14	WESLEY, SAMUEL	JR-196-WP-0016

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09/12/2016 12:39	WESLEY, SAMUEL	JR-196-WP-0017
01/4/2017 08:58	WESLEY, SAMUEL	JR-196-WP-0018
09/12/2016 10:47	WESLEY, SAMUEL	JR-196-WP-0019
09/12/2016 12:25	WESLEY, SAMUEL	JR-196-WP-0020
08/5/2016 12:30	WESLEY, SAMUEL	JR-215-DB-0001
08/5/2016 01:15	WESLEY, SAMUEL	JR-215-IP-0001
07/12/2016 10:12	WESLEY, SAMUEL	JR-215-RB-0001
01/6/2017 10:10	WESLEY, SAMUEL	JR-216-WP-0001
01/17/2017 11:16	WESLEY, SAMUEL	JR-216-WP-0002
01/4/2017 11:11	WESLEY, SAMUEL	JR-216-WP-0003
02/6/2017 10:16	WESLEY, SAMUEL	JR-216-WP-0004
01/17/2017 10:25	WESLEY, SAMUEL	JR-216-WP-0006
01/17/2017 09:27	WESLEY, SAMUEL	JR-216-WP-0007
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12/1/2016 10:29	WESLEY, SAMUEL	JR-217-DB-0003
06/5/2017 12:21	WESLEY, SAMUEL	JR-217-DB-0004
05/5/2017 11:06	WESLEY, SAMUEL	JR-217-FB-0001
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02/7/2017 12:54	WESLEY, SAMUEL	JR-217-RB-0003
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02/7/2017 01:29	WESLEY, SAMUEL	JR-217-RB-0005
08/3/2016 12:51	WESLEY, SAMUEL	JR-217-RB-0006
03/7/2017 10:43	WESLEY, SAMUEL	JR-217-RB-0007
12/6/2016 09:01	WESLEY, SAMUEL	JR-217-RB-0008
07/20/2016 10:05	WESLEY, SAMUEL	JR-217-RB-0009
05/3/2017 11:28	WESLEY, SAMUEL	JR-217-WP-0001
05/3/2017 09:38	WESLEY, SAMUEL	JR-217-WP-0002
05/1/2017 11:08	WESLEY, SAMUEL	JR-217-WP-0003
04/13/2017 10:36	WESLEY, SAMUEL	JR-217-WP-0004
04/13/2017 11:09	WESLEY, SAMUEL	JR-217-WP-0005
04/13/2017 11:29	WESLEY, SAMUEL	JR-217-WP-0006
04/13/2017 11:59	WESLEY, SAMUEL	JR-217-WP-0007
04/13/2017 12:17	WESLEY, SAMUEL	JR-217-WP-0008
04/13/2017 01:15	WESLEY, SAMUEL	JR-217-WP-0009
03/6/2017 10:31	WESLEY, SAMUEL	JR-217-WP-0010
03/6/2017 09:45	WESLEY, SAMUEL	JR-217-WP-0011
03/10/2017 12:49	WESLEY, SAMUEL	JR-217-WP-0012
03/10/2017 03:09	WESLEY, SAMUEL	JR-217-WP-0013
03/10/2017 11:58	WESLEY, SAMUEL	JR-217-WP-0014
03/2/2017 08:45	WESLEY, SAMUEL	JR-217-WP-0015
03/2/2017 10:15	WESLEY, SAMUEL	JR-217-WP-0016
03/2/2017 10:53	WESLEY, SAMUEL	JR-217-WP-0017
03/2/2017 09:41	WESLEY, SAMUEL	JR-217-WP-0018
03/7/2017 08:49	WESLEY, SAMUEL	JR-217-WP-0019
03/7/2017 10:27	WESLEY, SAMUEL	JR-217-WP-0020
03/7/2017 10:31	WESLEY, SAMUEL	JR-217-WP-0021
12/8/2016 10:34	WESLEY, SAMUEL	JR-217-WP-0022
12/8/2016 09:45	WESLEY, SAMUEL	JR-217-WP-0023
06/14/2017 11:03	WESLEY, SAMUEL	JR-217-WP-0024
06/14/2017 09:59	WESLEY, SAMUEL	JR-217-WP-0025
03/3/2017 11:27	WESLEY, SAMUEL	JR-217-WP-0027
02/7/2017 10:35	WESLEY, SAMUEL	JR-217-WP-0029
02/7/2017 11:05	WESLEY, SAMUEL	JR-217-WP-0030

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07/11/2016 10:43	WESLEY, SAMUEL	JR-217-WP-0031
02/9/2017 10:45	WESLEY, SAMUEL	JR-217-WP-0033
04/11/2017 10:57	WESLEY, SAMUEL	JR-217-WP-0034
02/6/2017 11:18	WESLEY, SAMUEL	JR-217-WP-0035
03/2/2017 12:01	WESLEY, SAMUEL	JR-217-WP-0040
03/2/2017 11:29	WESLEY, SAMUEL	JR-217-WP-0041
02/8/2017 11:05	WESLEY, SAMUEL	JR-217-WP-0042
06/13/2017 09:54	WESLEY, SAMUEL	JR-217-WP-0043
06/13/2017 10:57	WESLEY, SAMUEL	JR-217-WP-0044
09/2/2016 10:20	WESLEY, SAMUEL	JR-217-WP-0045
03/6/2017 09:15	WESLEY, SAMUEL	JR-217-WP-0046
11/15/2016 10:21	WESLEY, SAMUEL	JR-217-WP-0049
06/14/2017 08:31	WESLEY, SAMUEL	JR-217-WP-0051
08/3/2016 10:39	WESLEY, SAMUEL	JR-217-WP-0052
04/11/2017 09:31	WESLEY, SAMUEL	JR-217-WP-0057
12/1/2016 09:16	WESLEY, SAMUEL	JR-217-WP-0061
11/16/2016 10:23	WESLEY, SAMUEL	JR-217-WP-0063
02/7/2017 10:28	WESLEY, SAMUEL	JR-217-WP-0071
11/15/2016 09:00	WESLEY, SAMUEL	JR-217-WP-0073
02/8/2017 12:23	WESLEY, SAMUEL	JR-217-WP-0077
07/20/2016 10:23	WESLEY, SAMUEL	JR-217-WP-0078
07/20/2016 11:01	WESLEY, SAMUEL	JR-217-WP-0080
03/8/2017 10:15	WESLEY, SAMUEL	JR-218-DB-0001
12/6/2016 10:38	WESLEY, SAMUEL	JR-218-RB-0001
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10/4/2016 09:46	WESLEY, SAMUEL	JR-241-WP-0003
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10/18/2016 09:52	WESLEY, SAMUEL	JR-241-WP-0028
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11/4/2016 11:25	WESLEY, SAMUEL	JR-242-BR-0004
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10/5/2016 10:42	WESLEY, SAMUEL	JR-242-WP-0014
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09/1/2016 09:45	WESLEY, SAMUEL	JR-242-WP-0025
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02/9/2017 10:01	WESLEY, SAMUEL	JR-266-MB-0007
02/9/2017 10:16	WESLEY, SAMUEL	JR-266-MB-0008

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07/18/2016 09:41	WESLEY, SAMUEL	JR-267-MB-0001
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07/18/2016 10:44	WESLEY, SAMUEL	JR-267-MB-0003
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07/12/2016 11:39	WESLEY, SAMUEL	JR-267-MB-0059
06/12/2017 10:20	WESLEY, SAMUEL	JR-267-MB-0062
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07/8/2016 09:28	WESLEY, SAMUEL	JR-267-WP-0028
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11/10/2016 09:54	WESLEY, SAMUEL	JR-268-WP-0002
05/15/2017 12:53	WESLEY, SAMUEL	JR-268-WP-0004

Appendix H

Supporting Documentation for Minimum Control Measure 6: Pollution Prevention/Good Housekeeping for Municipal Operations

Pollution Prevention and Good Housekeeping Training Permit Year 4

Location	Department	Number Attending	Trainers
800 Carolina Road	Public Works Operations	69	David Keeling, Jamie Durden
272 Benton Rd	Public Utilities Operations	52	David Keeling, Jamie Durden
120 Forest Glen Dr	Fleet Maintenance (City and Schools personnel)	21	David Keeling, Jamie Durden
2325 E Washington St	Public Schools Head Custodians and Groundskeepers	19	David Keeling, Jamie Durden

Parks and Recreation and Public Works Sanitation will need pollution prevention training in PY5 to meet biennial training requirement.

Regional Trainings provided by HRPDC in Permit Year 4

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

Suffolk staff participated in more than one of these events.

Certified Pesticide Applicator Personnel Permit Year 4

Name	Certification Type	Expiration Date
Charles Abadam	Category 8 Public Health Pest Contol	6/30/2018
Karen Akaratovic	Category 8 Public Health Pest Contol	6/30/2020
Mary Ann Herring	Category 8 Public Health Pest Contol	6/30/2021
Jay Kiser	Category 8 Public Health Pest Contol	6/30/2022
Jamie Durden	Category 8 Public Health Pest Contol	6/30/2018
Sean Riley	Category 60 Registered Technician	6/30/2021
Richard White	Category 60 Registered Technician	6/30/2021
Clarence Harrel Jr.	Category 60 Registered Technician	6/30/2018
Courtney Artis	Category 60 Registered Technician	6/30/2019
Caleb Martin	Category 60 Registered Technician	6/30/2019
Kerry Bond	Category 60 Registered Technician	6/30/2019
Earl Allison	Category 60 Registered Technician	6/30/2019
Frank Deans	Category 60 Registered Technician	6/30/2019
Curtis Saunders	Category 60 Registered Technician	6/30/2019
LaMarr Norman	Category 8 Public Health Pest Contol	6/30/2020
Kevin Lee	Category 60 Registered Technician	6/30/2019
Daniel Ellis	Category 60 Registered Technician	6/30/2019
Rashad Tanner	Category 60 Registered Technician	6/30/2019
Scott Cogswell	Category 60 Registered Technician	6/30/2019
Frank Deans	Category 60 Registered Technician	6/30/2019
Mark McClenny	Category 60 Registered Technician	6/30/2017
Broderick Reid	Category 60 Registered Technician	6/30/2019
Curtis Saunders	Category 60 Registered Technician	6/30/2019
Mark Everitt	Category 60 Registered Technician	6/30/2019
Shane Arrowood	Category 60 Registered Technician	6/30/2019
Brian Raiford	Category 60 Registered Technician	6/30/2019
Travid Dillabough	Category 60 Registered Technician	6/30/2019
Gregory Ashburn	Category 60 Registered Technician	6/30/2019
Darryl Lawrence	Category 60 Registered Technician	6/30/2019
Blake Weeks	Category 60 Registered Technician	6/30/2019
Daniel Kirk	Category 60 Registered Technician	6/30/2019
Herbert Beamon	Category 60 Registered Technician	6/30/2019
Dustin N. Wymer	Category 60 Registered Technician	6/30/2019

Municipal Facility Inspection Summary Permit Year 4

Site	Address	Date of Inspection	In 2010 Urbanized Area?
Fleet Maintenance	120 Forest Glen Dr	6/14/2017	Yes
Suffolk Public Schools Bus Lot	119 Forest Glen Dr	6/14/2017	Yes
Refuse Collection Equipment Starage Yard	248 Chestnut St	6/30/2017	Yes
Road Maintenance Yard Zone A	5881 Whaleyville Blvd	6/23/2017	No
Road Maintenance Yard Zone B	6750 Brentwood Rd	6/15/2017	No
Road Maintenance Yard Zone C	401 Kings Highway	6/20/2017	No
Road Maintenance Yard Zone C	3901 Sleepy Hole Rd	6/20/2017	No
Road Maintenance Yard Zone D	866 Carolina Rd	6/20/2017	No
Road Maintenance Yard Zone D	800 Carolina Rd	6/20/2017	No
Public Utilities Operations Center	272 Benton Rd	6/9/2017	No

Nutrient Management Plan requirements

City Facilities	Acres	Latitude	Longitude
Sleepy Hole Golf Course*	125.31	36.839	-76.516
Constant's Wharf	3.5	36.739	-76.581
6th Street	1	36.726	-76.564
total	**129.81**		
School Facilities			
Lakeland High School	**9**		
Football Field	2	36.723	-76.663
Field Hockey Field	2	36.722	-76.661
Baseball Field	2	36.72	-76.663
Softball Field	1.5	36.72	-76.662
Practice Field	1.5	36.72	-76.663
Nansemond River High School	**49**		**Complete PY2**
Football Field	2	36.804	-76.518
Field Hockey Field	2	36.802	-76.515
Baseball Field	2.5	36.802	-76.52
Softball Field	1.5	36.803	-76.519
Practice Field	2.5	36.803	76.516
Kings Fork High School	**9.5**		
Football Field	2	36.783	-76.594
Field Hockey Field	1.5	36.781	-76.595
Baseball Field	3	36.783	-76.595
Softball Field	1.5	36.782	-76.596
Practice Field	1.5	36.782	-76.592

		PY 2 (15%)	PY 3 (40%)	PY 4 (75%)	PY5 (100%)
City Total	**197.31**	**29.5965**	**78.924**	**147.9825**	**197.31**
Completed NMPs		49	174.31	174.31	

Appendix I

Surface Water Monitoring Program

July 1, 2016 – June 30, 2017

City of Suffolk Surface Water Monitoring Program

In response to the numerous waterway impairments and TMDL studies being conducted within the municipality and decreased funding for analytical testing by the Virginia Department of Environmental Quality, the City of Suffolk initiated a Surface Water Monitoring Program in 2011. The program is primarily focused on the Nansemond River, but incorporates other water bodies as the need arises. The program is designed to augment the sampling being performed by the Virginia Department of Environmental Quality and Virginia Department of Health Division of Shellfish Sanitation.

Samples were routinely collected by Public Works staff at predetermined sampling locations on the Nansemond River. A new partnership was started between the City, Hampton Roads Sanitation District (HRSD), The Virginia Department of Health Division of Shellfish Sanitation (VDH DSS) and the Nansemond River Preservation Alliance (NRPA) with the goal of identifying and fixing human fecal bacteria sources in the upper Nansemond River watershed.

The City's surface water monitoring program is certified by DEQ as a level III program, allowing data that is collected to be used to list or delist waters on the 303(d) list. Sample analyses are performed by the Hampton Roads Sanitation District. Sampling data is uploaded to the DEQ citizen water quality monitoring database for use by the state and public.

The ultimate objectives of the surface water sampling program are to assist with source identification, illicit discharge detection and to identify areas of water bodies that may not need to be listed as impaired.

Nansemond River

Public Works staff continued monthly sampling along the Nansemond River and its tributaries during PY4. 16 sites are sampled in total, with 12 sites along the main stem of the Nansemond River from the mouth at the confluence with the James River, to the base of the Lake Meade Dam. Sampling is also conducted with one sampling site each at the Nansemond River tributaries of Knotts Creek, Bennetts Creek, Western Branch, and Shingle Creek.

In addition to field conditions; parameters measured include E. coli, enterococcus, total phosphorus, ammonia, nitrate + nitrite nitrogen, and total suspended solids.

Bacteria Source Tracking Project Expansion

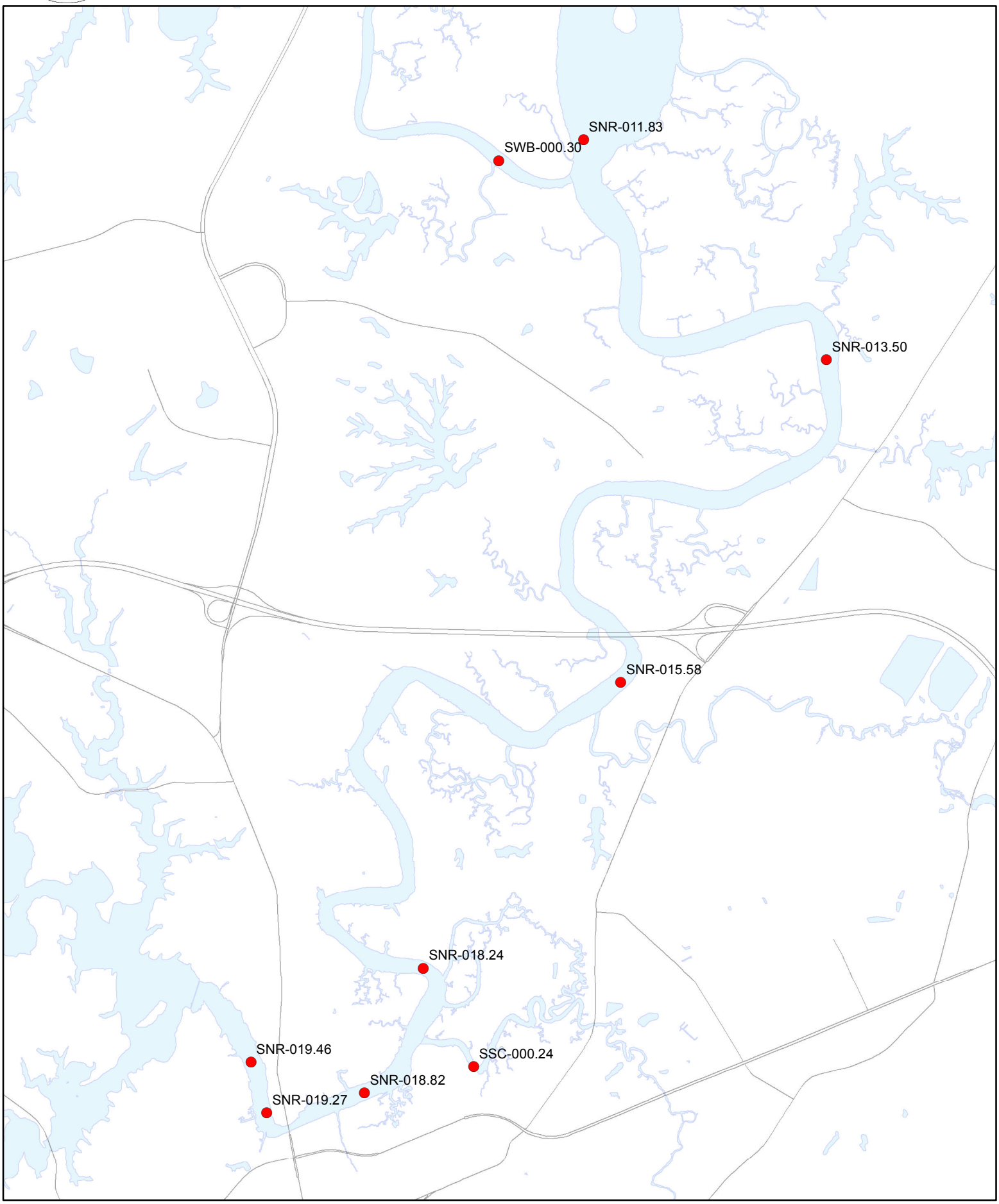
The bacteria source tracking study that was done in Shingle Creek during permit year three was used as a model and extended to the upper Nansemond River watershed which includes Shingle Creek. The project was conducted in partnership with Hampton Roads Sanitation District (HRSD) and the Virginia Department of Health Division of Shellfish Sanitation (VDH DSS) using up-to-date molecular methods and a more targeted approach.

Approximately 260 initial outfalls were selected for investigation and three dry weather screenings were conducted at each outfall. Flowing outfalls were sampled and analyzed for enterococcus bacteria

and the human specific HF-183 genetic marker. With dry weather screenings for these sites completed, the results are being analyzed to determine high priority sites that warrant further work. Additionally, 56 more outfalls have been identified for initial dry weather investigations to capture outfalls that were not selected in the first round.

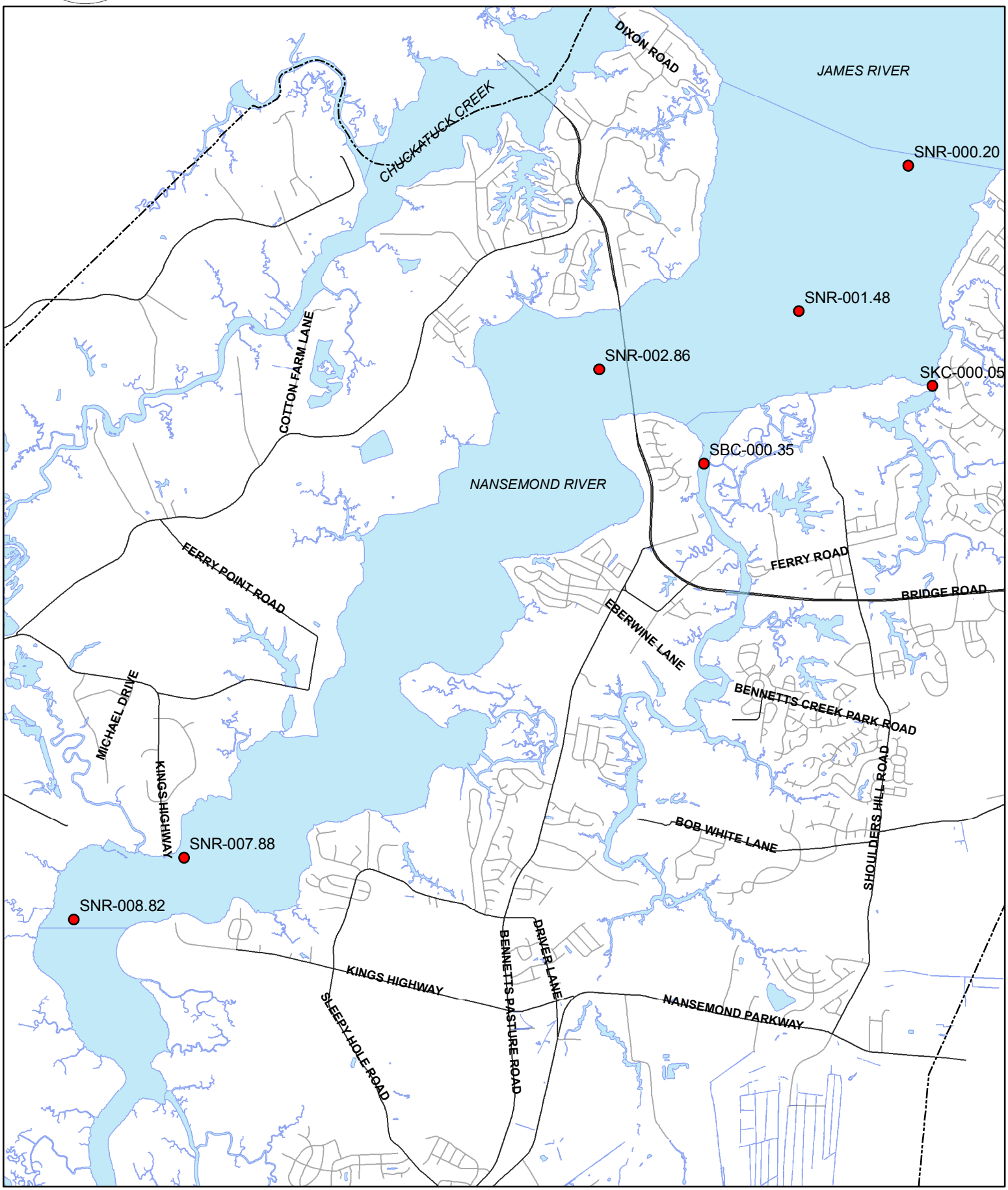
Upper Nansemond River

Sampling Sites



Lower Nansemond River

Sampling Sites



Nansemond River Water Monitoring Summary Permit Year 4

Fecal Coliform (CFU/100mL) Analyzed with FDA-MTEC method																
Sampling Station ID	SBC-000.35	SNR-000.20	SKC-000.05	SNR-001.48	SNR-002.86	SNR-007.88	SNR-008.82	SNR-011.83	SWB-000.30	SNR-013.50	SNR-015.58	SNR-018.24	SSC-000.24	SNR-018.82	SNR-019.27	SNR-019.46
7/14/2016	50	10	30	10	10	10	20	40	90	90	180	800	130	270	1000	3100
8/15/2016	20	10	10	10	10	20	20	90	330	120	220	510	560	4200	140	540
9/26/2016	40	10	80	10	30	40	30	900	640	360	290	1300	150	50	10	10
10/12/2016	200	400	400	300	200	500	300	330	130	500	600	800	400	500	1100	300
11/9/2016	120	20	390	10	10	150	140	220	140	390	190	130	530	600	440	290
12/8/2016	270	50	1200	50	80	100	390	280	200	790	900	530	700	300	610	740
1/24/2017	40	20	170	10	10	30	30	80	140	110	190	370	780	150		
2/8/2017	10	10	10	10	10	10	20	10	50	20	90	80	130	110	40	30
3/21/2017	30	10	10	10	10	10	10	30	10	60	80	150	370	100	20	20
4/20/2017	40	10	60	10	10	20	10	60	100	10	170	50	140	130	150	100
5/18/2017	10	10		10	10	20	20	40	80	50	200	140	80	10	120	40
6/19/2017	30	10		10	10	10	10	30	120	80	60	390	170	1300	2100	3700

Enterococcus (MPN/100mL) Analyzed with Enterolert method																
Sampling Station ID	SBC-000.35	SNR-000.20	SKC-000.05	SNR-001.48	SNR-002.86	SNR-007.88	SNR-008.82	SNR-011.83	SWB-000.30	SNR-013.50	SNR-015.58	SNR-018.24	SSC-000.24	SNR-018.82	SNR-019.27	SNR-019.46
7/14/2016	10	10	10	10	10	10	10	31	75	31	121	226	52	121	52	75
8/15/2016	10	10	10	10	10	10	10	20	52	10	63	171	132	364	31	51
9/26/2016	41	20	20	20	20	74	73	109	327	189	199	573	158	72	31	20
10/12/2016	85	74	41	74	30	20	84	52	41	96	20	288	393	218	185	52
11/9/2016	41	10	158	10	10	20	63	160	169	85	158	197	96	201	145	355
12/8/2016	156	41	1530	20	20	216	223	504	488	663	959	414	842	226	185	324
1/24/2017	20	10	183	10	10	31	63	397	97	275	216	402	266	292		
2/8/2017	10	10	10	10	10	10	10	20	10	10	63	20	10	10	20	30
3/21/2017	20	10	10	10	10	10	30	41	10	41	52	31	30	74	20	10
4/20/2017	10	10	20	10	10	10	10	10	30	40	63	97	63	41	52	30
5/18/2017	10	10		10	10	10	10	31	10	20	122	41	193	52	84	98
6/19/2017	10	10		10	10	10	30	10	41	20	40	52	41	173	262	602

Ammonia (mg/L)																
Sampling Station ID	SBC-000.35	SNR-000.20	SKC-000.05	SNR-001.48	SNR-002.86	SNR-007.88	SNR-008.82	SNR-011.83	SWB-000.30	SNR-013.50	SNR-015.58	SNR-018.24	SSC-000.24	SNR-018.82	SNR-019.27	SNR-019.46
7/14/2016	0.02	0.02	0.01	0.01	0.03	0.01	0.03	0.08	0.03	0.05	0.05	0.03	0.09	0.01	0.01	0.01
8/15/2016	0.02	0.01	0.01	0.01	0.01	0.03	0.04	0.02	0.02	0.13	0.17	0.17	0.23	0.05	0.05	0.01
9/26/2016	0.1	0.06	0.05	0.08	0.12	0.15	0.12	0.09	0.03	0.08	0.1	0.1	0.13	0.06	0.06	0.06
10/12/2016	0.11	0.11	0.11	0.1	0.1	0.08	0.07	0.06	0.08	0.07	0.08	0.1	0.13	0.08	0.08	0.08
11/9/2016	0.02	0.02	0.01	0.02	0.01	0.01	0.02	0.06	0.06	0.09	0.11	0.14	0.14	0.18	0.23	0.18
12/8/2016	0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.07	0.06	0.08	0.08	0.14	0.09	0.2	0.17	0.17
1/24/2017	0.01	0.01	0.03	0.01	0.01	0.01	0.02	0.03	0.03	0.03	0.07	0.08	0.07	0.12		
2/8/2017	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.06	0.11	0.1	0.12	0.1	0.09
3/21/2017	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.02	0.06	0.02	0.07	0.07	0.07	0.07	0.06	0.06
4/20/2017	0.06	0.03	0.01	0.03	0.03	0.02	0.02	0.07	0.02	0.12	0.15	0.15	0.14	0.18	0.09	0.06
5/18/2017	0.07	0.06		0.03	0.01	0.09	0.04	0.1	0.02	0.16	0.24	0.1	0.12	0.19	0.1	0.08
6/19/2017	0.09	0.05		0.09	0.05	0.05	0.06	0.11	0.04	0.12	0.14	0.22	0.17	0.26	0.24	0.24

Nansemond River Water Monitoring Summary Permit Year 4

Nitrate/Nitrite-N (mg/L)																
Sampling Station ID	SBC-000.35	SNR-000.20	SKC-000.05	SNR-001.48	SNR-002.86	SNR-007.88	SNR-008.82	SNR-011.83	SWB-000.30	SNR-013.50	SNR-015.58	SNR-018.24	SSC-000.24	SNR-018.82	SNR-019.27	SNR-019.46
7/14/2016	0.01	0.06	0.02	0.01	0.01	0.01	0.01	0.06	0.01	0.08	0.06	0.03	0.06	0.04	0.01	0.01
8/15/2016	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.01	0.02	0.04	0..04	0.03	0.05	0.02	0.01	0.01
9/26/2016	0.09	0.08	0.05	0.09	0.09	0.08	0.08	0.09	0.02	0.08	0.1	0.11	0.08	0.11	0.1	0.1
10/12/2016	0.13	0.12	0.1	0.12	0.11	0.09	0.09	0.09	0.07	0.09	0.12	0.12	0.08	0.13	0.13	0.13
11/9/2016	0.01	0.02	0.01	0.01	0.01	0.01	0.03	0.08	0.06	0.09	0.1	0.1	0.07	0.11	0.11	0.11
12/8/2016	0.01	0.01	0.02	0.01	0.01	0.02	0.03	0.06	0.05	0.09	0.1	0.14	0.18	0.14	0.14	0.14
1/24/2017	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.08	0.15	0.22	0.22	0.26		
2/8/2017	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.12	0.2	0.17	0.23	0.27	0.27
3/21/2017	0.02	0.05	0.01	0.01	0.01	0.01	0.01	0.05	0.12	0.01	0.17	0.22	0.14	0.26	0.27	0.27
4/20/2017	0.06	0.03	0.03	0.02	0.02	0.03	0.02	0.05	0.02	0.07	0.09	0.08	0.08	0.11	0.08	0.08
5/18/2017	0.01	0.01		0.01	0.01	0.01	0.01	0.09	0.01	0.12	0.16	0.08	0.09	0.1	0.08	0.08
6/19/2017	0.02	0.01		0.01	0.01	0.02	0.03	0.09	0.01	0.13	0.12	0.09	0.08	0.09	0.08	0.08

Total Phosphorus (mg/L)																
Sampling Station ID	SBC-000.35	SNR-000.20	SKC-000.05	SNR-001.48	SNR-002.86	SNR-007.88	SNR-008.82	SNR-011.83	SWB-000.30	SNR-013.50	SNR-015.58	SNR-018.24	SSC-000.24	SNR-018.82	SNR-019.27	SNR-019.46
7/14/2016	0.11	0.02	0.14	0.07	0.02	0.07	0.08	0.1	0.12	0.11	0.16	0.26	0.17	0.12	0.12	0.09
8/15/2016	0.13	0.12	0.18	0.1	0.12	0.15	0.14	0.15	0.17	0.11	0.1	0.11	0.14	0.08	0.09	0.07
9/26/2016	0.09	0.08	0.1	0.09	0.09	0.18	0.16	0.12	0.08	0.09	0.1	0.07	0.12	0.07	0.06	0.1
10/12/2016	0.13	0.08	0.15	0.09	0.09	0.11	0.09	0.11	0.09	0.09	0.1	0.09	0.08	0.1	0.1	0.1
11/9/2016	0.07	0.04	0.07	0.04	0.05	0.06	0.07	0.08	0.09	0.09	0.1	0.1	0.09	0.1	0.09	0.09
12/8/2016	0.05	0.02	0.07	0.03	0.03	0.06	0.06	0.06	0.62	0.06	0.06	0.07	0.08	0.07	0.15	0.38
1/24/2017	0.04	0.03	18.8	0.02	0.03	0.08	0.11	0.14	0.11	0.08	0.09	0.08	0.08	0.06		
2/8/2017	0.06	0.03	0.06	0.06	0.05	0.08	0.08	0.22	0.21	0.12	0.09	0.1	0.13	0.1	0.08	0.08
3/21/2017	0.05	0.04	0.07	0.09	0.05	0.06	0.08	0.16	0.1	0.17	0.08	0.09	0.08	0.08	0.07	0.07
4/20/2017	0.11	0.08	0.14	0.07	0.07	0.12	0.12	0.11	0.13	0.1	0.09	0.1	0.13	0.09	0.07	0.07
5/18/2017	0.08	0.04		0.04	0.09	0.1	0.08	0.07	0.11	0.08	0.09	0.13	0.13	0.09	0.07	0.07
6/19/2017	0.11	0.08		0.08	0.13	0.17	0.22	0.11	0.17	0.12	0.12	0.17	0.18	0.15	0.13	0.13

Total Suspended Solids (mg/L)																
Sampling Station ID	SBC-000.35	SNR-000.20	SKC-000.05	SNR-001.48	SNR-002.86	SNR-007.88	SNR-008.82	SNR-011.83	SWB-000.30	SNR-013.50	SNR-015.58	SNR-018.24	SSC-000.24	SNR-018.82	SNR-019.27	SNR-019.46
7/14/2016	24.7	14.4	34	17	28.5	19.3	25	11.2	35.2	10.6	9.3	10.5	7.6	5.9	7.2	5.2
8/15/2016	33.7	24	45.6	18.9	22.4	37.1	29.7	31.4	33.2	17.8	9.9	6.7	5.8	5.1	6.8	6.9
9/26/2016	27.6	18.8	37.4	23.4	28.8	26.4	25.6	18.6	18.5	10.5	12.4	10	21	8	6.2	5.9
10/12/2016	29.4	13.4	34	17	200	25.4	22.3	13.7	14.6	9.3	10.2	10.3	5.1	10.4	9.6	8
11/9/2016	14.2	8	22.4	8.8	7.6	13.2	10.8	9.1	11.3	6.4	7.1	10.2	6.2	10.4	6.8	4.9
12/8/2016	8.7	5.08	9.3	4.4	6.8	14.7	12.8	10.3	9.1	7.1	8.3	6.1	7.3	3.8	3.2	3
1/24/2017	19.2	6.6	1	12.2	12.9	55.1	57.3	72	42	31.7	19.5	10	9.3	5.3		
2/8/2017	14.8	8.8	11.2	15	15.4	28.8	35.6	36.6	34.7	17.8	11.1	13.5	8.5	8.6	5.1	5.2
3/21/2017	9.7	4.8	7.9	5.6	5.1	11.9	13.6	17.8	27.6	9.5	7.4	6	4.5	3.4	2.6	1.6
4/20/2017	38.8	28.2	50	24.2	28.6	60	75.3	47.2	67.6	32.3	1	10.5	7.3	8.7	8.6	6.5
5/18/2017	31.1	13.8		18.3	39.6	42.4	33.2	14.2	33.2	11	10.6	17.8	15.5	9.4	7.5	8.7
6/19/2017	21.1	31.6		30.4	58.8	61.3	86	19.6	56.8	13.4	11.8	15.8	10.8	7.1	5.2	5.3

Appendix J

MS4 Program Plan Matrix Permit Year 5

City of Suffolk MS4 Program Plan Permit Year 5

1. Public Outreach and Education						
BMP	**BMP Description**	**Measurable Goals**	**Metric**	**Responsible Party**	**Timeline**	**Associated Documents**
1.b	Design plan to educate citizens on techniques to reduce impacts of stormwater pollution on public waterways with an emphasis on impaired waters.					
1.b.1	Regional Media Campaign	Participate in the **askHRgreen.org** regional media campaign which will make impressions with a stormwater message via print, television (local municipal access, cable and local affiliate), radio, and social media	Demographic, reach and frequency	**askHRgreen.org** Stormwater Education Subcommittee	Annually	Copies of ads within **askHRgreen.org** Annual Report
1.b.2	Educate homeowners on hazards and legal implications of illegal discharges and improper disposal of waste.	Promote **askHRgreen.org** for list of locality contacts for citizens to report illicit discharges and to learn about proper disposal methods.	Number of page visits	**askHRgreen.org** Stormwater Education Subcommittee	Post New info in PY1	**askHRgreen.org** website
1.c	Updated Public Education and Outreach Program					
1.c.1	High-priority water quality issues	Identify at least 3 high priority water quality issues that contribute to the discharge of stormwater	Number of high-priority issues	**askHRgreen.org** Stormwater Education Subcommittee	End of PY1 & Annually thereafter	**askHRgreen.org** Annual Report
1.b.3 1.c.2	Target Audience	Identify and estimate the population size of target audience(s) who are likely to have significant impacts for each high priority issue	Estimated target audience population	**askHRgreen.org** Stormwater Education Subcommittee	End of PY1 & Annually thereafter	**askHRgreen.org** Annual Report
1.c.3	Relevant Message Development					
1.c.3a	Stormwater materials	Develop relevant message(s) and associated educational and outreach materials for distribution to target audience	Message Materials	**askHRgreen.org** Stormwater Education Subcommittee	End of PY1 & Annually thereafter	**askHRgreen.org** Annual Report
1.c.5	Relevant Message Implementation	Conduct sufficient education and outreach activities designed to reach an equivalent 20% of each high priority audience.	Percentage of target audience reached through activities.	**askHRgreen.org** Stormwater Education Subcommittee	End of PY1 & Annually thereafter	**askHRgreen.org** Annual Report
1.c.5a	Distribute educational materials developed through **askHRgreen.org**	Distribute materials developed through **askHRgreen.org** to target audience in locality.	Number of materials distributed	**askHRgreen.org** Representative	Continuously	
1.c.5b	Maintain and enhance **askHRgreen.org** website	Increase website visits to industry standard by end of permit cycle.	Annual askHRgreen.org website visits	HRPDC & **askHRgreen.org**	Permit Cycle	**askHRgreen.org** Annual Report
1.c.5c	*Scoop the Poop* campaign	Make *Scoop the Poop* information and giveaways available where citizens receive animal licenses and at pet-related events as appropriate	Number of giveaways distributed	**askHRgreen.org** Representative	Annually	Rack cards, dog waste bag holders
1.c.5d	Promote Lawn Care campaign	Run media campaigns and make lawn care best management practice guides available.	Demographic, reach and frequency	**askHRgreen.org** Stormwater Education Subcommittee	Annually	**askHRgreen.org** Annual Report
1.c.6	Provide for adjustment of target audiences and messages to address any observed weaknesses or shortcomings	Website feedback reports, regional meeting feedback	Demographic, reach, frequency, & website click-through rates	**askHRgreen.org** Stormwater Education Subcommittee	Annually	**askHRgreen.org** Annual Report

City of Suffolk MS4 Program Plan Permit Year 5

1. Public Outreach and Education						
BMP	**BMP Description**	**Measurable Goals**	**Metric**	**Responsible Party**	**Timeline**	**Associated Documents**
1.d	Participate in regional committees: **askHRgreen.org**, RSMC, and SW Phase II Subcommittee			PW Engineering & **askHRgreen.org** Representative		**askHRgreen.org** Annual Report, MOA, HRPDC Regional Cooperation in Stormwater Management
1.d.1	Regional Cooperation	Renew MOA with the HRPDC to participate in the regional processes, including the Regional Stormwater Management Committee, Stormwater Phase II Subcommittee and **askHRgreen.org**	Maintain valid MOA	HRPDC	Every 5 years (concurrent with MS4 permit cycle).	MOA
1.d.2	***askHRgreen.org***	Participate in at least 50% of **askHRgreen.org** Stormwater Education Subcommittee meetings	Number of meetings attended/Number of meetings held	**askHRgreen.org** Representative	Annually	**askHRgreen.org** Annual Report
1.d.3	Stormwater Phase II Subcommittee	Participate in at least 50% of Stormwater Phase II Subcommittee Meetings.	Number of meetings attended/Number of meetings held	PW Engineering	Annually	Attendance chart
1.e	Update Program Plan	Update Public Outreach and Education plan as necessary to maintain compliance with the permit effective on July 1, 2013		PW Engineering, **askHRgreen.org, askHRgreen.org** Representative & HRPDC	As scheduled in permit	Revised Program Plan
1.f	Evaluation and Assessment	Evaluate and assess progress towards meeting measurable goals.	In accordance with Section II E of General Permit VAR040029	PW Engineering	Annually	Annual Report

City of Suffolk MS4 Program Plan Permit Year 5

2. Public Involvement/Participation						
BMP	**BMP Description**	**Measurable Goals**	**Metric**	**Responsible Party**	**Timeline**	**Associated Documents**
2.a	Public Involvement					
2.a.1	Provide Public Notice of Program Plan and Modifications	Promote the availability of the operator's MS4 Program Plan and any modifications for public review and comment in accordance with public law.	Public notice of modifications.	PW Engineering	As necessary	Virginia Code reference, updated plan
2.a.2	Make Program Plan and other Stormwater Program Information Available to Public					
2.a.2a	Updated Program Plan	Post copies of updated program plan to City website within 30 days of submittal of annual report.	Presence of materials on website	PW Engineering	Annually	Locality website
2.a.2b	Annual Report	Post copies of annual report to City website within 30 days of submittal to DEQ.	Presence of materials on website	PW Engineering	Annually	Locality website
2.a.2c	Reapplication Public Involvement	Prior to reapplying for coverage, notify public and provide for receipt of comments on the proposed MS4 Program Plan.	Presence of materials on website	PW Engineering	6 mo. prior to end of permit cycle	Locality website
2.b	Public Participation in a minimum of four local activities annually	Clean the Bay Day, Stormwater Medalion Placement events, Recycling and Electronic Drives, Tire Amnesty days, Clean-Up events	# events, # of items distributed, # of participants, # of pounds collected, or # of volunteer hours	PW Engineering	Annually	
2.c	Update Program Plan	Update Public Involvement/ Participation plan as necessary to maintain compliance with the permit effective on July 1, 2013		PW Engineering	As scheduled in permit	
2.d	Evaluation and Assessment	Evaluate and assess progress towards meeting measurable goals.	In accordance with Section II E of General Permit VAR040029	PW Engineering	Annually	Annual report

City of Suffolk MS4 Program Plan Permit Year 5

3. Illicit Discharge Detection and Elimination						
BMP	**BMP Description**	**Measurable Goals**	**Metric**	**Responsible Party**	**Timeline**	**Associated Documents**
3.a	Storm Sewer System Map					
3.a.1	MS4 outfall map	Maintain and update mapping including location and name of waters receiving discharges	Updated Map	PW Engineering	Annually	Outfall map
3.a.2	MS4 outfall information table	Table listing outfall ID, acreage served, receiving water, applicable TMDL(s).	Updated Table	PW Engineering	Annually	Information Table
3.a.3	MS4 boundaries map and information table	Map and information table identifying MS4 watershed within 2010 urbanized area.	Boundary Map	PW Engineering	End of PY4	MS4 Catchments Map
3.a.4	Public information	Make MS4 map and information table available to the public	Presence of materials on website or refer to availability location	PW Engineering	Annually	Locality website
3.a.5	New outfalls	Identify new points of discharge	List of new outfalls	PW Engineering	Annually	New outfall list
3.a.5a	Cooperation with adjacent MS4s	Identify and notify, in writing, any downstream regulated MS4 to which the small regulated MS4 is physically interconnected.	Develop map, Regional Phase II Stormwater Subcommittee Meetings, letters	PW Engineering	Annually	Letters; meeting attendance
3.b	Illicit Discharge Detection & Elimination Ordinance	Continue implementing and enforcing the illicit discharge/stormwater ordinance.	Current Ordinance	PW Engineering/ Fire Dept	As necessary	Ordinance
3.c	Dry Weather Screening					
3.c.1	Dry Weather Screening Procedures	Develop written dry weather field screening methodologies for IDDE.	SOP	PW Engineering	End of PY1	DWS Protocol
3.c.2	Field Screening	Perform dry weather screening of a minimum of 50 outfalls.	Documentation of screening performed and results	PW Engineering/ SW Inspector	Annually	Map and ORI Field sheets
3.d	Promote, Publicize, and facilitate public reporting of illicit discharges into or from MS4s					
3.d.1	Public IDDE Reporting	Promote & Publicize IDDE reporting	Presence of phone number & information on website	PW Engineering	Continuously	Locality website
3.d.2	Prevent or minimize the discharge of hazardous substances and oil in the MS4 stormwater discharge.	Yard inspections; Develop/enhance reporting relationship with FD/Haz Mat Team; targeted education	Number of responses/ number of inspections	PW Engineering/ Fire Dept	Continuously	Inspection forms
3.e	Illicit Discharge Detection & Elimination Procedures					
3.e.1	IDDE program implementation	Continue implementing an illicit discharge detection and elimination program for the municipally-owned MS4 within the Urbanized Area.	Develop written protocol for responding and investigating IDDE	PW Engineering/ Fire Dept	End of PY1	IDDE Protocol
3.e.2	IDDE activity tracking	Track illicit discharge detection and elimination activities.	Number of investigations and actions taken	PW Engineering/ Fire Dept	Ongoing	List of Activities
3.e.3	Report spills that reach state waters to DEQ					
3.e.3a	Report non sewer spills and releases from small MS4 operated properties that reach State waters to DEQ.	Report spills to the DEQ's Pollution Response Program (PREP).	Number of internal reports. If applicable, obtain PREP number.	PW Engineering / Fire Dept	Fire Dept. Report in accordance to Section III. G.	Internal Summary Report
3.e.3b	Report Sanitary Sewer Overflows through SSORS database.	Continue to utilize SSORS to report Sanitary Sewer Overflows	Number of overflows	Public Utilities	Continuously	List from SSORS
3.f	Update Program Plan	Update Illicit Discharge Detection and Elimination plan as necessary to maintain compliance with the permit effective on July 1, 2013		PW Engineering/ Fire Dept	As scheduled in permit	
3.g	Evaluation and Assessment	Evaluate and assess progress towards meeting measurable goals.	In accordance with Section II E of General Permit VAR040029	PW Engineering	Annually	Annual report

City of Suffolk MS4 Program Plan Permit Year 5

4. Construction Site Storm Water Runoff Control						
BMP	**BMP Description**	**Measurable Goals**	**Metric**	**Responsible Party**	**Timeline**	**Associated Documents**
4.a	Legal Authorities					
4.a.1	LD Activities > 10,000 SF	Continue to implement the Stormwater Management Ordinance & the Erosion and Sedimentation Control Ordinance	Stormwater Management Ordinance & Erosion and Sedimentation Control Ordinance	PW Engineering	Continuously	SWM & E&SC Ordinances
4.a.2	CBPA LD Activities >2,500 SF	Continue to implement the Chesapeake Bay Preservation Ordinance and Stormwater Management Ordinance	Chesapeake Bay Preservation Ordinance & Stormwater Management Ordinance	PW Engineering	Continuously	CBPA & SWM Ordinance
4.a.4	Individual Lot or CPOD LD Activities > 10,000 SF	Continue to implement the SWM, E&SC, & CBPA ordinances	SWM, E&SC, & CBPA Ordinances	PW Engineering	Continuously	Ordinances
4.b	Local Programs					
4.b.1	E&SC Plan Reviews	Continue to implement the site plan review, LID implementation where deemed appropriate, provisions of the local SWM, E&SC, and CBPA Ordinances.	# plan reviews	Planning/ PW Engineering	Annually	Summary from Locality tracking system
4.c	Compliance and Enforcement					
4.c.1	E&SC Inspections	Continue to inspect land-disturbing activities for compliance with an approved erosion and sediment control plan.	# of inspections	PW Engineering	Annually	Summary from Locality tracking system
4.c.2	E&SC Inspection Schedule	Continue to implement inspection schedule per Erosion and Sediment Control Law	# of inspections; # enforcement actions	PW Engineering	Annually	Summary from Locality tracking system
4.c.3	Certifications					
4.c.3a	E&SC Certifications	Ensure that plan reviewers, inspectors, and program administrators obtain the appropriate certifications as required under the Erosion and Sediment Control Law	Certifications obtained	PW Engineering	Ongoing	Certifications
4.c.3b	SWM Certifications	Ensure that plan reviewers, inspectors, and program administrators obtain the appropriate certifications as required under the Stormwater Management Act	Certifications obtained	PW Engineering	Beginning in PY2	Certifications
4.c.4	Public Inquiry	Continue to receive and respond to information from citizens relating to the local erosion and sediment control program through personal visits, email, telephone, and the City web page.	# of calls/requests, #site visits	PW Engineering	Annually	Summary from Locality tracking system
4.c.5	E&SC Enforcement	Continue to implement enforcement provisions of the local Erosion and Sediment Control and Stormwater Management Ordinance.	# enforcement actions	PW Engineering	Annually	Summary from Locality tracking system
4.c.6	E&SC Modifications due to inadequacy	Continue to implement provisions of the local Erosion and Sediment Control Ordinance and Stormwater Mangement Ordinance requiring changes to the plan due to inadequacy.	# of Field Changes	PW Engineering	Annually	Summary from Locality tracking system
4.c.7	VSMP Inspections	Implement inspection provisions of the local Stormwater Management Ordinance for VSMP authority permits including Pollution Prevention Plans contained within the SWPPP	# of inspections; # enforcement actions	PW Engineering	Beginning in PY2	Summary from Locality tracking system
4.d	VSMP Authority Permits					
4.d.2	Local VSMP program (after July 1, 2014)	Implement the site plan review, construction site BMP, and inspection provisions of the local Stormwater Management Ordinance.	#of permit applications and permits issued.	PW Engineering	Beginning in PY2	VSMP permit numbers

City of Suffolk MS4 Program Plan Permit Year 5

4. Construction Site Storm Water Runoff Control						
BMP	**BMP Description**	**Measurable Goals**	**Metric**	**Responsible Party**	**Timeline**	**Associated Documents**
4.e	Update Program Plan	Update Construction Site Stormwater Runoff Control plan as necessary to maintain compliance with the permit effective on July 1, 2013		PW Engineering & HRPDC	As scheduled in permit	Project Inspection (Land Disturbance) SOP
4.f	Tracking and Reporting	Continue to track and report the total number of permitted land disturbing activities as well as the total disturbed acreage.	Number of permits & acres disturbed	PW Engineering	Annually	Annual Report
4.g	Evaluation and Assessment	Evaluate and assess progress towards meeting measurable goals.	In accordance with Section II E of General Permit VAR040029	PW Engineering	Annually	Annual Report

City of Suffolk MS4 Program Plan Permit Year 5

5. Post Construction Storm Water Management in New Development and Redevelopment						
BMP	**BMP Description**	**Measurable Goals**	**Metric**	**Responsible Party**	**Timeline**	**Associated Documents**
5.a 5.d.2	Applicable oversight requirements	Address post-construction stormwater runoff from new development and redevelopment from large or small construction activities and CBPA Land disturbing activities < 1 Ac but >2,500 SF.	Stormwater Management Ordinance	PW Engineering	Continuously	SWM Ordinance Plan Review Procedures
5.b	Stormwater Management Ordinance	Implement the stormwater criteria of the Stormwater Management Ordinance for new development and redevelopment, and update ordinance to comply with Section II.B.5 of the General Permit.	Stormwater Management Ordinance	PW Engineering	Update in PY1	SWM Ordinance
5.c	BMP Inspection and O&M Verification					
5.c.1	Non-operator (Private) BMPs					
5.c.1a	BMP Maintenance Agreements	Require BMP maintenance agreements as directed by the Stormwater Management Ordinance.	# of Agreements & Inspection Schedules	PW Engineering	Ongoing	List of Maintenance Agreements
5.c.1b 5.d.3 5.e.9	Inspection activities	Conduct BMP site inspections in accordance with written policies and procedures	Inspection Schedule	PW Engineering	Annually	Inspection Report Summary; Inspection Procedures
5.c.1c 5.d.4 5.e.9	Enforcement activities	Enforce BMP maintenance responsibilities in accordance with written policies and procedures	# of Reinspections & NOVs	PW Engineering	Annually	Inspection Report Summary; Enforcement Procedures
5.c.2 5.d.5	Inspection & Maintenance Schedules for City-Owned BMPs	Continue to adhere to procedures for regular inspection and maintenance of locally owned stormwater control structures in accordance with SWM regulations.	Inspection Schedule	PW Engineering/ PW Operations	Annually	Inspection Report Summary; Inspection Procedures
5.e	Tracking and Reporting					
5.e.1-9	BMP Tracking	Track all known permanent stormwater management facilities that discharge to the regulated small MS4 and submit the information per General Permit No. VAR040029.	Data as required by Permit (print & spreadsheet/database)	PW Engineering	Annually	BMP Report
5.e.9	New BMP tracking	BMPs brought online within the past year	Database or spreadsheet with new BMP information	PW Engineering	Annually	BMP Report
5.f	Update Program Plan	Update the Post Construction Storm Water Management in New Development and Redevelopment plan as necessary to maintain compliance with the permit effective on July 1, 2013		PW Engineering & HRPDC	As scheduled in permit	
5.g	Evaluation and Assessment	Evaluate and assess progress towards meeting measurable goals.	In accordance with Section II E of General Permit VAR040029	PW Engineering	Annually	Annual report

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6. Pollution Prevention/Good Housekeeping for Municipal Operations						
BMP	**BMP Description**	**Measurable Goals**	**Metric**	**Responsible Party**	**Timeline**	**Associated Documents**
6.a	Operations and Maintenance Activities					
6.a.1	Plans and Procedures	Continue to implement and update plans describing spill prevention and control and pollution prevention procedures for municipal facilities specifically to prevent illict discharges	SOP(s)/SWPPP	Public Works	Continuously	"Operations and Maintenance: Pollution Prevention Guide" http://www.suffolkva.us/files/5714/4976/3991/P2_and_Good_Housekeeping_Guide.pdf
6.a.2	Waste Disposal	Continue to implement and update procedures for proper waste disposal, including yard waste	SOP(s)/ SWPPP	Public Works	Continuously	"Operations and Maintenance: Pollution Prevention Guide "
6.a.3	Manage Municipal Vehicle Wash Water	Develop and implement procedures to prevent the discharge of municipal vehicle wash water into the MS4 without a separate VPDES permit	Procedures	Operations Personnel	Continuously	"Operations and Maintenance: Pollution Prevention Guide "
6.a.4	Manage Wastewater	Prevent the discharge of wastewater to MS4 without a separate VPDES permit	Procedures	Public Works	Continuously	"Operations and Maintenance: Pollution Prevention Guide "
6.a.5	Utility Construction and Maintenance	Require BMPs when discharging water pumped from utility construction and maintenance activities	Procedures	Public Utilities	Continuously	"Operations and Maintenance: Pollution Prevention Guide "
6.a.6	Bulk Storage BMPs	Require BMPs for bulk storage areas (salt storage, top soil stockpiles)	BMPs Used	PW Operations	Continuously	"Operations and Maintenance: Pollution Prevention Guide "
6.a.7	Manage Leaking Municipally-owned Vehicles	Prevent the discharge of pollutants to the MS4	BMPs Used	PW Fleet Maintenance/ PW Operations	Continuously	"Operations and Maintenance: Pollution Prevention Guide "
6.a.8	Manage Fertilizers and Pesticides	Implement procedures to ensure materials are applied in accordance with manufacturer's recommendations	Procedures	PW Operations/ Mosquito Control/ Parks and Recreation	Continuously	"Operations and Maintenance: Pollution Prevention Guide "
6.b	Storm Water Pollution Prevention Plans (SWPPP)					
6.b.1	High-priority facilities	Identify municipal high-priority facilities of types listed in General Permit No. VAR040029	# & type of high-priority facility	PW Engineering	End of PY1	List of high-priority facilities
6.b.2	SWPPP Locations	Identify municipal high-priority facilities that have a high potential of discharging pollutants	# & type of high-priority facility	PW Engineering	End of PY1	List of SWPPP Sites
6.b.3	SWPPP development & Implementation	Develop and Implement SWPPPs for identified high-priority facilities	SWPPP	PW Engineering/ PW Refuse/ PW Fleet Maintenance	PY4	SWPPP
6.c	Nutrient Management Plans					
6.c.1	NMP Implementation					

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6. Pollution Prevention/Good Housekeeping for Municipal Operations						
BMP	**BMP Description**	**Measurable Goals**	**Metric**	**Responsible Party**	**Timeline**	**Associated Documents**
6.c.1a	NMP Locations	Identify locations of municipally owned properties where nutrient management plans can be performed	Number of sites & area	PW Engineering	End of PY1	List of managed turf sites > 1 Ac.
6.c.1b	NMP development & implementation	Develop and Implement NMPs for identified turf and landscape (15% by PY2, 40% by PY3; 75% by PY4; & 100% by PY5)	% of identified area under NMP	PW Engineering	PY2 - PY5	List of NMP Covered Sites
6.c.2	NMP Tracking	Track the total acreage of lands where turf and landscape NMPs are required and implemented	Acreage required & Acreage implemented	PW Engineering	Annually	List of managed turf sites > 1 Ac.
6.c.3	Deicing agents	Operator shall not apply deicing agents containing urea or other forms of nitrogen or phosphorus to parking lots, roadways, and sidewalks, or other paved surfaces	Statement of non-use of nutrient containing deicing agents	PW Operations	Annually	Statement
6.d	Employee Education & Training					
6.d.1	IDDE Training for field personnel	Provide training to field personnel in the recognition of Illicit discharges	# of training sessions / # Employees trained	PW Engineering/HRPDC	Biennial	Attendance list, Summary of Training
6.d.2	Streets & parking lot maintenance training	Provide training to Streets & Landscape Divisions for road, street & parking lot maintenance	# of training sessions / # Employees trained	PW Engineering/HRPDC	Biennial	Attendance list, Summary of Training
6.d.3	Public Works Facilities training	Provide training to PW personnel on good housekeeping and pollution prevention practices	# of training sessions / # Employees trained	PW Engineering/HRPDC	Biennial	Attendance list, Summary of Training
6.d.4	Pesticides & herbicide certifications	Maintain certifications and training for pesticide and herbicide applicators in accordance with Virginia Pesticide Control Act	Certifications obtained	PW Operations	Continuously	Certifications
6.d.5 & 6.d.6	E&SC & SWM Training	Ensure that plan reviewers, inspectors, and program administrators obtain the appropriate certifications as required under the Erosion and Sediment Control Law	Certifications obtained	PW Engineering	Continuously	Certifications
6.d.7	Parks and Recreation employee training	Provide training to P&R personnel on good housekeeping and pollution prevention practices	# of training sessions / # Employees trained	PW Engineering/HRPDC	Biennial	Attendance list, Summary of Training
6.d.8	Emergency Response employee training	Provide training and certification in spill response to emergency response employees	Certifications obtained	Fire Department	PY1	Certifications
6.d.9	Tracking					
6.d.9a	Training Needs Assessment	Determine any educational needs for employees and develop appropriate training and/or materials.	Training assessment	HRPDC & Phase II Stormwater Committee	1X per permit cycle	Training Schedule
6.d.9b	Training Schedule	Identify and prioritize pollution prevention education and training needs for municipal employees based on relative risk for stormwater pollution from municipal operations through the HRPDC Stormwater Phase II Subcommittee.	Training Schedule	HRPDC, Phase II SW Committee & PW Engineering	Annually	Training schedule
6.d.9c	Training Materials	Distribute pollution prevention educational materials developed through the HRPDC/**askHRgreen.org** to municipal employees engaging in operations with a high risk of discharging pollutants into the MS4.	# of items distributed	HRPDC & PW Engineering	Annually	E-newsletter, training materials

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6. Pollution Prevention/Good Housekeeping for Municipal Operations						
BMP	**BMP Description**	**Measurable Goals**	**Metric**	**Responsible Party**	**Timeline**	**Associated Documents**
6.e	Contractor Training	Participate in the development of at least one regional contractor training session during the life of the permit.	Training session	HRPDC & Phase II Stormwater Committee	Once per permit cycle	Training sessions and evaluation forms
6.f	Update Program Plan	Update Pollution Prevention/Good Housekeeping for Municipal Operations plan as necessary to maintain compliance with the permit effective on July 1, 2013		PW Engineering & HRPDC	As scheduled in permit	
6.g	Evaluation and Assessment	Evaluate and assess progress towards meeting measurable goals.	In accordance with Section II E of General Permit VAR040029	PW Engineering	Annually	Annual report

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TMDL Special Conditions						
BMP	**BMP Description**	**Measurable Goals**	**Metric**	**Responsible Party**	**Timeline**	**Associated Documents**
SC-1	TMDL					
SC-1a	Develop Chesapeake Bay TMDL Action Plan	Develop a TMDL Action Plan consistent with the Virginia Ph I and II WIPs to meet the Level 2 (L2) reductions of pollutants of concern (POC)	TMDL Action Plan	SW Program Administrator	End of PY2	TMDL Action Plan
SC-1b	Implement Chesapeake Bay TMDL Action Plan	Implement the TMDL Action Plan to meet 5% of the Level 2 (L2) reductions of pollutants of concern (POC) by the end of the permit cycle.	Per TMDL Action Plan	SW Program Administrator	End of PY5	TMDL Action Plan
SC-2	Upper Nansemond/Shingle Creek	Develop and Implement a TMDL Action Plan for the POC.	TMDL Action Plan	SW Program Administrator	End of PY3	TMDL Action Plan
SC-3	Bleakhorn Creek, BennettsCreek & Knotts Creek	Develop and Implement a TMDL Action Plan for the POC.	TMDL Action Plan	SW Program Administrator	End of PY3	TMDL Action Plan
SC-4	Chuckatuck Creek and Brewers Creek	Develop and Implement a TMDL Action Plan for the POC.	TMDL Action Plan	SW Program Administrator	End of PY3	TMDL Action Plan
SC-5	Hoffler Creek	Develop and Implement a TMDL Action Plan for the POC.	TMDL Action Plan	SW Program Administrator	End of PY3	TMDL Action Plan
SC-6	Elizabeth River	Develop and Implement a TMDL Action Plan for the POC.	TMDL Action Plan	SW Program Administrator	End of PY3	TMDL Action Plan
SC-7	Evaluation and Assessment	Evaluate and assess progress towards meeting measurable goals.	In accordance with Section II E of General Permit VAR040029	SW Program Administrator	Annually	Annual report