



**VSMP General Permit for
Municipal Separate Storm Sewer Systems**

Permit # VAR040029

Permit Year Two Annual Report

July 1, 2014-June 30, 2015



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July 1, 2014 - June 30, 2015

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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.

- a. Background
 1. VSMP General Permit for Discharges of Stormwater From Small Municipal Separate Storm Sewer Systems. General Permit No.: VAR040029
 2. Effective July 1, 2013 Expires June 30, 2018
 3. The Engineering Division of the Public Works Department became the VSMP Authority for the City of Suffolk effective July 1, 2014. There have been no other 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. The City is still working towards a complete outfall map with all associated data fields. 265 new MS4 outfalls were identified in PY2. An Outfall Information Table with newly identified outfalls and a Location Map with known MS4 outfalls at the time of this report are attached in Appendix E.3. Mapping efforts are not yet complete, but are scheduled for completion by the end of PY 4 in accordance with permit language.
 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 measurable goals for minimum control measures. The Program Plan Matrix with progress updates is attached in Appendix B.
- c. This City continued monthly monitoring on Hoffer Creek in partnership with the City of Portsmouth and independent monitoring of the Nansemond River and its tributaries, also on a monthly basis. The City also began a partnership with HRSD monitoring bacteria levels in Shingle Creek in relation to runoff producing rain events. A summary of all three Projects is attached to this report 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 all water monitoring programs on the Nansemond River. Hoffer Creek and Shingle Creek monitoring will continue according to the needs and agreement of the parties involved. 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 PY3 is located in Appendix J. Changes to Best management Practices or measurable goals are identified within the PY2 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 PY3.
- 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. The Chesapeake Bay TMDL Action Plan for the City of Suffolk will be sent as a separate document as requested by DEQ. The program plan identifies the Nansemond River and Shingle Creek TMDL action plan for completion by the end of PY2. This TMDL was approved by the State Water Control Board on 7/31/2008, making the action plan due by the end of PY3, per the permit. Because this TMDL, and all other non-Chesapeake Bay TMDLs applicable to Suffolk, have the same Pollutant Of Concern, the operator has elected to develop the Nansemond River and Shingle Creek TMDL action plan in conjunction with the others due by the end of PY3. TMDL Action Plans that will be developed in accordance with this permit and approved action plan guidance in PY3 are: Nansemond River and Shingle Creek; Hoffler Creek; Elizabeth River; Chuckatuck Creek and Brewers Creek; Bleakhorn Creek, Bennett Creek, and Knotts Creek.

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.


Responsible Official Signature Date 10/1/15

VAR040029

City of Suffolk

Permit Number

MS4 Name

Appendix B

MS4 Program Plan Matrix with Permit Year 2 Status

City of Suffolk MS4 Program Plan

1. Public Outreach and Education							
BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline	Associated Documents	PY2 Status
1.a	Continue to implement the public education and outreach program as included in the registration statement until the program is updated to meet the conditions of General Permit No. VAR040029	Reorganize program plan to correlate with VAR040029 paragraph numbering - Original items are shown in normal background with new items shown in highlighted background.		PW Engineering	End of PY1	Revised Program Plan	Completed with the submission of last years annual report. Updated Program Plan for PY3 is attached in Appendix J.
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.
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	The stormwater subcommittee utilized radio advertisements in conjunction with online newspaper ads and social media to encourage the target audience (women 25-49) to pick up after their pets. Details in the askHRgreen.org annual report (p.20-21) in Appendix C.1.
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	Pet waste, lawn care practices, 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 attached in Appendix C.1.
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.
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, lawn care, and fats oil and grease reduction was reached by radio advertisements funded through askHRgreen.org . More details in askHRgreen.org annual report in Appendix C.1.
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		Distributed 2710 promotional and educational items developed through askHRgreen
1.c.5b	Maintain and enhance askHRgreen.org website	Increase website visits to industry standard by end of permit cycle.	Website click-through rates Annual askHRgreen.org website visits	HRPDC & askHRgreen.org	Permit Cycle	askHRgreen.org Annual Report	Detailed in askHRgreen annual report in Appendix C.1.

City of Suffolk MS4 Program Plan

1. Public Outreach and Education							
BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline	Associated Documents	PY2 Status
1.c.5c	Scoop the Poop campaign	Make <i>Scoop the Poop</i> 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	Distributed 3 Pet Waste Stations, 622 Pet Waste Bag Holders, and 512 Scoop the Poop Rack Cards. More campaign details in askHRgreen.org annual report (p.20-21) in Appendix C.1.
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 subcommittee utilized radio advertisements in conjunction with online newspaper ads and social media to educate the target audience (adults 25-64) about lawn care practices that reduce nutrient pollution. More details in the askHRgreen.org annual report (p.19-20) attached in Appendix C.1.
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	No changes made this year.
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	100% attendance. See Appendix C.3
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	100% attendance. See Appendix C.3
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	Measurable goals are being met. Some changes in the Program Plan (see strikethrough text for BMP 1.c.5b) have been 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

2. Public Involvement/Participation							
BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline	Associated Documents	PY2 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	Available on City website http://www.suffolkva.us/pub_wks/engineering-stormwater/stormwater/ms4/
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	Available on City website http://www.suffolkva.us/pub_wks/engineering-stormwater/stormwater/ms4/
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	Available on City website http://www.suffolkva.us/pub_wks/engineering-stormwater/stormwater/ms4/
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 69 public participation events with 1148 volunteers and 222 volunteer hours. These events collected 15,154 pounds of recyclable items, 2762 scrap tires, and cleaned up 846 bags of trash. Event details attached in Appendix D. Staff gave away 3467 promotional items. Promotional giveaway details attached in Appendix C.4 .
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

3. Illicit Discharge Detection and Elimination							
BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline	Associated Documents	PY2 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	Attached in E.3
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	265 new MS4 outfalls, Information Table attached in Appendix E.2.
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	In progress, mapping will be complete by the end of PY4.
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/pub_wk/s/engineering-stormwater/stormwater/ms4/idd/e/
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	Letters sent to VDOT, Portsmouth, and Chesapeake
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	Updated, attached in Appendix E.1
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	66 dry weather outfall screenings conducted. Attached in Appendix E.4
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/pub_wk/s/
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 6 municipal facility inspections, summary included in Appendix H.4
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	9 Illicit Discharge investigations were conducted by Public Works Engineering. 17 incidents were responded to by the Suffolk Fire Department and/or regional HAZMAT team. Summary Report attached in Appendix E.5.
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 Report Summary included in Appendix E.5
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	34 sanitary sewer overflows reported. Map and summary of SSORS reports included in Appendix E.5.

City of Suffolk MS4 Program Plan

3. Illicit Discharge Detection and Elimination							
BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline	Associated Documents	PY2 Status
3.e.4	Continue Sanitary Sewer System improvements in coordination with SSO consent order	Continue to diagnose and correct deficiencies	Number of improvements	Public Utilities	Continuously	List of Improvements	The City prepares a report of improvements annually on the sanitary sewer system in compliance with the modified consent decree. As this is no longer a requirement of the Consent Order to submit to DEQ this item will be removed from the PY3 Program Plan.
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		Item 3.e.4 is being removed from the PY3 program plan. No other 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

4. Construction Site Storm Water Runoff Control							
BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline	Associated Documents	PY2 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&S Ordinances	Stormwater - Ch. 35 Stormwater Management E&S – Ch. 34 Environment Article II. Erosion & 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&S, & CBPA ordinances	SWM, E&S, & CBPA Ordinances	PW Engineering	Continuously	Ordinances	Stormwater - Ch. 35 Stormwater Management E&S – Ch. 34 Environment Article II. Erosion & Sedimentation Control CBPA – UDO Article 4. Zoning Sec. 31-415 Chesapeake Bay Preservation Overlay District
4.b	Local Programs						
4.b.1	E&S Plan Reviews	Continue to implement the site plan review, LID implementation where deemed appropriate, provisions of the local SWM, E&S, and CBPA Ordinances.	# plan reviews	Planning/ PW Engineering	Annually	Summary from Locality tracking system	For site plans, engineering plans, and erosion and sediment control plans there were 165 plan reviews and 55 plan approvals.
4.b.2	E&S Program Consistency	At a minimum be consistent with the VA E&S Law and regulation	State Board finding of consistency	PW Engineering	Continuously	Letter from DEQ (or DCR in prior cycles)	Consistent based on last review letter dated 12/2/2008.
4.b.3	CBPA Program Compliance	Maintain the City's Chesapeake Bay Preservation Act Program in Compliance with DEQ regulations	DEQ Compliance	Planning Department	Annually	Letter from DEQ (or DCR in prior cycles)	The City has not yet been reviewed by DEQ
4.c	Compliance and Enforcement						
4.c.1	E&S 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	4765 E&S inspections, 54 SWPPP inspections. Details in Appendix F.3
4.c.2	E&S 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	4765 E&S inspections and 512 E&S enforcement actions. Procedures for inspections can be found in Section 6.1.4 of the Project Inspection (Land Disturbance) SOP attached in Appendix F.2.
4.c.3	Certifications						
4.c.3a	E&S 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	Certification is a continuous effort maintain certifications and to certify new personnel. Certified personnel listed in Appendix F.1.
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	Certification is a continuous effort maintain certifications and to certify new personnel. Certified personnel listed in Appendix F.1.

City of Suffolk MS4 Program Plan

4. Construction Site Storm Water Runoff Control							
BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline	Associated Documents	PY2 Status
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	27 inquiries received in PY2, details attached in Appendix F.4.
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	515 enforcement actions for E&S violations. Details in Appendix F.3
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	PW Engineering	Annually	Summary from Locality tracking system	9 Approved E&S 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	54 SWPPP inspections. Details in Appendendix F.3
4.d	VSMP Authority Permits						
4.d.1	State VSMP program (prior to July 1, 2014)	Continue to direct applicants, proposing to disturb an acre or more of land, or part of a larger common plan of development or sale that would disturb one acre or more, to DEQ to secure a VSMP Permit for Discharges of Stormwater from Construction Activities. Ensure permit has been obtained.	#of permit applications and permits issued.	PW Engineering	PY1 only	VSMP permit numbers	No longer applicable, this section will be removed from the PY3 Program Plan.
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	14 general construction permit applications received, 14 general construction 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	Procedures	BMPs 4.d.1, 4.b.2, amd 4.b.3 will be removed, otherwise the Construction Site Stormwater Runoff Control Program Plan was found to be sufficient for meeting Permit requirements.
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	92 permitted land disturbing activities on 319.288 acres. Monthly reports 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

5. Post Construction Storm Water Management in New Development and Redevelopment							
BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline	Associated Documents	PY2 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 previously reported ordinance. Updated Plan Review SOPs are attached in Appendix F.2.
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 previously 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	11 new maintenance agreements, summary attached in Appendix G.1
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. BMP inspection summary table attached in Appendix G.2
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	7 follow up inspections, sent 6 30-Day follow up letters. BMP maintenance responsibilities are enforced in accordance with departmental SOPs, maintenance agreements, and approved plans. BMP inspection summary table attached in Appendix G.2
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. BMP inspection summary table attached in Appendix G.2
5.d	Program Plan Requirements (some addressed above)						
5.d.6	Roles and responsibilities	Identify the roles and responsibilities for each department, division, and subdivision in implementing Section II of General Permit, also include the written agreement for any other entities implementing parts of the Program Plan	List of roles and responsibilities	PW Engineering	As needed	List of roles and responsibilities	See Organizational Chart in Appendix G.3
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 MS4 are inspected and included in the BMP inspection summary table attached in Appendix G.2
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	4 new BMPs brought online in PY2, summary table attached in Appendix G.4
5.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		BMP 5.d.6 will be removed, otherwise the Post Construction Storm Water Management in New Development and Redevelopment Program Plan was found to be sufficient for meeting Permit requirements.
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

6. Pollution Prevention/Good Housekeeping for Municipal Operations							
BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline	Associated Documents	PY2 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 illicit discharges	SOP(s)/SWPPP	Public Works, <u>Public Utilities, Parks and Recreation</u>	Continuously	SOPs	Operations and Maintenance Pollution Prevention Guide completed, attached in Appendix H.3
6.a.2	Waste Disposal	Continue to implement and update procedures for proper waste disposal, including yard waste	SOP(s)/ SWPPP	Public Works, <u>Public Utilities, Parks and Recreation</u>	Continuously	SOPs	Operations and Maintenance Pollution Prevention Guide completed, attached in Appendix H.3
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 <u>Public Works, Public Utilities, Parks and Recreation, Fire Department, Police Department</u>	Continuously	SOPs	Operations and Maintenance Pollution Prevention Guide completed, attached in Appendix H.3
6.a.4	Manage Wastewater	Prevent the discharge of wastewater to MS4 without a separate VPDES permit	Procedures	Public Works, <u>Public Utilities</u>	Continuously	SOPs	Operations and Maintenance Pollution Prevention Guide completed, attached in Appendix H.3
6.a.5	Utility Construction and Maintenance	Require BMPs when discharging water pumped from utility construction and maintenance activities	Procedures	Public Utilities, <u>Public Works</u>	Continuously	SOPs	Operations and Maintenance Pollution Prevention Guide completed, attached in Appendix H.3
6.a.6	Bulk Storage BMPs	Require BMPs for bulk storage areas (salt storage, top soil stockpiles)	BMPs Used	PW Operations, <u>Parks and Recreation</u>	Continuously	SOPs	Operations and Maintenance Pollution Prevention Guide completed, attached in Appendix H.3
6.a.7	Manage Leaking Municipally-owned Vehicles	Prevent the discharge of pollutants to the MS4	BMPs Used	PW Fleet Maintenance/ PW Operations	Continuously	SOPs	Operations and Maintenance Pollution Prevention Guide completed, attached in Appendix H.3
6.a.8	Manage Fertilizers and Pesticides	Implement procedures to ensure materials are applied in accordance with manufacturer's recommendations	Procedures/ Certifications	PW Operations/ <u>Mosquito Control, Parks and Recreation</u>	Continuously	SOPs	Operations and Maintenance Pollution Prevention Guide completed, attached in Appendix H.3. Certified pesticide applicators detailed in Appendix H.2
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 and Fleet Maintenance 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 and Fleet Maintenance have been identified for SWPPP development
6.b.3	SWPPP development & Implementation	Develop and Implement SWPPPs for identified high-priority facilities	SWPPP	PW Engineering/ PW Operations-Refuse/ Fleet Maintenance	PY4	SWPPP	To be completed by PY4
6.c	Nutrient Management Plans						
6.c.1	NMP Implementation						
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.	Five sites totaling 33.5 acres.

City of Suffolk MS4 Program Plan

6. Pollution Prevention/Good Housekeeping for Municipal Operations							
BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline	Associated Documents	PY2 Status
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	PY2 goal met with the completion of the Nansemond River High School Nutrient Management Plan which covers 10.5 acres (31% of required implementation). Plan attached in Appendix H.5. Permit cycle NMP requirements Attached in Appendix H.5.
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.	33.5 acres required 10.5 acres implemented
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 phosphorus
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 done in conjunction with Pollution Prevention and Good Housekeeping Training. Training Summary attached in Appendix H.1
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.1
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.1
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.1
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 that conducting plan review are required to be certified by departmental policy. Certifications list included in Appendix F.1
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	Training conducted, see Training Summary in Appendix H.1
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	A comprehensive training needs assessment has not yet been completed, but will be completed before the end of the permit cycle.
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	Training needs are identified in the training summary in Appendix H.1

City of Suffolk MS4 Program Plan

6. Pollution Prevention/Good Housekeeping for Municipal Operations							
BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline	Associated Documents	PY2 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	100 items distributed to City employees at Health and Wellness Fair on June 11, 2015. See Givaway Tracking in Appendix C.4
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	Regional training currently in development with HRPDC
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		Edits were made to BMPs 6.a.1-8, and 6.b.3. Deletions are struck through and additions are <u>underlined</u> .
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

TMDL Special Conditions							
BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline	Associated Documents	PY2 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	Complete, submitted with this report. Can be found on City website http://www.suffolkva.us/pub_wks/engineering-stormwater/stormwater/ms4/
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	The City has met the 5% reduction requirements of this permit cycle. The City's Action Plan details those projects which have already been completed as well as projects planned for the future.
SC-2	Upper Nansemond/Shingle Creek	Develop and Implement a TMDL Action Plan for the POC.	TMDL Action Plan	SW Program Administrator	End of PY2	TMDL Action Plan	Under development. Timeline changed to end of PY3, see updated program 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	Under development.
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	Under development.
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	Under development.
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	Under development.
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

Appendix C.1

askHRgreen.org Annual Report for Fiscal Year 2014-2015

TRUTH OR MYTH

A GARBAGE DISPOSAL CAUSES

TESTING A DISPOSAL IS



DO YOU KNOW YOUR TAP WATER?

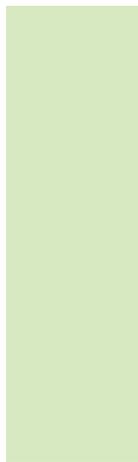
WATCH OUR SHORT, 3-PART SERIES FOR THE KNOWLEDGE TO THE TEST AT [askHrgreen.org](#)



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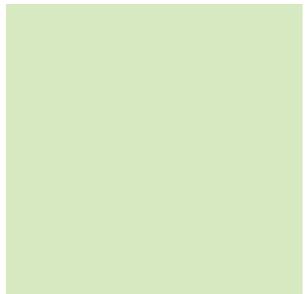


WORK HARDER,

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to safe, cl

- Protect
- Allows
- Provide we all



BAG IT! TRASH IT!

Learn more and take the "Scoop the Poop" Pledge today

FOR A *Clog-Free*

askHrgreen.org

ANNUAL REPORT FOR FISCAL YEAR 2015

PLUG INTO AMERICA RECYCLES DAY

Join in the Celebration!

PORTSMOUTH YORKTOWN



LET'S BE H₂O HONEST

IT'S TIME TO UNDECK THE HALLS

away the lights & balls

branches looked so bright

TIME TO TAKE A HIKE

Christmas Tree, Christmas Tree

at shall we?

askHrgreen.org

BENEATH

HAMPTON ROADS PLANNING DISTRICT COMMISSION

ROBERT A. CRUM JR
EXECUTIVE DIRECTOR

CHESAPEAKE

JAMES E. BAKER
LONNIE CRAIG
DEBBIE RITTER
ELLA P. WARD
VACANT

FRANKLIN

BARRY CHEATHAM
R. RANDY MARTIN

GLOUCESTER COUNTY

JOHN C. MEYER JR.
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HAMPTON

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CHRIS SNEAD
GEORGE WALLACE

ISLE OF WIGHT COUNTY

ANNE SEWARD
DELORES DARDEN

JAMES CITY COUNTY

BRYAN J. HILL
MARY K. JONES

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NORFOLK

PAUL D. FRAIM
MAMIE B. JOHNSON
MARCUS JONES
THOMAS R. SMIGIEL
ANGELIA WILLIAMS

Executive Committee Member

POQUOSON

TRACI-DALE H. CRAWFORD
J. RANDALL WHEELER

PORTSMOUTH

LYDIA PETTIS-PATTON
KENNETH I. WRIGHT

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YORK COUNTY

NEIL MORGAN
THOMAS G. SHEPPERD JR.

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GENERAL SERVICES MANAGER
ASSISTANT GENERAL SERVICES MANAGER
ADMINISTRATIVE ASSISTANT

Report Documentation

TITLE:

askHRgreen.org Annual Report for Fiscal Year 2014-2015

REPORT DATE

August 2015

GRANT/SPONSORING AGENCY

Local Funds

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ABSTRACT

This report provides a summary of the fourth year of the askHRgreen.org public outreach and education initiative. The report contains seven major sections. The first section provides background about askHRgreen.org. The second section provides an overview of overall campaign results for fiscal year 2014-2015. The third provides a summary of research conducted during the fiscal year. The fourth through seventh 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 and 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 2014-2015, approved by the Commission on June 19, 2014.



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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 has always afforded localities an economy of scale that they could not otherwise achieve. Couple that with various emerging issues beginning to overlap, like sanitary sewer overflows and stormwater pollution, and we knew the time was right for the development of an umbrella brand to tie all of the messages together. askHRgreen.org began with offering just the green basics. What we found was that people then 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, and read and comment on the blog, askhrgreen.org/blog.

Fiscal Year 2014-2015 Highlights

- 58,279 website visitors
- 16 million opportunities to see or hear askHRgreen.org in the media
- 6,985 students impacted through environmental education mini grants
- 4,184 e-newsletter subscribers
- 1,644 Facebook likes
- 1,666 Twitter followers

Fiscal Year 2014-2015 Campaign Schedule and Results

Eleven environmentally-themed media campaigns, a Search Engine Marketing campaign, and a Search Engine Optimization campaign ran for a combined total of 52 weeks of exposure in FY15.

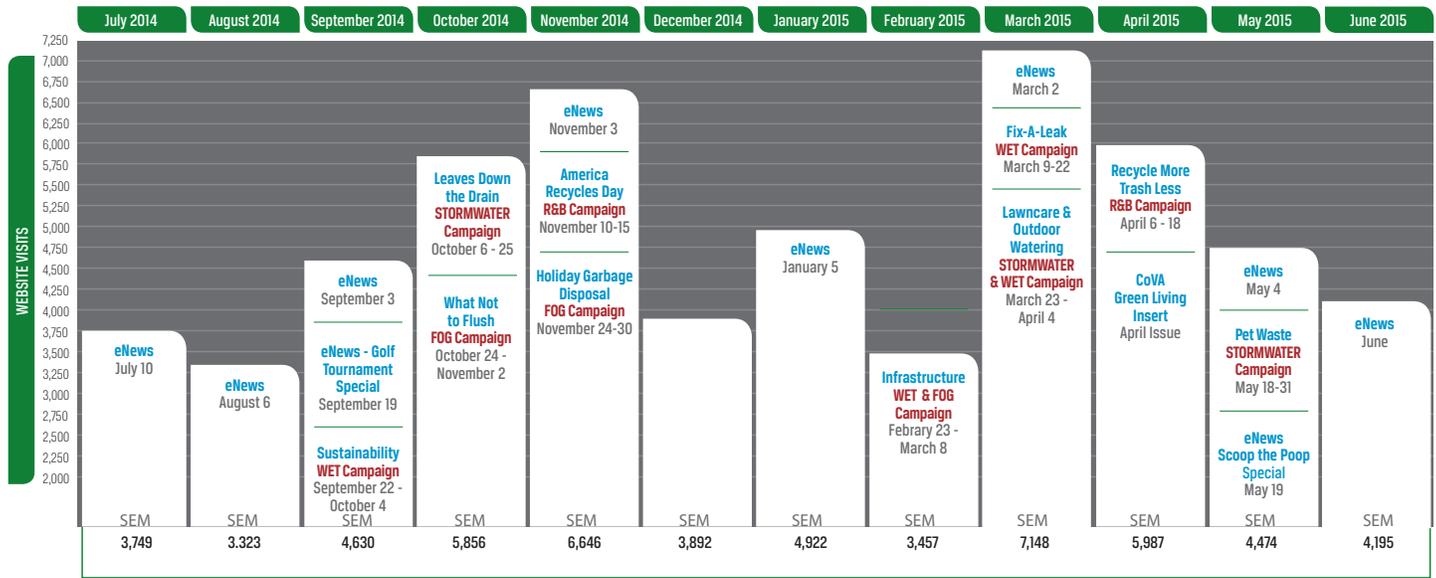
Campaign	Media	jul	aug	sep	oct	nov	dec	jan	feb	mar	apr	may	jun
Water Infrastructure Sustainability	R-O-F												
Leaves & Pet Waste	R-O-F												
What Not To Flush	R-O-F-M												
America Recycles Day	R-O-F												
Holiday Garbage Disposal	R-O-F												
Water/FOG Infrastructure Sustainability	R-O-F												
Fix a Leak Week	R-O-F												
Lawn Care & Outdoor Watering	R-O-F												
Recycle More, Trash Less	R-O-F												
Green Magazine	P-O												
Pet Waste	R-O-F												
askHRgreen.org E-Newsletter													
Public Relations													
SEO/SEM													
askHRgreen.org Blog Articles													

Media Key: R = Radio P = Print O = Online F = Facebook M = Movie Theater

Total Advertising Weeks	52
Impressions	
Coastal Virginia Magazine	221,000
Radio*	7.66 million
Online Newspaper	1.59 million
Movie Theater Advertising	219,033
Search Engine Marketing (SEM)	308,126
Search Engine Optimization (SEO)	255,206
Facebook	1.48 million
Public Relations	4.08 million
Added Value	238,924
Budget	
Media	\$135,295
Public Relations	\$25,012
Creative & Web Development	\$65,670
Consulting	\$5,000
Research	\$17,335
Value	
Media Added Value	\$90,585
Public Relations Value	\$102,665
Total Publicity Value (PR Value x3)	\$307,995
Totals	
Impressions	16.1 million
Budget	\$248,312
Campaign/Exposure Value	\$646,893
Cost per Thousand Impressions	\$15.42
Return on Investment	2.6 : 1

*Radio projections of audience levels are based on data provided by Arbitron Research that projects the impressions within a target audience and the number of times the audience is exposed to the message.

Website Analytics



SEARCH ENGINE OPTIMIZATION AND SEARCH ENGINE MARKETING July 1, 2014 - June 30, 2015

askHRgreen.org Website Statistics

	2011-12	2012-13	2013-14	2014-15
Visits	27,424	32,697	55,505	58,279
Unique Visitors	19,920	25,092	43,547	46,994
Pageviews	67,047	72,270	116,818	103,228
Pages per Visit	2.42	2.21	2.10	1.77
Average Visit Duration	2:19	2:10	1:48	1:26
Bounce Rate	61.24%	61.27%	64.37%	74.80%
% New Visits	70.78%	75.50%	77.74%	79.87%

askHRgreen.org Referrals by Locality Websites

	Number	% of Total Visitation
vb.gov.com	2,423	19.70%
cityofchesapeake.net	430	3.50%
spsa.com	378	3.07%
portsmouthva.gov	225	1.83%
norfolk.gov	192	1.56%
jamescitycountyva.gov	187	1.52%
hrsd.com	140	1.14%
yorkcounty.gov	134	1.09%
nngov.com	133	1.08%
co.isle-of-wight.va.us	127	1.03%
hrpdcva.gov	116	0.94%
suffolk.us	81	0.66%
hampton.gov	57	0.46%
hrpdc.org	26	0.46%
nnva.gov	23	0.19%
williamsburgva.gov	15	0.12%
smithfieldva.gov	9	0.07%
ci.poquoson.va.us	4	0.03%
gloucesterva.info	4	0.03%
co.gloucester.va.us	2	0.02%
southamptoncounty.org	2	0.02%

FY 2014-2015 askHRgreen.org Website Visitors by Locality

	% of Total Visitation
Virginia Beach	19.68%
Chesapeake	9.49%
Norfolk	7.42%
Newport News	5.33%
Hampton	4.33%
James City County/ Williamsburg	2.84%
Portsmouth	2.18%
Suffolk	1.87%
Poquoson	0.52%
Smithfield	0.52%
Gloucester County	0.15%
Yorktown	0.06%
Other	45.96%

Top 10 Website Traffic Sources

	%
Google (organic)	32.11%
Facebook (display)	13.34%
Direct	13.01%
Google (SEM/cpc)	7.83%
VBgov.com	4.16%
Daily Press (display)	2.07%
Bing (SEM/cpc)	2.00%
Virginian-Pilot (display)	1.74%
askHRgreen eNewsletter	1.56%
Bing (organic)	1.54%



askHRgreen.org campaign initiatives & results

SEO

Utilizing Search Engine Optimization (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 SEO campaign ran for 10 months and resulted in 255,206 impressions in FY15 and a 39% increase in clicks from organic search results over FY14.

Organic Search Results			
	2012-13	2013-14	2014-15
Clicks	8,513	14,842	20,637

Webpage Traffic

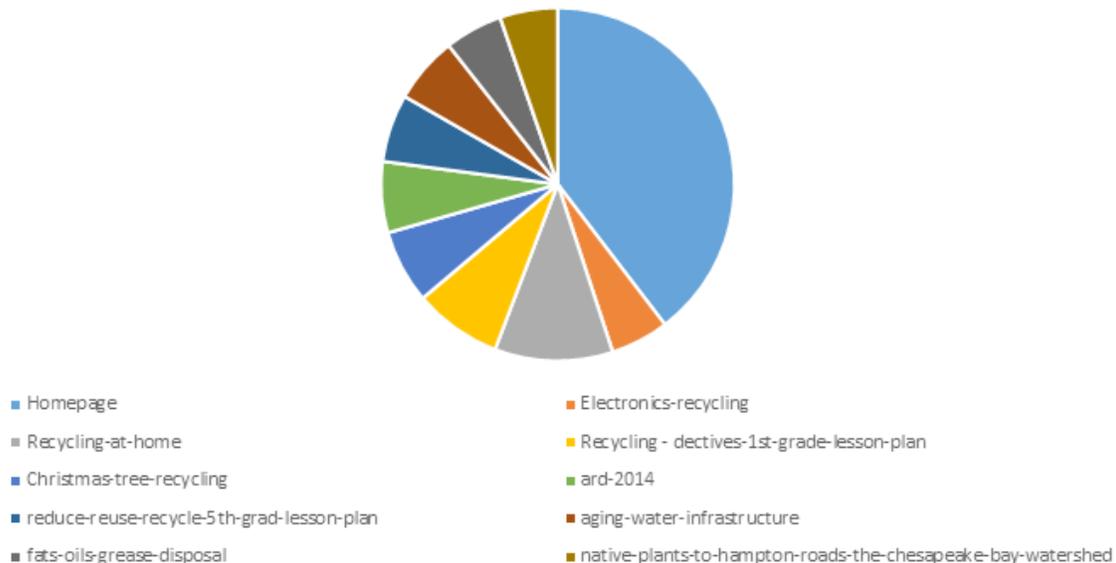
Of the 103,228 pages visited over the last year, the chart below shows the top ten which accounted for just 33% of all pages visited:

SEM

The askHRgreen.org Search Engine Marketing (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 SEM campaigns garnered 330,571 impressions and 5,880 clicks to the askHRgreen.org website in FY15.

SEM Campaigns				
Google & Bing Campaigns	Impressions	Clicks	CTR	Avg. Ad Position
Recycling & Beautification	134,625	2,705	2.01%	2.21
Stormwater	67,397	824	1.22%	2.08
askHRgreen.org	32,262	672	2.08%	1.47
askHRgreen-R&B	25,223	605	2.40%	1.65
FOG	19,638	286	1.46%	2.47
askHRgreen-Stormwater	15,799	228	1.44%	2.50
Water Awareness	16,937	223	1.32%	2.16
askHRgreen-askHRgreen.org	6,404	153	2.39%	1.48
askHRgreen-Water	8,499	100	1.18%	2.46
askHRgreen-FOG	3,793	84	2.21%	2.34
Total	330,571	5,880	1.78%	2.09

2014-2015 askHRgreen.org Top Ten Pages Visited



SEM Results



Of all the ad groups in both the Google and Bing SEM campaigns, below is a look at the Top 30 ad groups ranked by the number of clicks received. An ad group is one or more ads which target a shared set of keywords. For instance, the “electronics recycling” ad group contains keywords such as “electronics disposal,” “recycling computers,” “where to recycle electronics,” etc. and displays an ad with content specific to that topic like the one pictured at right. *Please note: some ad groups appear in the listing twice because the same ad groups exist in both Google and Bing campaigns. Bing campaign names have “ASKHRGreen-” listed first.*

[Recycling Electronics](#)
askHRgreen.org
 Need To Recycle Your Computer Or Old Electronics? Find Where Here!

Top 30 Ad Groups by Clicks

July 1, 2014 - June 30, 2015

Ad Group Name	Campaign Name	Clicks	Impr.	CTR	Avg. Pos.	Avg. CPC
Recycling at Home/Residential Recycling	R&B	948	75,696	1.25%	2.45	\$1.82
Electronics Recycling	R&B	801	16,815	4.76%	2.44	\$1.68
What to Recycle	R&B	678	26,483	2.56%	1.56	\$1.54
askHRgreen.org	askHRgreen.org	352	1,188	29.63%	1.07	\$0.54
Medication Disposal	Stormwater	272	4,331	6.28%	2.01	\$1.63
Electronics Recycling	ASKHRGreen- R&B	271	6,777	4.00%	1.60	\$1.48
TMDL	Stormwater	220	8,045	2.73%	1.16	\$2.68
What to Recycle	ASKHRGreen- R&B	175	6,309	2.77%	1.59	\$1.07
The Business of Recycling	R&B	171	5,963	2.87%	1.47	\$1.72
Environmental Education	askHRgreen.org	136	20,993	0.65%	1.40	\$4.15
Fat/Oil/Grease Disposal	FOG	105	4,973	2.11%	2.51	\$2.25
Green Home/Practices	askHRgreen.org	90	7,918	1.14%	1.77	\$2.42
Conservation/Wise Water Use	Water	89	2,830	3.14%	1.42	\$2.28
Recycling at Home/Residential Recycling	ASKHRGreen- R&B	79	8,305	0.95%	1.69	\$1.03
askHRgreen.org	ASKHRGreen- askHRgreen.org	80	309	25.89%	1.00	\$0.34
Medication Disposal	ASKHRGreen- Stormwater	75	3,622	2.07%	2.68	\$1.98
Soil Testing	Stormwater	70	6,899	1.01%	1.97	\$2.64
Hampton Roads Environment	askHRgreen.org	67	621	10.79%	1.24	\$0.89
Plastic Bag Recycling	R&B	65	1,942	3.35%	2.12	\$1.49
Fertilizing	Stormwater	56	13,296	0.42%	2.12	\$4.06
Garbage Disposal Problems	FOG	52	2,279	2.28%	1.85	\$3.65
Pet Waste	ASKHRGreen- Stormwater	51	4,861	1.05%	1.89	\$1.70
Drinking Water/Tap Water	Water	49	4,442	1.10%	1.80	\$2.19
Turkey Frying	FOG	48	2,424	1.98%	1.04	\$2.41
Soil Testing	ASKHRGreen- Stormwater	47	1,465	3.21%	1.93	\$2.01
Sanitary Sewer System	FOG	47	3,723	1.26%	1.81	\$3.98
Bottled Water	ASKHRGreen- Water	45	5,434	0.83%	2.76	\$1.33
Stormwater / Stormwater Runoff	Stormwater	42	6,625	0.63%	1.72	\$2.47
Pet Waste	Stormwater	37	12,761	0.29%	2.40	\$3.57
The Business of Recycling	ASKHRGreen- R&B	33	1,172	2.82%	1.35	\$1.14

askHRgreen.org Campaign Research

The askHRgreen.org effort to engage the community to improve environmental behavior has been measured over time by EAB Research, which conducted focus groups and a benchmark online survey in November 2010, a second wave survey in November 2012, and a third and final survey in April 2015. A total of 411 respondents participated in this most recent study with a potential sampling error of +/- 5 percent. Participants in the survey had to be over 18 years of age, live in Hampton Roads and plan to remain a resident for five years or more. The participants were recruited to reflect the relative percentages of the population located on the peninsula and the southside of Hampton Roads.

The third installment of the online survey shows that awareness of the region-wide public awareness and education campaign has increased to 18.2 percent from 2012—a 6.2 percent gain. The survey also confirmed that overall, participants who have been to the website, attended an educational event or read or heard askHRgreen.org messaging in the media are more likely to report positive behavior and attitudes. Other general survey findings showed that:

- 20 percent of those surveyed had visited the askHRgreen.org website, and 80 percent of those went for general information or curiosity. 6.7 percent had a specific question.
- askHRgreen.org-aware participants considered themselves significantly more knowledgeable. From 2010 to 2015, aware participants who ranked themselves knowledgeable increased 17.2 points.
- The disconnect between a personal action and the effect it has on an individual (uncovered in the 2012 benchmark survey) is unchanged and is still significant in 2015.
- Except for younger respondents who seek environmental information at a high frequency, searching for environmental information is trending downward.

With regard to key campaign messaging, the 2015 survey revealed the following information:

- Consumer costs for tap water and wastewater are seen as good values, and a majority of respondents were open to small increases to accommodate system upgrades. 57.7 percent said they are willing to pay an extra \$1-5 per month to upgrade and sustain water systems.

- Respondents who use the garbage disposal showed no change between 2010 and 2012, but went up 3.5 points in 2015, showing a need to further educate residents about eliminating its use to prevent backups.
- Participants who flush materials other than toilet paper declined from 13 percent in 2012 to 10.5 percent in 2015.
- Of participants who said they recycle, 93.9 percent recycle at curbside, 28.3 percent recycle plastic or paper at convenience centers/grocery stores, and 26.6 percent recycle at special events. The top two reasons for not recycling are uncertainty about what can be recycled and that the bin fills up too quickly.
- The 2015 survey revealed that of the participants with a lawn or garden, 20.7 percent reported fertilizing three or more times per year and 41.6 percent fertilize 1-2 times per year.
- Since 2010, drinking primarily bottled water at home has declined from 69.1 percent to 54.3 percent. The changes among askHRgreen.org-aware are more significant with a 21 point decrease over five years.

A full summary of the 2015 online survey results can be downloaded from the askHRgreen.org website at the following URL: <http://askhrgreen.org/press-room>.

Green Magazine Partnership with Coastal Virginia Magazine

In April of 2015, the inaugural issue of Green Magazine hit the shelves in Hampton Roads. Green Magazine was the result of an exciting new partnership between Coastal Virginia Magazine and askHRgreen.org. The special edition 24-page lifestyle supplement was produced at no cost to askHRgreen.org. It was a true partnership and collaboration to empower residents and businesses alike with interesting facts and features about what we can all do to make our coastal lifestyle a little easier on the environment.

The first edition of Green Magazine featured a behind-the-scenes look at a recycling audit that demonstrates the importance of trash vs. treasure, an exploration of the quality of our local waterways and what's being done to clean them up, a feature on homeowners across the region greening their homes in big and small ways, and the importance and appeal of tap water. There was also an enticing food feature on our area's beloved oyster, shedding light on why consuming local food straight from our waterways benefits more than just our taste buds.

In addition to the 32,000 copies mailed to households in Hampton Roads and the over 221,000 impressions delivered by Green Magazine, askHRgreen.org also received 7,500 copies of the publication free of charge to distribute at local offices and events throughout the year. The advertising value of this partnership was over \$65,000. Due to the success of the inaugural issue and popularity of the piece, askHRgreen.org is already collaborating with Coastal Virginia Magazine on a second edition of Green Magazine planned for the spring of 2016.



Social Media

Social media continues to be a key source for public outreach. Facebook, Twitter, and YouTube were all used to share askHRgreen.org and various locality events, respond to requests from citizens seeking information, share blog articles, and promote important programs and initiatives like the Cigarette Litter Prevention Program, America Recycles Day events, grant programs, etc. Through the "Let's Talk Green" blog, which is written by askHRgreen.org team members and guest bloggers, 101 interesting posts were published throughout the year covering everything from floating wetlands and sewer lateral woes to milk paint projects and local compost sales.



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 local events and through online promotions. In FY15, a total of nine e-newsletters covering seasonal "green" tips, events and askHRgreen.org campaign updates were sent out. By the end of FY15, the askHRgreen.org subscriber list was already up to 5,184 subscribers and it continues to grow.

askHRgreen.org E-Newsletter Statistics	
Subscribers (as of July 1, 2015)	5,184
Total Emails Sent	38,478
Total Opens	6,071
Open Rate	15.8%
Total Clicks	602
CTR (Click Through Rate)	1.6%



Mini Grants

The askHRgreen.org Environmental Education Mini Grant Program provides grants of up to \$500 for environmentally-themed projects. All Hampton Roads school teachers (K-12), youth leaders, or organizations working with youth are eligible to apply and projects must be tied to at least one of the askHRgreen.org program focal areas. In FY15, a total of \$13,211 was awarded through 31 mini grants reaching more than 6,985 students in 9 localities across Hampton Roads.



2014-2015 Environmental Education Mini Grants			
Project	Locality	Students	Grant
Butterfly Sensory Garden	Norfolk	90	\$500.00
Community Garden	Newport News	30	\$375.00
Green Team Strikes Again	Hampton	550	\$400.00
Here Comes the Rain	Virginia Beach	120	\$500.00
How Does Your Garden Grow	Chesapeake	80	\$365.00
How Does Your Garden Grow	Virginia Beach	530	\$474.35
Keep Deep Creek Green	Chesapeake	75	\$500.00
Matoaka Recycling Rangers	James City County	750	\$500.00
Newport News Family YMCA Habitat Project	Newport News	275	\$500.00
NOAA STEM Project	Newport News	41	\$500.00
Norge Elementary Goes Green	James City County	598	\$500.00
Oyster Gardeners	Virginia Beach	21	\$220.00
Oyster Reef Keepers	Virginia Beach	15	\$200.00
Oyster Reef Keepers of VA School Oyster Restoration	Virginia Beach	24	\$250.00
Oyster Restoration Project	Norfolk	28	\$220.00
Oyster Restoration Project	Virginia Beach	15	\$110.00
Park Ambassadors After School Program	Portsmouth	15	\$500.00
Plastic Bag Recycling	Norfolk	150	\$500.00
Plastic Bag Recycling Willoughby Civic League	Norfolk	150	\$500.00
Reaching for the Sky	Virginia Beach	530	\$426.00
School Recycling Program	Williamsburg	530	\$500.00
School Wide Cafeteria Recycling Program	Williamsburg	1000	\$500.00
SpEd WIN Growing Project	Hampton	40	\$500.00
Surf & Turf: Habitat Improvements for the Schoolyard	Virginia Beach	25	\$495.00
Sweet, Sweet Strawberries to Eat	Virginia Beach	530	\$426.00
Teaching Children about Plant Diversity & Horticulture	Newport News	75	\$500.00
Transformers Going Green	Virginia Beach	138	\$500.00
Two Peas in a Pod	Virginia Beach	120	\$250.00
Wetland Restoration	Norfolk	40	\$500.00
Wild About Birds at School	York	200	\$500.00
Wild About Birds at School	Poquoson	200	\$500.00
Recycling & Beautification Subcommittee awarded \$6,000 • Stormwater Education Subcommittee awarded \$4,462 • Water Awareness Subcommittee awarded \$2,749			

Public Relations

FY15 was another busy year for askHRgreen.org in the media. Eleven news releases 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 covering topics ranging from the economics of recycling to eco-friendly landscaping tips and team members participated in a plethora of interviews. The total value of this publicity for FY15 was \$307,995.



2014-2015 Public Relations Report

Date	Format	Media Outlet	Title	Length	Circ/Imp	PR Value
September 18, 2014	P/O	Chesapeake TV-48 "Talking Out Loud"	Green tips and golf tournament, interview with Katie Cullipher and Rebekah Eastep	18 minutes	7,500	\$3,780
October 21, 2014	P/O	Chesapeake TV-48 News	Fall tips and America Recycles Day, interview with Katie Cullipher	3 minutes	7,500	\$630
December 21, 2014	T/O	WVEC-TV "Dialogue"	Holiday Tips from askHRgreen.org, interview with Elizabeth Vaughn and Katie Cullipher	5 minutes	15,000	\$1,950
April 1, 2015	P/O	Coastal Virginia Magazine (April/May issue)	Green Magazine Supplement: Partnering for a better future (intro letter); Trash vs. Treasure (recycling audit); Recycling made super easy (infographic); The greening of Coastal Virginia (stormwater awareness, green home features); Down the drain, think before you pour down the sink (FOG); Clean up your act, do try this at home (green home improvement tips); Understanding the oyster and HRSD sidebar (waterways); Getting clean, our impaired waterways; Tapping into a good source with "stylish sips" sidebar	12 pages	221,000	\$197,004
April 22, 2015	P/O	Green Living	Going Greener (miscellaneous)	4 col. inches	460,506	\$11,266
October 29, 2014	P/O	Daily Press	Recycle Used Electronics	Estimated	55,000	\$3,435
November 12, 2014	P/O	The Clipper (Chesapeake)	Recycling Day: Hazardous electronics will be focus of effort	Estimated	35,172	\$874
November 26, 2014	P/O	Daily Press	Tips: How to make the holiday season easy on the environment	Estimated	55,000	\$3,435
January 4, 2015	P/O	The Beacon (Virginia Beach)	Give your Christmas tree a second life, by Mary Reid Barrow	2 col inches	62,789	\$473
January 5, 2015	P/O	Inside Business	Recycling is Good for Hampton Roads Economy, Experts Column by Julia Hillegass	1/2 page	9,000	\$6,579
January 16, 2015	T/O	Norfolk TV-48 "Norfolk Perspectives"	State of Recycling in Hampton Roads, interview with Katie Cullipher and Lisa Renee Jennings	6:50 minutes	7,500	\$735
April 22, 2015	P/O	Green Living	Going greener + Does not computer (electronic recycling)	4 col. inches	460,506	\$9,013
June 16, 2015, June 17, 2015	T/O	WVEC-TV 11 p.m., 6 a.m.	Cigarette Litter Prevention Program	1:24	486,000	\$12,600
June 16, 2015	T/O	WVEC online	Cigarette Litter Prevention Program	1:24	12,500	\$5,250
Tuesday, June 16, 2015	O	The Virginian-Pilot	Cigarette Litter Prevention Program	Estimated	7,500	\$4,350
Thursday, June 18	O	WYDaily (online)	Cigarette Litter Prevention Program	Estimated	5,000	\$3,750
Sunday, July 12, 2015	P/O	Suffolk News-Herald	Cigarette Litter Prevention Program	Estimated	5,000	\$3,750
Sunday, July 12, 2015	P/O	Suffolk News-Herald	Cigarette Litter Prevention Program	20" w/ 4-c photo	39,000	\$1,906
Monday, July 13, 2015	T/O	WVEC-TV, 6:30 p.m. newscast	Cigarette Litter Prevention Program	1:40	222,000	\$3,375
Monday, July 13, 2015	T/O	WVEC on-line	Cigarette Litter Prevention Program	1:40	12,500	\$5,250
July 12, 2014	P/O	Daily Press	Rain barrels add practical and pretty touches to yard, by Kathy Van Mullekom	Estimated	55,000	\$3,435
August 1, 2014	P/O	The Seattle (WA) Times	Rain barrels fill many needs for home, garden, by Kathy Van Mullekom	Estimated	261,438	\$6,441
December 27, 2014	O	Daily Press "Diggin' In" Blog	Garden Trends 2015, interview with Rebekah Eastep	Estimated	4,500	\$1,950
January 1, 2015	O	Ventura (CA) County Star	Garden Trends 2015, interview with Rebekah Eastep	Estimated	84,000	\$2,206
March 27, 2015	P/O	The Clipper (Chesapeake)	Getting ready for spring? It's all about green	1/2 page	23,741	\$3,002
April 8, 2015	P/O	Your Corner (Western Branch, Suffolk, Chesapeake)	Put a stop to household leaks during Fix a Leak Week	see attached	18,913	\$1,626
April 22, 2015	P/O	Green Living	Going greener + No trace of dog waste	2 col inches	460,506	\$3,755
April 25, 2015	P/O	The Virginian-Pilot Home + Living	Flora and Fauna Column, with gardening tips from askHRgreen.org, by Mary Reid Barrow	2 col inches	460,506	\$579
July 24, 2014	P/O	The Virginian-Pilot	Tap It Cafes, by Jamesetta Walker	2 col inches	460,506	\$1,264
March 11, 2015	P/O	Your Corner (Western Branch, Suffolk, Chesapeake)	Put a stop to household leaks during Fix a Leak Week	1/2 page	18,913	\$3,002
March 14, 2015	P/O	Suffolk News-Herald	Fix a leak this week	10 col. Inches	30,000	\$1,165
January 15, 2015	P	Gloucester-Matthews Gazette	1 percent of Earth's water suitable for drinking (available as PDF)	5 col. Inches	11,606	\$168
					4,075,602	\$307,995

T = television, P = print, O = online



Recycling and 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.

FOCAL AREA: *America Recycles Day*
TARGET AUDIENCE: *Adults; Age 25-54*

The Recycling and Beautification Subcommittee celebrated Keep America Beautiful's America Recycles Day 2014 by promoting ten recycling collection and education events across nine cities and counties in Hampton Roads. Of these events, two were hosted by the Recycling and Beautification committee to ensure residents on both the southside and peninsula had access to a convenient way to recycle electronics and shred unwanted documents in celebration of America Recycles Day.

The southside event took place on November 15 at Greenbrier Mall in Chesapeake while the peninsula event took place the same day at the York County Sports Complex. VersAbility Resources donated their time and resources by providing electronics recycling for the peninsula event at no charge. Goodwill, a new partner this year, collected 28,614 pounds of household goods and electronics from the Chesapeake event as well as municipal events in Norfolk and Portsmouth. Shred-It also partnered with askHRgreen.org to provide free document shredding services to the public at both events.

The events were also supported with a one-week media campaign that ran from November 10 to November 15 and included banner display on pilotonline.com and dailypress.com, 60-second radio ads, and Facebook ads. As added value for the paid media campaign, Eagle 97.3 did a live remote from Greenbrier Mall on November 15.

ARD Events Media & Public Relations	
Paid Media (1 week)	
Radio	
Impressions	107,750
Reach	7.4%
Frequency	2.8
Online Newspaper (The Virginian-Pilot & Daily Press)	
Impressions	103,929
Clicks	138
CTR (Clickthrough Rate)	0.13%
Facebook	
Impressions	77,972
Clicks	1,365
CTR (Clickthrough Rate)	1.751%
Unpaid Media	
Added Value	\$891
Added Value Impressions	0
Overall Campaign	
Total Impressions	289,651
Total Budget	\$3,003
Total Exposure Value	\$3,894
Return on Investment	1.30 : 1
Cost per Thousand Impressions	\$10.37



FOCAL AREA: Great American Cleanup™

TARGET AUDIENCE: Entire Hampton Roads Community

The Subcommittee also promoted Keep America Beautiful's 2015 Great American Cleanup initiative. Most localities held multiple events from April to June to help beautify and clean up their communities. The Subcommittee supported these efforts by issuing a news release about the Great American Cleanup, featuring event details for each locality prominently on the website and social media sites as well as featuring information about the events on the blog and in the e-newsletter.



FOCAL AREA: Christmas Tree Recycling

TARGET AUDIENCE: Entire Hampton Roads Community

In FY15, the Recycling and Beautification Subcommittee encouraged residents to take advantage of Christmas tree recycling programs across the region. The majority of localities in Hampton Roads provide free Christmas tree pickup and recycling for residents. To promote these free municipal programs, a news release was issued in addition to featuring the information prominently on the website and social media. The information was also included on the blog and featured in the e-newsletter.



FOCAL AREA: Residential Recycling

TARGET AUDIENCE: Adults; Age 25-54

In April 2015, the Subcommittee launched the first Recycle More, Trash Less media campaign using the logo and slogan developed in FY14. The Dr. Seuss-inspired campaign detailed what should and should not go into curbside recycling bins, explained the economic benefits of recycling and promoted recycling drop-off centers which offer expanded recycling options. While the campaign was targeted towards adults in general, the Subcommittee also hoped to reach parents, teachers, and children with the whimsical theme.



The two-week campaign ran from April 6 to April 18 and included 60-second radio ads, banner display ads on dailypress.com and pilotonline.com, and Facebook ads. As added value for the paid media campaign, Max Media included the "In the Bin" on-air contest on Eagle 97.3 and 92.9 The Wave, plus 35 additional mentions per week per station, inclusion on both websites, and three Facebook posts per station per week. Entercom provided weekly Facebook recycling tips on all station pages and web streaming banners. 92.3 The Tide provided bonus spots, question of the week contest, weekly feature on the Hometown Guy Eric Worden Show, and 15 30-second promos.

Recycle More, Trash Less	
Paid Media (2 weeks)	
Radio	
Impressions	1,077,000
Reach	56.9%
Frequency	2.9
Online Newspaper (The Virginian-Pilot & Daily Press)	
Impressions	198,773
Clicks	172
CTR (Clickthrough Rate)	0.09%
Facebook	
Impressions	202,549
Clicks	2,236
CTR (Clickthrough Rate)	1.104%
Unpaid Media	
Added Value	\$9,299
Added Value Impressions	28,210
Overall Campaign	
Total Impressions	1,506,532
Total Budget	\$15,038
Total Exposure Value	\$24,337
Return on Investment	1.62 : 1
Cost per Thousand Impressions	\$9.98

FOCAL AREA: The State of Recycling in Hampton Roads

TARGET AUDIENCE: Entire Hampton Roads Community

In November 2014, the Recycling and Beautification Subcommittee officially released the "The State of Recycling in Hampton Roads" white paper. A first of its kind report, the white paper was developed by the Subcommittee to raise awareness about the recycling process and the economic impact of the industry on the region and the state as a whole. The target audience includes anyone interested in recycling but especially appeals to local government leaders, members of the media, community organizations, neighborhood associations, corporate leaders, and area schools. The colorful and easy-to-read

report contains a comprehensive look at recycling in the region, from the municipalities that provide curbside recycling services to the businesses that collect, sort and re-sell recyclables. A special feature of the report is a point-in-time look at the constantly changing picture of recycling in Hampton Roads. The askHRgreen.org 2013 Recycling Survey identified how many residents receive recycling services and what is accepted, how recycling services and public education are administered and funded by local government, the perspectives of local recycling programs and opportunities for strengthening municipal recycling programs including reducing contamination through increased public education and awareness.

A press release was issued in November 2014 to notify the media about the availability of the report. The report was also distributed to participants of the Department of Environmental Quality Solid Waste Stakeholders Conference which focused on Managing the Future of Solid Waste in Virginia.



FOCAL AREA: Inaugural Keep Hampton Roads Beautiful Golf Tournament

TARGET AUDIENCE: Business and Community Leaders

The Subcommittee partnered with Keep Virginia Beautiful to host the Inaugural Keep Hampton Roads Beautiful Golf Tournament on October 13, 2014 at Greenbrier Country Club in Chesapeake. In keeping with the message of askHRgreen.org, the tournament was designed to be easy on the environment with tap water served instead of bottled water and convenient recycling receptacles available throughout the course. As a result of this partnership, the Subcommittee raised \$5,000 for litter prevention and recycling education in Hampton Roads.

FOCAL AREA: Cigarette Litter Prevention

TARGET AUDIENCE: Adult Smokers

The Subcommittee was awarded a \$12,500 grant from Keep America Beautiful (KAB) to implement the proven-effective cigarette litter prevention program developed by KAB. The Subcommittee added to these grant funds with the \$5,000 raised from the Keep Hampton Roads Beautiful Golf Tournament to launch cigarette litter prevention projects in seven localities across the region. The project sites include:

- Hampton – Buckroe Beach
- James City County – Commuter parking off Interstate 64 at Croaker Road
- Newport News – Hilton Village at Warwick Blvd. and Main St.
- Norfolk – City Hall Plaza
- Portsmouth – Ntelos Pavilion
- Suffolk – Downtown in the Main Street area
- Virginia Beach – Lake Smith/Lake Lawson Natural Area, off North Hampton Blvd.



Focusing on the theme “Cigarette butts=litter,” the Cigarette Litter Prevention Program launched in June 2015 and will continue into early fall. Activities completed in FY15 included a pre-scan of the areas to determine the extent of the cigarette litter and education/outreach. As part of the education and outreach, a social media outreach campaign was created using the hash tag #NoCigaretteLitterNow. The use of the hash tag and coordinated collateral items helped tie each local project and outreach campaign into part of the larger, regional effort. The program caught the attention of the media and \$40,230 in publicity value was generated through print and online articles as well as television interviews with local coordinators. The result was that Hampton Roads residents beyond the seven project areas benefitted from messages about cigarette litter prevention which affects the entire region. A complete report on the effectiveness of the program on reducing cigarette litter as well as long term sustainability will be available in FY16.

FOCAL AREA: Clean Communities and Litter Prevention
TARGET AUDIENCE: Entire Hampton Roads Community

The Recycling & Beautification Subcommittee developed a new rack card in FY15 to support their litter prevention and clean community messages. The rack card features simple tips that anyone can implement into their daily routine to keep trash and litter in appropriate places. The rack card also helps educate the public about how litter impacts them including facts and figures about the cost of litter cleanup and negative impact on communities. The rack card also emphasizes that littering is illegal and includes the litter law from Virginia Code.





Stormwater Education Subcommittee

The Stormwater Education Subcommittee is a cooperative partnership of the region’s seventeen member cities and counties. This cooperative 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.

FOCAL AREA: Leaves and Pet Waste
TARGET AUDIENCE: Adults; Age 35-64

The Stormwater Education Subcommittee ran a three-week campaign from October 6 through October 25 to help Hampton Roads residents remember that fallen leaves should be cleaned up but never by ending up down a storm drain. Messaging highlighted the fact that fallen leaves can clog storm drains and lead to flooding. The campaign also addressed the role fallen leaves can play as a source of nutrient pollution in waterways. As some localities differ in their leaf collection method, the call to action for citizens included several options for properly disposing of leaves including raking, bagging, mulching, and composting them. The campaign included banner displays on pilotonline.com and dailypress.com, 60-second radio ads, and Facebook ads.

As added value for the paid media campaign, Max Media provided bonus spots on STAR 1310 AM and ran digital and on-air promotions for each week on Eagle 97.3 and 92.9 The Wave inviting people to post the largest pile of leaves they can collect and awarding the winner a \$150 gift card to a local home improvement store. The Tide radio stations 92.3 and 102.1 provided bonus spots and the askHRgreen.org question of the week (including a minimum of 15 30-second promos per week). Entercom provided weekly Facebook posts with “did you know” tips for followers on all four station pages (260,000 followers) and sponsorship of the office lunch delivery contest including distributing promotional items. Saga Communications provided online billboards and banner ads on 106.9 The Fox and bonus spots on 1230 WJOI.



Leaves & Pet Waste	
Paid Media (3 weeks)	
Radio	
Impressions	1,527,780
Reach	61.6%
Frequency	4.0
Online Newspaper (The Virginian-Pilot & Daily Press)	
Impressions	289,397
Clicks	189
CTR (Click Through Rate)	0.07%
Facebook	
Impressions	265,506
Clicks	3,168
CTR (Click Through Rate)	1.193%
Unpaid Media	
Added Value	\$20,412
Added Value Impressions	47,846
Overall Campaign	
Total Impressions	2,130,529
Total Budget	\$17,998
Total Exposure Value	\$38,410
Return on Investment	2.13 : 1
Cost per Thousand Impressions	\$8.43

FOCAL AREA: Lawn Care & Outdoor Watering (Co-promotion with Water Awareness)
TARGET AUDIENCE: Adults; Age 25-64

The Stormwater Education Subcommittee partnered with the Water Awareness Subcommittee to promote smart spring lawn care and outdoor watering practices. The two-week campaign (March 23 through April 4) instructed Hampton Roads residents to work smarter, not harder

when it comes to having a great outdoor landscape. The messages highlighted by this campaign included soil testing, seeding bare spots, leaving grass clippings on the lawn, and replacing grassy areas with flower beds. The campaign included banner displays on pilotonline.com and dailypress.com, 60-second radio ads, and Facebook ads.

As added value for the paid media campaign, the Subcommittees also received digital billboard and banner ads on FM 99, 1230 WJOI, 93.7 Bob FM and US 106.1, weekly Facebook tips and streaming banner ads on 95.9 R&B, and bonus spots and askHRgreen.org question of the week (including a minimum of 15 30-second promos per week) on The Tide radio stations 92.3 and 102.1.



Lawn Care & Outdoor Watering (Co-promotion with Water Awareness)	
Paid Media (2 weeks)	
Radio	
Impressions	741,000
Reach	43.8%
Frequency	2.8
Online Newspaper (The Virginian-Pilot & Daily Press)	
Impressions	202,234
Clicks	170
CTR (Click Through Rate)	0.08%
Facebook	
Impressions	103,176
Clicks	2,752
CTR (Click Through Rate)	2.667%
Unpaid Media	
Added Value	\$9,311
Added Value Impressions	19,319
Overall Campaign	
Total Impressions	1,069,216
Total Budget (split between 2 committees)	\$12,058
Total Exposure Value	\$15,340
Return on Investment	2.54 : 1
Cost per Thousand Impressions	\$5.64

FOCAL AREA: Pet Waste

TARGET AUDIENCE: Women; Age 25-49

The Subcommittee continued outreach to the public regarding the importance of scooping the poop with a two-week pet waste media campaign. The campaign, which ran May 18 through May 31, included banner displays on pilotonline.com and dailypress.com, 60-second radio ads, and Facebook ads. As added value for the paid media campaign, the Subcommittee received production of "Real Neighborhood Hero" ads at no charge, bonus spots for "Real Neighborhood Hero" ads, online digital display ads, and an on-air interview with Hometown Guy Eric Worden. The campaign also coincided with the YouTube release of a parody video produced by a Red Chalk Studios design intern at no charge that featured the "Scoop the Poop" version of the popular Doo Wop song "Why Do Fools Fall in Love."

In support of the paid media campaign, the Stormwater Education Subcommittee once again partnered with 9 local organizations including animal shelters, animal welfare groups, and watershed restoration groups to promote the Scoop the Poop Pledge. The pledge, developed in FY14 through a partnership with the Norfolk SPCA and Elizabeth River Project, is available online at askHRgreen.org/scoop-the-poop-pledge. Dog owners are asked to support clean and healthy waterways by being good environmental stewards. To sign up, pet owners pledge to...



- Be a good environmental steward and neighbor by not looking the other way when it comes to pet waste.
- Scoop it, bag it and trash it each and every time whether in their own yards or out for a walk.
- Always take poop bags on walks with their pets – even if it means tying plastic grocery bags to the leash so they don't forget.
- Share the importance of keeping pet waste out of our waterways with others in their communities.
- Share the Scoop the Poop Pledge with other pet owners in their communities.

A coordinated email blast was sent out on May 19, 2015 by all partnering organizations to an estimated 42,000 email recipients encouraging residents to sign the pledge. By June 30, 2015, 675 people had taken the pledge to always scoop the poop!



Pet Waste	
Paid Media (2 weeks)	
Radio	
Impressions	449,640
Reach	22.0%
Frequency	6.2
Online Newspaper (The Virginian-Pilot & Daily Press)	
Impressions	123,421
Clicks	102
CTR (Click Through Rate)	0.08%
Facebook	
Impressions	77,348
Clicks	888
CTR (Click Through Rate)	1.14%
Unpaid Media	
Added Value	\$1,368
Added Value Impressions	33,679
Overall Campaign	
Total Impressions	686,441
Total Budget	\$6,505
Total Exposure Value	\$13,430
Return on Investment	2.06 : 1
Cost per Thousand Impressions	\$9.48

FOCAL AREA: Bay Star Homes

TARGET AUDIENCE: Entire Hampton Roads Community

In FY15, the Stormwater Education Subcommittee voted to take the City of Norfolk's Bay Star Homes watershed restoration initiative to a regional level. Bay Star Homes is a recognition program for residents who pledge to avoid behaviors that are harmful to local waterways. The Stormwater Education committee incorporated messaging from all askHRgreen.org education programs to make the program all-inclusive. Broadening the Bay Star Homes program allows it to focus not only on clean waterways, but also green living and clean communities in general. To register as a Bay Star Home, residents are asked to provide contact information and pledge to do at least two behaviors from each of the following categories: Grow Green,

Water Connections, Conserve Resources, and Get Involved. The resident also has the opportunity to request more information about residential best management practices such as installing a rain barrel, rain garden, pet waste station, etc. Once registered, program participants will receive a Bay Star Homes garden flag and flag pole to proudly display in their yards. They will also receive a welcome packet filled with information encouraging environmentally-friendly behaviors and connecting them to environmental resources in their community.



Regionalizing the program required the development of a database that could manage tracking for all Bay Star Homes in Hampton Roads. The City of Norfolk's database was used as the basis for the regional program; however, an automated import process was also created so there would not be a need for duplicate data entry. The program launched with 649 participants as of June 2015, mainly from the City of Norfolk's existing program. Widespread promotion of the program throughout the region will begin in FY16.

Bay Star Homes Registrants (as of June 2015)	
City/County	Number
Chesapeake	8
Hampton	1
Newport News	2
Norfolk	623
Portsmouth	1
Suffolk	1
Virginia Beach	12
York	1
Total	649

FOCAL AREA: Pet Waste Station Grant Program

TARGET AUDIENCE: Homeowners, Property Managers & Neighborhood Associations

The Pet Waste Station Grant Program, launched in December 2013, gives citizens the opportunity to apply for a free pet waste station to install and maintain in their neighborhoods. The program is geared toward neighborhood associations, community groups, and property managers that are ready to make scooping the poop a priority. Once an application is approved by the appropriate locality representative, askHRgreen.

org provides the pet waste station, which comes ready to install and includes a post, sign, bag dispenser, waste can, hardware, 400 dog waste bags, and 50 can liners. The citizen or community group is then responsible for installing the station, emptying the trash regularly, and replacing the bags as needed. The responsible party is also asked to promote the purpose and use of the station. In FY15, the Subcommittee received 84 applications to the program and approved 64 of those applications. As a result, 96 pet waste stations were installed in 13 localities across the region (see map on page 23). This total does not include pet waste stations issued by locality-funded programs in Newport News or James City County.

New Stations in FY15	
By City/County	Number
Chesapeake	4
Franklin/Southampton	1
Gloucester	4
Hampton	8
James City County	6
Newport News	27
Norfolk	1
Portsmouth	11
Smithfield	3
Suffolk	4
Virginia Beach	15
Williamsburg	1
York County	11
Total	96
By Watershed	Number
Back River-Lower Chesapeake	14
Elizabeth River	14
Hampton Roads	6
Lower Chickahominy	1
Lower York River	4
Lynnhaven River - Lower Chesapeake Bay	14
Mobjack Bay-Lower Chesapeake Bay	1
Nansemond River	4
Newmarket Creek	1
Pagan-James River	28
Powhatan Creek-James River	6
Tarrara Creek-Meherrin River	1
Upper York River	2
Total	96

FOCAL AREA: Storm Drain Medallion Program
TARGET AUDIENCE: Entire Hampton Roads Community

There are thousands of storm drains across Hampton Roads that all lead directly to local waterways. The Storm Drain Medallion Program helps people remember that “only rain

belongs down the drain” by allowing volunteers to adhere medallions stating “No Dumping: Leads to Waterway” on storm drains in their neighborhoods. The Subcommittee promotes the program to schools, community associations, youth clubs, and volunteer groups of all ages across the region. The program is particularly popular with 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 our local waterways. Each group works with representatives from their locality to map out which storm drains will be marked. This allows for ease of tracking. This fiscal year, the Subcommittee helped place 560 medallions across the region, 180 through applications to the program by 15 different volunteer groups and 380 through locality-initiated programs.

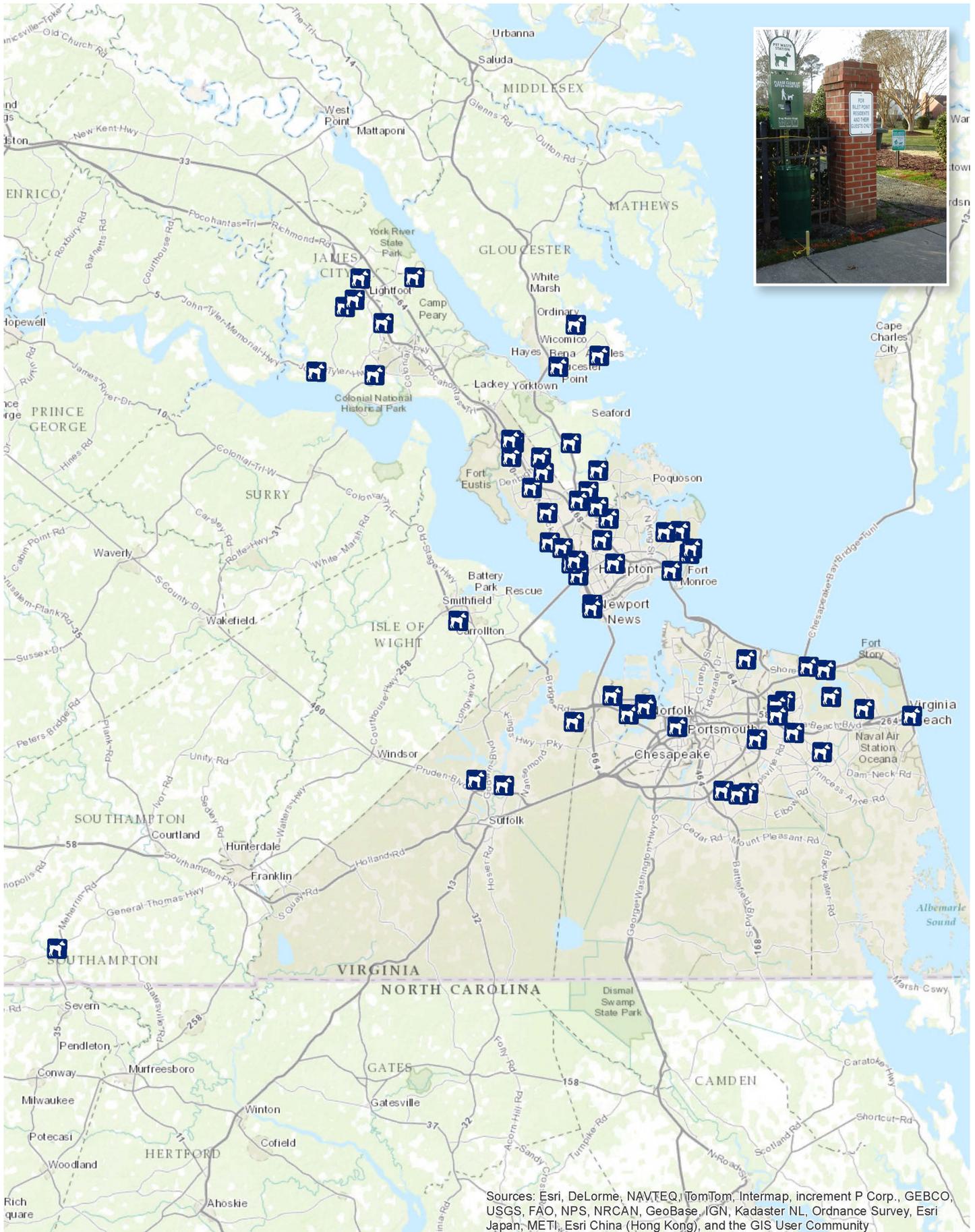


FOCAL AREA: Local Water Quality and TMDLs
TARGET AUDIENCE: Entire Hampton Roads Community

The Stormwater Education Subcommittee developed a new brochure in FY15 in an effort to educate citizens and other stakeholders about local water quality concerns and the new Total Maximum Daily Loads (TMDL) established for the Chesapeake Bay and its tributaries. This brochure shows local waterway impairments for the region and defines the common sources for nutrients and bacteria. The brochure briefly describes TMDL as the “pollution diet” while emphasizing what local governments are doing to meet water quality goals and what steps residents can take to help the effort.



Pet Waste Stations



Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), and the GIS User Community



water awareness subcommittee

Water Awareness Subcommittee

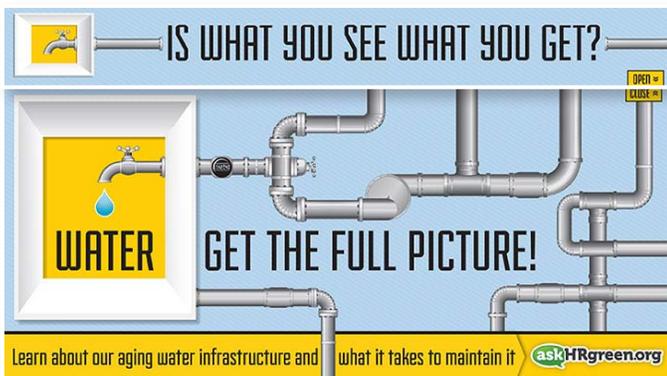
The Water Awareness Subcommittee is an education committee comprised of local government staff members who are committed to promoting and educating citizens about aging infrastructure, the value of tap water, and the importance of being good water stewards. This cooperative effort to promote conservation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

FOCAL AREA: Sustainability

TARGET AUDIENCE: Adults; Age 25-54

The Water Awareness Subcommittee ran a two-week media campaign focused on aging infrastructure and sustainability from September 22 through October 4. The campaign encouraged people to learn more about the three public water systems that help keep Hampton Roads running smoothly and the expensive processes and maintenance that go into delivering clean and safe tap water. The campaign included banner displays on pilotonline.com and dailypress.com, 60-second radio ads, and Facebook ads.

As added value for the paid media campaign, the Subcommittee also received an on-air interview and digital banner ad on FM99, bonus spots and question of the week (including a minimum of 15 30-second promos per week) from The Tide (92.3/102.1), sponsorship of the Entercom office lunch delivery contest, weekly Facebook posts with “did you know” tips for followers on all four Entercom station pages (260,000 followers), and bonus spots on 1230 WJOI.



Sustainability	
Paid Media (2 weeks)	
Radio	
Impressions	851,650
Reach	45.8%
Frequency	2.8
Online Newspaper (The Virginian-Pilot & Daily Press)	
Impressions	165,186
Clicks	94
CTR (Click Through Rate)	0.05%
Facebook	
Impressions	276,965
Clicks	2,973
CTR (Click Through Rate)	1.073%
Unpaid Media	
Added Value	\$10,308
Added Value Impressions	40,400
Overall Campaign	
Total Impressions	1,334,201
Total Budget	\$12,499
Total Exposure Value	\$22,807
Return on Investment	1.82 : 1
Cost per Thousand Impressions	\$9.35

FOCAL AREA: Fix a Leak Week

TARGET AUDIENCE: Adults; Age 18-49

In celebration of National Fix a Leak Week, the Subcommittee ran a two-week paid media campaign including banner display ads on pilotonline.com and dailypress.com, 60-second radio ads, and Facebook ads. The campaign, which ran from March 9 through March 22, called attention to the fact that Hampton Roads residents can conserve water and money by correcting leaks in sinks, lines, and toilets with inexpensive and simple repairs.

As added value for the paid media campaign, the Subcommittee also received bonus spots and question of the week (including a minimum of 15 30-second promos per week) from The Tide (92.3/102.1), weekly Facebook posts with “did you know” tips for followers on all four Entercom station pages (260,000 followers), and digital billboards or banner ads on the following station websites:

95.9 R&B, 94.9 The Point, ESPN 94.1, FM 99, 1230 WJOI, Eagle 97.3 and STAR 1310.

adjusting sprinklers away from paved areas, and watering in the morning. The campaign included banner displays on pilotonline.com and dailypress.com, 60-second radio ads, and Facebook ads.

As added value for the paid media campaign, the Subcommittees also received digital billboard and banner ads on FM 99, 1230 WJOI, 93.7 Bob FM and US 106.1, weekly Facebook tips and streaming banner ads on 95.9 R&B, and bonus spots and askHRgreen.org question of the week (including a minimum of 15 30-second promos per week) on The Tide radio stations 92.3 and 102.1.



Fix a Leak Week	
Paid Media (2 weeks)	
Radio	
Impressions	1,457,400
Reach	54.8%
Frequency	3.6
Online Newspaper (The Virginian-Pilot & Daily Press)	
Impressions	119,941
Clicks	52
CTR (Click Through Rate)	0.04%
Facebook	
Impressions	139,433
Clicks	1,622
CTR (Click Through Rate)	1.163%
Unpaid Media	
Added Value	\$10,189
Added Value Impressions	15,269
Overall Campaign	
Total Impressions	1,735,127
Total Budget	\$11,998
Total Exposure Value	\$22,187
Return on Investment	1.85 : 1
Cost per Thousand Impressions	\$6.91

Lawn Care & Outdoor Watering (Co-promotion with Stormwater Education)	
Paid Media (2 weeks)	
Radio	
Impressions	741,000
Reach	43.8%
Frequency	2.8
Online Newspaper (The Virginian-Pilot & Daily Press)	
Impressions	202,234
Clicks	170
CTR (Click Through Rate)	0.08%
Facebook	
Impressions	103,176
Clicks	2,752
CTR (Click Through Rate)	2.667%
Unpaid Media	
Added Value	\$9,311
Added Value Impressions	19,319
Overall Campaign	
Total Impressions	1,069,216
Total Budget (split between 2 committees)	\$12,058
Total Exposure Value	\$15,340
Return on Investment	2.54 : 1
Cost per Thousand Impressions	\$5.64

FOCAL AREA: Lawn Care & Outdoor Watering (Co-promotion with Stormwater Education)

TARGET AUDIENCE: Adults; Age 25-64

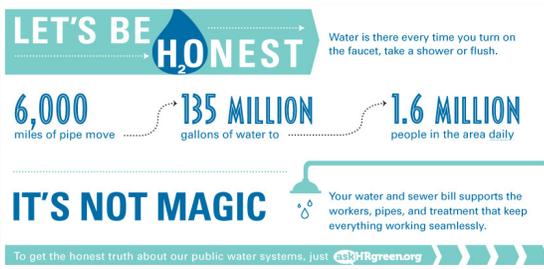
The Water Awareness Subcommittee partnered with the Stormwater Education Subcommittee to promote smart spring lawn care and outdoor watering practices in FY15. The two-week campaign (March 23 through April 4) instructed Hampton Roads residents to work smarter, not harder when it comes to having a great outdoor landscape. The messages highlighted by this campaign included planting native/drought tolerant plants, using mulch and compost in flowerbeds, installing rain barrels,

FOCAL AREA: Infrastructure (Co-promotion with Fats, Oils & Grease Education)

TARGET AUDIENCE: Adults; Age 25-54

The Water Awareness Subcommittee also partnered with the Fats, Oils and Grease Education Subcommittee on a joint media campaign in early 2015. Messaging highlighted the “honest truth” about how our public water systems work and the cost of maintenance that is required to keep it all running smoothly. The two-week campaign, which ran from February 23 through March 8, included banner display ads on pilotonline.com and dailypress.com, 60-second radio ads, and Facebook ads.

As added value for the paid media campaign, the Subcommittees also received bonus spots and question of the week from The Tide (92.3/102.1), weekly Facebook posts with “did you know” tips for followers of the Entercom 1Thing website, and digital billboards or banner ads on the following station websites: 95.9 R&B, 94.9 The Point, 93.7 BOB FM, FM 99, and 1230 WJOI.



Infrastructure (Co-promotion with FOG Education)	
Paid Media (2 weeks)	
Radio	
Impressions	765,800
Reach	50.4%
Frequency	2.3
Online Newspaper (The Virginian-Pilot & Daily Press)	
Impressions	200,592
Clicks	133
CTR (Click Through Rate)	0.07%
Facebook	
Impressions	136,607
Clicks	1,395
CTR (Click Through Rate)	1.021%
Unpaid Media	
Added Value	\$11,007
Added Value Impressions	19,624
Overall Campaign	
Total Impressions	1,122,623
Total Budget (split between 2 committees)	\$10,029
Total Exposure Value	\$21,036
Return on Investment	2.10 : 1
Cost per Thousand Impressions	\$8.93

FOCAL AREA: Value of Tap Water: Rack Card and Green Magazine Advertisement

TARGET AUDIENCE: Adults; Age 25-54

The Subcommittee produced a new rack card in FY15 to convey the value of tap water. Among the features of this rack card is a comparison between the cost of an average water bill and other monthly household costs such as cable and internet service, a family cell phone package with data plan, and even a daily latte habit. The bottom line: tap water is a bargain and a great value! The rack card also explains some of the additional benefits that tap water provides beyond drinking. Tap water also contributes to public health, safety, economic development, and the overall quality of life we enjoy in Hampton Roads.



The same creative used for the rack card was adapted for use as an ad in Green Magazine, the supplemental insert developed in partnership with Coastal Virginia Magazine.

Value of Water Ad – Green Magazine	
Print Ad	
Total Impressions	221,000
Total Budget	\$2,445
Total Exposure Value	\$2,445
Return on Investment	1.0 : 1
Cost per Thousand Impressions	\$11.06

FOCAL AREA: Value of Tap Water: “What Do You Know?” Video Series

TARGET AUDIENCE: Entire Hampton Roads Community

The Water Awareness Subcommittee created a “man on the street” Q&A video series in FY15. Playing off the fact that askHRgreen.org typically gets “asked” lots of questions, the new video series turns the table on Hampton Roads residents to find out what they know about tap water. The video segments were filmed during several hours at the annual Earth Day Celebration at Mount Trashmore in Virginia Beach. Passersby were asked to respond to four questions:

1. How many gallons of water does the average person use at home per day?
2. How many gallons of water are used in Hampton Roads each day?
3. On average, how much does a gallon of water cost (in Hampton Roads)?
4. How important is it to have water available from your faucet 24/7/365?

The three videos were each one to two minutes in length and were posted to YouTube. The videos were promoted only on social media during FY15 and received nearly 600 views. The “What Do You Know?” videos will be part of a larger media campaign planned for FY16.





fats, oils and grease education subcommittee

Fats, Oils and 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.

FOCAL AREA: *Garbage Disposal Use*
TARGET AUDIENCE: *Adults; Age 35-64*

In FY15, the FOG Education Subcommittee encouraged Hampton Roads residents to keep their kitchen plumbing free of clogs caused by fats, oils, and grease while doing all of their holiday cooking. The holiday-themed promotion ran from November 24 to November 30 and advised the public about the damaging effects of using the garbage disposal and pouring fats, oils, and grease down the drain. The one-week campaign included banner display ads on pilotonline.com and dailypress.com, 60-second radio ads, and Facebook ads.

As added value for the paid campaign, the Subcommittee also received bonus spots and video blogs on Eagle 97.3 and 92.9 The Wave, bonus spots and question of the week (including a minimum of 15 30-second promos per week) from The Tide (92.3/102.1), bonus spots and feature sponsorship from 106.9 The Fox; and bonus schedule on 1230 WJOI and ESPN 94.1.



Garbage Disposal Use – Holiday Theme	
Paid Media (1 week)	
Radio	
Impressions	412,100
Reach	28.3%
Frequency	2.3
Online Newspaper (The Virginian-Pilot & Daily Press)	
Impressions	78,212
Clicks	74
CTR (Click Through Rate)	0.09%
Facebook	
Impressions	77,932
Clicks	2,203
CTR (Click Through Rate)	2.827%
Unpaid Media	
Added Value	\$4,136
Added Value Impressions	11,506
Overall Campaign	
Total Impressions	582,056
Total Budget	\$5,774
Total Exposure Value	\$9,910
Return on Investment	1.72 : 1
Cost per Thousand Impressions	\$9.92

FOCAL AREA: *What Not to Flush*
TARGET AUDIENCE: *Women; Age 25-54*

“It came from beneath the streets” was the theme of the FOG Subcommittee’s FY15 “what not to flush” 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. People often dispose of wipes, cotton balls/swabs and other personal hygiene items in the toilet without realizing the role these items play in clogging sanitary sewer lines and damaging wastewater machinery. This chilling campaign ran for one week between October 24 and November 2 and included banner displays on pilotonline.com and dailypress.com, 60-second radio ads, Facebook ads, and movie theater advertisements in 13 theaters across the region.

As added value for the paid campaign, the Subcommittee also sponsorship billboards from 92.9 The Wave, bonus

spots and question of the week (including a minimum of 15 30-second promos per week) from The Tide (92.3/102.1), sponsorship of the Entercom office lunch delivery contest and weekly Facebook posts with “did you know” tips for followers on all four Entercom station pages (over 260,000 followers), and sponsorship of classic country at 5 on US 106.1

campaign in early 2015. Messaging highlighted the “honest truth” about how our public water systems work and the cost of maintenance that is required to keep it all running smoothly. The two-week campaign, which ran from February 23 through March 8, included banner display ads on pilotonline.com and dailypress.com, 60-second radio ads, and Facebook ads.

As added value for the paid media campaign, the Subcommittees also received bonus spots and question of the week from The Tide (92.3/102.1), weekly Facebook posts with “did you know” tips for followers of the Entercom 1Thing website, and digital billboards or banner ads on the following station websites: 95.9 R&B, 94.9 The Point, 93.7 BOB FM, FM 99, and 1230 WJOI.



What Not To Flush	
Paid Media (1 week)	
Radio	
Impressions	265,050
Reach	46.0%
Frequency	1.7
Online Newspaper (The Virginian-Pilot & Daily Press)	
Impressions	105,416
Clicks	104
CTR (Click Through Rate)	0.10%
Facebook	
Impressions	88,405
Clicks	1,462
CTR (Click Through Rate)	1.654%
NCM Movie Theater	
Impressions	219,033
Unpaid Media	
Added Value	\$8,107
Added Value Impressions	23,071
Overall Campaign	
Total Impressions	700,975
Total Budget	\$10,785
Total Exposure Value	\$18,892
Return on Investment	1.75 : 1
Cost per Thousand Impressions	\$15.39

Infrastructure (Co-promotion with Water Awareness)	
Paid Media (2 weeks)	
Radio	
Impressions	765,800
Reach	50.4%
Frequency	2.3
Online Newspaper (The Virginian-Pilot & Daily Press)	
Impressions	200,592
Clicks	133
CTR (Click Through Rate)	0.07%
Facebook	
Impressions	136,607
Clicks	1,395
CTR (Click Through Rate)	1.021%
Unpaid Media	
Added Value	\$11,007
Added Value Impressions	19,624
Overall Campaign	
Total Impressions	1,122,623
Total Budget (split between 2 committees)	\$10,029
Total Exposure Value	\$21,036
Return on Investment	2.10 : 1
Cost per Thousand Impressions	\$8.93

FOCAL AREA: Infrastructure (Co-promotion with Water Awareness)

TARGET AUDIENCE: Adults; Age 25-54

The FOG Education Subcommittee partnered with the Water Awareness Subcommittee on a joint media

FOCAL AREA: *What Not to Flush - Stickers*

TARGET AUDIENCE: *Local Businesses and Municipal Facilities*

As a way to spread the “what not to flush” message, the Subcommittee developed water-proof, yet easy to remove stickers that could be posted in public restrooms across Hampton Roads. Local businesses are a natural audience for these stickers as they often suffer the consequences of the harmful flushing behaviors of their patrons. Likewise, committee members felt that municipal facilities should install these stickers in public and staff restrooms to further support the campaign.



FOCAL AREA: *Fats, Oils and Grease Regional Training Program*

TARGET AUDIENCE: *Food Service Establishment Employees and Grease Haulers*

In FY15, 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.

In an effort to improve compliance with local FOG ordinances and enforcement programs, the committee also initiated sending a regional letter to local grease hauling companies. The letter, endorsed by representatives of the Regional Directors of Utilities Committee, informed haulers about providing their customers with the necessary information that is required of them at the time of inspection. By doing so, haulers can ensure their clients are operating under an adequate cleaning schedule, have proper documentation of all cleanings and required GCD maintenance, and remain in compliance with local ordinances.



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.



LITTER

DISPOSE OF CIGARETTE BUTTS IN THE PROPER RECEPTACLES

let's keep our community clean

askHRgreen.org

Cigarette Litter Prevention Program



IS YOUR MONEY DRIP

THE WATER WASTING CULPRITS

(THE FICKLE FAUCET)

Just a few tweaks can fix those leaks and save you



PAPER TOWELS

HYGIENE PRODUCTS

EVEN "FLUSHABLE" WIPES

SOME THINGS WEREN'T MEANT TO BE IN THE TRASH

IT CAME FROM THE STREET

click to expand

's feast!

your drain.

rain.

GREEN UP HAMPTON ROADS!

RECYCLING MADE SUPER EASY

the less ends up in the trash, the more it could live FOREVER.

LET'S ALL TRASH LESS

PER PRODUCTS no pizza boxes, milk cartons & juice boxes

- papers
- mail supplements
- phone books
- magazines
- cardboard boxes flattened
- cardboard rolls

& TIN * clean, please

- aluminum foil
- aluminum pie plates & containers

GLASS * empty, please

- glass jars any color
- glass bottles any color

TO THESE 6 TIPS YOU MUST

Hurry now, don't hesitate

- TEST YOUR SOIL
- PLANT MORE PLANTS

BAG IT! TRASH IT!

Learn waste local and the "Scor"



Appendix C.2

Regional Cooperation in Stormwater Management

REGIONAL COOPERATION IN STORMWATER MANAGEMENT

FISCAL YEAR 2014-2015

A STATUS REPORT

This report was included in the HRPDC Work Program for FY 2014-2015, approved by the Commission at its Executive Committee Meeting on June 19, 2014

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

September 2015

REPORT DOCUMENTATION

TITLE:
**Regional Cooperation in Stormwater
Management Fiscal Year 2014-2015:
A Status Report**

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GRANT/SPONSORING AGENCY
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ABSTRACT

This document describes cooperative activities related to stormwater management undertaken by Hampton Roads local governments during Fiscal Year 2014-2015. 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 twelve localities with stormwater permits to assist them in meeting their permit requirements.

ACKNOWLEDGMENTS

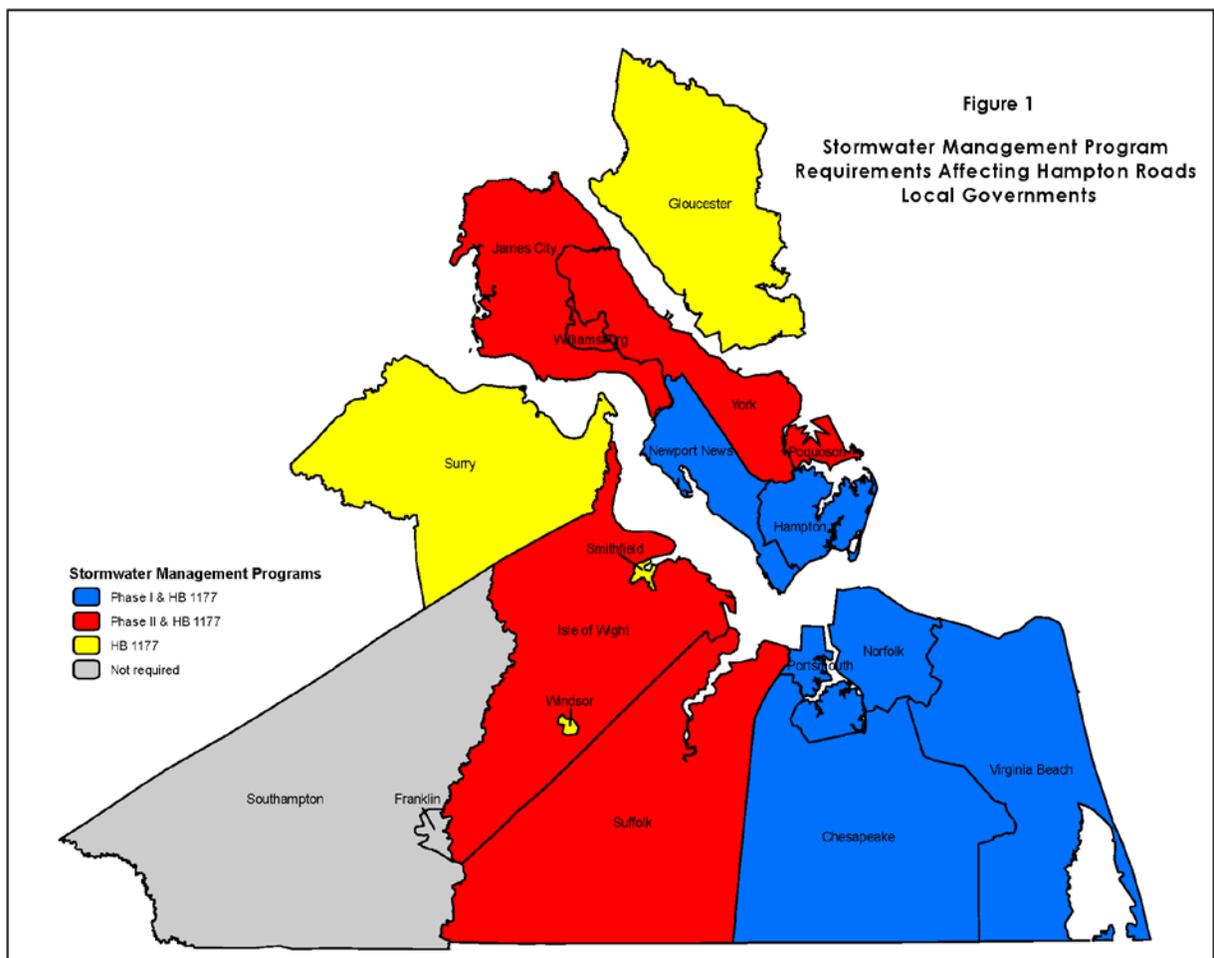
The Hampton Roads Planning District Commission, in cooperation with the regional Stormwater Workgroup, prepared this report.

Preparation of this report was included in the HRPDC Unified Planning Work Program for FY 2014-2015, approved by the Commission at its Executive Committee Meeting of June 19, 2014.

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

INTRODUCTION

Working through the Hampton Roads Planning District Commission, the region's seventeen member cities and counties and town (Figure 1) cooperated on a variety of stormwater management activities during Fiscal Year 2014-2015. 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.



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 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 six 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 efforts of the Phase I localities this year have focused on implementing the local Construction General Permit programs, following the Phase I permit renewal process for Prince William, Chesterfield, Fairfax, and Henrico, and coordinating with the Department of Environmental Quality (DEQ) on their own draft Phase I permits. The Hampton Roads Phase I localities received draft MS4 permits on January 26, 2015 and have been in regional and individual negotiations since. In the last six months, the Phase I localities have met multiple times, sought legal counsel, and submitted regional and individual comment letters to DEQ. In

the next year, DEQ has scheduled individual meetings with most of the localities. Permits are expected to be issued in the first half of FY2016.

Phase II Localities

The Phase II General Permit was reissued on July 1, 2013 and required localities to develop an Action Plan within 48 months to address their waste load allocations in the Chesapeake Bay TMDL. During FY 2014-2015, the Phase II localities followed DEQ's development of the Action Plan guidance while developing their Action Plans that were submitted at the end of the fiscal year. Localities utilized the stormwater committee to coordinate on methodologies for MS4 delineation and to share details of plan development. The Phase II localities also focused on implementing their local Stormwater Programs, training staff on stormwater issues, and meeting education and outreach requirements. HRPDC staff developed an online regional training library in FY2015 in order to facilitate compliance with additional training requirements in the reissued MS4 General Permit. AskHRgreen.org piloted regional media campaigns for pet waste reduction, proper lawn maintenance, and reduction of fats, oils, and grease. These campaigns will serve to meet Phase II permit requirements for education and outreach for the remainder of this permit cycle.

INFORMATION EXCHANGE

The cornerstone of the Regional Stormwater Management Committee's activities 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 Department of Conservation and Recreation (DCR), Department of Environmental Quality (DEQ), Virginia Department of Transportation, Hampton Roads Sanitation District, 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 Environmental Protection Agency Office of Research and Development to promote sustainability, by representatives of the U.S. Geological Survey to discuss local tide gauge installation and the Chesapeake Bay Program Climate Change Workgroup, by representatives of the VA Department of Game and Inland Fisheries regarding

the revised Wildlife Action Plan, and by DEQ staff on the schedule and expectations for the upcoming Chesapeake Bay Preservation Area compliance reviews and the historical data cleanup for the Chesapeake Bay model update.

Watershed Roundtables

The Watershed Roundtable approach is Virginia's program to encourage collaboration and information sharing between the public and private sector on nonpoint source pollution management. HRPDC staff participated in the Middle James River Roundtable and the Albemarle-Chowan Roundtable in FY15.

Regional Technical Environmental 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. 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, develop research priorities for filling data gaps, and assist in developing a framework for prioritization of restoration sites. Meetings are open to the public and will be held quarterly. The Workgroup serves an advisory role to the Regional Environmental Committee. In FY2015, meetings were held in September 2014, December 2014, and June 2015.

PUBLIC EDUCATION

askHRgreen.org

To support development and operation of the stormwater education program, the HR STORM committee consisting of local stormwater education/public information staff was established in 1997. Beginning in FY11, 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 subcommittee continues to meet on a monthly basis to discuss education priorities for stormwater. In FY15, the subcommittee focused on ensuring that the regional education campaign fulfills the outreach requirements on the current Phase II General Permit issued July 1, 2013. 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 six Phase II communities to develop and conduct training programs for local government staff. This year the HRPDC staff developed a regional training library and uploaded it to the HRPDC website. The library contains training resources such as webcasts, You Tube videos, and DVD videos. The Stormwater Workgroup also evaluated training videos that are available for purchase. The series produced by the North Central Texas Council of Governments, which covers stormwater pollution prevention for a variety of municipal departments, was very well received and several localities have incorporated the videos into their local training programs.

The Chesapeake Stormwater Network (CSN) offered several webcasts throughout FY15 covering topics of interest to MS4 managers, including crediting urban retrofits and improving residential BMP programs. HRPDC staff registered for the webcasts and provided conference rooms for viewing.

DEQ selected Hampton Roads as the pilot location for their new course, Stormwater Management for Contractors and Operators. The course provides an overview of stormwater management requirements applicable to those persons responsible for demonstrating compliance with the conditions of the construction general permit. HRPDC had expressed a need for this type of training and was pleased to host the first session on January 6, 2015.

In May 2015, EPA Region III staff led the Virginia MS4 Forum, a three-day workshop addressing EPA and DEQ oversight, compliance expectations and assistance, and permittee collaboration. The Hampton Roads Phase I and Phase II localities were in attendance.

Training Topic	Last Offered	Previous Dates
Fleet Maintenance	March 2005	
Landscaping	March 2006	
IDDE	Oct 2009	Feb 2008, May 2007
General Pollution Prevention	May 2013	March 2004, Feb 2009
Parks & Open Space Mgt.	March 2011	
LID Practices	June 2010	
Erosion & Sediment Control	May 2013	
Pollution Prevention and Spill Response for Municipal Operations	May 2013	
Urban Stormwater Retrofits – Discovery and Accounting (CSN Webcast)	Sept 2014	
Creating or Enhancing Your Local Residential BMP Program (CSN Webcast)	Sept 2014	
Crediting BMPs Used for New and Redevelopment (CSN Webcast)	Oct 2014	
Best Practices for Retrofit Delivery (CSN Webcast)	Nov 2014	
Stormwater Management for Contractors and Operators (DEQ)	Jan 2015	
VA MS4 Forum (EPA Region III)	May 2015	

LEGISLATIVE & REGULATORY MONITORING

This element of the program involves monitoring state and federal legislative and regulatory activities that may impact local stormwater management programs. Based on this monitoring, the HRPDC staff develops briefing materials for use by the localities, including consideration by the governing bodies. As appropriate, the 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 past six years. During 2014-2015, the regional emphasis was on the development of the Chesapeake Bay TMDL Action Plan Guidance, streamlining the Stormwater Legislation and Regulations, developing guidelines for the use of proprietary BMPs for stormwater regulation compliance, the federal Waters of the US Rule, the state nutrient trading regulations, 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 Technical Environmental Workgroup or 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 elected a representative to serve on behalf of the localities.

Chesapeake Bay TMDL Action Plan Guidance

EPA issued the TMDL for the Chesapeake Bay watershed on December 29, 2010. It was based, in part, on the Watershed Implementation Plans (WIP) developed by the Bay watershed states and the District of Columbia. The Bay TMDL addresses all segments of the Bay and its tidal tributaries that are on the impaired waters list. In its Chesapeake Bay TMDL Watershed Implementation Plans, the Commonwealth committed to a phased approach to reducing nutrients and suspended solids discharging from MS4s. The Special Condition for the Chesapeake Bay TMDL in the General VPDES Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer System (VAR04), effective July 1, 2013, and the eleven Phase I Individual MS4 permits, as they are reissued, requires MS4 operators to develop a Chesapeake Bay TMDL Action Plan that demonstrates future plans to meet the required reductions.

During FY14, HRPDC staff participated in the advisory committee for the development of guidance for the Chesapeake Bay TMDL Action Plan provision being placed in MS4 permits to meet TMDL requirements. DEQ issued the Guidance Memo in August 2014 and held a series of information sessions for local governments. DEQ issued a revised draft in March 2015 in order to address comments and issues identified during the information sessions. HRPDC staff worked with the stormwater committee to develop comments on the revised Guidance and submitted a comment letter on behalf of the localities in April 2015. The final Guidance Memo was issued in May 2015.

Streamlining Virginia Stormwater Laws

In FY15, HRPDC served on the Stormwater Legislation Stakeholders Advisory Group (SAG). The SAG has been charged with streamlining the VA stormwater laws (Stormwater Management Act, Erosion and Sediment Control Law, Chesapeake Bay Preservation Act, and the State Water Control Law) with the goal of proposing revised legislation in the 2016 General Assembly session.

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 DEQ on BMP listing criteria, Clearinghouse website content, and database design. The Region was represented on the BMP Clearinghouse through January 2015. Regional input was focused on defining the proposed role of the Clearinghouse in approving non-proprietary BMP pollutant removal efficiencies.

At the end of FY14, 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 FY15, 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.

Waters of the US Rule

On March 25, 2014, the Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (Corps) jointly proposed a rule defining the scope of waters protected under the Clean Water Act (CWA). Revisions were proposed in light of Supreme Court rulings in 2001 and 2006 that interpreted the regulatory scope of the CWA more narrowly than previously, but created uncertainty about the precise effect of the Court's decisions. The HRPDC Stormwater Workgroup discussed this issue extensively in early FY15 and submitted a comment letter on October 16, 2014. The letter focused on concerns that the rulemaking would make stormwater retrofits and compliance with TMDLs more difficult, and requested that EPA add an exception for stormwater infrastructure to the Rule. On May 27, 2015, the EPA and the Corps finalized the Clean Water Rule to define Waters of the United States. The proposed Rule addressed many of the HRPDC concerns.

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 best management practices, 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 trading between point source to nonpoint source trades or nonpoint to nonpoint trades. This expanded trading program is part of the overall goal of meeting the reductions assigned by the Chesapeake Bay Watershed Implementation Plan and 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. Nonpoint source nutrient credits must be certified by the Department prior to release, placement on the registry and exchange.

In FY2013 and FY2014, the HRPDC served on the Regulatory Advisory Panel established to assist DEQ in developing the certification regulations. DEQ proposed the Regulations for public comment in the Virginia Registrar on December 29, 2014. HRPDC submitted comments to 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. Final regulations are expected in FY2016.

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. 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 will be 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 FY2015, Virginia began the development of this plan with the establishment of the Chesapeake Bay Stakeholder Advisory Group. Meetings in October and March discussed the 2014 Chesapeake Bay Watershed Agreement, BMP Verification process, and Virginia's progress on nutrient reductions by sector.

REGIONAL STUDIES

Water Quality Monitoring Study

In FY14, the HRPDC and the Phase I localities partnered with the USGS and 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 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 FY15, the locations of the 12 stations (2 per Phase I locality) were selected. Seven stations have been installed and are currently collecting flow, turbidity, and temperature data. The remainder of the stations will be installed in FY16. Additional information on the project objectives, site locations, and data collected can be viewed here: <http://va.water.usgs.gov/HRstormwater/index.html>.

Stormwater Program Matrix

A comprehensive stormwater program matrix, including Phase I and Phase II communities, was developed in FY 2000 which addresses 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 from 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. The 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, the HRPDC staff is working with DEQ through a cooperative regional partnership to coordinate the TMDL study process with the localities and to develop the required Implementation Plans. In FY14, HRPDC partnered with DEQ and HRSD to develop a study plan to collect stormwater samples from the Elizabeth River watershed and analyze them for 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 FY15, water samples were collected at these stations by HRSD and sent to the DEQ selected laboratory for PCB analysis. The MS4 localities in Hampton Roads funded the data collection and DEQ paid for the analysis. The PCB TMDL for the Lower James and Elizabeth River is expected to be developed in FY16.

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 process also provides a forum for state regulatory agency staff to meet with the region’s localities to discuss evolving stormwater management regulations. In addition, the HRPDC staff provides technical information and advice to all of the participating localities on a wide variety of issues upon request. In FY15, 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 sixteen member local governments. A Memorandum of Agreement (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 twelve permitted localities have 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 is being utilized by local governments to catalog development sites and their associated best management practices (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 FY15, AECOM (formerly URS) updated PARS to meet the current needs of the Stormwater Workgroup. Updates included adding stormwater management facility types to match the BMP Clearinghouse, tracking for TSS, and tracking development, redevelopment, impervious, and pervious acres.

RELATED PROGRAMS AND PROJECTS

In various combinations, the twelve (12) 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 is a regional partnership that has led and directed the restoration of the Chesapeake Bay since 1983. Bay Program partners include federal and state agencies, local governments, non-profit organizations and academic institutions. Partners work together through the Bay Program'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 Chesapeake Bay Program (CBP). To facilitate local government participation in Chesapeake Bay Program activities, 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. In FY15, local government stormwater staff served on the Street Sweeping, shoreline restoration, and floating wetlands BMP panels that develop Bay Program efficiencies for new stormwater best management practices. HRPDC staff co-chaired the Bay Program's Land Use Workgroup through December 2014. HRPDC staff participated in a Scientific and Technical Advisory Committee (STAC) workshop in March 2015 to evaluate the need for a Bay-wide protocol to test MTDs.

Chesapeake Bay Preservation Act Program

Fourteen of the seventeen member localities continue to implement programs in response to the Virginia Chesapeake Bay Preservation Act. Stormwater management is one component of those programs. Although the CBPA is not formally part of the multi-state Chesapeake Bay

Program, 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 Bay Program.

Land and Water Quality Protection Study

In FY13, HRPDC began a three phase project, Land & Water Quality Protection Study, funded by the Virginia Coastal Zone Management Program with 309 funding. The goal of this grant was to identify enforceable policies or changes to enforceable policies for local governments to consider adopting. During the first phase of the project, HRPDC staff analyzed the local consequences of the new water quality requirements for urban and transitional communities and identified available tools to enable localities to meet these requirements while avoiding negative impacts on natural resources. The second phase of the project focused on working with two pilot localities (Norfolk and Suffolk) to identify the most appropriate tools and test their application. In FY15, HRPDC staff completed the third and final phase of the project, which resulted in a coastal plain BMP guidance, recommendations for changes to plans and ordinances in the pilot localities, and a modeling effort to evaluate the water quality impacts of various growth scenarios.

Development of Statewide Land Cover Data

During the 2014 General Assembly, HRPDC staff worked to allocate funds from the Water Quality Improvement Fund (WQIF) for the development of statewide high-resolution land use/land cover data. In FY15, HRPDC staff coordinated with DEQ, VGIN, and the Bay Program to define the scope of work for this project, identify the necessary land cover types, and issue an RFP through VGIN to select a contractor. WorldView Solutions was selected as the service provider at the end of FY15. This data will be utilized by the Chesapeake Bay Program to improve the representation of land use in the Bay Watershed Model. This effort was initiated because localities identified the need for better land cover data as a high priority after reviewing Virginia's Chesapeake Bay Phase II WIP.

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 twelve 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, and achievement of improved environmental quality throughout the Hampton Roads Region.

Appendix C.3

Regional Meeting Attendance

Regional Meeting Attendance Charts

askHRgreen Stormwater Education Subcommittee Meeting Attendance													
	July	August	September	October	November	December	January	February	March	April	May	June	
Chesapeake		Elizabeth Vaughn	Cancelled - CBF Boat Trip			Elizabeth Vaughn		Elizabeth Vaughan		Elizabeth Vaughan			
Gloucester													
Hampton	Cris Ausink				Cris Ausink	Cris Ausink		Cris Ausink	Cris Ausink	Cris Ausink			Cris Ausink
Isle of Wight	Kim Hummel, Brian Bass	Brian Bass, Kim Hummel			Brian Bass/Kim Hummel	Brian Bass/Kim Hummel	Brian Bass	Brian Bass	Brian Bass	Brian Bass	Brian Bass, Kim Hummel		Brian Bass
James City County	Paul Cuomo					Paul Cuomo	Paul Cuomo	Paul Cuomo					Paul Cuomo
Newport News	Allison Watts	Allison Watts			Allison Watts/Dave Kuzma	Allison Watts	Allison Watts	Allison Watts	Allison Watts	Allison Watts	Allison Watts		Allison Watts
Norfolk	Fleta Jackson	Fleta Jackson, Gina Shaw, Alacia Nixon			Fleta Jackson/June Whitehurts	Fleta Jackson	Fleta Jackson, Gina Shaw	Fleta Jackson	Fleta Jackson		Fleta Jackson		Fleta Jackson
Poquoson		Sherry Coffey			Sherry Coffey			Sherry Coffey			Sherry Coffey		Sherry Coffey
Portsmouth						Christina Murphy	Christina Murphy	Christina Murphy	Christina Murphy	Christina Murphy	Christina Murphy		Christina Murphy
Smithfield					Wayne Griffin		Wayne Griffin						
Suffolk	David Keeling	David Keeling			David Keeling	David Keeling	David Keeling	David Keeling	David Keeling	David Keeling, Alacia Nixon	David Keeling, Alacia Nixon		David Keeling, Alacia Nixon
Virginia Beach		Bill Johnston			Bill Johnston	Sue Kriebel	Sue Kriebel	Sue Kriebel	Sue Kriebel		Sue Kriebel		Sue Kriebel
Williamsburg	Tammy Rojeck					Tammy Rojeck	Tammy Rojeck			Tammy Rojeck	Tammy Rojeck		
York	Ivan Shelton	Ivan Shelton		Ivan Shelton	Ivan Shelton	Ivan Shelton	Ivan Shelton	Ivan Shelton	Ivan Shelton	Ivan Shelton		Ivan Shelton	

Phase II Meeting Attendance FY 14-15																
	Regional SW Workgroup & Phase II	Phase II	Regional SW Workgroup	Regional SW Workgroup & Phase II	Regional SW Workgroup	Regional SW Workgroup & Phase II										
Meeting Dates	7/16/2014	8/20/2014	9/17/2014	10/15/2014	11/19/2014	12/17/2014	1/21/2015	2/18/2015	3/3/2015*	3/18/2015	4/15/2015	5/20/2015	6/17/2015	# Meetings	% Attended	
Phase II Localities:	1	1	Meeting Cancelled	1	1	1	1	Meeting Cancelled	1	1	1	1	1	11	100%	
Isle of Wight County	1	1		1	1	1	1		1	1	1	1	1	1	11	100%
James City County	1	1		-	1	-	1		1	1	1	1	1	1	9	82%
Poquoson	1	1		1	-	1	1		1	-	1	1	1	1	9	82%
Suffolk	1	1		1	1	1	1		1	1	1	1	1	1	11	100%
Williamsburg	1	1		1	1	1	-		1	1	1	1	1	1	10	91%
York Co.	1	1		1	1	1	1		1	1	1	1	1	1	11	100%
*3/3/2015 meeting was held in addition to the regular monthly meeting.																
No Phase II meetings held on highlighted dates																

Appendix C.4

Promotional Item Giveaway Tracking

Event Giveaway Tracking													
<i>Stormwater Group</i>													
Item	TGIF 7/11/14	TGIF 7/18/2014	Medallions Hunt Club Point	TGIF 8/22/2014	Peanut Fest Oct. 9-12	Holland Farm Days Nov 12-13	Hobson Community Outreach (Scoop the Poop) 12/15/14	Stormwater Medallions, Glenrose Village	Master Gardeners Giveaway	Mutt Strutt May 3, 2015	Employee Health Fair 6/11/15	T.G.I.F. 6/19/15	Totals
Pens	17	40	0	13	240	25	0	0	0	0	30	12	377
Residential Guide Brochures	4	8	0	0	260	12	10	1	0	0	0	4	299
Seed Packets	10	19	0	0	0	0	0	0	0	0	0	0	29
Medallions	0	0	44	0	0	0	0	25	0	0	0	0	69
Native Plants VA Coastal Plain (Blue)	11	20	0	2	155	12	0	0	0	0	0	0	200
Native Plants VA Riparian Buffer Zones	6	9	0	0	95	12	0	0	0	0	0	0	122
Car Wash Brochure	5	3	0	1	54	0	0	0	0	0	0	0	63
Plant More Plants Brochure/Card	3	11	0	1	118	12	0	0	0	0	0	0	145
Plant More Plants Bumper Sticker	0	0	0	0	0	0	0	0	0	0	0	0	0
Dog Waste Bags	20	40	0	17	200	0	10	0	0	300	15	20	622
Dog Waste Rack Cards	20	19	0	17	116	0	20	0	0	300	0	20	512
Dog Waste Stickers	0	0	0	0	0	0	0	0	0	0	0	0	0
Green Living Brochure	0	0	0	0	0	0	0	0	0	0	0	0	0
Crossword Puzzle	0	0	0	0	0	0	0	0	0	0	0	0	0
Hrgreen Bag	28	60	0	20	300	0	1	1	0	20	0	20	450
Green Learning Guides	0	0	0	0	32	0	0	0	0	0	0	0	32
Tape Measure Key Ring	0	0	0	0	0	0	0	0	0	0	0	0	0
Teachers Guides	0	0	0	0	0	0	0	0	0	0	0	0	0
Down the Drain Brochure	0	9	0	3	0	0	0	0	0	0	0	0	12
Time to Fertilize Brochure	0	7	0	0	126	0	0	0	0	0	0	0	133
Garden Kneelers	0	0	0	0	0	0	0	0	20	0	0	10	30
Coastal Virginia Magazine	0	0	0	0	0	0	0	0	0	0	0	5	5
Hampton Roads TMDL Rack Card	0	0	0	0	0	0	0	0	0	0	0	30	30
Total	124	245	44	74	1,696	73	41	27	20	620	45	121	3,130

Event Giveaway Tracking <i>Litter Control Office</i>									
Item	Oakland Elementary 4/24/15	Arbor Day 4/25/15	Sleepy Hole Garden with Master Gardners	Employee Health Fair 6/11/15	Storytime 6/13/15	OAK Camp 6/17/15	T.G.I.F. 6/19/15	Storytime 6/25/15	Totals
Recycle More Trash Less Recycling Rack Card	3	0	0	0	0	0	1	0	4
Tap It Rack Card	0	0	0	0	0	0	0	0	0
Recycling Coloring Books	3	0	0	0	2	0	9	11	25
Keep Our Environment Clean Coloring Books	0	3	30	0	1	7	9	11	61
Recycle More, Trash Less Magnets	3	4	0	10	0	0	0	0	17
Recycle Earth Heart Tattoos	60	0	0	0	0	0	6	0	66
Don't Be a Litter Bug Tattoos	0	0	50	0	0	0	0	0	50
Keep Suffolk Beautiful Awareness Bands	0	0	0	0	0	7	5	0	12
I Love Being Green Notebooks	0	0	0	0	0	0	0	0	0
Litter Control Office Brochure	3	0	0	0	0	0	0	0	3
Mood Changing Pencils	0	0	0	15	4	7	21	11	58
Straws	0	0	0	0	0	0	11	0	11
Litter Static Cling	0	0	0	0	0	0	0	0	0
Nylon Frisbees	0	0	0	0	0	0	0	0	0
Grabbers	0	0	0	30	0	0	0	0	30
Total	72	7	80	55	7	21	62	33	337

Appendix D

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

Appendix D.1

Public Involvement and Outreach Events Summary

Public Participation and Outreach Events and Activities Summary

7/18/14 8/22/14 6/19/15	T.G.I.F. Summer Concert Series	Summer Concert held at a Suffolk Park. Free and open to the public. Public Works Engineering representatives presented information regarding stormwater runoff, lawn care practices, used oil, native plants, scooping the poop, water quality, TMDLs, and recycling/litter prevention.
August 2014	Medallions Hunt Club Point	The Storm Drain Medallion program was created to get the public involved in identifying what storm drains are and how they contribute to our water ways. This group added 44 medallions to their community storm drains.
9/20/14	Recycling Drive and Tire Amnesty Day	TFC: 300 pounds of items; Goodwill: 4,150 pounds of items Cintas: 2,051 pounds of documents SPSA: 1,630 tires Partnered with Mosquito Control. Reached over 100 citizens
10/9/15, 10/10/15, 10/11/15, and 10/12/15	Peanut Fest	Attended festival that honors the cities' devotion to agriculture and celebrates local vendors. Public Works Engineering representatives presented information regarding stormwater runoff, lawn care practices, used oil, native plants, scooping the poop, water quality, TMDLs, and recycling/litter prevention. Reached over 1,600 citizens.
11/12/14 11/13/14	Holland Farm Days	Educated 2 nd grade students about pollution in stormwater runoff using the Enviroscape model. Students were also taught about recycling and litter prevention. Reached over 1200 second grade students
12/15/14	Hobson Community Outreach	Staff conducted targeted outreach with the community to educate residents about scooping dog poop Reached 41 citizens
4/2/15	Career Fair	Attended Career Fair at Lakeland High School to promote job opportunities throughout the City of Suffolk Public Works. Reached 100 high school juniors
4/18/15	Recycling Drive and Tire Amnesty Day	TFC: 320 pounds of items; Goodwill: 2500 pounds of items Cintas: 3,734 pounds of documents SPSA: 1,132 tires Partnered with Mosquito Control. Gave away re-usable bags and promoted clean the bay day 11 volunteers Reached over 100 citizens
4/18/15	Global Youth Services Day	Conducted cleanups in partnership with parks and recreation

4/21/15	Earth Day Presentation at Oakland Elementary	Presented "Fred the Fish" to 3 groups at Oakland Elementary School. The presentation touched on litter prevention, recycling, and stormwater education
4/24/15	Arbor Day	Manned a table at Arbor Day in Morgan Memorial Library. Gave away educational literature, coloring books and magnets
4/27/15 and 4/28/15	NRPA Marshfield Study Program for 7 th Graders	Educated all 7 th graders in Suffolk Public Schools and all 4 th graders at Nansemond Suffolk Academy about pollution in stormwater runoff using the Enviroscape model.
5/3/15	Mutt Strutt	Raised environmental awareness about the harmful effects of pathogens and nutrients in dog poop on our waterways by giving away educational materials at a dog specific event. Reached 320 people.
5/22/15	Conducted Cigarette Butt Scan as part of Cigarette Litter Prevention Program	Counted how many cigarette butts were located in the areas that would be receiving receptacles in Downtown Suffolk
6/6/15	Clean the Bay Day	A three hour cleanup with 62 volunteers. Removed over 2,540 lbs of trash at Sleepy Hole Park, Portsmouth Blvd., Constant's Wharf Park and Trail, Nansemond River, and Matthew's Lake
6/11/15	Suffolk Employee Wellness Fair	Employees volunteered as a vendor for Public Works Engineering representing Litter Control and Stormwater educating employees about stormwater runoff, illicit discharges, recycling, and litter prevention. Reached 100 employees of the 450 in attendance.
6/13/15	Storytime at North Suffolk Library	Read "The Day the Trash Came Out to Play" to 7 children, followed by a discussion and a game
6/15/15	Litter Index throughout City of Suffolk	Drove throughout Suffolk with Suffolk Clean Community Commission members to count and track litter throughout city to measure highly littered areas and report to Keep America Beautiful.
6/17/15	OAK CAMP	Conducted activities with 7 kids about Mosquito Control, Stormwater, Litter Prevention, and Recycling.
6/22/15	Installed Cigarette Receptacles Downtown With the Suffolk Clean Community Commission as part of Cigarette Litter Prevention Program	In front of Toke Hookah Lounge, East Coast Taco (bench area), Serendipity Hair Salon, Drug Inc., and All About Virginia and More. Stores were also given posters and pocket ashtrays to hand to citizens.

6/23/15	Great American Cleanup Event	The Great American Cleanup is a large community-based initiative held across the country during the spring of each year. The purpose of this grassroots program is to engage individuals, families, school groups, clubs and civic organizations to take greater responsibility for their community's environment. Report submitted to KAB with ending results. GAC held from March 1 – June 1. 305 Volunteers, 106 hours of service, 507 bags of trash collected.
6/25/15	Story time at Morgan Memorial Library	Read "The Day the Trash Came Out to Play" to 11 children followed by discussion and a game

Appendix D.2

Adopt a Street Program Cleanup Summary

ADOPT A SPOT/STREET CLEANUPS JULY 2014 – JUNE 2015

Organization	Area cleaned up	Number of Volunteers	Number of Hours	Number of Bags Filled
Jul-14				
Community Cleanups	Lake Meade Park	10	2	6
East Glen Haven Community Watch	East Glen Haven Drive	9	2	9
Fleet Cyber Command FCPOA	Cypress Park Pool	7	1	4
Verdirame Family	Suffolk Seaboard rail trail from train station to Moore Ave.	3	2	1
Aug-14				
Steeplechase Owner's Association	Median Strip in front of community on Bennett's Creek Park Road		1	1
Dec-14				
Lane Environmental Consultants	Babbton Road between Route 32 and White Marsh Road	1	4	1
Jan-15				
Boy Scout Troop 1 - Main Street United Methodist Church	Murphy's Mill Road	17	2	24
Desert Road Hunt Club	N.C. Line to Clay Hill Road on Desert Road; from Rte. 32 to Desert Rd. on Deer Forest Rd.; all of Clay Hill Rd.; from Rte. 32 to white marsh rd. on cypress chapel rd.; from Cypress Swamp Bridge to rte. 23 on white marsh rd.	30	4	78
Feb-15				
Floyd Byrd Hunt Club	Rountree Crescent	5	2	4
Mar-15				
Community Cleanups	Cedar Lake (within Woodlake)	6	4	7
Great American Cleanup 2015	Suffolk	305	106	

Lane Environmental Consultants	Babbtown Rd (rt 759) between rt 328 and White Marsh Rd.	1	4	2
Nansemond-Suffolk Izaak Walton League	Kings Fork Rd.; Route 10 to 460 back to Kings Fork Community Center	25	2	38
Possum Hollow Ruritan Club	Cherry Grove Road North - from Rt. 10	17	2	18
Savannah Nichole Scheil	Lake Prince Boat Ramp	26	2	20
Section 2 & Friends	Indian Trail, between Lake Cohoon Rd. and Kenyon Rd.	4	2	6
Apr-15				
Community Cleanups	Williamstowne Community	21	2	21
Community Cleanups	Private Home	4	4	30
Community Cleanups	Conrner of Pitchkettle and Garfield	16	2	7
Cypress Ruritan Club	Crossroad at Greenway and Cypress Chapel Rd.	10	2	14
East Glen Haven Community Watch	East Glen Haven drive	7	2	13
Global Youth Services Day 2015		344	4	152
Holland Lodge #256, Prince Hall Masons	South Quay Rd	8	3	8
Lakeland High FFA	Kenyon Road	13	2	11
Lane Environmental Consultants	Babbtown Rd. between rt 32 and White Marsh Rd.	1	4	1
Naval Network Warfare Command & Navy Cyber Defense Operations Command	112 Lakeview Parkway; Suffolk Join Forces	24	2	5
Recycling Drive and Tire Amnesty Day 2015	1216 North Main Street	11	4	0
Suffolk Adult Probation and Parole	Pitchkettle Rd.	5	3	16
Suffolk Crime Fighters (1)	Constance, Church, Western, Main	9	2	3
Verdirame Family	Train Station to moore Ave.	3	2	1
May-15				
Babbtown Bowmen	Babbtown Rd; Rt 13	3	3	8

Byrum Hunt Club	Copeland Road (Manning Rd to Highway 13)	12	3	35
Chuckatuck Chainring Bicyclists	Everett's Road from Rts 10/32 up to the hill after the lakes.	12	1	27
Fleet Cyber Command FCPOA	Cyrpress Park and Swimming Pool	8	1	3
Floyd Byrd Hunt Club	Rountree Cresent	11	1	5
Girl Scout Troop 5357	Bank, Franklin, Grace Street	7	2	6
Greater Oakland & Chucktuck Civic League_Moore	Birch, Eagle, Moore Farm, Brown Hawk, Pine Acres, Bearer tanes, Sparrow, Wren Roads	12	2	20
Lane Environmental Consultants	Babbtown Road between Rt. 32 and White Marsh Rd	1	3	1
OES Grace & Mercy #593	Holladay Street	9	2	5
Shoulders Hill Hunt Club-Sleepy Hole Rd.	Sleepy Hole Rd (Bennetts to Kings)	9	2	9
Shoulders Hill Hunt Club-Shoulders Hill	Shoulder's Hill Rd.	10	2	10
William H. Plummer Masonic Lodge #271	3900 Block of Bridge Road (route 17)	8	4	5
Jun-15				
Applied Technical Systems Inc.	Shoulder's Hill Road	6	1	10
Clean the Bay Day 2015	Sleepy Hole, Constant's Wharf Park and Trail, Portsmouth Blvd, Matthew's Lake, Nansemond River	62	3	127
Community Cleanups	Grounds and Parking Lot of Cypress Manor/Parker Riddick	21	4	46
Total		1148	222	846

Appendix D.3

Press Releases, Notifications, and Public Invitations for Public Outreach and Involvement Events

Event Invitation: Great American Cleanup



Suffolk Clean Community Commission

Keep Suffolk Beautiful

A beautiful community starts in Suffolk!

September 23, 2015

On behalf of Keep Suffolk Beautiful and the Suffolk Clean Community Commission, I would like to thank you for your support in keeping Suffolk clean and beautiful through our Adopt a Spot/Street Program. I want to take this opportunity to extend to you an invitation to join our Great American Cleanup! The Great American Cleanup is a large community-based initiative held across the country during the spring of each year. The purpose of this grassroots program is to engage individuals, families, school groups, clubs and civic organizations to take greater responsibility for their community's environment. Cleanup events have already begun across Hampton Roads. Listed below are three easy ways to get involved in the Great American Cleanup.

1. [R\(E\)cycling Drive & Tire Amnesty Day](#)

When: Saturday, April 18, 2015 from 10:00 a.m. – 2:00 p.m. at Lowe's Parking Lot (1216 North Main Street)

How: Bring your old tires, electronics, paper, batteries, aluminum, boxes, glass and plastic to be properly recycled.

Contact: City of Suffolk Litter Control Coordinator at littercontrol@suffolkva.us

2. [Global Youth Services Day](#)

When: Saturday, April 18, 2015 from 9 a.m. – 1 p.m.

How: Community groups/organizations are asked to participate in and identify projects throughout Suffolk communities that help beautify Suffolk. Issues to be addressed include recycling, community clean-ups, beautification projects, etc. For more information, visit <http://www.gysd.org/>.

Contact: City of Suffolk Litter Control Coordinator at littercontrol@suffolkva.us

3. [Cleanup Event](#)

When: Now – June 2015

How: As an Adopt a Spot/Street group you are already completing at least two cleanups a year. To participate in the Great American Cleanup with your church, community or family, simply sign-up to complete a clean-up event this spring! Our office will provide litter grabbers, trash bags, vests, and gloves for volunteers.

Contact: City of Suffolk Litter Control Coordinator at littercontrol@suffolkva.us

Feel free to call my office at (757) 514-7604 if you have any other questions regarding the Great American Cleanup this spring.

Sincerely,

Lacie Nixon
Litter Control Coordinator

Event Highlights: Recycling Drive and Tire Amnesty Day 9/20/2014



Community Commission helped Suffolk become a little cleaner and greener thanks to their Recycling Drive & Tire Amnesty Day. The Lowe's store parking lot on North Main Street was the site for the event which saw nearly 150 donators step up with their environmental stewardship.

The Suffolk Clean Community Commission, along with members of the Izaak Walton League, Goodwill Industries, City of Suffolk Mosquito Control Department, City of Suffolk Public Works Engineering Division, City of Suffolk Public Works Refuse Division, TFC Recycling, and Cintas Shredding, provided their time and efforts to help the event make a large impact.

Compared to similar past events, this Recycling Drive and Tire Amnesty Day saw record setting numbers with a total of 1,630 tires collected. Goodwill gathered used electronics, cell phones, appliances, clothing, furniture, flat screen T.V.'s and other donations with recyclable donation totals reaching approximately 4,150 pounds. Cintas shredded 2,051 pounds of sensitive documents. TFC Recycling donated a roll-off container that collected 300 pounds of co-mingled items such as glass, newspaper, aluminum and steel cans, plastic bottles and cardboard.

This event was also sponsored by Suffolk's National Night Out Committee. National Night Out offers communities an opportunity to clean-up their neighborhoods and say no to crime.

The next Recycling Drive and Tire Amnesty Day is set for the spring of 2015 at the Lowe's parking lot with the date to be determined.

For more information, contact Crystal Boyd, Suffolk Litter Control Coordinator, at (757) 514-7604 or cboyd@suffolkva.us.

Diana L. Klink, Director, Media & Community Relations
Member of the PRSA – Public Relations Society of America
Member of the NIOA – National Information Officers Association
City of Suffolk
442 W. Washington Street, 1st Floor
Suffolk, VA 23434-4552
Office: 757.514.4104
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dklink@suffolkva.us

NEWS RELEASE

FOR IMMEDIATE RELEASE _____

April 24, 2015

SUFFOLK RECYCLING AND TIRE AMNESTY DAY HELPS MAKE SUFFOLK CLEANER AND GREENER

The Suffolk Clean Community Commission, in partnership with the City of Suffolk Public Works Department Litter Control Office, sponsored a R(E)cycling Drive and Tire Amnesty Day on April 18, 2015 in the Lowe's parking lot in the 1200 block of North Main Street. The results showed the continued dedication of residents to help Suffolk become a cleaner place to be.

Collectively serving over 100 residents, the event featured the Suffolk Clean Community Commission,



Goodwill Industries, Suffolk Mosquito Control, Suffolk Public Works Refuse Division, TFC Recycling, and Cintas Shredding. Instead of placing items in the trash, residents were able to facilitate the repurposing of their products reducing pressure on landfills, saving energy, and positively impacting the community. Volunteers from the event included Suffolk residents, Isaak Walton League members and sailors from Portsmouth Naval Hospital. These 11 volunteers helped move tires, direct traffic and provide information materials.

TFC Recycling donated a roll-off container which collected 320 pounds of co-mingled items. Goodwill Industries collected approximately 2500 pounds of electronics, gently used clothing, home décor, furniture, even computers, laptops, cell phones, and other data storing technology, and flat screen TV's. Cintas Document Management provided on-site shredding of Suffolk residents' sensitive documents and shredded 3,734 pounds. Suffolk's own

Mosquito Control Division signed out mosquito dunks to Suffolk residents, gave out children's books, pencils and provided information. Tire amnesty brought in a total of 1,132 automobile and light truck weight/size tires.

This event was also sponsored by Suffolk's National Night Out Committee. National Night Out offers communities an opportunity to clean-up their neighborhoods and say no to crime.

Residents are encouraged to mark their calendars for the next recycling drive event on Saturday, September 12, 2015 in the Lowe's parking lot, 1216 North Main Street.

For more information, contact Alacia Nixson, Litter Control Coordinator, at (757) 514-7604 or via e-mail at anixson@suffolkva.us.

Event Highlights: Clean the Bay Day 6/6/2015

Clean the Bay Day is an annual event held on the first Saturday in June. This year, CTBD fell on June 6, 2015. The event works to conduct a massive litter removal for our waterways and communities. Sponsored by the Chesapeake Bay Foundation, this volunteer-based event gives all of Hampton Roads a clean sweep. In just three hours, our region manages to remove approximately 100 tons of debris from over 500 miles of Virginia waterways and shorelines. Our office coordinates cleanup spots throughout Suffolk, gather volunteers, and distribute cleanup materials to facilitate this region-wide effort.



Figure 1: Trash collected from Constant's Wharf Park and Marina



Figure 3: Volunteers cleaning up Portsmouth Blvd.



Figure 2: Volunteers cleaning up Sleepy Hole Park

Event Invitation: Clean the Bay Day



September 23, 2015

I would like to take this opportunity to extend an invitation to you and your organization to become involved in Clean the Bay Day, Saturday, June 6, 2015 from 9am -12pm.

Clean the Bay Day (CTBD) is an annual, statewide cleanup that removes thousands of pounds of litter from the shorelines. Last year approximately 6,000 volunteers removed more than 110,000 pounds of harmful debris from streams and shorelines throughout the Commonwealth in just three hours. The City of Suffolk is looking for neighborhoods, civic leagues, organizations and individuals to clean selected sites across the city. We ask that you help join our efforts to clean our waterways and restore our shorelines by volunteering. Our goal of keeping our waterways clean and our city free of debris can only be accomplished with your help. A clean city makes our neighborhoods and communities a healthier and more appealing place to live, work, and play.

Where to start? Sign up to volunteer at <http://www.cbf.org/events/clean-the-bay-day>. Once your registration is processed, I will contact you with more information about the specific cleanup site up your group has been assigned.

Thank you for your participation in the Suffolk Clean Community Commissions Adopt a Spot/Street Program. Your efforts and sustainable practices set a precedent of environmental stewardship that is crucial to preserving the Bay as a national treasure. We hope that you will continue your conservation efforts by accepting our invitation to join us on June 6th. For additional information, please contact me at (757) 514-7604 or littercontrol@suffolkva.us.

Sincerely,

A handwritten signature in black ink that reads 'Lacie Nixon'.

Lacie Nixon
City of Suffolk Litter Control Coordinator



**KEEP AMERICA
BEAUTIFUL**

Event Highlights: Clean the Bay Day 6/6/2015



NEWS RELEASE

FOR IMMEDIATE RELEASE _____

September 23, 2015

Contact:

Diana L. Klink
757.514.4104
757.359.1845

Tim Kelley
757.514.4103
757.871.3039

SUFFOLK IMPACTS THE CHESAPEAKE BAY FOR THE 27TH ANNUAL CLEAN THE BAY DAY

Suffolk, VA – On Saturday, June 6, 2015 from 9 a.m.- 12 noon, Over 60 volunteers concerned about the Chesapeake Bay, pitched in to clean Sleepy Hole Park, Portsmouth Blvd, Constant's Wharf Park and Marina along the Railroad Trail as part of the 27th Annual Clean the Bay Day. Clean the Bay Day sets the stage for moving beyond the visible pollution and tackling the major unseen threats that are crucial to the livelihood of the Bay.

A total of 2,546 pounds of litter was collected through these efforts. In addition to the family and individual volunteers, many military groups joined together to clean the Nansemond River as well as Matthew's Lake.

Statewide, an estimated 6,000 volunteers removed more than 125,000 pounds of harmful debris from streams, parks, and beaches along 530 miles of stream and shoreline of the Chesapeake Bay.

The most common items found throughout the Commonwealth during the cleanup were plastic bottles, plastic bags, food wrappers and cigarette butts. But, wooden pallets, glass bottles, automobile parts and tires, a shopping cart, pounds of Styrofoam and many other large, harmful items were a significant portion of the overall yield. Volunteers were also surprised by many strange finds including a fire extinguisher, a bicycle, a curbside trashcan, monopoly money, and an industrial hose.

Removing unsightly shoreline litter not only improves aesthetics but also enhances the health of our waterways and the fish and wildlife that depend on them. Besides Suffolk, major other participants included Hampton Roads localities, Northern Virginia, State Parks, and The United States Navy.

For more information, contact Lacie Nixson, Suffolk Litter Control Coordinator, at (757) 514-7604 or anixson@suffolkva.us.

Event Highlights: Cigarette Litter Prevention Program

Suffolk, along with six other localities throughout Hampton Roads is participating in a region wide initiative to reduce cigarette litter. According to Keep America Beautiful, tobacco litter makes up 38% of roadway litter and 32% of litter in storm drains, making it the most littered item in our country. Kicking off this summer, each locality will be placing cigarette receptacles, earned through a Keep America Beautiful grant, in their area. Suffolk's new receptacles will be installed downtown in front of Toke Hookah Lounge, Serendipity Hair

Salon, East Coast Taco, Super Drug Inc., and All About Virginia & More gift Shop. The positioning of the receptacles combined with positive reminders, education and awareness will help smokers to do the right thing. The message being conveyed is for citizens to remember, cigarette butts are litter too.



Event Highlights: Cigarette Litter Prevention Program

AskHRGreen Blog Post: 7/27/15

#NoCigaretteLitterNow. The hash tag says it all! Seven Hampton Roads localities have teamed up to tackle cigarette butt litter throughout our communities. While each community is unique in their execution of the Keep America Beautiful Cigarette Litter Prevention Program, the message is the same: cigarette butts = litter. The City of Suffolk launched its cigarette litter prevention program on June 22. With the help of the chair of the Suffolk Clean Community Commission, Kathy Russell, and City of Suffolk Public Works employees, we were able to install five cigarette receptacles in downtown Suffolk along Main Street and West Washington. Downtown Suffolk was chosen as the target area for this program because it is the source of new construction, high traffic volume, and various businesses. The receptacles can be found in front of Toke Hookah Lounge, Serendipity Hair Salon, East Coast Taco, Super Drug Inc., and All About Virginia & More gift Shop. The owner of each of these businesses have joined in our efforts to stop cigarette butt litter by pledging to take responsibility for the upkeep of these receptacles and also to help communicate to smokers the harm of cigarette litter. Originally finding over 300 cigarette butts in our target area, our goal is for the receptacles, along with the educational awareness, to help reduce the number of cigarette butt litter found on the ground. Listed below are ways that you can get involved with our program:

- **Smokers:** visit any of the participating business in downtown Suffolk to grab your free pocket or car ashtray! Never throw cigarette butts out of car windows or on the ground.
- **Do Your Part:** host a cleanup in your community or neighborhood to help Keep Suffolk Beautiful. It is our responsibility to help keep our community litter free. Cigarette butt litter is unsightly and harmful to wildlife.
- **Communicate:** inform smokers about the harm of cigarette litter. Filters do not biodegrade and persist in the environment.
- **Share your thoughts:** Use the hashtag #NoCigaretteLitterNow on Facebook and Twitter to let friends and families know about the Cigarette Litter Prevention Program.
- **See for yourself:** City of Suffolk Public Works will be at each [T.G.I.F. Summer Concert Series](#) for the remainder of the summer. Stop by to learn more about the Cigarette Litter Prevention Program and to pick up a free ashtray! Be sure to look for the results of this program, along with the follow up scan that will be shared in a national report.



Receptacle placement is most successful at points of transition, where people are moving from place to place. The positioning of the receptacles combined with positive reminders, education and awareness will help smokers to do the right thing. Remember, cigarette butts are litter too.

Event Highlights: Cigarette Litter Prevention Program

NEWS RELEASE

FOR IMMEDIATE RELEASE _____

July 1, 2015



KEEP SUFFOLK BEAUTIFUL ENCOURAGES THE END TO CIGARETTE BUTT LITTER

SUFFOLK, Virginia (July 1, 2015) The City of Suffolk and Keep Suffolk Beautiful, along with six other localities, have partnered with askHRgreen.org to participate in a region-wide initiative to reduce cigarette litter. Advocating the theme “Cigarette butts = litter”, the askHRgreen.org Cigarette Litter Prevention Program received a \$12,500 grant from Keep America Beautiful providing both free standing and wall mounted cigarette butt receptacles to be placed in strategic site locations throughout Hampton roads.

Last month, a pre-scan was completed to find the most littered areas in downtown Suffolk. Finding over 300 cigarette butts throughout the Main Street area aided Keep Suffolk Beautiful in deciding to target the area. According to Keep America Beautiful, tobacco litter makes up 38% of roadway litter and 32% of litter in storm drains, making it the most littered item in our country.

Suffolk’s new receptacles have been installed downtown in front of Toke Hookah Lounge, Serendipity Hair Salon, near East Coast Taco, Super Drug Inc., and All About Virginia & More Gift Shop. The positioning of the receptacles combined with positive reminders, education and awareness will help smokers to do the right thing. Hampton Roads participating in the Cigarette Litter Prevention Program as a region is unique in that it is being implemented simultaneously in multiple areas. Although personalized in each locality, the message is the same: cigarette butts = litter. The results of this program, along with the follow up scan will be shared in a national report.

What You Can Do to Prevent Cigarette Litter

- Smokers can identify a cigarette butt receptacle before lighting up, carry a pocket ashtray, and never throw butts out of car windows
- Businesses can provide receptacles outside their buildings, educate employees about their responsibility for a clean and safe working environment and participate in an “adopt-a-spot” program to clean up public places
- Community Members can implement their own Keep America Beautiful Cigarette Litter Prevention Program. For info go to www.preventcigarettelittler.com
- Recycling Butts? Yes You Can! TerraCycle, working with the Santa Fe Natural Tobacco Company, turns cigarette waste into industrial products such as plastic pallets. They accept butts, filters, loose tobacco pouches, outer plastic packaging, inner foil packaging, rolling paper and ash. Collect the debris in a plastic bag and ship to the company for recycling. For every pound of waste collected, Santa Fe Natural Tobacco Company donates \$1 toward the Keep America Beautiful Cigarette Litter Prevention Program. Details at www.terracycle.com
- Get Involved Join the #NoCigaretteLitterNow conversation on social media. Tweet us at @HRGreen and let us know how you are helping to spread the “Cigarette Butts = Litter” message.

Appendix E

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

Appendix E.1

Updated Dry Weather Screening SOP



Standard Operating Procedure:

Dry Weather Screening

Created May 2012

Updated September 2015

1. Background and Purpose

1.1. As authorized by the Clean Water Act, the EPA issued the National Pollutant Discharge Elimination System (NPDES) stormwater Phase II program regulations. The legislation was a federal mandate established to address discharges from small MS4s in an effort to reduce sources of stormwater pollution that impact water quality. The City of Suffolk is considered a small MS4 operator. The second phase of MS4 regulations required that operators of small MS4s in “urbanized areas”, must reduce pollutants in stormwater to the maximum extent practicable (MEP) to protect water quality. Phase II localities in Virginia are required to hold VSMP General permits for the discharge of storm water. In accordance with the current Suffolk MS4 permit (VAR040029), Section II.B.3.d of Permit No. VAR040029 requires:

1.2. “The MS4 program shall develop and implement procedures to detect and address non stormwater discharges, including illegal dumping, to the regulated small MS4.”

1.3. A description of why the activity described is performed. Include some background info if applicable

2. Policies

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

3. Definitions

3.1. MS4 - Municipal Separate Storm Sewer System, means all separate storm sewers operated by a municipality or designated under 4VAC50-60-380 A 1

3.2. Outfall – a point source at the point where a municipal separate storm sewer system discharges to surface waters and does not include open conveyances connecting two MS4s, or pipes, tunnels or other conveyances which connect segments of the same stream or other surface waters and are used to convey surface waters.

3.3. Illicit Discharge - any discharge to a MS4 that is not composed entirely of stormwater, except for discharges allowed and identified by the permit. Which are:

3.3.1. Nonstormwater discharges or flows that are covered by a separate individual or general VPDES or VSMP permit.

3.3.2. Individual nonstormwater discharges or flows that have been identified in writing by the Department of Environmental Quality (DEQ) as de minimis discharges that are not significant sources of pollutants to state waters and do not require a VPDES permit.

3.3.3. Nonstormwater discharges or flows in the following categories that have not been identified by the operator or State Water Control Board as significant contributors of pollutants to the regulated MS4:

3.3.3.1. Water line flushing

- 3.3.3.2. Landscape irrigation
- 3.3.3.3. Diverted stream flows
- 3.3.3.4. Rising ground waters
- 3.3.3.5. Uncontaminated ground water infiltration
- 3.3.3.6. Uncontaminated pumped ground water
- 3.3.3.7. Discharges from potable water sources
- 3.3.3.8. Foundation drains
- 3.3.3.9. Air conditioning condensation
- 3.3.3.10. Irrigation water
- 3.3.3.11. Springs
- 3.3.3.12. Water from crawl space pumps
- 3.3.3.13. Footing drains
- 3.3.3.14. Lawn watering
- 3.3.3.15. Individual residential car washing
- 3.3.3.16. Flows from riparian habitats and wetlands
- 3.3.3.17. Dechlorinated swimming pool discharges
- 3.3.3.18. Street wash water
- 3.3.3.19. Discharges from firefighting activities

3.3.4. The discharge of materials resulting from a spill that is necessary to prevent loss of life, personal injury, or severe property damage. The operator shall take, or ensure that the responsible party takes, all reasonable steps to minimize or prevent any adverse effect on human health or the environment. This permit does not transfer liability for a spill itself from the party(ies) responsible for the spill to the operator nor relieve the party(ies) for a spill from the reporting requirements.

3.4. PARS database – a resource that tracks BMP Sites, Storm Water Maintenance Facilities (SWMF), SWMF Inspections, Erosion & Sediment controls, Outfalls, Complaints, Training, Dry Weather Screening, Public Education and Outreach, and Operations and Maintenance. Complaints should be entered and updated at <http://hrpdcpars.org>

3.5. PPE – Personal Protective Equipment, dictated by job being performed. A listing of any terms and definitions which may be applicable to understanding the SOP

4. Health and Safety

SAFETY IS ALWAYS THE PARAMOUNT CONSIDERATION: IF YOU HAVE CONCERN THAT A SITUATION IS UNSAFE DO NOT PUT YOURSELF INTO THAT SITUATION. CONTACT A SUPERVISOR AND ASK FOR ASSISTANCE.

4.1. Sampling

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

- 4.1.2. Protection from Traffic.** If the sample is collected from a manhole in a street, traffic control is an important consideration. The sampling vehicle should be parked between the working area and oncoming traffic. Personnel should wear approved safety vests when the manhole is located in a vehicular traffic area. Cones and flags may be utilized where appropriate. Also refer below to b. Confined Space Entry.
- 4.1.3.** Samples should be obtained from the manhole as quickly as possible. Sampling crews should replace the manhole cover and move the vehicle and equipment to a location off the street. All sample analyses should be performed in a safe location away from the vehicular traffic area.
- 4.1.4. Confined Space Entry.** Manholes and enclosed storm drains are confined spaces and as such must not be entered for any reason without adequate safety precautions. These precautions can only be certified and evaluated by a "Confined Space Qualified Person" with the appropriate monitoring equipment. Entry includes any time any part of your body breaks the plane of the entry port. Therefore field personnel should not enter or place any part of their body into any confined space, unless they have had appropriate confined spaces training and have all associated safety measures in place.
- 4.1.5. Removing Manhole Covers.** Manhole covers should be carefully removed using the pickaxe provided. Hands and feet should not be used to assist in either opening or closing the manholes. Under no circumstances should any field personnel enter a manhole, unless they are a "Confined Space Qualified Person".
- 4.1.6. Emergencies.** Every member of the sampling crew must be aware of procedures to be followed in case of an emergency. All field personnel should have a list of emergency telephone numbers, including the local hospital's general emergency number. All injuries and other problems should receive immediate medical attention and should also be reported as soon as practical to the field supervisor.
- 4.1.7. Hazardous Waste Streams.** Storm sewers may receive industrial wastes that contain corrosive or toxic materials. Skin contact with a waste stream must be avoided and long-handled samplers will be provided to each sampling crew. Sampling personnel should always be aware of possible hazards and should take all necessary precautions to insure safety.
- 4.1.8. Other Hazards.** A wide variety of insects and rodents may inhabit manholes or sampling sites. Sampling personnel should always be on the lookout for these creatures to avoid painful and dangerous bites or stings. These hazards include snakes, field personnel must wear snake boots while sampling.
- 4.1.9.** Sampling personnel are always exposed to the possibility of infections. Disposable rubber gloves should be used to avoid skin contact with the waste stream. Personnel should wash their hands or use the provided handsanitizer as required. Open cuts or sores should never be allowed to come into contact with a waste stream.

4.2. Analysis

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

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

4.3. First Aid

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

4.3.2. Each member of every sampling team should know at least the basics of first aid. A first aid kit will be provided to each sampling team. The supervisor will be available via phone, radio or some type of communication device and should be contacted in the event of a serious injury.

4.4. Accident Reports

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

4.5. Surroundings

4.5.1. Take care to notice your surroundings when screening an outfall that is away from the road or in the woods. Be on the lookout for overhead hanging limbs, barbed wire fences, snakes, snapping turtles, loose ground, fallen trees, or anything else that is potentially dangerous.

5. Equipment

1.1. HQ40d Portable Multi- Parameter Meter (including pH, and Conductivity Probes)

1.2. Ammonia Test Strips

1.3. CHEMets Kit (Detergents)

1.4. 1 Liter Bottle

1.5. Stop Watch

1.6. Gloves

1.7. Safety glasses

1.8. Sampling Bottles

1.9. Tape Measure

1.10. Bottle of Deionized Water for rinsing sampling equipment.

- 1.11.** Data Sheets
- 1.12.** Paper Towels
- 1.13.** Bag/ Container for Trash

6. Procedure

6.1. In office preparation:

- 6.1.1.** Refer to “Outfall Monitoring Plan of Action” attached at the end of this document for prioritizing and scheduling screenings for outfalls.
- 6.1.2.** Note the current air temperature. Verify that there has been no rainstorm big enough to cause runoff in the last 72 hrs. No screening will be performed for 72 hours following a storm event.
- 6.1.3.** Use HRSD’s <https://telogdata.hrsd.com> rain gauge information to determine the amount of rain for the previous three days. Refer to figure 1 to determine the closest pump station to where you will be sampling. If for some reason that is unavailable use www.wunderground.com KVASUFF02 (Lake Cahoon)
- 6.1.4.** Identify and prepare maps and field sheets for the locations to be inspected.
- 6.1.5.** Label outfalls to be inspected with the Cityworks Facility ID. Note the major land use categories in the outfall drainage area.
- 6.1.6.** Prepare the field sheets and record as much background data as possible.
- 6.1.7.** If the outfall is discharging to tidal waters schedule screening/inspection during low tide.
- 6.1.8.** Gather and calibrate all necessary equipment.

6.2. Field Observations:

- 6.2.1.** Using the Dry Weather Screening Field Collection Sheet, note the general description for the outfall. (ie. closed or open conveyance, material, shape, and dimensions)
- 6.2.2.** Determine whether flow is present and proceed with appropriate procedures. If flow is not present at the time of inspection assess the outfall for physical indicators of an illicit discharge. (ie. Outfall damage, deposit stains, abnormal vegetation, poor pool quality, pipe benthic growth, and sediment accumulation)
- 6.2.3.** If flow is present at the time of inspection, collect quantitative characteristics such as flow, temperature, pH, and conductivity as noted on the field sheet.
- 6.2.4.** Note physical indicators of an illicit discharge for flowing outfalls such as odor, color, turbidity, and floatables as well as indicators for both flowing and non-flowing outfalls such as outfall damage, deposits or stains, abnormal vegetation, poor pool quality, benthic growth and sediment accumulation.
- 6.2.5.** Note whether a sample was collected, whether it was collected from flow or pool, and what it will be tested for. (Also see Section E.: Procedures for Lab Samples).
- 6.2.6.** Note any other concerns such as necessary repairs or trash at outfall.
- 6.2.7.** Follow procedures and reporting requirements found in SOP SPW-ENG 30-001-01 (IDDE) Sections 6 and 7.
- 6.2.8.**

Table 1: Benchmark Concentrations to Identify Industrial Discharges		
Indicator Parameter	Benchmark Concentration	Notes
Ammonia	≥ 50 mg/L	<ul style="list-style-type: none"> Existing “Flow Chart” Parameter Concentrations higher than benchmark can identify a few industrial discharges.
Color	≥ 500 Units	<ul style="list-style-type: none"> Supplemental parameter that identifies a few specific industrial discharges. Should be refined with local data.
Conductivity	$\geq 2,000$ μ S/cm	<ul style="list-style-type: none"> Identifies a few industrial discharges May be useful to distinguish between industrial sources.
Hardness	≤ 10 mg/L as CaCO ₃ $\geq 2,000$ mg/L as CaCO ₃	<ul style="list-style-type: none"> Identifies a few industrial discharges May be useful to distinguish between industrial sources.
pH	≤ 5	<ul style="list-style-type: none"> Only captures a few industrial discharges High pH values may also indicate an industrial discharge but residential waters can have high pH as well.
Potassium	≥ 20 mg/L	<ul style="list-style-type: none"> Existing “Flow Chart” Parameter Excellent Indicator of a broad range of industrial discharges.
Turbidity	≥ 1.000 NTU	<ul style="list-style-type: none"> Supplemental parameter that identifies a few specific industrial discharges. Should be refined with local data.

E. PROCEDURES FOR LAB SAMPLES

Reserved

7. Records

7.1. The filled out screening sheets should be kept on file as well as scanned and uploaded to PARS and the N drive.

8. Comments

8.1. N/A

9. References

9.1. Center for Watershed Protection. Illicit Discharge Detection and Elimination A Guidance Manual for Program Development and Technical Assessments. October 2004.

9.2. HRSD/ City of Hampton. Field Screen Plan and Procedures manual. April 2010.

9.3. Town of Parker Colorado Department of Public Works. Illicit Discharge Detection and Elimination Manual. June 2004.

9.4. Dry Weather Screening. Dallas / Fort Worth Regional Protocol. March 2005.



Legend

Rain Gauge

PumpStationPoint

Subtype

PRS

PS

Interceptor

Subtype

Force Interceptor

Gravity Interceptor

Siphon

HRSD Rain Gages

HRSD Rain Gages located in Suffolk



DRY WEATHER SCREENING FIELD COLLECTION SHEET

Section 1: Background Data

Subwatershed:		Cityworks ID:	
Date:		Time:	
Inspector(s):			
Temperature:	Wind:	Rainfall (in.) Past 24hr:	Past 48hr:
Land Use in Drainage Area (Check all that apply):			
<input type="checkbox"/> Agriculture <input type="checkbox"/> Public <input type="checkbox"/> Commercial <input type="checkbox"/> ROW <input type="checkbox"/> Forest <input type="checkbox"/> Single Family <input type="checkbox"/> Industrial <input type="checkbox"/> Water <input type="checkbox"/> Multifamily <input type="checkbox"/> Waterways <input type="checkbox"/> Open Spaces <input type="checkbox"/> Wetlands			
Notes (e.g., origin of outfall):			

Section 2: Outfall Description

Drainage Type	Material	Shape	Dimensions (in.)	Submersion
<input type="checkbox"/> Closed Pipe	<input type="checkbox"/> HDPE <input type="checkbox"/> CMP <input type="checkbox"/> RCP <input type="checkbox"/> PVC <input type="checkbox"/> Steel <input type="checkbox"/> Other _____	<input type="checkbox"/> Circular <input type="checkbox"/> Elliptical <input type="checkbox"/> Box <input type="checkbox"/> Other _____	Diameter/ Dimensions:	<i>In Water:</i> <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully <i>Sediment:</i> <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> Open Drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Earthen <input type="checkbox"/> Rip-rap <input type="checkbox"/> Other _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input type="checkbox"/> Other _____	Depth _____ Top _____ Bottom _____	<i>In Water:</i> <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully <i>Sediment:</i> <input type="checkbox"/> No <input type="checkbox"/> Partially <input type="checkbox"/> Fully
<input type="checkbox"/> In Stream	(applicable when collecting samples)			
Is flow present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <i>If no, skip to section 5</i>			
Flow type	<input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial			

Section 3: Field Data For Flowing Outfalls

Parameter	Result	Unit	Equipment
<input type="checkbox"/> Flow #1	Volume	Liter	Bottle
	Time to fill	Seconds	Stop watch; floatable
<input type="checkbox"/> Flow #2	Flow depth	Inches	Tape measure
	Flow width	Feet/Inches	Tape measure
	Measured length	Feet/Inches	Tape measure
	Time of travel	Seconds	Stop watch; floatable
Temperature		Fahrenheit	Thermometer
pH		pH units	Instrument
Conductivity		S/cm	Instrument
Ammonia		mg/L	Test strip
Detergents		mg/L	CHEMets kit

Section 4: Physical Indicators (Flowing outfalls only)

Are any physical indicators present in the flow? Yes No (If no, skip to section 5)

Indicator	Description	Severity Index		
Odor	<input type="checkbox"/> None <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/Gas <input type="checkbox"/> Sulfide <input type="checkbox"/> Other _____	<input type="checkbox"/> 1 Faint	<input type="checkbox"/> 2 Easily Detectable	<input type="checkbox"/> 3 Noticeable from a distance
Color	<input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow <input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other _____	<input type="checkbox"/> 1 Faint in sample bottle	<input type="checkbox"/> 2 Clearly visible in sample bottle	<input type="checkbox"/> 3 Visible in outfall flow
Turbidity	See severity	<input type="checkbox"/> 1 Slightly cloudy	<input type="checkbox"/> 2 Cloudy	<input type="checkbox"/> 3 Heavy with clear origin (e.g. oil, sheen, suds, ect.)
Floatables (Not trash or organic debris)	<input type="checkbox"/> None <input type="checkbox"/> Sewage (Toilet paper, ect.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (oily sheen, ect.) <input type="checkbox"/> Other: _____	<input type="checkbox"/> 1 Slight; origin not obvious	<input type="checkbox"/> 2 Some; origin detectable	<input type="checkbox"/> 3 Heavy; obvious origin

Section 5: Other Physical Indicators

Are physical indicators not related to flow present? Yes No

(If no, skip to section 6)

Indicator	Description	Comments
Outfall damage	<input type="checkbox"/> Spalling <input type="checkbox"/> Peeling paint <input type="checkbox"/> Cracking <input type="checkbox"/> Corrosion <input type="checkbox"/> Chipping	
Deposits/Stains	<input type="checkbox"/> Flow line <input type="checkbox"/> Oil <input type="checkbox"/> Paint <input type="checkbox"/> Other _____	
Abnormal vegetation	<input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited	
Poor pool quality	<input type="checkbox"/> Odor <input type="checkbox"/> Excessive algae <input type="checkbox"/> Color <input type="checkbox"/> Floatables <input type="checkbox"/> Suds <input type="checkbox"/> Oily sheen <input type="checkbox"/> Other _____	
Pipe benthic growth	<input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other _____	

Section 6: Illicit Discharge Potential

<input type="checkbox"/> Unlikely	<input type="checkbox"/> Potential Presence of two or more indicators	<input type="checkbox"/> Suspect One or more with a severity of 3	<input type="checkbox"/> Obvious
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Section 7: Data Collection

1. Sample for the lab?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Test for:
2. If yes, collected from:	<input type="checkbox"/> Pool <input type="checkbox"/> Flow	

Section 8: Operational Concerns

Note the need for trash clean up, structural repair, ect.

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Outfall Monitoring Plan of Action

This document is intended to develop a method for scheduling outfall dry weather screening. For dry weather screening and follow up screening procedures refer to the Dry Weather Screening SOP and the Illicit Discharge Detection and Elimination Manual.

The goal of outfall monitoring and dry weather screening is to identify and eliminate illicit discharges within the city's MS4 area. As of September 24, 2015 there are 1229 MS4 outfalls shown in the GIS layer "Stormwater Structures" spread throughout the 2010 Census urbanized area. This includes multiple structure types such as "outfalls" "BMP outfall downstream" "ditch entrance" "ditch downstream" as well as other structures that are identified to be the point where conveyed stormwater enters a natural receiving channel. These outfalls and their associated drainage and service areas will be used to determine the MS4 regulated area. Some of the MS4 outfalls are associated with stormwater management facilities and will not be included in dry weather screening. Only outfalls which convey public water are included in the City's Dry Weather Screening program.

All MS4 outfalls were scored based on the illicit discharge potential. Priority outfalls for dry weather screening are scheduled for the permit cycle based on IDP score. The following are factors determining IDP Score for outfalls (using GIS data):

- Proximity to industry (use parcels zoned for industrial use)
 - Score .5 within 500 ft
 - Score 1 within 250 ft
- Sewer proximity (interceptors and force mains)
 - Score .5 within 25 ft
 - Score 1 within 15 ft
- Estuary proximity
 - Score .5 within 200 ft
 - Score 1 within 100 ft
- Reservoir proximity
 - Score .5 within 200 ft
 - Score 1 within 100 ft
- Other factors
 - Shingle Creek Watershed, Score 1
 - Shingle Creek has aging infrastructure, a relatively high amount of industrial activity, and continuing poor water quality, and was thus deemed a higher priority for targeted outfall monitoring.

Because of the large number of outfalls, it is not feasible to screen every outfall every year. Therefore, a selection of outfalls will be screened during each annual inspection cycle. The annual inspection cycle will coincide with the fiscal year from July 1 to June 30.

The most efficient way to screen outfalls will be to visit as many outfalls as possible that are located relatively close to each other. Folders have been made for groups of outfalls in close proximity. PARs reports, and GIS updates should be

done as soon after the screening as possible, however, may be put off for a short time to take advantage of an extended period of dry weather.

While the screening for a single day or a series of days may take place in the same area, the outfalls screened for the whole year should be spread throughout the MS4 area.

Detailed pictures will be taken of each outfall that show the condition of the structure, receiving channel, and any evidence of current or past illicit discharge. Combine the scanned field sheets and one or two of the most relevant pictures into a single PDF and hyperlink it to the relevant asset in GIS. Also, the physical features of the outfall as they are described in GIS should be verified and edits should be made to the GIS database if necessary. As field collection and plan capture efforts for the City's stormwater conveyance system continue the list of MS4 outfalls will grow.

Newly identified outfalls should be evaluated for Illicit Discharge Potential and incorporated into the screening schedule. Also, previously reported outfalls may be determined not to be MS4 outfalls as they do not drain public water and removed from the reporting and screening list. This list will be updated annually and submitted with the Annual Report. Outfalls captured during an annual inspection cycle will most likely not be adapted into the schedule for that inspection cycle unless it makes logistical sense.

A minimum of 50 outfalls must be screened each year per the conditions of the Phase II MS4 General Permit. Outfalls with an Illicit Discharge Potential (IDP) score greater than 2 should be screened annually. Also outfalls that are observed to have dry weather flow, but are not identified as illicit discharges, should be screened again the following year. If an illicit discharge is discovered during dry weather screening, follow the Incident Response and Investigation SOP.

Outfalls that are located on secure sites should be scheduled to coincide with BMP inspections if possible, otherwise separate arrangements will need to be made for entry to the site.

Appendix E.2

New MS4 Outfalls PY2

New MS4 Outfalls Identified in PY2

*Please note the City's mapping efforts are continuing. A inventory of MS4 outfalls and a complete storm sewer system map will be completed in PY4.

Facility ID	Structure Type	Receiving Water	HUC Code	Impaired Waterbody	Acreage	LATITUDE	LONGITUDE
JR-267-OF-0069	OUTFALL	NANSEMOND RIVER	JL48	Y	1.591406	36.734457	-76.587346
JR-267-OF-0070	OUTFALL	NANSEMOND RIVER	JL48	Y	0.120933	36.734883	-76.586999
JR-267-OF-0071	OUTFALL	NANSEMOND RIVER	JL48	Y	0.074886	36.73501	-76.586882
JR-267-OF-0072	OUTFALL	NANSEMOND RIVER	JL48	Y	0.979644	36.735349	-76.586233
JR-267-OF-0073	OUTFALL	NANSEMOND RIVER	JL48	Y	0.239018	36.735784	-76.58562
JR-267-OF-0074	OUTFALL	NANSEMOND RIVER	JL48	Y	0.768623	36.734811	-76.586735
JR-217-BD-0003	BMP_DOWN	Knotts Creek	JL49	Y	4.21217	36.852238	-76.458451
JR-217-OF-0040	OUTFALL	BENNETTS CREEK	JL49	Y	2.433202	36.851789	-76.467472
JR-217-BD-0005	BMP_DOWN	BENNETTS CREEK	JL49	Y	20.348065	36.85382	-76.469389
JR-217-OF-0050	OUTFALL	KNOTTS CREEK	JL49	Y	1.008271	36.864622	-76.450728
JR-217-BD-0009	BMP_DOWN	Knotts Creek	JL49	YES	12.213891	36.864376	-76.448035
JR-217-OF-0052	OUTFALL	KNOTTS CREEK	JL49	Y	4.863662	36.866259	-76.448607
JR-242-BD-0007	BMP_DOWN	BEAMONS MILL POND	JL48		3.782102	36.755125	-76.537713
JR-241-BD-0008	BMP_DOWN	SADLER POND	JL48		4.941915	36.768039	-76.584487
JR-267-BD-0033	BMP_DOWN					36.745719	-76.579508
JR-217-BD-0011	BMP_DOWN					36.863044	-76.488002
JR-217-OF-0054	OUTFALL	BENNETTS CREEK	JL49	Y	0.198386	36.863463	-76.483872
JR-267-BD-0009	BMP_DOWN	NANSEMOND RIVER	JL48	Y	0.463898	36.736864	-76.58522
JR-217-BD-0021	BMP_DOWN	BENNETTS CREEK	JL49	Y	12.298597	36.862183	-76.483354
JR-267-OF-0097	OUTFALL	NANSEMOND RIVER	JL48	Y	0.228142	36.734753	-76.58612
JR-267-OF-0087	OUTFALL					36.724464	-76.563941
JR-267-OF-0089	OUTFALL					36.725347	-76.562554
JR-196-BD-0003	BMP_DOWN					36.885588	-76.42139
JR-217-BD-0024	BMP_DOWN	BENNETTS CREEK	JL49	Y	0.279702	36.860994	-76.474373
JR-217-OF-0064	OUTFALL	BENNETTS CREEK	JL49	Y	3.426803	36.861377	-76.47501
JR-217-OF-0065	OUTFALL	BENNETTS CREEK	JL49	Y	3.225694	36.861165	-76.475971
JR-195-BD-0008	SPILL_DOWN	NANSEMOND RIVER	JL49	YES	6.867507	36.910321	-76.498887
JR-217-BD-0034	BMP_DOWN	Knotts Creek	JL49	YES	11.298111	36.85953	-76.444334
JR-217-BD-0040	BMP_DOWN	BENNETTS CREEK	JL49	Y	199.670636	36.820962	-76.466982
JR-196-OF-0057	OUTFALL	STREETER CREEK	JL50	YES	4.877079	36.885233	-76.424239
JR-242-OF-0072	OUTFALL	STAR CREEK	JL49		0.19616	36.753051	-76.533801
JR-196-BD-0008	BMP_DOWN	Streeter Creek	JL50		0	36.891223	-76.432185
JR-195-OF-0045	OUTFALL	CHUCKATUCK CREEK	JL49	Y	6.814661	36.91338	-76.492594
JR-195-OF-0046	OUTFALL	CHUCKATUCK CREEK	JL49	Y	1.519929	36.91357	-76.493627
JR-242-OF-0071	OUTFALL	STAR CREEK	JL49		3.117792	36.752875	-76.538514
JR-242-BD-0029	BMP_DOWN	NANSEMOND RIVER	JL48	Y	5.305674	36.77128	-76.547562
JR-241-BD-0036	BMP_DOWN					36.768709	-76.59091
JR-195-OF-0050	OUTFALL					36.901132	-76.491311
JR-194-OF-0030	OUTFALL					36.901146	-76.508475
JR-217-OF-0217	OUTFALL					36.857242	-76.455203
JR-242-OF-0073	OUTFALL					36.775125	-76.529906
JR-242-OF-0074	OUTFALL					36.775493	-76.533633
JR-242-OF-0075	OUTFALL					36.777886	-76.530396
JR-242-OF-0076	OUTFALL					36.776758	-76.530986
JR-267-BD-0015	BMP_DOWN					36.725741	-76.578204

New MS4 Outfalls Identified in PY2

*Please note the City's mapping efforts are continuing. An inventory of MS4 outfalls and a complete storm sewer system map will be completed in PY4.

Facility ID	Structure Type	Receiving Water	HUC Code	Impaired Waterbody	Acreage	LATITUDE	LONGITUDE
JR-217-OF-0218	OUTFALL					36.84358	-76.458705
JR-242-OF-0051	OUTFALL					36.762691	-76.548419
JR-242-OF-0052	OUTFALL					36.763042	-76.549435
JR-242-OF-0053	OUTFALL					36.763975	-76.550315
JR-242-OF-0054	OUTFALL					36.763412	-76.550825
JR-242-OF-0055	OUTFALL					36.762056	-76.552802
JR-242-OF-0056	OUTFALL					36.764356	-76.5457
JR-242-OF-0057	OUTFALL					36.763337	-76.544975
JR-242-OF-0058	OUTFALL					36.760553	-76.547373
JR-217-BD-0055	BMP_DOWN					36.836252	-76.478613
JR-242-OF-0059	OUTFALL					36.755065	-76.535714
JR-267-OF-0232	OUTFALL					36.713715	-76.575304
JR-267-OF-0233	OUTFALL					36.715039	-76.573562
JR-267-OF-0234	OUTFALL					36.716761	-76.573311
JR-267-OF-0235	OUTFALL					36.716542	-76.572597
JR-267-OF-0236	OUTFALL					36.715196	-76.574088
JR-267-OF-0237	OUTFALL					36.716316	-76.574965
JR-267-OF-0238	OUTFALL					36.714849	-76.572545
JR-267-OF-0101	OUTFALL					36.716901	-76.58217
JR-217-BD-0046	BMP_DOWN					36.827838	-76.497136
JR-217-BD-0048	BMP_DOWN					36.82472	-76.476575
JR-196-OF-0069	OUTFALL	Streeter Creek	JL50	Y	6.962755	36.885255	-76.424626
JR-241-BD-0029	BMP_DOWN	Sadler Pond	JL45		6.95186	36.770709	-76.604406
JR-195-BD-0008	BMP_DOWN	NANSEMOND RIVER	JL49	YES	6.867507	36.896475	-76.495918
JR-242-OF-0103	OUTFALL	NANSEMOND RIVER	JL48	Y	3.701449	36.757224	-76.556672
JR-242-BD-0037	BMP_DOWN	NANSEMOND RIVER	JL48	Y	8.581654	36.77662	-76.557241
JR-242-BD-0036	BMP_DOWN	NANSEMOND RIVER	JL48	Y	15.996859	36.778269	-76.561091
JR-267-OF-0215	OUTFALL	NANSEMOND RIVER	JL48	Y	1.141787	36.746109	-76.583681
JR-217-OF-0009	OUTFALL	QUAKER NECK CREEK	JL49		8.371474	36.820389	-76.475843
JR-241-OF-0134	OUTFALL	NANSEMOND RIVER	JL48	Y	4.601188	36.773173	-76.566873
JR-217-OF-0014	OUTFALL	QUAKER NECK CREEK	JL49		5.664065	36.819705	-76.469378
JR-217-OF-0120	OUTFALL	QUAKER NECK CREEK	JL49		2.086387	36.820779	-76.468258
JR-217-OF-0224	OUTFALL	BENNETTS CREEK	JL49	Y	2.540006	36.865962	-76.492149
JR-217-OF-0212	OUTFALL	BENNETTS CREEK	JL49	Y	2.195483	36.859242	-76.496665
JR-217-OF-0117	OUTFALL	Quaker Neck Creek	JL49		4.568307	36.85728	-76.488662
JR-217-OF-0008	OUTFALL	QUAKER NECK CREEK	JL49		5.016415	36.860273	-76.490339
JR-217-OF-0051	OUTFALL	Nansemond River	JL49	Y	0.863429	36.860586	-76.49594
JR-217-OF-0006	OUTFALL	QUAKER NECK CREEK	JL49		6.225938	36.864152	-76.43985
JR-217-OF-0202	OUTFALL	knotts Creek	JL49	Y	1.901465	36.864778	-76.437535
JR-218-OF-0012	OUTFALL	Knotts Creek	JL49	Y	2.352968	36.865492	-76.429538
JR-217-OF-0015	OUTFALL	QUAKER NECK CREEK	JL49		10.128429	36.862784	-76.451708
JR-217-OF-0035	OUTFALL	Knotts Creek	JL49	Y	0.362773	36.862364	-76.452264
JR-217-OF-0200	OUTFALL	BENNETTS CREEK	JL49	Y	0.128895	36.86218	-76.470941
JR-217-OF-0145	OUTFALL	DEANES BRANCH	JL49	Y	2.875202	36.862275	-76.471625
JR-217-OF-0013	OUTFALL	QUAKER NECK CREEK	JL49		2.757256	36.862408	-76.472694

New MS4 Outfalls Identified in PY2

*Please note the City's mapping efforts are continuing. An inventory of MS4 outfalls and a complete storm sewer system map will be completed in PY4.

Facility ID	Structure Type	Receiving Water	HUC Code	Impaired Waterbody	Acreage	LATITUDE	LONGITUDE
JR-217-OF-0060	OUTFALL	BENNETTS CREEK	JL49	Y	19.327786	36.863908	-76.483975
JR-217-OF-0016	OUTFALL	QUAKER NECK CREEK	JL49		2.851543	36.863196	-76.481089
JR-217-OF-0012	OUTFALL	QUAKER NECK CREEK	JL49		2.918288	36.865092	-76.486723
JR-217-OF-0159	OUTFALL	BENNETTS CREEK	JL49	Y	2.618234	36.866627	-76.488815
JR-217-OF-0005	OUTFALL	QUAKER NECK CREEK	JL49		3.876305	36.866641	-76.488811
JR-217-OF-0201	OUTFALL	NANSEMOND RIVER	JL49	Y	1.877986	36.869352	-76.490259
JR-217-OF-0076	OUTFALL	QUAKER NECK CREEK	JL49		2.783215	36.872354	-76.489961
JR-217-OF-0197	OUTFALL	QUAKER NECK CREEK	JL49		8.826712	36.874627	-76.490055
JR-195-OF-0059	OUTFALL	NANSEMOND RIVER	JL49	Y	2.734323	36.891997	-76.493126
JR-217-AP-0009	OUTFALL	Knotts Creek	JL49	Y	3.977704	36.864379	-76.438641
JR-217-OF-0220	OUTFALL	BENNETTS CREEK	JL49	Y	13.971528	36.821562	-76.471003
JR-216-OF-0076	OUTFALL	NANSEMOND RIVER	JL49	Y	1.707253	36.848547	-76.501406
JR-216-OF-0072	OUTFALL	Star Creek	JL49		2.341418	36.848392	-76.501441
JR-217-OF-0221	OUTFALL	BENNETTS CREEK	JL49	Y	0.362975	36.855157	-76.499346
JR-216-OF-0077	OUTFALL	NANSEMOND RIVER	JL49	Y	0.743243	36.848243	-76.501484
JR-216-OF-0071	OUTFALL	STAR CREEK	JL49		1.179777	36.839944	-76.504186
JR-218-AP-0007	OUTFALL	KNOTTS CREEK	JL49	Y	23.027503	36.861826	-76.430608
JR-218-OF-0026	OUTFALL	Knotts Creek	JL49	Y	4.968624	36.864993	-76.433995
JR-216-OF-0005	OUTFALL	Nansemond River	JL49	YES	6.152485	36.839906	-76.504194
JR-216-OF-0078	OUTFALL	BENNETTS CREEK	JL40	Y	2.992399	36.833147	-76.508197
JR-217-IN-0155	INLET	Knotts Creek	JL49	Y	0.779101	36.868312	-76.458557
JR-242-OF-0084	OUTFALL					36.776646	-76.527946
JR-242-OF-0086	OUTFALL					36.772419	-76.530496
JR-217-BD-0050	BMP_DOWN					36.852652	-76.458938
JR-241-BD-0037	BMP_DOWN					36.777401	-76.614114
JR-241-BD-0038	BMP_DOWN					36.777798	-76.61422
JR-217-BD-0051	BMP_DOWN					36.871769	-76.443864
JR-242-OF-0097	OUTFALL					36.769597	-76.551101
JR-242-OF-0096	OUTFALL					36.760787	-76.560177
JR-217-PD-0002	SPILL_DOWN					36.819649	-76.459192
JR-266-OF-0022	OUTFALL					36.718311	-76.657887
JR-266-OF-0023	OUTFALL					36.718335	-76.657735
JR-241-OF-0110	OUTFALL					36.750978	-76.588595
JR-217-BD-0059	BMP_DOWN					36.869118	-76.489848
JR-217-BD-0060	BMP_DOWN					36.867906	-76.444673
JR-266-DD-0004	DTCH_DOWN					36.728834	-76.639988
JR-266-DD-0003	DTCH_DOWN					36.72876	-76.640531
JR-266-PD-0007	SPILL_DOWN					36.727763	-76.63246
JR-242-OF-0104	OUTFALL					36.777737	-76.559983
JR-242-BD-0038	BMP_DOWN					36.77362	-76.561307
JR-267-OF-0177	OUTFALL					36.729491	-76.622676
JR-241-BD-0035	BMP_DOWN					36.776267	-76.615874
JR-268-DD-0002	DTCH_DOWN					36.735422	-76.559494
JR-268-DD-0003	DTCH_DOWN					36.73814	-76.561535
JR-268-DD-0004	DTCH_DOWN					36.73805	-76.561518

New MS4 Outfalls Identified in PY2

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Facility ID	Structure Type	Receiving Water	HUC Code	Impaired Waterbody	Acreage	LATITUDE	LONGITUDE
JR-268-DD-0006	DTCH_DOWN					36.737676	-76.559209
JR-268-DD-0007	DTCH_DOWN					36.738709	-76.557694
JR-268-DD-0008	DTCH_DOWN					36.733	-76.560126
JR-268-DD-0009	DTCH_DOWN					36.732954	-76.560255
JR-268-DD-0011	DTCH_DOWN					36.732456	-76.561956
JR-268-DD-0012	DTCH_DOWN					36.73242	-76.561994
JR-195-OF-0049	OUTFALL					36.878043	-76.439449
JR-195-OF-0048	OUTFALL					36.877486	-76.440452
JR-267-OF-0216	OUTFALL					36.733683	-76.579966
JR-267-OF-0217	OUTFALL					36.737021	-76.584435
JR-242-BD-0041	BMP_DOWN					36.806783	-76.525336
JR-266-OF-0136	OUTFALL					36.713363	-76.638328
JR-242-OF-0087	OUTFALL					36.771885	-76.529929
JR-242-BD-0042	BMP_DOWN					36.755882	-76.538314
JR-217-BD-0041	BMP_DOWN					36.820201	-76.475934
JR-217-OF-0068	OUTFALL					36.820079	-76.468725
JR-196-OF-0081	OUTFALL					36.896922	-76.428458
JR-267-OF-0218	OUTFALL					36.730921	-76.619324
JR-267-OF-0219	OUTFALL					36.730918	-76.619439
JR-217-OF-0206	OUTFALL					36.860427	-76.492868
JR-217-OF-0168	OUTFALL					36.856392	-76.487512
JR-217-OF-0215	OUTFALL					36.862026	-76.462621
JR-217-OF-0204	OUTFALL					36.862501	-76.456587
JR-217-OF-0198	OUTFALL					36.862292	-76.462785
JR-194-OF-0068	OUTFALL					36.911674	-76.500536
JR-217-AP-0011	OUTFALL					36.862659	-76.443286
JR-217-AP-0205	OUTFALL					36.862634	-76.44309
JR-217-OF-0219	OUTFALL					36.820862	-76.468893
JR-217-OF-0222	OUTFALL					36.858537	-76.497082
JR-217-OF-0223	OUTFALL					36.856077	-76.49874
JR-268-BD-0007	BMP_DOWN					36.739673	-76.55467
JR-242-OF-0124	OUTFALL					36.752894	-76.561594
JR-242-OF-0125	OUTFALL					36.753231	-76.561405
JR-242-OF-0126	OUTFALL					36.753295	-76.561352
JR-242-OF-0122	OUTFALL					36.754924	-76.560478
JR-242-OF-0123	OUTFALL					36.754913	-76.560486
JR-242-OF-0119	OUTFALL					36.755751	-76.560016
JR-242-OF-0120	OUTFALL					36.755846	-76.55995
JR-242-OF-0121	OUTFALL					36.756489	-76.559611
JR-242-OF-0115	OUTFALL					36.759634	-76.557865
JR-242-OF-0116	OUTFALL					36.760029	-76.55766
JR-242-OF-0117	OUTFALL					36.759991	-76.557678
JR-242-OF-0118	OUTFALL					36.759956	-76.557696
JR-242-OF-0013	OUTFALL					36.762401	-76.556291
JR-242-OF-0111	OUTFALL					36.765441	-76.552904

New MS4 Outfalls Identified in PY2

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Facility ID	Structure Type	Receiving Water	HUC Code	Impaired Waterbody	Acreage	LATITUDE	LONGITUDE
JR-242-OF-0112	OUTFALL					36.765436	-76.552907
JR-242-OF-0114	OUTFALL					36.764626	-76.553812
JR-242-OF-0113	OUTFALL					36.764616	-76.553822
JR-242-OF-0110	OUTFALL					36.766953	-76.551094
JR-242-OF-0109	OUTFALL					36.769605	-76.548021
JR-242-OF-0107	OUTFALL					36.774184	-76.543749
JR-242-OF-0108	OUTFALL					36.774147	-76.54378
JR-242-OF-0106	OUTFALL					36.776459	-76.541577
JR-242-OF-0129	OUTFALL					36.774549	-76.543116
JR-242-OF-0128	OUTFALL					36.760138	-76.557382
JR-242-OF-0127	OUTFALL					36.759732	-76.557594
JR-267-OF-0220	OUTFALL					36.742995	-76.563716
JR-267-OF-0221	OUTFALL					36.743548	-76.563123
JR-267-OF-0222	OUTFALL					36.744423	-76.56269
JR-267-OF-0223	OUTFALL					36.74685	-76.562807
JR-267-OF-0224	OUTFALL					36.747634	-76.562808
JR-241-OF-0152	OUTFALL					36.768842	-76.595666
JR-241-OF-0153	OUTFALL					36.768841	-76.59569
JR-241-OF-0154	OUTFALL					36.768659	-76.598033
JR-241-OF-0155	OUTFALL					36.768652	-76.598055
JR-266-OF-0145	OUTFALL					36.73196	-76.626497
JR-268-OF-0040	OUTFALL					36.747863	-76.535252
JR-241-OF-0138	OUTFALL					36.765992	-76.584579
JR-241-OF-0139	OUTFALL					36.765658	-76.585535
JR-241-OF-0140	OUTFALL					36.765085	-76.57714
JR-241-OF-0141	OUTFALL					36.764897	-76.571184
JR-241-OF-0142	OUTFALL					36.765167	-76.605334
JR-241-OF-0144	OUTFALL					36.768239	-76.591642
JR-241-OF-0145	OUTFALL					36.765112	-76.577848
JR-241-OF-0147	OUTFALL					36.764716	-76.568925
JR-241-OF-0148	OUTFALL					36.764666	-76.565959
JR-266-OF-0144	OUTFALL					36.732486	-76.627337
JR-240-OF-0096	OUTFALL					36.782629	-76.629533
JR-241-OF-0138	OUTFALL					36.77379	-76.614201
JR-241-OF-0139	OUTFALL					36.764639	-76.598191
JR-241-OF-0140	OUTFALL					36.763152	-76.594021
JR-241-OF-0141	OUTFALL					36.761346	-76.589501
JR-241-OF-0142	OUTFALL					36.761396	-76.589603
JR-241-OF-0143	OUTFALL					36.761401	-76.589681
JR-241-OF-0144	OUTFALL					36.772295	-76.61179
JR-241-OF-0145	OUTFALL					36.766532	-76.601934
JR-241-OF-0146	OUTFALL					36.766538	-76.601531
JR-241-OF-0147	OUTFALL					36.763103	-76.593953
JR-241-OF-0148	OUTFALL					36.763347	-76.594005
JR-241-OF-0149	OUTFALL					36.763272	-76.593835

New MS4 Outfalls Identified in PY2

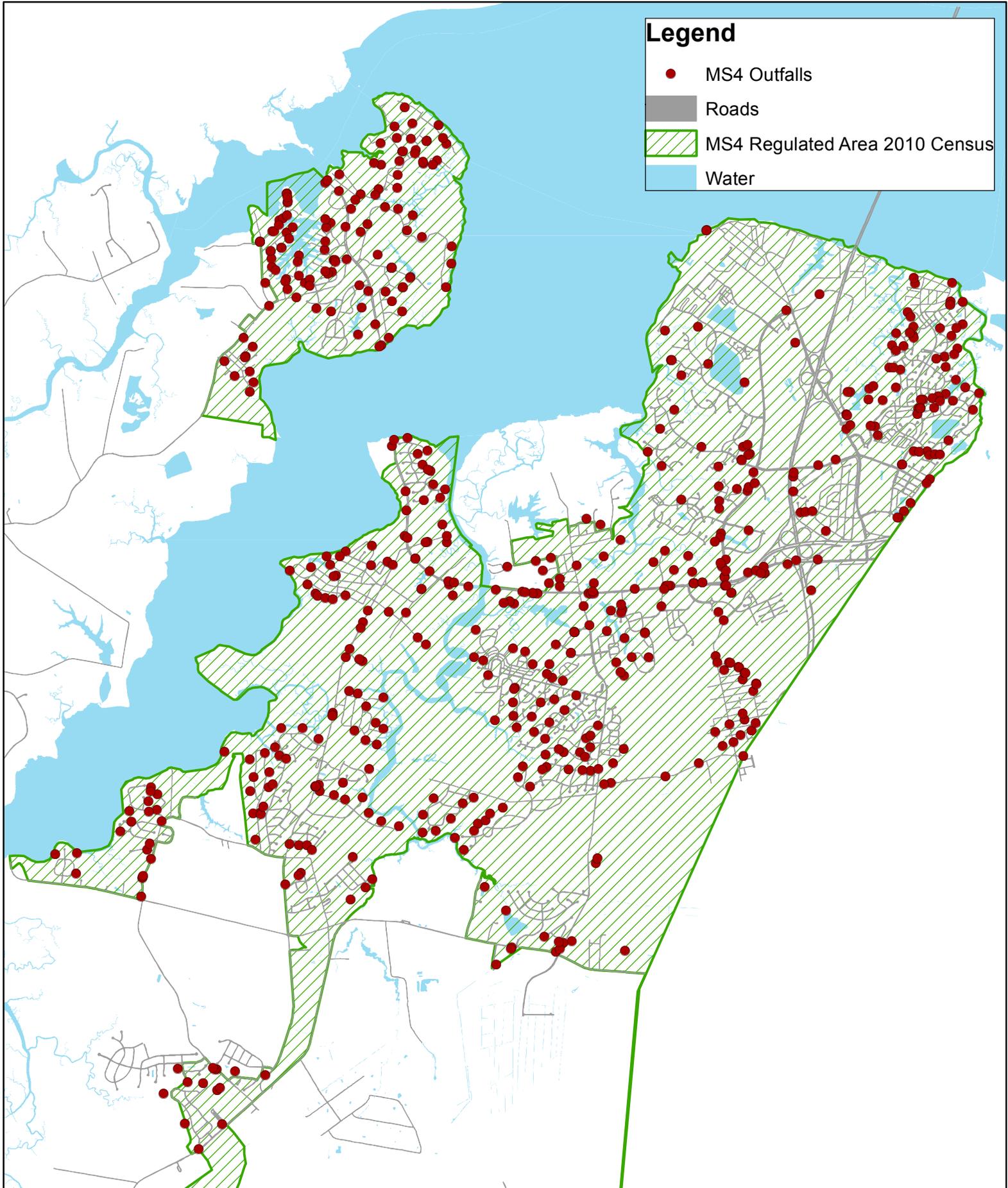
*Please note the City's mapping efforts are continuing. An inventory of MS4 outfalls and a complete storm sewer system map will be completed in PY4.

Facility ID	Structure Type	Receiving Water	HUC Code	Impaired Waterbody	Acreage	LATITUDE	LONGITUDE
JR-266-OF-0008	OUTFALL					36.714283	-76.66558
JR-266-OF-0009	OUTFALL					36.720658	-76.649656
JR-216-OF 0070	OUTFALL					36.839932	-76.504191
JR-216-OF-0069	OUTFALL					36.839938	-76.504189
JR-217-OF-0225	OUTFALL					36.863098	-76.446596
JR-242-OF-0134	OUTFALL					36.806677	-76.519625
JR-242-OF-0135	OUTFALL					36.806689	-76.519901
JR-242-OF-0138	OUTFALL					36.806864	-76.520133
JR-216-OF-0081	OUTFALL					36.839962	-76.504114
JR-242-OF-0136	OUTFALL					36.805849	-76.512454
JR-241-OF-0156	OUTFALL					36.776637	-76.582078
JR-266-OF-0146	OUTFALL					36.72443	-76.633558
JR-216-DC-0027	OUTFALL					36.831737	-76.528639
JR-241-OF-0161	OUTFALL					36.778399	-76.584247
JR-241-OF-0162	OUTFALL					36.778622	-76.583944
JR-241-OF-0157	OUTFALL					36.778457	-76.583639
JR-241-OF-0158	OUTFALL					36.777635	-76.583305
JR-241-OF-0159	OUTFALL					36.777963	-76.583576
JR-241-OF-0160	OUTFALL					36.778243	-76.58371
JR-216-OF-0085	OUTFALL					36.829526	-76.529947
JR-216-OF-0084	OUTFALL					36.829634	-76.529887
JR-216-OF-0083	OUTFALL					36.829754	-76.529835
JR-241-OF-0163	OUTFALL					36.759112	-76.586505
JR-217-DE-0246	DTCH_ENTR					36.865414	-76.475266
JR-242-AP-0012	ASUM_PNT					36.776826	-76.541165
JR-268-DE-0203	DTCH_ENTR					36.730328	-76.561444
JR-267-DE-0089	DTCH_ENTR					36.730439	-76.564195
JR-267-DE-0090	DTCH_ENTR					36.729718	-76.564948
JR-267-DE-0091	DTCH_ENTR					36.729686	-76.565075
JR-267-DE-0093	DTCH_ENTR					36.729062	-76.568537
JR-267-DE-0031	DTCH_ENTR					36.728906	-76.568509
JR-267-DE-0054	DTCH_ENTR					36.728694	-76.56977
JR-267-DE-0052	DTCH_ENTR					36.728518	-76.570812
JR-267-DE-0050	DTCH_ENTR					36.728474	-76.571016
JR-217-BD-0029	BMP_DOWN					36.874078	-76.44124
JR-217-DE-1064	DTCH_ENTR					36.864004	-76.437952
JR-218-DC-0006	DTCH_XSEC					36.865439	-76.432746
JR-195-IN-0017	INLET					36.877463	-76.440441
JR-195-BU-0015	BMP_UP					36.87905	-76.440218
JR-195-BU-0002	BMP_UP					36.879266	-76.43952

Appendix E.3

Maps of Current MS4 Outfalls

MS4 Outfalls Northern Suffolk

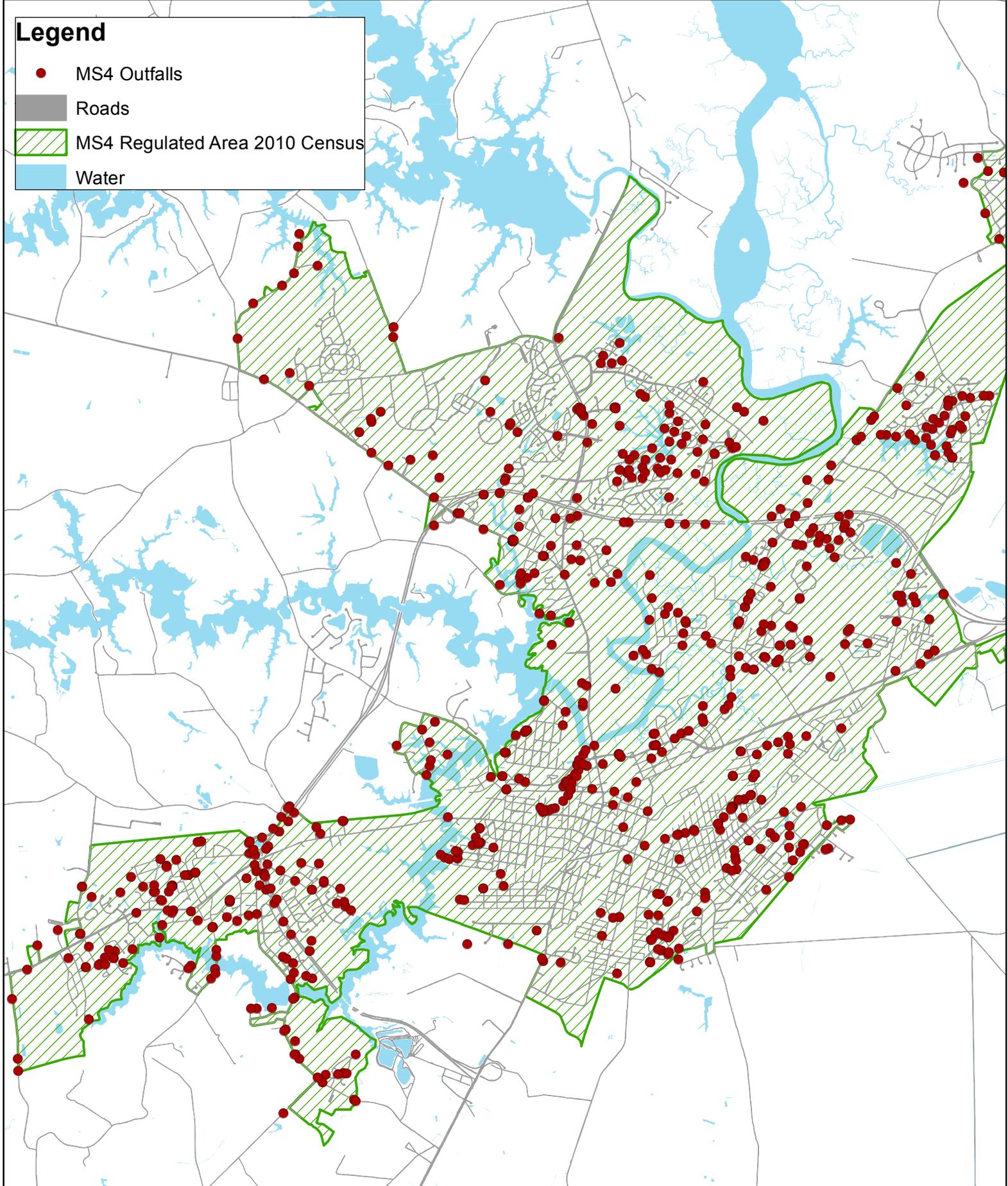




MS4 Outfalls Downtown Suffolk

Legend

- MS4 Outfalls
- Roads
- ▨ MS4 Regulated Area 2010 Census
- Water



Appendix E.4

Dry Weather Outfall Screenings Conducted in PY2

Permit Year 2 Dry Weather Screening

Screening Year	Screening Point ID	Location	Lat	Long	Structure Number	Commerical	Industrial	Residential	Screening Date	Comments
2014	JR-194-OF-0018	Sleepy Lake	36.9061860000000	-76.5058260000000	JR-194-OF-0018	No	No	Yes	08/06/2014	
2014	JR-194-OF-0034	Sleepy Lake	36.9055530000000	-76.5067200000000	JR-194-OF-0034	No	No	Yes	08/06/2014	
2014	JR-194-OF-0015	Sleepy Lake	36.9048330000000	-76.5063810000000	JR-194-OF-0015	No	No	Yes	08/06/2014	Inaccessible
2014	JR-194-OF-0035	Sleepy Lake	36.9037710000000	-76.5075390000000	JR-194-OF-0035	No	No	Yes	08/06/2014	
2014	JR-194-OF-0013	Sleepy Lake	36.9034300000000	-76.5091270000000	JR-194-OF-0013	No	No	Yes	08/06/2014	
2014	JR-194-OF-0014	Sleepy Lake	36.9037260000000	-76.5075010000000	JR-194-OF-0014	No	No	Yes	08/06/2014	
2014	JR-194-OF-0036	Sleepy Lake	36.9033170000000	-76.5091280000000	JR-194-OF-0036	No	No	Yes	08/06/2014	
2014	JR-194-OF-0037	Sleepy Lake	36.9025020000000	-76.5090580000000	JR-194-OF-0037	No	No	Yes	08/06/2014	
2014	JR-194-OF-0017	Sleepy Lake	36.9015120000000	-76.5090030000000	JR-194-OF-0017	No	No	Yes	08/06/2014	
2014	JR-194-OF-0067	Sleepy Lake	36.9011460000000	-76.5084750000000	JR-194-OF-0067	No	No	Yes	08/06/2014	
2014	JR-194-OF-0049	Sleepy Lake	36.9057290000000	-76.5085190000000	JR-194-OF-0049	No	No	Yes	08/26/2014	outfall was inaccessible, no evidence of illicit discharges in open conveyance above outfall
2014	JR-194-OF-0053	Sleepy Lake	36.9076120000000	-76.5065930000000	JR-194-OF-0053	No	No	Yes	08/26/2014	
2014	JR-194-OF-0060	Sleepy Lake	36.9072790000000	-76.5072340000000	JR-194-OF-0060	No	No	Yes	08/26/2014	
2014	JR-194-OF-0010	Sleepy Lake	36.9070310000000	-76.5077580000000	JR-194-OF-0010	No	No	Yes	08/26/2014	
2014	JR-194-OF-0050	Sleepy Lake	36.9064790000000	-76.5078730000000	JR-194-OF-0050	No	No	Yes	08/26/2014	
2014	JR-194-OF-0016	Sleepy Lake	36.9057540000000	-76.5088380000000	JR-194-OF-0016	No	No	Yes	08/26/2014	
2014	JR-194-OF-0022	Sleepy Lake	36.9045400000000	-76.5106630000000	JR-194-OF-0022	No	No	Yes	08/26/2014	
2014	JR-194-OF-0021	Sleepy Lake	36.9045490000000	-76.5106470000000	JR-194-OF-0021	No	No	Yes	08/26/2014	
2014	JR-194-OF-0020	Sleepy Lake	36.9045380000000	-76.5106470000000	JR-194-OF-0020	No	No	Yes	08/26/2014	
2014	JR-194-OF-0012	Sleepy Lake	36.9070310000000	-76.5077580000000	JR-194-OF-0012	No	No	Yes	08/26/2014	
2014	JR-194-OF-0019	Sleepy Lake	36.9091060000000	-76.5065300000000	JR-194-OF-0019	No	No	Yes	08/27/2014	
2014	JR-194-OF-0064	Sleepy Lake	36.9101600000000	-76.5066170000000	JR-194-OF-0064	No	No	Yes	08/27/2014	
2014	JR-194-OF-0023	Sleepy Lake	36.9101880000000	-76.5065410000000	JR-194-OF-0023	No	No	Yes	08/27/2014	
2014	JR-194-OF-0065	Sleepy Lake	36.9097520000000	-76.5064930000000	JR-194-OF-0065	No	No	Yes	08/27/2014	
2014	JR-194-OF-0061	Sleepy Lake	36.9092650000000	-76.5064780000000	JR-194-OF-0061	No	No	Yes	08/27/2014	
2014	JR-196-OF-0016	Holly Acres	38.8957240000000	-76.4091750000000	JR-196-OF-0016	No	No	Yes	10/03/2014	
2014	JR-196-OF-0031	Castlewood Village	36.8864200000000	-76.4086190000000	JR-196-OF-0031	No	No	Yes	10/03/2014	
2014	JR-196-OF-0032	Castlewood Village	36.8847620000000	-76.4101640000000	JR-196-OF-0032	No	No	Yes	10/03/2014	
2014	JR-196-OF-0033	Castlewood Village	36.8844880000000	-76.4112780000000	JR-196-OF-0033	No	No	Yes	10/03/2014	
2014	JR-196-OF-0034	Castlewood Village	36.8842760000000	-76.4121190000000	JR-196-OF-0034	No	No	Yes	10/03/2014	
2014	JR-196-OF-0071	Castlewood Village	36.8841300000000	-76.4138920000000	JR-196-OF-0071	No	No	Yes	10/03/2014	
2014	JR-196-OF-0046	Castlewood Village	36.8841430000000	-76.7134880000000	JR-196-OF-0046	Yes	No	No	10/03/2014	
2014	JR-196-OF-0017	Ridgewood Village	36.8916300000000	-76.4091760000000	JR-196-OF-0017	Yes	No	No	10/03/2014	
2014	JR-196-OF-0018	Ridgewood Village	36.8901280000000	-76.4082620000000	JR-196-OF-0018	No	No	Yes	10/03/2014	
2014	JR-196-OF-0019	Ridgewood Village	36.8893940000000	-76.4087610000000	JR-196-OF-0019	No	No	Yes	10/03/2014	
2014	JR-196-OF-0020	Ridgewood Village	36.8892050000000	-76.4102560000000	JR-196-OF-0020	No	No	Yes	10/03/2014	
2014	JR-196-OF-0014	Burbage Landing	36.8925560000000	-76.4084030000000	JR-196-OF-0014	No	No	Yes	10/03/2014	

Permit Year 2 Dry Weather Screening

Screening Year	Screening Point ID	Location	Lat	Long	Structure Number	Commerical	Indudstrial	Residential	Screening Date	Comments
2014	JR-196-OF-0076	James Point at Burbage Grant	36.8929810000000	-76.4073860000000	JR-196-OF-0076	No	No	Yes	10/03/2014	
2014	JR-196-OF-0010	James Point at Burbage Grant	36.8956140000000	-76.4073340000000	JR-196-OF-0010	No	No	Yes	10/03/2014	
2014	JR-196-OF-0036	James Point at Burbage Grant	36.8953030000000	-76.4092080000000	JR-196-OF-0036	No	No	Yes	10/03/2014	
2014	JR-196-OF-0035	James Point at Burbage Grant	36.8953000000000	-76.4092300000000	JR-196-OF-0035	No	No	Yes	10/03/2014	
2014	JR-196-OF-0044	Respass Beach	36.8978590000000	-76.4088610000000	JR-196-OF-0044	No	No	Yes	10/03/2014	
2014	JR-217-OF-0041	Balmoral	36.8521710000000	-76.4690310000000	JR-217-OF-0041	No	No	Yes	12/12/2014	
2014	JR-217-OF-0048	Parkside at Bennetts Creek	36.8553450000000	-76.4729060000000	JR-217-OF-0048	No	No	Yes	12/12/2014	
2014	JR-217-OF-0125	Deerfield	36.8463970000000	-76.4624580000000	JR-217-OF-0125	No	No	Yes	12/16/2014	flow is from creek that passes under road through storm sewer system. associated drop inlets did not show signs of illicit discharge
2014	JR-217-OF-0142	Deerfield	36.8431070000000	-76.4701980000000	JR-217-OF-0142	No	No	Yes	12/16/2014	
2014	JR-217-OF-0145	Deerfield	36.8423670000000	-76.4652850000000	JR-217-OF-0145	No	No	Yes	12/16/2014	
2014	JR-217-OF-0146	Deerfield	36.8427010000000	-76.4644670000000	JR-217-OF-0146	No	No	Yes	12/16/2014	
2014	JR-217-OF-0147	Deerfield	36.8438370000000	-76.4636590000000	JR-217-OF-0147	No	No	Yes	12/16/2014	
2014	JR-217-OF-0153	Deerfield	36.8437170000000	-76.4682740000000	JR-217-OF-0153	No	No	Yes	12/16/2014	
2014	JR-217-OF-0194	Deerfield	36.8449360000000	-76.4642070000000	JR-217-OF-0194	No	No	Yes	12/16/2014	
2014	JR-217-OF-0195	Deerfield	36.8432500000000	-76.4651640000000	JR-217-OF-0195	No	No	Yes	12/16/2014	
2014	JR-217-OF-0196	Deerfield	36.8452700000000	-76.4635700000000	JR-217-OF-0196	No	No	Yes	12/16/2014	
2015	JR-216-OF-0029	Rivercliff	36.8325080000000	-76.5427160000000	JR-216-OF-0027	No	No	Yes	01/21/2015	slow trickle determined to be groundwater
2015	JR-216-OF-0028	Rivercliff	36.8325910000000	-76.5395030000000	JR-216-OF-0028	No	No	Yes	01/21/2015	
2015	JR-216-OF-0027	Rivercliff	36.8301510000000	-76.5396630000000	JR-216-OF-0027	No	No	Yes	01/21/2015	
2015	JR-216-OF-0050	Hidden Cove	36.8328260000000	-76.5291740000000	JR-216-OF-0050	No	No	Yes	01/21/2015	Stormwater system is also conveyance for creek that has been piped. Flow was determined to originate from the creek.
2015	JR-216-OF-0049	Nansemond Pointe	36.8335770000000	-76.5287790000000	JR-216-OF-0049	No	No	Yes	01/21/2015	This part of the stormwater system is the conveyence for a piped creek. the flow was determined to be creek flow
2015	JR-216-OF-0048	Nansemond Pointe	36.8350690000000	-76.5330870000000	JR-216-OF-0048	No	No	Yes	01/21/2015	
2015	JR-216-OF-0047	Sleepy Point Estates	36.8316800000000	-76.5269720000000	JR-216-OF-0047	No	No	Yes	01/21/2015	
2015	JR-216-OF-0041	Sleepy Point Estates	36.8374930000000	-76.5316510000000	JR-216-OF-0041	No	No	Yes	01/21/2015	
2015	JR-216-OF-0034	Sleepy Point Estates	36.8402160000000	-76.5284110000000	JR-216-OF-0034	No	No	Yes	01/21/2015	
2015	JR-216-OF-0040	Sleepy Point Estates	36.8386020000000	-76.5288010000000	JR-216-OF-0040	No	No	Yes	01/21/2015	
2015	JR-216-OF-0061	Sleepy Point Estates	36.8773050000000	-76.5287680000000	JR-216-OF-0061	No	No	Yes	01/21/2015	
2015	JR-216-OF-0039	Sleepy Point Estates	36.8375260000000	-76.5276520000000	JR-216-OF-0039	No	No	Yes	01/21/2015	a few drops a second. nothing indicated an illicit discharge
2015	JR-216-OF-0038	Sleepy Point Estates	36.8393900000000	-76.5275000000000	JR-216-OF-0038	No	No	Yes	01/21/2015	

Appendix E.5

Illicit Discharge Response

Sanitary Sewer Overflows PY2

DEQ_IR	SSORS_ID	Date of Incident	Date Under Control	Date Reported	Reported By	Site Name	Site Address	Description	Category	Responsible Party	Spill Duration	Latitude	Longitude	Corrective Action	Quantity Spilled	Amount Recovered	Amount Reached Waterway	Units
SSORS#2015-T-104156	104156	12/2/2014	12/2/2014	12/3/2014	William Rockwell	MH 048-135	309 W. Washington Street	Sanitary gravity sewer stoppage	Maintenance-Debris	City of Suffolk, Department of Public Utilities	4 hour(s) 30 minute(s)	36.72771197	-76.58518562	Sewer stoppage cleared and over flow site cleaned. -----December 3, 2014 08:32 AM-----	50	20		30 Gallons
SSORS#2015-T-104172	104172	12/24/2014	12/24/2014	12/25/2014	Willie Barnes	Constance Wharf	120 East Constance Rd.	PS 048 telemetry data indicates that an overflow occurred during a heavy rain event. This event was not observed.	Capacity-Weather Related	Nansemond River	3 hour(s) 3 minute(s)	36.7382491	-76.57901189	The maintenance crew used an emergency pump to maintain the station. PS 048 is now back in normal operation. -----December 25, 2014 10:45 AM-----	0	0		0 Gallons
SSORS#2015-T-104171	104171	12/24/2014	12/24/2014	12/25/2014	Willie Barnes	Holland Heights	1090 Holland Rd	PS 136 failed to pump due to high head conditions during a heavy rain event. The result of this failure caused the manhole on Holland Rd. to overflow.	Capacity-Weather Related	Lake Meade	0 hour(s) 28 minute(s)	36.73084968	-76.6069245	The maintenance crew used a pump and haul truck to maintain the station until they got an emergency pump to place at the station. PS 136 is now back in normal operation. -----	700	0		700 Gallons
SSORS#2015-T-104173	104173	12/24/2014	12/24/2014	12/25/2014	Willie Barnes	PS 004	Garfield Ave.	The emergency pump fuel level was full in the pump during the mechanic daily routine inspection. The emergency pump was automatically operating the station during a high pressure and heavy rain event. The emergency ran out of fuel during this event from usage.	Other	Lake Meade	0 hour(s) 32 minute(s)	36.73456009	-76.60143945	The fueling company refueled the emergency pump and the pump maintained the station. PS 004 is now back in normal operation. -----December 25, 2014 11:00 AM-----	3200	0		3200 Gallons
SSORS#2015-T-104177	104177	12/29/2014	12/29/2014	12/30/2014	William Rockwell	CC-004-028-002	424 S Main St	Evidence of a un-observed overflow at sewer clean out.	Other	Nansemond River	0 hour(s) 1 minute(s)	36.72029426	-76.58596939	Clean overflow site -----December 30, 2014 11:16 AM-----	300	0		300 Gallons
SSORS#2015-T-104220	104220	3/12/2015	3/12/2015	3/13/2015	William Rockwell	CC-601-069-009		Overflow from sewer lateral	Maintenance-Debris	Shingle Creek	0 hour(s) 59 minute(s)	36.7216084	-76.58035169	Cleared sewer lateral stoppage, cleaned site. Quantity of release is an estimate due to actual overflow not observed. -----March 13, 2015 11:04 AM-----	25	0		25 Gallons
SSORS#2015-T-104225	104225	3/18/2015	3/18/2015	3/18/2015	William Rockwell	CC 004-050-001	512 Kilby Ave	Sewer lateral stoppage caused by paper products resulted in sewer overflow.	Maintenance-Debris	Nansemond River	0 hour(s) 17 minute(s)	36.7203631	-76.59259373	Cleared sewer stoppage. Cleaned overflow site. -----March 18, 2015 02:27 PM-----	25	0		25 Gallons
SSORS#2015-T-104227	104227	3/21/2015	3/21/2015	3/21/2015	William Rockwell	CC 004-050-001	512 Kilby Ave	Sewer Stoppage caused by grease	Maintenance-Grease	Nansemond River	4 hour(s) 30 minute(s)	36.7203631	-76.59259373	Flushed sewer lateral, cleaned site -----March 23, 2015 01:50 PM----- Correction made to Description of Incident only -----March 23, 2015 03:20 PM-----	30	20		10 Gallons
SSORS#2015-T-104234	104234	3/29/2015	3/29/2015	3/30/2015	William Rockwell	MH 008-048	6056 Mainsail Ln	Found gravity sewer main stoppage due to grease.	Maintenance-Grease	James River	2 hour(s) 15 minute(s)	36.8534364	-76.45656474	Cleared gravity main stoppage. cleaned spill site -----March 30, 2015 01:30 PM-----	100	0		100 Gallons
SSORS#2015-T-104241	104241	4/4/2015	4/4/2015	4/6/2015	Michael Lassiter	CC 616-016-007	317 Hunter St	Sewer overflow at customer cleanout.	Maintenance-Debris	Shingle Creek	0 hour(s) 51 minute(s)	36.71470699	-76.58187521	Cleaned sewer lateral and cleared blockage. -----April 6, 2015 11:28 AM-----	10	5		5 Gallons
SSORS#2015-T-104245	104245	4/7/2015	4/7/2015	4/7/2015	Michael Lassiter	CC 024-012-001	213 Delaney Dr	Sewer overflow at customer cleanout.	Maintenance-Debris	Lake Kilby	0 hour(s) 30 minute(s)	36.72673626	-76.64241399	Cleaned sewer lateral and cleared blockage. -----April 7, 2015 01:43 PM-----	10	5		5 Gallons
SSORS#2015-T-104246	104246	4/7/2015	4/7/2015	4/8/2015	Michael Lassiter	CC 020-103-001	4700 Magnolia Dr	Sewer overflow at customer cleanout.	Maintenance-Debris	James River	0 hour(s) 40 minute(s)	36.87067357	-76.42634736	Cleaned sewer lateral and cleared blockage. -----April 8, 2015 10:20 AM-----	20	15		5 Gallons
SSORS#2015-T-104247	104247	4/7/2015	4/7/2015	4/8/2015	Michael Lassiter	CC 004-100-002	402 S Broad St	Sewer overflow at customer cleanout.	Maintenance-Debris	Lake Kilby	1 hour(s) 0 minute(s)	36.72499475	-76.59466083	Cleaned sewer lateral and cleared blockage. -----April 8, 2015 10:37 AM-----	50	30		20 Gallons
SSORS#2015-T-104248	104248	4/9/2015	4/9/2015	4/10/2015	Michael Lassiter	MH 011-003	527 Chisholm Ln	Sewer overflow at sanitary sewer manhole.	Maintenance-Debris	Shingle Creek	1 hour(s) 10 minute(s)	36.7307893	-76.55281483	Cleaned sanitary sewer main line and cleared blockage. -----April 10, 2015 12:43 PM-----	400	0		400 Gallons
SSORS#2015-T-104250	104250	4/11/2015	4/11/2015	4/13/2015	William Rockwell	CC 056-023-004	4201 Queen St	Sewer lateral stoppage	Maintenance-Grease	James River	0 hour(s) 26 minute(s)	36.84479067	-76.44286947	Cleared sewer lateral stoppage, clean spill site. -----April 13, 2015 09:29 AM-----	100	90		10 Gallons
SSORS#2015-T-104251	104251	4/14/2015	4/14/2015	4/14/2015	Michael Lassiter	MH 012-024	1701 N Main St	Sewer overflow at sanitary sewer manhole.	Maintenance-Grease	Nansemond River	2 hour(s) 32 minute(s)	36.75237742	-76.58379596	Cleaned sewer main line and cleared grease blockage. -----April 14, 2015 03:41 PM-----	50	0		50 Gallons
SSORS#2015-T-104254	104254	4/15/2015	4/15/2015	4/16/2015	William Rockwell	MH 012-024	1701 N Main St	Gravity main sewer overflow caused by grease.	Maintenance-Grease	Nansemond River	2 hour(s) 32 minute(s)	36.75237742	-76.58379596	Cleared grease blockage from gravity sewer main, cleaned spill site. -----April 16, 2015 08:46 AM-----	300	0		300 Gallons

Sanitary Sewer Overflows PY2

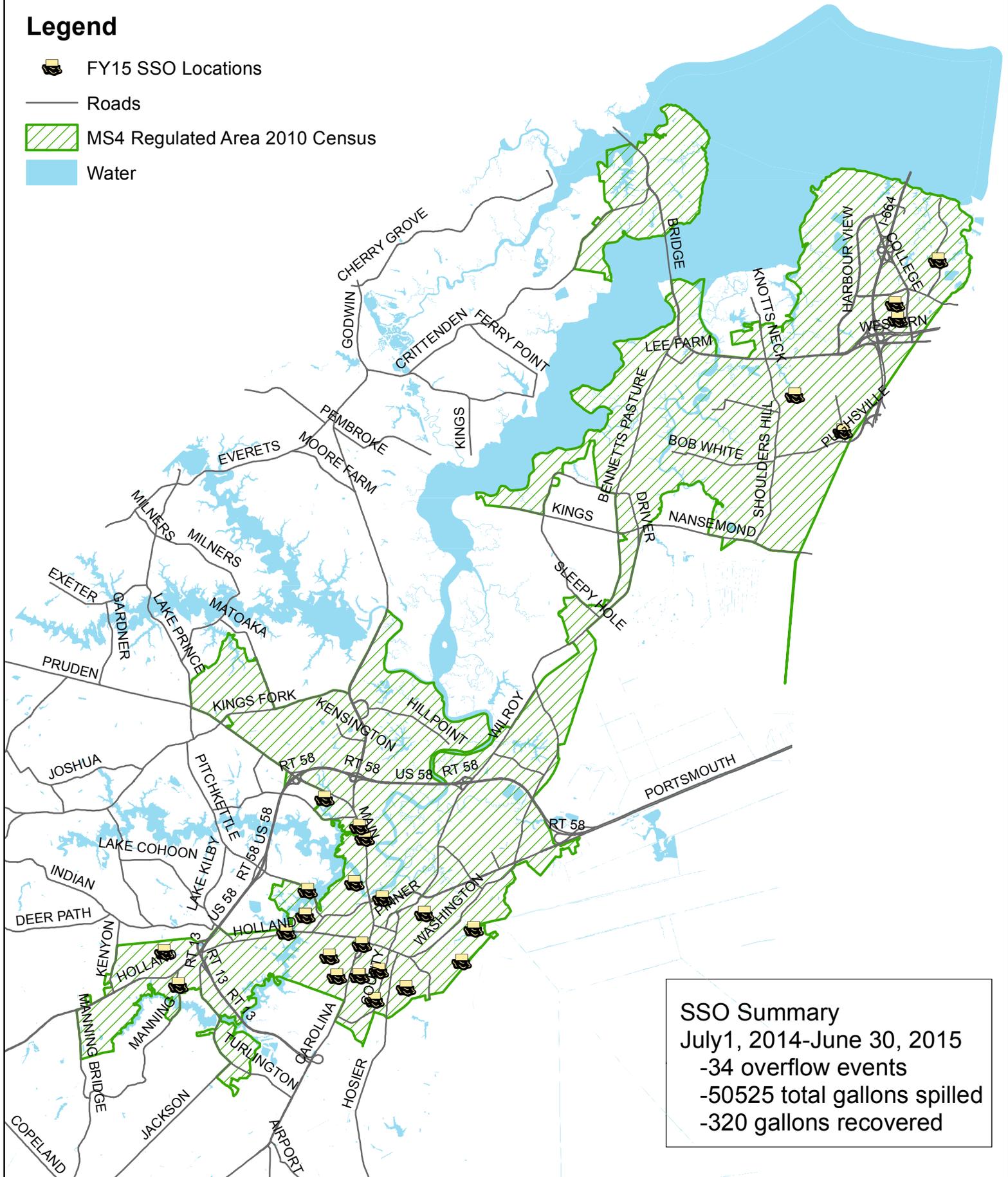
DEQ_IR	SSORS_ID	Date of Incident	Date Under Control	Date Reported	Reported By	Site Name	Site Address	Description	Category	Responsible Party	Spill Duration	Lattitude	Longitude	Corrective Action	Quantity Spilled	Amount Recovered	Amount Reached Waterway	Units
SSORS#2015-T-104256	104256	4/20/2015	4/20/2015	4/20/2015	Willie Barnes	MH 004-023	Garfield Ave	The manhole on Garfield Ave overflowed due to PS 004 experiencing high conditions during a rain event. PS 004 was being maintained by an emergency pump and a pump and haul truck during the time the overflow occurred.	Capacity-Weather Related	Lake Meade	0 hour(s) 8 minute(s)	36.73456009	-76.60143945	The head conditions have returned back to normal and PS 004 is back in normal operation. -----April 20, 2015 02:05 PM-----	100	0	100	Gallons
SSORS#2015-T-104257	104257	4/20/2015	4/20/2015	4/20/2015	William Rockwell	CC 004-028-002	424 S Main St	Sewer overflow at City sewer clean out.	Maintenance-Grease	Nansemond River	1 hour(s) 5 minute(s)	36.72035992	-76.5862148	Cleared stoppage in Gravity Sewer Main (004-094) ---April 20, 2015 03:16 PM-----	500	30	450	Gallons
SSORS#2015-T-104261	104261	4/28/2015	4/28/2015	4/29/2015	William Rockwell	CC 013-022-004	2007 Meade Pkwy	Sewer overflow caused by stoppage in sewer lateral.	Maintenance-Debris	Nansemond River	0 hour(s) 49 minute(s)	36.76181403	-76.59509548	Cleared stoppage in sewer lateral, cleaned spill site -----April 29, 2015 07:47 AM-----	500	100	400	Gallons
SSORS#2015-T-104262	104262	4/28/2015	4/28/2015	4/29/2015	William Rockwell	CC 020-103-001	4700 Magnolia Dr	Sewer overflow caused by stoppage in sewer lateral.	Maintenance-Debris	James River	0 hour(s) 20 minute(s)	36.87067357	-76.42634736	Cleared stoppage ins sewer lateral, cleaned spill site. -----April 29, 2015 07:55 AM-----	50	0	50	Gallons
SSORS#2015-T-104264	104264	4/29/2015	4/29/2015	4/30/2015	Michael Lassiter	CC 010-061-002	1114 Blythewood Ln	Sewer overflow at customer cleanout.	Maintenance-Debris	Shingle Creek	0 hour(s) 30 minute(s)	36.72320198	-76.55643942	Cleaned sewer lateral and used suction hose to remove debris. -----April 30, 2015 02:54 PM-----	5	5	0	Gallons
SSORS#2015-T-104022	104022	7/24/2014	7/24/2014	7/31/2014	Willie Barnes	PS 048	120 East Constance Rd	PS 048 telemetry data review indicates that during a heavy rain event an overflow occurred. This event was not observed.	Capacity-Weather Related	Nansemond River	2 hour(s) 15 minute(s)	36.73824496	-76.57901713	This event was not observed. -----July 31, 2014 11:39 AM-----	0	0	0	Gallons
SSORS#2015-T-104023	104023	7/24/2014	7/24/2014	7/31/2014	Willie Barnes	PS 076	1321 Bethlehem St	PS 076 telemetry data review indicates than an overflow occurred during a heavy rain event. This event was not observed	Capacity-Weather Related	Shingle Creek	1 hour(s) 45 minute(s)	36.73458531	-76.56687668	This event was not observed. -----July 31, 2014 11:48 AM-----	0	0	0	Gallons
SSORS#2015-T-104024	104024	7/24/2014	7/25/2014	7/31/2014	Willie Barnes	PS 120	985 Pitchkettle Rd	PS 120 telemetry data review indicates that an overflow occurred during a heavy rain event. This event was not observed.	Capacity-Weather Related	Lake Meade	4 hour(s) 45 minute(s)	36.7404788	-76.60060526	This event was not observed. -----July 31, 2014 11:56 AM-----	0	0	0	Gallons
SSORS#2015-T-104064	104064	9/9/2014	9/9/2014	9/9/2014	Willie Barnes	MH 023-041	Manning Rd	PS 023 was experiencing difficulties in pumping into the force main due to high head conditions. The emergency pump that was on site felled to operate due to the battery being dead.	Other	Speight Run	0 hour(s) 25 minute(s)	36.71902467	-76.63849504	The responding personnel jumped started the emergency pump. The emergency pump maintained the pump station. PS 023 is now back in normal operation. -----September 9, 2014	500	0	500	Gallons
SSORS#2015-T-104112	104112	9/11/2014	9/12/2014	9/12/2014	William Rockwell	MH 110-127	6488 Respass Beach Rd	Gravity sewer main overflowed due to grease in sewer main.	Maintenance-Grease	Nansemond River	11 hour(s) 48 minute(s)	36.8841233	-76.41419714	Cleared gravity sewer main stoppage, treated and cleaned spill site. -----September 12, 2014 02:10 PM-----	7200	0	7200	Gallons
SSORS#2015-T-104123	104123	10/10/2014	10/10/2014	10/14/2014	Michael Lassiter	MH 595-038	236 Locust Street	Manhole Overflow	Maintenance-Debris	Shingle Creek	1 hour(s) 29 minute(s)	36.71738107	-76.57267423	Cleaned manhole and removed debris. -----October 14, 2014 10:23 AM-----	50	0	50	Gallons
SSORS#2015-T-104127	104127	10/20/2014	10/20/2014	10/20/2014	William Rockwell	MH 020-012	6072 Camellia Drive	Sanitary Sewer Overflow at sewer manhole	Maintenance-Grease	James River	1 hour(s) 0 minute(s)	36.87428924	-76.42693743	Sewer stoppage cleared in gravity sewer main, site cleaned. -----October 20, 2014 02:23 PM-----	300	0	300	Gallons
SSORS#2015-T-104154	104154	11/26/2014	11/26/2014	12/1/2014	Willie Barnes	Garfield Ave.	Garfield Ave.	PS 004 was not operating due to high head conditions. The new vendor emergency pump that was staged at the PS 004 was unable to over come the head conditions. The result of these failure caused the manhole on Garfield Ave to overflow.	Other	City of Suffolk (Public Utilities)	1 hour(s) 24 minute(s)	36.73456009	-76.60143945	Staff utilized a pump and haul truck to maintain the station until the vendor made an emergency pump change. The emergency pump maintain the station once the change out was made. PS 004 is now back in normal operation. -----December 1, 2014 10:13 AM-----	12600	0	12600	Gallons
SSORS#2014-T-104018	104018	7/24/2014	7/25/2014	7/25/2014	Willie Barnes	MH 023-041	Manning Rd	PS 023 was being maintained by an emergency due to high head and heavy rain conditions. The emergency pump ran out of fuel and this failure resulted in the manhole on Manning Rd overflowing.	Capacity-Weather Related	Speight Run	3 hour(s) 17 minute(s)	36.7190266	-76.63849373	The maintenance staff refueled the emergency pump and put it back in operation. -----July 25, 2014 02:26 PM-----	9850	0	9850	Gallons
SSORS#2014-T-104019	104019	7/24/2014	7/24/2014	7/25/2014	Willie Barnes	MH 004-023	Garfield Ave	PS 004 was not operating due to high head and heavy rain conditions. The emergency pump did not operate because it was in the off position. This failure caused the manhole on Garfield Ave to overflow.	Capacity-Weather Related	Lake Meade	3 hour(s) 0 minute(s)	36.73456009	-76.60143945	The maintenance staff turned the emergency pump on and it maintained PS 004 until the weather and head conditions return to normal. PS 004 is now back in normal operation. -----July 25, 2014 02:51 PM-----	13500	0	13500	Gallons
SSORS#2014-T-104020	104020	7/24/2014	7/25/2014	7/25/2014	Willie Barnes	PS 012	1807 North Main St	PS 012 telemetry indicated that an overflow occurred, but it was not observed.	Capacity-Weather Related	Nansemond River	3 hour(s) 38 minute(s)	36.75512534	-76.58522188	Unable to give a reliable estimate to this event because it was not observed during the overflow. ---July 25, 2014 03:38 PM-----	0	0	0	Gallons
SSORS#2015-T-104021	104021	7/24/2014	7/24/2014	7/31/2014	Willie Barnes	PS 003	806A East Riverview Dr	The review of PS 003 telemetry data indicates that an overflow occurred during a heavy rain event. This event was not observed.	Capacity-Weather Related	Nansemond River	1 hour(s) 45 minute(s)	36.74196957	-76.58694068	This event was not observed. -----July 31, 2014 11:29 AM-----	0	0	0	Gallons



Sanitary Sewer Overflows Permit Year 2

Legend

- FY15 SSO Locations
- Roads
- MS4 Regulated Area 2010 Census
- Water



SSO Summary
July 1, 2014-June 30, 2015
-34 overflow events
-50525 total gallons spilled
-320 gallons recovered

HAZMAT Response Summary Table

Incident Date	Incident Number	Incident Type	Address
6/4/2015	1500005524	Gasoline or other flammable liquid spill	499 58 RT
3/19/2015	1500002889	Gasoline or other flammable liquid spill	1555 HOLLAND RD
1/30/2015	1500001033	Gasoline or other flammable liquid spill	441 WILLIAMS RD
1/30/2015	1500001037	Gasoline or other flammable liquid spill	441 WILLIAMS RD
1/29/2015	1500001020	Gasoline or other flammable liquid spill	441 WILLIAMS RD
12/24/2014	1400012250	Gasoline or other flammable liquid spill	2719 PRUDEN BLVD
12/18/2014	1400012048	Gasoline or other flammable liquid spill	222 EQUINOX LNDG
12/2/2014	1400011521	Gasoline or other flammable liquid spill	104 CARRIAGE HOUSE DR
12/2/2014	1400011521	Gasoline or other flammable liquid spill	108 BURNETTS CT
11/28/2014	1400011368	Gasoline or other flammable liquid spill	6496 HAMPTON ROADS PKWY
11/25/2014	1400011266	Gasoline or other flammable liquid spill	1000 CENTERBROOKE LN
10/30/2014	1400010352	Gasoline or other flammable liquid spill	4418 MARLIN AVE
10/30/2014	1400010356	Gasoline or other flammable liquid spill	1129 CAROLINA RD
10/9/2014	1400009579	Gasoline or other flammable liquid spill	113 CHESTNUT ST
10/6/2014	1400009510	Gasoline or other flammable liquid spill	1011 RACHELS DR
9/16/2014	1400008785	Gasoline or other flammable liquid spill	2311 INDIAN TRL
9/14/2014	1400008697	Gasoline or other flammable liquid spill	300 I 664

Illicit Discharge Response by Public Works Engineering

Complaint Number	Complaint Date	Complainant Name	Complainant Mailing Address	Complainant Phone Number	Complainant Description	Respondent	Respondent Remarks	Nov Issued	Responsible Party Name	Responsible Party Mailing Address	Responsible Party Phone Number	Site Name	Street Number	Street Name	Created By
2015-6	06/23/2015	Jim Upp	3006 Hogan Way	(407) 719-5930	On June 23rd, 2015 around 1:30 pm, a call was received from Jim Upp of 3006 Hogan Way, 407-719-5930 in The Masters Condominiums that a contractor was washing out a concrete truck into a storm drain. David Keeling went out to investigate the incident and made contact with Mr Upp who provided pictures and videos of the incident. The storm drain was investigated and evidence of concrete washout was present in the form of a grey stain on the roadway and curbing. A pile of wet concrete 18 inches in diameter and 2-3 inches deep was discovered in the woods near the storm drain. The pictures indicated that the concrete truck belonged to Branscome and the concrete contractor was "Concrete Services."	David Keeling	The Branscome truck had left, but the "Concrete Services" workers were still on site finishing the driveway that had been poured at 2013 Nicklaus Drive. Contact was made with Jeff Hughson, the owner and supervisor of Concrete Services. He admitted to washing out the chute of the concrete truck into a wheelbarrow, tipping the water off into the storm drain, and dumping the wet concrete in the woods. He was informed that that was considered an illicit discharge and a violation of City ordinances. Mr. Hughson agreed to clean up the concrete in the woods and understood the nature of the violation. He also agreed to find a better way of disposing of leftover concrete in the future.	No	Jeff Hughson	7932 Harold Street Norfolk, VA 23518	(757) 328-9770	The Masters Condos	2013	NICKLAUS DRIVE	David Keeling
2015-9	05/22/2015	Jessica Liedke	j.liedke@gmail.com		To whom it may concern: A carpet cleaning company dumped their waste in the parking lot of my apartment complex. I'm unsure of who to report them to but I find it unacceptable. I looked it up on the EPA and found that it is considered illegal. Please let me know who I need to contact to report them. Thank you very much. Jessica Liedke (863) 990-2298	Erin Rountree	Made contact with Jessica who informed me of the carpet care company. I made contact with the Atlantic Carpet Care company to let them know that they are in violation of the City's illicit discharge ordinance and that he must speak with his staff to make sure they are all educated on the proper disposal of there waste water. He assured me that this action would take place.	No	David - Owner - Atlantic Carpet Care	1705 Head of River Rd., Chesapeake, VA 23322	757-421-7275	Meridian Harbourview Apartments	7190	HARBOUR TOWNE PARKWAY	Erin Rountree
2015-5	12/29/2014	Anonymous	unknown		On Monday December 29, 2014 a citizen called complaining about foam in a creek flowing under the Rt 58 bypass.	Ed Heide, David Keeling	The creek in question is an unnamed swampy creek that flows along the western edge of SPSA and from the outfall of at least one of the two retention ponds on the SPSA site on the north side of the bypass and flows by a junkyard on the south side of the bypass. Because of the vicinity of the creek to these two locations, the probability of the reported condition being related to an illicit discharge was high and an investigation was conducted by Ed Heide and David Keeling. There had been significant amounts of rain in the days prior to the report and the water level in the creek seemed to be elevated. Significant amounts of white foam were seen floating down the channel in chunks and collecting around obstructions. The foam was persistent and was not dissipating and becoming brown where it collected around snags. The SPSA site was visited but the outfalls of the BMPs were not accessible. There was no sign of an illicit discharge from the portion of the SPSA site that was visited. It was determined from the characteristics of the foam and the lack of evidence of an illicit discharge reaching the stream that the foam was the natural result of turbulent water and decaying organic matter.	No	none	none		Rt 58 Bypass	none	NANSEMOND PARKWAY	David Keeling
2015-4	10/01/2014	Unknown	2623 Carolina Road		The resident(s) at 2326 Carolina Rd who claim to have seen neighbor at 2621 Carolina Rd dump something in the ditch in front of his house. There was an oily sheen on the standing water in the ditch in front of the complainant's house	Ed Heide, David Keeling	Ed Heide and David Keeling responded to a complaint by the resident(s) at 2326 Carolina Rd who claim to have seen neighbor at 2621 Carolina Rd dump something in the ditch in front of his house. The ditch flows from 2621 to 2623 and then outfalls along the property line of 2623. The water in the ditch in front of 2623 did have an oily sheen on its surface. The spill stayed contained within a relatively small length of ditch due to the grading of the ditch. Kerry Bond with Public Works operations said he would dispatch a crew to soak up the oil with an absorbent boom and dispose of it through the hazardous waste stream at Fleet Maintenance. The accused was asked if he had any knowledge of the incident and said he did not dump anything in the ditch (he knew the accusation against him), but did suggest it may have something to do with the recent paving on Carolina Rd.	No	Unknown	unknown		2623 Carolina Rd	2623	CAROLINA ROAD	David Keeling
2015-1	09/19/2014	Floyd Brown	Not Available	3489961	Staff recieved forwarded information from DEQ. Mr. Brown complained that resident located at 202 Jennifer Court parks large white SUV in cul-de-sac and vehicle leaks large amounts of oil that continue to drain into the street and into the gutter that leads to Cedar Lake.	T.L.Rowland	Site investigated at approx. 10:47a.m. Oil slicks found at site, but no vehicle. Spots were not large enough to be a "hotspot", but still worth correcting. Knocked on door to speak with resident of house #202 but no reply. Mailed letter same afternoon explaining the city ordinance, and also instructed homeowner to remedy the situation as soon as possible.	No	Resident	202 Jennifer Court		202 Jennifer Court	202	JENNIFER COURT	Tory Rowland

Illicit Discharge Response by Public Works Engineering

Complaint Number	Complaint Date	Complainant Name	Complainant Mailing Address	Complainant Phone Number	Complainant Description	Respondent	Respondent Remarks	Nov Issued	Responsible Party Name	Responsible Party Mailing Address	Responsible Party Phone Number	Site Name	Street Number	Street Name	Created By	
2015-3	09/17/2014	Anonymous	Anonymous		CALLER STATED THERE IS A LEAK OF MOTOR OIL FROM TWO OLD PICK-UP TRUCKS AT A PRIVATE RESIDENCE. ONE OF THE TRUCKS LEAKS ONTO THE GRASS AND THE OTHER ONTO THE PAVEMENT.	David Keeling	On September 17, 2014 a complaint was forwarded from DEQ describing 2 trucks at 205 Friar Ct that two old pickup trucks were parked and leaking oil onto the street and the lawn of 205 Friar Ct. David Keeling investigated the event the morning of September 17, 2014 at approximately 10:00 AM. At the time of the visit there was one truck parked on the street, but no trucks parked on the lawn of 205 Friar Ct. There was no evidence of an oil discharge on the grass of the residence. There were several oil spots 5-6 inches in diameter under the vehicle parked in the street that did not seem to be excessive or deliberate, but did seem to relatively new in that they were not overly faded. There was also a series of smaller stains adjacent to where this truck was parked that were all roughly an inch and diameter. The nature of this discharge did not seem to indicate wanton dumping of oil or negligence on the part of the vehicles' owner, also there was no evidence of the oil making its way to a nearby storm drain.	No	Unknown	205 Friar Ct			205 Friar Ct	205	FRIAR COURT	David Keeling
2015-2	09/12/2014	Anonymous	Anonymous		CALLER IS REPORTING A RELEASE OF AN UNKNOWN AMOUNT OF COMMERCIAL GRADE DIESEL FUEL ONTO THE GRASS AROUND A PRIVATE RESIDENCE POSSIBLY TO KILL THE WEEDS. CALLER IS CONCERNED THE MATERIAL IS GETTING INTO THE GROUND WATER AND SWAMP AS WELL AS AFFECTING THE BIRDS AND WILDLIFE.	Tory Rowland and David Keeling	Report of a resident spraying diesel fuel as an herbicide was received on September 12. The complaint was filed with DEQ who forwarded the incident to the Stormwater Division. The incident was reported to have occurred on September 6, 2014 and was reported to DEQ on September 12, 2014 who forwarded it that same day. An investigation by Stormwater personnel was conducted the afternoon of September 12, 2014 by Tory Rowland and David Keeling who investigated the incident around 4 pm. The suspected activity was not occurring at the time of our visit nor did anyone answer the knock on the door at 1100 Old Somerton Rd. The investigation personnel walked up and down the ditch along the road and the ditch along the side of the house and did not see evidence of the reported activity. Some faint diesel odor was noticed, but the origin of the source of the smell could not be determined	No	Johnny Goodwin (alleged)	1100 Old Somerton Rd Suffolk Va			1100 Old Somerton Rd	1100	OLD SOMERTON ROAD	David Keeling
2015-7	08/12/2014	Ms. Bush	212 Linden Ave	(757) 535-6934	Mrs. Bush, called the city manager's office in reference to water streaming down the gutters of the street from a vacant house. She is concerned about mosquitos and the smell. Mrs. Bush, has spoken to public works, public utilities and community development and wasn't helped. I don't know the address of the home just that it is on the 200 block of Linden Avenue and is vacant.	E. Rountree, D. Keeling	It is a sump pump from the basement or crawl space. Witnessed the water flowing during visit. The owner is listed as Equity Trust Company Custodian in our records, but I used the mailing address to try to find a name and phone number. The home is vacant and through my research to track down the owner, I believe a lady from Virginia Beach owns the house but it is owned through her IRA, I have been unsuccessful in trying to locate contact information for the owner. Regardless of my efforts I don't see where we would issue a NOV for this. It is an exemption from the old (pre July 2014 ordinance) definition of illicit discharge. The new definition does not explicitly list sump pumps as an exemption but does as long as we do not identify them as significant contributor of pollutants. I do understand the frustrations of the downstream homeowners, there is standing water in the curb line. There are issues with the curb in this area where it doesn't drain properly and water pools along the curb in numerous locations.	No	Unkown	Unkown			212 Linden Ave	212	LINDEN AVENUE	David Keeling
2015-8	07/02/2014	Unknown	Unknown		A call was received about a sewer main being bypassed and pumped into Shingle Creek where it crosses Portsmouth Blvd	David Keeling	Upon investigation it was discovered that maintenance work was being done on a water supply main. There was no one on site at the time of the visit. There was a hose connected to a valve that was set up to direct flow to Shingle Creek. There was no flow at the time of the visit, but there was evidence of past flow. As this was treated drinking water and not waste water, and a result of maintenance activities, the case was closed.	No	Unkown	Unkown			Portsmouth Blvd	960	PORTSMOUTH BOULEVARD	David Keeling

Appendix F

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

Appendix F.1

DEQ Certified Personnel

DEQ Certified Personnel Listing

Employee Name	Certification Type	Cert. No	Expires
Bradshaw, Charles	Dual Inspector (E&S and Stormwater)	#DIN0176	12/2/2017
Cereske, Farris	Erosion and Sediment Control Inspector	#5560	5/31/2015
Earley, Sherry	Erosion and Sediment Control Program Administrator, Stormwater Management Program Administrator	#446, #SWPA0129	11/30/2017, 06/18/2018
Heide, Edward	Dual Plan Reviewer	#DPR0106	8/20/2018
Hunt, Ryan	Dual Plan Reviewer	#DPR0103	3/26/2018
Jarriel, David	Dual Inspector (E&S and Stormwater)	#DIN0124	11/30/2018
Keeling, David	Erosion and Sediment Control Inspector	#6172	11/30/2016
Liverman, Dyan	Dual Inspector (E&S and Stormwater)	#DIN0186	8/12/2018
Madray, Louis	Dual Inspector (E&S and Stormwater)	#DIN0184	7/27/2018
Mushett, George Alan	Erosion and Sediment Control Plan Reviewer	#8040	11/30/2016
Ross, Beth	Erosion and Sediment Control Plan Reviewer, Stormwater Management Plan Reviewer	#542, #SWPR0138	11/30/2016, 7/9/2018
Rountree, Adam	Dual Plan Reviewer	#DPR0107	9/10/2018
Rountree, Erin	Dual Plan Reviewer	#DPR0108	7/8/2018
Joseph Rountree	Currently in class		8/13-14/2015
Trimyer, Jason	Dual Inspector (E&S and Stormwater)	#DIN0179	7/9/2018
Gill, Beth	Erosion and Sediment Control Plan Reviewer	#8044	11/30/2016
Williams, Jeannetta	Erosion and Sediment Control Plan Reviewer	#529	5/31/2016
Samuel Wesley	Erosion and Sediment Control Inspector	#ESIN0119	8/25/2017
James Weaver	Erosion and Sediment Control Inspector	#5875	11/30/2018
Dean Adams	Erosion and Sediment Control Inspector	#3963	5/31/2017
Carlton Evans	Erosion and Sediment Control Inspector	#3647	5/31/2016
Michael Oris	Erosion and Sediment Control Inspector	#5822	11/30/2018
Dale Wells	Erosion and Sediment Control Inspector	#5876	11/30/2018
Victor Williams	Erosion and Sediment Control Inspector	#6046	5/31/2019
Earl Allison	Erosion and Sediment Control Inspector	#ESIN0106	7/10/2017
Antonio Jordan	Erosion and Sediment Control Combined Administrator	#6191	5/31/2016
Chad Oxtan	Erosion and Sediment Control Inspector	#5825	11/30/2015
Michael Wiggins	Erosion and Sediment Control Inspector	#6043	5/31/2016

Appendix F.2

Project Inspection (Land Disturbance) SOP



Standard Operating Procedure:

Project Inspection (Land Disturbance)

Created October 2013

Revised September 2015

1. Background and Purpose

1.1. Projects within the City of Suffolk that create Land Disturbance in excess of 2,500 sq ft inside of the CBPA or 10,000 sq ft outside of the CBPA are required to have an approved E&S plan and regular inspections by city staff to ensure compliance with the adopted standards set forth by the Department of Environmental Quality and Environmental Protection Agency. These inspections ensure that the City of Suffolk complies with the regulations and requirements within the cities VSMP Program.

2. Policies

2.1. Land Disturbance inspections will be conducted by Public Works Engineering Construction inspectors to ensure compliance with the project SWPPP, the approved E&S plan, the approved storm water management plan, additional control measures to address approved TMDL's, and Chapter 34 and 35 of the City of Suffolk Municipal Code.

3. Definitions

3.1. The following is a list of commonly used terms associated with performing Land Disturbance inspections :

Chesapeake Bay Protection Area (CBPA) – Any land designated by a local government pursuant to Part III (9VAC25-830-70 et seq.) of the Chesapeake Bay Preservation Area Designation and Management Regulations and §62.1-44.15:74 of the Chesapeake Bay Preservation Act. A CBPA shall consist of a Resource Protection Area and a Resource Management Area as defined in 9VAC25-830

Erosion and Sediment Control (E&SC) Plan – A plan associated with a project SWPPP that details the design and implementation of erosion and sediment control measures and devices for a specific project.

Land Disturbance – A manmade change to the land surface that potentially changes it's runoff characteristics.

Operator –Individuals with day-to-day operational control over SWPPP implementation

Responsible Land Disturber (RLD) – Individual responsible for the Land Disturbance on a particular project. The RLD may be a certified Professional Engineer, Architect, Land Surveyor, or hold a Responsible Land Disturber Certificate.

Stormwater Pollution Prevention Plan (SWPPP) – A document that identifies the potential sources of pollutants that may reasonably be expected to affect the quality of storm water

discharges from a construction site. It also identifies and requires the implementation of control measures for the project.

TMDL – “Total Maximum Daily Load” – sum of the individual waste load allocations for point sources, load allocations for nonpoint sources, natural background loading and margin of safety.

Virginia Erosion and Sediment Control Handbook (VESCH) – Handbook containing guidelines for compliance with the Storm water Act.

4. Health and Safety

4.1. A wide variety of insects, reptiles, and rodents may inhabit project sites and the surrounding areas. These hazards include snakes, bees, and mosquitos; field personnel should wear appropriate clothing while performing inspections and be cognizant of the potential dangers in the field. Inspection personnel should also be able to identify poison ivy so it can be avoided. Weather conditions involving heat and cold; unstable ground creating loose footing, and working in close proximity to heavy equipment will also be factors when inspecting project sites involving land disturbance. Approved footwear and long pants are mandatory and additional clothing types and safety apparel should be considered depending upon circumstances. The use of sunscreen and insect repellent may also be needed during warmer months. Inspection personnel should always be on the lookout for these factors to help avoid harmful situations.

5. Equipment

5.1. Steel toe boots

5.2. Camera

5.3. Hard Hat

5.4. Safety Glasses

5.5. Safety Vest

5.6. Erosion and Sediment Control Handbook

5.7. Approved ESC, Site, or Engineering Plan

5.8. Field Book, NOV Form, NTC Form, and Stop Work Placard

5.9. Pen

5.10. Notepad or other writing material

6. Procedure

6.1. Site Inspections

- 6.1.1. A Pre-construction Meeting involving the site inspector, contractor, subcontractors and/or owner is mandatory prior to any land disturbance. The inspector to be assigned to the project should schedule this meeting with the contractor and owner(s) allowing ample time to review the project plans and prepare comments to address during the meeting. The inspector should at this time review and confirm that the project has obtained state permit coverage. The meeting should be held, if possible, at the project site. A date should be set at the meeting by the contractor to begin land disturbance, and agreed upon by the project inspector. A preliminary SWPPP inspection should also be performed with the operator to identify information that will be required during land disturbance.
- 6.1.2. A project folder should be created prior to, or immediately following the pre-construction meeting. This folder will be a four section folder that contains all of the site information including: The land disturbance package, Contact information, email correspondence and eventually all of the project E&S violations, inspection reports, daily construction logs, pictures of violations or problems, and all correspondence with the contractor, owner and city personnel. See example project folder located within the inspection office.
- 6.1.3. Land Disturbance: Each land disturbing project which exceeds 2500 sq. ft. in the CBPA and 10,000 sq. ft. outside of the CBPA must have an approved E&SC plan. The inspector reviewing each of these sites must inspect the land disturbing activity for compliance to the approved E&SC plan. In addition, for projects exceeding one acre of disturbance, the VSMP authority will be responsible for the review of the SWPPP and E&SC plan and determine its effectiveness as it pertains to the project site. Once the contractor has begun tree and stump removal and grading or excavating, regular inspections should be scheduled following the guidelines set forth in the VESCH and by DEQ. Daily site visits may be warranted to verify that all first step measures are in place according to the approved plan and are satisfactory to the site inspector. Additional or alternate measures may be required in lieu of what is shown on the approved ESC plan included in the site SWPPP.
- 6.1.4. Site Inspections: Project inspections for E&S measures will be required to be performed continuously as required by DEQ until release of the project E&S surety. Projects obtaining a General Construction Permit will be required to be inspected at a frequency determined by the site inspector, but not less than once every 8 weeks unless approved by the Construction Manager. SWPPP inspections will be required for those projects until a termination letter has been submitted to the City. All activities associated with the construction of a project should be noted within the inspector's daily construction log, field book or SWPPP and E&S inspection form and placed in the project folder. Include photos and add captions as necessary to help the reader understand what has taken place.

In general, E&SC inspections are warranted after each runoff producing rain event, or at least once every two weeks. All requirements for project E&SC inspections are located in the VESCH.

6.2. Enforcement:

- 6.2.1. The following is a list of general site conditions and the associated enforcement plan of action.
- 6.2.2. If a project involving land disturbance is found to be in good order and is acceptable, a site inspection report (either E&S or Storm water) shall be filled out and placed in the project folder for the respective inspection cycle and no further action is required until the next required inspection.
- 6.2.3. If a project is found to be in noncompliance, an E&S or Storm Water Site Inspection Form shall be filled out describing the violation and a copy sent to the Responsible Land Disturber via fax, e-mail, USPS or hand delivery. The inspection form should identify items requiring repair, maintenance or installation, and give a specific date as to when the site will re-inspected. The maximum allowable time given on the form should be seven days. Questions concerning severability of deficiencies should be discussed with the Construction Manager or reviewing Engineer to determine if a NTC or NOV is required. Typically, an additional Inspection report may be an alternative method of enforcement for issues that may not warrant a NTC or NOV. If an additional inspection report has been issued, the time limit for correction shall be less than given on the previously issued report.
- 6.2.4. If a project is found to be in noncompliance and has deficiencies requiring immediate attention, or the RLD has failed to comply with the initial site inspection form, a Notice to Comply (NTC) form (or (NOV) Notice of Violation Form for Storm Water) shall be filled out and issued to the site RLD or Operator. The NTC or NOV, will identify the deficiencies requiring immediate attention, and include a timeframe as to when these repairs will need to be corrected. The NTC or NOV form should be Faxed or e-mailed to the RLD or Operator with a signed copy of the original form sent via USPS registered mail or hand delivered. Consultation with the City's Construction Manager or Civil Engineer on an appropriate time frame for correction may be warranted.
- 6.2.5. If the NTC or NOV has been sent to an appropriate address and the registered mail receipt has been returned signed as to indicate acceptance (or the notice was signed in person), and still no correction has been made after the given time period, a STOP WORK order will be issued for all Land Disturbing activities at the site. The Stop Work order shall

be placed at all entrances to the site, and a copy shall be sent via registered mail to the RLD, operator, and/or the site owner and will be in effect for seven (7) days, at which time another STOP WORK order must be issued to remain in force without interruption. At this time, it is advisable that a meeting with the project owner, RLD or operator, and contractor be initiated with city personnel to resolve the deficiencies.

A Stop Work Order may also be placed at a location where land disturbing activities have commenced without obtaining the proper permits, paying associated fees, or observation that sediment is leaving site.

6.2.6. Additional Enforcement Actions: If the RLD or owner has not initiated contact with the site inspector, or the corrective actions indicated on the STOP WORK order have not begun on the project site to a point satisfactory to the project inspector so as to prevent sedimentation of downstream properties and control sediment laden runoff, the project inspector should make sure that the STOP Work Order is current and then contact the Construction Manager. The Construction Manager, at this time should evaluate the site conditions, and if warranted, begin the process of revoking the site permit, or calling the Erosion and Sediment Control Bond and have a third party contractor hired to mobilize immediately to control site runoff and erosion from impacting downstream properties, ditches, wetland areas, ponds, lakes, streams or rivers. If the site permit has been revoked, the City of Suffolk will require that the property owner re-submit the Erosion and Sediment Control Plan to be re-evaluated and approved prior to resuming construction on the subject property. Once the E&S Bond has been pulled, and the City has initiated a third party contractor to address the violations stated in the STOP WORK order, a STOP WORK ORDER will remain in effect on the project until all violations have been corrected to the satisfaction of the City of Suffolk Director of Public Works and the E&S plan has been re-submitted, approved, and implemented by same.

7. Documentation

7.1. The inspection reports, photos, Daily Logs and notes should be kept in the project folder. As an alternative, a copy may also be saved on the N drive under N:\Engineering\P.W. Engineering\ (Inspectors Name- file location)\(Project Name -folder).

7.2. Any correspondence regarding inspections or violations, maintenance required and performed, and monthly calendars indicating rain events and inspections should also be kept in the folder.

8. References

8.1. Virginia Stormwater Management Handbook – Volumes I & II

8.2. Virginia Erosion and Sediment Control Handbook

8.3. City of Suffolk Municipal Code Article I – Sec. 35

Appendix F.3

E&S and SWM Enforcement Actions

E&S and SWM Enforcement Actions

SINGLE FAMILY

HUC	Active	Inspected	Completed	# of Enforcement Actions	Stop Work Orders
AS02	12	23	5	0	0
AS03	0	0	0	0	0
AS04	0	0	0	0	0
AS05	0	0	0	0	0
AS06	0	0	0	0	0
CL01	9	10	0	0	0
CL02	1	1	0	0	0
CL03	0	0	0	0	0
CL05	0	0	0	0	0
CU66	0	0	0	0	0
CU69	2	4	0	0	0
CU70	3	3	0	0	0
JL42	14	22	2	0	0
JL43	2	6	0	1	1
JL44	79	154	5	7	2
JL45	168	314	23	43	0
JL46	4	6	0	0	0
JL47	0	0	0	0	0
JL48	401	678	17	64	0
JL49	548	1160	26	99	0
JL50	9	21	0	0	0
JL55	4	2	0	0	0
JL59	0	0	0	0	0
Total	1256	2404	78	214	3

Details on progressive enforcement actions can be found in Appendix F.2

E&S and SWM Enforcement Actions

PROJECTS - SP, EP, ESC

HUC	Active	Inspected	Notice to Comply	Stop Work Orders	Written Notice of MS Violations	SWPPP Inspections (since February 2015)
AS02	6	22	0	0	0	0
AS03	0	0	0	0	0	0
AS04	0	0	0	0	0	0
AS05	0	0	0	0	0	0
AS06	0	0	0	0	0	0
CL01	16	33	0	0	11	0
CL02	1	2	0	0	0	0
CL03	0	0	0	0	0	0
CL05	0	0	0	0	0	0
CU66	0	0	0	0	0	0
CU69	0	0	0	0	0	0
CU70	1	4	0	0	0	0
JL42	18	51	0	0	0	0
JL43	0	0	0	0	0	0
JL44	214	402	0	8	45	7
JL45	127	269	0	1	31	13
JL46	5	7	0	0	0	0
JL47	1	2	0	0	3	0
JL48	241	440	0	2	49	30
JL49	329	657	2	2	97	4
JL50	135	472	0	1	46	0
JL55	0	0	0	0	0	0
JL59	0	0	0	0	0	0
Total	1094	2361	2	14	282	54

Details on progressive enforcement actions can be found in Appendix F.2

Appendix F.4

E&S Complaint Summary Table

Erosion and Sediment Control Complaint Tracking Log PY2

#	Date of Complaint	Inspector	Location	Date Complete	Complaint Origination	Brief Discription of Complaint and Resolution
1	9/2/2014	JS	4701 Sleepy Hole Rd	9/4/2014	Phone	Neighboring resident complained of stockpiles on the church property. Informed Pastor that he would need LDP to spread material.
2	9/2/2014	VW	1506 Elderberry Rd	9/4/2014	Phone	Forwarded to developer, area corrected
3	9/4/2014	JS	Webb and Hosier Rd	9/4/2014	Phone	an anonymous call informing us of unpermitted culvert installation. David responded and instructed contractor to remove 12 plastic pipe and replace after obtaining permit
4	9/4/2014	DL	3200 Stone Harbour Ct	9/4/2014	phone/email	Wyalan Herbert 443-2012 or 270-9591 @ 3200 Stone Harbor Court has sinkholes near the storm drains. Complaint forwarded to developer
5	9/5/2014	DL	4007 River Park Dr.	9/6/2014	phone	Rosemary Brown-4007 River Park Drive in reference to the curb cracking and crumbling on both sides of her driveway.
6	9/8/2014	LM	303 N. 4th Street		phone	Jacqueline Easley, (757) 372-7279, flooding complaints. Forwarded to engineers for reply
7	9/15/2014	DL	2010 Soundings Cres Ct	9/15/2014	phone	Mr. Thomas Holt called about a sink hole at the structure in front of his house. Forwarded to Chad Oxtton today for follow up.
8	9/16/2014	JS	3436 Village Sq Place	9/16/2014	phone	Sinkhole in verge. James and Dyan responded noticed irrigation line in hole. Developer was notified, and his contractor was notified to repair area.
9	9/18/2014	JT	3603 Cavaletti Chase – lot # 133	9/18/2014	email	Robin received a request to review the rear property line for potential installation of a french drain system. I told them to contact us if that was the plan as there are no easements along the rear property line.
10	9/22/2014	DJ	2477 Box Elder Road	9/23/2014	email	David reviewed and indicated there was a significant amount of disturbance for a motorcycle track. Planning is investigating for Zoning violations. We will await their findings. Ed may require permanent E&S measures based upon the complaint
11	9/24/2014	JT	1112 Driver Pnt. Ct	9/24/2014	phone	Mr. Webster (344-5469) had a complaint about broken curb. Forwarded it on to Chad O.
12	9/25/2014	JT	102 Foxworth Court	9/25/2014	phone	Stormdrain sinkhole in rear yard.
13	10/1/2014	JS	2108,2106 Silvercharm Circle	10/2/2014	Phone	Received complaint from HOA rep. Brian Dotson concerning sinkholes at these locations. Information was forwarded to Developer.
14	10/2/2014	JS	Kings Fork Farm	10/2/2014	phone	Mrs. Carolyn Carols had a complaint about sinkholes near structures close to the Clubhouse facility. Complaint forwarded to Terry Peterson for action.
15	10/2/2014	JS	9288 Gates Road	10/3/2014	in-person	Anonymous complaint concerning a SF building w/o permits. James investigated and found that they had tore down an old shed and were rebuilding it. No additional action needed.
16	10/27/2014	JT	4414 Cullen Lane	11/4/2014	e-mail	Aimee Alexander complained of Single Family SWPPP not being visibly posted at construction site. Victor indicated that the permit was issued to the contractor in Feb of 2014 prior to the new stormwater regulations being implemented and a new permit will not be required.
17	11/24/2014	JS	3200 Stone Harbour Ct	11/24/2014	Phone	James Snell emailed the developer and a response was returned indicating they had received the request to review a sinkhole and take corrective action.
18	1/19/2015	JT	2020 Lake Cohoon Road	1/19/2015	phone	The Church ppastor called to complain about the entrance to the church is being torn up by the heavy trucks from the railroad performing work within their ROW behind the church property. It was discovered that the Railroad had installed a construction entrance off Lake Cohoon Road on the churches property to access their workzone. This information was forwarded to Erin Belt and Larry Gavin at DEQ for follow-up.
19	1/28/2015	DJ	1200 Hosier Road	1/29/2015	in-person	Customer came by office to discuss selling his property and that he proceeded to clear the perimeter trees. David reviewed in-field and determined that the site would not need a permit for the area of disturbance.
20	1/28/2015	DJ	Burnetts Mill Road	1/29/2015	phone	Citizen called to complain about a sinkhole at a storm structure. David met him on-site and contacted Chad Oxtton to have a crew return to address the site.
21	1/29/2015	DJ	4414 Cullen Lane	1/30/2015	e-mail	Ms. Kathleen Grendahl complained of silt-fence missing and trash on and off site. David reviewed and found the silt fence being repaired and trash picked-up. Violation was issued for missing SWPPP inspections.
22	2/9/2015	DJ	916 Carolina Road	2/9/2015	phone	Mr. Poll contacted us to complain of an agricultural ditch behind his residence being cleaned and since has caused his yard to back-up during heavy rain events. David reviewed and determined that the ditch needs to be cleaned further. The property is owned by the city, and public works was notified.
23	3/9/2015	DJ	7-11 Kenyon Rd/Rt 58	3/9/2015	phone	Mr. Steve Edwards called to complain about sediment laden runoff flowing down the gutter pan during a rain event over the weekend. David responded and did not see evidence of any runoff, but discussed the situation with the superintendent.
24	3/24/2015	JT	Subdivision of Eclipse	3/25/2015	phone	Caller left complaint for DEQ about potential sediment entering the creek beside his house from the continuing waterline upgrade within the subdivision. Contacted and met the contractor onsite and did not see any evidence of sediment laden water at that time, but had contractor add additional protection for outfalls.
25	6/24/2015	DJ	3347 Mintonville Pnt	6/24/2015	e-mail	Mrs. Kathleen Grendahl called to complain about SWPPP postings for 3347 Mintonville Point Drive in the Nansemond River Estates. David responded to her call and indicated the builder was posting his SWPPP information
26	6/29/2015	DJ	1200 blk Pitchkettle Rd	6/26/2015	email	DEQ forwarded a complaint (IR# 2015-T-3355) for stormwater flooding a residential property located adjacent to the new entrance to the Foxfield Meadows Subdivision. A portion of silt fence had been torn down and was blocking the outfall inlet downstream. City crews removed the obstruction and the water receded.
27	6/29/2015	LM	4848 Manning Road	continuing	e-mail	Mr. Bobbi Suponski sent a complaint concerning the stockpiling of soil along his property line by the adjacent neighbor. The spoils were delivered by a contractor performing construction of utility work for the city of suffolk. We issued a stop work until the added stockpile area was updated in the E&S plan and the state GCP was updated. The owner was told to stabilize the area and maintain E&S measures for the stockpile. The area is designated as Agricultural.

Appendix F.5

Correspondence with DEQ Regarding Staff Shortages

From: [Belt, Erin \(DEQ\)](#)
To: [Jason E. Trimyer](#)
CC: [Hill, Noah \(DEQ\)](#)
Subject: RE: Inspection Needs

Sent: 5/20/2015 11:51:41 AM



Jason,

Thank you all of this information. I will save it to Suffolk's Program File. Please provide updates on staffing levels as the positions are filled and/or vacated.

Erin

From: Jason E. Trimyer [mailto:jtrimyer@suffolkva.us]
Sent: Wednesday, May 20, 2015 9:51 AM
To: Belt, Erin (DEQ)
Subject: RE: Inspection Needs

Erin, the 72 is the number of State permitted sites. The total number of projects we have that include E&S/land disturbance is 200 (97 project/103 Single Family). Some of those are close to finishing, so we are reducing site review. Of the 97 sites, 37 sites have active work/Land disturbance.

Jason

From: Belt, Erin (DEQ) [mailto:Erin.Belt@deq.virginia.gov]
Sent: Wednesday, May 20, 2015 7:39 AM
To: Jason E. Trimyer
Cc: Hill, Noah (DEQ)
Subject: RE: Inspection Needs

Jason,

Thank you for the information you have provided, but I do have a couple follow-up question for clarification.

Are the 72 active permits the number of active VSMP-permitted sites? If so, how many active land disturbing permits do you have including single family homes that may have agreements, but are still part of your regular E&S inspection schedule?

Thanks,
Erin

From: Jason E. Trimyer [mailto:jtrimyer@suffolkva.us]
Sent: Tuesday, May 19, 2015 3:12 PM
To: Belt, Erin (DEQ)
Cc: Hill, Noah (DEQ)
Subject: RE: Inspection Needs

Hey Erin, we are currently operating this department with two full time inspectors plus myself as the manager (me being in the field practically every day). I also have a part-time employee who typically works about 20 hours per week. At full staff level, we have 6 full time inspectors plus myself as manager. Our current operating

capacity is estimated to be about 40-50%, relative to state permitted sites, with us reducing our time on construction sites to try and keep up with all the projects at some type of minimum inspection level. I have one out on FMLA, and is projected to return in 4-6 weeks. All of the vacant positions have been posted, and the anticipated hire dates would fall around the middle part of June. However, only one candidate has certifications or training, so I would anticipate another 3 months minimum for them to even provide measurable assistance. AS of today, we have 72 active permitted sites, and 28 permitted sites that have not been issued Land Disturbance permits (but are close).

Jason

From: Belt, Erin (DEQ) [<mailto:Erin.Belt@deq.virginia.gov>]
Sent: Tuesday, May 19, 2015 2:28 PM
To: Jason E. Trimyer
Cc: Hill, Noah (DEQ)
Subject: Inspection Needs

Hi Jason,

I spoke to Noah about your office being short-staffed and we agree that an alternative inspection schedule is not necessary. I know you and I have spoken about the potential of having an alternative inspection schedule before, but initiating one is a formal process that requires approval from the State Water Control Board after Regional and Central Office review.

At this time, I'd like to request in writing, your current staffing situation, your estimated current operating capacity for inspections (50%? 75%?), as well as a timeline for when positions are expected to be advertised and filled. The information will be on file for any future program reviews to identify a period of time when the City of Suffolk was not operating at full inspection capacity and provide a reprieve for your Department.

Please let me know if you have any questions.

Regards,
Erin

Erin Ervin Belt, Senior Stormwater Compliance Specialist
Department of Environmental Quality - Tidewater Regional Office
5636 Southern Boulevard
Virginia Beach, Virginia 23462
(757) 374-4621 (cell)
Mon - Fri: 7am-3:30pm
www.deq.virginia.gov

New Online Reporting Link:

<http://www.deq.virginia.gov/Programs/PollutionResponsePreparedness/PollutionReportingForm.aspx>

Appendix G

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

Appendix G.1

**Stormwater Management Facility Maintenance Agreements
Recorded in PY2**

Maintenance Agreements Recorded PY2

Planning File #	Tax Map/Parcel	Parcel ID # (PIN)	Project Name	Project Location	Reviewing Engineer	Date Agreement Recorded
SP2014-00008	33B*18F	153926900	7-Eleven Holland Rd and Kenyon Rd	1928 Holland Rd	Ryan Hunt	1/22/2015
SP2012-00020	13*4A, 13*4*4	303725030, 306002535	First Team Automotive Dealership	Bridge Rd and College Dr	Ryan Hunt/Ed Gambito	12/15/2014
SP2015-00001		253158200, 253374400	Redevelopment of Parcels G & H Kensington Square	Kensington Square	Ryan Hunt	4/2/2015
SP2014-00023	26*3*3E	253348800	Wawa Store	Godwin Commerce Park	Ryan Hunt	5/8/2015
SP2014-00004	27*63Q	304296200	Smuckers Building Expansion	1368 Progress Rd	Adam Rountree	8/18/2014
SP2014-00006		306000801	Massimo Zanetti Beverage	1370 Progress Rd	Adam Rountree	2/24/2015
ESC2014-00002	43*4	152513000	1335 Manning Road	1336 Manning Road	Ryan Hunt	2/20/2015
SP2014-00018	33A*AW*A	153672600	Rite-Aid Holland Rd & Staley Pl	1517 Holland Rd	Ed Gambito	4/23/2015
SP2013-00014	34G18(2) Parcel 10,11,12,13,14,15,16	350020000, 350021000, 353335400, 350022000, 350023000, 350024000, 350025000	Washington Square	121-149 W Washington St	Adam Rountree	12/12/2014
EP2014-00002	6*3A*2C	304940200	HVS West	5850 Harbour View Blvd	Ed Gambito	2/20/2015

*list includes maintenance agreements for facilities inside and outside of the urbanized area.

Appendix G.2

PY2 Stormwater Management Facility Inspections

Post Construction Stormwater BMPs Inspected in PY2

SITE NAME	Current Status	Last Inspection	Letter Sent	Facility Type	Release Date	Ownership	SWFM Agreement?
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ROUTE 13/58 BYPASS BMP							
JR-266-WP-0011	in compliance	7/7/2014	7/7/2014	Retention basin		City of Suffolk	N/A
JR-266-WP-0012	in compliance	7/7/2014		Retention basin		-	
JR-266-WP-0013	in compliance	7/7/2014		Retention basin		-	
JR-267-DB-0001	in compliance	7/7/2014		Detention basin		-	
JR-267-WP-0026	in compliance	7/7/2014		Retention basin		-	
JR-267-WP-0027	in compliance	7/7/2014		Retention basin		-	
JR-267-WP-0028	in compliance	7/7/2014		Retention basin		-	
JR-267-WP-0029	in compliance	7/7/2014		Retention basin		-	
JR-267-WP-0030	in compliance	7/7/2014		Retention basin		-	

ROUTE 10/GODWIN BLVD BMP							
JR-241-DB-0003	minor woody veg. removal, otherwise satisfactory	7/18/2014	7/18/2014	Detention basin		City of Suffolk	N/A
JR-241-DB-0004	Major clearing needed, outlet structure rusted out	7/18/2014		Detention basin		-	
JR-241-NT-0001	Major clearing needed, outlet structure rusted out	7/18/2014		Natural feature		-	
JR-241-WP-0023	in compliance (ensure fall maintenance, typ.)	7/18/2014		Detention basin		-	
JR-241-WP-0025	in compliance	7/18/2014		Detention basin		-	
JR-241-WP-0026	in compliance	7/18/2014		Detention basin		-	

MURPHYS MILL ROAD							
JR-241-WP-0027	satisfactory; clearing needed this fall	7/15/2014	7/15/2014	Detention basin		City of Suffolk	N/A
JR-241-DB-0013	in compliance	7/15/2014	-	Detention basin		-	N/A

Post Construction Stormwater BMPs Inspected in PY2

SITE NAME	Current Status	Last Inspection	Letter Sent	Facility Type	Release Date	Ownership	SWFM Agreement?
POLICE ADMINISTRATION BUILDING							SP-2007-43
JR-267-MB-0002	Unable to inspect this cycle due to construction			Manufactured	12/27/2007	City of Suffolk	N/A
JR-267-MB-0003				Manufactured		-	
JR-267-MB-0004				Manufactured		-	
JR-267-MB-0005				Manufactured		-	
JR-267-MB-0006				Manufactured		-	
JR-267-MB-0007				Manufactured		-	
JR-267-MB-0008				Manufactured		-	
EAST SUFFOLK RECREATION COMPLEX							SP-2007-40
JR-267-MB-0001	no change since last years report	7/31/2014	7/31/2014	Manufactured	11/26/2007	City of Suffolk	N/A
FIRE STATION 3 BMP							
JR-267-DB-0004	minor sediment removal; otherwise satisfactory	7/29/2014	7/31/2014	Infiltration		City of Suffolk	N/A
JR-267-DB-0005	minor sediment removal; otherwise satisfactory	7/29/2014	7/31/2014	Infiltration		-	
FIRE STATION 9 BMP							
JR-215-RB-0001	in compliance	7/29/2014	7/31/2014	Infiltration		City of Suffolk	N/A
HUNTERSVILLE WATER TOWER							EP-2006-29
JR-218-WP-0002	work complete, now in compliance	7/14/2014	7/14/2014	Retention basin	2/8/2008	City of Suffolk	N/A
KINGS FORK PUBLIC SAFETY CENTER							SP-2008-32
JR-241-MB-0001	in compliance	7/28/2014	7/28/2014	Bioretention	12/11/2008	City of Suffolk	N/A
JR-241-MB-0002	in compliance	7/28/2014		Bioretention		-	

Post Construction Stormwater BMPs Inspected in PY2

SITE NAME	Current Status	Last Inspection	Letter Sent	Facility Type	Release Date	Ownership	SWFM Agreement?
JR-241-MB-0003	in compliance	7/28/2014		Bioretention		-	
JR-241-RB-0004	Cut back vegetation this fall	7/28/2014		Detention basin		-	
NORTH SUFFOLK LIBRARY							SP-2005-32
JR-217-WP-0031	major clearing needed; 3rd Inspection failure; follow-up per Eric in 60 days UPDATE: Met with Wayne and Aaron of Blair Bros. on site 9/22 to review work and get quotes for Capital. Work to commence soon.	7/14/2014	7/14/2014	Retention basin	4/25/2006	City of Suffolk	N/A
WILLIAMS INDUSTRIAL WATER TANK							SP-2007-57
JR-267-BR-0001	in compliance (ensure fall maintenance)	7/21/2014	7/22/2014	Bioretention	5/12/2009	City of Suffolk	N/A
PRENTIS STREET							EP-2005-15
JR-267-MB-0058	Newly added			Manufactured		City of Suffolk	N/A
JR-267-MB-0059				Manufactured		City of Suffolk	
FLEET MANAGEMENT BMP							
JR-266-WP-0014	veg. removal/cutting required this fall	8/4/2014	8/5/2014	Infiltration	6/30/2005	City of Suffolk	N/A
SUFFOLK ANIMAL SHELTER							SP-2010-00004
JR-266-IP-0001	veg. removal/cutting required this fall	8/4/2014	8/5/2014	Retention Basin	8/1/2012	City of Suffolk	N/A

Post Construction Stormwater BMPs Inspected in PY2

SITE NAME	Current Status	Last Inspection	Letter Sent	Facility Type	Release Date	Ownership	SWFM Agreement?
HEALTH AND HUMAN SERVICES BUILDING							SP-2008-16
JR-267-MB-0051	Maintenance records requested	8/8/2014	8/8/2014	Manufactured	6/18/2008	City of Suffolk	N/A
JR-267-WP-0015	Veg./weed removal required	8/8/2014	8/8/2014	Retention Basin	-	-	N/A
COMMERCE STREET PARKING LOT							SP-2006-61
JR-267-MB-0030	Standard service required; pruning, mulch, etc.	8/8/2014	8/8/2014	Manufactured	7/14/2007	City of Suffolk	N/A
JR-267-MB-0031	Standard service required; pruning, mulch, etc.	8/8/2014	8/8/2014	Manufactured	-	-	-
NORTHERN PUBLIC SAFETY CENTER							
JR-217-RB-0006	Remove young veg. on slopes/litter removal	8/7/2014	8/8/2014	Retention basin		Suffolk Public Schools	N/A
CREEKSIDE ELEMENTARY SCHOOL							
JR-217-WP-0052	Cutting, maintenance required this fall	8/22/2014	8/22/2014	Retention basin		Suffolk Public Schools	N/A
OAKLAND ELEMENTARY SCHOOL							SP-2007-24
JR-215-DB-0001	Sediment removal needed at inlet area	8/22/2014	8/22/2014	Detention basin		Suffolk Public Schools	N/A
JR-215-IP-0001	facility holds water, but is acceptable as is	8/22/2014		Infiltration	2/11/2008	-	
BOOKER T. WASHINGTON ELEMENTARY SCHOOL							
JR-267-WP-0025	in compliance	8/28/2014	8/28/2014	Detention basin		Suffolk Public Schools	N/A
MACK BENN JR. ELEMENTARY SCHOOL							
JR-242-RB-0006	in compliance	8/25/2014	8/25/2014	Retention basin		Suffolk Public Schools	N/A

Post Construction Stormwater BMPs Inspected in PY2

SITE NAME	Current Status	Last Inspection	Letter Sent	Facility Type	Release Date	Ownership	SWFM Agreement?
NANSEMOND PARKWAY ELEMENTARY SCHOOL							
JR-242-BR-0003	in compliance	8/25/2014	8/25/2014	Bioretention		Suffolk Public Schools	N/A
HILLPOINT ELEMENTARY SCHOOL							
JR-242-WP-0017	in compliance	8/26/2014	8/26/2014	Retention basin	4/16/2007	Suffolk Public Schools	N/A
KINGS FORK MIDDLE SCHOOL							
JR-241-RB-0007	tree removal required/maintenance incomplete	8/28/2014	8/28/2014	Retention basin	6/26/2000	Suffolk Public Schools	N/A
KINGS FORK HIGH SCHOOL							
JR-241-RB-0006	veg. removal/cutting req'd this fall	8/28/2014	8/28/2014	Retention basin	12/4/2002	Suffolk Public Schools	N/A
NANSEMOND PARKWAY MINI-STORAGE							
JR-217-WP-0045	fall cutting required, but acceptable	9/12/2014	9/12/2014	Retention basin		Private	yes
NANSEMOND RIVER ESTATES							
JR-242-WP-0003	in compliance	9/11/2014	9/11/2014	Retention basin		HOA	yes
JR-242-WP-0004	Facility is failed 2years running. Outlet is damaged and separation occurring at F.E.S. Manager has been informed, and met on site, but still not action as of date	9/11/2014	9/11/2014	Retention basin		-	
CENTERBROOKE VILLAGE							
JR-241-WP-0014	minor clearing needed at outlet,	9/22/2014	9/25/2014	Retention basin		Private	yes

Post Construction Stormwater BMPs Inspected in PY2

SITE NAME	Current Status	Last Inspection	Letter Sent	Facility Type	Release Date	Ownership	SWFM Agreement?
	otherwise acceptable						
OAK LAKE							
JR-266-WP-0002	in compliance	9/11/2014	9/11/2014	Retention basin		HOA	yes
JR-266-WP-0005	fall cutting required/acceptable	9/11/2014	9/11/2014	Detention basin		-	
FOREST GLEN TERRACE II							
JR-266-RB-0002	cutting required/ Contact made with HOA pres. 9/19 Miscommunication w/ landscapers. Will be cut this upcoming month.	9/3/2014	9/5/2014	Detention basin		HOA	yes
SENTARA OBICI HOSPITAL							
JR-241-WP-0022	in compliance	9/19/2014	9/22/2014	Retention basin		Private	yes
KINGS GREENE							
JR-240-WP-0001	in compliance	9/29/2014	9/29/2014	Retention basin		HOA	yes
BEAMONS MILL TOWNHOMES							
JR-242-BR-0002	in compliance	9/29/2014	9/29/2014	Bioretention		HOA	yes
APPLEWOOD							
JR-241-WP-0005	in compliance	9/15/2014	9/19/2014	Retention basin		HOA	yes
JR-241-WP-0006	in compliance	9/15/2014		Natural feature		-	
SLEEPY LAKE							
JR-194-NT-0001	in compliance	9/16/2014	9/19/2014	Retention basin		HOA	no

Post Construction Stormwater BMPs Inspected in PY2

SITE NAME	Current Status	Last Inspection	Letter Sent	Facility Type	Release Date	Ownership	SWFM Agreement?
JR-195-NT-0001	in compliance; monitor outlet to prevent clogs	9/16/2014		Retention basin		-	
SUFFOLK NOWCARE							SP-2008-33
JR-241-DB-0010	minor sediment in inlet, but acceptable	9/12/2014	9/12/2014	Retention basin		Private	yes
JR-241-MB-0018	in compliance	9/12/2014	9/12/2014	Manufactured		-	
JR-241-MB-0019	in compliance	9/12/2014	9/12/2014	Manufactured		-	
SADDLEBROOK							EP-2002-11
JR-241-WP-0003	in compliance	10/17/2014	10/20/2014	Retention basin		HOA	yes
JR-241-WP-0004	in compliance	10/17/2014		Detention basin		-	
JR-241-WP-0012	Site has a history of frequent clogging, but does drain albeit slow. This is caused by too small a screen on the outlet pipe. Manager is aware, and screen is cleaned routinely.	10/17/2014		Detention basin		-	
KINGS FORK FARMS							EP-2003-21
JR-241-WP-0001	in compliance	10/7/2014	10/7/2014	Retention basin		HOA	yes
JR-241-WP-0002	in compliance	10/7/2014		Retention basin		-	
WOODSHIRE LANDING							
JR-242-DB-0003	Cutting in ditch required - 30 day sent on 12/12/14	10/17/2014	10/20/2014	Retention basin		HOA	yes

Post Construction Stormwater BMPs Inspected in PY2

SITE NAME	Current Status	Last Inspection	Letter Sent	Facility Type	Release Date	Ownership	SWFM Agreement?
MANSFIELD FARMS							EP-2003-08
JR-242-WP-0011	in compliance	10/23/2014	10/23/2014	Retention basin		HOA	yes
JR-242-WP-0012	in compliance	10/23/2014		Retention basin		-	
JR-242-WP-0013	in compliance	10/23/2014		Infiltration		-	
JR-242-WP-0014	in compliance	10/23/2014		Retention basin		-	
JR-242-WP-0019	In compliance. However, previous erosion problems are reoccurring from swale above outlet pipe. Research is being conducted by private engineer to find a solution.	10/23/2014		Retention basin		-	
WOODLANDS OF NANSEMOND							
JR-242-WP-0009	in compliance	10/20/2014	10/23/2014	Retention basin		HOA	yes
JR-242-WP-0010	minor veg. removal - otherwise satisfactory	10/20/2014		Retention basin		-	
AMADAS COACH							SP-2007-51
JR-267-WP-0010	in compliance	10/28/2014	10/28/2014	Retention basin		Private	yes
MILL CREEK CLOSE							EP-2002-03
JR-242-WP-0005	newly released; Vegetative clearing required - 30 day sent on 12/12/14	10/30/2014	10/31/2014	Ext. detention	10/31/2013	HOA	no
OLDE MILL CREEK							
JR-242-RB-0001	in compliance	10/24/2014	10/27/2014	Retention basin		HOA	no
JR-242-RB-0003	in compliance	10/24/2014		Retention basin		-	

Post Construction Stormwater BMPs Inspected in PY2

SITE NAME	Current Status	Last Inspection	Letter Sent	Facility Type	Release Date	Ownership	SWFM Agreement?
NELMS RIDGE							EP-2005-22
JR-242-WP-0016	newly released; Vegetative clearing required - 30 day sent on 12/12/14; Board to meet in January 2015	10/30/2014	10/31/2014	Retention basin	9/27/2013	Private	Yes
SUBURBAN WOODS							
JR-242-RB-0005	in compliance	11/10/2014	11/10/2014	Retention Basin		Private	Yes
JR-242-WP-0015	Facility needs dredging, work to be completed asap	11/10/2014		Retention Basin		-	
JR-242-WP-0020	in compliance	11/10/2014		Retention Basin		-	
JR-268-WP-0001	in compliance	11/10/2014		Retention Basin		-	
JR-268-WP-0002	in compliance, monitor ditch at inlet	11/10/2014		Retention Basin		-	
MAGNOLIA LAKES							
JR-242-RB-0004	in compliance	11/18/2014	11/24/2014	Retention Basin		Private	No
JR-242-RB-0005	in compliance	11/18/2014		Retention Basin		-	
JR-242-WP-0026	in compliance	11/18/2014		Retention Basin		-	
JR-242-WP-0028	in compliance	11/18/2014		Retention Basin		-	
JR-268-RB-0004	in compliance	11/18/2014		Retention Basin		-	
AAA CUSTOMER CARE CENTER							SP-2008-63
JR-217-MB-0008	in compliance	11/4/2014	11/4/2014	Manufactured	11/1/2012	Private	Yes
BENNETTS CREEK CROSSING (Regional)							
JR-217-WP-0063	in compliance	11/25/2014	11/26/2014	Retention basin		Private-Multi	No
PARKSIDE AT BENNETTS CREEK							EP-2004-13
JR-217-WP-0049	Still unreleased			Retention basin	11/1/2013	Private	Yes

Post Construction Stormwater BMPs Inspected in PY2

SITE NAME	Current Status	Last Inspection	Letter Sent	Facility Type	Release Date	Ownership	SWFM Agreement?
JR-217-WP-0073	in compliance	11/14/2014	11/18/2014	Retention basin			
SALVATION ARMY MULTI-PURPOSE BUILDING							SP-2010-00005
JR-267-DB-0010	in compliance	11/25/2014	11/25/2014	Detention basin	1/28/2014	Private	Yes
JR-267-MB-0056	in compliance	11/25/2014		Manufactured			Yes
JR-267-MB-0057	in compliance	11/25/2014		Manufactured			Yes
DOLLAR GENERAL							SP-2012-00024
JR-242-BR-0004	in compliance	11/14/2014	11/18/2014	Bioretention	2/15/2014	Private	Yes
COMFORT SUITES							SP-2006-13
JR-217-WP-0061	minor vegetation removal required	12/9/2014	12/9/2014	Retention Basin		Private	yes
MONTESSORI ACADEMY							SP-2012-00013
JR-217-DB-0003	in compliance	12/16/2014	12/16/2014	Detention Basin	12/2/2013	Private	yes
O'REILLY AUTO PARTS							SP-2010-00025
JR-266-DB-0002	in compliance	12/23/2014	12/23/2014	Detention Basin		Private	yes
JR-266-IP-0002	in compliance	12/23/2014		Manufactured		-	
PANERA BREAD							SP-2012-00005
JR-267-MB-0052	in compliance	12/23/2014	12/23/2014	Manufactured		Private	yes
CONLEY MINI-STORAGE							SP-2004-32
JR-241-DB-0001	minor veg. maintenance required, but acceptable	12/12/2014	12/12/2014	Detention Basin		Private	no

Post Construction Stormwater BMPs Inspected in PY2

SITE NAME	Current Status	Last Inspection	Letter Sent	Facility Type	Release Date	Ownership	SWFM Agreement?
JR-241-RB-0005	in compliance	12/12/2014		Retention Basin		–	

HARBOUR VIEW SHOPPES							SP-2007-42
JR-195-MB-0004	Light cleanup needed (trash, mulch, etc.) but acceptable	1/6/2015	1/9/2015	Manufactured		Private	yes
JR-195-MB-0005	in compliance	1/6/2015	–	Manufactured		–	
JR-195-MB-0006	in compliance	1/6/2015	–	Manufactured		–	
JR-195-MB-0007	in compliance	1/6/2015	–	Manufactured		–	
JR-195-MB-0008	in compliance	1/6/2015	–	Manufactured		–	
JR-195-MB-0009	in compliance	1/6/2015	–	Manufactured		–	
JR-195-MB-0010	in compliance	1/6/2015	–	Manufactured		–	
JR-195-MB-0011	in compliance	1/6/2015	–	Manufactured		–	
JR-195-MB-0012	in compliance	1/6/2015	–	Manufactured		–	
JR-195-MB-0013	in compliance	1/6/2015	–	Manufactured		–	

HARBOUR VIEW STATION JV							
JR-196-WP-0018	Litter cleanup, minor erosion near bank	1/9/2015	1/9/2015	Retention basin		Private	yes

CYPRESS FARM							
JR-267-WP-0002	Address erosion at outfall area	1/29/2015	1/29/2015	Retention basin		HOA	yes
JR-267-WP-0003	in compliance	1/29/2015	–	Retention basin		–	
JR-267-WP-0004	Unable to be inspected this cycle due to Dominion work	1/29/2015	–	Retention basin		–	
JR-267-WP-0005	in compliance	1/29/2015	–	Retention basin		–	
JR-267-WP-0006	inlet area nearest the outlet has severe erosion damage that still needs to be addressed.	1/29/2015	–	Retention basin		–	

Post Construction Stormwater BMPs Inspected in PY2

SITE NAME	Current Status	Last Inspection	Letter Sent	Facility Type	Release Date	Ownership	SWFM Agreement?
NANSEMOND POINTE							
JR-216-WP-0003	in compliance	1/20/2015	1/21/2015	Detention basin		HOA	yes
BENSON WOODS							
JR-216-DB-0001	Debris removal required in inlet pipe; Large sink hole repair needed.	1/20/2015	1/21/2015	Detention basin		HOA	yes
DRIVER VILLAGE GREEN							
JR-216-WP-0001	in compliance	1/30/2015	1/30/2015	Retention basin		HOA	yes
DRIVER STATION							
JR-216-WP-0002	in compliance	1/27/2015	1/29/2015	Retention basin		HOA	yes
JR-216-WP-0006	in compliance	1/27/2015	-	Retention basin		-	
JR-216-WP-0007	in compliance	1/27/2015	-	Retention basin		-	
DRIVER POINTE							
JR-217-IP-0001	system to be cleaned, otherwise satisfactory	1/27/2015	1/29/2015	Manufactured		HOA	
KINGS LANDING							
JR-241-WP-0010	in compliance	1/26/2015	1/27/2015	Retention basin		Private	no
EBENEZER UNITED METHODIST CHURCH							
JR-195-IP-0001	in compliance	1/22/2015	1/22/2015	Infiltration		Private	in process
JR-195-IP-0002	in compliance	1/22/2015	-	Infiltration			
JR-195-MB-0001	in compliance, monitor drain openings	1/22/2015	-	Manufactured			
JR-195-MB-0014	in compliance	1/22/2015	-	Manufactured			

Post Construction Stormwater BMPs Inspected in PY2

SITE NAME	Current Status	Last Inspection	Letter Sent	Facility Type	Release Date	Ownership	SWFM Agreement?
JR-195-MB-0015	in compliance	1/22/2015	_	Manufactured			
JR-195-MB-0016	in compliance	1/22/2015	_	Manufactured			
JR-195-MB-0017	in compliance	1/22/2015	_	Manufactured			
JR-195-RB-0001	in compliance	1/22/2015	_	Detention basin			
CREEKVIEW							
JR-216-WP-0004	in compliance	2/3/2015	2/5/2015	Ext-Detention		HOA	yes
CREEKSIDE VILLAGE							
JR-217-WP-0035	acceptable; litter cleanup needed	2/3/2015	2/5/2015	Retention Basin		Private	yes
BURGER KING - ROUTE 17							
JR-217-DB-0002	minor sediment removal required at inlet, but otherwise satisfactory. No plan required	2/23/2015	2/23/2015	Detention basin		Private	yes
7-11 HOLLAND ROAD							
JR-266-DB-0001	clean inlets, remove litter and debris	2/9/2015	2/9/2015	Detention basin		Private	yes
JR-266-MB-0006	remove debris and replace mulch as required	2/9/2015	_	Manufactured		_	
JR-266-MB-0007	remove debris and replace mulch as required	2/9/2015	_	Manufactured		_	
JR-266-MB-0008	remove debris and replace mulch as required	2/9/2015	_	Manufactured		_	

Post Construction Stormwater BMPs Inspected in PY2

SITE NAME	Current Status	Last Inspection	Letter Sent	Facility Type	Release Date	Ownership	SWFM Agreement?
UNION BAPTIST MISSIONARY CHURCH							SP-2003-35
JR-217-WP-0033	BMP is not functioning as designed. Owner is draining pond via sump pumps and discharging directly to the wetlands behind the site. Limited vegetation in BMP area despite landscaping plan. Church has been contacted and notified on several occasions, but no cooperation or correspondence has occurred since 2012.	2/5/2015	2/6/2015	Retention basin		Private	yes
BRIDGEWAY BUSINESS CENTER							SP-2006-52
JR-195-WP-0002	in compliance	2/6/2015	2/9/2015	Retention basin		Private	
NORTHGATE COMMONS							SP-2007-54
JR-217-RB-0002	Woody vegetation removal required in basin	2/23/2015	2/23/2015	Detention basin		Private	yes
JR-217-WP-0042	routine cutting on slopes, cut small trees at inlet pipe	2/23/2015	_	Retention basin		_	
NORTHGATE FIVE LLC							SP-2006-48
JR-217-WP-0029	Continue to monitor outlet to prevent clogs	2/24/2015	2/24/2015	Retention basin		Private	yes
JR-217-WP-0030	in compliance	2/24/2015	_	Detention basin		_	

Post Construction Stormwater BMPs Inspected in PY2

SITE NAME	Current Status	Last Inspection	Letter Sent	Facility Type	Release Date	Ownership	SWFM Agreement?
NORTHGATE 10 ASSOCIATES, LLC							SP-2008-23
JR-217-RB-0003	in compliance	2/24/2015	2/24/2015	Retention basin		Private	yes
JR-217-RB-0004	in compliance	2/24/2015	_	Retention basin		_	
JR-217-RB-0005	in compliance	2/24/2015	_	Retention basin		_	
STARR MOTORS							
JR-241-DB-0007	in compliance	2/23/2015	2/23/2015	Detention basin		Private	yes
LAKEVIEW MEDICAL CENTER							SP-2007-06
JR-241-DB-0001	in compliance (done in March this year due to snow/ice)	3/9/2015	3/9/2015	Detention basin		Private	yes
JR-241-DB-0002	in compliance	3/9/2015	_	Detention basin		_	
JR-241-MB-0012	in compliance	3/9/2015	_	Manufactured		_	
JR-241-MB-0013	in compliance	3/9/2015	_	Manufactured		_	
JR-241-MB-0014	in compliance	3/9/2015	_	Manufactured		_	
JR-241-MB-0015	in compliance	3/9/2015	_	Manufactured		_	
JR-241-MB-0016	in compliance	3/9/2015	_	Manufactured		_	
JR-241-MB-0017	in compliance	3/9/2015	_	Manufactured		_	
AMERICAN PORT SERVICES							SP-2005-15
JR-217-WP-0077	Woody vegetation removal required	2/24/2015		Retention basin	12/2/2013	Private	yes
WAL-MART AT SUFFOLK COMMONS							
JR-267-DB-0002	in compliance	3/19/2015	3/20/2015	Retention Basin		Private	yes
HILLCREST BAPTIST CHURCH							SP-2008-01
JR-266-EB-0001	in compliance	3/17/2015	3/19/2015	Detention basin		Private	yes
JR-266-MB-0009	in compliance	3/17/2015	_	Manufactured		_	
JR-266-MB-0010	in compliance	3/17/2015	_	Manufactured		_	

Post Construction Stormwater BMPs Inspected in PY2

SITE NAME	Current Status	Last Inspection	Letter Sent	Facility Type	Release Date	Ownership	SWFM Agreement?
JR-266-MB-0011	in compliance	3/17/2015	_	Manufactured		_	
JR-266-MB-0012	in compliance	3/17/2015	_	Manufactured		_	
TARGET IMPORT WAREHOUSE							SP-2002-15
JR-266-RB-0005	in compliance	3/19/2015	3/19/2015	Retention basin		Private	yes
JR-266-RB-0006	in compliance	3/19/2015	_	Retention basin		_	
JR-266-RB-0007	in compliance	3/19/2015	_	Retention basin		_	
HARGROVE TAVERN							
JR-217-WP-0027	in compliance	3/3/2015	3/3/2015	Retention basin		HOA	yes
BOB WHITE LANDING							EP-2003-26
JR-217-WP-0015	in compliance	3/6/2015	3/9/2015	Retention basin	1/1/2013	HOA	yes
JR-217-WP-0016	in compliance	3/6/2015	_	Const. Wetland		_	
JR-217-WP-0017	in compliance	3/6/2015	_	Retention basin		_	
JR-217-WP-0018	in compliance	3/6/2015	_	Retention basin		_	
JR-217-WP-0040	in compliance	3/6/2015	_	Const. Wetland		_	
JR-217-WP-0041	in compliance	3/6/2015	_	Const. Wetland		_	
BAYBERRY COVE							EP-2003-04
JR-217-WP-0010	minor erosion near inlet pipe, otherwise satisfactory	3/9/2015	3/9/2015	Detention basin		HOA	yes
JR-217-WP-0011	in compliance	3/9/2015	_	Detention basin		_	
REMINGTON PARK							SP-2005-22
JR-217-WP-0046	in compliance	3/3/2015	3/3/2015	Retention basin	3/20/2013	HOA	yes
BELMONT PARK							EP-2003-01
JR-217-WP-0019	in compliance	3/10/2015	3/10/2015	Retention basin	7/12/2004	HOA	yes

Post Construction Stormwater BMPs Inspected in PY2

SITE NAME	Current Status	Last Inspection	Letter Sent	Facility Type	Release Date	Ownership	SWFM Agreement?
JR-217-WP-0020	in compliance	3/10/2015	–	Retention basin		–	
JR-217-WP-0021	in compliance	3/10/2015	–	Retention basin		–	

KEMPTON PARK							EP-2000-03
JR-217-MB-0003	in compliance	3/10/2015	3/12/2015	Manufactured		HOA	yes
JR-217-MB-0004	in compliance	3/10/2015	–	Manufactured		–	
JR-217-MB-0005	in compliance	3/10/2015	–	Manufactured		–	
JR-217-MB-0006	in compliance	3/10/2015	–	Manufactured		–	
JR-217-WP-0012	in compliance	3/10/2015	–	Retention basin		–	
JR-217-WP-0013	in compliance	3/10/2015	–	Retention basin		–	
JR-217-WP-0014	Remove debris from outlet structure, otherwise okay	3/10/2015	–	Retention basin		–	
JR-217-WP-0004 (Shared w/Steeplechase)	in compliance	3/10/2015	–	Retention basin		–	

BAYLOR DEVELOPMENT AT HARBOUR VIEW							SP-2004-43
JR-217-MB-0007	Clogged with trash, vacuum required	3/13/2015	3/16/2015	Manufactured	3/1/2013	Private	yes
JR-217-RB-0007	Lack of maintenance, outlet clogged	3/13/2015	–	Retention basin		–	

HAMPTON ROADS CROSSING APARTMENTS							SP-2008-55
JR-196-RB-0001	Minor tree removal required, otherwise satisfactory	3/16/2015	3/16/2015	Retention basin	3/31/2014	Private	yes

SUFFOLK INDUSTRIAL PARK							EP-2001-07
JR-267-WP-0011	in compliance	4/10/2015	4/10/2015	Retention Basin		EDA	Yes
JR-267-WP-0018	woody vegetation, water penetrating dam	4/10/2015	–	Retention Basin		–	

Post Construction Stormwater BMPs Inspected in PY2

SITE NAME	Current Status	Last Inspection	Letter Sent	Facility Type	Release Date	Ownership	SWFM Agreement?
STEEPLECHASE							
JR-217-WP-0004	in compliance	4/22/2015	4/22/2015	Retention basin		HOA	yes
JR-217-WP-0005	in compliance	4/22/2015	_	Retention basin		_	
JR-217-WP-0006	in compliance	4/22/2015	_	Retention basin		_	
JR-217-WP-0007	in compliance	4/22/2015	_	Retention basin		_	
JR-217-WP-0008	in compliance	4/22/2015	_	Retention basin		_	
JR-217-WP-0009	remove small tree on inlet pipe, otherwise ok	4/22/2015	_	Retention basin		_	
HIGHLAND GREEN							
JR-217-WP-0022	Transfer Inspection; Some erosion issues, remove veg.	4/17/2014	n/a	Retention basin	2/13/2014	HOA	yes
JR-217-WP-0023	Transfer Inspection; establish veg. on banks	4/17/2014	n/a	Retention basin		_	
7-11 BRIDGE ROAD							
JR-217-WP-0057	Major veg. removal and litter cleanup, 30 day letter	4/21/2015	5/21/2015	Retention basin		Private	yes
HILLPOINT COMMONS (THE VISTAS)							
JR-241-RB-0003	in compliance	6/2/2015	6/3/2015	Detention basin		HOA	yes
HILLPOINT GREENS							
JR-241-WP-0011	30 day letter, excess vegetation, trees growing over inlet pipes	6/2/2015	6/3/2015	Retention basin		HOA	yes
FAIRWAYS CROSSING							
JR-241-RB-0009	in compliance	6/2/2015	6/2/2015			HOA	yes

Post Construction Stormwater BMPs Inspected in PY2

SITE NAME	Current Status	Last Inspection	Letter Sent	Facility Type	Release Date	Ownership	SWFM Agreement?
LAKES EDGE AT HILLPOINT (ROUNTREE SOUTH POND)							
JR-241-WP-0007	minor issues with inlets 2 and 6	6/24/2015	7/2/2015	Regional		HOA	yes
HILLPOINT REGIONAL (ROUNTREE NORTH POND)							
JR-241-WP-0013	in compliance	4/11/2014	-	Regional		HOA	yes
WOODLAKE NORTH							
JR-242-WP-0006	in compliance, shrubs, woody vegetation	4/21/2015	5/21/2015	Retention basin		HOA	yes
JR-242-WP-0007	in compliance, litter	4/21/2015		Retention basin			
JR-242-WP-0008	in compliance, erosion around inlet pipe	4/21/2015		Retention basin			
KENSINGTON PARK							
JR-241-BR-0004	in compliance	4/10/2015	4/10/2015	Bioretention	3/28/2013	HOA	yes
BRONCO FEDERAL CREDIT UNION							
JR-241-RB-0008	need vegetation removal, bank stabilization, litter. 30 day letter sent may 4	4/10/2015	5/4/2015	Retention basin		Private	no
BON SECOURS-HARBOURVIEW PARTNERS							
JR-217-WP-0034	in compliance	4/21/2015	4/21/2015	Retention basin	4/11/2012	Private	yes
HARBOUR VIEW VILLAGE							
JR-217-WP-0003	in compliance	6/5/2015	6/5/2015	Retention Basin		HOA	yes

Post Construction Stormwater BMPs Inspected in PY2

SITE NAME	Current Status	Last Inspection	Letter Sent	Facility Type	Release Date	Ownership	SWFM Agreement?
THE RIVERFRONT AT HARBOUR VIEW							
JR-195-WP-0001	remove debris, fix cap, sediment in forebay	6/2/2015	6/3/2015	Enhanced Det.		HOA	yes
JR-195-WP-0008	in compliance	6/2/2015	_	Enhanced Det.			
JR-195-WP-0009	in compliance	6/2/2015	_	Enhanced Det.			
JR-195-WP-0010	remove debris	6/2/2015	_	Enhanced Det.			
JR-195-WP-0011	remove debris by outfall	6/2/2015	_	Enhanced Det.			
JR-195-WP-0012	erosion around inlet pipe	6/2/2015	_	Enhanced Det.			
LINKSIDE COVE							
JR-195-SF-0001	in compliance	6/5/2015	6/5/2015	Manufactured		HOA	yes
JR-195-SF-0002	in compliance	6/5/2015	_	Manufactured			
JR-195-WP-0004	in compliance	6/5/2015	_	Retention basin			
THE RIVERFRONT - SECTION II							
JR-195-WP-0005	trees on inlets, Town Bank inlet erosion,	6/9/2015	6/11/2015	Regional Lake		HOA	no
JR-195-WP-0006	trees on inlets	6/9/2015	_	Regional Lake			
THE MARKETPLACE AT HARBOUR VIEW							
JR-196-WP-0015	in compliance	6/2/2015	6/3/2015	Retention basin		Private	yes
HILTON GARDEN HOTEL							
JR-195-MB-0002	in compliance	6/9/2015	6/18/2015	Manufactured		Private	yes
JR-195-MB-0003	sediment build-up at inlet opening- 30 day notice	6/9/2015	_	Manufactured		_	_

Post Construction Stormwater BMPs Inspected in PY2

SITE NAME	Current Status	Last Inspection	Letter Sent	Facility Type	Release Date	Ownership	SWFM Agreement?
MASTERS CONDOS							
JR-217-WP-0001	in compliance, minor side slope erosion, outfall channel erosion	6/9/2015	6/11/2015	Const. wetlands		HOA	yes
JR-217-WP-0002	in compliance, sinkhole by NE inlet	6/9/2015	-	Retention basin			
SENTARA BELLEHARBOUR							
JR-217-FB-0001	trees near pipes, minor	6/9/2015	6/18/2015	Retention basin		Private	yes
BURBAGE GRANT							
JR-196-MB-0004	in compliance	6/9/2015	6/18/2015	Manufactured		HOA	yes
JR-196-WP-0002	in compliance	6/9/2015	-	Retention basin			
JR-196-WP-0003	in compliance	6/9/2015	-	Detention basin			
JR-196-WP-0004	in compliance	6/9/2015	-	Detention basin			
JR-196-WP-0005	in compliance	6/9/2015	-	Retention basin			
JR-196-WP-0006	in compliance	6/9/2015	-	Retention basin			
JR-196-WP-0007	in compliance	6/9/2015	-	Detention basin			
JR-196-WP-0008	in compliance	6/9/2015	-	Retention basin			
ORCHARD COVE							
JR-196-WP-0009	in compliance	6/9/2015	6/10/2015	Detention basin		HOA	yes
MT. JOY CHURCH							
JR-267-EB-0001	in compliance	6/24/2015	7/2/2015	Detention basin		Private	no
JFCOM							
JR-196-MB-0001	in compliance	6/9/2015	6/18/2015	Manufactured	-	Private	Yes
JR-196-MB-0002	in compliance	6/9/2015		Manufactured			
JR-196-MB-0003	in compliance	6/9/2015		Manufactured			

Post Construction Stormwater BMPs Inspected in PY2

SITE NAME	Current Status	Last Inspection	Letter Sent	Facility Type	Release Date	Ownership	SWFM Agreement?
GOVERNORS POINT						EP-2003-14	
JR-195-WP-0013	remove trees near inlet pipes	6/9/2015	6/19/2015	Retention basin	-	HOA	yes
JR-195-WP-0014	Breach in Dam/immediate action required/30-day letter sent in July 2014/Site followup on 8/25, still no action taken by HOA in june 2015	6/9/2015	-	Retention basin		HOA	
HUNT CLUB POINT							EP-2003-06
JR-267-WP-0016	in compliance	6/22/2015	6/22/2015	Retention basin	-	HOA	yes
PITCHKETTLE FARMS							EP-1999-08
JR-267-WP-0001	remove veg. from outlet pipe, and junvtnon structure. Seepage around outlet	6/9/2015	6/10/2015	Retention basin	-	HOA	yes
RYAN CONSTRUCTION							SP-2009-06
JR-242-DB-0002	in compliance	7/1/2015	7/1/2015	Detention basin	-	Private	yes
REIDS CROSSING							
JR-266-WP-0004	northeast side slope erosion	6/22/2015	6/25/2015	Retention basin	-	HOA	yes
CHRISTIANA LANDING							EP-2002-06
JR-266-WP-0001	in compliance	6/22/2015	6/22/2015	Retention basin	-	HOA	yes

Post Construction Stormwater BMPs Inspected in PY2

SITE NAME	Current Status	Last Inspection	Letter Sent	Facility Type	Release Date	Ownership	SWFM Agreement?
FREEDOM PLAZA							SP-2006-11
JR-241-WP-0017	needs annual mowing	6/24/2015	7/2/2015	Infiltration basin	-	Private	yes
SAINT ANDREW CHURCH							SP-2005-04
JR-195-IP-0003	Basin draining slow/clear pipes, but otherwise satisfactory	6/9/2015	6/10/2015	Infiltration basin	-	Private	yes
BELLEHARBOUR - PLUMMER BLVD							
JR-217-WP-0039	Newly added				2/25/2014		
BELLEHARBOUR WOODS							EP-2003-10
JR-217-WP-0051	remove trees around edge of pond	6/9/2015	6/18/2015	Retention basin	-	HOA	yes
RYANS MARKETPLACE							SP-2012-00015
JR-267-IP-0001	Newly added				2/6/2014	Private	yes
HARBOUR BREEZE APARTMENTS							
JR-217-WP-0043	in compliance	6/9/2015	6/10/2015	Retention basin		Private	no
JR-217-WP-0044	in compliance	6/9/2015		Retention basin			
BRIDGEWAY TECHNOLOGY CENTER							
JR-196-WP-0016	heavy clearing needed/UNABLE TO MAKE CONTACT	9/19/2015	9/19/2015	Retention basin		Private	no

Appendix G.3

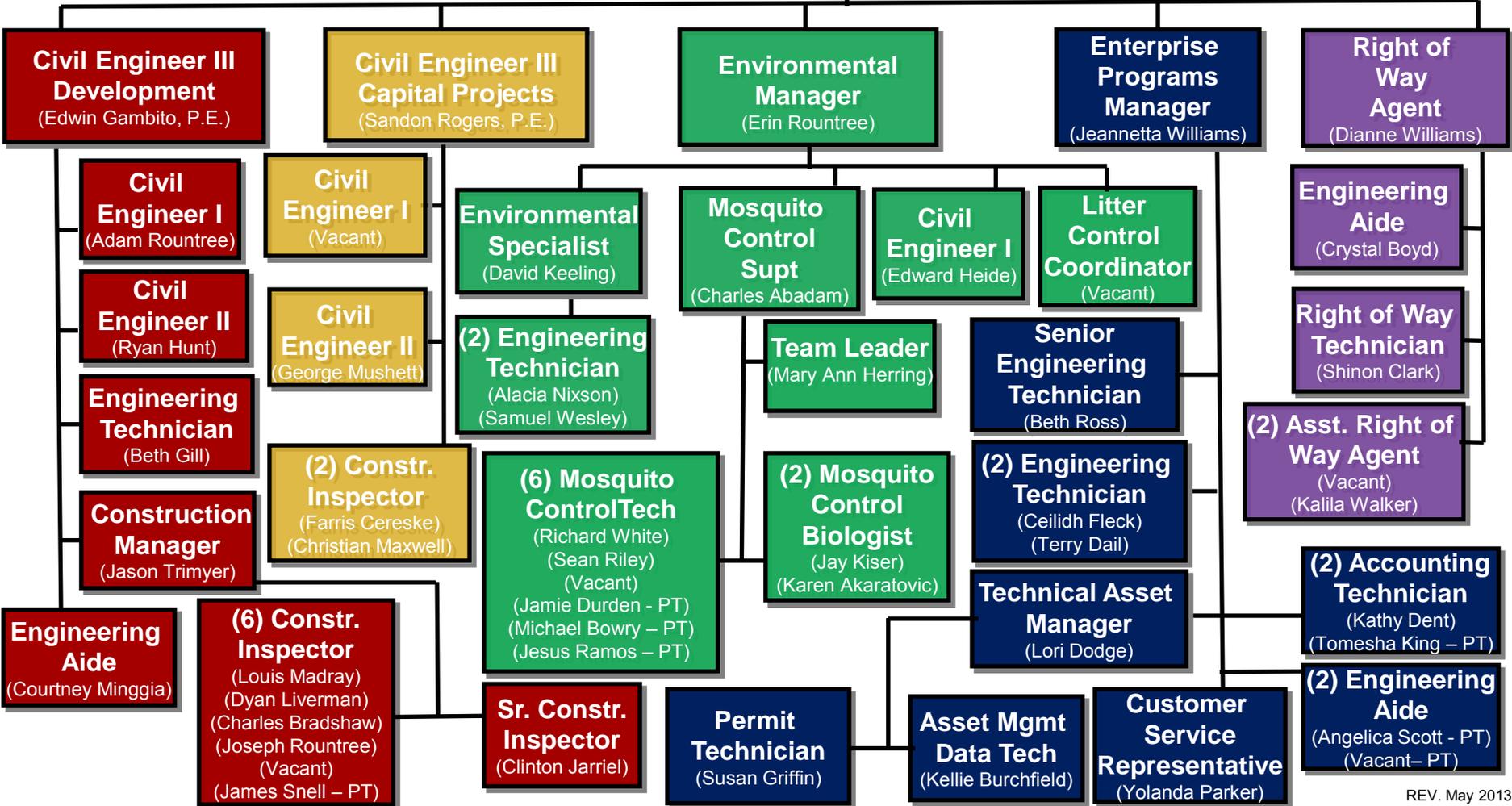
Public Works Engineering Organizational Chart

Current Organization
Stormwater
Utility
Fund
 FY 2015-2016

Director
 Eric Nielsen, P.E.

Eng. Mgr.
 Sherry Earley P.E.

- Development Projects
- Capital Projects
- Environmental
- SW Utility/GIS/Asset Mgt/Permits
- Right of Way



Appendix G.4

Stormwater Management Facilities Accepted PY2

Stormwater Management Facilities Accepted During PY2 Inside Urbanized Area

Plan Number	Site Name	SWMF ID	Type	HUC	Receiving Surface Water	Acres Treated	Impervious Acres Treated
SP2011-00013	Suffolk Auto Exchange	JR-268-BR-0001	Biofiltration	JL48	Nansemond River	1.24	1.04
SP2011-00016	Hull Street Parking Lot	JR-267-BR-0007	Biotretention	JL44	Lake Kilby	0.985	0.344
SP2012-00005	Main Street Marketplace	JR-267-MB-0052	Infiltration Trench	JL48	Nansemond River	1.969	1.952

Appendix H

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

Appendix H.1

Training Summary for PY2

Pollution Prevention and Good Housekeeping training for City operations and maintenance personnel, PY2

Objective: To train employees in the Departments of Public Works, Public Utilities, and Parks and Recreation on the following subjects:

- Recognizing, preventing, and reporting of illicit discharges
- Proper disposal of waste materials
- Proper procedures for vehicle washing to prevent discharge of wash water into MS4
- BMPs to be used for stockpiled erodible materials
- Procedures for leaking equipment and vehicle maintenance to prevent discharge of pollutants
- Proper application of fertilizers and pesticides

Location	Department	Date	Time	Number Attending	Trainers
864 Carolina Road	Public Works	4/7/2015	8:00	21	David Keeling & Ed Heide
864 Carolina Road	Public Works	4/7/2015	9:00	21	David Keeling & Ed Heide
864 Carolina Road	Public Works	4/7/2015	10:00	22	David Keeling & Ed Heide
272 Benton Rd	Public Utilities	4/10/2015	7:30	30	David Keeling & Ed Heide
272 Benton Rd	Public Utilities	4/10/2015	8:30	27	David Keeling & Ed Heide
321 W Washington St	Parks and Recreation	5/29/2015	8:00	15	David Keeling

Appendix H.2

Personnel Certified for Pesticide Application

Certified Pesticide Applicator Personnel PY2

Name	Certification Type	Expiration Date
Charles Abadam	Category 8 Public Health Pest Control	6/30/2018
Karen Akaratovic	Category 8 Public Health Pest Control	6/30/2016
Mary Ann Herring	Category 8 Public Health Pest Control	6/30/2017
Jay Kiser	Category 8 Public Health Pest Control	6/30/2018
Sean Riley	Category 60 Registered Technician	6/30/2017
Richard White	Category 60 Registered Technician	6/30/2017
Kerry Bond	Category 60 Registered Technician	6/30/2017
Earl Allison	Category 60 Registered Technician	6/30/2017
Frank Deans	Category 60 Registered Technician	6/30/2017
Curtis Saunders	Category 60 Registered Technician	6/30/2017
Rashad Tanner	Category 60 Registered Technician	6/30/2017
Alain Hayer	Category 60 Registered Technician	6/30/2017
Shane Arrowood	Category 60 Registered Technician	6/30/2017
Travis Dillabough	Category 60 Registered Technician	6/30/2017
Brian Raiford	Category 60 Registered Technician	6/30/2017
Scott Cogswell	Category 60 Registered Technician	6/30/2017
Kevin Lee	Category 60 Registered Technician	6/30/2017
Mark McClenny	Category 60 Registered Technician	6/30/2017
Broderick Reid	Category 60 Registered Technician	6/30/2017
Ryan Johnson	Category 60 Registered Technician	6/30/2016

Appendix H.3

Operations and Maintenance: Pollution Prevention Guide



City Of Suffolk, Virginia

Operations and Maintenance: Pollution Prevention Guide

2015

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Introduction

Through day to day operations, City of Suffolk staff conducts a variety of operations that have the potential to pollute surface waters. The purpose of this manual is to provide guidance to those staff on Best Management Practices (BMPs) to reduce pollutant runoff during municipal operations. These procedures are required to be developed as a condition of the City's MS4 General Permit (MS4 Permit), which has the purpose of reducing pollutant runoff in stormwater to the Maximum Extent Practicable (MEP). This manual will address municipal operations conducted inside and outside of municipal facilities. The City's MS4 permit is issued through the Virginia Pollutant Discharge Elimination System (VPDES) administered by the Virginia Department of Environmental Quality (DEQ) and overseen by the United States Environmental Protection Agency (EPA).

The City's Good Housekeeping and Pollution Prevention Program is designed to address the following areas of concern:

- Illicit discharge prevention, detection, and reporting
- Proper waste disposal
- Proper Vehicle washing procedures
- BMPs for water from utility construction or maintenance activities
- Proper bulk storage protocols (salt, soil, etc)
- Vehicle Fueling
- Vehicle maintenance
- Pesticide and Fertilizer application
- Staff Training

Site Specific Stormwater Pollution Prevention Plans (SWPPPs) and Nutrient Management Plans (NMPs) will be developed for high risk sites within the City's regulated MS4 area.

An MS4 is a conveyance or system of conveyances that is:

- Owned by a state, city, town, village, or other public entity that discharges to waters of the U.S.;
- Designed or used to collect or convey stormwater (including storm drains, pipes, ditches, etc.);
- Not a combined sewer; and
- Not part of a Publicly Owned Treatment Works (sewage treatment plant).

<http://water.epa.gov/polwaste/npdes/stormwater/Municipal-Separate-Storm-Sewer-System-MS4-Main-Page.cfm>

Illicit Discharges

An illicit discharge is anything other than stormwater, groundwater, or other treated or clean waters that enter the stormwater system or natural streams, channels, or estuaries. Illicit discharges do not have to be intentional; they can occur due to negligence or a lack of understanding of what is and is not considered a pollutant. “When in doubt keep it out” of the stormwater system and receiving channels.

Every effort should be taken to prevent wastewater discharges from entering the MS4 or natural channels, from any activity. Wastewater discharges that cannot be prevented must have authorization under a separate VPDES permit.

Preventing Illicit Discharges

Public Works Stormwater Division staff conducts biennial trainings for operations and maintenance staff across all departments that covers illicit discharges, and is available to answer questions that may arise at any time. The main function of preventing illicit discharges is recognizing and understanding the nature of an Illicit Discharge. Other Sections of this document go into detail for different types of operations and tasks and describe what actions and measures can be taken to reduce the chance of pollutants entering the stormwater system and receiving channels.

Examples of Illicit Discharges:

- Petroleum products
- Automotive fluids
- Tires and automotive parts
- Cooking oil
- Untreated sewage
- Detergent or wash water
- Leaf litter or yard waste
- Industrial waste
- Shop floor drains
- Sewage straight pipes and cross connections
- Improperly applied pesticides and herbicides

Reporting Illicit Discharges

For any major spill or illicit discharge that has the potential to cause injury, death, or substantial property damage call 911 immediately. If the spill does not pose an immediate threat to life or property, take immediate action to contain and clean the spill. Consult the Material Safety Data Sheet (MSDS) for the substance spilled for emergency procedures, protective equipment, and proper methods of containment and cleanup. If necessary call an environmental services contractor for spill cleanup.

Spills and discharges to the stormwater system or environment should be reported to Public Works Engineering Stormwater Staff, whether caused by City staff or a third party. If an illicit discharge or evidence of an illicit discharge is noticed, contact Public Works Stormwater staff so that an investigation can be conducted.

Calls to Public Works Engineering, Stormwater Division regarding illicit discharges should be directed to:

- Environmental Specialist 514-7627
- Environmental Technicians 514-7073 or 514-7677
- Environmental Programs Manager 514-7678
- Stormwater Engineer 514-7675
- Public Works Engineering front desk at 514-7725.

Emails regarding illicit discharges can be sent to idischarge@suffolkva.us.

Proper Waste Disposal

Wastes can be in many different forms, and proper disposal varies by the type of wastes. Many wastes cannot be accepted by municipal landfills or be treated at publicly owned treatment works, and must be disposed of through a separate waste management system.

General Best Management Practices for Waste Disposal :

- Ensure that regular, non-hazardous garbage makes it into a trash can both on and off jobsites and within operations yards.
- Dumpsters should be placed on a concrete pad and should always be kept covered.
- Hazardous wastes should be disposed of in accordance with the Resource Conservation and Recovery Act (RCRA).
 - o Refer to 40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE
- Landscape wastes should be carried away for proper disposal. Dumping of grass clippings or other landscape wastes in storm drains is not acceptable.
- AA, AAA, C, D, and 9V alkaline batteries are collected for recycling at several sites throughout the City by the Suffolk Clean Community Commission. Locations can be found at http://www.suffolkva.us/pub_wks/litter-control/ or by calling the Litter Control Coordinator at 514-7604.

Vehicle Washing

Whenever possible, vehicles should be washed on a designated wash rack with wash waters directed to a sanitary sewer. Wash racks directed to sanitary sewer are located at Refuse on Pine St and Fleet Maintenance on Forest Glenn Rd. Phosphate free detergents should be used for all vehicle washing where just water proves insufficient. If a vehicle cannot be washed on a designated wash rack it should be washed on grass or gravel so that wash water has a chance to infiltrate instead of running directly off, and the use of soap avoided. Wash racks and pads should be swept periodically to prevent sediment runoff, and the clogging of wash rack drains. Any materials and sediments left on wash racks after washing should be swept or vacuumed up.

Water Discharges from Utility Construction and Maintenance

Construction and maintenance operations on utility systems have the potential to pollute sediments, nutrients, chemicals, or pathogens. Construction activities should follow site specific SWPPPs. Follow the Virginia Erosion and Sediment Control Manual for operations that have the potential to contribute sediments to the stormwater system or receiving channels.

General Best Management Practices

- When dewatering an open trench or hole; filter water, such as through a filter bag, to remove sediments before discharging.
- De-chlorinate water flushed from water supply lines before discharging.
- Sanitary sewer overflows (SSOs) should be contained and the affected area cleaned immediately and to the maximum extent practicable.
- Cleaning of stormwater pipes and infrastructure should be done in such a way that flushed sediments and debris are captured and not discharged to the stormwater system.

Bulk Material Storage

Materials that will be stored long term such as soil, mulch, sand, and salt that have the potential to erode from where they are stored should be contained and/or covered. Because of the large amounts of these materials that are usually stored, robust measures are required to reduce chances of materials entering the stormwater system or receiving channels.

Best Management Practices for Bulk Material Storage:

- Salt used in deicing operations should be stored in salt barns until ready for use. Salt stored outside should be kept securely covered with tarps in serviceable condition.
- Abrasive mix left over after a storm event should be stored in the salt barn if there is room, otherwise, piles should be securely covered with a tarp in serviceable condition.
- Other erodible materials that are stored outdoors long term should be kept inside containment.
- Containment areas should be placed so that they are on a slight slope with the access opening at the uphill end.
- Containment structures should be a reasonable height so that they are not overtopped by the stored materials.
- Care should also be taken when dumping materials so they do not spill over the back or sides of containment walls. Any materials spilled outside of containment areas should immediately be cleaned up and placed inside containment.
- Materials such as gravel or stone that are not at risk of eroding do not need to be contained, but should be stored in such a way that there is no risk of blocking drainage.

Vehicle Fueling

Vehicle fueling happens at several locations in the City. Because of the large number of employees using fueling stations, it is important that the following Best Management Practices be posted to ensure safe and responsible vehicle fueling.

Best Management Practices for Vehicle Fueling:

- Conduct all vehicle fueling at designated fueling stations.
- Use only containers designed for the fuel used.
- Use care when filling vehicles or containers to avoid dripping or spilling.
- Never “top off”; that is, never fill a container past its intended capacity.
- Never leave nozzle unattended while fueling.

Best Management Practices for Fuel Spills:

- Clean affected area thoroughly and promptly.
- Divert away from storm drains, ditches, or receiving waters if necessary.
- Clean up all spills immediately with rags or other absorbent material and dispose of properly.
- Fueling pads should always be swept or vacuumed and never hosed down.

Vehicle Maintenance

Vehicle maintenance often involves working with and handling petroleum products and other toxic materials that should not be allowed to enter the stormwater system or receiving waters.

Best Management Practices for Vehicle Maintenance:

- All vehicle maintenance should be conducted indoors or under cover, with the exception of emergency repairs.
- Leaking vehicles should be repaired immediately. Notify someone at Fleet Maintenance when a leaking vehicle is dropped off for repairs.
- Leaking vehicles or equipment should be kept indoors or under cover unless drip pans are used to catch any leaking fluids.
- Spills both indoors and out should be cleaned promptly and thoroughly.
- Oil and gas filters should be punctured or crushed and allowed to drain for at least 24 hours.
- Capture all drained fluids and dispose of in the appropriate manner.
- Store vehicle batteries in secondary containment and indoors or under cover.
- Scrap metal and parts dumpster should be kept on a concrete pad and under cover.

Liquid and Drum Storage

A large variety of liquids are stored in the city for a variety of reasons. Chemicals should be clearly labeled and stored in such a way that they do not pose a risk of contaminating stormwater systems or receiving waters.

Best Management Practices for Liquid and Drum Storage:

- Keep in original container.
- If container is damaged, immediately move to new container that is clearly marked as to its contents.
- Empty containers should be clearly marked “Empty” and promptly disposed of in the appropriate manner.
- Containers or drums with waste chemicals/liquids/materials should be clearly marked to avoid mixing of wastes.
- Drums should be stored on secondary containment and indoors or under cover.

Pesticide and Herbicide Application

Due to their high mobility, pesticide and herbicide chemicals pose a significant threat to water quality if not applied in an appropriate manner. While it is best to only use chemicals after natural approaches fail, this section provides basic guidelines and practices that will reduce the chances of pesticides and herbicides from being washed into the stormwater system and receiving channels.

Pesticide and Herbicide Application Best Management Practices:

- Use only application equipment that is in serviceable condition.
- Ensure all mixing, storage, and holding tanks are free of leaks.
- Follow manufacturer’s recommendations for application rates.
- Assess weather conditions to ensure application consistent with product label requirements.
- Application of pesticides and herbicides on water bodies is regulated under 9 VAC 25-800 and requires a separate VPDES permit.
- Store containers indoors or under cover.

Fertilizer Application

Fertilizers, like pesticides and herbicides, are highly mobile. Nutrients, especially phosphorus and nitrogen, are pollutants of primary concern to water quality in the Chesapeake Bay and its tributaries. Due to their attributes, these chemicals should be applied with care and concern.

Fertilizer Application Best Management Practices:

- Test soil conditions before fertilizing to determine if nutrient application is necessary, or to determine the appropriate amount of nutrients to apply.

- Do not apply immediately before rain events.
- Avoid applying within 5 feet of pavement, 25 feet of storm drain inlets, and 50 feet of water bodies.
- Store containers indoors or under cover.

Training

In accordance with the City's MS4 Program plan, Stormwater Division staff conducts biennial training sessions for all maintenance and operations staff in Public Works, Public Utilities, and Parks and Recreation. The work these staff members do both in and outside of maintenance yards has the potential to pollute, and the training is designed to make them aware of their role in eliminating non-stormwater discharges into the City's stormwater system as well as surface and ground waters.

The training includes a brief summary of the MS4 program and an explanation of municipal separate storm sewer systems. Staff will receive training on: identifying, responding to, and reporting an illicit discharge; how to eliminate non-stormwater discharges from municipal facilities; waste disposal procedures; proper vehicle washing procedures; leak and spill response; drum storage; salt and deicer storage; and soil stockpiling procedures. In addition to focused training to operations personnel, Stormwater Division staff attends events targeted to all City employees such as the annual Health and Wellness Fair to educate employees on environmental issues and also to raise awareness of non stormwater discharge detection and reporting.

Requests for additional training or refreshers can be made to the Stormwater Division of Public Works Engineering.

Appendix H.4

Municipal Facility Inspections Conducted PY2

City Municipal Facility Inspection Summary

Site	Address	Date of Inspection	In 2010 Urbanized Area?
Fleet Maintenance	120 Forest Glen Dr	5/19/2015	Yes
Refuse Collection Equipment Storage Yard	248 Chestnut St	6/24/2015	Yes
Road Maintenance Yard Zone A	5881 Whaleyville Blvd	6/4/2015	No
Road Maintenance Yard Zone B	6750 Brentwood Rd	6/4/2015	No
Road Maintenance Yard Zone C	401 Kings Highway	6/5/2015	No
Road Maintenance Yard Zone	3901 Sleepy Hole Rd	6/5/2015	No
Road Maintenance Yard Zone D	866 Carolina Rd	6/4/2015	No

Appendix H.5

Nutrient Management Planning

Nutrient Management Plan requirements

Parks & Recreation		Acres	Latitude	Longitude				
	Constance Wharf	3.5	36.739	-76.581				
	6th Street	1	36.726	-76.564				
	total	4.5						
Schools								
	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	10.5			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	PY 3	PY 4	PY5		
			(15%)	(40%)	(75%)	(100%)		
	City Total	33.5	5.025	14.2	26.625	35.5		
	Completed NMPs		10.5					



1001 Boulders Parkway
Suite 300
Richmond, VA 23225

P 804.200.6500
F 804.560.1016
www.timmons.com

July 1, 2015

Ms. Erin Rountree
City of Suffolk
127 East Washington Street, Suite 200
Suffolk, Virginia 23434

**Re: Nutrient Management Plan
Nansemond River High School
Suffolk, Virginia**

Dear Ms. Rountree:

On behalf of Nansemond River High School, Timmons Group has prepared this Nutrient Management Plan in accordance with the *Virginia Nutrient Management Standards and Criteria, revised July 2014*. This Nutrient Management Plan encompasses the approximately 49 acre area that contains turf grass and could receive fertilizer applications at the Nansemond River High School complex, including both lawns and athletic fields. Please be guided by the enclosed nutrient and lime recommendations and feel free to contact myself at (804) 200-6414, ethan.virts@timmons.com, or Liz Scheessele at (757) 213-6662, liz.scheessele@timmons.com, if you require additional information or have any questions.

Sincerely,

Timmons Group

Ethan Virts, PWS
Certified Nutrient Management Planner (No. 816)

Enclosures:

Nansemond - Nutrient Management Plan

cc: Liz Scheessele, PE, CFM, Timmons Group

NANSEMOND RIVER HIGH SCHOOL NUTRIENT MANAGEMENT PLAN

DIRECTOR OF FACILITIES

NANSEMOND RIVER HIGH SCHOOL
TERRY NAPIER
SUFFOLK PUBLIC SCHOOLS
DIRECTOR OF FACILITIES AND PLANNING
757-934-6206 (P)
TERNAPIER@SPSK.NET

NUTRIENT MANAGEMENT PLANNER INFORMATION

ETHAN VIRTS
1001 BOULDERS PARKWAY, SUITE 300
RICHMOND, VA 23225
804-200-6414 (P)
ETHAN.VIRTS@TIMMONS.COM
VIRGINIA NUTRIENT MANAGEMENT PLANNER CERTIFICATION # 816

LOCATION INFORMATION

3301 NANSEMOND RIVER
SUFFOLK, VA 23434
36° 48' 10.32" N
76° 31' 5.66" W
HAMPTON ROADS WATERSHED, HUC 02080208

ACREAGE

TOTAL: 49 ACRES
ATHLETIC FIELDS: 16.71 ACRES
CAMPUS GROUNDS: 15.59 ACRES

PLAN START DATE: 7/1/2015

PLAN END DATE: 7/1/2018



ETHAN VIRTS

TIMMONS GROUP 
YOUR VISION ACHIEVED THROUGH OURS.

TIMMONS GROUP PROJECT No. 36807.001

**NANSEMOND RIVER HIGH SCHOOL
NUTRIENT MANAGEMENT PLAN**

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Figure 2 Environmentally Inventory Map

Figure 3 Environmentally Sensitive Areas Map

Figure 4 Nutrient Management Areas Map

APPENDICES

Appendix A Soil Test Summaries

Appendix B Nutrient Application Worksheets

Appendix C Fertilizer Application Records

Appendix D Reference Materials

1.0 STATEMENT OF COMPLIANCE

The Nansemond River High School agrees to comply with all requirements set forth in the *Nutrient Management Training and Certification Regulations 4VAC50-85*, and to follow recommendations for turf fertilization and management as described in the *Virginia Nutrient Management Standards and Criteria, revised July 2014*. This includes implementing this Nutrient Management Plan and maintaining fertilization records. All nutrient applications performed by Nansemond River High School staff or associated contractors shall comply with the provisions of this Nutrient Management Plan as of July 1, 2015. This plan is effective for three years (until July 1, 2018) or until major changes to maintenance practices or grounds conditions occur. Nansemond River High School is committed to environmental sustainability and adhering to a Nutrient Management Plan in order to protect the water quality of downstream aquatic resources while optimizing the health and performance of turf species.

2.0 SITE LOCATION AND DESCRIPTION

The Nansemond River High School campus (Site) is located in the northeastern portion of the City of Suffolk, along Nansemond Parkway (State Route 337), and encompasses approximately 49 acres. The Site is located approximately one mile east of the Nansemond River and contains predominately flat topography (see [Figure 1: Vicinity Map](#)). The Site drains to a channelized/straightened perennial stream located along the western and northern property boundary. This unnamed tributary drains to Star Creek, which ultimately flows into the Nansemond River. The Site is located within the Hampton Roads Watershed (HUC 02080208) and the Lower Coastal Plain physiographic province.

The Site consists of the school building, three paved parking areas, tennis courts, baseball field, football field, softball field, two soccer fields, two practice fields, and maintained lawns that surround the high school. All turf onsite is dominated by Bermudagrass. However, there are minor inclusions of tall fescue mixed in with the Bermudagrass in the lawns surrounding the school and athletic fields. Some areas immediately adjacent to the school building contain maintained ornamental flowerbeds. All turf areas onsite are heavily manicured and mowed frequently, with turf heights of approximately 1 to 2 inches in most areas.

2.1 Environmentally Sensitive Areas

All areas within the project limits were evaluated based on susceptibility of nutrient loss to ground and surface water. All areas within the site limits are categorized as environmentally sensitive areas as depicted in [Figure 3: Environmentally Sensitive Areas Map](#) due to soil types and the high frequency of drop inlets associated with a subsurface stormwater conveyance system that drains directly to a perennial stream. All nutrient applications should adhere to the recommended fertilizer application rates, and timing to avoid and minimize nutrient loss.

Subsurface Drains: There is a large underground stormwater conveyance system present throughout the Site. Runoff generally drains off of the athletic fields and impervious surfaces to this underground stormwater system via drop inlets, and outfalls directly to the perennial stream located along the western and northern boundary of the Site. There are no stormwater treatment features present on the Site that would allow for removal of nutrients prior to release to offsite streams and wetlands. [Figure 2: Environmental Inventory Map](#) depicts a

hatched pattern of ditches throughout the site. These ditches were likely associated with past farming practices to facilitate drainage for crop production prior to the construction of Nansemond River High School. These ditches are no longer present, but the underground stormwater conveyance system that exists onsite was likely installed in a similar layout to these ditches.

Soils: The NRCS soil survey map depicts three distinct soil layers present onsite. The majority of the site is mapped as somewhat poorly drained Dragston fine sandy loam (6), and poorly drained Weston fine sandy loam (29). The presence of these mapped soil series was confirmed during a June 5, 2015 site visit. These soils have ratings of medium and high risk in the Nutrient Loss Risk and Environmental Sensitivity Ratings for Virginia Soils Table (Table 1.4 in the Virginia Nutrient Management Standards and Criteria) due to low soil infiltration rates that promote lateral flow of water. The other mapped soil series onsite is Nansemond fine sandy loam (16A) and has a medium rating for nutrient loss due to potential for leaching due to the moderately well drained sandy soil texture and shallow depth to groundwater.

Streams and Wetlands: A perennial stream is present along the western site boundary and a portion of the northern boundary. This unnamed stream connects to tidal wetlands and streams approximately 700 feet from the site boundary. No wetlands were found to be present within the site limits during the June 5, 2015 site visit and no wetlands were depicted within the site limits on Figure 2: Environmental Inventory Map. Therefore, there are no wetland areas identified on Figure 3: Environmentally Sensitive Areas Map.

Other Environmentally Sensitive Areas: There were no wells, springs, sinkholes, rock outcrops, or land with slopes steeper than 15% identified during the June 5, 2015 site visit.

2.2 Fertilization Season

The recommended season of application for nitrogen fertilizers for all turf species (school lawns and athletic fields) are shown in Table 2.1 – Fertilization Season at Nansemond River High School.

Table 2.1 – Fertilization Season at Nansemond River High School

	Killing Frost Dates	Warm Season Applications* (All Turf Areas Onsite)
Spring	April 5	April 5
Fall	November 5	October 5

*Because the turf onsite is dominated by Bermudagrass with only minor inclusions of tall fescue, this nutrient management plan will assume that all turf grass is Bermudagrass. This assumption will only allow fertilizer application after the last spring average killing frost date, and no later than one month prior to the first fall average killing frost date. This assumption will prevent nutrient loss that would likely occur if fertilizer application were to occur before April 5th or after October 5th.

3.0 SOIL SAMPLING METHODS, MANAGEMENT AREAS, AND NUTRIENT RECOMMENDATIONS

3.1 Soil Sampling Methods and Management Areas

A total of 11 soil samples were taken from athletic fields and school lawns throughout the Site. Soil samples were collected from the football field, baseball field, softball field, practice field A, practice field B, soccer field A, soccer field B, and each of the four lawns (A, B, C, and D). At least 10 sub-samples from each area were randomly taken from within the upper four inches of soil and mixed to create a representative sample of each area. The soil samples were collected in May 2015 and analyzed at the Virginia Tech soils laboratory.

These eleven sample areas were categorized into six different management areas based on the soil test results and turfgrass species present. These nutrient management areas are shown in Figure 4: Nutrient Management Areas Map. Figure 4 should be used as a reference when interpreting nutrient recommendations in Table 3.1 and Table 3.2 on pages 3 and 4 of this document.

For all the nutrient management areas, applications of inorganic fertilizers will not occur on frozen or snow-covered ground. Any fertilizers that make their way onto impervious surfaces such as parking lots or sidewalks should be swept or blown back into pervious, or turfgrass covered areas. Furthermore, fertilizers will not be used as ice melt.

3.2 Athletic Fields – 16.71 acres

The lime and nutrient recommendations for the athletic fields within the Site are shown in Table 3.1: Athletic Fields Lime and Nutrient Recommendations on the next page. The lime and nutrient recommendations in this table are based on the *Virginia Nutrient Management Standards and Criteria, revised July 2014*. All athletic fields onsite have an appropriate pH and require no lime application, with the exception of Practice Field A. Lime applications at Practice Field A should be completed in small applications of up to 50 pounds each at intervals of 1 to 6 months until the full amount is applied in the form of ground, pulverized, or pelletized agricultural limestone.

Given that the entire site has been deemed an environmentally sensitive area, Timmons Group recommends applying water soluble nitrogen (WSN) fertilizers to all athletic fields at a rate of 0.35 lbs. of nitrogen per 1,000 square feet (SF) at intervals at least 15 days apart between April 5 and October 5, or water insoluble nitrogen at a rate of 0.5 lbs. per 1,000 square feet at intervals at least 15 days apart between April 5 and October 5, annually. The first nitrogen applications, which must occur after April 5, should not be made until after complete green-up of turf. Nitrogen application may not exceed 4 pounds per 1,000 square feet annually.

If athletic fields are overseeded with additional warm season grasses, an additional 0.7 lbs. per 1,000 SF of WSN may be applied in the fall after the perennial ryegrass overseeding is well established. The WSN must be applied as two applications not to exceed 0.35 lbs. per 1,000 SF of nitrogen, with a minimum of 15 days between applications. Additional WSN application of 0.5 lbs. per 1,000 SF may be made in February-March to overseeded perennial ryegrass if growth and color indicate need. Alternatively, split applications of 0.5 lbs. of nitrogen

per 1,000 SF each with a minimum of 15 days between applications may be applied using a material containing slowly available water insoluble nitrogen sources.

The entire phosphorus (P₂O₅) and Potassium (K₂O) annual applications should be performed with the first application of nitrogen, or can also be applied before green-up of grass in late February or March if the ground is not frozen.

Table 3.1: Athletic Fields Lime and Nutrient Recommendations

MANAGEMENT AREA #	SOIL SAMPLE AREA	SOIL pH	LIME REC. (LBS/1000 SF)	PHOSPHORUS (P ₂ O ₅) REC. (LBS/1,000 SF)	POTASSIUM (K ₂ O) REC. (LBS/1,000 SF)
1	Soccer Field A	6.7	0	0.5*	0.5
	Soccer Field B	6.7	0	0.5*	0.5
	Football Field	6.9	0	0.5*	0.5
	Baseball Field	7.6	0	0.5*	0.5
2	Softball Field	6.9	0	0.5*	1
3	Practice Field B	6.6	0	1*	0.5
4	Practice Field A	5.8	100	0.5*	0.5

Notes:

- *Due to high phosphorus levels, fertilizers in the form of 10-10-10 or 5-10-10 should not be used.
- Agricultural limestone (ground, pulverized, or pelletized) should be broadcast in small applications of up to 50 lbs. per 1000 SF, at intervals of 1 to 6 months, until the full amount is applied.
- Nitrogen applications may not exceed 4.0 lbs per 1,000 square feet (SF) annually.
- No more than 0.35 lbs. of WSN or 0.5 lbs. of water insoluble nitrogen per 1,000 SF of WSN, may be applied within a 15 day period.

3.3 Campus Lawns – 15.59 acres

The lime and nutrient recommendations for the turf areas within the school campus lawns are shown in Table 3.2: Campus Lawn Lime and Nutrient Recommendations on the next page. The lime and nutrient recommendations in this table are based on the *Virginia Nutrient Management Standards and Criteria, revised July 2014*. Lime applications are recommended in small applications of up to 50 pounds each, at intervals of 1 to 6 months, until the full amount is applied.

Nitrogen application may not exceed 5.0 lbs. per 1,000 SF annually. Also, no more than 0.35 lbs. of WSN or 0.5 lbs. of water insoluble nitrogen per 1,000 SF may be applied within a 15 day period. Nitrogen applications between April 5 and May 15 should not be made until after complete green-up of turf.

If campus lawns are overseeded with additional warm season grasses, an additional 0.7 lbs. per 1,000 SF of WSN may be applied in the fall after the perennial ryegrass overseeding is well established. The WSN must be applied as two applications not to exceed 0.35 lbs. per 1,000 SF of nitrogen, with a minimum of 15 days between applications. Additional WSN application of 0.5 lbs. per 1,000 SF may be made in February-March to overseeded perennial ryegrass if growth and color indicate need. Alternatively, split applications of 0.5 lbs. of nitrogen per 1,000 SF each with a minimum of 15 days between applications may be applied using a material containing slowly available water insoluble nitrogen sources.

The entire phosphorus (P₂O₅) and Potassium (K₂O) annual applications should be performed with the first application of nitrogen, or can also be applied before green-up of grass in late February or March if the ground is not frozen.

Table 3.2: Campus Lawn Lime and Nutrient Recommendations

MANAGEMENT AREA #	SOIL SAMPLE AREA	SOIL pH	LIME REC. (LBS/1000 SF)	PHOSPHORUS (P ₂ O ₅) REC. (LBS/1,000 SF)	POTASSIUM (K ₂ O) REC. (LBS/1,000 SF)
5	LAWN B	6.1	80	1*	1
	LAWN C	5.7	80	1*	1
6	LAWN A	5.3	180	2	1
	LAWN D	5	180	2	1

Notes:

- *Due to high phosphorus levels, fertilizers in the form of 10-10-10 or 5-10-10 should not be used.
- Agricultural limestone (ground, pulverized, or pelletized) should be broadcast in small applications of up to 50 lbs/1000 square ft., at intervals of 1 to 6 months, until the full amount is applied.
- Nitrogen applications may not exceed 5.0 lbs per 1,000 SF annually of.
- No more than 0.35 lbs. of WSN or 0.5 lbs. of water insoluble nitrogen per 1,000 SF may be applied within a within a 15 day period.

3.4 Ornamental Landscape

During soil sampling it was observed that the *in situ* soil profile beneath the flower beds and ornamental landscape areas were generally the same as adjacent turf areas. Additionally, the ornamental flower beds, trees, and shrubs are fertilized upon installation and on an as-needed basis. It is recommended that the ornamental areas take into consideration the soil test results of nearby turf areas when determining how much fertilizer to apply. Nutrient needs in the ornamental landscapes are variable and dependent on a variety of factors including maintenance objectives, the age of the plant, plant stress levels, and a visual inspection of the plant. Tables of recommended fertilization rates for newly planted and established ornamentals are included in [Appendix D: References](#).

4.0 MAINTENANCE OF PLAN

This Nutrient Management Plan will be maintained by the City of Suffolk and will expire on June 30, 2018. As part of this plan, fertilizer application records (see [Appendix C: Fertilizer Application Records](#)) shall be recorded and maintained. If significant changes to the Site occur, this plan is required to be updated accordingly by a Certified Nutrient Management Planner. Significant changes would include: changing turf species in the campus grounds or athletic fields, renovating an athletic field and the existing underlying soil, creation of additional athletic fields, expansion of the area to be included under this Nutrient Management Plan, or other changes that could alter nutrient recommendations and timing.

5.0 NUTRIENT APPLICATION, INCORP., AND SPECIAL CONDITIONS

There are multiple drop inlets associated with the underground stormwater system onsite. These drop inlets can function as an avenue for nutrient loss during runoff producing storm events. Therefore, nutrient applications should not be completed when a significant

runoff producing event is anticipated. Applying only slowly available forms of nitrogen will help minimize the nutrient loss potential.

Special care should be taken when applying fertilizers near impervious surfaces, the perennial stream located along the western and northern border, and drop inlets associated with the stormwater conveyance system. Allowing vegetation to grow taller around drop inlets and adjacent to the perennial stream could help prevent offsite nutrient loss.

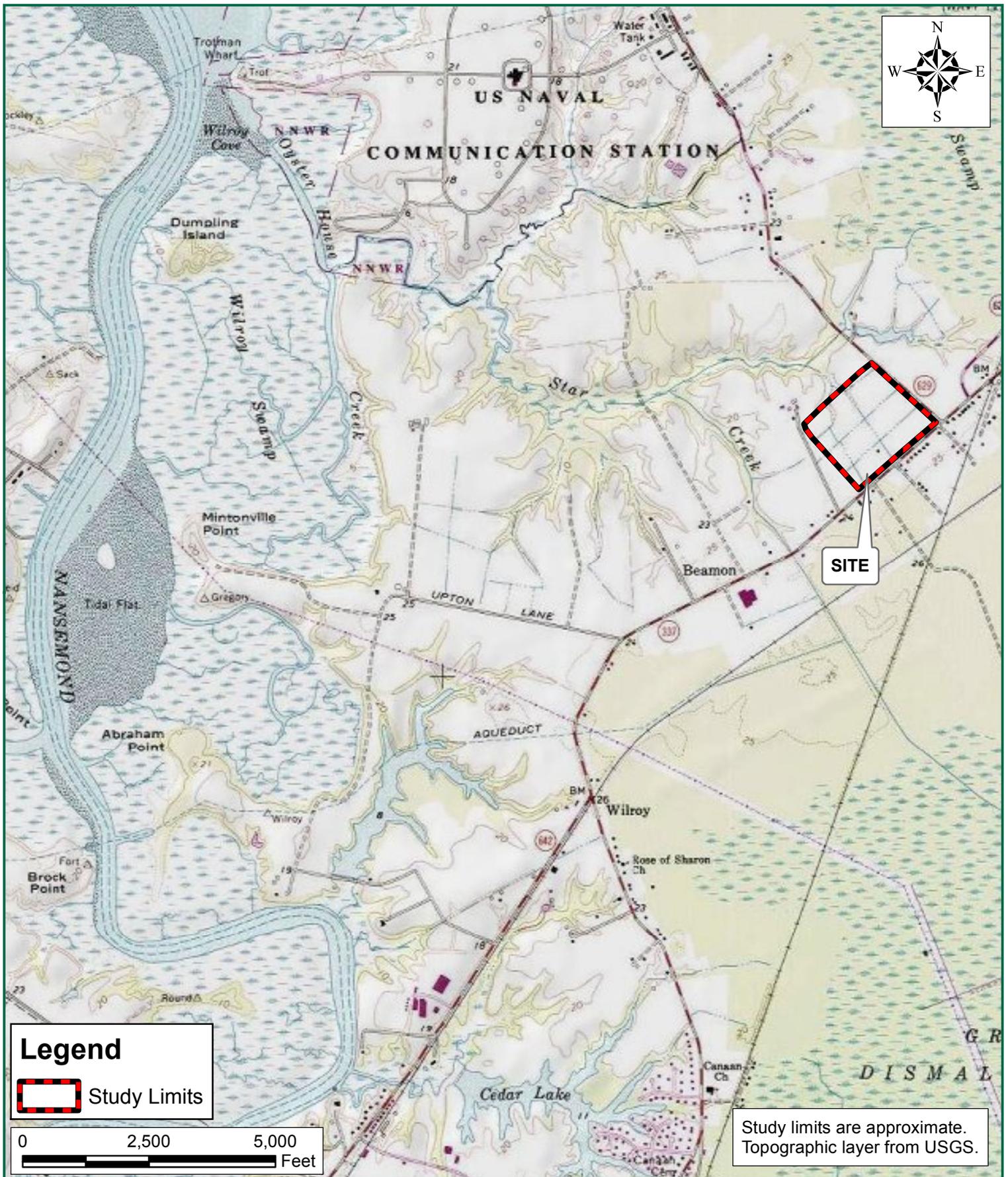
6.0 REFERENCES

VADCR. March 2014. Nutrient Management Training and Certification Regulations 4VAC50-85. Virginia Soil and Water Conservation Board.

VADCR. July 2014. Virginia Nutrient Management Standards and Criteria. Division of Soil and Water Conservation: Richmond, VA.

Virginia Cooperative Extension. May 2011. Urban Nutrient Management Handbook. Funding by: VADCR; Produced by: Virginia Polytechnic Institute and State University.

FIGURES



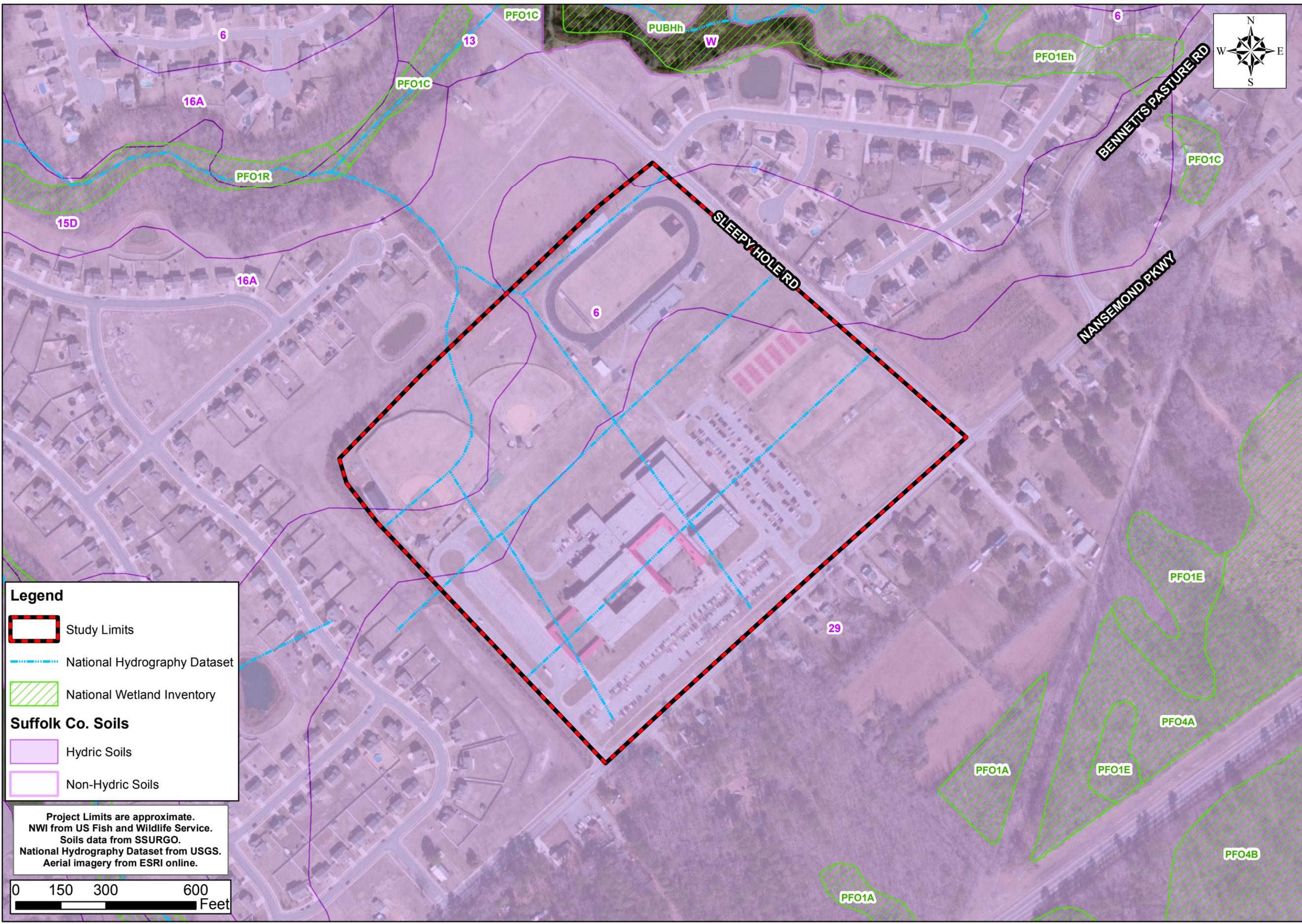
NANSEMOND RIVER HIGH SCHOOL
 SUFFOLK, VIRGINIA
FIGURE 1: VICINITY MAP

TIMMONS GROUP
 YOUR VISION ACHIEVED THROUGH OURS.

TIMMONS GROUP JOB NUMBER: 36807.001
 PROJECT STUDY LIMITS: ± 49 ACRES
 LATITUDE: 36° 48' 10.32" N
 LONGITUDE: 76° 31' 5.66" W

U.S.G.S. QUADRANGLE(S): CHUCKATUCK
 DATE(S): 2013
 WATERSHED(S): HAMPTON ROADS
 HYDROLOGIC UNIT CODE(S): 02080208

Path: Y:\804\36807.001-Nansemond_HS_NMP\GIS\Figure 2 - EIM.mxd



Legend

- Study Limits
- National Hydrography Dataset
- National Wetland Inventory

Suffolk Co. Soils

- Hydric Soils
- Non-Hydric Soils

Project Limits are approximate.
 NWI from US Fish and Wildlife Service.
 Soils data from SSURGO.
 National Hydrography Dataset from USGS.
 Aerial imagery from ESRI online.



TIMMONS GROUP

NANSEMOND RIVER HIGH SCHOOL
SUFFOLK, VIRGINIA

FIGURE 2: ENVIRONMENTAL INVENTORY MAP

THIS DRAWING PREPARED AT THE
CORPORATE OFFICE
1001 Boulders Parkway, Suite 300 | Richmond, VA 23225
TEL 804.200.6500 FAX 804.560.7648 www.timmons.com

DATE	REVISION DESCRIPTION
06/19/15 <td></td>	

DATE: 06/19/15
 DRAWN BY: S.VARGO
 DESIGNED BY: S.VARGO
 CHECKED BY: E.VIRTS
 SCALE: 1" = 300'

JOB NUMBER: 36807.001
 SHEET NO.: 1 OF 1

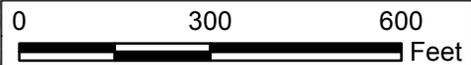
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Legend

-  Study Limits (± 49 acres)
-  Environmentally Sensitive Area
-  Perennial Stream

Study limits are approximate.
Aerial Imagery from Bing Maps.



NANSEMOND RIVER HIGH SCHOOL
SUFFOLK, VIRGINIA
FIGURE 3 - ENVIRONMENTALLY SENSITIVE AREAS MAP

TIMMONS GROUP JOB NUMBER: 36807.001
PROJECT STUDY LIMITS: ± 49 ACRES
LATITUDE: 36° 48' 10.32" N
LONGITUDE: 76° 31' 5.66" W

TIMMONS GROUP
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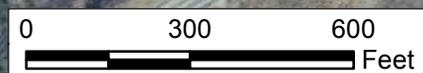
U.S.G.S. QUADRANGLE(S): CHUCKATUCK
DATE(S): 2013
WATERSHED(S): HAMPTON ROADS
HYDROLOGIC UNIT CODE(S): 02080208



Legend

- Study Limits (± 49 acres)
- Management Area 1**
 - Football Field (2.30 acres)
 - Baseball Field (2.37 acres)
 - Soccer Field A (1.65 acres)
 - Soccer Field B (2.27 acres)
- Management Area 2**
 - Softball Field (1.22 acres)
- Management Area 3**
 - Practice Field B (4.00 acres)
- Management Area 4**
 - Practice Field A (2.90 acres)
- Management Area 5**
 - Lawn B (2.60 acres)
 - Lawn C (8.30 acres)
- Management Area 6**
 - Lawn A (1.65 acres)
 - Lawn D (3.04 acres)

Study limits are approximate.
Aerial Imagery from Bing Maps.



<p>NANSEMOND RIVER HIGH SCHOOL SUFFOLK, VIRGINIA FIGURE 4 - NUTRIENT MANAGEMENT AREAS MAP</p>	<p>TIMMONS GROUP YOUR VISION ACHIEVED THROUGH OURS.</p>
<p>TIMMONS GROUP JOB NUMBER: 36807.001 PROJECT STUDY LIMITS: ± 49 ACRES LATITUDE: 36° 48' 10.32" N LONGITUDE: 76° 31' 5.66" W</p>	<p>U.S.G.S. QUADRANGLE(S): CHUCKATUCK DATE(S): 2013 WATERSHED(S): HAMPTON ROADS HYDROLOGIC UNIT CODE(S): 02080208</p>

**APPENDIX A
SOIL TEST SUMMARIES**

APPENDIX B
NUTRIENT APPLICATION WORKSHEETS

**APPENDIX C
FERTILIZER APPLICATION RECORDS**

Fertilizer Application Records

Customer Information			Management Area Information	
Name:	Nansemond River High School		Management Area ID:	
Address:	3301 Nansemond Parkway		Management Area Size:	
	Suffolk, Virginia 23434		Plant Species:	
Phone #:			Notes:	

Date (M/D/Y)	Supervisor/Applicator	Weather Conditions			Fertilizer Analysis	Rate	Amount Fertilizer Used	Application Equipment Used
		Temp	Wind Speed	Precip				

When was the last time your fertilizer equipment was calibrated???

For information on calibration see Chapter 10 of the "Urban Nutrient Management Handbook".
Available for download at <http://pubs.ext.vt.edu/430/430-350/430-350.html>

APPENDIX D
REFERENCE MATERIALS

Table 7.4. Recommended fertilization rates for newly planted ornamental plants during the first growing season (use only one of the fertilizers listed at the rate recommended).

Plant type/size	12-4-8	16-4-8	10-10-10	Application frequency
	Application rate ^a /plant			
1-gallon shrubs	1 tsp	1 tsp	1 tbsp	March, May, July
3-gallon shrubs	2 tsp	2 tsp	2 tbsp	March, May, July
5-gallon shrubs	3 tsp	3 tsp	3 tbsp	March, May, July
Trees under 4 feet	1 tbsp	1 tbsp	2 tbsp	March, July
Trees 4-6 feet	3 tbsp	3 tbsp	5 tbsp	March, July
Trees 6-8 feet	4 tbsp	4 tbsp	6 tbsp	March, July
	Application rate 100/sq ft			
Ground covers, annuals, and herbaceous perennials	0.5 lb	0.5 lb	1.0 lb	Each 4-6 weeks

Source: Georgia Cooperative Extension bulletin 1065 (2009).^a When using slow-release or soluble fertilizers, follow label recommendations for application rate.

Table 7.5. Recommended application rates of various general-purpose granular fertilizers on established ornamental plants in the landscape.

Source	Application rate ^a				
	1,000 sq ft		100 sq ft		10 sq ft
	Pounds	Cups	Pounds	Cups	Tablespoons
10-10-10	10.0	20.0	1.0	2.0	4.0
8-8-8	12.5	25.0	0.5	2.5	5.0
13-13-13	6.0	12.0	0.75	1.5	3.0
12-3-6	6.0	12.0	0.75	1.5	3.0
12-4-8	6.0	12.0	0.75	1.5	3.0
12-6-6	6.0	12.0	0.75	1.5	3.0
16-4-8	6.0	12.0	0.5	1.0	2.0
4-12-12	25.0	50.0	2.5	5.0	10.0
5-10-10	20.0	40.0	2.0	4.0	8.0

Source: Georgia Cooperative Extension bulletin 1065 (2009).

^aThis rate will supply 1 pound of actual nitrogen per 1,000 square feet. For optimum growth of young shrubs, ground covers, and trees, three to five applications are recommended at six- to 10-week intervals from March to August. Application frequency varies with the amount of slow-release nitrogen in the product, so consult the label for specific recommendations. Established trees and shrubs will benefit from one to two applications during the growing season. Annual flowers and roses should receive applications at four- to six-week intervals from March to August. When using slow-release or specialty fertilizers, follow the manufacturer's recommendation on the container.

Section VI. Turfgrass Nutrient Recommendations for Home Lawns, Office Parks, Public Lands and Other Similar Residential/Commercial Grounds

Definitions

For the purposes of this section, the following definitions, as presented by the Association of American Plant Food Control Officials (AAPFCO), apply:

“Enhanced efficiency fertilizer” describes fertilizer products with characteristics that allow increased plant nutrient availability and reduce the potential of nutrient losses to the environment when compared to an appropriate reference product.

“Slow or controlled release fertilizer” means a fertilizer containing a plant nutrient in a form which delays its availability for plant uptake and use after application, or which extends its availability to the plant significantly longer than a reference “rapidly available nutrient fertilizer” such as ammonium nitrate, urea, ammonium phosphate or potassium chloride. A slow or controlled release fertilizer must contain a minimum of 15 percent slowly available forms of nitrogen.

“Water soluble nitrogen”, “WSN” and “readily available nitrogen” means: Water soluble nitrogen in either ammonical, urea, or nitrate form that does not have a controlled release, or slow response.

Recommended Season of Application For Nitrogen Fertilizers - Applies to all Turf

A nitrogen fertilization schedule weighted toward fall application is recommended and preferred for agronomic quality and persistence of cool season turfgrass; however, the acceptable window of applications is much wider than this for nutrient management. The nutrient management recommended application season for nitrogen fertilizers to cool season turfgrasses begins six weeks prior to the last spring average killing frost date and ends six weeks past the first fall average killing frost date (see Figures 6-1 & 6-2). Applications of nitrogen during the intervening late fall and winter period should be avoided due to higher potential leaching or runoff risk, but where necessary, apply no more than 0.5 pounds per 1,000 ft² of water soluble nitrogen within a 30 day period. Higher application rates may be used during this late fall and winter period by using materials containing slowly available sources of nitrogen, if the water soluble nitrogen contained in the fertilizer does not exceed the recommended maximum of 0.5 pounds per 1,000 ft² rate. Do not apply nitrogen or phosphorus fertilizers when the ground is frozen.

The acceptable nitrogen fertilizer application season for non-overseeded warm season turfgrass begins no earlier than the last spring average killing frost date and ends no later than one month prior to the first fall average killing frost date (see Figures 6-1 & 6-2).

Figure 6-1

VIRGINIA
AVERAGE DATES OF FIRST
KILLING FROST IN FALL

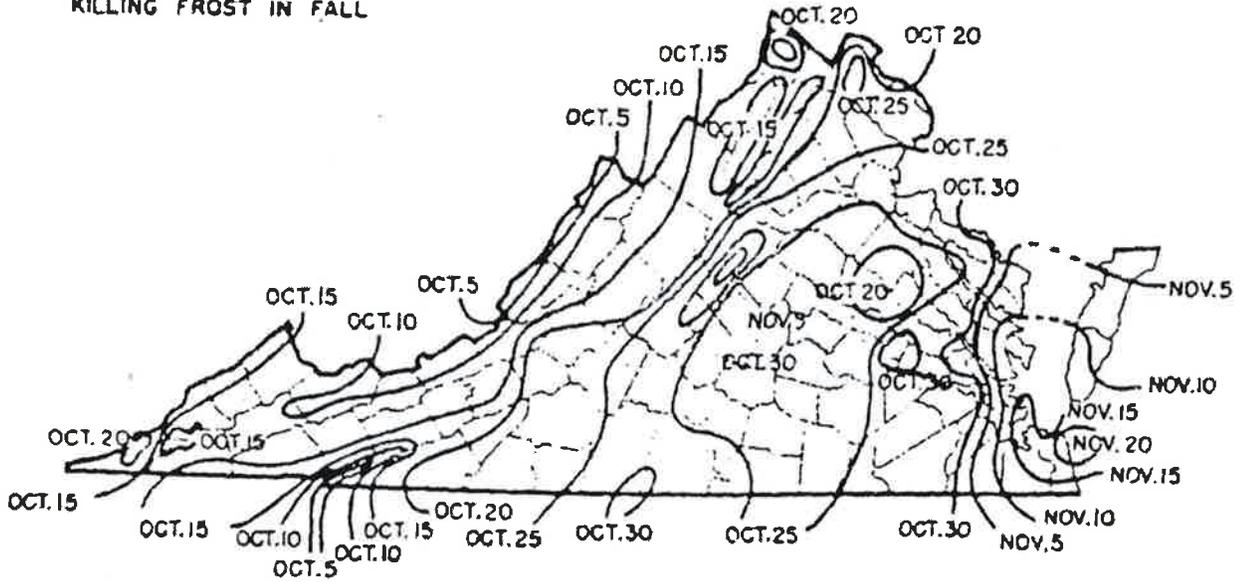
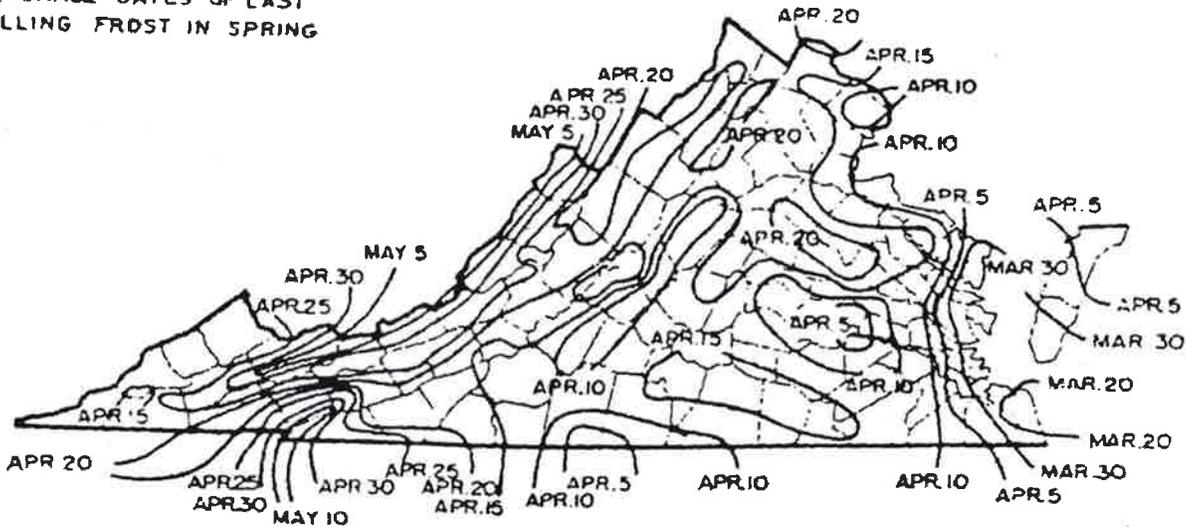


Figure 6-2

VIRGINIA
AVERAGE DATES OF LAST
KILLING FROST IN SPRING



Per Application Rates

Do not apply more than 0.7 pounds of water soluble nitrogen per 1,000 ft² within a 30 day period. For cool season grasses, do not apply more than 0.9 pounds of total nitrogen per 1,000 ft² within a 30 day period. For warm season grasses, do not apply more than 1.0 pounds of total nitrogen per 1,000 ft² within a 30 day period. Lower per application rates of water soluble nitrogen sources or use of slowly available nitrogen sources should be utilized on very permeable sandy soils, shallow soils over fractured bedrock, or areas near water wells.

Annual Application Rates for Home Lawns and Commercial Turf

Up to 3.5 pounds per 1,000 ft² of nitrogen may be applied annually to cool season grass species or up to 4 pounds per 1,000 ft² may be applied annually to warm season grass species using 100 percent water soluble nitrogen sources. Lower rates of nitrogen application may be desirable on those mature stands of grasses that require less nitrogen for long-term quality. As a result, lower application rates will probably be more suited to the fine leaf fescues (hard fescue, chewings fescue, creeping red fescue, and sheep fescue) and non-overseeded zoysiagrass. Lower rates should also be used on less intensively managed areas.

Use of Slowly Available Forms of Nitrogen

For slow or controlled release fertilizer sources, or enhanced efficiency fertilizer sources, no more than 0.9 pounds of nitrogen per 1,000 ft² may be applied to cool season grasses within a 30 day period and no more than 1.0 pounds of nitrogen per 1,000 ft² may be applied to warm season grasses within a 30 day period.

Provided the fertilizer label guarantees that the product can be used in such a way that it will not release more than 0.7 pounds of nitrogen per 1,000 ft² in a 30 day period, no more than 2.5 pounds of nitrogen per 1,000 ft² may be applied in a single application. Additionally, total annual applications shall not exceed 80 percent of the annual nitrogen rates for cool or warm season grasses.

Phosphorus and Potassium Nutrient Needs (Established Turf)

Apply phosphorus (P₂O₅) and potassium (K₂O) fertilizers as indicated necessary by a soil test using the following guidelines:

<u>Soil Test Level</u>	<u>Nutrient Needs (pounds per 1000 ft²)*</u>	
	<u>P₂O₅</u>	<u>K₂O</u>
L	2-3	2-3
M	1-2	1-2
H	0.5-1	0.5-1
VH	0	0

- * For the lower soil test level within a rating, use the higher side of the range and for higher soil test level within a rating use the lower side of the recommendation range. (For example the recommendation for a P₂O₅ soil test level of L- would be 3 pounds per 1,000 ft².)

Do not use high phosphorus ratio fertilizers such as 10-10-10 or 5-10-10, unless soil tests indicate phosphorus availability below the M+ level.

Nitrogen Management on Athletic Fields - Warm Season Grasses

The following comments apply to both Naturally Occurring or Modified Sand based Fields and Predominantly Silt/Clay Soil Fields:

- Annual nitrogen rates for warm season grasses shall not exceed **4 pounds** in areas which have the average first killing frost on or before October 20, and shall not exceed **5 pounds** in areas which have the average first killing frost after October 20 as shown in Figure 6-1. Nitrogen rates and timings for overseeding warm season grasses are not included in these rates.
- April 15 - May 15 applications should not be made until after complete green-up of turf.
- Nitrogen applications June through August should be coordinated with anticipated rainfall if irrigation is not available.
- Use the lower end of the ranges for non-irrigated fields and the higher end of the ranges should be used on fields with irrigation.
- Nitrogen rates towards the higher end of the ranges may be applied on heavily used fields to accelerate recovery, however per application and annual rates cannot be exceeded.

Bermudagrass - Predominantly Silt/Clay Soil Fields ^a		
When to Apply ^b	Pounds per 1,000 ft² Nitrogen	First Fall Killing Frost Date ^b
April 15 - May 15	0.5 - 0.7 ^(c)	Before Oct. 20
June	0.7	
July	0.5 - 0.7 ^(d)	
August	0.5 - 0.7 ^(d)	
Sept 1 - Sept 15	0.5 - 0.7 ^(c)	After Oct. 20
If overseeded with perennial ryegrass		
Oct - Nov	0.5 ^(e)	
Feb-Mar	0.5 ^(e)	

Bermudagrass - Naturally Occurring or Modified Sand based Fields ^a		
When to Apply ^b	Lbs/1,000 ft² Nitrogen ^c	First Fall Killing Frost Date ^b
April 15 - May 15	0.5 - 0.7 ^(c)	Before Oct. 20
June	0.7 ^(c)	
July	0.7 ^(c)	
August	0.7 ^(c)	
Sept 1 - Sept 15	0.7 ^(c)	After Oct. 20
If overseeded with perennial ryegrass		
Oct - Nov	0.5 ^(e)	
Feb - Mar	0.5 ^(e)	

The following notes apply to both of the Bermudagrass tables above:

- (a) In the Piedmont and the Ridge and Valley areas of Virginia, the existing native soil will normally be comprised predominantly of clay and/or silt and these soils have inherently

lower water infiltration and percolation rates and greater nutrient holding capacity. However, most areas of the Coastal Plain have existing native soils that are predominantly sandy textured soils and other facilities throughout the state may choose to install modified soil root zones that are predominantly sand (>50%) in order to maximize drainage and reduce compaction tendency. If subsurface drain tile surrounded by sand and/or gravel has been installed under the playing surface of any of these fields, their nitrogen programs should be managed as predominantly sand-based systems to minimize nutrient leaching.

- (b) The beginning and ending dates for application of nitrogen shall be determined using guidance and frost date maps contained in the Season of Application for Nitrogen section, Figures 6-1 and 6-2.
- (c) WSN must be applied as two applications not to exceed 0.35 pounds per 1,000 ft² each with a minimum of 15 days between applications. Alternatively, using a material that contains slowly available nitrogen sources, split applications of 0.5 pounds per 1,000 ft² may be applied with a minimum of 15 days between applications.
- (d) If a material containing slowly available forms of nitrogen is used, rates up to 1.0 pounds of nitrogen per 1,000 ft² may be applied in a single application with a minimum of 30 days between applications.
- (e) For overseeded warm season grasses, an additional 0.7 pounds per 1,000ft² of WSN may be applied in the Fall after the perennial ryegrass overseeding is well established. The WSN must be applied as two applications not to exceed 0.35 pounds per 1,000 ft² of nitrogen each, with a minimum of 15 days between applications. Additional WSN application of 0.5 pounds per 1,000 ft² may be made in February-March to overseeded perennial ryegrass if growth and color indicate need. Alternatively, split applications of 0.5 pounds of nitrogen per 1,000 ft² each with a minimum of 15 days between applications may be applied using a material containing slowly available nitrogen sources.

Phosphorus and Potassium Recommendations Athletic Fields

Apply phosphorus (P₂O₅) and potassium (K₂O) fertilizers as indicated by a soil test using the following guidelines:

<u>Soil Test Level</u>	<u>Nutrient Needs (pounds per 1000 ft²)*</u>	
	<u>P₂O₅</u>	<u>K₂O</u>
L	2-3	2-3
M	1-2	1-2
H	0.5-1	0.5-1
VH	0	0

- * For the lower soil test level within a rating, use the higher side of the range and for higher soil test level within a rating use the lower side of the recommendation range.
- For irrigated turf grown on Naturally Occurring and Modified Sand Based soils only, up to 0.5 pounds of P₂O₅ per 1,000 ft² may be applied, if needed, to aid in recovery of damaged turf during times of extreme use. No phosphorus applications shall be made when the soil phosphorus test level is above 65% saturation, based on the soil test phosphorus values and region as listed in Table 4-1 of Section IV.
- Avoid the general use of high phosphorus ratio fertilizers such as 10-10-10 or 5-10-10, unless soil tests indicate phosphorus availability below the M+ level.

Appendix I
Surface Water Monitoring Program
July 1, 2014-June 30, 2015

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 are routinely collected by Public Works staff at predetermined sampling locations on the Nansemond River and Hoffer Creek. The City also began a partnership with HRSD to study bacteria concentrations during rain events in Shingle Creek. The City of Suffolk Continues to Partner with the City of Portsmouth for Hoffer Creek surface water sampling.

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 PY2. 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.

The February sampling event was cancelled due to inclement weather.

Hoffer Creek

Monthly monitoring of Hoffer Creek in Partnership with the City of Portsmouth continued through PY2. Samples are collected at 8 sites, with Suffolk and Portsmouth each sampling 4 sites. The goal of this program is to gather additional information regarding bacteria levels in Hoffer Creek and assist staff in locating potential sources of bacteria loading. In addition to field conditions, parameters measured include fecal coliform and enterococcus. The City will be evaluating this program in PY3 for its benefits and continued suitability for the MS4 Program.

Shingle Creek

A bacteria source tracking study was done in the Shingle Creek watershed in 2010 in partnership with HRSD. Following that study, the question was raised if bacteria loads enter Shingle Creek with runoff from storm events, or if loads enter Shingle Creek in a more dispersed and continuous nature.

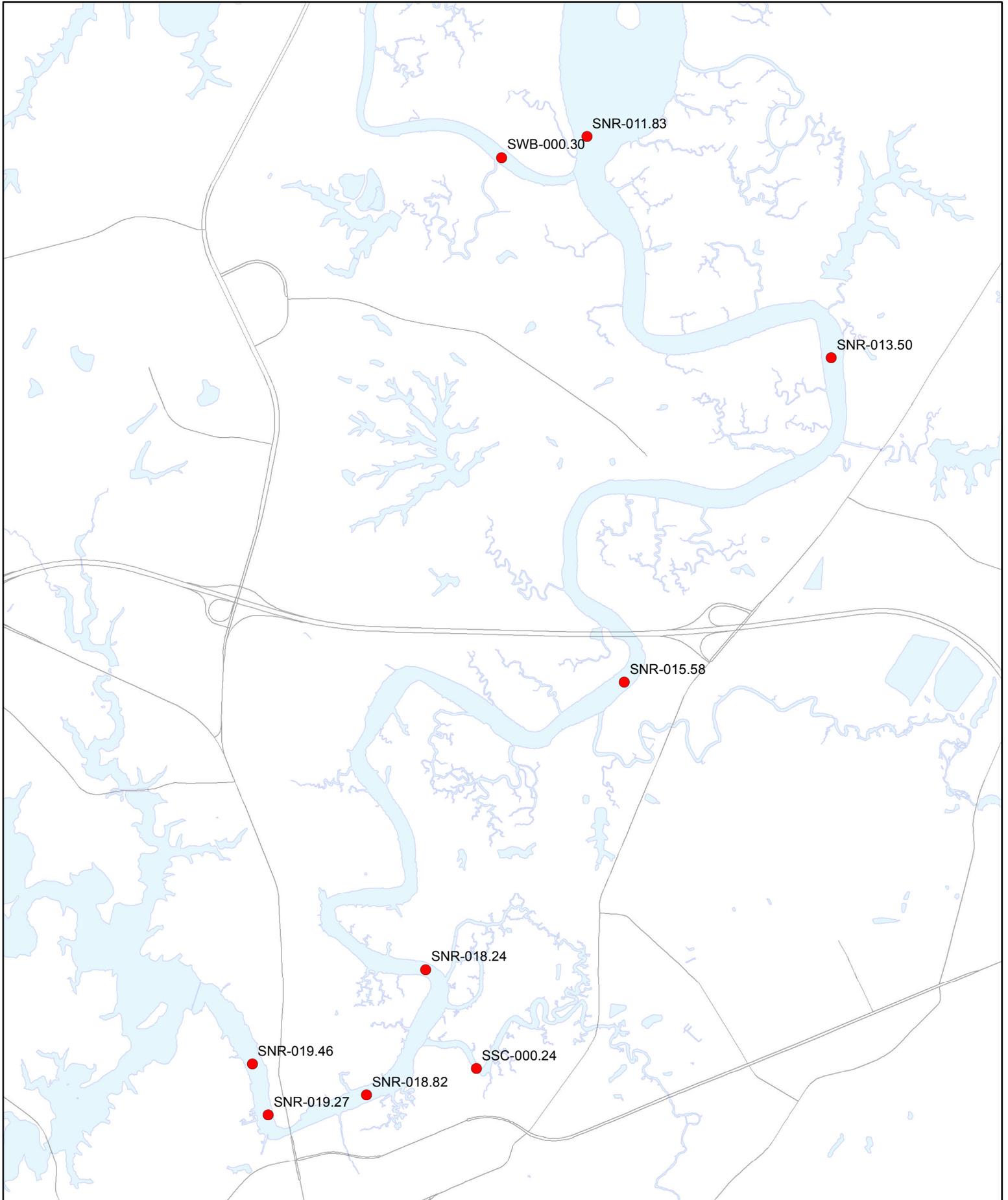
HRSD Staff installed automated sampling equipment at a large culvert that conveys Shingle Creek under Factory Street. This equipment included a flow meter placed to measure flow at the culvert and sample collection equipment that pulled water samples from the stream directly below the flow meter. The Autosampler was programmed by HRSD staff to take 12 samples at set time intervals during storm events. Following storm events, Suffolk staff collected samples from the auto sampler, as well as a grab sample. Samples bottles were chosen for analysis based on their location on the hydrograph and analyzed for E. coli and Enterococcus by the HRSD lab.

Four storm events were sampled during between September and November of 2014. Analysis of results from this study is ongoing, and the City is working with HRSD to determine the best way to proceed with this project.



Upper Nansemond River

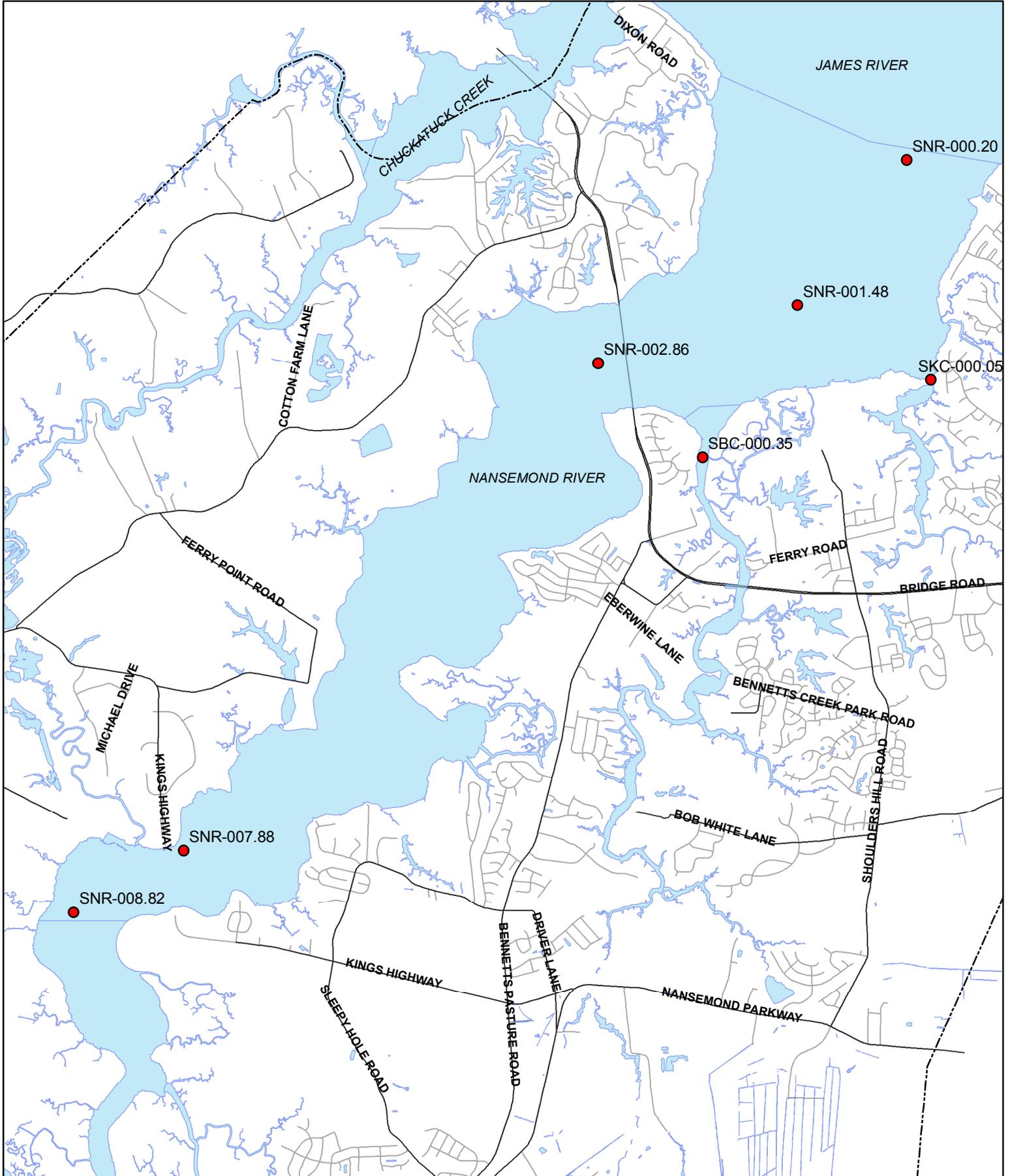
● Sampling Sites





Lower Nansemond River

● Sampling Sites



Nansemond River Surface Water Monitoring Data

E.Coli (cfu/100mL)																
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
7/8/2014	30	10		20	10	10	10	40	70	80	140	330	240	500	700	2400
8/21/2014	40	10	50	10	10	10	20	190	780	400	720	190	330	390	4600	1000
9/18/2014	61	10		10	10	31	31	121	538	249	480	1370	364	512	108	156
10/21/2014	60	10	60	10	10	10	10	60	120	120	210	230	300	260	360	460
11/20/2014	50	10		10	10	41	70	180	26	200	160	280	560	240	240	40
12/3/2014	10	10	90	10	55	10	10	150	60	10	90	160	250	230	55	170
1/15/2015	100	10	210	10	10	10	50	120	50	290	300	200	910	40	40	50
2/17/2015																
3/17/2015	50	10	40	10	10	10	10	100	110	170	130	170	90	120	400	20
4/29/2015	20	10	10	10	10	10	20	55	40	50	80	60	60	30	40	20
5/27/2015	60	10		10	10	10	30	120	140	80	160	140	350	130	130	140
6/25/2015	70	10	210	10	10	10	50	130	50	470	700	570	580	530	620	760

Enterococcus (MPN/100mL)																
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
7/8/2014	10	10		10	10	10	10	10	20	75	134	414	292	295	537	1080
8/21/2014	63	10	20	10	10	20	10	41	318	288	459	404	223	529	2600	960
9/18/2014	61	10		10	10	31	31	121	538	249	480	1370	364	512	108	156
10/21/2014	10	10	10	10	10	10	10	20	10	41	98	373	845	368	417	369
11/20/2014	31	10		10	10	40	75	213	203	241	327	521	556	256	336	41
12/3/2014	41	10	85	10	10	10	20	52	109	94	107	74	262	121	85	216
1/15/2015	426	31	2250	31	20	122	83	122	31	332	132	189	318	10	41	10
2/17/2015																
3/17/2015	10	10	41	20	20	10	10	41	10	10	20	20	10	145	110	10
4/29/2015	52	10	10	10	10	10	10	10	10	10	10	10	52	10	10	10
5/27/2015	31	10		487	820	10	10	10	10	63	145	52	10	72	231	41
6/25/2015	119	10	97	10	10	10	20	41	52	341	613	279	226	241	122	243

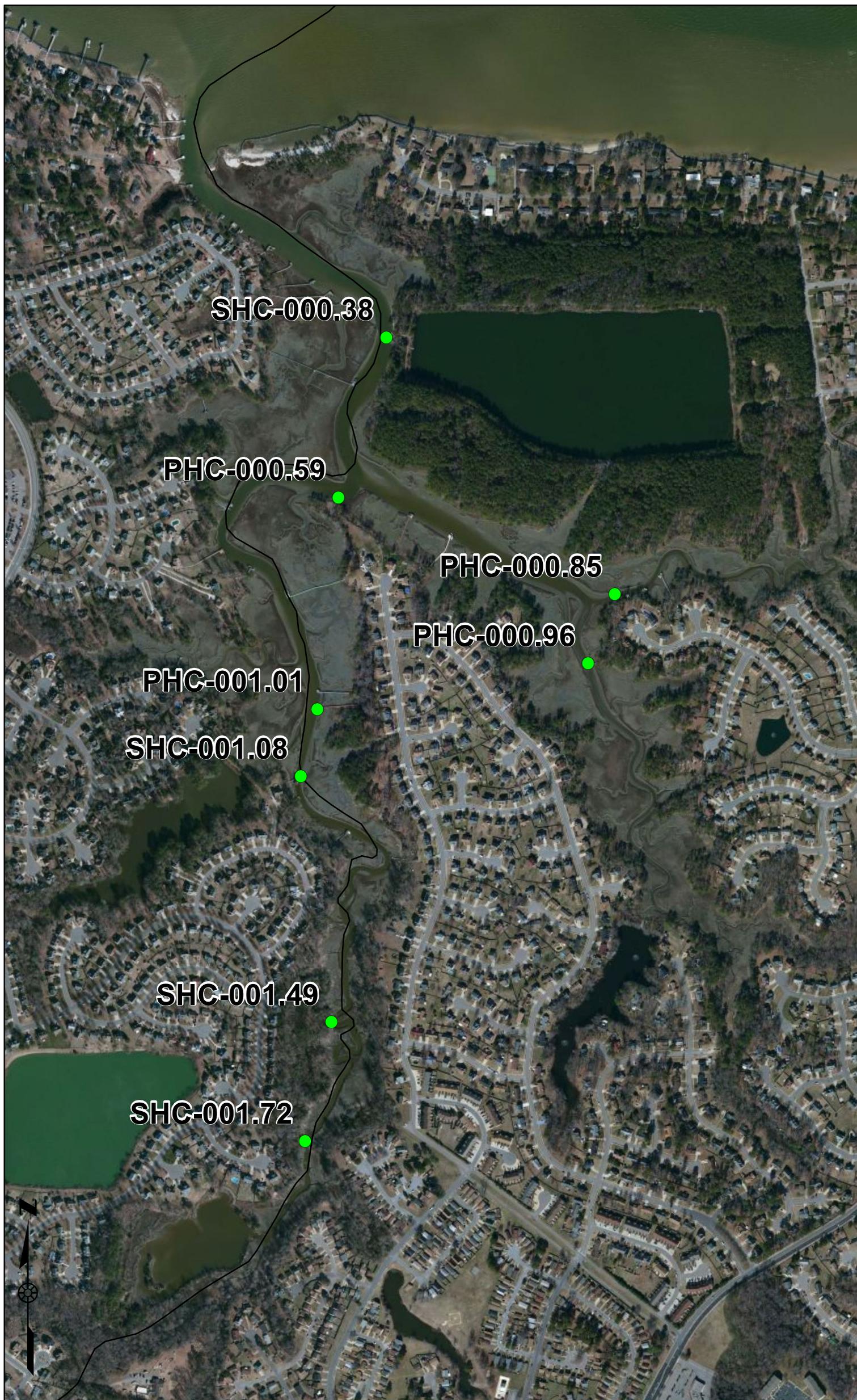
Ammonia (mg/L)																
Sampling Station ID	SBC-000.35	SNR-000.20	SKC-000.05	SNR-001.48	SNR-002.86	SNR-007.88	SNR-008.82	SNR-011.83	SWB-000.30	SNR-013.50	SNR-015.58	SNR-018.24	SSC-000.24	SNR-018.82	SNR-019.27	SNR-019.46
7/8/2014	0.02	0.01		0.01	0.02	0.03	0.02	0.09	0.04	0.12	0.17	0.28	0.23	0.31	0.31	0.26
8/21/2014	0.02	0.01	0.01	0.01	0.01	0.02	0.01	0.04	0.02	0.05	0.08	0.07	0.06	0.04	0.06	0.08
9/18/2014	0.16	0.06		0.06	0.14	0.04	0.05	0.08	0.05	0.05	0.05	0.03	0.07	0.05	0.04	0.11
10/21/2014	0.04	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.05	0.07	0.08	0.07	0.1	0.09	0.09
11/20/2014	0.02	0.01		0.02	0.02	0.01	0.01	0.02	0.02	0.04	0.05	0.16	0.25	0.1	0.09	0.11
12/3/2014	0.08	0.05	0.07	0.07	0.05	0.04	0.05	0.14	0.11	0.18	0.18	0.22	0.12	0.24	0.24	0.21
1/15/2015	0.05	0.02	0.06	0.01	0.01	0.05	0.07	0.07	0.03	0.12	0.09	0.07	0.11	0.07	0.06	0.06
2/1/2015																
3/17/2015	0.02	0.01	0.02	0.01	0.03	0.02	0.01	0.12	0.02	0.07	0.04	0.03	0.05	0.03	0.01	0.01
4/29/2015	0.09	0.04	0.04	0.04	0.05	0.24	0.22	0.15	0.07	0.11	0.08	0.06	0.11	0.04	0.04	0.03
5/27/2015	0.02	0.01		0.04	0.06	0.07	0.07	0.12	0.02	0.12	0.15	0.21	0.14	0.24	0.23	0.22
6/25/2015	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.03	0.06	0.16	0.17	0.19	0.22	0.22	0.21

Nitrate/Nitrate-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
7/8/2014	0.01	0.01		0.01	0.01	0.01	0.01	0.07	0.03	0.1	0.09	0.08	0.06	0.08	0.08	0.07
8/21/2014	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.01	0.05	0.03	0.02	0.02	0.03	0.03	0.03
9/18/2014	0.11	0.15		0.15	0.17	0.17	0.13	0.08	0.05	0.07	0.06	0.03	0.05	0.02	0.01	0.01
10/21/2014	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.02	0.06	0.06	0.06	0.06	0.06	0.06	0.06
11/20/2014	0.01	0.01		0.01	0.01	0.01	0.01	0.01	0.02	0.03	0.04	0.07	0.12	0.06	0.06	0.06
12/3/2014	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.05	0.04	0.08	0.11	0.11	0.13	0.1	0.09	0.09
1/15/2015	0.11	0.01	0.06	0.01	0.01	0.09	0.12	0.11	0.03	0.18	0.19	0.22	0.35	0.17	0.17	0.17
2/1/2015																
3/17/2015	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.12	0.02	0.28	0.31	0.35	0.25	0.41	0.42	0.43
4/29/2015	0.05	0.02	0.01	0.02	0.04	0.09	0.11	0.15	0.1	0.15	0.13	0.12	0.09	0.17	0.17	0.17
5/27/2015	0.01	0.01		0.02	0.02	0.06	0.07	0.11	0.03	0.14	0.13	0.08	0.03	0.09	0.08	0.09
6/25/2015	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.11	0.07	0.06	0.07	0.07	0.08

Total Phosphorous (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
7/8/2014	0.12	0.12		0.09	0.14	0.15	0.12	0.13	0.19	0.13	0.16	0.23	0.2	0.23	0.23	0.24
8/21/2014	0.12	0.09	0.18	0.09	0.1	0.13	0.11	0.11	0.15	0.11	0.11	0.15	0.15	0.13	0.12	0.12
9/18/2014	0.1	0.08		0.09	0.1	0.1	0.11	0.1	0.14	0.1	0.1	0.09	0.11	0.02	0.1	0.09
10/21/2014	0.07	0.06	0.09	0.07	0.07	0.08	0.08	0.09	0.12	0.09	0.08	0.07	0.08	0.07	0.06	0.06
11/20/2014	0.06	0.06		0.06	0.06	0.07	0.08	0.08	0.09	0.1	0.06	0.16	0.09	0.06	0.06	0.08
12/3/2014	0.05	0.04	0.08	0.05	0.06	0.09	0.1	0.09	0.09	0.08	0.06	0.07	0.07	0.07	0.06	0.06
1/15/2015	0.07	0.04	0.08	0.04	0.04	0.06	0.06	0.12	0.05	0.1	0.08	0.06	0.08	0.05	0.05	0.05
2/1/2015																
3/17/2015	0.09	0.08	0.08	0.09	0.12	0.15	0.12	0.09	0.07	0.1	0.08	0.06	0.06	0.04	0.04	0.04
4/29/2015	0.13	0.06	0.1	0.08	0.07	0.1	0.11	0.1	0.13	0.09	0.08	0.04	0.09	0.03	0.03	0.02
5/27/2015	0.09	0.07		0.07	0.08	0.11	0.09	0.13	0.17	0.13	0.13	0.16	0.15	0.14	0.14	0.14
6/25/2015	0.15	0.08	0.18	0.09	0.11	0.1	0.1	0.11	0.15	0.1	0.12	0.14	0.18	0.12	0.11	0.1

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
7/8/2014	44.3	58.2		34.7	44	45	32.3	27	37.3	11.8	12.3	18.3	17	9.6	7.9	5.9
8/21/2014	47.8	52.6	60.2	24.6	52.8	27	22.6	14.6	27.5	11	9.5	8.9	8	7.1	6	5.5
9/18/2014	21.8	7.8		11.9	13.7	17.5	20.1	21.5	28.3	17.2	11.6	8.4	9.1	8	7.8	1
10/21/2014	13.5	14.7	22.8	12.6	15.8	12.1	1	17.3	18.6	16.6	12.9	10.6	11.7	7.5	6.3	6.5
11/20/2014	12.5	14.6		16.5	13.1	13.7	12.3	13	17.6	29.5	9.6	66.4	15.4	9.1	7.2	10.9
12/3/2014	16.6	18.1	10	18.1	21	26.3	37.4	25	18.2	19	10.3	9.8	7	9.3	5.7	5.1
1/15/2015	10	10.4	16.1	8.1	9.1	9.4	10.6	12.8	5.7	20.8	11.8	5.6	4.2	4.7	2.9	3.8
2/1/2015																
3/17/2015	32.6	26.3	19.2	34	39.1	32.4	29.4	21.5	16.8	18.6	12.4	8	5	5.7	2.7	4.2
4/29/2015	24	17.2	24.8	20	17.6	29.5	23.7	15.5	27.4	8.3	7	5.6	4.1	4.6	2.7	1.8
5/27/2015	25	19.2		22	37.3	42	34.7	30.5	54	23	11.5	14	13.7	7	5.4	8.2
6/25/2015	19.3	18	31.3	15.4	24	24	20.8	23.3	34	18.6	14.6	8.3	8.4	4.6	2.6	2.6

Hoffler Creek Sampling Sites



0 0.05 0.1 0.2 0.3 0.4 Miles 1:8,000

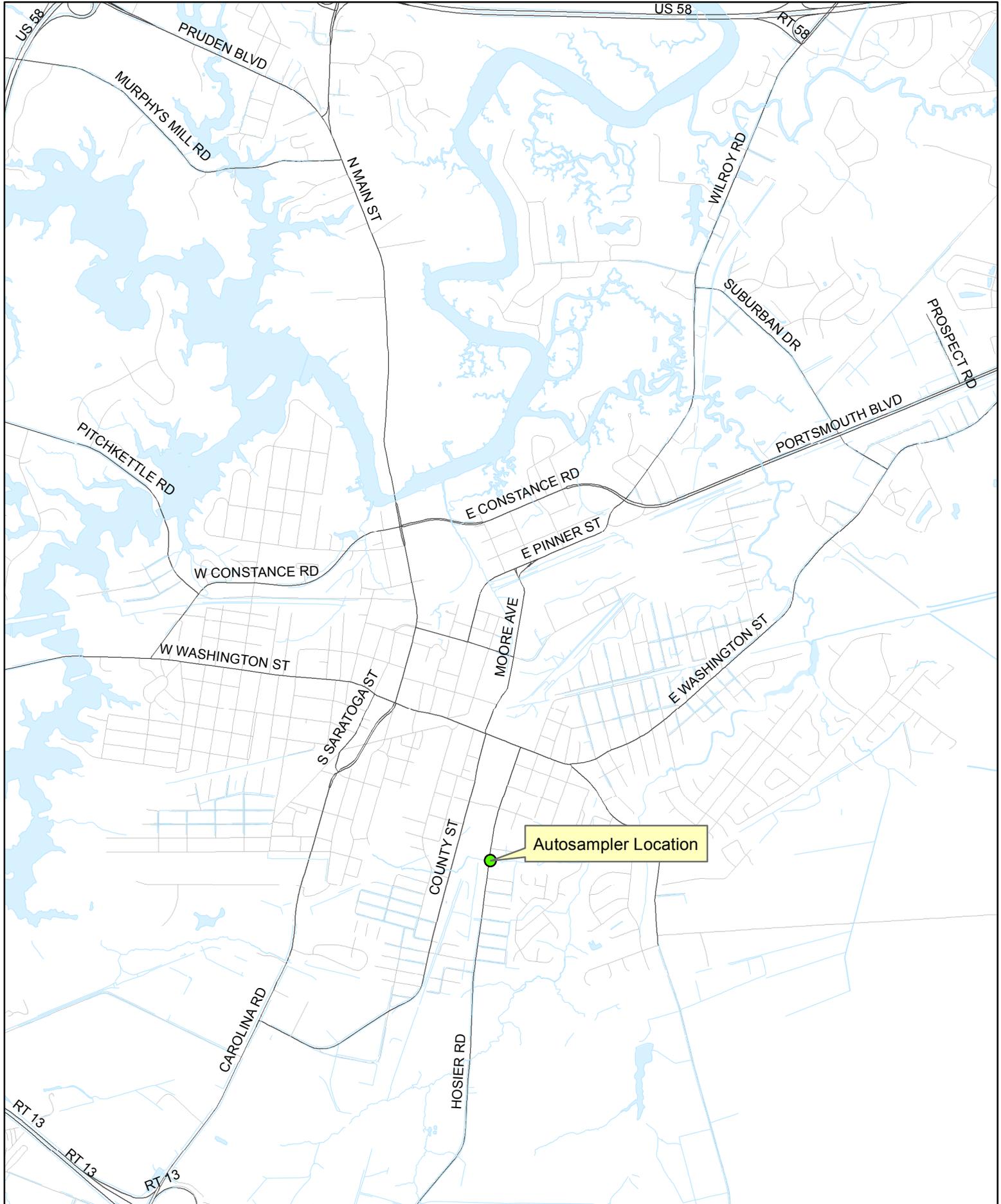
Hoffler Creek Surface Water Monitoring Data

E.Coli (cfu/100mL)								
Sampling Station ID	SHC-001.08	SHC-001.49	SHC-001.72	SHC-000.08	PHC-000.85	PHC-000.96	PHC-000.59	PHC-001.01
7/22/2014	110	80	210	30	100	60	20	140
8/19/2014	1600	1200	600	810	5700	1500	1000	1200
9/16/2014	430	190	130	50				
10/16/2014	1200	650	660	700				
11/18/2014	4000	4100	4200	4800	8400	3500	2700	4900
12/2/2014	240	270	120	140	580	610	170	300
1/14/2015	700	740	810	150	490	640	520	800
3/12/2015	290	300	330	370	1500	880	500	240
4/14/2015	270	140	130	170	500	3200	240	490
5/26/2015	300	390	170	60	1200	650	90	290
6/23/2015	180	230	230	70	550	590	100	200

Enterococcus (MPN/100mL)								
Sampling Station ID	SHC-001.08	SHC-001.49	SHC-001.72	SHC-000.08	PHC-000.85	PHC-000.96	PHC-000.59	PHC-001.01
7/22/2014	84	86	98	<10	41	20	63	146
8/19/2014	2010	1660	2100	591	2760	1790	1390	1330
9/16/2014	689	379	487	120				
10/16/2014	520	269	189	187				
11/18/2014	10500	7700	10500	7700	15500	9800	8160	14100
12/2/2014	279	96	121	148	839	933	285	631
1/14/2015	3650	3080	4350	591	2380	1330	2850	3130
3/12/2015	318	241	292	262	780	426	471	256
4/14/2015	1020	97	199	161	221	457	84	288
5/26/2015	110	110	63	10	85	285	<10	109
6/23/2015	201	201	241	10	259	199	160	173



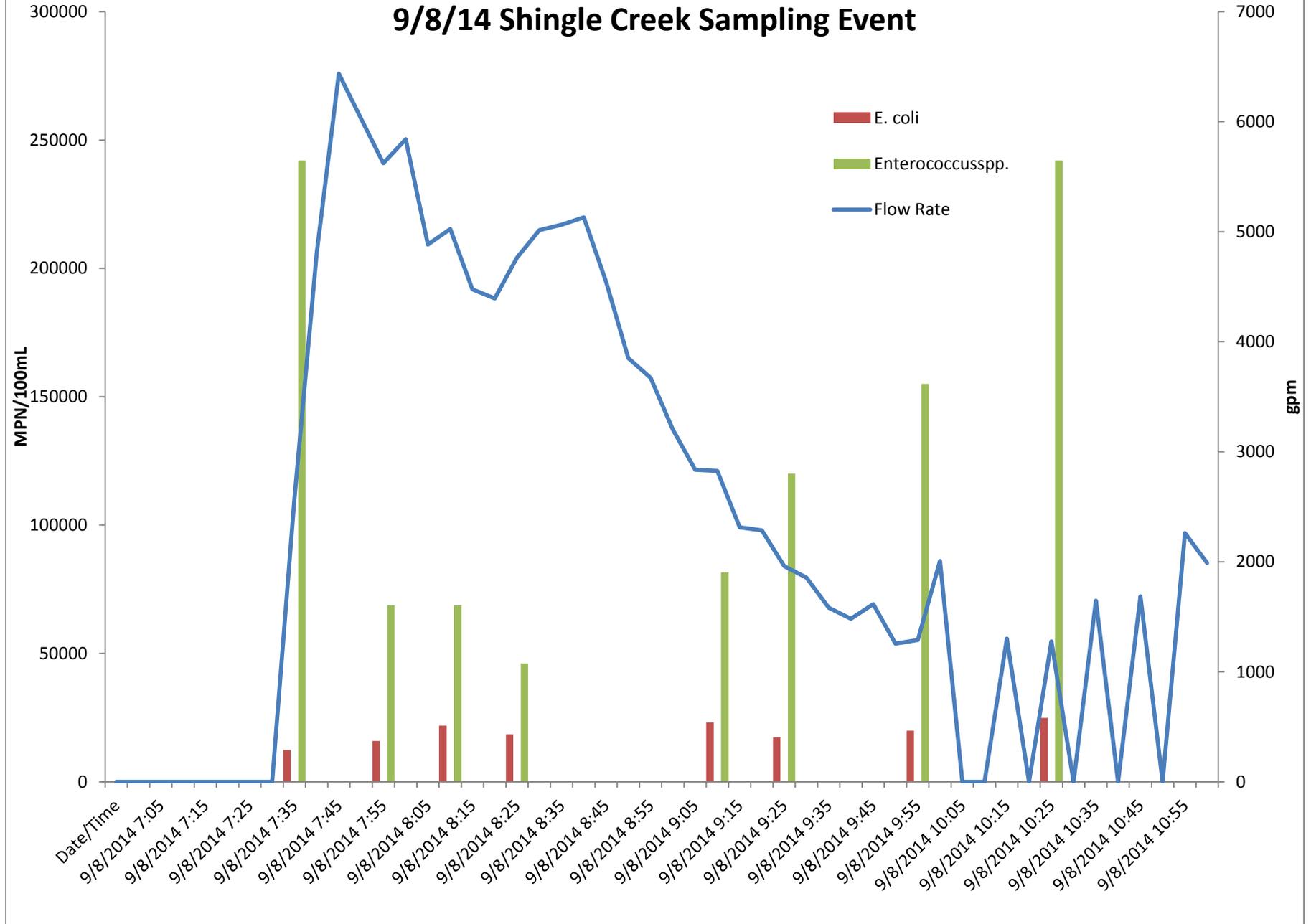
Shingle Creek Autosampler



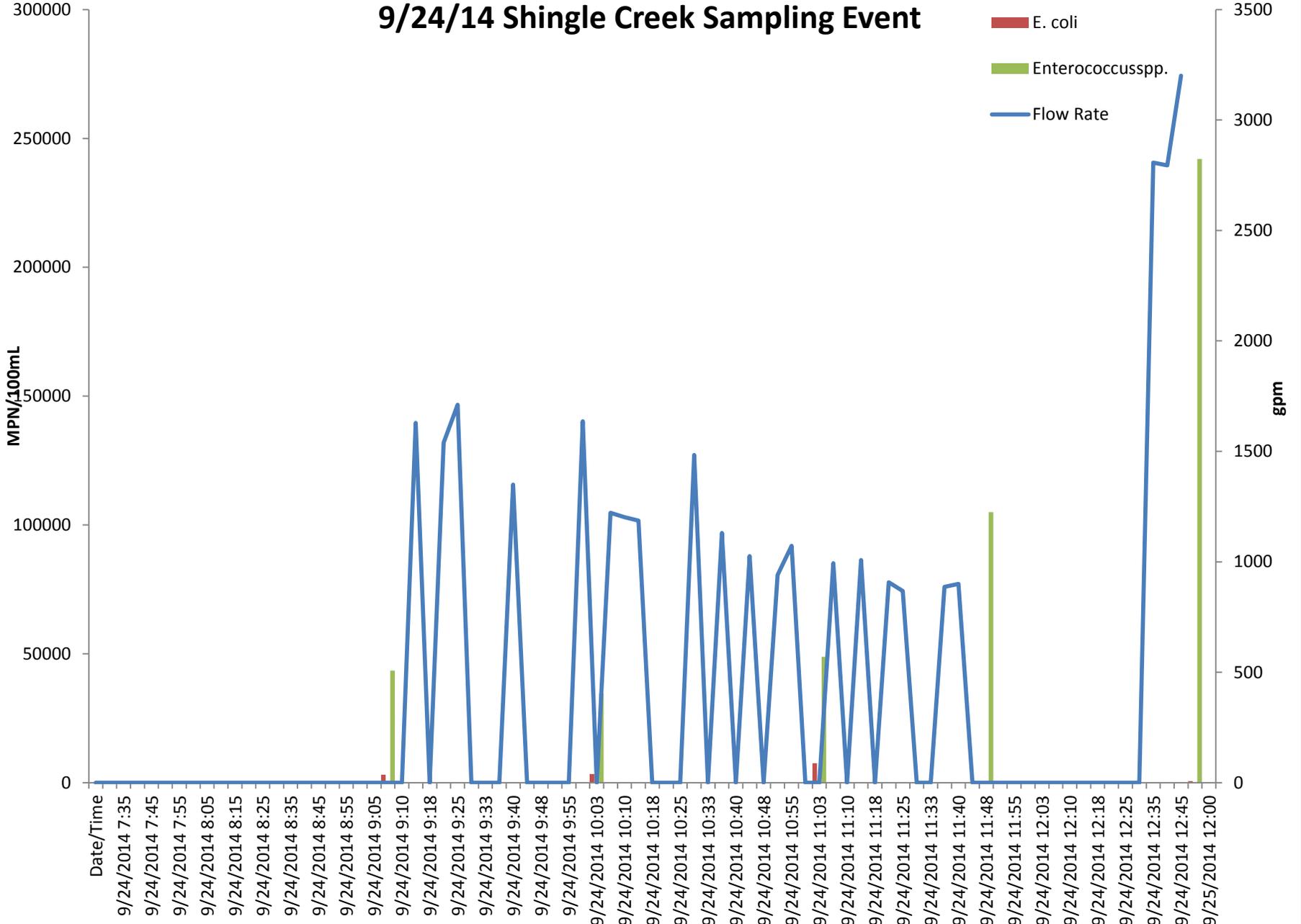
Shingle Creek Autosampler Data

Bacteria				Flow				
Date/Time	Sample Bottle #	<i>E. coli</i> MPN/100 mL	<i>Enterococcus</i> spp. MPN/100 mL	Date/Time	Level in	Velocity ft/s	Flow Rate gpm	Comment
9/8/2014 7:37	1	12400	242000	9/8/2014 7:35	41.287	0.34	2559.9	
9/8/2014 7:56	3	15900	68700	9/8/2014 7:55	49.995	0.6	5621.8	
9/8/2014 8:11	4	21900	68700	9/8/2014 8:10	48.018	0.56	5024.9	
9/8/2014 8:26	5	18500	46100	9/8/2014 8:25	47.563	0.54	4762.7	
9/8/2014 9:11	8	23100	81600	9/8/2014 9:10	44.905	0.34	2826.5	
9/8/2014 9:26	9	17300	120000	9/8/2014 9:25	43.431	0.25	1959.8	
9/8/2014 9:56	11	19900	155000	9/8/2014 9:55	41.512	0.17	1289.4	
9/8/2014 10:26	13	24900	>242000	9/8/2014 10:25	41.18	0.17	1275.8	
9/24/2014 9:07	1	3090	43500	9/24/2014 9:07	41.863	0.21	1628.6	9:15 data used
9/24/2014 10:03	5	3320	34500	9/24/2014 10:03	41.487	0.16	1222	10:05 data used
9/24/2014 11:03	9	7540	48800	9/24/2014 11:03	40.601	0.14	993.1	11:05 data used
9/24/2014 11:48	12	<100	105000	9/24/2014 11:48	40.266	0.12	899.6	11:40 data used
9/25/2014 10:28	grab	630	>242000					
10/15/2014 14:57	1	1560	16200	10/15/2014 14:57	40.388	0.14	992.1	15:10 data used
10/15/2014 15:32	2	1190	18400	10/15/2014 15:32	41.499	0.13	992.3	15:35 data used
10/15/2014 18:52	7	<100	21000	10/15/2014 18:52	38.991	0	0	18:55 data used
10/15/2014 21:32	11	<100	24800	10/15/2014 21:32	44.244	0.26	2076.3	21:35 data used
10/15/2014 22:50	13	6380	22800	10/15/2014 22:50	40.434	0	0	
10/15/2014 23:32	14	<100	15500	10/15/2014 23:32	39.16	0	0	23:35 data used
10/16/2014 7:59	grab	1560	2110	10/16/2014 8:00	37.655	0	0	
11/6/2014 0823	grab	<100	300					
11/6/2014 1723	2	300	>242000	11/6/2014 17:25	39.324	0	0	
11/6/2014 1843	4	5650	>242000	11/6/2014 18:45	44.81	0.3	3.571	
11/6/2014 1923	5	200	26100	11/6/2014 19:25	51.469	0.64	8.927	
11/6/2014 2003	6	27600	16200	11/6/2014 20:05	45.898	0.32	3.894	
11/6/2014 2043	7	1070	14700	11/6/2014 20:45	42.43	0.15	1.634	
11/6/2014 2203	9	2140	32600	11/6/2014 22:05	39.907	0	0	
11/7/2014 0802	grab	<100	7570					

9/8/14 Shingle Creek Sampling Event

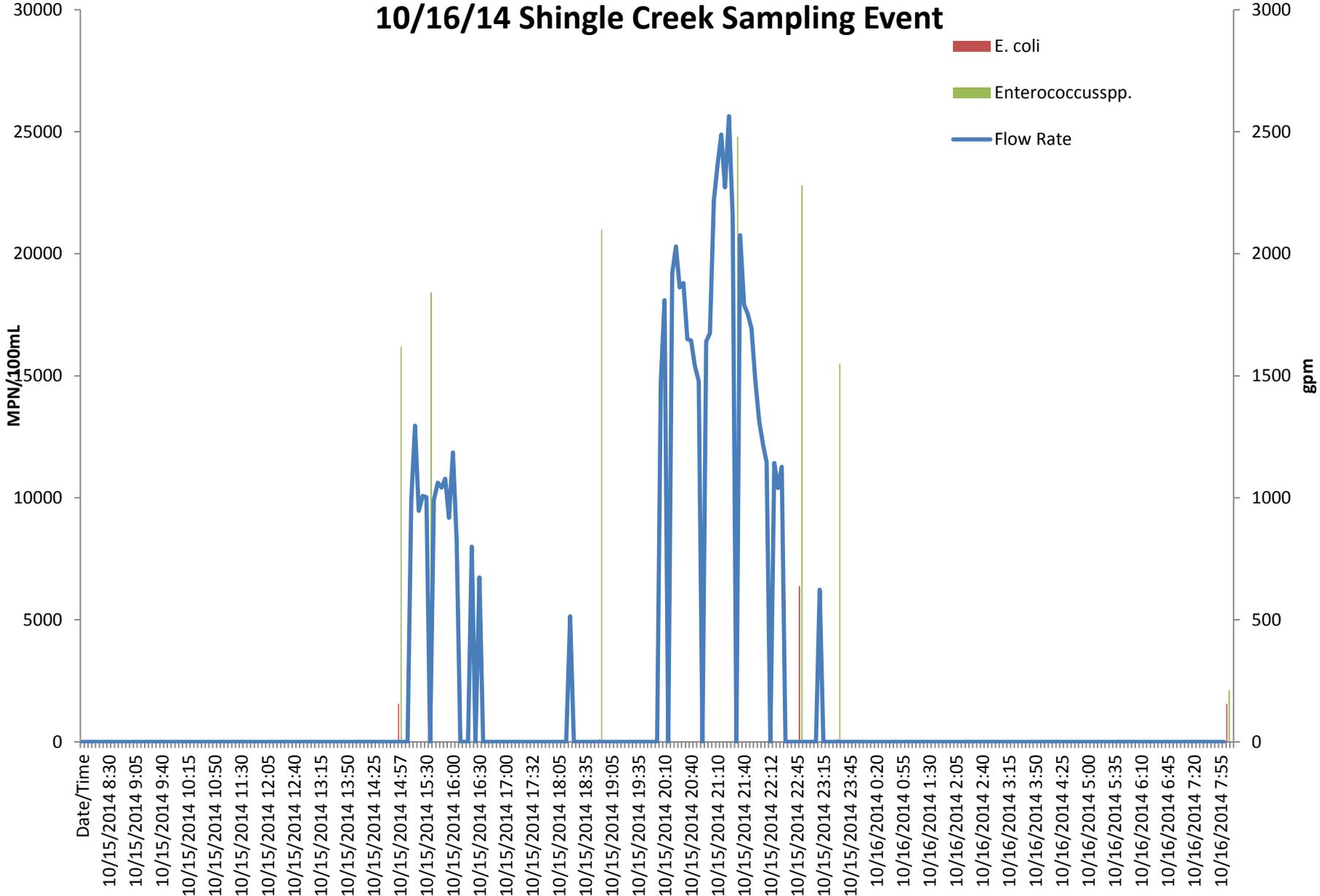


9/24/14 Shingle Creek Sampling Event

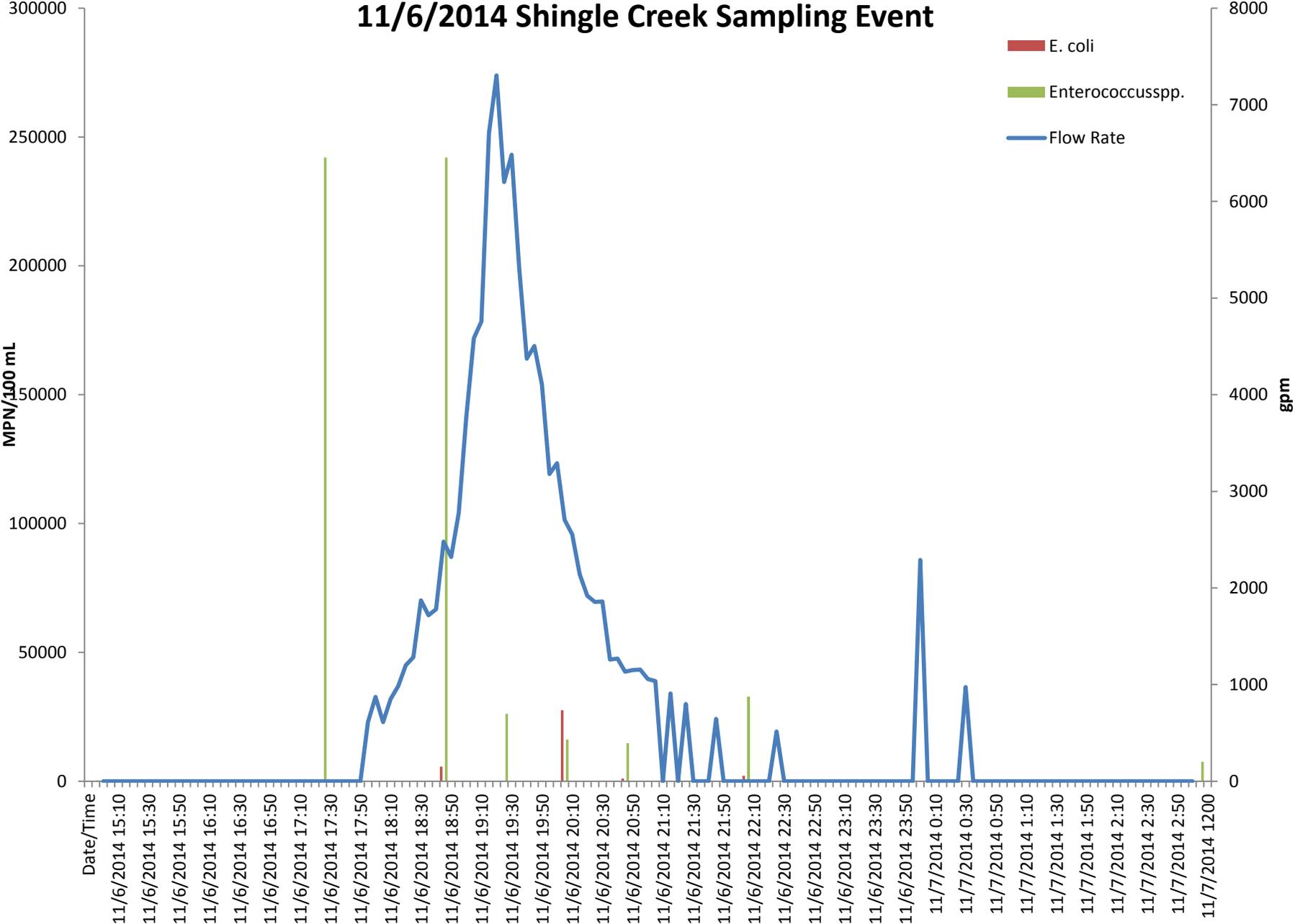


10/16/14 Shingle Creek Sampling Event

- E. coli
- Enterococcuspp.
- Flow Rate



11/6/2014 Shingle Creek Sampling Event



Appendix J

MS4 Program Plan Matrix Permit Year Three

City of Suffolk MS4 Program Plan

1. Public Outreach and Education						
BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline	Associated Documents
1.a	Continue to implement the public education and outreach program as included in the registration statement until the program is updated to meet the conditions of General Permit No. VAR040029	Reorganize program plan to correlate with VAR040029 paragraph numbering - Original items are shown in normal background with new items shown in highlighted background.		PW Engineering	End of PY1	Revised Program Plan
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	<i>Scoop the Poop</i> campaign	Make <i>Scoop the Poop</i> 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

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

2. Public Involvement/Participation							
BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline	Associated Documents	PY2 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	Available on City website http://www.suffolkva.us/pub_wks/engineering-stormwater/stormwater/ms4/
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	Available on City website http://www.suffolkva.us/pub_wks/engineering-stormwater/stormwater/ms4/
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	Available on City website http://www.suffolkva.us/pub_wks/engineering-stormwater/stormwater/ms4/
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 69 public participation events with 1148 volunteers and 222 volunteer hours. These events collected 15,154 pounds of recyclable items, 2762 scrap tires, and cleaned up 846 bags of trash. Event details attached in Appendix D. Staff gave away 3467 promotional items. Promotional giveaway details attached in Appendix C.4 .
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

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

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 Management Ordinance requiring changes to the plan due to inadequacy.	# of inspections; # enforcement actions	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

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	Procedures
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

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.d	Program Plan Requirements (some addressed above)					
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 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	
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

City of Suffolk MS4 Program Plan

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 illicit discharges	SOP(s)/SWPPP	Public Works	Continuously	SOPs
6.a.2	Waste Disposal	Continue to implement and update procedures for proper waste disposal, including yard waste	SOP(s)/ SWPPP	Public Works	Continuously	SOPs
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	SOPs
6.a.4	Manage Wastewater	Prevent the discharge of wastewater to MS4 without a separate VPDES permit	Procedures	Public Works	Continuously	SOPs
6.a.5	Utility Construction and Maintenance	Require BMPs when discharging water pumped from utility construction and maintenance activities	Procedures	Public Utilities	Continuously	SOPs
6.a.6	Bulk Storage BMPs	Require BMPs for bulk storage areas (salt storage, top soil stockpiles)	BMPs Used	PW Operations	Continuously	SOPs
6.a.7	Manage Leaking Municipally-owned Vehicles	Prevent the discharge of pollutants to the MS4	BMPs Used	PW Fleet Maintenance/ PW Operations	Continuously	SOPs
6.a.8	Manage Fertilizers and Pesticides	Implement procedures to ensure materials are applied in accordance with manufacturer's recommendations	Procedures/ Certifications	PW Operations/ Mosquito Control/ Parks and Recreation	Continuously	SOPs
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					
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

City of Suffolk MS4 Program Plan

6. Pollution Prevention/Good Housekeeping for Municipal Operations						
BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline	Associated Documents
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
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

City of Suffolk MS4 Program Plan

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