

BMP 1: Public Outreach and Education

Appendix

City of Poquoson Annual Report

VAR# 040024

Permit Year 4 (PY4): July 1, 2016-June 30, 2017

Submitted to DEQ September 29, 2017

Updated MS4 Program Plan July 1, 2013 - June 30, 2018
City of Poquoson VAR 040024

J. Public Outreach and Education						
BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline	Associated Documents
	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. VAR040027			SW Program Administrator	End of PY1	PY1 Program Plan
						Compliant; program was updated to meet General Permit conditions and new program plan submitted with PY1 annual report.
1.1	Update Public Education and Outreach Program					Appendix p. 10
1.1a	Design a plan to educate citizens on techniques to reduce impacts of stormwater pollution on public waterways with an emphasis on impaired waters by first identifying at least 3 high-priority water quality issues	Identify at least 3 high priority water quality issues that contribute to the discharge of stormwater	Issues identified	askHRgreen.org Stormwater Education Subcommittee	PY1	Education and Outreach Plan
						Compliant. Completed in PY1. See Appendix page10.

Updated MS4 Program Plan July 1, 2013 - June 30, 2018
City of Poquoson VAR 040024

1. Public Outreach and Education						
BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline	Associated Documents
1.2	Regional Media Campaign to Address High Priority Issues	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				
						Compliant. See below for compliance with specific program plan requirements. Appendix p. 11-29
1.2a	Scoop the Poop campaign	Make Scoop the Poop information and giveaways available where citizens receive animal licenses and at pet-related events as appropriate	Percentage of target audience reached through activities.	askHrGreen.org Stormwater Education Subcommittee	Annually	FY 17 Target Audience Percentages Summary is also provided in Appendix. Information is also provided in http://askHrGreen.org/wp-content/uploads/2011/06/askHrGreenFY17AnnualReport_final.pdf (link to Ask Hrgreen annual report). AskHrgreen annual report, Appendix p. 11-28 & p. 29
						Compliant. 35.1% of target audience reached through media campaign. See appendix p. 29 Dog waste bag holders were available at City Hall, where citizens obtain dog licenses. These giveaways are included in totals shown in 1.3d. See appendix for askHrGreen.org annual report and appendix p. 29 for FY 16 Stormwater Permit Requirements Target Audience Percentages.

Updated MS4 Program Plan July 1, 2013 - June 30, 2018
City of Poquoson VAR 040024

1. Public Outreach and Education						
BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline	Associated Documents
1.2b	Promote Lawn Care campaign	Run media campaigns and make lawn care best management practice guides available.	Percentage of target audience reached through activities.	askHrGreen.org Stormwater Education Subcommittee	Annually	FY 17 Target Audience Percentages Summary is also provided in Appendix. Information is also provided in http://askHrGreen.org/wp-content/uploads/2011/06/askHrGreenFY17AnnualReport_final.pdf (link to Ask HrGreen annual report). AskHrGreen annual report, Appendix p. 11-28 & p. 29 Compliant. Media campaign reached 35.1% of target audience for proper disposal of yard waste and 38.4% of total for proper use of fertilizer and promotion of soil testing. Informational brochures and giveaways provided at City Hall offices and Public Works office.

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1. Public Outreach and Education						
BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline	Associated Documents
1.2c	Promote FOG 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	Percentage of target audience reached through activities.	askHRgreen.org Stormwater Education Subcommittee	Annually	FY 17 Target Audience Percentages Summary is also provided in Appendix. Information is also provided in http://askhrgreen.org/wp-content/uploads/2011/06/askHRgreenFY17AnnualReport_final.pdf (link to Ask HRGreen annual report). AskHRgreen annual report, Appendix p. 11-28 & p. 29
						Compliant. Medial campaign for Reducing SSO's and proper disposal of fats, oil and grease reached 23.4% of the audience during the holidays and 36.8% of the audience during a separate Down the drain/Reducing SSOs campaign. AskHRGreen also conducted a "What Not to Flush" campaign for reducing SSOs that reached 36.3% of the target audience.
1.2f	Relevant Message Implementation	Conduct sufficient education and outreach activities designed to reach an equivalent 20% of each high priority audience.	Demographic, reach, frequency, & website click-through rates	askHRgreen.org Stormwater Education Subcommittee	Annually	http://askhrgreen.org/wp-content/uploads/2011/06/askHRgreenFY17AnnualReport_final.pdf Compliant. See askHRgreen annual report in appendix for percentage of high priority audience

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1. Public Outreach and Education						
BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline	Associated Documents
1.2g	Provide for adjustment of target audiences and messages to address any observed weaknesses or shortcomings	Website feedback reports, regional meeting feedback	Number of giveaways distributed	askHRgreen.org Representative	Annually	See AskHRGreen annual report in Appendix or online at http://askhrgreen.org/wp-content/uploads/2011/06/askHRgreenFY17AAnnualReport_final.pdf
1.3	Provide for Public Participation					
1.3a	Local Outreach	Post volunteer opportunities on local website.	Number and types of events	askHRgreen.org Representative	Annually	Locality website: Most events were posted on the main website page: http://www.ci.poquoson.va.us/ . The Adopt a Spot program is advertised on the City Manager's page: http://www.ci.poquoson.va.us/158/City-Manager . See Appendix p. 65 for details. Compliant. 12 volunteer opportunities were posted. Board member positions were also advertised, including openings on the wetlands board. Events ranged from one day litter pickup to Adopt-A-Spot and Bay Star home (ongoing activities) programs. See BMP 2, Public participation for information on events.

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1. Public Outreach and Education							
BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline	Associated Documents	PY4 STATUS: Appendix pages 1-61
1.3b	Regional Initiatives	Submit articles for askHRgreen.org blog and/or to the City newsletter for public participation in water quality improvement initiatives.	Number and types of events submitted	askHRgreen.org Representative	Annually	askHRgreen.org website or Island Tide . See Appendix p. 33-38.	Compliant. Three articles were submitted to AskHRGreen blog. Articles on Bay TMDL retrofit pond construction projects were provided in handouts in the library, where citizens could view the ongoing construction. See Appendix. AskHRGreen website exposure is found in AskHRGreen annual report. See Appendix.
1.3c	Regional Outreach	Post volunteer opportunities on the City website and/or askHRgreen.org calendar	Number and types of events submitted	askHRgreen.org Representative & HRPDC Environmental Educator	Quarterly	askHRgreen.org website See Appendix p. 65	12 volunteer opportunities posted. See Appendix. Events included site clean ups; participation in comprehensive plan development; Bay Star Homes; Keep Poquoson Beautiful. The postings were placed on city media because we have found that produces more volunteers.
1.3d	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	askHRgreen.org summary materials. See Appendix p.40.	Compliant. 1820 giveaways were provided at City Hall, in volunteer bags, and at the Poquoson Seafood Festival. See appendix for detailed list of the number distributed of each type of giveaway.

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1. Public Outreach and Education						
BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline	Associated Documents
1.3e	Maintain and enhance askHRgreen.org website	Increase website visits each year	Website click-through rates-Annual askHRgreen.org website visits	HRPDC & askHRgreen.org	Permit Cycle	askHRgreen.org summary materials. See Appendix p. 11.
1.4	Participate in regional committees: askHRgreen.org , RSMC, and SW Phase II Subcommittee		Maintain valid MOA	HRPDC	Every 5 years (concurrent with MS4 permit cycle).	MOA and Regional Program annual summary of cooperation. See Appendix p. 41.
1.4a	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	Number of meetings attended/Number of meetings held	askHRgreen.org Representative	Annually	askHRgreen.org summary materials. See Appendix p. 11.
1.4b	askHRgreen.org	Participate in at least 35% of askHRgreen.org Stormwater Education Subcommittee meetings	Number of meetings attended/Number of meetings held	SW Program Administrator	Annually	Attendance chart. See Appendix p. 60
						25% (3 out of 12 meetings) attended. See appendix. Loss of staff members and illness of remaining members contributed to low attendance. We are currently hiring a new employee who will be assigned to this committee as a corrective action.

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1. Public Outreach and Education							
BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline	Associated Documents	PY4 STATUS: Appendix pages 1-61
1.4c	Stormwater Phase II Subcommittee	Participate in at least 50% of Stormwater Phase II Subcommittee Meetings.		SW Program Administrator, askHRgreen.org , askHRgreen.org Representative & HRPDC	As scheduled in permit	Revised Program Plan. See Appendix p. 61.	Compliant. 89% (8 out of 9 meetings) attended. See Appendix.
1.5	Evaluation and Assessment	Evaluate and assess progress towards meeting measurable goals.					Compliant. The weak link in the program is the AskHRgreen meeting attendance. This will be corrected by adding another staff member to the committee roster. In general, we exceeded the measurable goals.

Regional Stormwater Education and Outreach Plan

High Priority Water Quality Issues to Address

1. Contribution of pet waste to bacteria impairments.
2. Nutrient runoff due to poor lawncare practices.
3. Reduction of FOG/Garbage Disposal Use to reduce dry weather sanitary sewer overflows.

Target Audience for High Priority Issues

1. Pet Waste Reduction
 - a. single women, 18-49, under \$75K household income
2. Lawncare Best Practices: fertilizer, soil testing, mowing practices, leaf/yard debris disposal
 - a. Married men, 35+, any college, \$75,000+ household income
3. FOG/Garbage Disposal Use
 - a. Married men, 35+, any college, \$75,000+ household income

BMP 1.1 a

BMP 1.2

HAMPTON ROADS PLANNING DISTRICT COMMISSION
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EXECUTIVE DIRECTOR

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

FRANKLIN

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R. RANDY MARTIN

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BRENT FEDORS

HAMPTON

MARY BUNTING
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DONNIE TUCK

ISLE OF WIGHT COUNTY

REX ALPHIN
RANDY KEATON

JAMES CITY COUNTY

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PATRICK ROBERTS

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TYRONE W. FRANKLIN
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WILLIAM SESSOMS
ROBERT M. DYER
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JOHN MOSS
JOHN E. UHRIN

WILLIAMSBURG

MARVIN C. COLLINS
PAUL FREILING

YORK COUNTY

NEIL MORGAN
THOMAS G. SHEPPERD JR.

BAD 1.2

Report Documentation

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

REPORT DATE
September 2017

GRANT/SPONSORING AGENCY
Local Funds

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ABSTRACT

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

ACKNOWLEDGEMENTS

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

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Fiscal Year 2016-2017 At a Glance

About askHRgreen.org...

askHRgreen.org was developed to help Hampton Roads residents find their inner green with just the click of a mouse. For years, the HRPDC facilitated a variety of environmental education efforts to assist localities in notifying residents and meeting regulatory requirements. Developing consistent regional messaging affords localities an economy of scale that they could not otherwise achieve. Coupled with various emerging issues beginning to overtake, like sanitary sewer overflows and stormwater pollution, we knew it was time to develop an umbrella brand to tie all of the messages together. askHRgreen.org began with offering just the green basics, but people craved more information. Once you show someone an easy, green alternative, they get hooked and want to add something else. Now we make the connections for people by illustrating not just what they can do, but why they should care and how their actions impact the larger environment. askHRgreen.org is powered by the 27 localities of Hampton Roads, HRSD, and the Hampton Roads Planning District Commission.

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

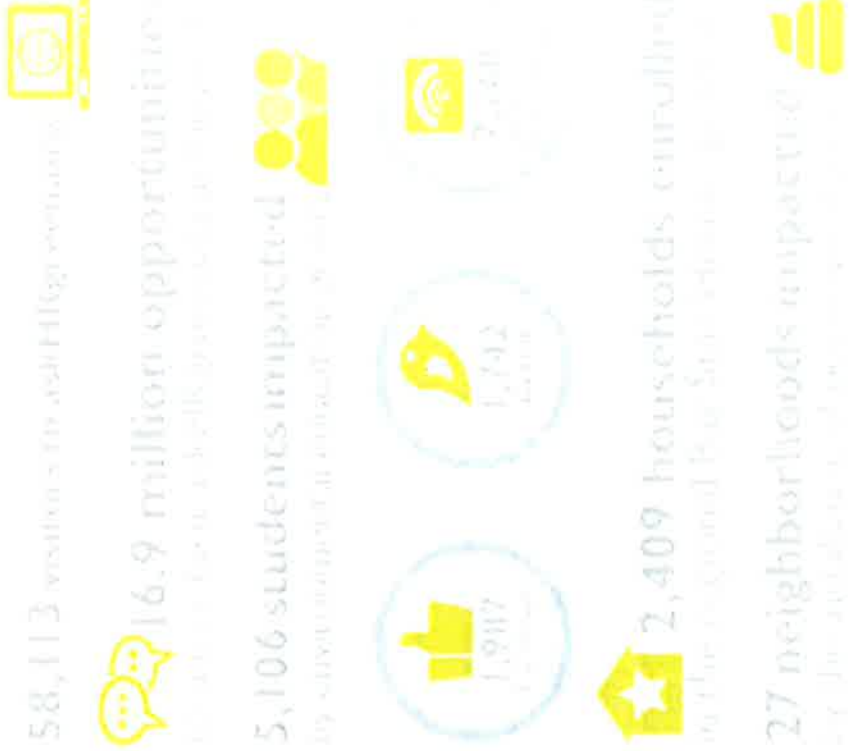
2016-2017 Campaign Schedule and Results

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



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2017 BY THE NUMBERS



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BMP 1. 2

Fiscal Year 2016-2017 Results

Leaves/Pet Waste	R-O-S
Holiday FOG Down the Drain	R-O-S
What Not to Flush	T-O-S
FOG Down the Drain	T-O-S
Fix a Leak Week	T-O-S
Recycle More, Trash Less	O-S
LawnCare/Work Smarter	R-O-S
Wet Weather Rules	P-O-S
Value of Water	T-O-S
Infrastructure	I-O-S
Coastal Virginia Magazine	P-O
askHgreen.org	
F-Newsletters	
Public Relations	
Search Engine Marketing	
askHgreen.org Blog	
Articles	

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

www.askHgreen.org

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Website Analytics

askHgreen.org Website Visitation Statistics						
Visits	27,424	32,697	55,505	58,279	52,530	58,113
Unique Visitors	19,920	25,092	43,547	46,994	42,539	48,468
Pageviews	67,047	72,270	116,818	103,228	93,177	92,681
Pages per Visit	2.42	2.21	2.10	1.77	1.77	1.66
Average Visit Duration	2:19	2:10	1:48	1:26	1:32	1:17
Bounce Rate	61.24%	61.27%	64.37%	74.80%	74.97%	78.23%
% New Visits	70.78%	75.50%	77.74%	79.87%	80.44%	80.27%

Top 10 Website Traffic Sources

Google (organic)	21,527	37.0%
WTKR (display)	10,758	18.5%
Direct	8,710	15.0%
Google cpc (SEM)	3,867	6.7%
m.facebook.com (referral)	2,956	5.1%
Bing (organic)	1,495	2.6%
facebook.com (referral)	932	1.6%
hrf.org.com (referral)	831	1.4%
WTKR (targeting)	755	1.3%
Yahoo (organic)	754	1.3%

askHgreen.org Website Visitors by Locality		
Locality	Visits	% of Total
Virginia Beach	13,033	19.5%
Norfolk	4,348	9.2%
Chesapeake	3,904	7.7%
Newport News	3,398	6.1%
Hampton	2,200	4.1%
Suffolk	1,527	2.9%
James City County/Williamsburg	1,274	2.1%
Portsmouth	1,094	2.0%
Poquoson	439	0.6%
Sterlingfield	301	0.5%
Gloucester	155	0.3%
Yorktown	36	0.2%
Other	26,394	44.7%

* Locality determined by the geolocation of a user's IP address. * Locality data is not available for all visitors. * Locality data is not available for all visitors. * Locality data is not available for all visitors.

MONTHLY PROMOTIONS & WEBSITE VISITATION



SEARCH ENGINE MARKETING JULY 2016 - JUNE 2017

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BMP 1.2

Fiscal Year 2016-2017 Results

Online Search

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

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

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

Organic Search Results					
Clicks	8,513	14,842	20,637	21,274	23,858
SEM Campaigns					
Nonprofit.org	38,136	1,621	4,23%	\$3.13	1.38
askHrGreen.org	22,437	1,168	5.21%	\$2.70	1.34
Water Awareness	12,439	784	6.11%	\$1.77	1.11
CO2	23,399	625	1.88%	\$4.26	2.09
Total	107,920	4,226	3.92%	\$2.89	1.56

Coastal Virginia Magazine Partnership

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



Social Media

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

e-Newsletter

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

Subscribers	7,268
Total Emails Sent	35,808
Total Opens	5,200
Open Rate	17.1%
Total Clicks	556
CTR (Click Through Rate)	1.6%



BMP 1.2

Online Toolkit

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



Events

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



Fiscal Year 2016-2017 Results

2016-2017 Regional Events				
Date	Event	Location	Participants	Unavailable
9/10	Newport News Go Green Expo	Newport News	30,000	Unavailable
9/15-9/18	State of West County Fair	IOW	1,200	Unavailable
9/24	VBAC Fall Gardening Festival	Virginia Beach	20,000	Unavailable
10/7-10/9	Peanut Festival	Norfolk	500	Unavailable
10/19	Energy & Water Expo	NASA Langley Research Center	800	Unavailable
10/20	CUU Farmer's Market	Newport News	400	Unavailable
10/22	HBSLE	Virginia Beach	3,000	Unavailable
10/22	3rd Annual Liter & Recycling Expo	James City County	5,466	Unavailable
2/11-2/12	Hampton Roads Home Show	Hampton	4,000	Unavailable
3/11	Community Association Day	Virginia Beach	350	Unavailable
3/11-12	Virginia Aquarium Trash Bash	Williamsburg	200	Unavailable
3/25-3/26	Williamsburg Home Show	Williamsburg	350	Unavailable
4/2	Wings & Things Spring Fling & Coll. & Sale	Pennamouth	40	Unavailable
4/4	ODU Public Health Fair	Norfolk	940	Unavailable
4/7	Antiem Eco Fair	Norfolk	470	Unavailable
4/19	Antiem Eco Fair	Virginia Beach	100	Unavailable
4/20	TCC Ours	Chesapeake	115	Unavailable
4/22	Virginia Living Museum Earth Day Event	Newport News	335	Unavailable
4/22	5th Annual Community Empowerment Fair	Newport News	645	Unavailable
4/28	JBB Elementary School Spring Event	James City County	500	Unavailable
5/6	Norfolk Utilities Employee Appreciation Event	Norfolk	600	Unavailable
5/10	VBPA Public Service Week & ZWW Celebration	Virginia Beach	400	Unavailable
5/18	VB Public Works Employee Event	Virginia Beach	Unavailable	Unavailable
5/22	Scenic Seafood Festival	Virginia Beach	10,000	Unavailable
6/6	CMAA-COM Fair	Norfolk	500	Unavailable
6/9	NASA Langley Safety & Health Expo	Hampton	500	Unavailable
6/17	MDC Family Fair Day	Virginia Beach	500	Unavailable
6/24	Older Days	Virginia Beach	500	Unavailable
6/24	Norfolk Trail Celebration	Newport News	500	Unavailable

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Grant Programs

Environmental Education Mini Grants

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

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

Pet Waste Station Grants

Since 2013, the askHrGreen.org Pet Waste Station Grant Program has given citizens the opportunity to receive a free pet waste station to install and maintain



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BMP 1.2

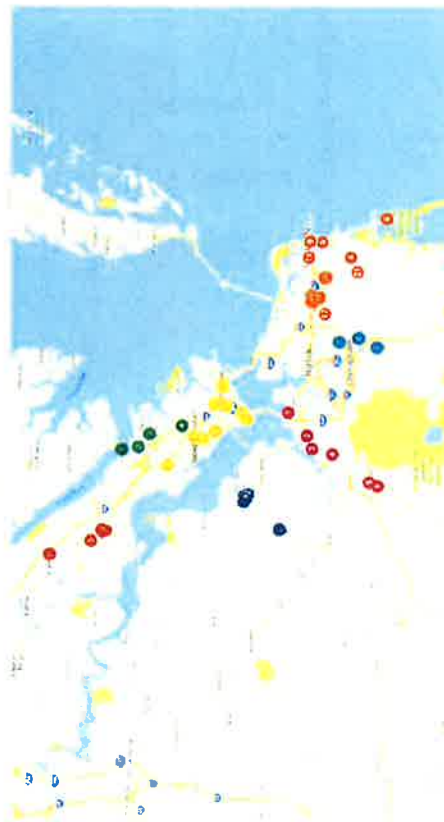
Fiscal Year 2016-2017 Results

"Write as Rain" Campaign

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

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

"Write as Rain" campaign had a \$6,600 budget and a public relations exposure value of over \$60,000.



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

Facebook (April - September 7, 2017)	
Post Impressions	6,345
Post Clicks	400
Post Actions (Like/Share/Comment)	236
Video Views	2,076
Unique Video Views - 4/21/17 Video	1,220
Unique Video Views - 5/5/17 Video	509
Twitter (April - May 2017)	
Post Impressions	3,386
Post Engagement (Clicks/Retweet/Like)	42
Google Maps (April - September 7, 2017)	
Map Views	3,874
Website (April - September 7, 2017)	
Blog Post Views	536



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Fiscal Year 2016-2017 Results

Environmental Action Awards

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

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

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

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

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



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



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

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Recycling & Beautification Subcommittee

The Recycling and Beautification Subcommittee is a coalition of local government staff members from across Hampton Roads who are working together to share ideas and pool resources for various education programs tailored towards community beautification, litter prevention, and recycling education.

Great American Cleanup

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



America Recycles Day

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

AMERICA RECYCLES DAY

Christmas Tree Recycling

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

Cigarette Litter Prevention

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

Recycling Contamination

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

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BMP 1.2

Fiscal Year 2016-2017 Results

Recycle More Trash Less Video Campaign

Target Audience: Adults 25-54	
Audience Targeted Display	
Impressions	218,627
Clicks	473
CTR (Click Through Rate)	0.22%
Online Display Ads	
Impressions	80,012
Clicks	89
CTR (Click Through Rate)	0.11%
Video Pre-roll Ads	
Impressions	52,778
Clicks	708
CTR (Click Through Rate)	1.34%
Native Ad Content	
Impressions	80,005
Clicks	539
CTR (Click Through Rate)	0.67%
Facebook	
Impressions	72,838
Clicks	1,386
CTR (Click Through Rate)	1.90%
Added Value	
Added Value Impressions	52,786
Total Impressions	99,405
Total Impressions	603,665
Total Video Views	52,778
Total Clicks	3,195
Total Budget	\$7,500
Total Exposure Value	\$9,786
Return on Investment	\$1,301
Cost per Thousand Impressions	\$12.42



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Stormwater Education Subcommittee

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

Leaf and Pet Waste Disposal

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

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



Leaves/Pet Waste Campaign Results

Target Audience: Adults 35-64

Radio	
Impressions	526,100
Reach	35,108
Frequency	2.4
Online	
Audience Targeted Display	
Impressions	74,955
Clicks	29
CTR (Click Through Rate)	0.04%
Native Content Ads	
Impressions	20,007
Clicks	653
CTR (Click Through Rate)	3.26%
Facebook Ads	
Impressions	94,516
Clicks	1,262
CTR (Click Through Rate)	1.28%
Added Value	
Added Value	\$4,116
Total Impressions	
Total Impressions	719,578
Total Clicks	1,944
Total Budget	\$9,558
Total Exposure Value	\$17,674
Return on Investment	\$1.85:1
Cost per Thousand Impressions	\$13.28

Lawn Care Practices

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

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

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Litter and Marine Debris

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

Residential Recycling

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

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

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Fiscal Year 2016-2017 Results

Pet Waste Disposal

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

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

New Pet Waste Stations in FY17

Chesapeake	5
Gloucester	2
Hampton	7
James City County	9
Newport News	4
Total	27

*This total may reflect additional pet waste stations issued by local funded programs



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



Lawn Care Campaign Results

Target Audience: Men 35+	
Radio	
Target Audience Impressions	440,100
Target Audience Reach	38,406%
Target Audience Frequency	3.0
Total Campaign Impressions	792,600
Online	
Audience Targeted Display	
Impressions	32,533
Clicks	86
CTR (Click Through Rate)	0.26%
Online Display Ads	
Impressions	2,394
Clicks	23
CTR (Click Through Rate)	0.96%
Facebook Ads	
Impressions	140,482
Clicks	4,787
CTR (Click Through Rate)	3.41%
Ad Spend	\$11,762
Total Impressions	908,009
Total Clicks	4,896
Total Budget	\$10,450
Total Exposure Value	\$22,212
Return on Investment	\$2.13:1
Cost per thousand impressions	\$10.80

Bay Star Homes

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



New in 2017, the Subcommittee was able to offer three Bay Star Home workshops as part of a grant from the Chesapeake Bay Restoration Fund (CBRF) for southside and peninsula residents. Topics included soil testing, environmentally-friendly lawn care practices, techniques for tree siting and pruning, and rain barrels. The workshops helped clarify the connection between stormwater infrastructure and local waterways, including the Chesapeake Bay. The "Plant Smarter: Landscaping and Lawn Care for the Peninsula" workshop was conducted in partnership with the City of Hampton and the City of Newport News on March 23, 2017 at Sandy Bottom Nature Park in Hampton. There, 36 participants learned about soil testing, environmentally-friendly methods for lawn care, and techniques for tree siting and pruning. Participants received Eastern redbud seedlings (a total of 56 seedlings were given away), askHGreen.org informational brochures, DCR brochures on native plants and invasive species, and information on additional upcoming opportunities, including rain barrel workshops and native plant sales. In addition, rain barrel workshops were conducted in partnership with the City of Suffolk on May 20, 2017 at the Suffolk Art Gallery and on June 10, 2017 at Bennett's Creek Park in Suffolk. The workshops hosted a total of 74 participants and 37 rain

barrels were given away. As a result of the workshops, the City of Suffolk was also able to create a "How-to" video to assist others in creating their own rain barrels.

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

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

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

BMP 1.2

Fiscal Year 2016-2017 Results



Storm Drain Medallion Program

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

and more. The program is particularly popular with schools and Boy Scout and Girl Scout troops.

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



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Water Awareness Subcommittee

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

Fixing Leaks

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

Value of Water

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

Infrastructure

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

Imagine A Day Without Water

The Subcommittee joined with municipal water authorities across the U.S. to promote "Imagine a Day Without Water." On September 15, 2016, the U.S. Water Alliance, through

Fix-a-Leak Week Campaign Results

Target Audience: Adults 25-54

Television

Target Audience Impressions	1,093,000
Target Audience Reach	37,70%
Target Audience Frequency	4
Total Campaign Impressions	2,457,300

Online

Audience Targeted Display Impressions	57,321
Clicks	290
CTR (Click Through Rate)	0.51%
Online Display Ads Impressions	14,669
Clicks	110
CTR (Click Through Rate)	0.75%
Native Content Ads Impressions	29,000
Clicks	288
CTR (Click Through Rate)	0.99%

Facebook Ads

Impressions	58,500
Clicks	1,233
CTR (Click Through Rate)	2.11%

Added Value

Added Value Impressions	\$3,517
Total Impressions	165,681
Total Clicks	2,785,671
Total Budget	1,321
Total Exposure Value	\$16,541
Total Exposure Value	\$20,156
Return on Investment	\$1.21:1
Cost per Thousand Impressions	\$5.97

its Value of Water Campaign, raised awareness about the importance of water and the often invisible challenges to water infrastructure. The purpose of the campaign was to get citizens thinking about how much their daily routine would change if they did not have readily available tap water. It explained a day without water is also a day

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BMP 1.2

Fiscal Year 2016-2017 Results

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

Value of Water/Drinking Water Week Campaign Results

Target Audience: Adults 25-54

Television

Target Audience Impressions
Target Audience Reach
Target Audience Frequency
Total Campaign Impressions

Online

Audience Targeted Display

Impressions

Clicks

CTR (Click Through Rate)

Native Content Ads

Impressions

Clicks

CTR (Click Through Rate)

Facebook Ads

Impressions

Clicks

CTR (Click Through Rate)

Added Value

Added Value Impressions

Total Impressions

Total Clicks

Total Budget

Total Exposure Value

Return on Investment

Cost per Thousand Impressions

2,659,182

6,531

\$16,641

\$18,258

\$110:1

\$6.26

Infrastructure Campaign Results

Target Audience: Adults 25-54

Television

Target Audience Impressions

Target Audience Reach

Target Audience Frequency

Total Campaign Impressions

Online

Audience Targeted Display

Impressions

Clicks

CTR (Click Through Rate)

Native Content Ads

Impressions

Clicks

CTR (Click Through Rate)

Facebook Ads

Impressions

Clicks

CTR (Click Through Rate)

Added Value

Added Value Impressions

Total Impressions

Total Clicks

Total Budget

Total Exposure Value

Return on Investment

Cost per Thousand Impressions

2,587,674

3,181

\$16,641

\$16,995

\$102:1

\$6.44



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Fats, Oils & Grease Education Subcommittee

The Fats, Oils, and Grease (FOG) Education Subcommittee is a coalition of local government staff members and HRSD working together to share ideas and pool resources for various education programs tailored to preventing sanitary sewer overflows and backups caused by improper disposal of fats, oils, and grease. This cooperative effort has been underway since 2007 when 13 of the region's localities and HRSD entered into the Regional Special Order by Consent with the Virginia Department of Environmental Quality.

Holiday FOG

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

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



What Not to Flush

The Committee reused the "It came from beneath the streets" campaign previously used for movie theater ads for a one-week TV and online media campaign. Themed after a classic horror movie, the campaign alludes to the

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Holiday FOG Campaign Results

Target Audience: Adults 25-64

Radio

Impressions

Reach

Frequency

Online

Audience Targeted Display

Impressions

Clicks

CTR (Click Through Rate)

Native Content Ads

Impressions

Clicks

CTR (Click Through Rate)

Facebook Ads

Impressions

Clicks

CTR (Click Through Rate)

Added Value

Added Value Impressions

Total Impressions

Total Clicks

Total Budget

Total Exposure Value

Return on Investment

Cost per Thousand Impressions

637,780

73,406

3.1

59,717

26

0.04%

9,890

292

2.93%

59,249

1,259

2.12%

58,663

N/A

766,635

1,577

55,736

\$14,401

\$2.51:1

\$7.48

potential for sanitary sewer overflows to occur when the public uses the toilet as a trash can. Wipes, cotton balls/swabs and other personal hygiene can all play a role in clogging sanitary sewer lines and damaging wastewater machinery. The one-week campaign ran for the week leading up to the Super Bowl, January 30 to February 5, on local stations WVEC, WAVY, Cox Cable, and WTKR.com.



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Fiscal Year 2016-2017 Results

What Not to Flush Campaign Results	
Target Audience: Adults 18+	
Television	
Target Audience Impressions	904,000
Target Audience Reach	36,30%
Target Audience Frequency	3.5
Total Campaign Impressions	2,076,800
Online	
Audience Targeted Display Impressions	24,126
Clicks	60
CTR (Click Through Rate)	0.25%
Online Display Ads Impressions	14,999
Clicks	5
CTR (Click Through Rate)	0.03%
Native Content Ads Impressions	25,627
Clicks	288
CTR (Click Through Rate)	1.12%
Facebook Ads Impressions	56,461
Clicks	2,421
CTR (Click Through Rate)	4.29%
Added Value	\$1,360
Added Value Impressions	47,754
Added Value Clicks	12
Total Impressions	2,245,767
Total Clicks	2,786
Total Budget	\$13,546
Total Exposure Value	\$14,906
Return on Investment	\$11.01
Cost per Thousand Impressions	\$6.03

Down the Drain

The Subcommittee reused the Down the Drain TV ad produced in FY16 for a TV and online media campaign in FY17. The campaign message includes two focus areas: proper disposal of FOG and what not to flush. The ad tells

Down the Drain Campaign Results	
Target Audience: Adults 25-54	
Television	
Target Audience Impressions	904,000
Target Audience Reach	36.80%
Target Audience Frequency	3.4
Total Campaign Impressions	2,038,800
Online	
Audience Targeted Display Impressions	41,400
Clicks	87
CTR (Click Through Rate)	0.21%
Online Display Ads Impressions	15,000
Clicks	8
CTR (Click Through Rate)	0.05%
Native Content Ads Impressions	52,263
Clicks	469
CTR (Click Through Rate)	0.90%
Facebook Ads Impressions	63,406
Clicks	1,568
CTR (Click Through Rate)	2.47%
Added Value	\$4,163
Added Value Impressions	75,353
Added Value Clicks	24
Total Impressions	2,286,222
Total Clicks	2,156
Total Budget	\$13,546
Total Exposure Value	\$17,729
Return on Investment	\$13.11
Cost per Thousand Impressions	\$5.93

residents to keep FOG, food scraps, and personal hygiene products like wipes out of the drains and demonstrates how blockages can contribute to sanitary sewer overflows. The one-week campaign ran from February 13 to 19 on local stations WVEC, WAV, Cox Cable, and WTKR.com.

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Fats, Oils and Grease Regional Training Program

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

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

REGIONAL GREASE HAULERS FORUM

All Drivers are Encouraged to Attend

Tuesday, October 18, 2016
11:30 AM - 1:30 PM
(Lunch provided)
The Regional Building
723 Woodstone Drive
Chesapeake, VA 23320

Join Us

For a free lunch and workshop to learn more about the Regional FOG program, OGC cleaning requirements and best practices, and how to properly dispose of grease. This is a great opportunity for all grease haulers in order to meet local compliance standards.
All attendees will receive updated HRFOG.com Regional Grease Hauler certification card (good for three years) or attending and learn.

BY!

by Friday, October 14, 2016 10:00 AM
Chesapeake Regional Building
723 Woodstone Drive
757-402-6300



BMP 1.2

Glossary of Terms

Appendix A

SEM 12-Month Report

added value Earned but unpaid advertising 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.
ad group In Search Engine Marketing (SEM), an ad group contains one or more ads which target a shared set of keywords.	search engine marketing (SEM) The process of attracting traffic to a website from search engine results pages on a pay-per-click basis.
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).	search engine marketing (SEO) The process of improving the quality of a website so that it appears higher in natural ("organic") search results.
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.	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.
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.	

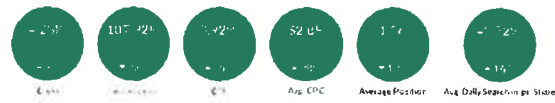
Search Engine Marketing (SEM) Executive Summary

Over the past 12 months, we have seen a strong increase in our search engine marketing (SEM) performance. This is due to a combination of factors, including a strong focus on our search engine optimization (SEO) efforts, a strong focus on our search engine marketing (SEM) efforts, and a strong focus on our search engine marketing (SEM) efforts. The following table provides a summary of our search engine marketing (SEM) performance over the past 12 months.

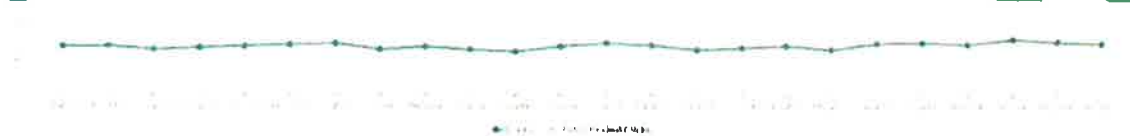
Our search engine marketing (SEM) performance has improved significantly over the past 12 months. This is due to a combination of factors, including a strong focus on our search engine optimization (SEO) efforts, a strong focus on our search engine marketing (SEM) efforts, and a strong focus on our search engine marketing (SEM) efforts. The following table provides a summary of our search engine marketing (SEM) performance over the past 12 months.

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AdWords Search KPIs



Clicks Over Time

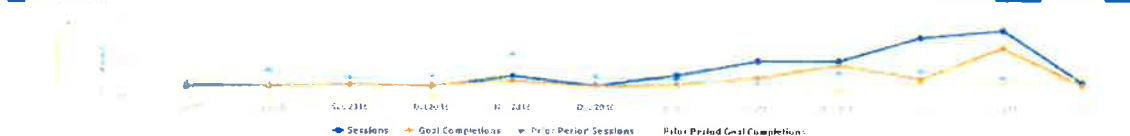


Top Profile Overview

Default Channel Grouping	Sessions	New Users	Acq. Cost	Bounce Rate	Avg. Session Duration	Pages/Session	Goal Completions	Cost of Conversion Rate
Organic Search	21,956	22,321	\$10,000	77.82%	1:00:12	1.00	1,122,000	\$8.91
Direct	11,425	11,543	\$10,000	85.82%	1:00:12	1.00	1,122,000	\$8.91
Referral	5,718	5,734	\$10,000	73.69%	1:00:12	1.00	1,122,000	\$8.91
Display	2,859	2,874	\$10,000	46.26%	1:00:12	1.00	1,122,000	\$8.91
Social	4,532	4,478	\$10,000	84.55%	1:00:12	1.00	1,122,000	\$8.91

32

Goal History



Analytics KPIs



Goal History by Page

Goal History by Page	Goal Completions	Cost of Conversion Rate
Home Page	1,420	\$1.05K
Product Page	4,007	\$1.43K
Checkout Page	1,000	\$0.72K
Thank You Page	2,111	\$0.40K
Cart Page	1,451	\$0.40K
Product Detail Page	2,000	\$0.45K
Product Listing Page	400	\$0.71K
Search Results Page	200	\$0.51K
My Account Page	200	\$0.51K
Privacy Policy Page	100	\$0.27K

BAP 1.2



Account: 12345678901234567890

Campaign Name	Clicks	Impressions	CTR	Avg. CPC	Average Position	Avg. Daily Search Imps. Share
Search	1,115	10,174	1.10%	\$5.15	1.14	10.29%
Display	1,115	10,174	1.10%	\$2.79	1.14	40.51%
Video	1,115	10,174	1.10%	\$1.77	1.14	59.00%
Shopping	1,115	10,174	1.10%	\$4.96	1.14	21.93%
Native	1,115	10,174	1.10%	\$2.76	1.14	49.09%

Top 10 Ad Groups By Clicks

Ad Group	Clicks	Impressions	CTR	Avg. CPC	Average Position	Avg. Daily Search Imps. Share
Search > Brand > Search > Brand > Search > Brand	1,096	10,174	1.08%	\$2.46	1.14	10.91%
Search > Brand > Search > Brand	611	10,174	1.10%	\$2.71	1.14	60.97%
Search > Brand > Search > Brand	301	10,174	1.10%	\$0.51	1.14	88.44%
Search > Brand > Search > Brand	291	10,174	1.10%	\$2.39	1.14	30.75%
Search > Brand > Search > Brand	246	10,174	1.10%	\$2.14	1.14	57.78%
Search > Brand > Search > Brand	247	10,174	1.10%	\$3.86	1.14	59.63%
Search > Brand	224	10,174	1.10%	\$2.13	1.14	67.27%
Search > Brand	229	10,174	1.10%	\$2.49	1.14	66.47%
Search > Brand	139	10,174	1.10%	\$2.65	1.14	47.65%
Search > Brand > Search > Brand	125	10,174	1.10%	\$3.96	1.14	24.23%

33

34



Account: 12345678901234567890

Ad Group	Clicks	Impressions	CTR	Avg. CPC	Average Position	Avg. Daily Search Imps. Share
Search > Brand > Search > Brand > Search > Brand	1,096	10,174	1.08%	\$2.46	1.14	10.91%
Search > Brand > Search > Brand	611	10,174	1.10%	\$2.71	1.14	60.97%
Search > Brand > Search > Brand	301	10,174	1.10%	\$0.51	1.14	88.44%
Search > Brand > Search > Brand	291	10,174	1.10%	\$2.39	1.14	30.75%
Search > Brand > Search > Brand	246	10,174	1.10%	\$2.14	1.14	57.78%
Search > Brand > Search > Brand	247	10,174	1.10%	\$3.86	1.14	59.63%
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Search > Brand	229	10,174	1.10%	\$2.49	1.14	66.47%
Search > Brand	139	10,174	1.10%	\$2.65	1.14	47.65%
Search > Brand > Search > Brand	125	10,174	1.10%	\$3.96	1.14	24.23%

BNAP 1.2

 Top 10 Ads by Clicks

12. *Journal of the American Statistical Association*, 93(463):1303-1310, 1998.

Dec. 1999

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1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 26

4/15/2017 11:00 AM

Before You Flush Your Old Medicine

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Figure 4. Microarray analysis of $\alpha_2\beta_1$ integrin.

John C. Koenig
John C. Koenig

Set $\rho = \gamma_0 + \gamma_1 \tau + \gamma_2 \tau^2 + \gamma_3 \tau^3 + \gamma_4 \tau^4 + \gamma_5 \tau^5 + \gamma_6 \tau^6 + \gamma_7 \tau^7 + \gamma_8 \tau^8 + \gamma_9 \tau^9 + \gamma_{10} \tau^{10} + \gamma_{11} \tau^{11} + \gamma_{12} \tau^{12} + \gamma_{13} \tau^{13} + \gamma_{14} \tau^{14} + \gamma_{15} \tau^{15} + \gamma_{16} \tau^{16} + \gamma_{17} \tau^{17} + \gamma_{18} \tau^{18} + \gamma_{19} \tau^{19} + \gamma_{20} \tau^{20} + \gamma_{21} \tau^{21} + \gamma_{22} \tau^{22} + \gamma_{23} \tau^{23} + \gamma_{24} \tau^{24} + \gamma_{25} \tau^{25} + \gamma_{26} \tau^{26} + \gamma_{27} \tau^{27} + \gamma_{28} \tau^{28} + \gamma_{29} \tau^{29} + \gamma_{30} \tau^{30} + \gamma_{31} \tau^{31} + \gamma_{32} \tau^{32} + \gamma_{33} \tau^{33} + \gamma_{34} \tau^{34} + \gamma_{35} \tau^{35} + \gamma_{36} \tau^{36} + \gamma_{37} \tau^{37} + \gamma_{38} \tau^{38} + \gamma_{39} \tau^{39} + \gamma_{40} \tau^{40} + \gamma_{41} \tau^{41} + \gamma_{42} \tau^{42} + \gamma_{43} \tau^{43} + \gamma_{44} \tau^{44} + \gamma_{45} \tau^{45} + \gamma_{46} \tau^{46} + \gamma_{47} \tau^{47} + \gamma_{48} \tau^{48} + \gamma_{49} \tau^{49} + \gamma_{50} \tau^{50} + \gamma_{51} \tau^{51} + \gamma_{52} \tau^{52} + \gamma_{53} \tau^{53} + \gamma_{54} \tau^{54} + \gamma_{55} \tau^{55} + \gamma_{56} \tau^{56} + \gamma_{57} \tau^{57} + \gamma_{58} \tau^{58} + \gamma_{59} \tau^{59} + \gamma_{60} \tau^{60} + \gamma_{61} \tau^{61} + \gamma_{62} \tau^{62} + \gamma_{63} \tau^{63} + \gamma_{64} \tau^{64} + \gamma_{65} \tau^{65} + \gamma_{66} \tau^{66} + \gamma_{67} \tau^{67} + \gamma_{68} \tau^{68} + \gamma_{69} \tau^{69} + \gamma_{70} \tau^{70} + \gamma_{71} \tau^{71} + \gamma_{72} \tau^{72} + \gamma_{73} \tau^{73} + \gamma_{74} \tau^{74} + \gamma_{75} \tau^{75} + \gamma_{76} \tau^{76} + \gamma_{77} \tau^{77} + \gamma_{78} \tau^{78} + \gamma_{79} \tau^{79} + \gamma_{80} \tau^{80} + \gamma_{81} \tau^{81} + \gamma_{82} \tau^{82} + \gamma_{83} \tau^{83} + \gamma_{84} \tau^{84} + \gamma_{85} \tau^{85} + \gamma_{86} \tau^{86} + \gamma_{87} \tau^{87} + \gamma_{88} \tau^{88} + \gamma_{89} \tau^{89} + \gamma_{90} \tau^{90} + \gamma_{91} \tau^{91} + \gamma_{92} \tau^{92} + \gamma_{93} \tau^{93} + \gamma_{94} \tau^{94} + \gamma_{95} \tau^{95} + \gamma_{96} \tau^{96} + \gamma_{97} \tau^{97} + \gamma_{98} \tau^{98} + \gamma_{99} \tau^{99}$.

2007年12月15日

Figure 10

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 Website: Ezrile by Design

 AdWords Clicks by Device

35

BMP 1.2

**FY17 Stormwater Permit Requirements
Target Audience Percentages**

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

- **Leaves & Pet Waste.** For that focal area, we ran a 2-week radio and online media campaign designed to reach the target audience of adults 35-64. The reach of that campaign was 35.1% with a frequency of 2.4. For leaves and pet waste, we were able to reach 35.1% of the target audience a total of 2.4 times. See page chart on page 20.
- **Fertilizer/Soil Testing.** For that focal area, we ran a 2-week radio and online media campaign designed to reach the target audience of men, 35+. The reach of that campaign was 38.4% with a frequency of 3.0. For fertilizer/soil testing, we were able to reach 38.4% of the target audience a total of 3 times. See page chart on page 21.
- **Holiday FOG/Reducing SSOs.** For that focal area, we ran a 1-week radio and online campaign designed to reach the target audience of adults 25-64. The reach of that campaign was 23.4% with a frequency of 3.1. For holiday FOG/SSO prevention messaging, we were able to reach 23.4% of the target audience a total of 3.1 times. See page chart on page 26.
- **What Not to Flush/Reducing SSOs.** For that focal area, we ran a 1-week television and online media campaign designed to reach the target audience of women 25-54. The reach of that campaign was 36.3% with a frequency of 3.5. With the campaign, we were able to reach 36.3% of the target audience a total of 3.5 times. See page chart on page 27.
- **Down the Drain/Reducing SSOs.** For that focal area, we ran a 1-week television and online media campaign designed to reach the target audience of adults 25-54. The reach of that campaign was 36.8% with a frequency of 3.4. For that focal area, we were able to reach 36.8% of the target audience a total of 3.4 times. See page chart on page 27.

BMP 1.2

EVENT	DATE	ATTENDEES	TOPIC: DETAILS:	PURPOSE
Marine Units with the Fire Dept. oil and boom training	Aug. 30, 2016	Marine units with the Fire Dept., VDEM, USCG, York County Fire and Line Safety, NINFD Marine and HAZ-MAT units.	The fire department supported a training activity on marine hazardous waste spills sponsored by VDEM and attended by regional hazardous waste spill responders. The fire department provided air boat support for this training. Poquoson's fire department can provide on call air boat support to local governments, state agencies and federal installations in the event of a significant hazardous waste spill through mutual aid agreements.	Employee training; ongoing support across City lines
Community Participation Team	Throughout the year	10 citizens; survey open to all citizens	The CPT is a citizen community charged with encouraging citizen participation in the Comprehensive Plan process. Part of their charge was developing a survey and analyzing survey results on a wide variety of issues, including environmental issues and future growth and development. The CPT was publicized and selected during the last permit year (see Permit Year 3 report). The team met on a regular basis, creating public involvement programs, staffing outreach efforts and compiling results from public input meetings. The CPT drafted and tabulated a community wide citizen survey. Opportunities for public participation in the survey were publicized on social media, in the newspaper, on the city website and social media, via word of mouth, at public events, through citywide mailings, and via city newsletters. Members of the community development staff provided support and worked with the CPT on this effort.	Public participation
Poquoson Museum recognized by Governor Terry McAuliffe	Sept. 15, 2016	Ongoing volunteer activity by master gardeners and museum foundation; the City of Poquoson staff provides support as needed to these groups.	Governor McAuliffe recognizes the Poquoson Museum in four areas of distinguished awards. The Learning Garden and Pollinator Garden, (Phase 1 and 2), the Colonial Beekeepers Association Learning Bee Yard and the Treescaping along the Marsh Walk Nature Trail. Events advertised via museum publications and social media.	Public education and participation
Keep Poquoson Beautiful Fall 2016 Event	Planned for September and then October; postponed in September due to intense rain; cancelled in October because of Hurricane Matthew	none; 50 anticipated	The Public Works staff with support from the Engineering Department planned site and shore line clean ups in September 2016. The event was to be attended by staff members from both departments. The event was postponed once and then cancelled because of severe weather.	Public participation
Poquoson Seafood Festival	October 14-16, 2016	Attendance was estimated to be 45,000-50,000 over the three day event	The Poquoson Seafood Festival is held at Municipal Park and is the city's largest attended event. It is advertised on the City's website; in social media; via a website; and is featured by state tourism groups and media. City staff members volunteer to work throughout the event and operate an information stand that provides environmental information and handouts to interested attendees. The Festival is also operated by volunteers from the community.	public participation
Drug Take Back Fall Event	22-Oct-16	number of participants not tracked; the police department collected 128 pounds of drugs that were turned in.	The Poquoson police department partnered with the Poquoson pharmacy to hold a fall drug take back event at the pharmacy. This event is intended to improve water quality and reduce drug abuse by collecting unused prescription drugs so that they do not end up being released into waterways (after being flushed away) or in the hands of drug abusers. The previous year event was so popular that two events were held in FY 17. The event was held on the same day that other regional communities held their events and was advertised via regional advertising, flyers, and on the City website and	public participation

BMP 1.3

Library Garden registered by the National Wildlife Federation	Week of Oct. 20, 2016	Ongoing staff/volunteer activity	The Library Garden was registered by the National Wildlife Federation as a "Certified Wildlife Habitat". Four essentials for wildlife were met in order to achieve certification: food, water, cover, and places to raise young. The learning garden is an ongoing volunteer activity, supported and manned by library staff and the Friends of Poquoson Library community group. Work and volunteer opportunities are advertised on the City's library website, on the library newsletter, and on the Friends of the Poquoson Library Facebook page.	Public education and participation
Colonial Beekeepers Association speak at Poquoson Public Library	Jan. 28, 2017	34	The library staff hosted a presentation on the basics of beekeeping and equipment needed for backyard beekeeping.	Public Education
DEQ to host a public meeting on TMDL's for Poquoson waterways	Feb. 3, 2017	20	The purpose of the meeting is to provide information and discuss the draft modifications of the Total Maximum Daily Loads with community members and local government. The event was advertised on the City website and social media. DEQ also advertised the event. The City Engineer attended the meeting.	Public Education
U. S. Fish and Wildlife to host two public meetings on Plum Tree Island National Wildlife Refuge	Feb. 23, 2017	attendance was not tracked; over 50 people were estimated to have attended.	Staff members were in attendance to answer any questions regarding the City (adjacent to Plum Tree) and to hear citizen comments. These were U.S. Fish and Wildlife Service public meetings. The City advertised the meetings on the City website and social media.	Public education and participation
Community Recreation's inaugural "Earth Day" By The Bay Spring event at Massick Point	22-Apr-16	estimated to be 150 attendees	A children's show and fair focused on water quality issues. The event featured a water model, puppet show and various children's activities on the environment. The event was advertised on the City website and social media and through the parks and recreational department publications. Staff attendees included parks and recreation department staff and the City's floodplain manager.	Public education and participation
Sierra Club Restoring the Chesapeake Bay Roundtable	17-May-17	30 attendees	The City Engineer was scheduled to speak at the Sierra Club to update the group on Poquoson's Bay TMDL actions. After an unexpected illness, the event was attended by City Councilwoman Jana Andrews. The City Engineer provided background information to Councilwoman Andrews prior to the event.	Public Education
Drug Take Back Spring Event	22-Oct-16	number of participants not tracked; the police department collected 176 pounds of drugs that were turned in.	The Poquoson police department partnered with the Poquoson pharmacy to hold a fall drug take back event at the pharmacy. This event is intended to improve water quality and reduce drug abuse by collecting unused prescription drugs so that they do not end up being released into waterways (after being flushed away) or in the hands of drug abusers. The previous year event was so popular that two events were held in FY 17. The event was held on the same day that other regional communities held their events and was advertised via regional advertising flyers; and on the City website and Public Works staff hosted a plant swap for the City's gardeners. Citizens were encouraged to bring plants for trading with other citizens. This is an annual event intended to kick off and draw attention to the Keep Poquoson Beautiful program and to encourage planting more plants in yards, rather than using turfgrass. Keep Poquoson Beautiful events were publicized using posters; notices in the City's newsletters; the City's website, social media, and staff outreach to past participants.	public participation
Keep Poquoson Beautiful: Plant Swap	13-May-17	Not tracked		Public participation

BMP 1.3

Permit Year 4 Public Education and Participation Events

Keep Poquoson Beautiful Spring Event	29-Apr-17	30 volunteers; 19 cubic yards of debris collected; extensive native species plantings	Public Works staff coordinated day long volunteer events throughout the City. This annual event encourages planting more plants, beautifying the city, and being more environmentally friendly. Projects included planting more than \$15,000 worth of native species; litter pick up; raking, weeding and pathway cleaning. Keep Poquoson Beautiful events were provided educational flyers and giveaways. The event was publicized through posters, notices in the City's newsletters; the City's website; social media; and staff outreach to past participants.	Public participation
Statewide "Clean the Bay Day" at Messick Point	June 3, 2017	more than 30	Community Recreation Department coordinated a volunteer clean-up effort at Messick Point as part of the Statewide "Clean the Bay Day" effort on Saturday, June 3 at Messick Point. More than 30 volunteers participated removing approximately 550 pounds of trash.	Public participation

BMP 1.3

ALGAE: LET'S GET RID OF THE SCUM

Pond Scum. Green Slime. Mosquito-Breeding Muck.

Nobody likes a pond covered with algae. Algae can be beneficial, but that all-encompassing, gooey mess is too much. That pond scum is a smothering blanket that blocks light and kills plants and fish.

Why do some ponds turn into scum pits, while others have minimal algae growth? As a pond owner or someone living near a pond, what can you do to prevent it?

Algae grows in stagnant waters. It loves direct sunlight and nutrients. You can discourage algae growth by adding oxygen to your pond and reducing exposure to the phosphates and nitrogen found in fertilizers.

Here are some steps you can take:

- **Aerate!** Bubbling aerators and fountains keep the water moving and add oxygen to ponds. Higher oxygen levels reduce algae growth.
- **Add plants!** Plants add oxygen. They also use some of those nutrients that contribute to excessive algae growth. Pond plants can improve a pond's aesthetics while keeping the water clear. Your best sources of information on plants are local nurseries and garden centers that specialize in ponds and wetlands plantings. Be aware that ponds located near tidal water may contain salt or brackish water. If that is the case, opt for salt tolerant species.
- **Treat** if you must, but use an environmentally friendly algaecide. Do not grab the stuff you would use in a swimming pool. Use only the amount recommended.

Now for the really important step: **Reduce the fertilizer!** If you use too much, you are fertilizing the algae. If you feed it, scum will grow.

Use a nutrient management plan. That means that you should have your soil tested before using fertilizer. That way you can limit fertilizer use to what your soil needs. Extra fertilizer is not absorbed by your plants....it runs downstream. Avoid fertilizing near a drainage system. Watch the weather and don't fertilize just before a rain storm.

Following these steps will keep fertilizer and your landscaping dollars from washing away. Reducing algae makes ponds look better. It also helps the environment.

So What Do You Do With the Pool Water?

Pool ownership can be great. You can swim anytime you want, and entertain the kids without leaving home. All you have to do is step out into your yard to enjoy it.

Of course, all that beautiful water occasionally needs to be drained. What do you do with the stuff? Are you allowed to drain it into a stormwater system?

Pool water can be drained to the drainage system, but only when it is dechlorinated. After all, you don't want to kill our crabs, fish, and other aquatic life by releasing chlorine into the environment. State law prohibits discharging chlorinated pool water.

Here is how to drain your pool responsibly and legally:

- Dechlorinate pool water by letting it sit for several days without adding more chlorine.
- Your water's pH level should be between 6.5 and 8.5 before draining.
- If you are in a hurry to drain your pool, you can add sodium thiosulphate to break down the chlorine faster. Please remember that it will still take time for the chlorine to break down...DO NOT discharge pool water immediately after adding this chemical.
- Dechlorination times depend on the weather and the volume of water being discharged. If you have a pool, you have a test kit. Use it before discharging water.
- When in doubt, let the water sit longer!
- Drain your pool water over grass. This will help some of the water infiltrate into the soil.

Now let's talk backwash, as in that water produced when you backwash your filters. This water should not be drained into the storm drainage system. Backwash water has a heavy concentration of chlorine and other pool chemicals. It also contains sediment and small debris that had been lodged in the filter. Run filter water through the grass to a landscaping area. If need be, create an infiltration pit so backwash is absorbed into the ground.

With a little bit of time and planning, you can maintain your pool in an environmentally, legal manner. Enjoy your summer, and enjoy that pool!

KEEP DRAINAGE FLOWING AND KEEP THE BAY CLEAN

If you live in Tidewater, you have flood stories. It's part of living near the water. Here is the good news: You can take steps to reduce flooding. And that flood reduction work will very likely help the environment.

Flooding in Tidewater is caused by:

- High tides that flow upstream, flooding low lying areas and blocking stormwater from leaving the land;
- Intense rain storms that overwhelm drainage systems.

Turning back the tide is not an option. Our goal is to find ways to increase drainage system capacity. Cleaning ditches creates more capacity. More ditch volume means less flooding.

How does cleaning a ditch help the environment? The Chesapeake Bay has a sediment problem. Yard debris can be carried downstream. The Bay watershed localities are required to reduce the amount of sediment leaving their drainage systems. The cleaner we keep our ditches and pipes, the less sediment we send to the Bay.

Local government crews do their part by clearing public drainage systems. They remove debris and re-grade ditches that are filling in. Citizens can help them by making sure that fences, foot bridges and other structures do not block ditches. Please be aware that most local governments prohibit blocking public drainage easements with structures and landscaping.

Many ditches are privately owned and not maintained by local governments. Property owners are responsible for cleaning these ditches. It's an easier job if citizens keep yard debris and grass clippings out of ditches and storm drains. Do not store leaves or grass clippings near drainage features. Think before you plant: Keep trees or other large plants out of the ditch, and away from the sides of a ditch. If possible, coordinate your drainage-clearing work with your

neighbors' efforts. That way longer stretches of the system will be free to flow. Neighborhood teams may be able to help elderly residents or other owners who are not physically capable of cleaning their ditches. Please remember to get approval before entering working on someone else's property.

Do your part to keep the water flowing and save the environment. Fewer flood stories is a good thing.



City Hall Stormwater Construction Information

What are they building near Victory Boulevard and City Hall?

The City of Poquoson is building stormwater management facilities at both locations. These “ponds” are required to meet the federal Chesapeake Bay TMDL mandate. They will treat stormwater runoff from City Hall and Victory Boulevard and provide additional flood storage. They do not benefit and will not be used to meet stormwater requirements for private development.

Why take down trees?

The Bay TMDL program is a very expensive program that requires the City to build several stormwater management facilities over the next 10-15 years. In order to reduce cost, we focused on sites that were City owned; contained minimal to no wetlands; were not conducive to other uses like ball fields, future community buildings, or economic development; and were near existing drainage systems that served large areas of developed land. Sites meeting those requirements are largely wooded.

Why treatment practices that use so much land?

City staff have been advocating for the Bay program to approve less land-intensive options. We would also like to be able to use more practices like oyster restoration, living shorelines, and phragmites harvesting. These practices were not credited by the Bay program at the time the City had to commit to its first Bay program actions. That meant we could not use them to meet our first interim pollution removal requirement. We are hoping to use less land-intensive measures to meet our future interim goals. That depends on the Bay program approving more options by the time the next City plan is written in 2018.

Why are they putting pipes in the Victory Boulevard ditch?

These pipes are temporary and will be removed as soon as possible. They are needed to provide large vehicle and equipment access to the site from Victory Boulevard. The culverts have been sized to meet state requirements. The project will result in a widened ditch and more flood storage capacity in the Victory Boulevard drainage system.

Can I walk on the project sites to see what is happening?

No. The only people allowed on site are construction workers and inspectors. For your own safety, please stay behind the orange fence.

Is the walking trail closed?

The northern portion of the walking trail that extends from the cell towers to Victory Boulevard is closed until construction is complete sometime mid-summer. The southern portion of the trail that extends from the cell towers to Wythe Creek Road is open and can be accessed by using the gravel path located next to the cell towers at the rear of City Hall.

If you have any questions, please call Engineering at 757-868-3025.



JULY 2016 HANDOUT @ LIBRARY (INFO MAY NO LONGER BE CURRENT)

BMP 1.3

Giveaways July 1, 2016 thru June 30, 2017

Love the Bay stickers	100
"Not just a tote" bags	300
A cleaner, healthy bay starts at home brochures	100
Car Wash brochures	55
Doggie Poop containers w/bags	250
Hand Sanitizer	75
Funnels	75
Garden Kneelers	
Purple totes	150 (seafood fest)
household rack card	150 (seafood fest)
purple wrist bands	100 (seafood fest)
blue wrist bands	100 (seafood fest)
pink book marks	70 (seafood fest)
beige book marks	70 (seafood fest)
Toilet leak testers	50 (seafood fest)
hand sanitizer	75 (seafood fest)
Swedish fish	100 (seafood fest)

REPORT DOCUMENTATION

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

REPORT DATE
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LOCAL FUNDS

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REGIONAL COOPERATION IN STORMWATER MANAGEMENT

FISCAL YEAR 2016-2017

A STATUS REPORT

ABSTRACT

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

ACKNOWLEDGMENTS

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

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

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

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

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

September 2017

INTRODUCTION

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

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



REGIONAL STORMWATER MANAGEMENT PROGRAM GOALS

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

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

THE REGIONAL PROGRAM

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

Phase I Localities

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

Phase II Localities

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

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

INFORMATION EXCHANGE

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

Monthly Meetings

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

State and Federal Agency Program Briefings

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

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

Regional Water Quality Technical Workgroup

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

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

PUBLIC EDUCATION

askHrGreen.org

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

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

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TRAINING

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

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

Webcasts

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

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

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

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

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

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

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

Stormwater Pollution Prevention Videos

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

LEGISLATIVE & REGULATORY MONITORING

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

Fees Related to the Consolidated Virginia Erosion and Stormwater Management Program

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

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

Proprietary BMPs for Stormwater Compliance

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

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

Phase II MS4 General Permit Reissuance

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

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

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

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

Virginia Department of Transportation Individual MS4 Permit

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

Virginia Nutrient Trading Regulations

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

REGIONAL STUDIES

Water Quality Monitoring Study

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

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

Stormwater Program Matrix

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

Local TMDL and Implementation Plan Development

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

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

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

HRSD Bacteria Source Tracking

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

TECHNICAL ASSISTANCE

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

MEMORANDUM OF AGREEMENT

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

PERMIT ADMINISTRATION AND REPORTING SYSTEM (PARS)

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

RELATED PROGRAMS AND PROJECTS

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

Chesapeake Bay Program Participation

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

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

Chesapeake Bay Preservation Act Program

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

HRSD - Sustainable Water Initiative for Tomorrow (SWIFT)

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

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

CONCLUSION

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

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

Hampton Roads Regional Stormwater Management Program

Memorandum of Agreement



June 2013

BYP 1.4

PEP 13-10

HAMPTON ROADS PLANNING DISTRICT COMMISSION

DWIGHT L. FARMER

EXECUTIVE DIRECTOR/SECRETARY

CHESAPEAKE

AMAR DWARKANATH

JAMES E. BAKER

SCOTT MATHESON

DEBBIE RITTER

* ELLA P. WARD

FRANKLIN

* R. RANDY MARTIN

BARRY CHEATHAM

GLOUCESTER COUNTY

* BRENDA G. GARTON

CARTER BORDEN

HAMPTON

MARY BUNTING

WILL J. MOFFETT

* CHRISTOPHER STUART

ISLE OF WIGHT COUNTY

* W. DOUGLAS CASKEY

DELORES DARDEN

JAMES CITY COUNTY

* MARY K. JONES

ROBERT C. MIDDAGH

NEWPORT NEWS

JAMES M. BOUREY

* MCKINLEY L. PRICE

SHARON P. SCOTT

NORFOLK

ANTHONY L. BURFOOT

* PAUL D. FRAIM

THOMAS R. SMIGIEL

MARCUS JONES

ANGELIA WILLIAMS

POQUOSON

W. EUGENE HUNT, JR.

* J. RANDALL WHEELER

PORTSMOUTH

JOHN L. ROWE, JR.

* KENNETH I. WRIGHT

SOUTHAMPTON COUNTY

* MICHAEL W. JOHNSON

BARRY PORTER

SUFFOLK

* SELENA CUFFEE-GLENN

LINDA T. JOHNSON

SURRY COUNTY

* TYRONE W. FRANKLIN

JOHN M. SEWARD

VIRGINIA BEACH

ROBERT M. DYER

BARBARA M. HENLEY

* LOUIS R. JONES

JOHN MOSS

AMELIA ROSS-HAMMOND

JAMES K. SPORE

JOHN E. UHRIN

WILLIAMSBURG

CLYDE A. HAULMAN

* JACKSON C. TUTTLE

YORK COUNTY

* JAMES O. McREYNOLDS

THOMAS G. SHEPPERD, JR.

*EXECUTIVE COMMITTEE MEMBER

PROJECT STAFF

RANDY R. KEATON

WHITNEY KATCHMARK

JENNIFER TRIBO

TIFFANY SMITH

MICHAEL LONG

CHRISTOPHER VAIGNEUR

JENNIFER COLEMAN

HRPDC DEPUTY EXECUTIVE DIRECTOR

PRINCIPAL WATER RESOURCES ENGINEER

SENIOR WATER RESOURCES PLANNER

WATER RESOURCES PLANNER

GENERAL SERVICES MANAGER

ASSISTANT GENERAL SERVICES MANAGER

ADMINISTRATIVE ASSISTANT

**MEMORANDUM OF AGREEMENT
ESTABLISHING THE
HAMPTON ROADS REGIONAL STORMWATER MANAGEMENT PROGRAM**

WHEREAS, Section 15.2-4200 of the Code of Virginia enables local governments to establish Planning District Commissions; and

WHEREAS, the eighteen local governments that are signatories to this Agreement have acted, in accordance with Section 15.2-4200 of the Code of Virginia, to establish the Hampton Roads Planning District Commission (HRPDC); and

WHEREAS, the HRPDC has been requested and has undertaken various studies to support local government stormwater management programs, including compliance with Virginia Stormwater Management Program (VSMP) Municipal Separate Storm Sewer (MS4) Permits; and

WHEREAS, the signatory local governments have requested the HRPDC to administer and coordinate a regional stormwater management program; and

WHEREAS, pursuant to the Clean Water Act, the U.S. Environmental Protection Agency (EPA) has promulgated implementing regulations, 40 Code of Federal Regulations Part 122, which established the National Pollutant Discharge Elimination System (NPDES) Permits for Municipal Separate Storm Sewer System (MS4) Discharges; and

WHEREAS, pursuant to the Virginia Stormwater Management Act, 10.1-603.1, et. seq. of the Code of Virginia, 1950 As Amended, the Board of Soil and Water Conservation has promulgated implementing regulations 4 VAC 50-60, et. seq., which establish the requirements that localities obtain permits for their MS4 discharges; and,

WHEREAS, the majority of the eighteen signatory local governments are required by their MS4 permits to conduct certain activities, including reporting on their discharges, conducting public information and education programs, and certain other activities; and

WHEREAS, the Water Quality Monitoring and Reporting Act and implementing regulations promulgated by the State Water Control Board establish requirements for the preparation of Total Maximum Daily Load (TMDL) Implementation Plans, which apply to activities conducted by localities in general as well as activities conducted in implementing MS4 permit requirements; and,

WHEREAS, the Chesapeake Bay Preservation Act and the Virginia Erosion and Sediment Control Law and implementing regulations also establish stormwater management requirements that govern one or more of the eighteen signatory local governments; and,

WHEREAS, sixteen local governments and the HRPDC executed the Memorandum of Agreement Establishing the Hampton Roads Regional Stormwater Management Program on September 5, 2003 and that Agreement expired on December 31, 2007; and,

WHEREAS, eighteen local governments and the HRPDC executed the Memorandum of Agreement Establishing the Hampton Roads Regional Stormwater Management Program on March 6, 2008 and that Agreement expires on June 30, 2013,

NOW THEREFORE, the signatory parties enter into the following Agreement.

This Memorandum of Agreement entered into this first day of July 2013, among and between the eighteen local governments in Hampton Roads and the HRPDC, establishes and maintains the Hampton Roads Regional Stormwater Management Program.

BASIC PREMISES

All local governments in Hampton Roads operate stormwater management programs.

The Cities of Chesapeake, Hampton, Newport News, Norfolk, Portsmouth and Virginia Beach received VPDES Permits in 1996. Those permits, which were renewed in 2001, govern the discharges from their MS4s to waters of the state and impose certain operational and reporting requirements on those systems. In 2005, these permits were converted to VSMP permits. These permits must be renewed on a five (5) year basis and the localities applied for renewed permits in 2005. Localities continue to operate programs under administratively continued permits. Permit renewals are expected in 2014.

The Cities of Poquoson, Suffolk and Williamsburg and the Counties of Gloucester, Isle of Wight, James City, and York were all identified by the EPA as requiring VPDES permits under Phase II of the MS4 regulations. Those localities that operate MS4s obtained VPDES permits in March 2003. Those permits also imposed certain operational and reporting requirements on those systems. In 2005, these permits were converted to VSMP permits. These permits must be renewed on a five (5) year basis with the next renewal planned for 2013.

Although Gloucester County was initially identified by the EPA as requiring a Phase II MS4 permit, it was subsequently determined that permit coverage for Gloucester County was not required.

The City of Franklin, the Counties of Gloucester, Southampton and Surry and the Towns of Smithfield and Windsor are governed by stormwater management requirements established under the Virginia Stormwater Management Act and the Virginia Erosion and Sediment Control Law. The Chesapeake Bay Preservation Act also governs Gloucester and Surry Counties and the Towns of Smithfield and Windsor.

As of July 1, 2014, all localities must develop stormwater management programs that meet the minimum requirements established in the Virginia Stormwater Management Act. The Virginia Stormwater Management Act imposes operational and reporting requirements on all localities that are required to implement stormwater management programs.

The local governments are interested in managing stormwater in a manner which

protects and does not degrade waters of the state and which meets locally established quality of life goals and objectives. The Clean Water Act and the VSMP require that stormwater quantity and quality be managed to the maximum extent practicable.

In carrying out their stormwater management responsibilities, the aforementioned local governments have developed a consensus on regional goals to guide the operation of their stormwater management programs. Initially, approved by the HRPDC at its Executive Committee Meeting of September 15, 1999, they are:

1. Manage stormwater quantity and quality to the maximum extent practicable (MEP)
 - Implement best management practices (BMP) and retrofit flood control projects to provide water quality benefits.
 - Support site planning and plan review activities.
 - Manage pesticide, herbicide and fertilizer applications.
2. Implement public information activities to increase citizen awareness and support for the program.
3. Meet the following needs of citizens:
 - Address flooding and drainage problems.
 - Maintain the stormwater infrastructure.
 - Protect waterways.
 - Provide the appropriate funding for the program.
4. Implement cost-effective and flexible program components.
5. Satisfy MS4 stormwater permit requirements:
 - Enhance erosion and sedimentation control.
 - Manage illicit discharges, spill response, and remediation.

This Agreement establishes the administrative framework, which will be used by the local governments in Hampton Roads to address certain stormwater management requirements under the above-cited state and federal laws and regulations.

Eighteen local governments in the Hampton Roads Region will be participants in and signatories to the Agreement.

HRPDC RESPONSIBILITIES

Under the terms of this Agreement, the HRPDC staff is responsible for the following:

- Provide technical support and policy analysis related to stormwater and water quality issues to local government staff.

- Provide the necessary administrative, technical and clerical resources to support program activities in order to ensure that the MS4 permit-holding cities and counties meet applicable stormwater management requirements.
- Prepare an annual work program and budget for the Hampton Roads Regional Stormwater Management Program. The annual work program will be incorporated into the HRPDC Unified Planning Work Program and the annual budget will be incorporated into the HRPDC budget.
- Assist the signatories in coordinating reporting on stormwater related activities to other state and federal agencies to ensure that program requirements are met in a cost-effective manner, which minimizes duplicative reporting and the administrative burden on the signatories.
- Conduct a regional stormwater education program. This will include public education activities and may include outreach to specific economic sectors and groups. The stormwater education subcommittee of askHRGreen.org will be responsible for guiding the development of original materials, including publications, media advertising and promotional items. This may also include development of locality-specific materials or coordination of bulk purchases. The stormwater education subcommittee of askHRGreen.org will coordinate with HRPDC staff on the educational and outreach components of the Hampton Roads Regional Stormwater Management Program.
- Develop and conduct a regional training program for municipal employees, contractors, civic leaders and other interested parties. The training program will emphasize stormwater management, pollution prevention and permit issues.
- Respond equitably and in a timely fashion to requests from all signatory local governments for technical assistance. The time frame for responses will be based on experience, the complexity of individual requests and the overall work load of program staff.
- Provide other technical support, as requested, to the signatory local governments.
- Upon request from one or more participating localities, conduct technical studies to support compliance by the localities with MS4 permit requirements and VSMP program requirements.
- Facilitate development of multi-jurisdictional management plans for shared watersheds, as requested.
- Take steps, in conjunction with the signatory local governments, to obtain financial support for program activities from outside sources, including state, federal and private grants, to the extent that this may be accomplished without creating a conflict of interest, as determined by the signatory local governments.
- Contract with and manage consultants, including both private firms and academic

institutions, to support the regional program, including provision of requested services to local governments in excess of the common program elements.

- Represent the Hampton Roads Regional Stormwater Management Program at federal, state, regional and local governmental, civic, professional and political organizations, agencies, and committees.
- Provide technical and administrative support, as appropriate, to those localities that are required to develop stormwater management programs to meet VSMP requirements, but that are not required to obtain MS4 permits for their stormwater discharges.
- Prepare annual program reports, or components thereof, which comply with the provisions of the MS4 permits and stormwater management programs of the signatory localities.
- Facilitate local government involvement in TMDL studies being prepared through the Virginia Department of Environmental Quality and EPA and facilitate preparation of TMDL Implementation Plans for impaired waters in the Hampton Roads Region as requested.
- Prepare an annual report of activities undertaken through the Hampton Roads Stormwater Management Program. This report will include summaries of related activities undertaken on a cooperative basis by the signatories.
- Identify state and federal regulatory actions that may affect local government stormwater programs, serve on regulatory advisory panels (RAPs) as necessary, conduct policy analysis, and develop policy recommendations on behalf of the HRPDC.
- Coordinate the compilation of regional data for MS4 permit annual reports to the appropriate regulatory authority.

LOCAL GOVERNMENT RESPONSIBILITIES

Under the terms of the Agreement, the signatory local governments are responsible for the following:

- Appoint one voting member and alternates, as appropriate, to the Regional Environmental Advisory Committee to represent the local government stormwater and water quality related concerns. Generally, the voting representative should be the MS4 permit or program administrator.
- Appoint a representative and alternates, as appropriate, to the stormwater education subcommittee of askHRGreen.org.

Provide, in a timely fashion, all locally generated data required by their MS4 permits and such other data as may be necessary to accomplish locally requested services.

- Provide timely technical review of HRPDC analyses and conclusions.
- Participate in regional efforts to conduct public outreach and education activities in regard to the state's TMDL study process and efforts to develop TMDL Implementation Plans for impaired waters lying within the locality or within watersheds that include the locality.
- Provide input on regulatory issues to HRPDC staff and serve on RAPs or provide input to the regional RAP representative as appropriate.
- Support HRPDC efforts to obtain additional funding to support the regional programs, to the extent that this may be accomplished without creating a conflict of interest, as determined by the signatory local governments.
- Provide annual funding to support the agreed-upon regional program.

METHOD OF FINANCING

Program costs will be allocated on a pro-rata basis among the local governments. Annual costs will be allocated according to a formula reflecting the local share of regional population. Costs for additional projects or services will be allocated based on a formula developed by the HRPDC staff and approved by the HRPDC with the concurrence of the signatory local governments. The most current estimate of population developed by the Weldon Cooper Center for Public Service/Virginia Employment Commission will be used as the population base for allocating program costs. Local contributions may be adjusted on an annual basis to reflect program experience and projected program expenditures necessary to satisfy permit requirements and local needs. A locality will not be assessed for any services which it refuses in writing.

Individual local governments may request specific services from the HRPDC, which are in excess of the program elements common to all participants. The cost of such services will be borne by the requesting locality or localities.

Financial support from other entities, such as state and federal agencies, and the private sector, may be sought and obtained to support the activities of the Hampton Roads Regional Stormwater Management Program, to the extent that this may be accomplished without creating a conflict of interest, as determined by the signatory local governments..

AVAILABILITY OF FUNDS

Performance by the HRPDC of its responsibilities under this Agreement is subject to the availability of funding from the signatory local governments. Failure of the local governments to provide the necessary funding to support these activities will constitute a Notice to Modify or Terminate the Agreement.

MODIFICATIONS

Modifications to this Memorandum of Agreement must be submitted in writing, approved by the HRPDC, and accepted by all signatories.

DURATION AND TERMINATION

This Agreement will have a term of five years, extending from the date of full execution of the renewed Agreement by the signatories or June 30, 2013, whichever occurs last through June 30, 2018. To conform to local government charter and Virginia Code requirements, the funding provisions of this Agreement will be subject to annual appropriations.

No later than January 1, 2018, the signatories will institute a formal reevaluation of the Hampton Roads Regional Stormwater Management Program. This reevaluation will serve as the basis for appropriate modification of the Agreement and the Hampton Roads Regional Stormwater Management Program.

Any signatory may terminate its participation in the Hampton Roads Regional Stormwater Management Program by written Notice To Terminate to all other parties. Such termination will be effective with the start of the following Fiscal Year. Depending upon the terms of individual VSMP permits, termination of participation in the Hampton Roads Regional Stormwater Management Program in the middle of a permit term may result in changes to permit conditions and require renegotiation of the individual locality's VSMP permit from the state (Virginia Department of Conservation and Recreation).

OWNERSHIP OF PROPERTY

It is not the intent of the signatories that the Memorandum of Agreement will result in the purchase, ownership, leasing, holding or conveying of any real property.

INDEMNITY

It is the intent of the signatories that no signatory will be held liable for any damage or associated penalties caused by or associated with the failure of any other signatory to discharge its duties or to exercise due diligence in discharging its duties under this Agreement, and that no signatory, by entering this Agreement, waives any defenses or immunities available to it at law, including, but not limited to, those set forth in Section 15.2-970 of the Code of Virginia.

It is the intent of the signatories that no signatory will be held liable for any damage or associated penalties caused by or associated with the failure of any other signatory to comply with the terms and conditions of the signatory's VSMP permit.

IN WITNESS THEREOF, the Chief Administrative Officer of the local governments and the Executive Director of the Hampton Roads Planning District Commission hereby execute this Agreement.

City of Chesapeake

By: [Signature]
City Manager

Date: 5/30/13

James City County

By: [Signature]

Date: 6/28/2012

City of Franklin

By: [Signature]

Date: 8/19/13

City of Newport News

By: [Signature]

Date: 7/22/13

Gloucester County

By: [Signature]

Date: July 3, 2013

City of Norfolk

By: [Signature]
Marcus Jones, City Manager

Date: 6/17/13

City of Hampton

By: [Signature]
Mary B. Bunting, City Manager

Date: 6/13/13

City of Poquoson

By: [Signature]
Mayor

Date: 4/22/13

Isle of Wight County

[Signature]
W. Douglas Caskey
County Administrator

City of Portsmouth

By: [Signature]

Date: July 16, 2013

Southampton County

By: [Signature]

Date: 8/28/2013

City of Williamsburg

By: [Signature]

Date: 7/11/13

City of Suffolk

By: [Signature]

Date: 6/6/13

York County

By: [Signature]

Date: 6-14-13

Surry County

By: Tyrone W. Franklin

Date: 7-11-13

Town of Smithfield

By: [Signature]
Peter M. Stephenson
Smith Field Town Manager

Date: June 4, 2013

City of Virginia Beach

By: [Signature]
City Manager or Designee

Date: May 30, 2013

Hampton Roads Planning District Commission

By: [Signature]

Date: 9/11/13

	July	August	September	9/29 All Hands	October	November	December	January	February	March	April	May
Chesapeake			Elizabeth Vaughn									
Gloucester												
Hampton	Eric Asch		Eric Asch		Eric Asch	Eric Asch	Eric Asch	Eric Asch	Eric Asch	Eric Asch	Eric Asch	Eric Asch
Isle of Wight	Kim Thompson, Dore Smith	Dore Kuma	Dore Kuma	Dore Kuma	Kim Thompson	Kim Thompson, Dore Kuma	Eric Asch	Dore Kuma	Dore Kuma	Eric Asch	Dore Kuma	Dore Kuma
James City County	Paul Curran	Dore Kuma	Paul Curran	Dore Kuma	Paul Curran	Paul Curran	Paul Curran	Paul Curran	Paul Curran	Paul Curran	Paul Curran	Paul Curran
King and Queen	Robert Watts	Robert Watts	Robert Watts	Robert Watts	Robert Watts	Robert Watts	Robert Watts	Robert Watts	Robert Watts	Robert Watts	Robert Watts	Robert Watts
King George	Paul Curran	Paul Curran	Paul Curran	Paul Curran	Paul Curran	Paul Curran	Paul Curran	Paul Curran	Paul Curran	Paul Curran	Paul Curran	Paul Curran
King William	Paul Curran	Paul Curran	Paul Curran	Paul Curran	Paul Curran	Paul Curran	Paul Curran	Paul Curran	Paul Curran	Paul Curran	Paul Curran	Paul Curran
Stafford	James Darden, Wayne	James Darden, Wayne	James Darden	James Darden	James Darden	James Darden	James Darden	James Darden	James Darden	James Darden	James Darden	James Darden
Stafford	Dana R. John, Larissa	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel
Virginia Beach	McDermott-Hall	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel
Williamsburg	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel
York	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel	San Knebel
												Meeting Cancelled

3/12 HQ-SDM MEETINGS ATTENDED

BMP 1.4

Phase II Meeting Attendance FY 16-17

Meeting Dates	# Meetings	% Attended
Phase II Localities:		
James City County	9	100%
Poquoson	8	89%
Suffolk	9	100%
Williamsburg	9	100%
York Co.	7	78%

BXP 1.4

BMP 2: Public Involvement & Participation

Appendix

City of Poquoson Annual Report

VAR# 040024

Permit Year 4 (PY4): July 1, 2016-June 30, 2017

Submitted to DEQ September 29, 2017

Updated MS4 Program Plan July 1, 2013 - June 30, 2018
City of Poquoson VAR 040024

2. Public Involvement/Participation							Associated Documents	PY 3 STATUS Appendix p. 62 - 100
BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline			
2.1	Public Involvement							
2.1a	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	askHRgreen.org Representative & IT Department	Annually		Locality website: http://www.ci.poquoson.va.us/278/Environmental-Information	COMPLIANT
2.1b	Annual Report	Post copies of annual report to City website within 30 days of submittal to DEQ.	Presence of materials on website	askHRgreen.org Representative & IT Department	Annually		Locality website: http://www.ci.poquoson.va.us/278/Environmental-Information	COMPLIANT
2.1c	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	askHRgreen.org Representative & IT Department	6 mo. prior to end of permit cycle		Locality website	N/A; PY 5 REQUIREMENT. City staff monitored development of draft MS4 permit.
2.2	Public Participation							

Updated MS4 Program Plan July 1, 2013 - June 30, 2018
City of Poquoson VAR 040024

2. Public Involvement/Participation						
BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline	Associated Documents
2.2	Public Participation in a minimum of four local activities annually	Keep Poquoson Beautiful; Clean The Bay; Drug Take Back; multiple talks at civic groups on Bay TMDL Action Plan and clean water	# events, # of items distributed, # of participants, # of pounds collected, or # of volunteer hours	SW Program Administrator, askH2Rgreen.org Representative	Annually	PY4 Public Education and Participation Events summary spreadsheet in appendix p. 65 - 67. Detailed information on events, including photos of enhanced pond after volunteer event, are found in Appendix p. 68 - 100
						PY 3 STATUS Appendix p. 62 - 100 Compliant. 13 Public Participation events. This year's events included Keep Poquoson Beautiful; two Drug Take Back Days; Earth Day by the Bay inaugural event and Clean the Bay Day. More details are on summary sheet in appendix.
	Evaluation and Assessment	Evaluate and assess progress towards meeting measurable goals.	In accordance with Section II E of General Permit VAR040027	SW Program Administrator	Annually	Annual report Compliant. Volunteer/staff efforts were well attended. Fall volunteer events for PY5 has already been held. In PY 4, at least one other clean up was planned but had to be cancelled because of Hurricane Matthew and other intense fall rain storms.

EVENT	DATE	ATTENDEES	TOPIC, DETAILS:	PURPOSE
Marine Units with the Fire Dept. oil and boom training	Aug. 30, 2016	Marine units with the Fire Dept., VDEM, USCG, York County Fire and Line Safety, NNFD Marine and HAZ-MAT units.	The fire department supported a training activity on marine hazardous waste spills sponsored by VDEM and attended by regional hazardous waste spill responders. The fire department provided air boat support for this training. Poquoson's fire department can provide on call air boat support to local governments, state agencies and federal installations in the event of a significant hazardous waste spill through mutual aid agreements.	Employee training; ongoing support across City lines
Community Participation Team	Throughout the year	10 citizens; survey open to all citizens	The CPT is a citizen community charged with encouraging citizen participation in the Comprehensive Plan process. Part of their charge was developing a survey and analyzing survey results on a wide variety of issues, including environmental issues and future growth and development. The CPT was publicized and selected during the last permit year (see Permit Year 3 report). The team met on a regular basis, creating public involvement programs, staffing outreach efforts and compiling results from public input meetings. The CPT drafted and tabulated a community wide citizen survey. Opportunities for public participation in the survey were publicized on social media, in the newspaper, on the city website and social media, via word of mouth, at public events, through citywide mailings, and via city newsletters. Members of the community development staff provided support and worked with the CPT on this effort.	Public participation
Poquoson Museum recognized by Governor Terry McAuliffe	Sept. 15, 2016	Ongoing volunteer activity by master gardeners and museum foundation; the City of Poquoson staff provides support as needed to these groups	Governor McAuliffe recognizes the Poquoson Museum in four areas of distinguished awards. The Learning Garden and Pollinator Garden, (Phase 1 and 2), the Colonial Beekeepers Association Learning Bee Yard and the Treescaping along the Marsh Walk Nature Trail. Events advertised via museum publications and social media.	Public education and participation
Keep Poquoson Beautiful Fall 2016 Event	Planned for September and then October; postponed in September due to intense rain; cancelled in October because of Hurricane Matthew	none; 50 anticipated	The Public Works staff with support from the Engineering Department planned site and shore line clean ups in September 2016. The event was to be attended by staff members from both departments. The event was postponed once and then cancelled because of severe weather.	Public participation
Poquoson Seafood Festival	October 14-16, 2016	Attendance was estimated to be 45,000-50,000 over the three day event	The Poquoson Seafood Festival is held at Municipal Park and is the city's largest attended event. It is advertised on the City's website; in social media; via a website; and is featured by state tourism groups and media. City staff members volunteer to work throughout the event and operate an information stand that provides environmental information and handouts to interested attendees. The Festival is also operated by volunteers from the community.	public participation
Drug Take Back Fall Event	22-Oct-16	number of participants not tracked; the police department collected 128 pounds of drugs that were turned in.	The Poquoson police department partnered with the Poquoson pharmacy to hold a fall drug take back event at the pharmacy. This event is intended to improve water quality and reduce drug abuse by collecting unused prescription drugs so that they do not end up being released into waterways (after being flushed away) or in the hands of drug abusers. The previous year event was so popular that two events were held in FY 17. The event was held on the same day that other regional communities held their events and was advertised via regional advertising; flyers; and on the City website and	public participation

MAP 2.2

Permit Year 4 Public Education and Participation Events

Library Garden registered by the National Wildlife Federation	Week of Oct. 20, 2016	Ongoing staff/volunteer activity	The Library Garden was registered by the National Wildlife Federation as a "Certified Wildlife Habitat". Four essentials for wildlife were met in order to achieve certification: food, water, cover, and places to raise young. The learning garden is an ongoing volunteer activity, supported and manned by library staff and the Friends of Poquoson Library community group. Work and volunteer opportunities are advertised on the City's library website; on the library newsletter, and on the Friends of the Poquoson Library Facebook page.	Public education and participation
Colonial Beekeepers Association speak at Poquoson Public Library	Jan. 28, 2017	34	The library staff hosted a presentation on the basics of beekeeping and equipment needed for backyard beekeeping.	Public Education
DEQ to host a public meeting on TMDL's for Poquoson waterways	Feb. 3, 2017	20	The purpose of the meeting is to provide information and discuss the draft modifications of the Total Maximum Daily Loads with community members and local government. The event was advertised on the City website and social media. DEQ also advertised the event. The City Engineer attended the meeting.	Public Education
U. S. Fish and Wildlife to host two public meetings on Plum Tree Island National Wildlife Refuge	Feb. 23, 2017	attendance was not tracked; over 50 people were estimated to have attended.	Staff members were in attendance to answer any questions regarding the City (adjacent to Plum Tree) and to hear citizen comments. These were U.S. Fish and Wildlife Service public meetings. The City advertised the meetings on the City website and social media.	Public education and participation
Community Recreation's inaugural "Earth Day" By The Bay Spring event at Messick Point	22-Apr-16	estimated to be 150 attendees	A children's show and fair focused on water quality issues. The event featured a water model, puppet show and various children's activities on the environment. The event was advertised on the City website and social media and through the parks and recreational department publications. Staff attendees included parks and recreation department staff and the City's floodplain manager.	Public education and participation
Sierra Club Restoring the Chesapeake Bay Roundtable	17-May-17	30 attendees	The City Engineer was scheduled to speak at the Sierra Club to update the group on Poquoson's Bay TMDL actions. After an unexpected illness, the event was attended by City Councilwoman Jana Andrews. The City Engineer provided background information to Councilwoman Andrews prior to the event.	Public Education
Drug Take Back Spring Event	22-Oct-16	number of participants not tracked; the police department collected 176 pounds of drugs that were turned in.	The Poquoson police department partnered with the Poquoson pharmacy to hold a fall drug take back event at the pharmacy. This event is intended to improve water quality and reduce drug abuse by collecting unused prescription drugs so that they do not end up being released into waterways (after being flushed away) or in the hands of drug abusers. The previous year event was so popular that two events were held in FY 17. The event was held on the same day that other regional communities held their events and was advertised via regional advertising, flyers, and on the City website and	public participation
Keep Poquoson Beautiful: Plant Swap	13-May-17	Not tracked	Public Works staff hosted a plant swap for the City's gardeners. Citizens were encouraged to bring plants for trading with other citizens. This is an annual event intended to kick off and draw attention to the Keep Poquoson Beautiful program and to encourage planting more plants in yards, rather than using turfgrass. Keep Poquoson Beautiful events were publicized using posters; notices in the City's newsletters; the City's website; social media; and staff outreach to past participants.	Public participation

BMP 22

Permit Year 4 Public Education and Participation Events

Keep Poquoson Beautiful Spring Event	29-Apr-17	30 volunteers; 13 cubic yards of debris collected; extensive native species plantings	Public Works staff coordinated day long volunteer events throughout the City. This annual event encourages planting more plants, beautifying the city, and being more environmentally friendly. Projects included planting more than \$16,000 worth of native species; litter pick up; raking, weeding and waterway cleaning. Keep Poquoson Beautiful events were provided educational flyers and giveaways. The event was publicized through posters, notices in the City's newsletters; the City's website; social media; and staff outreach to past participants.	Public participation
Statewide "Clean the Bay Day" at Messick Point	June 3, 2017	more than 30	Community Recreation Department coordinated a volunteer clean-up effort at Messick Point as part of the Statewide "Clean the Bay Day" effort on Saturday, June 3 at Messick Point. More than 30 volunteers participated removing approximately 550 pounds of trash.	Public participation
Bay Star Homes	Year Round	Number available from Ask4RGreen	Ongoing opportunity for citizens to pledge to take actions in their daily lives that will support water quality for the Chesapeake Bay. This program is gaining momentum in Poquoson and was recognized by City Council in PY3	Public participation
HRSD SWIFT program public presentation	26-Jun-17	City Council public meeting open to public; televised on local access channel and rebroadcast on City media.	Public presentation on the Sustainable Water Initiative for Tomorrow (SWIFT) program. This HRSD program is intended to improve water quality by limiting WWTP releases and will hopefully help with subsidence.	Public Education

BMP 2.2

From: Dannan OConnell
Sent: Friday, September 15, 2017 1:01 PM
To: Ellen Roberts
Subject: RE: Comp plan citizen committee

The following is an excerpt from the new Comp Plan draft detailing the CPT's activities. I've tried to underline some of the info relevant to your questions. As of now the CPT has been disbanded and will not be conducting any more activities for the City.

Let me know if you want any of the comments/survey data they collected; a number of comments did relate to environmental management.

-Dannan

City Council appointed a Community Participation Team, composed of 10 Poquoson residents, responsible for encouraging citizen participation in the Comprehensive Plan update process. The team met on a regular basis from June of 2016 through July of 2017 and designed public involvement programs, staffed outreach efforts, and compiled the results of public input meetings. It also drafted and tabulated a community-wide citizen survey on the Comprehensive Plan and associated issues of community planning and land use.

The CPT met in full session a total of 11 times between August and December, 2016.

The CPT Survey Team met a total of 10 times from January through May, 2017.

Citizen Outreach Efforts

The Community Participation Team began with outreach and advertising efforts to generate interest in the Comprehensive Plan update process, and to better understand citizen opinions on issues of land use and community development. The Team began by creating comment cards asking general questions about the present and future of Poquoson as a community. These comment cards were passed out to citizens by Team members in public places from September through October, as well as during the 2016 Poquoson Seafood Festival. Comments were also collected online through the City website from August through October.

Public Meeting and Discussion Session

The Community Participation Team conducted a public meeting on October 18, 2016 at the Poquoson High School. The meeting was advertised in the Daily Press, in the Island Tide, on the City website and social media, and on flyers sent to homes within City utility bills. The public meeting was facilitated by Dr. Michael Chandler, Director of Education for the Citizen's Planning Education Association of Virginia. Forty members of the public and six high school student volunteers attended. Participants were asked to rotate among seven tables representing seven major topics within the Comprehensive Plan, where they could join in discussions and then record their thoughts and comments on blank index cards. Citizens were encouraged to voice their opinions, likes, concerns, and their outlook for the future on each of the following topics:

- *Housing*
- *Economic Development*

- *Quality of Life*
- *Infrastructure and Transportation*
- *Community Services*

- Environmental Management
- Land Use

Citizens Opinion Survey

Beginning in January of 2017 the Community Participation Team, assisted by their Steering Committee, the Poquoson Planning Commission and City staff began developing a “Citizen Opinion Survey” to gather additional citizen comments for the Comprehensive Plan Update Process. The Team developed a self-administered four page survey with a variety of questions on land use and community development, based on public feedback that the Team received through their previous outreach efforts, including public comment cards and the Comprehensive Plan Public Meeting. This included several questions regarding environmental/stormwater management and open space preservation.

The survey was approved by the Poquoson Planning Commission and mailed to citizens beginning on June 7, 2017. Each Poquoson household (over 4,700) was provided a paper copy of the survey via U.S. mail for their input. The survey included a postage-paid return envelope to facilitate the easy return of completed surveys to City Hall.

Collection and Consideration of Public Comments

The Community Participation Team, Steering Committee, City staff and several citizen volunteers began tallying returned surveys beginning on June 26, 2017. A total of 1,303 surveys (representing a 28% response rate) were received and tallied before the Team's deadline to present their results to the Planning Commission on July 17, 2017. Note that any surveys not submitted on official paper, or received after July 14, 2017, were not included in this tallying effort.

All received public comments were subsequently typed, edited and bound. The citizen opinion survey results were also tallied, summarized and bound. Copies of all the citizen comments were made available for citizen review on the City website and the Poquoson Planning Department.

From: Ellen Roberts
Sent: Tuesday, September 12, 2017 3:55 PM
To: Dannan OConnell
Subject: Comp plan citizen committee

Dannan: I am preparing the annual report for the MS4 permit and need to include some information on the citizen participation on the Comp Plan. Specifically, I'm looking for:

- # of citizens on the committee
- What they do (especially as it might relate to environmental input or activities)
- How often they met (approximately)
- Any future roles

I know you have a deadline this Friday....would it be possible to hear back from you mid-week next week?

Ellen W. Roberts, P.E.
City Engineer
500 City Hall Avenue
Poquoson, Virginia 23662-1996
Ellen.roberts@poquoson-va.gov
(757)868-3025
(757)868-3105 fax

Keep Poquoson Beautiful Saturday, September 24, 2016

Event Coordinators: Bodina Wright (236-3078)

Site: Oxford Run Trail

Site Manager: Anne Payne

Volunteer Manager:

Re-establishment of Oxford Run Trail

- Install dirt on access road
- Seed
- Straw
- fertilizer
- If possible remove existing straw



(POST PAVED & THEN
CANCELLED DUE TO
WEATHER)

Tools / Materials Needed –

City to Provide

- Dirt
- Seed
- Straw
- Fertilizer
-

Volunteers to Provide

- Shovels
- Rakes
- Gloves
- Wheelbarrows
- Closed toe shoes

Volunteers Needed -

THANK YOU

from KAB, The City of Poquoson, and especial Evie & Bodina

BNAP 2.2

Ellen Roberts

From: Randy Wheeler
Sent: Tuesday, August 23, 2016 10:51 AM
To: Ellen Roberts
Cc: Bodina Wright
Subject: Re: Volunteer project

Sounds really good to me. And as always we could use help picking up roadside litter in many places including messick point

Sent from my iPhone

On Aug 22, 2016, at 3:41 PM, Ellen Roberts <Ellen.Roberts@poquoson-va.gov> wrote:

Randy: Bodina has been contacted by a church group with approx. 100 volunteers who would like to do landscaping work on September 24th. She contacted us about the pond site. We won't be able to do any planting at that time since we won't have a master plan for the site or sufficient time to round up some bushes. However, we may be able to have some clean up: raking up straw; cutting and removing jute mat, and maybe installing some additional top soil. I've talked with Tom on this, and we are going to meet next week. We would need Public Works help with straw and jute mesh disposal, and with obtaining some additional topsoil.

We won't know the exact volunteer tasks/extent of work until we are a bit closer to the 24th. We need to see the as built surveys (surveyor is out there today) and see how the contractor addresses the outstanding items. At the very least we can do some cleanup on the north side of the access path and on the easterly side of the pond. Hopefully we'll be able to work on the entire site.

Thoughts?

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City Engineer
500 City Hall Avenue
Poquoson, VA 23662
(757)868-3025
(757)868-3105 fax

BMP 2.2

Ellen Roberts

From: Bodina Wright
Sent: Tuesday, October 04, 2016 9:55 AM
To: Chuck Kurowski
Cc: Anne Payne; Ellen Roberts; Thomas Jones; Michael Snapp
Subject: RE: Keep Poquoson Beautiful

Chuck -

As I watch the Weather Channel with the ever changing forecast I have to wonder what the weather is going to be like this weekend. Yesterday forecast was bright and sunny skies for Saturday and today they are forecasting 90% chance of rain. I am also wondering where HC Matthew is going to make landfall and when he will make landfall.

For me the homeowner and daughter of elderly parents, I am make plans in my head of what I have to put up and secure and how do I convince my parents they need to leave this area. For me the Poquoson Public Works Employee, I am already in storm prep and wondering if I will have the manpower to prep and work this event because I cannot pull manpower off of storm prep for a beautification project.

At this point and time, I have not make a decision one way or the other because as we all know HC Matthew may decide to make a right turn or lose all of his power. If you and your wonderful group have voice concerns and would look to call off the weekend project, we (site managers and myself) are ok with that decision. Also if you do decide to call it we need to know if you want to reschedule in a couple of weeks or try again later in the year, possible next year.

In conclusion, I am very thankful to you and your group and will try to do whatever you decide.

Thank you,

Bodina Wright

-----Original Message-----

From: Chuck Kurowski [mailto:cpksjk@cox.net]
Sent: Wednesday, September 21, 2016 1:32 PM
To: Bodina Wright
Subject: RE: Keep Poquoson Beautiful

Let's move them all to the rain date. Thanks and see you then!

-----Original Message-----

From: Bodina Wright [mailto:Bodina.Wright@poquoson-va.gov]
Sent: Wednesday, September 21, 2016 1:10 PM
To: Chuck Kurowski
Subject: RE: Keep Poquoson Beautiful

Chuck -

BRAP 2.2

Ellen Roberts

KEEP POQUOSON BEAUTIFUL FALL EVENT

From: Bodina Wright
Sent: Wednesday, September 21, 2016 1:39 PM
To: Chuck Kurowski
Cc: Ellen Roberts; Anne Payne; Michael Snapp; Ronald Belknap; Chad Krejcarek; Thomas Jones; Robert Speechley; Bradley Wilkins; Jerry Cagle; Evie Insley
Subject: RE: Keep Poquoson Beautiful

Everyone -

KPB has been moved to the rain date October 8, 2016. See you at then.

Thank you,

Bodina Wright

-----Original Message-----

From: Chuck Kurowski [<mailto:cpksjk@cox.net>]
Sent: Wednesday, September 21, 2016 1:32 PM
To: Bodina Wright
Subject: RE: Keep Poquoson Beautiful

Let's move them all to the rain date. Thanks and see you then!

-----Original Message-----

From: Bodina Wright [<mailto:Bodina.Wright@poquoson-va.gov>]
Sent: Wednesday, September 21, 2016 1:10 PM
To: Chuck Kurowski
Subject: RE: Keep Poquoson Beautiful

Chuck -

Do to the abundance of rain we are not going to be able to work at Oxford Run this weekend. This leaves us with 2 options, move all projects to our rain date or do all but Oxford Run this weekend and work Oxford Run on the rain date. I will leave the decision up to you.

Thank you,

Bodina Wright

-----Original Message-----

From: Chuck Kurowski [<mailto:cpksjk@cox.net>]
Sent: Monday, September 19, 2016 8:46 AM
To: Bodina Wright
Subject: RE: Keep Poquoson Beautiful

CANCELLED BECAUSE
OF HURRICANE
MATTHEW

Ellen Roberts

Poquoson Seafood Festival

From: Gretchen Gochenour
Sent: Wednesday, September 07, 2016 12:42 PM
To: Employees
Subject: Poquoson Seafood Festival- Information Booth

Everyone,

- SEE BMAP 1 FOR WATER QUALITY
HANDOUTS # & TYPE

If you would like to volunteer to assist or staff the Poquoson Seafood Festival Informational Booth, we are currently recruiting volunteers for this job.

Together with the Parks and Recreation Advisory board and potentially the Library board, we are looking for folks to assist in the information booth.

We have shifts for Friday evening, October 14, Saturday, October 15 and Sunday, October 16.

All volunteers get a t-shirt and a parking pass for the day you work.

Please email me back if you would like to work a shift and a preferred day, we really appreciate any help you could lend us!

Thanks
Gretchen Gochenour,
Office of Community Recreation

BMAP 2.2

DRUG TAKE BACK EVENT - FALL 2016

Approved Registration with Collection Sites Report

Virginia NTBI 12 Results (October 22, 2016)		
Total Weight (Lbs.)		(Scroll to the bottom for historical results)
		23270

5	Poquoson Police Department	Poquoson Pharmacy	128
5	Portsmouth Police Department	Portsmouth Safety Town	3.5
5	Portsmouth Police Department	Portsmouth Fire Department Station #3	25.5
5	Portsmouth Police Department	Portsmouth Police Department Hqtrs	5
5	Smithfield Police Department	CVS Pharmacy	50
5	Surry County SO	Surry County Gov't Center	40
5	USS Abraham Lincoln	USS Abraham Lincoln	2
5	Virginia State Police	Virginia State Police Division Area 47 Station	101.5
5	Williamsville Police Department	Williamsville Police Department	107.5

Ellen Roberts

BACTERIAL TMDL DEVELOPMENT

From: Ellen Roberts
Sent: Wednesday, March 22, 2017 3:26 PM
To: 'Katherine Filippino'
Subject: RE: Back_Poquoson TMDLs timeline

Thanks. I am glad to see that this version retained the comments about not killing wildlife...we had them add that to the 2014 reports. The wording came from a TMDL on the Eastern Shore near the Blackwater Wildlife Refuge.

I thought of one more comment: How in the world are we supposed to reduce the bacterial loads in wetlands, when they aren't under our jurisdiction?

From: Katherine Filippino [<mailto:kfilippino@hrpdcva.gov>]
Sent: Wednesday, March 22, 2017 3:11 PM
To: Ellen Roberts; Jill Sunderland; Brogan, Joseph ; Grist, Joe; Watts, Allison; Surita, Sharon
Subject: RE: Back_Poquoson TMDLs timeline

Hi Ellen,

I started going through the reports and those are the exact same comments I have at the moment. The documents are very similar to 2014. If I see anything else I'll be sure to share.

-KC

From: Ellen Roberts [<mailto:Ellen.Roberts@poquoson-va.gov>]
Sent: Wednesday, March 22, 2017 9:15 AM
To: Jill Sunderland; Brogan, Joseph ; Grist, Joe; Watts, Allison; Surita, Sharon
Cc: Katherine Filippino
Subject: RE: Back_Poquoson TMDLs timeline

I'm still going through the documents and will likely have only two comments:

- They could have used better land use data. There are an awful lot of wetlands labelled as grassland or forest. We had better land data, but weren't provided the opportunity to provide input in this area.
- The reports say that they looked at the MS4 service areas, but I haven't seen any discussion on how they factored those service areas in to the TMDL WLA. It doesn't appear that the MS4s were assigned a WLA that was prorated based on what lands they actually control under their MS4 permits.

Any other thoughts are welcome! Feel free to point out whatever I've missed....

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(757)868-3105 fax

BMP 2.2

BACTERIAL TMDL DEVELOPMENT

From: Jill Sunderland [<mailto:jsunderland@hrpdcva.gov>]

Sent: Tuesday, March 21, 2017 9:24 AM

To: Brogan, Joseph ; Grist, Joe; Watts, Allison; Surita, Sharon; Ellen Roberts

Cc: Katherine Filippino

Subject: FW: Back_Poquoson TMDLs timeline

Good morning, All –

I asked Rachel at the meeting last week what kind of schedule we could expect for finalizing the TMDLs. She sent me the response below.

Jill

From: Hamm, Rachel (DEQ) [<mailto:Rachel.Hamm@deq.virginia.gov>]

Sent: Friday, March 17, 2017 2:32 PM

To: Jill Sunderland

Subject: Back_Poquoson TMDLs timeline

Hi Jill,

Here is the timeline for the Back and Poquoson TMDL modifications. It is our goal to be able to take the TMDLs to the September SWCB meeting. All of this, of course, depends on the public comments and the ability for the EPA to review and provisionally approve the TMDLs. Due to all of the public participation requirements involved with SWCB meetings, the EPA provisional approval must be completed 3 months in advance of the meeting. So if we experience any hang-ups, we will have to push back to the December SWCB meeting. We will see how the comments go and work from there. Thanks!

Start Date	Complete Date	Submittals
3/16/2017	3/16/2017	Public Meeting
3/17/2017	4/17/2017	Public Comments (30 days)
4/17/2017	5/1/2017	Public Comments Addressed / TMDL Finalized (2 weeks)
5/1/2017	6/21/2017	EPA provisional Review (7 weeks)
September	September	SWCB
September	October	EPA Approval

Rachel Hamm

TMDL Coordinator

Virginia Dept. of Environmental Quality

Tidewater Regional Office

757-518-2024

BMAP 2.2

U.S. Fish & Wildlife Service

Plum Tree Island National Wildlife Refuge

*Release of Draft Comprehensive Conservation Plan
and Environmental Assessment—January 2017*

USFWS

Greetings from Plum Tree Island National Wildlife Refuge!

The U.S. Fish and Wildlife Service (Service, we) is pleased to announce the release of a draft Comprehensive Conservation Plan (CCP) and Environmental Assessment (EA) for Plum Tree Island National Wildlife Refuge (NWR). The draft CCP and EA is now available for a 60-day public review and comment period that closes on March 13, 2017.

In this newsletter, we summarize the two different management alternatives we evaluated for the refuge. We also explain how you can obtain and comment on the draft CCP and EA and provide details about upcoming public meetings.

The Refuge

Plum Tree Island NWR is located in Poquoson, Virginia, in the southeastern portion of the York-James Peninsula and approximately 7 miles north of Hampton, Virginia.

What is a Comprehensive Conservation Plan?

A CCP is a 15-year strategic plan guiding management for all refuge programs. Each CCP will be revised at least every 15 years, or sooner if significant new information becomes available or conditions change.

Service staff began preparing a CCP for Plum Tree Island National Wildlife Refuge in January 2012.

The refuge was established on April 24, 1972 to protect the largest contiguous salt marsh ecosystem in the lower Chesapeake Bay and as an inviolate migratory bird sanctuary.

Located along the Atlantic Flyway, the 3,502-acre refuge offers diverse salt marshes, tidal streams, and wooded ridges that support waterfowl, marsh and wading birds, and shorebirds throughout the year. Sandy beaches offer secluded habitat for breeding and nesting wildlife, including avian, reptile, and insect species of conservation concern.

Plum Tree Island NWR offers a rare opportunity for residents and visitors of the Hampton Roads area to safely enjoy expansive views of abundant wildlife thriving in these important, vulnerable, and scarce salt marshes. In partnership with others, the refuge's wildlife habitats support the rich traditions of hunting, fishing, and boating in the Chesapeake Bay.

Plum Tree Island NWR is one of four refuges managed by the Eastern Virginia Rivers NWR Complex.



Matt Tillett; USFWS; Brian Henderson

Clapper rail; horseshoe crabs mating; saltmarsh sparrow

Draft Goals

Goal 1. Conserve the coastal estuarine ecosystem to sustain high ecological integrity for the benefit of native flora and fauna, with emphasis on priority refuge resources of concern, within the lower Chesapeake Bay.

Goal 2. Provide safe and compatible wildlife-dependent recreational opportunities for visitors to connect with nature and foster enhanced stewardship of the lower Chesapeake Bay and the Refuge System.

Goal 3. Cultivate partnerships to further conservation, education, and interpretation of the refuge's natural and cultural resources, as well as the mission of the Refuge System.

Management Alternatives Considered

Both of the two alternatives aim to achieve the refuge's purposes, vision, and goals. We highlight key differences between the alternatives below. Complete descriptions of each alternative are in chapter 3 of the draft CCP and EA. A detailed analysis of the potential impacts resulting from implementation of either alternative is in chapter 4 of the draft.

Alternative A - Current Management

This alternative describes current refuge management priorities and activities. It serves as a baseline for comparing alternative B.

Wildlife and Habitats

Continue to protect the refuge's wildlife habitats by allowing natural processes to act unimpeded and focusing on limiting human-caused disturbance of refuge habitats and wildlife.

Public Uses

Continue to administer waterfowl hunt on the refuge in accordance with the approved waterfowl hunt plan.

Partnerships

Continue to:

- Coordinate with other Federal, State, and local government agencies, and private research organizations regarding research conducted on or around the refuge.
- Enforce refuge regulations to protect public safety.
- Coordinate with other Federal, State, and local law enforcement agencies regarding public uses on and around the refuge.

Alternative B - Increased Ecosystem Monitoring, Partnerships, and Public Use (Service-preferred Alternative)

Alternative B is the Service-preferred alternative because it combines the actions we believe would best achieve the refuge's purposes, vision, and goals; respond to key issues; conserve the coastal estuarine ecosystem; cultivate partnerships to further conservation, education, and interpretation; and provide safe and compatible wildlife-dependent recreation opportunities on Cow Island.

Wildlife and Habitats

- Further protect coastal habitats by working to eradicate invasive species and control erosion.
- Initiate the Salt Marsh Integrity Index to regularly monitor habitat status.
- Increase monitoring of northeastern beach tiger beetle, black skimmer, northern diamondback terrapin, and migrating and nesting shorebirds.

Public Uses

- Investigate up to five potential new blind locations on the northern end of the refuge.
- Promote Apprentice Hunter opportunities through the regularly administrated hunt and host a special youth waterfowl hunt day in the fall.
- Open one location on Cow Island for recreational and commercial wildlife observation, photography, environmental education, and interpretation, allowed outside the waterfowl hunt season.

Partnerships

- Work with a greater diversity of partners to help conduct refuge wildlife and habitat research, as well as to promote priority public uses.



USFWS

Shorebirds

BNAP 2-2

Public Meetings

Please consider attending either of the upcoming public meetings about the draft CCP and EA for Plum Tree Island NWR.

At each meeting, we will give a short presentation on the draft CCP and EA, followed by an open house. Attendees will have opportunities to speak directly with the planning team and ask questions about the plan. We will provide comment forms for meeting attendees to submit written comments.

February 23, 2017

2:00pm to 4:00pm

Presentation begins at 2:15pm

6:00pm to 8:00pm

Presentation begins at 6:15pm

Poquoson City Council Chambers

500 City Hall Avenue • Poquoson, VA 23662

The Service is committed to providing access to these meetings for all participants. Please direct all requests for sign language interpreting services, closed captioning, or other accommodation needs to Meghan Powell, 804/313-7729 (telephone), Meghan_Powell@fws.gov (email), or 800/877-8339 (TTY) by close of business February 15, 2017.



Black skimmers



American black ducklings

Peter McGowan/USFWS

How to Obtain a Draft Plan and Provide Comments

You may view and download the draft CCP and EA online:

http://www.fws.gov/refuge/Plum_Tree_Island/what_we_do/conservation.html. To request a hard copy or CD-ROM see the contact information below.

We invite you to share your comments about the draft plan in writing or at our public meetings. We will accept letters, faxes, phone calls, and emails during a 60-day comment period. To be considered, all comments must be received or postmarked by March 13, 2017.

Contact Information

Email: EasternVirginiaRiversNWR@fws.gov

(Please put "Plum Tree Island CCP" in subject line)

Mail: Meghan Powell, Natural Resource Planner

Eastern Virginia Rivers NWR Complex

336 Wilna Rd

Warsaw, VA 22572

Phone: 804/313-7729

Fax: 804/333-3396

U.S. Fish & Wildlife Service

<http://www.fws.gov>

800/344-WILD

Federal Relay Service for the

Deaf or Hard of Hearing

800/877-8339

January 2017



BMP 2-2

Ellen Roberts

EARTH DAY BY THE BAY

From: Gretchen Gochenour
Sent: Friday, February 10, 2017 12:45 PM
To: Sherry Coffey
Cc: Ellen Roberts
Subject: HR Green

Sherry,

I briefly spoke with Ellen about our Earth Day program we will be having at Messick Point on April 22 for kids and families.

She suggested that one of the things we think about having at the event is the HR Green trailer/mobile.

Could you help me with contacts and so on about getting that here for the event and who I should call to make that request.

I would be most grateful,

Gretchen

BMP 2.2

Ellen Roberts

SIERRA CLUB EVENT

From: Randie Trestrail <randiesue@gmail.com>
Sent: Thursday, April 27, 2017 3:35 PM
To: Ellen Roberts
Subject: Re: Restoring the Chesapeake Bay Roundtable, Part II May 17th

Hi Ellen,

Okay. Sorry to hear about your surgery. Do you think Karen Holloway could present for you? If not, then I'll review your information and present it for you. I might have to ask some clarifying questions. Or, perhaps one of city council members would present it. As you may recall at the last program we had one of the York Co. Board of supervisors presented. It would be a good educational experience for them

Thoughts?
Randie

On Thu, Apr 27, 2017 at 9:20 AM, Ellen Roberts <Ellen.Roberts@poquoson-va.gov> wrote:

Randie, I just found out that I will probably be recovering from surgery on the 17th! I am so sorry to have to cancel on you, but I plan to provide a written summary of our program (if that helps). If for some reason they postpone surgery, I'll let you know and do my best to show up. You should receive the summary by the end of the day on Tuesday (otherwise, call and yell at me).

So sorry,

Ellen W. Roberts, P.E.

City Engineer

500 City Hall Avenue

Poquoson, Virginia 23662-1996

Ellen.roberts@poquoson-va.gov

[\(757\)868-3025](tel:(757)868-3025)

[\(757\)868-3105](tel:(757)868-3105) fax

BMP 2.2



CITY OF POQUOSON

ENGINEERING

500 CITY HALL AVENUE, POQUOSON, VIRGINIA 23662-1996
(757) 868-3040 TELEPHONE (757) 868-3105 FAX

SIERRA CLUB
EVENT

INFORMATION USED BY
POQUOSON REPRESENTATIVE
AT EVENT

January 4, 2016

TO: Councilwoman Jana Andrews
THROUGH: Randy Wheeler, City Manager
FROM: Ellen Roberts, City Engineer

RE: Chesapeake Bay TMDL Action Plan Revision: Current Status Information for the Sierra Club meeting

The City of Poquoson Chesapeake Bay TMDL Action Plan for 2013-2018 was drafted this summer and made available on line for public comment. The Virginia Department of Environmental Quality approved the Action Plan on February 8, 2016.

Last summer the City constructed two stormwater features near its City Hall property: A constructed wetland and a stormwater pond. These two best management practices (BMPs), combined with septic tank conversions to sewer hookups and land use changes from developed to fallow land, are sufficient to meet and exceed the 5% reductions in phosphorous, nitrogen and sediment required by July 2018.

So...what is next for the City? We are still working on the two new BMPs. A large scale planting of native plants was an emphasis of this year's "Keep Poquoson Beautiful" event. We are in the process of algae removal and installing an aerator in the other BMP. We expect the aerator to be operational in the next two months, and plan to follow up this work with aquatic/wetlands plantings this fall, the optimum time to do this sort of planting. The algae issue has been an interesting demonstration of the impacts of fertilizer on water pools. The first BMP has minimum algae. It receives drainage from the City Hall property. This property has a nutrient management plan and receives minimal to no fertilizer. The BMP experiencing the algae problem is downstream of residential and commercial properties that very likely do not have nutrient management plans, and may experience over fertilization. The difference between the two facilities is striking. City staff plan to include information on fertilization and nutrient management in future articles for citizens.

Next year we will be developing a Chesapeake Bay TMDL plan for the second phase of the program occurring during the 2018-2023 time period. The City's permit requires that

BMP 2.2

Poquoson reach 40% of the Bay TMDL goal by 2023. We are looking for options that are compatible with the City's coastal environment, high groundwater table, and predominantly silty clay soils. Options under consideration include but are not limited to increased street sweeping, vegetated filters, nutrient credit trading, more ponds or wetlands, street sweeping, and trying to gain credit for oyster aquaculture and other more innovative practices. Nutrient credit trading would most likely occur through participation in HRSD's SWIFT program.

What are the biggest challenges? First of all, Poquoson's soils, groundwater table and drainage issues limit our BMP options. Infiltration-based practices have a limited potential for success. Traditional practices like ponds or constructed wetlands require a great deal of maintenance. These structural practices are also challenging in that there are a lot of projects being built, and not as many knowledgeable contractors. Our contractors are the low bidders on the project, and sometimes the low bidders do not have the expertise that we would like. Poquoson is also limited in that there is minimal developable land remaining for new projects. These challenges are leading staff to look toward more innovative ways to meet the Bay TMDL goals.

Poquoson drains to the Lower Chesapeake Coastal Watershed. This watershed is "lumped in" with the York River watershed for the purpose of the Bay TMDL. Our pollution reduction requirements are based on an average of the water quality in the York River, rather than the less polluted waters of the lower Chesapeake Bay. Nitrogen and sediment are likely to be the most challenging as we move forward with the next phase of BMP selection. A concern is that, regardless of how much we improve the quality in the lower Bay, our projects do not impact, did not cause and cannot correct the water quality in the actual York River. Many of the communities in the York River watershed do not have stormwater permits (they are unregulated) and are not required to provide Bay TMDL retrofits. By averaging pollution removal requirements over an entire watershed, coastal communities find themselves having to do more than what is warranted by local water quality. The question of what will happen when the upper reaches of the York River do not improve (because of the large amount of nonregulated land that actually drain to the river) has yet to be answered.

DRUG TAKE BACK EVENT SPRING 2017

Approved Registration with Collection Sites Report

Virginia NTBI 13 Results (April 29, 2017)			
Total Weight (Lbs.) (scroll to the bottom for historical results)			26975
VSP Div.	Participant Name	Site Name	Weight Collected
VSP Div.	Participant Name	Site Name	Weight Collected
5	Chesapeake Police Department	Chesapeake Police - 2nd Precinct	25
		Chesapeake Police - 3rd Precinct	48
		Chesapeake Police - 4th Precinct	125
5	Chesapeake Sheriff's Office	Chesapeake Sheriff's Office	249
5	Gloucester County Sheriff's Office	Gloucester Pharmacy	47
		Walgreens Pharmacy	55
5	Hampton Police Division	Sentara Careplex Parking Lot	91
5	Hampton Sheriff's Office	Carmel Center	108
5	James City County Police Department	James City CO PD	363
5	Langley Air Force Base	Langley AFB Hospital Pharmacy	40
		Langley AFB Satellite Pharmacy	
5	McDonald Army Health Center	Fort Eustis PX	15
5	Newport News Police Department	Newport News PD North Precinct	230
		Newport News PD Central Precinct	147
		Newport News Pd South Precinct	12
5	Norfolk Police Department	Norfolk PD 3rd Division	150
		Norfolk PD Operations Center	125
		Norfolk PD Training Center	135
5	Norfolk State University Police	Norfolk State University Police	6
5	Northampton County Sheriff's Office	Northampton County Sheriff's Office	40
5	Poquoson Police Department	Poquoson Pharmacy	176
		Portsmouth Safety Town	
		Portsmouth Fire Department Station #3	
5	Portsmouth Police Department	Portsmouth Police Department Hqtrs	3
		Smithfield PD	32
5	Suffolk Police Department	Bennett's Creek Pharmacy	245
		Rite Aid Pharmacy	104
5	Surry County SO	Surry County Gov't Center	10
5	Virginia State Police	Virginia State Police Division Area 47 Station	62
5	Williamsburg Police Department	Williamsburg Police Department	172
5	York-Poquoson Sheriff's Office	York-Poquoson SO D.A.R.E. Office	147
Total Weight collected within VSP Division 5			3060

BMP 2.2

April 29, 2017

SAVE THE DATE

Keep Poquoson Beautiful

2017

Just as a reminder Keep Poquoson Beautiful started as the Great American Clean Up which was the title for Keep America Beautiful program for 2012. Our first year we re-ramped Messick Park and picked up Messick Point over the four years we have continued to pick up litter and a few other projects such as plantings at the War Memorial, WCR & Victory Blvd, and the Rain Garden at Public Works. But I do believe our most noticed project was the murals on the pump stations BUT Evie believes it is the War Memorial plantings.

We have been able to accomplish these projects because of the great partnership we have with our civic leagues. A perfect example of this partnership is the first project, Messick Park. The Poquoson Exchange Club donated the benches for Messick Park and the Kiwanis Club of Poquoson installed the benches this is how our community works and it is why we loving heading up this event.

Soooo, on that note this year's projects are:

Municipal Pool Spruce-up – think the word **PAINT**. The main building will be painted, the fence is scheduled for paint, and the swim team building is under advisement at this time.

Planting around Oxford Run Ponds – installing a plant barrier around the ponds.

Litter Pick-up at Messick Point and Amory's Wharf – Always a fun time to share with friends and family and a terrific way to teach our youth how one small action can create a mountain of trash.

Plant Swap (May 13th) – Not sure what a plant swap is or how it works? Bring in your annuals, perennials, small shrubs or trees, and/or vegetable plants potted and labeled. "Staff" will assign a value to the plant(s) and give you vouchers for that value. When we begin, you may use your vouchers to "purchase" new plants for your yard. Plant drop off is between 9:00am and 10:00am. "Purchasing" starts promptly at 10:15am. To be held on the lot beside the Post Office on Wythe Creek Road. Again Partnership, this is the 3rd year that The York Poquoson Master Gardener's have teamed up with KPB on this project.

Possible Projects

Planting Seasonal Plants at City Hall Traffic Circle, the three corners of WCR and Victory Lt Florida Rd and the micro park at Fire Station 2

Ellen Roberts

KEEP POQUOSON BEAUTIFUL SPRING

From: Bodina Wright
Sent: Monday, June 12, 2017 2:29 PM
To: Ellen Roberts
Subject: RE: keep poquoson beautiful

We spoke to all of the civic leagues at Dave's thing and I spoke to the Kiwanis twice. No articles.

Thank you,

Bodina Wright

↑
CITY'S ECONOMIC DEVELOPMENT DEPARTMENT
HOLDS AN ANNUAL MEETING OF ALL
CIVIC GROUPS

From: Ellen Roberts
Sent: Monday, June 12, 2017 1:50 PM
To: Bodina Wright; Evie Insley
Subject: keep poquoson beautiful

No hurry on this....I'm wondering if you guys did any articles or spoke to any civic groups about KPBS. Thanks,

Ellen W. Roberts, P.E.
City Engineer
500 City Hall Avenue
Poquoson, Virginia 23662-1996
Ellen.roberts@poquoson-va.gov
(757)868-3025
(757)868-3105 fax

BMP 2.2

Ellen Roberts

From: Bodina Wright
Sent: Thursday, April 20, 2017 10:20 AM
To: Ellen Roberts
Subject: total cost

\$4473.50 – izel Native Plants
\$436.60 – Wild Woods Farm

\$4910.10 – TOTAL
-445.00 – PW paying

4465.10 – TOTAL PLANT COST

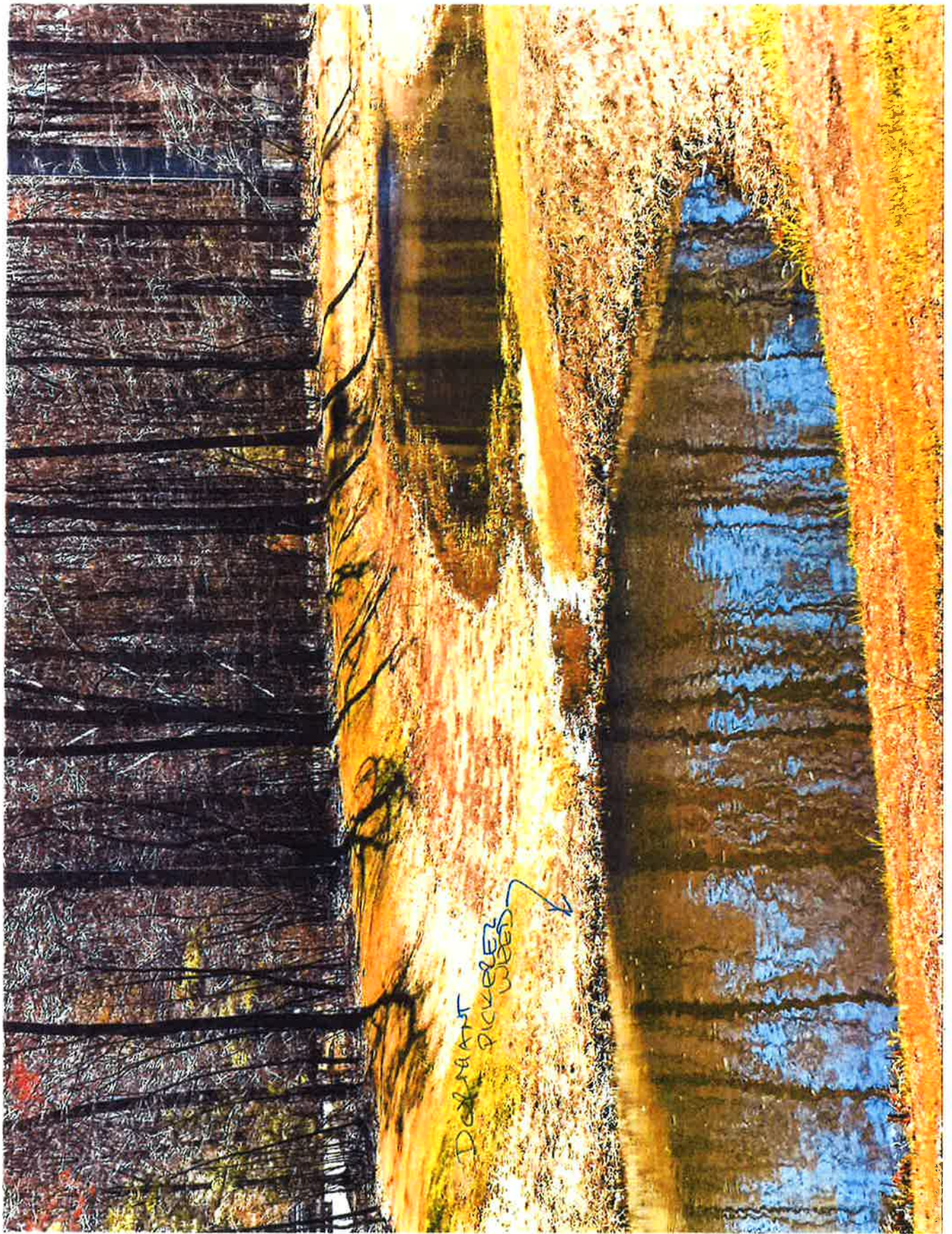
We need to buy 2 pool skimmers, a tarp, and something to water the plants with possible a puddle pump. I think I can do that with the \$134.90 left over. Also, we did not get as many Turk's Caps as I would have liked (because of availability) and I have a line on some more so I can use all of the money one way or another.

Thank you,

Bodina Wright
Office Manager
Department of Public Works
City of Poquoson
500 City Hall Ave
Poquoson VA 23662
Phone: 757-868-3590
Fax: 757-868-3515

BWP 2.2

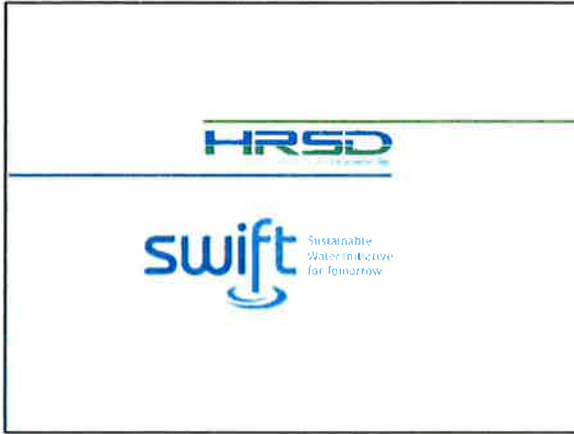
KEEP POQUOSSON BEAUTIFUL VOLUNTEER SPRING PLANTING OF
NATIVE SPECIES: BEFORE



KEEP REMOVE BEAUTIFUL SPRING VOLUNTEER PLANTING OF
NATIVE SPECIES: AFTER



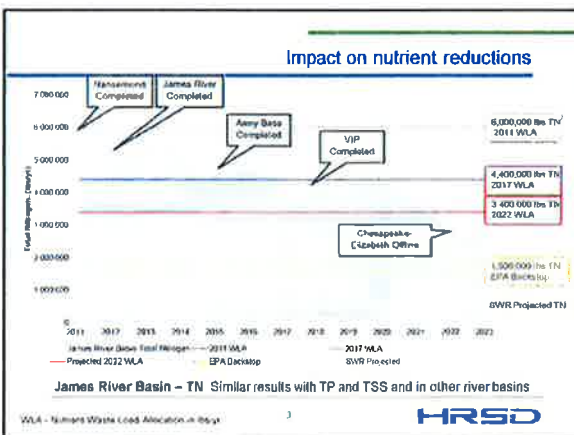
JUNE 26th PRESENTATION OF SWIFT PROGRAM AT CITY COUNCIL PUBLIC MEETING & TELEVISED



SWIFT – Sustainable Water Initiative for Tomorrow

- Treat water to meet **drinking water standards** and **replenish the aquifer** with **clean water** to:
 - Provide regulatory stability for wastewater treatment
 - Reduce nutrient discharges to the Bay
 - Reduce the rate of land subsidence
 - Provide a sustainable supply of groundwater
 - Protect the groundwater from saltwater contamination

HRSD



Potential to offset stormwater reductions

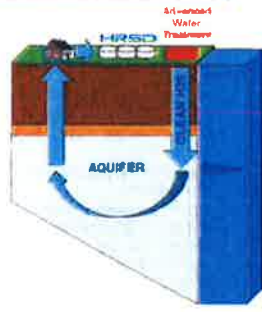
	HRSD Bay TMDL Allocations	HRSD Post SWRI Loads (2030)	Available for other needs	Stormwater Reduction Needs*
Nitrogen				
James	3,400,000	500,000	2,900,000	83,039
York	275,927	25,000	250,927	19,114
Phosphorus				
James	300,009	50,000	250,009	13,088
York	18,395	2,000	16,395	3,887
Sediment				
James	14,000,000	700,000	13,300,000	5,269,142
York	1,400,000	98,000	1,302,000	1,413,762

* DEQ Regulated Stormwater w/o federal lands

HRSD

SWIFT – Sustainable Water Initiative for Tomorrow

- Where do the nutrients and sediments go?
 - Most still removed with wastewater treatment processes to approximately 5 mg/L TN, less than 7 mg/L TP
 - Advanced treatment will remove essentially all of the TSS
 - Drinking water standard is <10 mg/L Nitrate – included in the TN
 - Concentration x volume = lbs
 - Even with low concentration
 - lbs high due to volume



HRSD

Basic concept

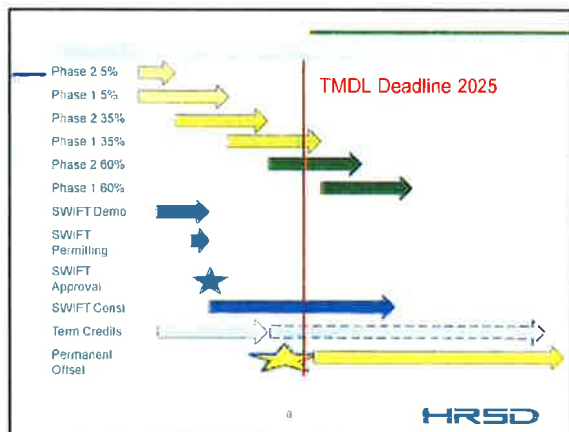
- Redevelopment based TMDL Action Plan
 - Stormwater loads reduced over time through "natural" redevelopment cycle
 - Does not force retrofits into TMDL compliance schedule
 - Still challenging for local governments to ensure all projects meet load reduction requirements
- Trading buys time to allow this approach
- Overall concept – SWIFT and redevelopment at reduced loading delivers less load to waters than would otherwise be achieved
- Up to \$28 in cost avoided for region
- No cost for credits – same ratepayers

HRSD

Trading agreements

- Between HRSD and each locality
- Provides term (annual) credit guarantee through 2036
 - Virginia has mature nutrient credit trading market for term credits – created by legislation in 2006
- Convert term credits to permanent offset as soon as possible after first SWIFT plant is on-line (2022-2023)
- Authority – Virginia Code § 62.1-44.19:21
 - DEQ on record appears to be in accordance with Virginia Water Control Law (email 9/12/16)
- Quantity of credits – 95% of required reduction as specified in MS4 (or GP)
 - Assumes 1st permit cycle reductions are achieved by permittees – 5% of load calculated in permit

HRSD



HRSD

Trading agreement timing

- **Agreements critical to EPA approval of integrated plan**
 - Wet weather plan mandated by Federal consent decree requires most expeditious implementation schedule possible
 - Integrated proposal allows for prioritization of projects with more significant environmental benefits (i.e., SWIFT)
 - Assumes \$1.5B of water quality work offset by SWIFT - \$500M left in financial analysis for MS4 related water quality work in region
- **Plan due to EPA October 1, 2017**
 - Fully executed agreements to be included in submittal

HRSD

Trading agreement proposed schedule

- Drafts distributed to staffs December 2016
- Presentation to CAOs January 2017
- Action by governing bodies – Spring 2017
 - Hampton will be first
- Executed agreements to HRSD from others in region no later than August 1, 2017

10

HRSD

Questions?



Sustainable
Water Initiative
for Tomorrow

*Future generations will inherit clean waterways and
be able to keep them clean.*

thenifin@hrsd.com
<http://www.swiftva.com>

HRSD

Ellen Roberts

From: Ellen Roberts
Sent: Friday, June 30, 2017 12:24 PM
To: Henifin, Ted (EHenifin@hrsdc.com)
Subject: SWIFT Agreement
Attachments: 1771_001.pdf

Attached please find the signed version of the SWIFT agreement for Poquoson. The paper original is being mailed out today. We look forward to seeing the finalized agreement. We are very happy to have SWIFT as an option for the Bay TMDL program....thank you!

Have a good holiday weekend.

Ellen W. Roberts, P.E.
City Engineer
500 City Hall Avenue
Poquoson, Virginia 23662-1996
Ellen.roberts@poquoson-va.gov
(757)868-3025
(757)868-3105 fax



Clean Waterways Begin at Home!

Small steps add up and start in the home. By making a few small adjustments to our daily habits in the home, the yard and our community, we can work toward cleaner waterways and a healthier, natural environment.

GOOD TO KNOW

We live in a beautiful region surrounded by water. It impacts everything from the food we eat to the fun we have as well as our economic livelihood. Our daily actions have a lasting impact and it's up to us to protect and restore our waterways. It takes a community of individuals making small changes to make a difference. Bay Star Homes is one way you can get involved in the effort to protect our region's most defining natural resource, water.

Want to know more? View the Bay Star Homes eNewsletter Archive on our Press Page.

GOOD TO DO

Pledge to become a Bay Star Home by completing the registration form below. Once your registration is complete, you'll receive a welcome packet that includes great tips from askH2Green.org, local information from your city or county, and a beautiful Bay Star Homes flag so you can proudly display your commitment to clean waterways to the whole neighborhood. Program offerings and incentives differ by locality.

Program available to residents of the following localities:

Chesapeake, Franklin, Gloucester County, Hampton, Isle of Wight County, James City County, Newport News, Norfolk, Poquoson, Portsmouth, Smithfield, Southampton County, Suffolk, Virginia Beach, Williamsburg and York County.

VPPSA e-Cycling & Household Hazardous Waste Collection
7 Oct 2017

LRNow Fall Festival
7 Oct 2017

WHAT GOES WITH IT?

Bring Your Old Electronics & More



SATURDAY, NOVEMBER 11

GOOD TIP #47

KEEP YOUR LAWN HEALTHY

SIZE MATTERS

Keep grass height at

2-3.5 INCHES

to encourage deep roots & shade out weeds



BMP 2.2: Supplemental information from the City Manager's Reports to City Council

Fire Department News/Report:

The City's marine units conducted oil spill and boom training with VDEM, USCG, York County Fire and Life Safety, NNFD Marine and HAZ-MAT units over the last two days. The Airboat was utilized on Monday, August 29th and Marine 1 on August 30th. The Airboat was a great success and proved to be an outstanding asset for this application.

Library News:

Our Library Garden was recently registered by the National Wildlife Federation as a "Certified Wildlife Habitat" and an attractive sign from the NWF is being installed this week in the Garden. In order to be certified, our garden had to provide a required number of 4 habitat essentials for wildlife: food, water, cover, and places to raise young. All of these essentials have to be maintained by sustainable practices, as well, so that the habitat is mostly self-supporting.

Library:

31 bee enthusiasts came out to Poquoson Public Library on Saturday January 28th to hear members of the Colonial Beekeepers Association present the basics of beekeeping. Evan Davies, Pete Ostrowski, and Jackie Skinner covered the requirements and equipment needed to keep bees in your backyard for honey or pollination. Photo attached: Pete Ostrowski, Jackie Skinner, and Evan Davies with a sample hive box. See photo on the next page.

BMP 2.2: Supplemental information from the City Manager's Reports to City Council

TMDL Public Meeting:

The Department of Environmental Quality (DEQ) will host a public meeting to provide information and obtain public comment on modifications to the Total Maximum Daily Loads (TMDLs) developed for Poquoson River and Back River, along with several tributaries; located in the Cities of Hampton, Newport News, Poquoson, and York County. The 2017 modifications calculate the TMDL endpoints based on the mTEC 90th percentile criterion of 31 cfu/100 ml and will supersede the 2014 TMDLs. The 2017 modifications also include updated information on the listing status of assessment units according to the 2014 305(b)/303(d) Water Quality Assessment Integrated Report. Additionally, the 2017 TMDL modifications use regulated service area to determine Municipal Separate Storm Sewer System (MS4) loading. This regulated service area is different from the regulated urban area used for the 2014 TMDLs, which requires an update of the load allocations.

The purpose of the meeting is to provide information and discuss the draft modifications of the Total Maximum Daily Loads with community members and local government. **The public meeting is scheduled for March 16, 2017 at 6:00 pm in the conference room of the Sandy Bottom Nature Park located at 1255 Big Bethel Rd, Hampton.** In case of inclement weather, the meeting will be held at the same location on March 27, 2017 at 6:00 pm.

The public comment period on materials presented at this meeting will extend from March 17, 2017 to April 17, 2017. Beginning March 16, the draft reports of the modified TMDLs can be found here:

<http://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/TMDL/TMDLDevelopment/DraftTMDLReports.aspx>

BMP 2.2

BMP 2.2: Supplemental information from the City Manager's Reports to City Council

Community Recreation:

Registration packets are available for women's kickball teams from May 1st thru May 5th at the Community Recreation Building from 8:30am to 4:30pm.

The Municipal Pool is scheduled to open for the general public and pass holders on Memorial Day, May 29th from noon until 6 p.m. and will continue to be open on weekends only until school is out. An end of the year school pool party will kick off the official pool season.

The Community Recreation's inaugural *Earth Day By the Bay* spring event was held at the Messick Point Aquatic Interpretive Center on Saturday, April 22nd with performances by C-Shells and Rainbow puppets. The Poquoson Exchange Club, who funded and constructed the center, was also on hand to celebrate. Many thanks go to the Library staff and Ken Somerset for

supporting this event. Big thanks to Vector 27 for their sponsorship, beverages, earthworm cupcakes and a raffle prize drawing for kids! Please see attached photos of the event.



Community Recreation:

Community Recreation Department staff will coordinate a volunteer clean-up effort at Messick Point as part of the Statewide *Clean the Bay Day* effort on Saturday, June 3 at Messick Point at 9am.

BMP 2.2

BMP 3: Illicit Discharge Detection and Elimination

Appendix

City of Poquoson Annual Report

VAR# 040024

Permit Year 4 (PY4): July 1, 2016-June 30, 2017

Submitted to DEQ September 29, 2017

Updated MS4 Program Plan July 1, 2013-June 30, 2018
City of Poquoson, VA VAR 040024

3. Illicit Discharge Detection and Elimination							PY 4 Status Appendix p. 101 - 147	
BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline	Associated Documents		
3.1	Storm Sewer System Map							
3.1.a	MS4 outfall map	Maintain and update mapping	Updated Map	SW Program Administrator/ IT Dept. (GIS)	Annually; Complete outfall map PY4.	Outfall map	Compliant. Map was completed this year. See Appendix p. 107 - 109.	
3.1.b	MS4 outfall information table	Table listing outfall ID, acreage served, receiving water, applicable TMDL(s).	Updated Table	SW Program Administrator/ IT Dept. (GIS)	Annually	Information Table. See appendix p. 110 - 113	Compliant. Information Table was updated and expanded to provide more data as part of outfall mapping effort. New data includes location latitude and longitude, DA, and new identifying numbers. See Appendix. No new outfalls were added this year.	
3.1.c	MS4 boundaries map and information table	Map and information table identifying MS4 watershed within 2010 urbanized area.	Boundary Map	SW Program Administrator/ IT Dept. (GIS)	End of PY4	MS4 Area Map	Compliant. MS4 service area was provided to DEQ in Chesapeake Bay Action Plan. The action plan is on the City website at http://www.ci.poquoson.va.us/DocumentCenter/Home/View/865 . The map is on page 18 of the Bay TMDL Action Plan. This information is included on outfall maps. Catchment areas (drainage areas) provided in outfall table. See appendix p. 110-113.	
3.1.d	Public information	Make MS4 map and information table available to the public	Presence of materials on website or refer to availability location	SW Program Administrator	Annually	Locality website	Compliant. Information available in City Engineer's office and online in Bay TMDL Action Plan at http://www.ci.poquoson.va.us/278/Environmental-Information .	
3.1.e	New outfalls	Identify new points of discharge	List of new outfalls	SW Program Administrator/ IT Dept. (GIS)	Annually	New outfall list	No new outfalls in PY4.	

Updated MS4 Program Plan July 1, 2013-June 30, 2018
City of Poquoson, VA VAR 040024

3. Illicit Discharge Detection and Elimination						
BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline	Associated Documents
3.1.f	Maintain a Current Storm Sewer Map Online				PY4	Online mapping
						PY 4 Status Appendix p. 101 - 147 Compliant. Pipe schematic map on City Maps website: http://poquoson.mapsdirect.net/Account/Logon . Outfall map available in PY4 annual report on http://www.ci.poquoson.va.us/278/Environmental-Information and at the City Engineer's office.
3.1.g	Cooperation with adjacent MS4s	Identify and notify, in writing, any downstream regulated MS4 to which the small regulated MS4 is physically interconnected of the small regulated MS4's connection to that system.	Develop map, Regional Phase II Stormwater Subcommittee Meetings, letters	SW Program Administrator	Annually	Letters; meeting attendance. See Appendix p. 114 - 118
3.1.h	Illicit Discharge Detection & Elimination Ordinance	Continue implementing and enforcing the illicit discharge/stormwater ordinance.	Current Ordinance	SW Program Administrator/ Fire Dept	As necessary	Ordinance : Poquoson City Code, Chapter 34, Article V, Sections 34-205 through 208; website link: https://www.municode.com/library/va/poquoson/codes/code_of_ordinances?nodeId=PTIIICOR_CH34EN_ARTVSTMA Compliant.
3.2	Dry Weather Screening					
3.2.a	DWS Protocol	Develop written dry weather field screening methodologies for IDDE.	Protocol	End of PY1	End of PY1	DWS Protocol. See Appendix p. 119
						Compliant. Developed in PY1. Example form (filled out) and SOPs used for screening found in Appendix p. 119.

Updated MS4 Program Plan July 1, 2013-June 30, 2018
City of Poquoson, VA VAR 040024

3. Illicit Discharge Detection and Elimination

BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline	Associated Documents	PY 4 Status Appendix p. 101 - 147
3.2.b	Field testing & outfall reconnaissance inventory (ORI)	Perform dry weather screening of a minimum of 50 outfalls (or all if < 50 outfalls in MS4)	Documentation of screening performed and results	SW Program Administrator/ SW Inspector	Annually	Map and ORI Field sheets. Per DEQ, only summary table provided. See Appendix p. 120 -122.	Compliant. 63 outfalls and 21.6 miles outfall ditching inspected. In addition, the system was checked for blockages/spills/debris before Hurricane Matthew.
3.3	IDDE program implementation				End of PY1	IDDE Protocol	Compliant. Finished in PY1.
3.3.a	Public IDDE Reporting	Promote & Publicize IDDE reporting	Presence of phone number & information on website	SW Program Administrator	Continuously	Locality website & appendix p. 123.	Compliant. General information on what is not allowed in ditches and pipes, steps to improve water quality and where to call to report an illicit discharge are found on http://www.ci.poquoson.va.us/278/Environmental-Information A copy of the info directing citizens where to report suspected discharges is in appendix.
3.3.b	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	SW Program Administrator/ Fire Dept	Continuously	Inspection forms . See Appendix p. 124 - 128	Compliant. Fire Department forms are attached. This year the Fire Department reported to 7 gasoline, oil and chemical spills. In addition, the Fire Department provided its air boat for state and regional hazardous waste spill in marine environments training.
3.3.c	IDDE activity tracking	Track illicit discharge detection and elimination activities.	Number of investigations and actions taken	SW Program Administrator/ Fire Dept	Ongoing	List of Activities Summary Sheet. See Appendix p. 129. Backup info is in appendix p. 130 - 136.	Compliant. See summary sheet in appendix. City staff responded to 4 potential illicit discharges, in addition to those reported to fire department.

Updated MS4 Program Plan July 1, 2013-June 30, 2018
City of Poquoson, VA VAR 040024

3. Illicit Discharge Detection and Elimination						
BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline	Associated Documents
3.3.d	Continue Sanitary Sewer System improvements in coordination with SSO consent order	Continue to diagnose and correct deficiencies	Number of improvements	SW Program Administrator/ Public Utilities	Continuously	PY 4 Status Appendix p. 101 - 147 Compliant. 28 TV inspections were conducted. 33 line/manhole/lateral inspections were performed. 106 residential sewer laterals were cleaned. See FY 17 list provided in appendix.
3.4	Spill reporting					
3.4.a	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.	SW Program Administrator/ Fire Dept	Fire Dept. Report in accordance to Section III. G.	Internal Summary Report. See Appendix p. 124 - 128 Compliant. Fire Department forms are attached. This year the Fire Department reported to 7 gasoline, oil and chemical spills. In addition, the Fire Department provided its air boat for state and regional hazardous waste spill in marine environments training. Spills were cleaned up before reaching state waters.
3.4.b	Report Sanitary Sewer Overflows through SSORS database.	Continue to utilize SSORS to report Sanitary Sewer Overflows	Number of overflows	Public Utilities Superintendent.	Continuously	List from SSORS. See appendix p. 142 - 147. Compliant. The City had 6 Sanitary Sewer Overflows in PY4. Four occurred during Hurricane Matthew when tidal water flooded streets and overwhelmed the sewer system (note: Wet weather plans only consider rain events, not tidal events). Two occurred as a result of equipment failure. Equipment has been replaced and is now in good working order.

Updated MS4 Program Plan July 1, 2013-June 30, 2018
City of Poquoson, VA VAR 040024

3. Illicit Discharge Detection and Elimination						
BMP	BMP Description	Measurable Goals	Metric	Responsible Party	Timeline	Associated Documents
3.5	Update Program Plan	Update Illicit Discharge Detection and Elimination plan as necessary to maintain compliance with the permit effective on July 1, 2013		SW Program Administrator/ Fire Dept	As scheduled in permit	
3.6	Evaluation and Assessment	Evaluate and assess progress towards meeting measurable goals.	In accordance with Section II E of General Permit VAR040027	SW Program Administrator/ Fire Dept	Annually	<u>In accordance with an oral request from DEQ, a summary of illicit discharge screening forms, not all the forms, will be provided to DEQ in order to reduce paperwork. Forms are available through the City upon request</u> Compliant. Continue Consent Order work so that hurricane impacts/high tide impacts are minimized. Continue citizen education on keeping debris out of ditches and reducing fertilizer discharge (staff noted that algae in ponds is a growing issue). New air boat is proving to be a regional asset. Water sampling equipment now on hand in case a spill or its source is not identifiable or is suspected.



BMP 3.1



BMP 3.1



BMP 3.1

2017 Rev.

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POQUOSSON DRAINAGE OUTFALL TABLE 2017 REVISION

BM 3.2

Ditch	CB21	Bennett Creek - Lower Middle	Yes	G	G001	Yes	0.10	37° 8' 24.231" N	76° 21' 50.751" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Ditch	CB21	Easton Cove	Yes	G	G001	Yes	2.38	37° 8' 23.060" N	76° 21' 45.868" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Pipe	CB21	Easton Cove	Yes	G	G004	Yes	1.00	37° 8' 19.116" N	76° 21' 37.609" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Pipe	CB21	Easton Cove	Yes	G	G005	Yes	2.45	37° 8' 17.283" N	76° 21' 34.800" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Ditch	CB21	Easton Cove	Yes	G	G006	Yes	3.51	37° 8' 10.772" N	76° 21' 26.933" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Pipe	CB21	Easton Cove	Yes	G	G007	Yes	2.77	37° 8' 6.926" N	76° 21' 23.322" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Pipe	CB21	Bennett Creek - Upper (DS, DE-IR)	Yes	G	G008	Yes	0.48	37° 7' 57.718" N	76° 21' 18.627" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Pipe	CB21	Bennett Creek - Upper (DS, DE-IR)	Yes	G	G009	Yes	2.04	37° 7' 54.977" N	76° 21' 15.698" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Ditch	CB21	Bennett Creek - Upper (DS, DE-IR)	Yes	G	G010	Yes	2.11	37° 7' 50.074" N	76° 21' 8.307" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Ditch	CB21	Bennett Creek - Upper (DS, DE-IR)	Yes	G	G011	Yes	0.36	37° 7' 48.084" N	76° 20' 28.426" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Ditch	CB21	Unsegmented estuaries in Back River	Yes	G	G012	Yes	4.36	37° 7' 46.900" N	76° 21' 6.502" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Ditch	CB21	Unsegmented estuaries in Back River	Yes	G	G013	Yes	1.84	37° 7' 46.775" N	76° 20' 57.086" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Ditch	CB21	Unsegmented estuaries in Back River	Yes	G	G014	Yes	78.43	37° 7' 44.381" N	76° 20' 58.608" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Ditch	CB21	Unsegmented estuaries in Back River	Yes	G	G015	Yes	5.93	37° 7' 40.111" N	76° 20' 17.492" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Ditch	CB21	Unsegmented estuaries in Back River	Yes	G	G016	Yes	15.30	37° 7' 39.232" N	76° 20' 12.288" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Pipe	CB21	Unsegmented estuaries in Back River	Yes	G	G017	Yes	1.51	37° 7' 37.252" N	76° 20' 12.299" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Pipe	CB21	Unsegmented estuaries in Back River	Yes	G	G018	Yes	2.48	37° 7' 35.288" N	76° 20' 50.795" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Pipe	CB21	Unsegmented estuaries in Back River	Yes	G	G019	Yes	2.05	37° 7' 34.672" N	76° 20' 5.824" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Pipe	CB21	Unsegmented estuaries in Back River	Yes	G	G020	Yes	100.00	37° 7' 37.724" N	76° 20' 42.957" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Ditch	CB24	Front Cove - Upper	Yes	G	G021	Yes	0.74	37° 7' 26.489" N	76° 19' 55.857" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Ditch	CB24	Unsegmented estuaries in Back River	Yes	G	G022	Yes	6.01	37° 7' 25.272" N	76° 19' 55.637" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Ditch	CB24	Unsegmented estuaries in Back River	Yes	G	G023	Yes	3.56	37° 7' 16.693" N	76° 20' 23.052" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Pipe	CB24	Mainstem Back River	Yes	G	G024	Yes	61.93	37° 7' 15.605" N	76° 20' 6.409" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Ditch	CB24	Unsegmented estuaries in Back River	Yes	G	G025	Yes	1.59	37° 7' 15.233" N	76° 19' 52.068" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Ditch	CB24	Unsegmented estuaries in Back River	Yes	G	G026	Yes	2.59	37° 7' 15.180" N	76° 20' 28.970" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Ditch	CB24	Unsegmented estuaries in Back River	Yes	G	G027	Yes	0.26	37° 7' 15.106" N	76° 20' 35.648" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Ditch	CB24	Unsegmented estuaries in Back River	Yes	G	G028	Yes	2.30	37° 7' 14.882" N	76° 20' 37.455" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Ditch	CB24	Unsegmented estuaries in Back River	Yes	G	G029	Yes	1.34	37° 7' 11.173" N	76° 19' 50.001" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Pipe	CB24	Unsegmented estuaries in Back River	Yes	G	G030	Yes	1.55	37° 7' 10.318" N	76° 20' 41.575" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Pipe	CB24	Unsegmented estuaries in Back River	Yes	G	G031	Yes	2.27	37° 7' 7.295" N	76° 20' 40.328" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Pipe	CB24	Unsegmented estuaries in Back River	Yes	G	G032	Yes	3.53	37° 7' 5.647" N	76° 19' 40.313" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Pipe	CB24	Unsegmented estuaries in Back River	Yes	G	G033	Yes	0.41	37° 7' 5.625" N	76° 19' 40.252" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Pipe	CB24	Unsegmented estuaries in Back River	Yes	G	G034	Yes	1.90	37° 7' 0.841" N	76° 20' 16.965" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Pipe	CB24	Unsegmented estuaries in Back River	Yes	G	G035	Yes	1.50	37° 6' 58.118" N	76° 20' 16.422" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Ditch	CB24	Unsegmented estuaries in Back River	Yes	G	G036	Yes	1.71	37° 6' 55.574" N	76° 20' 34.815" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Pipe	CB24	Unsegmented estuaries in Back River	Yes	G	G037	Yes	0.94	37° 6' 48.485" N	76° 20' 33.787" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Pipe	CB24	Unsegmented estuaries in Back River	Yes	G	G038	Yes	0.19	37° 6' 46.386" N	76° 20' 32.797" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Pipe	CB24	Unsegmented estuaries in Back River	Yes	G	G039	Yes	0.86	37° 6' 44.571" N	76° 20' 31.004" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Pipe	CB24	Unsegmented estuaries in Back River	Yes	G	G040	Yes	0.40	37° 6' 41.691" N	76° 20' 29.100" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Pipe	CB24	Front Cove - Upper	Yes	G	G041	Yes	4.45	37° 6' 39.547" N	76° 19' 14.517" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Pipe	CB24	Unsegmented estuaries in Back River	Yes	G	G042	Yes	0.99	37° 6' 39.082" N	76° 20' 27.577" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Ditch	CB24	Mainstem Back River	Yes	G	G043	Yes	0.65	37° 6' 36.029" N	76° 19' 19.456" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Pipe	CB24	Mainstem Back River	Yes	G	G044	Yes	2.31	37° 6' 33.352" N	76° 19' 10.627" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.
Pipe	CB24	Mainstem Back River	Yes	G	G045	Yes	1.06	37° 6' 30.568" N	76° 20' 23.358" W	Yes	Currently, there are no valid TMDLs for the Poquoson River. A bacterial TMDL is under development.

Ellen Roberts

From: Dail, Jennifer (VDOT) <Jennifer.Dail@vdot.virginia.gov>
Sent: Thursday, February 09, 2017 12:33 PM
To: Ellen Roberts
Subject: Points of discharge

Good Afternoon Ellen,

Would you mind sending me the areas that you have determined to be points of discharge from VDOT ROW. If you could please provide the data in GIS format or lat/long that would be great. Once I get this data, I will be forwarding it onto our GIS analyst and we will be reaching out back to you after verification. Thank you and I hope all is going well.

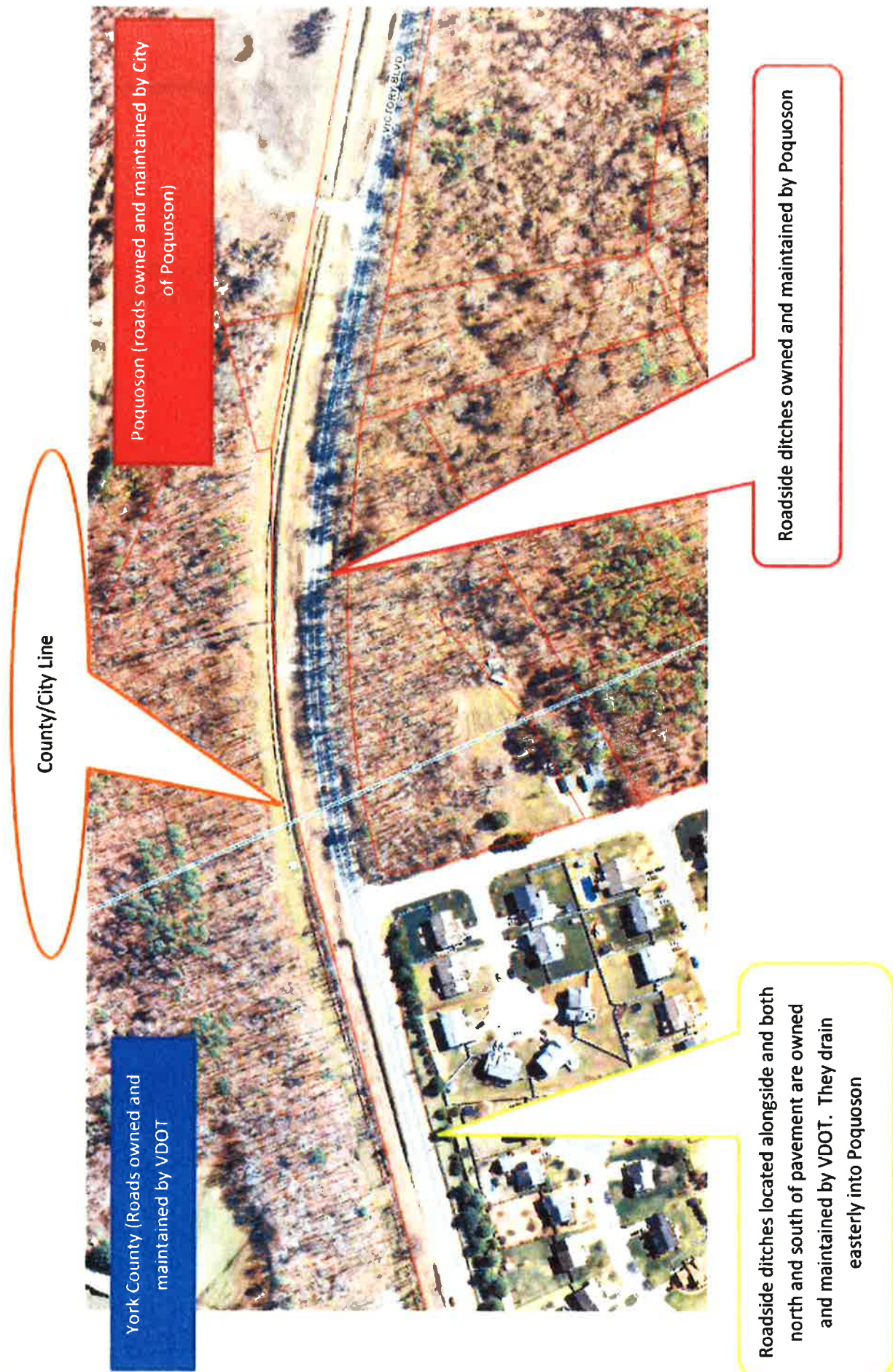
Thanks,

Jenny

Jennifer L. Dail
MS4 Program Coordinator
VDOT-Hampton Roads District
Office-757-925-2543
Cell-757-705-2703

EXPLAINED THE BEST AVAILABLE DATA
WAS ON CITY ~~MAP~~ MAPPING SITE -
NO GIS AVAILABLE
EKK

BMP 3.1



RTE 171 (VICTORY BOULEVARD) DITCH SYSTEM: Map provided to VDOT

Ellen Roberts

From: Dail, Jennifer (VDOT) <Jennifer.Dail@vdot.virginia.gov>
Sent: Wednesday, August 31, 2016 4:47 PM
To: Ellen Roberts
Subject: RE: Contact Info

I know...Central Office has always handled this coordination prior to us MS4 coordinators and I have reached out to our MS4 Program Manager Chris Swanson about this and we are working on it. I will get you a copy of what was previously sent out.

Thanks
Jenny

From: Ellen Roberts [<mailto:Ellen.Roberts@poquoson-va.gov>]
Sent: Wednesday, August 31, 2016 4:38 PM
To: Dail, Jennifer (VDOT)
Subject: RE: Contact Info

Okay. Just so you know, we do receive drainage from VDOT ditches and have not received a notification letter. If you can provide a copy, that would be great.

Ellen W. Roberts, P.E.
City Engineer
500 City Hall Avenue
Poquoson, VA 23662
(757)868-3025
(757)868-3105 fax

From: Dail, Jennifer (VDOT) [<mailto:Jennifer.Dail@vdot.virginia.gov>]
Sent: Wednesday, August 31, 2016 4:26 PM
To: Ellen Roberts
Subject: RE: Contact Info

Good Afternoon Ellen,
I have been told that VDOT sent out notification letters to adjacent MS4 permittees during the first year of our general permit term (7/2013-7/2018). VDOT does not plan to send notification out again unless there was substantial changes to our MS4. We are in the process of compiling and completing our outfall inventory data, at which point we then plan to coordinate with the other MS4's to determine ownership of the outfalls in question. You can request a copy of our draft outfall inventory, but at this point it is not completed and will have disclaimers.
We are anticipating on being issued an Individual VPDES permit within the next 12 months, which will change our program substantially. We have not received our draft permit as of yet.

If you need me to get you a copy of the notification letter that was sent out from Central Office, then I can do that. Thanks and I will be in touch.
Jenny

BMP 3.1

Ellen Roberts

From: Ellen Roberts
Sent: Monday, September 26, 2016 3:40 PM
To: Dail, Jennifer (VDOT)
Subject: RE: VDOT MS4 Service Area

I'd also point out that the City's ditches are downstream of and directly connected to the VDOT ditches. I will be glad to share our topography and information if VDOT needs it. Not sure where all that Victory Boulevard water is going if not downstream.....

Have a good week. Let's discuss at the regional meeting.

Ellen W. Roberts, P.E.
City Engineer
500 City Hall Avenue
Poquoson, VA 23662
(757)868-3025
(757)868-3105 fax

From: Ellen Roberts
Sent: Monday, September 26, 2016 3:37 PM
To: 'Dail, Jennifer (VDOT)'
Subject: RE: VDOT MS4 Service Area

Jennifer, I will delve deeper into this after the annual report is done and submitted this Friday. I'm a little surprised to hear there aren't any regulated outfalls draining into Poquoson.....that would only be the case if VDOT was ignoring its roadside ditch for Victory Boulevard. Does VDOT not consider ditches to be regulated outfalls?

Ellen W. Roberts, P.E.
City Engineer
500 City Hall Avenue
Poquoson, VA 23662
(757)868-3025
(757)868-3105 fax

From: Dail, Jennifer (VDOT) [<mailto:Jennifer.Dail@vdot.virginia.gov>]
Sent: Monday, September 26, 2016 3:33 PM
To: Ellen Roberts
Cc: Swanson, Chris (VDOT); Hancock, Jeff (VDOT); Scott, Andrew B. 'Drew', PE (VDOT)
Subject: VDOT MS4 Service Area

Hi Ellen,

BMP 3.1

Below is the login information for access to VDOT's MS4 service area and outfall points within the City of Poquoson (please see notes in blue font from Ashley with Stantec). We are aware that there are some discrepancies with our outfall maps and are working on refining our data and inventory. If you have any additional questions or concerns, please do not hesitate to ask. Also, the letter of interconnectedness that you have on file from 2010 would be the last notification that you should have received from VDOT. As mentioned earlier, unless we are aware of a changes or an additional impacts to your MS4, the 2010 letter from Central Office should be considered your notification from VDOT.

Thanks,
Jenny Dail

From: "Hall, Ashley" <Ashley.Hall@stantec.com>
To: "Swanson, Chris (VDOT)" <Chris.Swanson@vdot.virginia.gov>
Subject: RE: MS4 Interconnectedness

Chris,

I've uploaded the service area and outfall *points* to the FTP link below. Note that there are no BMPs in Poquoson and no regulated outfalls or points of discharge identified in Poquoson. I have included the full outfall inventory results in the data upload, however both points in Poquoson are No-Outfall-Found points (ms4outfall field = 3). Also note that the service area layer is limited and may not accurately match up to ownership of roads due to possible errors in the 2009 road layer.

Due to the limited coverage of data in Poquoson and potential confusion, I've included a map of the data for your information. Let me know if you have any questions.

Thanks,
Ashley

Login Information

Browser link: <https://tmpsftp.stantec.com>
FTP Client Hostname: tmpsftp.stantec.com **Port:** 22 (can be used within an FTP client to view and transfer files and folders; e.g., FileZilla)
Login name: s1005112645
Password: 2270673
Disk Quota: 2GB
Expiry Date: 10/5/2016

Click here for the [quick reference guide](#).

DISCLAIMER: All files uploaded and downloaded on Stantec FTP directories are intended for business purposes only. Stantec maintains the right to monitor all activities on its FTP directories.

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Jennifer L. Dail
MS4 Program Coordinator
VDOT-Hampton Roads District
Office-757-925-2543
Cell-757-705-2703

BMAP 3.1

DRY WEATHER SCREENING SOP'S

<u>Purpose</u>	In accordance with its MS4 permit, Poquoson must develop a dry weather screening protocol to find and eliminate to the maximum extent practicable illicit discharges into its stormwater system. These SOP's are intended to accomplish this goal.
<u>Scope</u>	Dry weather screening is primarily conducted by Public Works and City Engineering employees. However, detecting and eliminating illicit discharges is the joint responsibility of all employees. City departments will incorporate good housekeeping measures and will notify the proper authority of suspected illicit discharges in a timely manner.
<u>Training</u>	in order to ensure all employees understand their responsibilities and required courses of action in the event of seeing or being informed of a possible illicit discharge, all department heads will be briefed on standard operating procedures at least once a permit cycle. Personnel charged with screening for, investigating or handling illicit discharges will be trained in accordance with MS4 permit requirements.
<u>Fire Department</u>	The Fire Department will respond to all reports of discharges of hazardous substances in accordance with DEQ requirements. Other City personnel shall notify the Fire Department if a hazardous discharge is suspected.
<u>Public Works Employees</u>	Public works employees serve as the front line of defense against and the primary screeners for illicit discharges. Poquoson is a low lying coastal community that routinely experiences flooding. Maintenance of the City's drainage system is a year-round, constant activity. All Public Works employees will be trained to identify, investigate and report illicit discharges. Those employees working in or near the drainage system will perform an initial screening of the entire length of the MS4 segment in which they are working prior to beginning work. The crew chief will fill out screening forms and report to the drainage supervisor. The drainage supervisor will keep all records and provide updates to the City Engineer. If a potential discharge is suspected, the crew chief will immediately follow the potential discharge to determine its source. If a source cannot be identified or if there are indicators that standing water in a ditch or pipe could be something other than groundwater or tidal water, the crew chief will notify the City Inspector and the City Engineer. The drainage supervisor will receive additional training on the importance of screening for and identifying illicit discharges, and will ensure his crews are properly trained.
<u>City Inspector</u>	The City Inspector will respond to all complaints of illicit discharges and follow up on any discharges identified by fellow employees. The City Inspector will initiate enforcement actions as needed; take samples of suspected discharges; and consult with the City Engineer and Environmental Compliance Officer.

BNIP 3.2

Summary of Illicit Discharge and Dry Weather Screening Permit Year 4

<u>Month</u>	<u>outfalls</u>	<u>length ditches, l.f.</u>	<u># outfalls</u>	<u>Findings</u>
Jun-17	F:7 C:1E B:13 C:2C	10,505	4	No illicit discharges
Apr-17	C:9, 9c, 5 E:8, 5 F:4d, 2b BB: 13, 14	10,490	9	No illicit discharges
Mar-17	G:1 C:1	12,005	2	While performing litter pick-up on Messic Road, found 2 full quarts of un-opened motor oil. Placed in maintained controlled 55 gallon container monitored by Crystal Clean.
Jan-17	SECTION A, SECTION G	13,575	All Cleaned	No illicit discharges
December--16	C:2c, 1	7,650	2	No illicit discharges
Nov-16	C:2c, 2d	3,500	2	No illicit discharges
Oct-16	C:15, 3a1, E:1c, 1h, 4 G:1a B:8c	12,445	7	City crew noted an oil spill on private property outfalling to the MS4 and investigated. They cleaned up the spill and provided information to the homeowner. The spill was outside the MS4 but had the potential of reaching the City system if it had not been discovered and cleaned up by Public Works.
Sep-16	E:2f, 2, 2g C:13, 14, 18	20280	6	No illicit discharges
Aug-16	C:19, 14, 17 E:5c, 5a, 5b, 5d D:7 E:3b A:6b, 6d, 11, 11a, 12, 9 F:3c, 3d B:12	11,805	18	No illicit discharges
Jul-16	C:8, 6a, 1a, 1b, 1d, 1e, 13, 14, 18 D:8, 8a, 8b B:4a	11,545	13	No illicit discharges
<u>total</u>		<u>113,800</u>	<u>63</u>	<u>SEC</u>

BMP 3.2

SAMPLE - PER DEQ REQUEST,
RESULTS ARE SUMMARIZED &
ONE FORM IS PROVIDED
AS AN EXAMPLE

DRY WEATHER SCREENING ILLICIT DISCHARGE DETECTION FORMS



Year	2016																
Month	October																
Date	7,	3,4	18	24	24	25	24,25	25,26									
TIME	7am-3pm	7am-3pm	7am-3pm	7am-3pm	7am-3pm	7am-3pm	7am-3pm	7am-3pm	7am-3pm	7am-3pm	7am-3pm	7am-3pm	7am-3pm	7am-3pm	7am-3pm	7am-3pm	7am-3pm
	Illicit Discharge found: address, information, pictures etc. Page # 2																
	*Check all city, clean leaves and debris as part of annual preventative maintenance																
PUBLIC WORKS I.D. NUMBER																	
SECTION		C	C	E	E	E	G	B									
DITCH		15	3a1	1c	1h	4	1a	8c									
WEATHER :																	
Rain - Hot & Humid																	
Dry - Wind - Cold - Cold																	
NOTE REGARDING WEATHER/FIELD CONDITIONS																	
TYPE OF DRAINAGE STRUCTURE																	
PIPE :																	
DIAMETER :																	
APPROXIMATE LENGTH																	
TOTAL																	
DITCH :																	
PAVED																	
1100	1100																
UNPAVED																	
11945	1700	1800	1300	400	680	1200	1265	3000									
TOTAL FEET																	
12445																	
CONDITION IS IT FILLED IN?																	
IS THE PIPE CRACKED?																	
ILICIT DISCHARGE																	
ARE ANY PIPES OR DITCHES DUMPING SOMETHING OTHER THAN STORMWATER INTO DRAINAGE SYSTEM?																	
YES - NO	N	N	N	N	N	N	N	N									
IF YES, DESCRIBE WHAT YOU SAW AND ANY ACTION TAKEN:																	
PHYSICAL INDICATORS																	
DID YOU NOTICE ANY UNUSUAL SMELLS?																	
SEWAGE PETROLEUM BACOD / SOUR																	
SULFUR (ROTTEN EGGS)																	
DID THE WATER HAVE UNUSUAL COLOR OR OILY SHEENTIF SO DESCRIBE																	
WAS ANYTHING UNUSUAL FLOATING IN WATER (TOILET PAPER, SOUS ETC)																	
WAS ANYTHING UNUSUAL ABOUT THE VEGETATION?																	
WAS THERE ANYTHING ELSE UNUSUAL IN THE AREA?																	

BMP 3.2

Contact Information for illicit discharges: From <http://www.ci.poquoson.va.us/278/Environmental-Information>

What Citizens Can Do

Brochures are available at City Hall that provide details on what you can do on your property to help the Bay and improve our rivers and streams.

Being a good steward of the Bay does not end at your property line. Here are some other ideas:

- Dispose of pet waste in a trash receptacle. Animal waste is a major source of bacteria, and proper disposal can make a huge difference.
- Think twice before you feed that bird! Goose droppings are a major problem in some areas.
- Our rivers and the Bay would be in much cleaner if the only thing in storm drainage systems was rain water. It is illegal to dump grass clippings, yard wastes, trash, oil, grease and other materials in storm drainage systems. If you have a question, or see something dumped into the drainage system that does not belong there, contact Public Works at 757-868-3590 or Engineering. We'll be glad to help.
- If you're thinking of a new home improvement project, try to reduce rooftop or paved surfaces. These are major sources of pollution. Less paved or roofed area also means less storm water runoff.
- If you have a septic tank, remember that you are required by state law to pump it out at least once every five years.
- Stop by the City Hall if you have a question or want more information. Look for information around the City, and at the Seafood Festival. Let us know if you have any questions or good ideas.



IMAGETREND® Incident Type Report (Summary)

Basic Incident Type Code And Description (FD1.21)	Total Incidents	Total Incidents Percent of Incidents	Total Property Loss	Total Content Loss	Total Loss	Total Loss Percent of Total
Incident Type Category (FD1.21): 1 - Fire						
100 - Fire, other	3	0.32%				
111 - Building fire	7	0.74%	131,200.00	28,000.00	159,200.00	68.70%
113 - Cooking fire, confined to container	6	0.63%	502.00	25.00	527.00	0.23%
118 - Trash or rubbish fire, contained	3	0.32%		0.00	0.00	0.00%
131 - Passenger vehicle fire	3	0.32%				
134 - Water vehicle fire	2	0.21%	35,000.00	1,000.00	36,000.00	15.54%
140 - Natural vegetation fire, other	1	0.11%				
141 - Forest, woods or wildland fire	1	0.11%				
142 - Brush or brush-and-grass mixture fire	6	0.63%	0.00	0.00	0.00	0.00%
143 - Grass fire	1	0.11%				
150 - Outside rubbish fire, other	3	0.32%	1,000.00	0.00	1,000.00	0.43%
151 - Outside rubbish, trash or waste fire	3	0.32%	5.00	0.00	5.00	0.00%
154 - Dumpster or other outside trash receptacle fire	1	0.11%				
Total:	40	4.22%	Total: 167,707.00	Total: 29,025.00	Total: 196,732.00	Total: 84.90%
Incident Type Category (FD1.21): 2 - Overpressure Rupture, Explosion, Overheat (No Fire)						
241 - Munitions or bomb explosion (no fire)	1	0.11%				
Total:	1	0.11%	Total: 0.00	Total: 0.00	Total: 0.00	Total: 0.00%
Incident Type Category (FD1.21): 3 - Rescue & Emergency Medical Service Incident						
300 - Rescue, EMS incident, other	7	0.74%				
311 - Medical assist, assist EMS crew	305	32.17%				
320 - Emergency medical service, other	24	2.53%				
321 - EMS call, excluding vehicle accident with injury	40	4.22%				
322 - Motor vehicle accident with injuries	9	0.95%				
323 - Motor vehicle/pedestrian accident (MV Ped)	3	0.32%				
324 - Motor vehicle accident with no injuries.	15	1.58%				
340 - Search for lost person, other	1	0.11%				
341 - Search for person on land	1	0.11%				
342 - Search for person in water	3	0.32%				
352 - Extrication of victim(s) from vehicle	1	0.11%				
356 - High-angle rescue	1	0.11%				
360 - Water & ice-related rescue, other	4	0.42%				
365 - Watercraft rescue	4	0.42%	35,000.00		35,000.00	15.10%
Total:	418	44.09%	Total: 35,000.00	Total: 0.00	Total: 35,000.00	Total: 15.10%
Incident Type Category (FD1.21): 4 - Hazardous Condition (No Fire)						
400 - Hazardous condition, other	1	0.11%				
411 - Gasoline or other flammable liquid spill	3	0.32%				
412 - Gas leak (natural gas or LPG)	7	0.74%				

POQUON FIRE DEPARTMENT

Basic Incident Type Code And Description (FD1.21)	Total Incidents	Total Incidents Percent of Incidents	Total Property Loss	Total Content Loss	Total Loss	Total Loss Percent of Total
413 - Oil or other combustible liquid spill	2	0.21%				
421 - Chemical hazard (no spill or leak)	1	0.11%				
422 - Chemical spill or leak	2	0.21%				
440 - Electrical wiring/equipment problem, other	19	2.00%				
441 - Heat from short circuit (wiring), defective/worn	1	0.11%				
442 - Overheated motor	1	0.11%				
444 - Power line down	24	2.53%				
445 - Arcing, shorted electrical equipment	5	0.53%				
460 - Accident, potential accident, other	3	0.32%				
461 - Building or structure weakened or collapsed	2	0.21%				
463 - Vehicle accident, general cleanup	8	0.84%				
471 - Explosive, bomb removal (for bomb scare, use 721)	1	0.11%				
480 - Attempted burning, illegal action, other	1	0.11%				
Total: 81	Total: 8.54%	Total: 0.00	Total: 0.00	Total: 0.00	Total: 0.00%	
Incident Type Category (FD1.21): 5 - Service Call						
500 - Service call, other	118	12.45%				
5001 - Fire Inspection	41	4.32%				
5002 - Pre-Incident Survey	43	4.54%				
5003 - Re-Inspection	32	3.38%				
511 - Lock-out	1	0.11%				
520 - Water problem, other	2	0.21%				
521 - Water evacuation	1	0.11%				
522 - Water or steam leak	8	0.84%				
531 - Smoke or odor removal	4	0.42%				
542 - Animal rescue	1	0.11%				
550 - Public service assistance, other	10	1.05%				
551 - Assist police or other governmental agency	5	0.53%				
553 - Public service	22	2.32%				
554 - Assist invalid	2	0.21%				
561 - Unauthorized burning	15	1.58%	0.00	0.00	0.00	0.00%
Total: 305	Total: 32.17%	Total: 0.00	Total: 0.00	Total: 0.00	Total: 0.00%	
Incident Type Category (FD1.21): 6 - Good Intent Call						
600 - Good intent call, other	9	0.95%				
611 - Dispatched and cancelled en route	16	1.69%				
622 - No incident found on arrival at dispatch address	2	0.21%				
631 - Authorized controlled burning	7	0.74%				
650 - Steam, other gas mistaken for smoke, other	2	0.21%				
651 - Smoke scare, odor of smoke	4	0.42%				
Total: 40	Total: 4.22%	Total: 0.00	Total: 0.00	Total: 0.00	Total: 0.00%	
Incident Type Category (FD1.21): 7 - False Alarm & False Call						
700 - False alarm or false call, other	7	0.74%				

POQUOSON FIRE DEPARTMENT

Basic Incident Type Code And Description (FD1.21)	Total Incidents	Total Incidents Percent of Incidents	Total Property Loss	Total Content Loss	Total Loss	Total Loss Percent of Total
711 - Municipal alarm system, malicious false alarm	1	0.11%				
713 - Telephone, malicious false alarm	1	0.11%				
721 - Bomb scare - no bomb	2	0.21%				
730 - System malfunction, other	1	0.11%				
733 - Smoke detector activation due to malfunction	9	0.95%				
735 - Alarm system sounded due to malfunction	9	0.95%				
736 - CO detector activation due to malfunction	1	0.11%				
740 - Unintentional transmission of alarm, other	1	0.11%				
743 - Smoke detector activation, no fire - unintentional	5	0.53%				
744 - Detector activation, no fire - unintentional	4	0.42%				
745 - Alarm system activation, no fire - unintentional	6	0.63%				
Total: 47	Total: 4.96%	Total: 0.00	Total: 0.00	Total: 0.00	Total: 0.00%	
Incident Type Category (FD1.21): 8 - Severe Weather & Natural Disaster						
813 - Wind storm, tornado/hurricane assessment	2	0.21%				
Total: 2	Total: 0.21%	Total: 0.00	Total: 0.00	Total: 0.00	Total: 0.00%	
Incident Type Category (FD1.21): 9 - Special Incident Type						
900 - Special type of incident, other	12	1.27%				
911 - Citizen complaint	2	0.21%				
Total: 14	Total: 1.48%	Total: 0.00	Total: 0.00	Total: 0.00	Total: 0.00%	
Total: 948	Total: 100.00%	Total: 202,707.00	Total: 29,025.00	Total: 231,732.00	Total: 100.00%	

BMP 3.3 & 3.4

3 of 3

Printed On: 09/18/2017 11:24:45 AM

ROUSON F.D. AIR BOAT USED
FOR DEQ & RESOURTE TRAINING
ON HAZ WASTE SITES IN MARINE
ENVIRONMENTS ON 8-30-16

BUMP 3.3



Fire Department Protocol for notifying DEQ and other state agencies on hazardous waste spills:

RE: Hazard Information

Michael Bryant

Tue 9/19/2017 3:51 PM
Ellen Roberts

Ellen

We report all spills to the N/EOC (Virginia Emergency Operations Center) and they would send out an Hazmat Officer to inspect. Most of the time they do not act and to my knowledge, would not unless it is over a certain amount spilled. We just let them know in the event other agencies i.e. USCG, DEQ needs to be notified

Thanks

Michael D Bryant

Deputy Fire Chief/EM Coordinator
City of Poquoson Fire Rescue
(757) 868-3512



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Illicit Discharge Investigations/Follow Up

City staff took the following actions with regard to real or suspected illicit discharges during this permit year:

- **Fuel Spill (fuel line break and leak):** July 2016: A contractor's truck broke a fuel line and leaked diesel fuel on the road and shoulder area. The line was plugged immediately and used emergency spill kit materials to stop the fuel oil spread and to begin to soak it up. 1 to 2 gallons of fuel estimated to have spilled; absorbents used to ensure the spill did not enter the roadside ditch. See appendix for City Inspector information and photos.
- **Oil in backyard drainage:** this never entered the City's MS4, but was found by Public Works crews during an illicit discharge/dry weather screening inspection. The area was cleaned and the crew educated the property owner on the issue. City crews are keeping an eye on this location to ensure no future leaks. No further occurrences to date.
- **March 14, 2017:** A trash truck spilled approximately 20 gallons of hydraulic fluid in on a street. Some of the fluid entered a roadside ditch. The Fire Department and City Inspector responded. Booms and absorbents were used to contain the spill. The disposal company hired PetroChem to assist with clean up. The Fire Department filed a report with the state; however, little to no fluid entered state waters.
- **June 7, 2017:** Rusty abandoned ductile iron water service pipe: The City Engineer was inspection a road issue when she noticed rusty water in a ditch. She found a rusted ductile iron pipe that had been abandoned after Newport News Waterworks had replaced the line. The standing water in the ditch was due to a recent storm event and the rust was obviously coming from the pipe. The property owner was in the process of piping the ditch and the abandoned pipe was removed.
- **The City received reports of unpermitted land disturbance/ sediment resulting from construction.** These are detailed in BMP 4.

BMP 3.3

Ellen Roberts

FUEL SPILL

From: Mark Boesen
Sent: Friday, July 01, 2016 3:54 PM
To: Ellen Roberts
Cc: Anne Payne; Karen Holloway; Thomas Jones; Bodina Wright; Jerry Cagle; Robert Holloway; Michael Bryant
Subject: Fuel Spill on Poquoson Avenue - 7/1/16
Attachments: Poquoson Ave. - Fuel Spill - 16-0701 (1).JPG; Poquoson Ave. - Fuel Spill - 16-0701 (2).JPG; Poquoson Ave. - Fuel Spill - 16-0701 (3).JPG; Poquoson Ave. - Fuel Spill - 16-0701 (4).JPG; Poquoson Ave. - Fuel Spill - 16-0701.jpg

Ellen,

Please be advised that during the paving operations that were being completed on Poquoson Avenue, a truck for the contractor (Basic Construction Co.) broke a fuel line and leaked diesel fuel on the roadway and roadside shoulder area. The driver immediately took action and plugged the leaking line and deployed the emergency spill kit that was on the vehicle, as well as called their vehicle maintenance department for assistance. The vehicle maintenance department sent out a repair truck to the location and the truck was loaded onto a flat bed and hauled off, so repairs could be completed at their facility. I estimate approximately 1 to 2 gallons of diesel fuel leaked onto the roadway and roadside shoulder...However due to the quick response of the driver, he was able to provide any fuel from infiltrating into the nearby drainage ditch and/or waterway. Below is the information regarding the location of the spill area:

Spill area located across from 1186 Poquoson Avenue

LONG: 76 degrees 20' 59.86" W

LAT: 37 degrees 07' 44.92" N

ACTION/RESPONSE: Containment buoys were deployed along the ditch bank and Chem-Dry was used to absorb the majority of the fuel spill. Material was cleaned up and put into 5-gal. buckets to be hauled away by the contractor. Contaminated material along the roadside shoulder was also removed and hauled away by contractor.

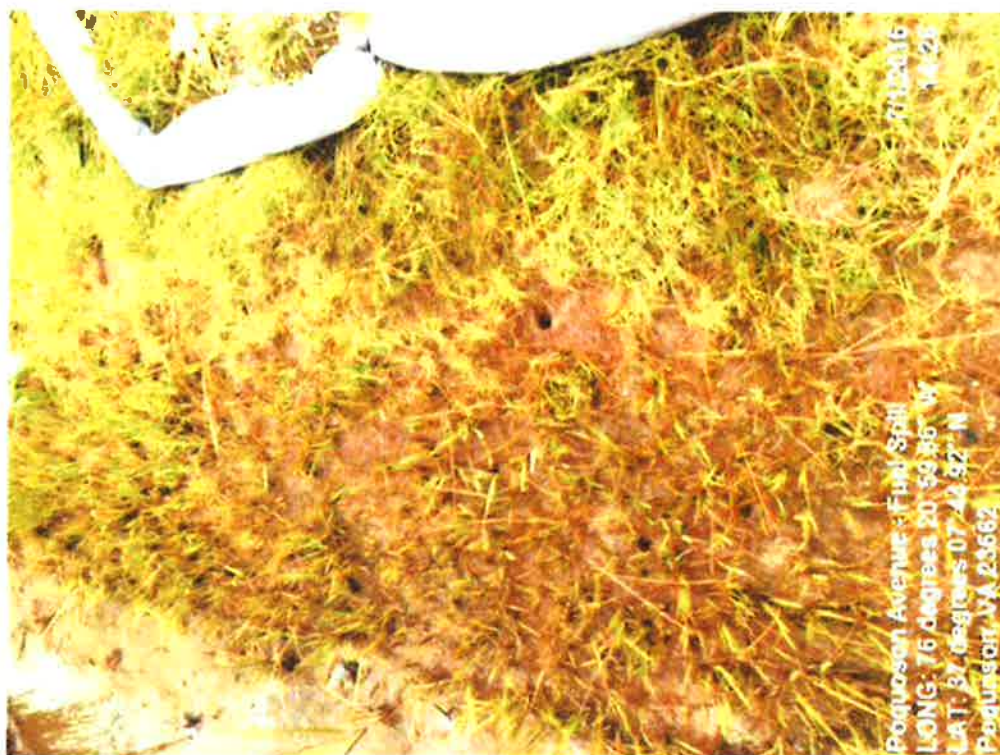
See attached photos for reference...

If you should have any questions or concerns, please feel free to contact me...Thanks!

Mark G. Boesen, CCI, CSI, CEI, CTC
Construction Inspector
City of Poquoson
500 City Hall Avenue
Poquoson, Virginia 23662
OFFICE (757) 868-5312
FAX (757) 868-3515

BMP 3.3

FUEL SPILL



BMP 3.3

PRIVATE (NON MSA)

SPILL FOUND DURING

Ellen Roberts

From: Jerry Cagle
Sent: Monday, October 17, 2016 3:33 PM
To: Anne Payne
Cc: Ellen Roberts
Subject: 101 e.merritt drive
Attachments: merritt 101 inside di 2 in. pipe.jpg; merritt 101 outside di 6 in. pipe.jpg

IDDE
DRY WEATHER
SCREENING

Hey Ann,

FYI Here are the pictures that was telling you about. We cleaned the oil etc. that was in the di box (all backyard drainage) also talk to homeowner asked him to watch for any contaminants etc. that may get into system. Document on monthly Illicit Discharge report for October,2016.

Picture (1) clean oils from 2" pvc pipe connects 6" pipe

Picture (2) 6" pvc cleanout with missing screen to filter & stop large debris.

Gave homeowner tips to keep clean as the City does not maintain private drainage.

Thanks,
Jerry

Jerry Cagle
Poquoson Public Works
Mosquito & Drainage Control
757-868-3508 office
757-868-3590 public works
757-868-3515 fax



BMP 3.3

KKXKIELNOM M54) SYLL



BMP 3.3

~~BR~~ RUSTED, ABANDONED D.I. PIPE

RUSTED
D.I. PIPE



Ellen Roberts

From: Mark Boesen
Sent: Wednesday, March 15, 2017 8:03 AM
To: Ellen Roberts; Karen Holloway
Cc: Thomas Jones
Subject: Attached Hydraulic Fluid Spill Report for Church Street
Attachments: SWPP Spill - Leak Clean Up Report - Church St. 17-0314.pdf

Please find attached the report for the hydraulic fluid spill that occurred on Church Street yesterday (3/14/17)...Bay Disposal Inc. were the responsible party for cleaning up the spill and they hired PetroChem Inc. to assist with the clean-up. The Fire Dept. respond to the spill and assisted with containing the spill. They estimated approximately 20 gals. was spilled onto the roadway area with some run-off entering the ditches along the roadway. If you should have any questions or concerns, please feel free to contact me...Thanks!

Mark G. Boesen, CCI, CSI, CEI, CTC
Construction Inspector
City of Poquoson
500 City Hall Avenue
Poquoson, Virginia 23662
OFFICE (757) 868-5312
FAX (757) 868-3515

BKLP 3.3



CITY OF POQUOSON
Department of Public Works

HYDRAULIC FUEL
 SPILL

STORMWATER POLLUTION PREVENTION
SPILL / LEAK CLEAN-UP REPORT

NOTE: If significant spills or leaks (>5 gallons) have occurred. Call 911 to notify Fire Dept.

DATE: March 14, 2017		TIME REPORTED: 10:20 <u>X</u> AM <u> </u> PM	
TYPE OF CLEAN-UP: (Check one) SPILL <u>X</u> LEAK <u> </u>			
LOCATION: (If possible, provide map) Location of spill was from 123 to 137 Church Street (See attached for reference).			
DESCRIPTION: A Bay Disposal trash truck while picking up residential trash along Church Street ruptured a supply line and spilled fluid onto the paved roadway area. Fluid run-off also entered into the nearby drainage ditches along the roadway area. Approximate area where spill was located measured 255'(L) x 18'(W) totaling 510 sq. yds. Approximate footage of drainage ditches affected was 369'. (See attached photos for reference).			
TYPE OF MATERIAL	QUANTITY	SOURCE	REASON
Hydraulic Fluid	Approx. 20 gals.	Bay Disposal Automated Trash Truck	Truck was performing contracted trash pick-up for City.
RESPONSE PROCEDURES: Bay Disposal notified the Public Works Dept. of incident, as well as Fire & Police Dept. Roadway area was closed down to traffic to allow clean-up operations to be completed. Clean-up operations were immediately implemented.			
CORRECTIVE MEASURES TAKEN: Chem-Dry material was applied to the spill along the roadway and allowed to absorb, as much of the fluid as possible. Chem-Dry material was swept and picked up to be hauled off for disposal. Floating containment buoys were installed within the drainage ditches to contain fluid, as well as absorbent mats to soak up fluid. PetroChem Inc. was contacted to respond to location to assist with cleaning additional fluid from the drainage ditch areas.			

The above was responded, inspected & verified by:

NAME: Mark G. Boesen
 (Print Name)

SIGN: Mark G. Boesen
 (Signature)

DATE: March 14, 2017

BMP 3.3

City of Poquoson Utilities Department

Sewer Repair Work Performed

Fiscal Year 2017

Listed below are the sewer repair activities performed by the Utilities Department during the Fiscal Year 2017 (July 1, 2016 through 30 June 2017) for your review.

Lateral Inspections/Installations/Repairs/Cleanings:

- 1) Removed broken casting riser and lid at **Manhole #9006** located at **6 Little Florida Road**, installed new riser casting and lid and patched the roadway (Completed: 1 July 2016)
- 2) New 6" connection tapped into **Manhole #1560 @ 105 Pasture Road** (Completed: 6 July 2016)
- 3) Removed broken casting riser and lid at **Manhole #1369** located at the intersection of **Terrace Drive & South Terrace Drive**; installed new riser casting and lid and patched the roadway (Completed: 8 July 2016)
- 4) CCTV inspected 4" lateral @ **22 Robert's Landing**: CCTV inspection shows that the liner installed recently by Prism Contractors has collapsed and is partially blocking the line: Prism has been notified that they need to repair this lateral (Completed: 11 July 2016)
- 5) Raised cleanout & installed casting box at **12 Bay View Drive** (Completed: 12 July 2016)
- 6) **39 Far Street**: Raised clean out and added casting box; flushed the lateral & CCTV inspected: No issues found (Completed: 13 July 2016)
- 7) Prism Contractors repaired the lateral at **22 Robert's Landing** (Completed: 18 July 2016)
- 8) CCTV inspected lateral at **153 Church Street** to investigate if lateral is causing developing sink hole in the pavement: lateral has roots growing inside and it appears that there may be an issue with the connection between the lateral and the main line; main line appears to be backed up and not draining correctly (Completed: 20 July 2016)
- 9) Visually inspected **Manhole #6875**, located at the intersection of Bunting Lane & Church Street: observed a lock of rocks and other debris in the bottom of the manhole: **Prism Contractors will clean & CCTV inspect the main line between Manhole #6875 and Manhole #6859** to check for defects in the main line (Completed: 21 July 2016)
- 10) Prism Contractors performed a CCTV inspection of the main line between **Manhole #6875 and Manhole #6859 on Church Street** to check for defects in the main line: large crack observed in the video & camera was under water most of the time, so the lateral is

not flowing properly. This will be turned over to a contractor for excavation & repair
(Completed: 22 July 2016)

- 11) New residential construction tied in to the City's sewer system at **3 Harborview Drive**
(Completed: 26 July 2016)
- 12) CCTV inspected 4" lateral @ **109 Whitehouse Drive**: lateral will need to be excavated and repaired prior to new construction tie in (Completed: 5 August 2016)
- 13) Repaired 4" lateral at **3 Norman Drive** (Completed: 10 August 2016)
- 14) CCTV inspected 4" lateral @ **7 Thomas Drive**: appears to be a crack in the pipe & some misalignment: may need to be excavated and replaced (Completed: 17 August 2016)
- 15) Repaired 3" lateral at **8 Weston Drive** (Completed: 18 August 2016)
- 16) CCTV inspected 4" lateral @ **20 Church Street**: flushed lateral with root cutting nozzle and removed a large root ball from the cleanout riser pipe (Completed: 22 August 2016)
- 17) CCTV located cleanout at **5 Rivergate Drive** during Atlantic Equipment demonstration of new sewer CCTV camera (Completed: 24 August 2016)
- 18) New residential construction tied in to the sewer system at **20 Pickens Drive**
(Completed: 25 August 2016)
- 19) CCTV located cleanout at **7 Harborview Drive** & raised clean out at **5 Harborview Drive** (Completed: 25 August 2016)
- 20) CCTV located cleanout at **22 Rivergate Drive** (Completed: 29 August 2016)
- 21) Repaired 4" lateral at **7 Thomas Drive** (Completed: 31 August 2016)
- 22) **6 Bessie's Landing**: This was found to be a Homeowner issue after flushing the lateral from the clean out to the main in the street and flushing from the house to the City clean out: CCTV inspected the lateral from the City clean out to the main and no obstruction was observed: CCTV inspected the lateral from the house to the City clean out: the camera was under water 10' before the clean out so no good observation could be made of the obstruction located approximately 2 feet before the City clean out (Completed: 6 September 2016)
- 23) Completed Bi-Monthly Lateral Cleanings: **17 laterals cleaned** (Completed: 8 September 2016)
- 24) Repaired 4" lateral at **6 Bessie's Landing**: Replaced clean out and lateral Tee: removed hardened plastic, possibly from the lining project performed earlier this year by Prism Contractors (Completed: 12 September 2016)
- 25) New residential construction connected to the system at **7 Pickens Drive** (Completed: 23 September 2016)
- 26) New residential construction connected to the system at **8 Pickens Drive** (Completed: 23 September 2016)
- 27) CCTV inspected 4" lateral @ **90 Bayview Drive**: Inspected to try and locate missing cap: Replaced cap and raised clean out (Completed: 6 October 2016)
- 28) Two (2) new connections to City sewer system at **15 and 19 Pickens Drive** (Completed: 14 October 2016)

BMP 3.3

- 29) **30 Windy Point Drive:** Plumber on site; CCTV located clean out, replaced the plastic cap, flushed the lateral w/the VACTOR Truck and added a clean out casting box around the riser pipe (Completed: 17 October 2016)
- 30) New residential construction tied in to the sewer system at **6 Moore Road** (Completed: 28 October 2016)
- 31) CCTV inspected 4" lateral @ **12 Rue DeGrasse:** appears to be some mis-alignment where the clay pipe and PVC pipe meet: CCTV inspection shows clear pipe (Completed: 31 October 2016)
- 32) Added a City Clean Out and casting box at **26 Terrace Drive** (Completed: 1 November 2016)
- 33) Branscome LLC installed a 4" tap in the sewer main and connecting lateral on **Hudgins Road at Bobby's Way Lane** for future new construction connection to the system (Completed: 1 November 2016)
- 34) **204 Sir Ralph Lane:** CCTV inspected: cause of backup is unknown: CCTV inspection showed no issues (Completed: 3 November 2016)
- 34) Cleaned all laterals and manholes on both the Bi-Monthly and Semi-Annual Lists: **Total of 37 laterals cleaned** (Completed: 8 November 2016)
- 36) Prism Contractors performed CCTV inspection and documentation of the sewer system for Station #15A on Messick Road: Survey was conducted from **Manhole #7573 located at Bill Forrest Seafood to Manhole #7586 located at the Poquoson Yacht Club** (Completed: 8 November 2016)
- 37) Prism Contractors performed CCTV inspection and documentation of the sewer system on Hopkins Court: Survey was conducted from **Manhole #2170, located at 6 Hopkins Court to Manhole #9009, located at 8 Little Florida Road** (Completed: 10 November 2016)
- 38) New residential construction connected to the sewer system at **1098 Poquoson Avenue** (Completed: 11 November 2016)
- 39) New residential construction connected to the sewer system at **69 Poplar Road** (Completed: 15 November 2016)
- 40) Repaired 4" lateral at **12 Rue DeGrasse Drive:** replaced clean out and riser pipe due to mis-alignment at the curb (Completed: 16 November 2016)
- 41) **2 Brown's Neck Road:** flushed lateral w/VACTOR Truck and will CCTV inspect at a later date: found a broken female PVC adapter (Completed: 16 November 2016)
- 42) CCTV inspected 4" lateral @ **2 Brown's Neck Road:** No issues requiring repair (Completed: 17 November 2016)
- 43) CCTV located and inspected 4" lateral @ **9 Floyd Street:** No issues requiring repair (Completed: 17 November 2016)
- 44) CCTV inspected 4" lateral @ **404 Joseph Topping Drive:** Lateral requires repair & will be scheduled (Completed: 17 November 2016)

BMP 3.3

- 45) New residential construction connected to the City system at **69 Poplar Road**
(Completed: 17 November 2016)
- 46) Repaired 4" lateral at **90 Messick Road**: Lateral was damaged by contractor installing new gas service to the property (Completed: 21 November 2016)
- 47) Repaired 4" lateral at **404 Joseph Topping Drive** (Completed: 29 November 2016)
- 48) **Manhole #347** overflowed when both pumps came on at Station #2A: estimate less than 25 gallons leaked from the system: main line on Valmoore needs to be flushed to improve drainage: **flushed from Manhole #348 to Manhole #347** (Completed: 29 November 2016)
- 49) CCTV inspected 4" lateral @ **67 Messick Road**: Manhole cover was rusted shut from sulfide corrosion: No issues were seen during the CCTV inspection (Completed: 4 January 2017)
- 50) Excavated & repaired 4" lateral @ **4 Bessie's Landing Drive**: Residual hardened resin left over from the lining process in July 2016 had broken away from the inside of the pipe and was causing the blockage: there is also some misalignment of the piping which may need to be excavated and corrected at a later date (Completed: 17 January 2017)
- 51) CCTV inspected 4" lateral @ **104 Hunt's Neck Road**: lateral is corroded and difficult to get camera through the line: will contact Best Way Plumbing and have them scour the inside of the pipe with their root cutter tool to try and open up the pipe to the correct diameter (Completed: 18 January 2017)
- 52) CCTV inspected 4" lateral @ **158 Cedar Road**: No issues with lateral; new cap installed (Completed: 18 January 2017)
- 53) Completed Bi-Monthly lateral cleanings: **15 laterals cleaned** (Completed: 19 January 2017)
- 54) Best Way Plumbing cleaned the 4" lateral @ **104 Hunt's Neck Road**: scoured the inside of the pipe with their root cutter tool and opened up the pipe to the correct diameter (Completed: 20 January 2017)
- 55) Tried to CCTV locate clean out at **111 Lee Street**: CCTV inspection showed that the lateral is tied directly into the manhole and that no clean out and riser are present (Completed: 13 February 2017)
- 56) CCTV located the clean out at **28 Trottwood Drive** (Completed: 13 February 2017)
Main line blocked and **Manhole # 81 and Manhole #79** are full: VACTOR flushed main line from **Manhole #76 towards Manhole #79 and then to Manhole #81** to remove grease build up in the line and allow the flooded manholes to drain correctly (Completed: 17 February 2017)
- 57) Excavated & repaired 4" lateral @ **3 Ruth Drive** (Completed: 23 February 2017)
Basic Construction replaced **MH#2684** Riser & cover on **Park Street** that had been overlaid with asphalt during paving operations last summer (Completed: 3 March 2017)
- 58) Basic Construction replaced **MH#7358** Riser & cover on **Pine Street** to raise to the proper height to match the surrounding pavement (Completed: 3 March 2017)
- 59) CCTV inspected 4" lateral @ **23 Kelsor Drive**: Lateral will need to be excavated and repaired (Completed: 13 March 2017)
- 60) Completed Bi-Monthly lateral cleanings: **15 laterals cleaned** (Completed: 22 March 2017)

BMP 3.3

- 61) Prism Contractors CCTV inspected and located clean outs on **Pasture Road from Lett's Point Landing to Beach Road** (Completed: 28 March 2017)
- 62) Excavated & repaired 4" lateral @ **2 Lauren Drive**: replaced corroded and offset cast iron pipe with PVC pipe (Completed: 11 April 2017)
- 63) Excavated & repaired 4" lateral @ **10 West River Road** (Completed: 13 April 2017)
- 64) Flushed main sewer line from **Manhole #2175 to Manhole #2177 on Smith Street** to eliminate standing water in the manhole; blockage appeared to be mostly grease (Completed: 2 May 2017)
- 65) CCTV located clean out at **9 Hunt Wood Drive** at the request of the homeowner (Completed: 15 May 2017)
- 66) **Completed Bi-Monthly & Semi-Annual Lateral cleaning** locations: **Total of 37 laterals** cleaned (Completed: 15 May 2017)
- 67) CCTV inspected 4" lateral @ **9 Volunteer Trail**: Inspection shows settling and some mis-alignment (Completed: 18 May 2017)
- 68) **10 Black Oak Court**: CCTV inspection shows that the Homeowner's lateral has a reverse grade and is lower than the City sewer main (Completed: 8 June 2017)
- 69) **76 Pasture Road**: CCTV inspection shows that the lateral has a belly in the pipe, which impedes flow: residence will be scheduled for excavation & repair (Completed: 12 June 2017)
- 70) Utilities Department personnel **located, marked and stenciled curbs** where available on **Bayview Drive, Harborview Drive, Rivercrest Drive, and Sandy Bay Drive** (Completed: 13 June 2017)
- 71) Utilities Department personnel **located, marked and stenciled curbs** where available on **West River Road** (Completed: 20 June 2017)
- 72) **109 Kelsor Drive**: Ran camera from Manhole #1946 towards the house due to issues getting camera down the clean out and past the sweep: Ran camera from manhole out 52.5 Feet: Two separate low spots in the lateral holding water: Lateral will need to excavated and repaired (Completed: 27 June 2017)
- 73) Installed a new 2" grinder pump lateral at **29 Smith Street** (Completed: 28 June 2017)
- 74) CCTV inspect the lateral at **6 Trottwood Drive**: Camera got stuck in the lateral due to a mis-alignment of the homeowner's pipe and the City owned pipe: Lateral required emergency excavation and repair: excavation revealed that the homeowner's pipe is actually lower than the City line: replaced mis-aligned pipe and installed new clean out and riser (Completed: 29 June 2017)

BMP 3.3

Ellen Roberts

From: ssors@apps.hrpdc.org
Sent: Monday, July 11, 2016 9:11 AM
To: troprep@deq.virginia.gov; prepadm@vdh.virginia.gov; shonia.holloway@ch2m.com
Cc: John_Paine@URSCorp.com; Robert Speechley; Ellen Roberts
Subject: SSORS ID: 104584 - Final Notification Other From Poquoson

SSORS ID: 104584
ASSET ID:
Reported Date: 7/11/2016 9:11:05 AM
Site Name: Browns neck at West Sandy point Drive
Site Address: Browns Neck Road at West Sandy Point Road
Responsible Party: City of Poquoson
Spilled In Jurisdiction: Poquoson
SSO Classification: Other
Incident Description: Manhole overflow due to pump station control panel failure
Date Phoned In:
Date Of Incident: 7/10/2016 8:55:00 AM
Date Under Control: 7/10/2016 9:10:00 AM
Spill Duration: 0 hour(s) 15 minute(s).
Possible Receptor: Poquoson River
Amount Of Material: 50
Material Units: Gallons
Material Description: Residential sewage
Zip Code: 23662
Amount Materials Recovered: 00
Amount Materials Water: 01
Corrective Action: Repaired control panel -----July 11, 2016 09:11 AM-----
DEQ Comments:
SP Northing:
SP Easting:
Latitude:
Longitude:
Last Edited By: Robert Speechley

BMP 3.4

Ellen Roberts

From: Ellen Roberts
Sent: Tuesday, October 18, 2016 10:00 AM
To: Ellen Roberts
Subject: FW: SSORS ID: 104801 - Final Notification Capacity-Weather Related From Poquoson
Unknown Quantity Alert

-----Original Message-----

From: ssors@apps.hrpdc.org [<mailto:ssors@apps.hrpdc.org>]
Sent: Monday, October 10, 2016 10:45 AM
To: troprep@deq.virginia.gov; prepadm@vdh.virginia.gov; shonia.holloway@ch2m.com
Cc: John_Paine@URSCorp.com; Robert Speechley; Ellen Roberts
Subject: SSORS ID: 104801 - Final Notification Capacity-Weather Related From Poquoson *Unknown Quantity Alert*

SSORS ID: 104801
ASSET ID:
Reported Date: 10/10/2016 10:44:39 AM
Site Name: Hurricane Matthew pump station 2
Site Address: Browns Neck Rd. At West Sandy Point Drive
Responsible Party: City of Poquoson
Spilled In Jurisdiction: Poquoson
SSO Classification: Capacity-Weather Related
Incident Description: Manhole overflow due to high head pressure
Date Phoned In:
Date Of Incident: 10/9/2016 12:30:00 PM
Date Under Control: 10/9/2016 3:00:00 PM
Spill Duration: 2 hour(s) 30 minute(s).
Possible Receptor: Poquoson River
Amount Of Material: -01
Material Units: Gallons
Material Description: Residential sewage and storm water
Zip Code: 23662
Amount Materials Recovered: 00
Amount Materials Water: -01
Corrective Action: Overflow stopped when head pressures were reduced. -----October 10, 2016 10:44 AM-----
DEQ Comments:
SP Northing:
SP Easting:
Latitude:
Longitude:
Last Edited By: Robert Speechley
<<https://u2069162.ct.sendgrid.net/wf/open?upn=ZrAnL3jdNmG8AYR839NKCPIX-2FfmP6yOLOjxCLbWodu2y11j6qq4Knd2kdANiSiOMQvVyXjelCmbwcV-2BSnopNc872M-2Bs-2BklmEpxghp91mP4ijjBSBUub225tSkw-2FubwT1sgJ1ZUIBppyDSSPuQNigy5MnhigYb6Apl2fBp7krN8P2NWxogsRbnN6Pc0hMWdtFILMeou-2FIVzc10ISatRkGveFuGhJeXOK2dworH-2BFYJE-3D>>

BMP 3.4

Ellen Roberts

From: Ellen Roberts
Sent: Tuesday, October 18, 2016 9:59 AM
To: Ellen Roberts
Subject: FW: SSORS ID: 104802 - Final Notification Capacity-Weather Related From Poquoson
Unknown Quantity Alert

-----Original Message-----

From: ssors@apps.hrpdc.org [<mailto:ssors@apps.hrpdc.org>]
Sent: Monday, October 10, 2016 10:52 AM
To: troprep@deq.virginia.gov; prepadm@vdh.virginia.gov; shonia.holloway@ch2m.com
Cc: John_Paine@URSCorp.com; Robert Speechley; Ellen Roberts
Subject: SSORS ID: 104802 - Final Notification Capacity-Weather Related From Poquoson *Unknown Quantity Alert*

SSORS ID: 104802
ASSET ID:
Reported Date: 10/10/2016 10:51:40 AM
Site Name: Hurricane Matthew pump station 6
Site Address: Key Oak Dr. at Curson Court
Responsible Party: City of Poquoson
Spilled In Jurisdiction: Poquoson
SSO Classification: Capacity-Weather Related
Incident Description: Manhole overflow due to high head pressure
Date Phoned In:
Date Of Incident: 10/9/2016 6:30:00 AM
Date Under Control: 10/9/2016 8:30:00 AM
Spill Duration: 2 hour(s) 0 minute(s).
Possible Receptor: Back River
Amount Of Material: -01
Material Units: Gallons
Material Description: residential sewage and storm water
Zip Code: 23662
Amount Materials Recovered: 00
Amount Materials Water: -01
Corrective Action: Overflow stopped when head pressures were reduced -----October 10, 2016 10:51 AM-----
DEQ Comments:
SP Northing:
SP Easting:
Latitude:
Longitude:
Last Edited By: Robert Speechley
<<https://u2069162.ct.sendgrid.net/wf/open?upn=ZrAnL3jdNmG8AYR839NKCPIX-2FfmP6yOLOjxCLbWodu3tYPI3u6aObUuXX0-2BCa-2FiDktNvPSisTZO9WGUCbBf1yYqb6ULo2bTdqMufFuJXSypRBuaQOMzvgpfmTGpNagPDHxFZlob1vKgD2levp6rbXCvNVJjMzZLTFurs4bPMqkSzVkOGXSIgN6BRfSE-2BsY0sWeTkJpu9mQHISZnvTawbM6Nd4MhPse5KfHrldsmTd10-3D>>

BMP 3.4

Ellen Roberts

From: Robert Speechley
Sent: Monday, August 07, 2017 3:06 PM
To: Ellen Roberts
Subject: RE: FY 17 sso's

Thank you, I hope they are as-builts !

104803

ASSET ID:
Reported Date: 10/10/2016 11:07:03 AM
Site Name: Hurricane Matthew pump station 1
Site Address: Manholes at 73 Lodge Rd. 123 Church St. and Church St at Jump point La.
Responsible Party: City of Poquoson
Spilled In Jurisdiction: Poquoson
SSO Classification: Capacity-Weather Related
IncidentDescription: Manhole overflow due to high head pressure
DatePhonedIn:
DateOfIncident: 10/9/2016 6:30:00 AM
DateUnderControl: 10/9/2016 1:00:00 PM
SpillDuration: 6 hour(s) 30 minute(s).
PossibleReceptor: Back River
AmountOfMaterial: -01
MaterialUnits: Gallons
MaterialDescription: residential sewage and stormwater
ZipCode: 23662
AmountMaterialsRec: 00
AmountMaterialsWater: -01
Corrective Action: Pump and haul to lower wet well level. Overflow stopped as head pressures were reduced -----
October 10, 2016 11:07 AM-----
SP Northing:
SP Easting:
Latitude:
Longitude:
Last Edited By: Robert Speechley

From: Ellen Roberts
Sent: Monday, August 07, 2017 2:58 PM
To: Robert Speechley
Subject: RE: FY 17 sso's

BMP 3.4

Ellen Roberts

From: ssors@apps.hrpdc.org
Sent: Tuesday, November 01, 2016 2:54 PM
To: troprep@deq.virginia.gov; prepadm@vdh.virginia.gov; shonia.holloway@ch2m.com
Cc: John_Paine@URSCorp.com; Robert Speechley; Ellen Roberts
Subject: SSORS ID: 104804 - Final Notification Capacity-Weather Related From Poquoson
Unknown Quantity Alert

SSORS ID: 104804
ASSET ID:
Reported Date: 10/10/2016 11:14:09 AM
Site Name: Hurricane Matthew pump Station 10
Site Address: 63 Messick Rd.
Responsible Party: City of Poquoson
Spilled In Jurisdiction: Poquoson
SSO Classification: Capacity-Weather Related
Incident Description: Manhole overflow due to flooding
Date Phoned In:
Date Of Incident: 10/9/2016 8:00:00 AM
Date Under Control: 10/9/2016 1:00:00 PM
Spill Duration: 5 hour(s) 0 minute(s).
Possible Receptor: Back River
Amount Of Material: -01
Material Units: Gallons
Material Description: Residential sewage and stormwater
Zip Code: 23662
Amount Materials Recovered: 00
Amount Materials Water: -01
Corrective Action: overflow stopped as flooding subsided -----October 10, 2016 11:14 AM-----
DEQ Comments:
SP Northing:
SP Easting:
Latitude:
Longitude:
Last Edited By: Robert Speechley

BMP 3.4

Ellen Roberts

From: ssors@apps.hrpdc.org
Sent: Tuesday, November 01, 2016 2:54 PM
To: troprep@deq.virginia.gov; prepadm@vdh.virginia.gov; shonia.holloway@ch2m.com
Cc: John_Paine@URSCorp.com; Robert Speechley; Ellen Roberts
Subject: SSORS ID: 104804 - Final Notification Capacity-Weather Related From Poquoson
Unknown Quantity Alert

SSORS ID: 104804
ASSET ID:
Reported Date: 10/10/2016 11:14:09 AM
Site Name: Hurricane Matthew pump Station 10
Site Address: 63 Messick Rd.
Responsible Party: City of Poquoson
Spilled In Jurisdiction: Poquoson
SSO Classification: Capacity-Weather Related
Incident Description: Manhole overflow due to flooding
Date Phoned In:
Date Of Incident: 10/9/2016 8:00:00 AM
Date Under Control: 10/9/2016 1:00:00 PM
Spill Duration: 5 hour(s) 0 minute(s).
Possible Receptor: Back River
Amount Of Material: -01
Material Units: Gallons
Material Description: Residential sewage and stormwater
Zip Code: 23662
Amount Materials Recovered: 00
Amount Materials Water: -01
Corrective Action: overflow stopped as flooding subsided -----October 10, 2016 11:14 AM-----
DEQ Comments:
SP Northing:
SP Easting:
Latitude:
Longitude:
Last Edited By: Robert Speechley

BNRP 3.4

Ellen Roberts

From: adminssors@hrpdcva.gov
Sent: Wednesday, June 07, 2017 8:27 AM
To: troprep@deq.virginia.gov; prepadm@vdh.virginia.gov; shonia.holloway@ch2m.com
Cc: John_Paine@URSCorp.com; Robert Speechley; Ellen Roberts
Subject: SSORS ID: 105008 - Final Notification Maintenance-Other From Poquoson

SSORS ID: 105008
ASSET ID:
Reported Date: 6/7/2017 8:26:52 AM
Site Name: Pump Station 3
Site Address: 362-A Wythe Creek Road Poquoson Va.
Responsible Party: City of Poquoson
Spilled In Jurisdiction: Poquoson
SSO Classification: Maintenance-Other
Incident Description: Pump air release line failed
Date Phoned In:
Date Of Incident: 6/6/2017 5:50:00 PM
Date Under Control: 6/6/2017 6:10:00 PM
Spill Duration: 0 hour(s) 20 minute(s).
Possible Receptor: Oxford Run Ditch, Back River
Amount Of Material: 2,500
Material Units: Gallons
Material Description: Residential sewage
Zip Code: 23662
Amount Materials Recovered: 00
Amount Materials Water: 2,500
Corrective Action: Repaired air release line -----June 7, 2017 08:26 AM-----
DEQ Comments:
SP Northing:
SP Easting:
Latitude:
Longitude:
Last Edited By: Robert Speechley

BMP 3.4

