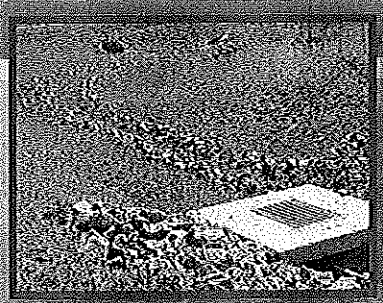
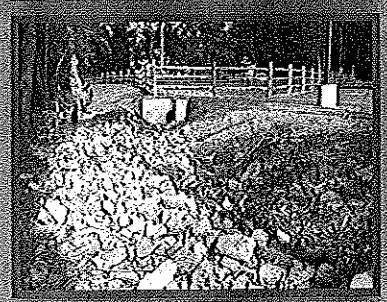
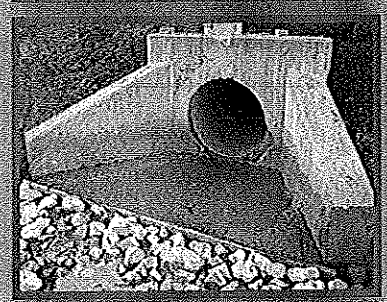
Hampton Roads Regional Stormwater Management Program

Memorandum of Agreement







HAMPTON ROADS PDC
PLANNING DISTRICT COMMISSION

June 2013

PEP 13-10

BMP 1.1a

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

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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

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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.

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- 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.

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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.

LIST OF SIGNATORIES

Signature pages will be signed in counterparts.

CITY OF CHESAPEAKE

CITY OF FRANKLIN

GLOUCESTER COUNTY

CITY OF HAMPTON

ISLE OF WIGHT COUNTY

JAMES CITY COUNTY

CITY OF NEWPORT NEWS

CITY OF NORFOLK

CITY OF POQUOSON

CITY OF PORTSMOUTH

SOUTHAMPTON COUNTY

CITY OF SUFFOLK

SURRY COUNTY

CITY OF VIRGINIA BEACH

CITY OF WILLIAMSBURG

YORK COUNTY

TOWN OF SMITHFIELD

TOWN OF WINDSOR

HAMPTON ROADS PLANNING DISTRICT COMMISSION

This listing of participants will be followed by individual signature pages.

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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 POQUOSON

By: _____
Mayor

Date: 4/22/13

Date: 4/22/13

Attest: Victoria H. Reggi

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HR STORM / GREEN ATTENDANCE

	12-Jul	12-Aug	12-Sep	12-Oct	12-Nov	12-Dec	13-Jan	13-Feb	13-Mar	13-Apr	13-May	13-Jun
Chesapeake	Elizabeth Vaughn	Elizabeth Vaughn	Elizabeth Vaughn	Elizabeth Vaughn	Elizabeth Vaughn	No meeting	Elizabeth Vaughn		Elizabeth Vaughn			Elizabeth Vaughn
Gloucester												
Hampton	Cris Ausink	Cris Ausink	Cris Ausink		Cris Ausink		Cris Ausink	Cris Ausink	Cris Ausink	Cris Ausink		Cris Ausink
Isle of Wight			Melissa Lindgren	Andy Reed	Erin Belt		Erin Belt	Erin Belt, Melissa Lindgren	Melissa Lindgren	Melissa Lindgren	Erin Belt, Melissa Lindgren	
James City County	Suzanne Dyba		Suzanne Dyba		Suzanne Dyba		Suzanne Dyba		Suzanne Dyba			Suzanne Dyba
Newport News	David Kuzma						David Kuzma		David Kuzma	David Kuzma	David Kuzma	
Norfolk		Gina Shaw	Fleta Jackson	Fleta Jackson, Gina Sh	Fleta Jackson, Gina Sh		Fleta Jackson	Fleta Jackson, Gina Shaw		Fleta Jackson		
Poquoson	Sherry Coffey	Sherry Coffey	Sherry Coffey				Sherry Coffey					
		Zach Jones	Zach Jones	Zach Jones			Zach Jones	Zach Jones		Kari Lynch, Kelsey Cris	Kari Lynch, Kelsey Cris	Zach Jones
Smithfield							Wayne Griffin					
Suffolk	Erin Rountree	Ed Heide	Ed Heide	Ed Heide	Ed Heide		Ed Heide	Ed Heide	Erin Rountree	Ed Heide	Erin Rountree	Shinon Clark
Virginia Beach	Bill Johnston, Helen Kuhns	Bill Johnston		Bill Johnston	Bill Johnston, Helen K		Bill Johnston	Bill Johnston		Bill Johnston	Bill Johnston	Bill Johnston
Williamsburg	Tammy Rojek			Tammy Rojek			Aaron Small	Aaron Small	Tammy Rojek		Tammy Rojek	Tammy Rojek
York	Amy Green	Amy Green	Amy Green		Brandi McCoy			Brandi McCoy	Brandi McCoy	Brandi McCoy	Amy Green, Brandi McCoy	
	All-Hands askHRgreen.org Retreat							All-Hands askHRgreen.org Research Mtg.			All-Hands askHRgreen.org Meeting	

Elizabeth Vaughn	No meeting			
Ron Owens				
Cris Ausink				
Frank Haithorn	Erin Belt	Melissa Lindgren	Andy Reed	Erin Belt, Melissa Lindgren
Suzanne Dyba				
David Kuzma				
Fleta Jackson	Gina Shaw	Fleta Jackson, Gina Shaw		
Sherry Coffey				
Zach Jones	Kari Lynch	Kelsey Crist	Kari Lynch, Kelsey Crist	
Wayne Griffin				
Erin Rountree	Ed Heide	Erin Rountree, Ed Heide	Shinon Clark	
Bill Johnston	Kris McKinnon	Bill Johnston, Kris McKinnon		
Tammy Rojek	Aaron Small			
Amy Green	Connie Bennett	Brandi McCoy	Amy Green, Brandi McCoy	

BMP 11.6

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askHRgreen.org

Annual Report for Fiscal Year 2013

/askHRgreen /HRgreen

HAMPTON ROADS PDC

PEP13-09

BMP's 1.1, 1.2, 1.3, 1.5 & 1.6 13

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. MIDDAUGH

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	HRPDC DEPUTY EXECUTIVE DIRECTOR
JULIA B. HILLEGASS	PUBLIC INFORMATION AND COMMUNITY AFFAIRS ADMINISTRATOR
KATIE R. CULLIPHER	SENIOR ENVIRONMENTAL PLANNER
LISA HARDY	PHYSICAL AND ENVIRONMENTAL PLANNER
REBEKAH EASTEP	ENVIRONMENTAL PLANNER
MICHAEL LONG	GENERAL SERVICES MANAGER
CHRISTOPHER VAIGNEUR	ASSISTANT GENERAL SERVICES MANAGER
RICHARD CASE	FACILITIES SUPERINTENDENT
JENNIFER COLEMAN	ADMINISTRATIVE ASSISTANT

BMP's 1.1, 1.2, 1.3, 1.5 & 1.6

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Report Documentation

TITLE:
askHRgreen.org Annual Report for Fiscal Year 2012-2013

REPORT DATE
August 2013

GRANT/SPONSORING AGENCY
Local Funds

AUTHORS:
Katie Cullipher
Lisa Hardy
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Chesapeake, Virginia 23320
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www.hrpdcva.gov

ABSTRACT
This report provides a summary of the second year of the askHRgreen.org public outreach and education initiative. The report contains seven major sections. The first section provides background about askHRgreen.org. The second section describes campaign research. The third section provides an overview of campaign results for fiscal year 2012-2013. The fourth through seventh sections provide an overview of the individual initiatives and results from each of the four askHRgreen.org subcommittees: Stormwater Education, Recycling & Beautification, Water Awareness, and Fats, Oils and Grease Education.

ACKNOWLEDGEMENTS
This report was prepared by the Hampton Roads Planning District Commission (HRPDC) staff in cooperation with the member localities. Preparation of this report was included in the HRPDC Unified Planning Work Program for Fiscal Year 2012-2013, approved by the Commission at its Quarterly Meeting of April 19, 2012.

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BMPs 1.1, 1.2, 1.3, 1.5, 1.6

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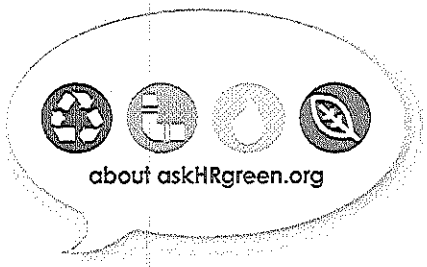


about askHRgreen.org

askHRgreen.org was developed to help Hampton Roads residents find their inner green with just the click of a mouse. For years, the HRPDC facilitated a variety of environmental education efforts to assist localities in notifying residents and meeting regulatory requirements. Developing consistent regional messaging has always afforded localities an economy of scale that they could not otherwise achieve. Couple that with various emerging issues beginning to overlap, like sanitary sewer overflows and stormwater pollution, and we knew the time was right for the development of an umbrella brand to tie all of the messages together. askHRgreen.org began with offering just the green basics. What we found was that people then craved more information. Once you show someone an easy, green alternative, they get hooked and want to add something else. Now we make the connections for people by illustrating not just what they can do, but why they should care and how their actions impact the larger environment. askHRgreen.org is powered by the 16 cities and counties of Hampton Roads, HRSD, and the Hampton Roads Planning District Commission.

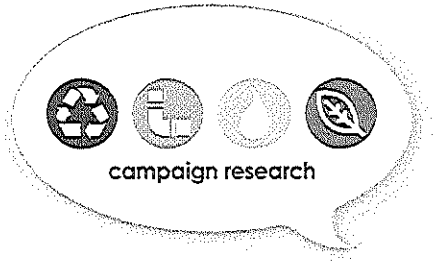
You can "like" askHRgreen.org on Facebook at Facebook.com/askHRgreen, "tweet" and "retweet" at Twitter.com/HRgreen, "tune in" at YouTube.com/HRGreenVA, and read and comment on the blog, askhrgreen.org/blog.

Dear friends and members,

askHRgreen.org turned two this year – and what a couple of fun years it has been! What began as a region-wide public awareness and education campaign is quickly becoming a local green movement among residents from Williamsburg to Virginia Beach, and from Isle of Wight County to Poquoson. This year's success would not have been possible without the dedication and involvement of our committee members from the cities of Chesapeake, Franklin, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach and Williamsburg; the counties of Gloucester, Isle of Wight, James City, Southampton, Surry and York; and HRSD – thank you!

Julia

Julia Hillegass
Public Information & Community Affairs Administrator
Hampton Roads Planning District Commission



askHRgreen.org campaign research

In the fall of 2012, EAB Research conducted a second online survey (the first survey was conducted in fall 2010) to measure how the askHRgreen.org campaign was performing. Four-hundred residents of the region's 16 cities and counties participated in the study.

Overall, the 2012 survey revealed that the askHRgreen.org campaign has proven effective in educating and modifying the behavior of its target audiences. In addition, those who are aware of askHRgreen.org are more likely to seek information, have more knowledge and report positive behaviors. Highlights of the survey found that:

- 12% of those surveyed have heard about askHRgreen.org.
- Online was reported to be the largest source for awareness.
- 33% of "askHRgreen.org aware" respondents have visited the website.
- Overall self-perceived knowledge of local environmental issues has increased. The largest increases are among:
  - single females, under $75,000 income
  - those aware of askHRgreen.org
- People aware of askHRgreen.org are the most frequent information seekers.

Since the 2010 benchmark study, there have been significant increases in the general use of and frequency of reusable bags as opposed to store-provided bags. Pouring fats, oils and grease down the drain or in the yard decreased 12 points from the 2010 survey, and the perceived harm rose 12 points - showing improvement in both the behavior of the action and the understanding that it is harmful.

While there were improvements in certain environmental areas, the findings revealed a "disconnect" between some behaviors and the personal impact of those actions, especially with regard to the effects of over fertilizing lawns and leaving pet waste on the ground.

- 65% of those surveyed understood that over fertilizing lawns leads to excesses of nitrogen and phosphorus in area waterways. Yet, only 7 percent of these respondents knew that this action results in discolored and foul-smelling waterways that are not desirable for swimming and boating.
- 23% of respondents who are using fertilizer are applying it 3 or more times a year.
- 55% of the people surveyed knew that leaving pet waste on the ground leads to bacteria being carried to local waterways through the storm drain. Of this total, 62% knew this would lead to contaminated waterways. Of the 62%, only 20% knew that contaminated waterways meant you couldn't swim at the beach or eat local seafood.

Over the next year, the askHRgreen.org team will use the survey results to make adjustments to the overall campaign to focus more on showing the connection between negative environmental behaviors and the resulting consequences, in addition to driving more people to the website.

BMPs 1.1, 1.2, 1.3, 1.5 & 1.6

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highlights 2012-2013

942 Facebook Likes

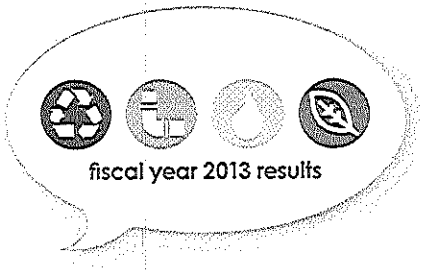
32,697 Website Visitors from July 2012 – June 2013

Over 65 Million Opportunities to See or Hear askHRgreen.org in the Media

30,000 Green Learning Guides Distributed to Sixth Graders

185,349 Green Living Inserts Distributed through The Virginian-Pilot & Daily Press

$12,175 Environmental Education Mini-grants Awarded to 31 Schools/Groups in 10 Localities



chesapeake franklin gloucester hampton isle of wight james city newport news norfolk

fy 2012-2013 campaign schedule & results

Ten environmentally-themed media campaigns ran throughout FY13 for a total of 17 weeks of exposure.

Campaign	Media	jul	aug	sep	oct	nov	dec	jan	feb	mar	apr	may	jun
Garbage Disposal	R-O-FB												
Tap vs. Bottled Water	R-P-O-FB												
Fertilizer Use	R-O-FB												
Green Learning Guide	P-O												
askHRgreen.org Media	B-FB												
Thanksgiving	R-O-FB												
Electronics Recycling Events	R-FB												
Fix-a-Leak Week	R-O-FB												
Fertilizer/Outdoor Watering	R-P-O-FB												
Drinking Water Week	R-O-FB												
Green Living Newspaper Insert	P-O												
askHRgreen.org E-Newsletter													
Public Relations													
Research													
askHRgreen.org Maintenance & Updates													

Media Key: R = Radio P = Print O = Online FB = Facebook

Total Advertising Weeks	17
Impressions	
Billboard	9.8 million
Newspaper	511,992
Radio*	2.8 million
askHRgreen.org website	72,270
Online Newspaper (The Virginian-Pilot & Daily Press)	3.7 million
Facebook	26.2 million
Media Added Value	18 million
Public Relations	4.6 million
Total Media Budget	$144,614
Total Public Relations & Creative Budget	$73,500
Value	
Media Added Value	$149,114
Public Relations	$368,604
Total Exposure Value	$755,832
ROI	
Impressions	65.7 million
Cost per Thousand Impressions	$3.32
Return on Investment	3.5 : 1

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

askHRgreen.org Website Statistics	
Visits	32,697
Unique Visitors	25,092
Average Page Views	2.21
Average Time on Site	2:11
Bounce Rate	61%

askHRgreen.org E-Newsletter Statistics	
Subscribers (as of June 2013)	1,869
Total Emails Sent	19
Open Rate	13.9%
CTR (Click Through Rate)	2.0%
Bounce Rate	15.2%

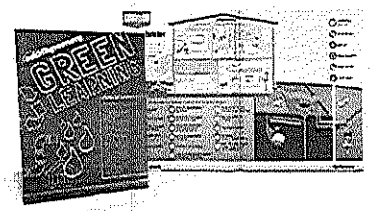
billboards & facebook

The askHRgreen.org campaign ran billboard ads across Hampton Roads for four paid weeks. The campaign acheived full market coverage with a total of 62 billboards: 52 on the southside and 10 on the peninsula. As an added bonus, many of the billboards remained in place for eight additional weeks. To increase exposure, a Facebook ad campaign ran simultaneously.

askHRgreen.org Billboard & Facebook Campaign	
Paid Media (4 weeks)	
Billboards	
Impressions	9.8 million
Facebook	
Impressions	10.3 million
Clicks	1,656
CTR (Click Through Rate)	0.016%
Unpaid Media	
Billboards	
Added Value Impressions	18 million
Added Value	$76,203
Overall Campaign	
Total Impressions	38 million
Total Budget	$50,000
Total Exposure Value	$126,203
Return on Investment	2.5 : 1
Cost per Thousand Impressions	$1.31

green learning

In fall 2012, askHRgreen.org distributed over 21,000 Green Learning Guides to all sixth graders in Hampton Roads public schools. Written according to Virginia SOL guidelines by a team of experts who work in the region's public works and public utilities departments, Green Learning connects students to their environment by combining educational information with colorful maps, bold graphics, puzzles and fun activities. Green Learning allows students to explore watersheds and what it means to live in the Chesapeake Bay watershed; learn how to prevent stormwater pollution and identify ways to help keep waterways clean; and analyze daily water use to learn ways they can conserve resources to become environmental stewards at home and at school. The Green Learning Guide, and accompanying teacher's guide, can be downloaded online at askHRgreen.org/Green-Learning



"Thank you for producing this valuable information for our students."

Katrice Krebs
Great Bridge Middle School
Chesapeake, VA

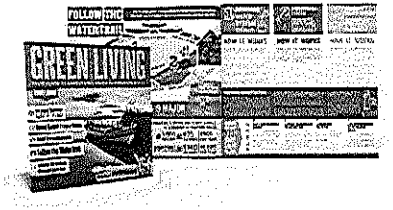
"Incorporating green learning with science SOLs is great and I think both the teacher's guide and educational guide along with the activities is an awesome way to assist students in better understanding and retaining the information."

Patricia Bell
Northside Middle School
Norfolk, VA

green living

This was the second year for the *Green Living* newspaper insert. The insert was created in partnership with *The Virginian-Pilot* and included ads from local businesses in the green sector and contained over seven full pages of editorial content plus four half-page ads. The editorial content was packed with articles to get citizens thinking about how the actions they take (fertilizing lawns, raking leaves into the street, recycling, even flushing the toilet) impact the environment here in Hampton Roads. In addition, readers could:

- Explore our Hampton Roads watershed and see why the time to improve our region's water quality is at hand.
- Go beyond the big blue bin and examine the business of recycling.
- Learn tips for keeping a "green" yard from a true garden guru, Jim Orband.
- Follow the path of water through our vast (and often forgotten) infrastructure.
- Learn why it's time to "break up" with a common household appliance.



The insert was included in the April 17, 2013 edition of both *The Virginian-Pilot* and the *Daily Press*. In addition, members of askHRgreen.org received 10,000 overprints to distribute as needed.

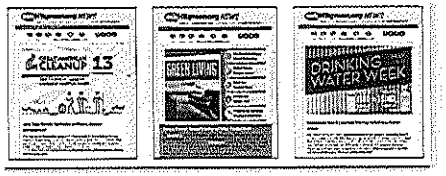
Green Living 16-page insert	
Total Circulation (Virginian-Pilot & Daily Press)	185,349
Total Readership	501,993
Online Impressions	80,002
Overprints	10,000
Total Impressions	581,995
Total Budget	$14,862
Total Open Rate Value (based on rate card)	$27,456
Public Relations Value	$293,439
Total Insert Value	$322,918
Return on Investment	22 : 1

"let's talk green..." blog

The askHRgreen.org website features a blog written by committee members and guest bloggers covering everything from easy green tips to implement around the house to community events and local volunteer opportunities. The blog is interactive as readers are able to respond to posts with questions and comments. In FY13, askHRgreen.org bloggers published over 100 interesting posts through the "let's talk green" blog.

askHRgreen.org 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 FY13, 19 e-newsletters covering seasonal "green" tips, events and askHRgreen.org campaign updates were sent to 1,869 subscribers. Looking ahead to FY14, the recipient list is already up to over 2,754 subscribers.



social media

In FY13, social media was a key source for public outreach. Facebook, Twitter, YouTube, and Pinterest were all used to share information, promote the blog and upcoming events, and hold contests.

BMPs 11, 12, 13, 15 & 16

17

media ambassadors

This year, askHRgreen.org hosted a two-part media ambassador training for eleven team members. The training included an in-depth review of campaign messaging and the role of an ambassador, tips on how to prepare for an interview, and mock interviews with WVEC-TV Anchor LaSalle Blanks. Below is the list of askHRgreen.org media ambassadors who received the training and are now well-prepared to handle any future media inquiries:

- Chris Ausink, Hampton
- Donna Corbus, Portsmouth
- Katie Cullipher, HRPDC
- Lisa Hardy, HRPDC
- Laurie Halperin, York
- Deidre Harmon, Norfolk
- Julia Hillegass, HRPDC
- Elizabeth Vaughn, Chesapeake
- Brianna Venner, Hampton
- Lori Woolman, Newport News
- Tiffany Wright, Virginia Beach

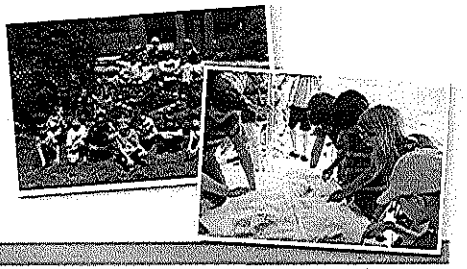
regional events

The askHRgreen.org campaign's education and outreach efforts include representation at various regional public events throughout the year (Earth Day celebrations, fairs, home & garden shows, community days, etc.). 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 FY13, committee members represented askHRgreen.org at 28 community events.

2012-2013 Regional Events		
7/7	VMI Community Health Day	Norfolk
7/20	Latin Fiesta	Virginia Beach
8/4	Beacon Light Civic League Berkley Reunion	Norfolk
9/8 - 9/9	Hampton Bay Days	Hampton
9/13 - 9/16	Isle of Wight County Fair	Windsor
9/23	Go Green Expo - NN Master Gardeners	Newport News
9/28 - 9/29	Hampton Roads Sustainable Living Expo	Virginia Beach
10/4 - 10/7	Peanut Festival	Suffolk
10/13	Lynnhaven River Now Annual Fall Fest	Virginia Beach
10/18	Greenbrier Intermediate Event	Chesapeake
10/20	Williamsburg Farmer's Market	Williamsburg
2/8 - 2/10	PHBA Hampton Roads Home & Garden Show	Hampton
2/16 - 2/17	Sustainable Living Fair	Norfolk
3/1 - 3/3	TBA Mid-Atlantic Home & Garden Show	Virginia Beach
3/9	Trash Bash 2.0	Virginia Beach
3/9	SEVA CA Day	Virginia Beach
3/23	Community Day @ Mack Benn Elementary	Suffolk
4/13	Williamsburg Farmer's Market	Williamsburg
4/20	Earth Day Celebration	Newport News
4/22	NASA Earth Day Event	Hampton
4/23	"Big Blue Goes Green" - ODU event	Norfolk
4/27	RiverFest	Norfolk
5/18	Hampton Environmental Summit	Hampton
5/18	Hampton Master Gardeners	Portsmouth
5/23	Sensible Seafood Festival	Virginia Beach
6/6	NASA Safety & Health Expo	Hampton
6/26	Environmental Fair at Busch Gardens Brewery	Williamsburg
6/29	Olden Days	Smithfield

mini-grant program

askHRgreen.org offers grants of up to $500 for environmentally-themed projects in schools and with youth groups. To be eligible, the project must be in-line with one or more of the askHRgreen.org messages (waste reduction, water conservation, recycling, watershed education, soil erosion, etc.). In FY13, a total of $12,175* was awarded to 31 schools/groups in 10 localities.



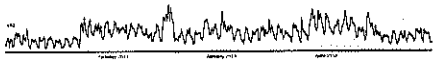
2012-2013 Environmental Education Mini-Grants			
Western Branch Middle Oyster & Trout Restoration	Corporate Landing Middle School	Chesapeake	$500
Monarch Butterfly Conservation	Ware Academy	Gloucester	$234
Going Green	Forrest Elementary School	Hampton	$240
Rain Barrels for Vegetable Garden	Spratley Gifted Center	Hampton	$160
Recycling and the 3Rs	Spratley Gifted Center	Hampton	$280
Graph How Much We Reduce	Point Option Nontraditional High School	Newport News	$425
Oysters Saving Our Bay	Trinity Lutheran School	Newport News	$500
South Ave Beautification	NN Green Foundation	Newport News	$500
United Campus Ministries Beautification	United Campus Ministries - CNU	Newport News	$500
Green Team Waterwise Gardening	Sewells Point Elementary School	Norfolk	$500
Oyster Restoration	Norfolk Christian Lower Schools	Norfolk	$220
Value in Vermicomposting	Oceanair Elementary School	Norfolk	$420
Watershed Impact on Sea Turtle Survival	Azalea Gardens Middle School	Norfolk	$275
We Care About the Earth Buttons	James Monroe Elementary School	Norfolk	$500
Wetland Restoration Project	Booker T. Washington High School	Norfolk	$550
Worm Watchers	Norview Middle School	Norfolk	$420
Do the Rot Thing	Westhaven Elementary School	Portsmouth	$420
I Speak for the Trees	The Elizabeth River Project	Portsmouth	$500
Planting Seeds for a Healthy Watershed	Parkview Elementary	Portsmouth	$500
Water Monitoring, Testing & Oil Spill Cleanup Methods	Smithfield Packing Company Inc. Environmental & Wastewater Division	Smithfield	$200
Environmental Showcase	John F. Kennedy Middle School	Suffolk	$225
Battery Recycling: Glenwood Gators Get a Charge From Helping Mother Earth	Glenwood Elementary School	Virginia Beach	$310
Operation Oysters	Strawbridge Elementary School	Virginia Beach	$370
Oyster Reef Restoration	Norfolk Christian Schools	Virginia Beach	$110
Oyster Restoration	Va. Beach Middle School Environmental Club	Virginia Beach	$450
Oysters RULE	Trantwood Elementary School	Virginia Beach	$500
Pearls of Educational Wisdom	Linkhorn Park Elementary School	Virginia Beach	$465
Rain Barrel for the Teaching Gardens	Bettie F. Williams Elementary School	Virginia Beach	$95
Water Quality in the Watershed	Corporate Landing Middle School	Virginia Beach	$420
Worms Love Our Leftovers	Bullfrogs and Butterflies	Virginia Beach	$500
Monarch Butterfly Garden Coventry Elementary	Coventry Elementary School	Yorktown	$437
Monarch Initiative	Youth Environmental Programs VCE-York/Poquoson	Yorktown	$500

*Recycling & Beautification Subcommittee awarded $4,699 • Stormwater Education Subcommittee awarded $5,879 • Water Awareness Subcommittee awarded $1,597

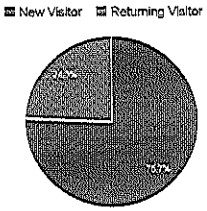
BMPs 11, 12, 13, 15, 21, 6

18

askHRgreen.org results



askHRgreen.org Website Statistics	2011-2012	2012-2013
Visits	27,424	32,697
Unique Visitors	19,920	25,092
Pageviews	67,047	72,270
Pages per Visit	2.44	2.21
Average Visit Duration	2 mins, 22 secs	2 mins, 11 secs
Bounce Rate	61.24%	61.27%
% New Visits	72.49%	75.65%



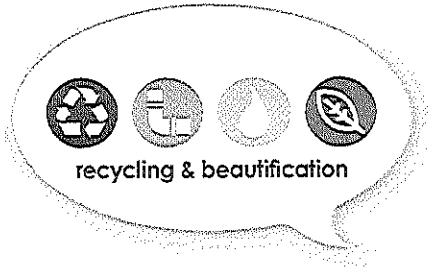
Top Ten Website Traffic Sources:

- Google organic
- Direct
- Pilotonline.com
- Facebook
- e-Newsletters
- VBgov.com
- Google.com
- DailyPress.com
- Bing organic
- Pinterest.com

in the news...

askHRgreen.org was all over the media in FY13. In total, we...

- Issued 15 news releases.
- Facilitated 16 print and online articles.
- Participated in 15 television interviews.
- Achieved a total publicity value of $368,604.

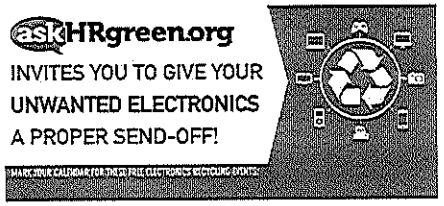


recycling & beautification subcommittee

The Recycling and Beautification Subcommittee is a coalition of local government staff members working together to share ideas and pool resources for various education programs tailored to beautification, litter prevention and recycling education.

Focal Area: Electronics Recycling
Target Audience: *Adults: Age 18+*

The proper management and handling of unwanted electronics continued as a campaign message again in FY13. Two electronics recycling events (one on the southside, one on the peninsula) were held in conjunction with Keep America Beautiful's "America Recycles Day." The Peninsula event was held at The Home Depot in Newport News on Monday, November 12. The Southside event was held on Saturday, November 17 in Virginia Beach. The Arc of the Virginia Peninsula and Synergy Recycling donated their time to provide free electronic recycling, and Stealth Shredding donated its time to provide free document shredding services. Special effort was given again this year to reach out to small businesses.



BMPS 11,12,13,15,16
19

BMP's 1.1, 1.2, 1.3, 1.5 & 1.6

20

Virginia Beach Collection Site Results
- 250 vehicles
- 15,000 pounds of electronics
- 8,000 pounds of paper

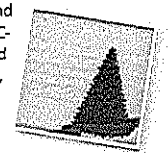
Newport News Collection Site Results
- 156 vehicles
- 12,773 pounds of electronics
- 4,000 pounds of paper

This year Cox Conserves partnered with our electronics recycling efforts by providing a $20,000 media schedule at no charge. As a result, Cox aired 1,105 30-second TV spots over nine weeks to promote responsible electronics recycling in Hampton Roads.

Electronics Recycling Events Media & Public Relations	
Paid Media (10 weeks)	
Radio	
Impressions	103,311
Reach	30.3%
Frequency	4.4
Facebook	
Impressions	1,269,593
Clicks	257
CTR (Clickthrough Rate)	0.020%
Unpaid Media	
Added Value	NA
Added Value Impressions	NA
Articles and Interviews	5
Public Relations Impressions	222,968
Public Relations Value (unpaid coverage)	$1,905
Overall Campaign	
Total Impressions	1,622,872
Total Budget	$2,500
Total Exposure Value	$4,405
Return on Investment	1.76 : 1
Cost per Thousand Impressions	$1.54

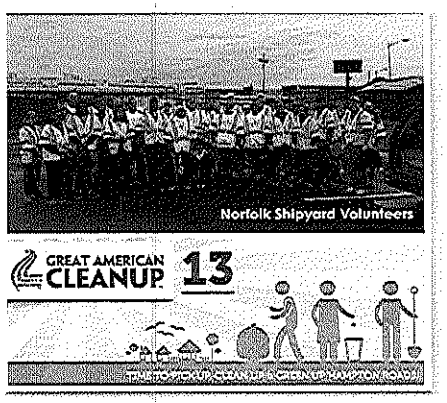
Focal Area: Christmas Tree Recycling
Target Audience: *Entire Hampton Roads Community*

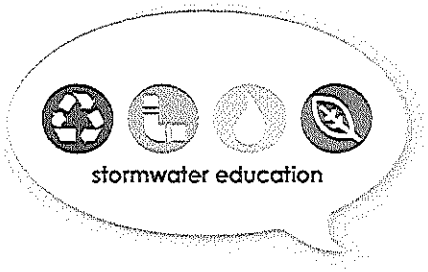
The majority of localities in Hampton Roads provide Christmas tree pickup and recycling. In FY13, askHRgreen.org helped to get the word out about each locality's service by issuing a news release, featuring the information prominently on the website, and promoting it via Facebook. The information was well received by the media as it was featured in both *The Virginian-Pilot* and *AltDaily* and broadcast on the WVEC-TV 13 News 12 p.m. newscast and WAVY-TV 10 News 6 p.m. newscast, for a total public relations exposure value of $7,590.



Focal Area: Great American Cleanup™
Target Audience: *Entire Hampton Roads Community*

askHRgreen.org supported and promoted the Great American Cleanup efforts taking place across Hampton Roads from April through June 2013 by issuing news releases, featuring the information prominently on the website and events calendar, promoting the local events via Facebook, and taking part in television interviews on Suffolk TV-8's "On the Scene" program, Norfolk TV-48's "Norfolk Perspectives," and WVEC-TV 13's "Dialogue" for a total public relations exposure value of $3,000.



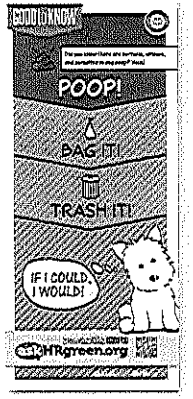


stormwater education subcommittee

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

Focal Area: Pet Waste
Target Audience: *Women; Age 18-49; Not College Graduates*

In an effort to educate Hampton Roads' dog owners on the importance of picking up after their pets, a rack card was developed and produced in FY13. The "Poop! Bag it! Trash it!" rack cards, along with dog waste bag holders, were distributed at varoius community events in FY13, particularly those that were identified as dog-friendly. They were also delivered to animal shelters and veterinarian offices for distribution.



Focal Area: Lawn Care
Target Audience: *Men: Age 35-64; College Graduates; All Household Income Ranges*

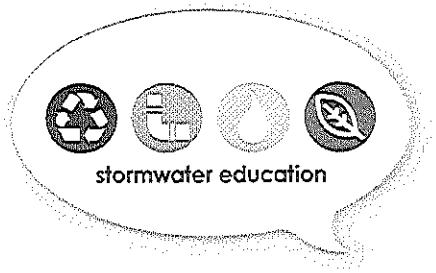
Based on the target audience information from the fall 2010 survey, the subcommittee ran the "Fall Yard Challenge" radio and online campaign from October 1-14, 2012. The promotions reminded people to "know their grass and test their soil before fertilizing, and that stormwater runoff washes fertilizer chemicals into waterways, killing aquatic life.

Fall Fertilizer Media & Public Relations	
Paid Media Details	
Radio	
Impressions	372,240
Reach	34.6%
Frequency	3.7
Online Newspaper (The Virginian-Pilot & Daily Press)	
Impressions	564,482
Clicks	1,145
CTR (Clickthrough Rate)	0.20%
Facebook	
Impressions	2,512,365
Clicks	456
CTR (Clickthrough Rate)	0.018%
Unpaid Media	
Added Value	$9,180
Overall Campaign	
Total Impressions	3,452,192
Total Budget	$12,000
Total Exposure Value	$21,180
Return on Investment	1.77 : 1
Cost per Thousand Impressions	$3.48

Focal Area: Lawn Care
Target Audience: *Adults; Age 25-54*

The Stormwater Education Subcommittee also partnered with the Water Awareness Subcommittee in the spring of FY13 to promote green landscaping practices and smart outdoor watering tips. This joint media campaign combined radio and online ads that ran for two weeks from March 25 through April 7, 2013. The campaign combined a 60-second radio spot with Facebook ads and banner placements on pilotonline.com and dailypress.com.

Spring Landscaping Media & Public Relations	
Paid Media Details	
Radio	
Impressions	645,000
Reach	26.2%
Frequency	4.1
Online Newspaper (The Virginian-Pilot & Daily Press)	
Impressions	702,708
Clicks	1,513
CTR (Clickthrough Rate)	0.22%
Facebook	
Impressions	2,081,357
Clicks	447
CTR (Clickthrough Rate)	0.02%
Unpaid Media	
Added Value	$8,196
Overall Campaign	
Total Impressions	3,438,661
Total Budget	$15,001
Total Exposure Value	$23,197
Return on Investment	1.55 : 1
Cost per Thousand Impressions	$4.36



Focal Area: Only Rain Down the Storm Drain
Target Audience: *Entire Hampton Roads Community*

There are thousands of storm drains across Hampton Roads that all lead directly to our waterways. To help remind people that "only rain belongs down the drain," the subcommittee has been recruiting schools and volunteer groups of all ages to mark storm drains with medallions that say "No Dumping: Leads To Waterway." The program includes medallions, adhesive, a lesson plan and PowerPoint presentation about stormwater and how individual actions affect our local waterways. Each group is required to work with their locality's committee member to select the storm drains for marking. This also allows the locality to record where the medallions have been placed. This fiscal year, 460 medallions (23 boxes of 20) were distributed through the askHRgreen.org storm drain medallion program.

- **Newport News: 140 medallions**
- **Norfolk: 100 medallions**
- **Portsmouth: 180 medallions**
- **York County: 40 medallions**
- **Virginia Beach: 688 medallions***

**The City and Virginia Beach Clean Community Commission operate a separate Storm Drain Marker Program designed to improve public awareness of the environmental effects of dumping in storm drains and the resulting water quality issues. In FY13, volunteers in Virginia Beach marked 688 storm drains with watershed-specific medallions through that program.*

BMPs 11, 12, 13, 14, 15

21

BMPs 1.1, 1.2, 1.3, 1.5, 1.6

22

water awareness

water awareness subcommittee

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

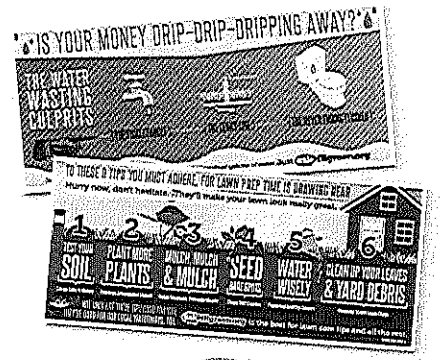
Focal Area: Water Efficiency
Target Audience: *Adults; Age 18-49; Household Income < $75,000*

The Water Awareness Subcommittee continues to promote wise water use in a variety of ways. Members participate in numerous regional community events throughout the year to promote conservation by talking to the public and distributing promotional items such as rain gauges and 5-minute shower timers as well as educational "Water, Use It Wisely" brochures and Water Wise Landscaping Guides.

In FY13, the subcommittee sponsored a media campaign combining radio and online ads that ran during the fifth annual National Fix a Leak Week, March 18-24, 2013. The campaign combined a 60-second radio spot with Facebook ads and banner placements on pilotonline.com and dailypress.com. In response to a news release issued by askHRgreen.org, the Fix a Leak Week campaign was also featured in a special interview segment on WAVY TV/Fox 43's The Hampton Roads Show on March 20, 2013.

Fix a Leak Week
WaterSense

Fix a Leak Week Media & Public Relations	
Paid Media (1 week)	
Radio	
Impressions	225,850
Reach	15.4%
Frequency	2.1
Online Newspaper (The Virginian-Pilot & Daily Press)	
Impressions	354,986
Clicks	651
CTR (Clickthrough Rate)	0.18%
Facebook	
Impressions	1,273,742
Clicks	255
CTR (Clickthrough Rate)	0.02%
Unpaid Media	
Added Value	$2,959
Overall Campaign	
Total Impressions	1,856,668
Total Budget	$7,760
Total Exposure Value	$10,719
Return on Investment	1.38 : 1
Cost per Thousand Impressions	$4.18



Focal Area: Value of Tap Water
Target Audience: Adults; Age 25-54

The Water Awareness Subcommittee also partnered with the Stormwater Education Subcommittee in the spring of FY13 to promote green landscaping practices and smart outdoor watering tips. This joint media campaign combined radio and online ads that ran for two weeks from March 25 through April 7, 2013. The campaign combined a 60-second radio spot with Facebook ads and banner placements on pilotonline.com and dailypress.com.

Spring Landscaping Media & Public Relations	
Paid Media (2 weeks)	
Radio	
Impressions	645,000
Reach	26.2%
Frequency	4.1
Online Newspaper (The Virginian-Pilot & Daily Press)	
Impressions	702,708
Clicks	1,513
CTR (Clickthrough Rate)	0.22%
Facebook	
Impressions	2,081,357
Clicks	447
CTR (Clickthrough Rate)	0.02%
Unpaid Media	
Added Value	$8,196
Overall Campaign	
Total Impressions	3,438,661
Total Budget	$15,001
Total Exposure Value	$23,197
Return on Investment	1.55 : 1
Cost per Thousand Impressions	$4.36

Focal Area: Value of Tap Water
Target Audience: Women; Age 25-49

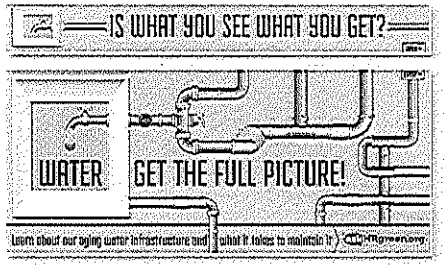
In FY13, the Water Awareness Subcommittee continued promoting the "value of tap water" message to the residents of Hampton Roads. The message was two-fold: educating people on the benefits of choosing tap water over bottled water and the importance of maintaining the public water infrastructure that cleans and delivers our most precious resource. The subcommittee sponsored two media campaigns to promote both messages. The Tap vs. Bottled Water promotion ran for two weeks from September 17-30, 2012 and combined a 60-second radio spot with Facebook

ads and banner placements on pilotonline.com and dailypress.com.

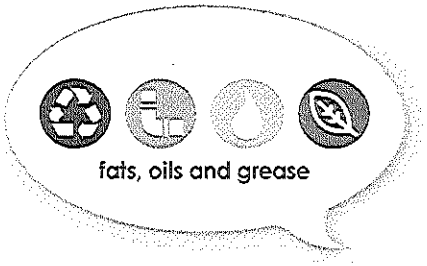
Tap vs. Bottled Water Media & Public Relations	
Paid Media (6 weeks)	
Radio	
Impressions	397,500
Reach	47.8%
Frequency	3.1
Online Newspaper (The Virginian-Pilot & Daily Press)	
Impressions	624,106
Clicks	846
CTR (Clickthrough Rate)	0.14%
Facebook	
Impressions	2,735,137
Clicks	521
CTR (Clickthrough Rate)	0.019%
Unpaid Media	
Added Value	$10,612
Overall Campaign	
Total Impressions	3,759,380
Total Budget	$14,736
Total Exposure Value	$25,348
Return on Investment	1.72 : 1
Cost per Thousand Impressions	$3.92

Focal Area: Value of Tap Water
Target Audience: Adults; Age 25-54; Household Income < $75,000

The Value of Water/Infrastructure Sustainability promotion ran during Drinking Water Week from May 6-12, 2013 combining a 60-second radio spot with Facebook ads and banner placements on pilotonline.com and dailypress.com



Value of Water/Infrastructure Media & Public Relations	
Paid Media (1 week)	
Radio	
Impressions	240,770
Reach	16.8%
Frequency	2.3
Online Newspaper (The Virginian-Pilot & Daily Press)	
Impressions	360,006
Clicks	623
CTR (Clickthrough Rate)	0.17%
Facebook	
Impressions	1,626,624
Clicks	312
CTR (Clickthrough Rate)	0.019%
Unpaid Media	
Added Value	$3,135
Overall Campaign	
Total Impressions	2,229,248
Total Budget	$7,500
Total Exposure Value	$10,635
Return on Investment	1.42 : 1
Cost per Thousand Impressions	$3.36

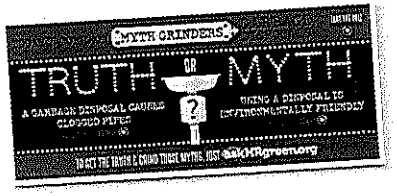


fats, oils and grease (fog) education subcommittee

The Fats, Oils and Grease 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 prevent sanitary sewer overflows and backups caused by improper disposal of fats, oils and grease. This cooperative effort has been underway since 2007 when 13 of the region's localities and HRSD entered into the Regional Special Order by Consent with the Virginia Department of Environmental Quality.

Focal Area: Garbage Disposal Use
Target Audience: Women; Age 35-64

In FY13, the FOG Education Subcommittee continued to discourage the use of garbage disposals and encourage best management practices for cleaning up in the kitchen. The "Myth Grinders" radio and online campaign was developed to help break the myth that garbage disposals are a kitchen necessity and educate residents about the harm they cause to sanitary sewer pipes. The Myth Busters promotion ran for two weeks from September 3-16, 2012 and combined a 60-second radio spot with Facebook ads and banner placements on pilotonline.com and dailypress.com.

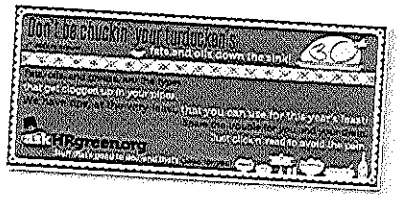


Garbage Disposal Media & Public Relations	
Paid Media (2 weeks)	
Radio	
Impressions	367,600
Reach	36.5%
Frequency	3.1
Online Newspaper (The Virginian-Pilot & Daily Press)	
Impressions	663,868
Clicks	1,357
CTR (Clickthrough Rate)	0.20%
Facebook	
Impressions	2,923,228
Clicks	624
CTR (Clickthrough Rate)	0.02%
Unpaid Media	
Added Value	$12,601
Overall Campaign	
Total Impressions	3,957,723
Total Budget	$12,752
Total Exposure Value	$25,353
Return on Investment	1.99 : 1
Cost per Thousand Impressions	$3.22

FOG Thanksgiving Media & Public Relations	
Paid Media (1 week)	
Radio	
Impressions	426,790
Reach	25.5%
Frequency	4.8
Online Newspaper (The Virginian-Pilot & Daily Press)	
Impressions	331,058
Clicks	831
CTR (Clickthrough Rate)	0.25%
Facebook	
Impressions	1,456,396
Clicks	271
CTR (Clickthrough Rate)	0.02%
Unpaid Media	
Added Value	$7,340
Overall Campaign	
Total Impressions	2,214,244
Total Budget	$7,501
Total Exposure Value	$14,841
Return on Investment	1.98 : 1
Cost per Thousand Impressions	$3.39

Focal Area: Fats, Oils and Grease Disposal
Target Audience: Women; Age 35-64

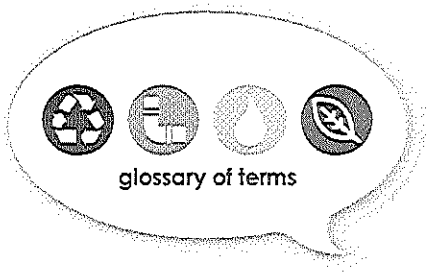
The FOG Education Subcommittee sponsored a radio and online campaign in November to highlight best management practices for cleaning up in the kitchen. The Thanksgiving-themed promotion used humor to educate the public about the fats, oils and grease associated with holiday cooking and the harmful blockages and backups that can result from improper disposal. The campaign aired from November 17-21, 2012 and combined a 60-second radio spot with Facebook ads and banner placements on pilotonline.com and dailypress.com.



Focal Area: FOG Regional Training Program
Target Audience: Food Service Establishment Employees and Grease Haulers

In FY13, the FOG Education Subcommittee launched www.HRFOG.com, a new online tool for regional FOG training and certification. The website was designed to help localities inform and train individuals working in the food service industry on proper maintenance of grease control devices and the harmful effects of FOG on the region's sanitary sewer systems. Certification is required by FOG ordinances in some Hampton Roads localities and the new site offers two programs at no cost: one for food service establishment employees and another for grease haulers.

In addition to the free certification programs, the website also provides a wealth of training materials and resources from detailed presentations and step-by-step instructional guides, to posters and educational brochures that can be downloaded and printed.



added value
Earned but unpaid advertising value.

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.

ctr (clickthrough rate)
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.

exposure value
The combination of advertising cost and public relations value.

frequency
The number of times an individual (among the target audience) is exposed to the message.

impression
The number of times an advertisement or public relations placement can be seen or heard by an audience.

public relations value
The equivalent advertising cost of a public relations article, interview, internet placement, etc. times three. Because a public relations placement has a higher value with an audience than advertising, it is assigned a higher value.

reach
The number or percentage of people within the target audience who are exposed to an advertising message at least once over a specific period of time.

unique visitors
A measure of the amount of unique people who visit a site, or click on a link in a given amount of time. While a single person could tally multiple page views by reloading a page, it will still count as a single unique visitor.

BMP's 11,12,13,15 & 16
24

STORMWATER PHASE 2 ATTENDANCE

Phase II Meeting Attendance FY 12-13

	Phase I and II	Phase I and II	Phase I and II	Phase I and II	Phase I and II	Phase I and II	Phase I and II	Phase I and II	Phase I and II	Regional SW Workgroup	Regional SW Workgroup	Regional SW Workgroup		
Meeting Dates	7/18/2012	8/15/2012	9/18/2012	10/17/2012	11/14/2012	12/19/2012	1/16/2013	2/20/2013	3/21/2013	4/17/2013	5/15/2013	6/19/2013	# Meetings	% Attended
Phase II Localities:	1	1	1	1	1	1	1	1	1	1	1	1	12	100%
Isle of Wight County	1	-	1	1	1	1	1	1	1	-	1	1	10	83%
James City County	1	1	1	1	1	1	1	1	-	1	1	1	11	92%
Poquoson	1	1	1	1	-	1	1	1	1	1	-	-	9	75%
Suffolk	1	1	1	1	1	1	1	1	1	1	1	1	12	100%
Williamsburg	-	1	1	-	-	-	1	1	1	1	1	1	8	67%
York Co.	1	1	1	1	1	1	1	1	1	1	1	1	12	100%
							SM	SM						

BMP 1.1.2

FY13 Promotional Items by Locality

	Dog Waste Bag Holders	Rack Cards
Chesapeake	500	500
Franklin	136	136
Gloucester		
Hampton	700	700
Isle of Wight	200	200
James City	400	400
Newport News	400	800
Norfolk	2600	2,600
Poquoson	151	150
Portsmouth	500	500
Smithfield	100	100
Southampton	200	200
Suffolk	600	600
Surry		
Virginia Beach	2000	2000
Williamsburg	600	600
York	300	300

NOTE: City of Poquoson also provided 2000 Pet Waste Bags at Parks & Walking Trail, per Public Works Records

BMP 1.2 c

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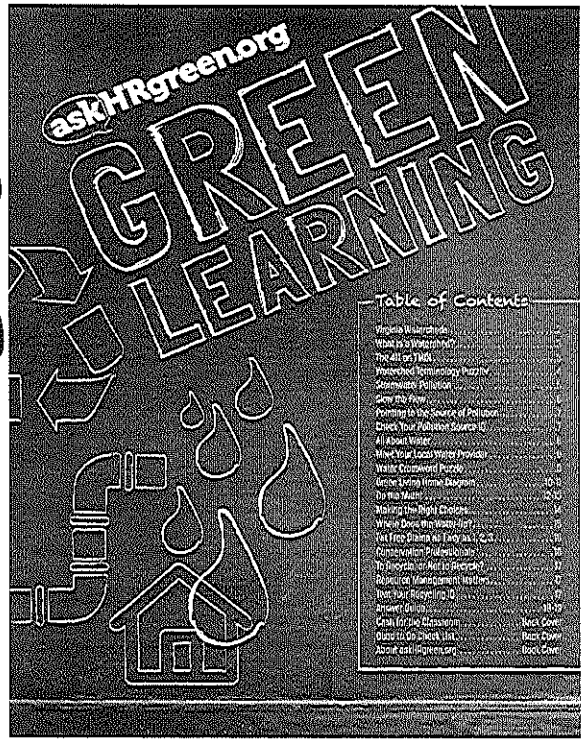
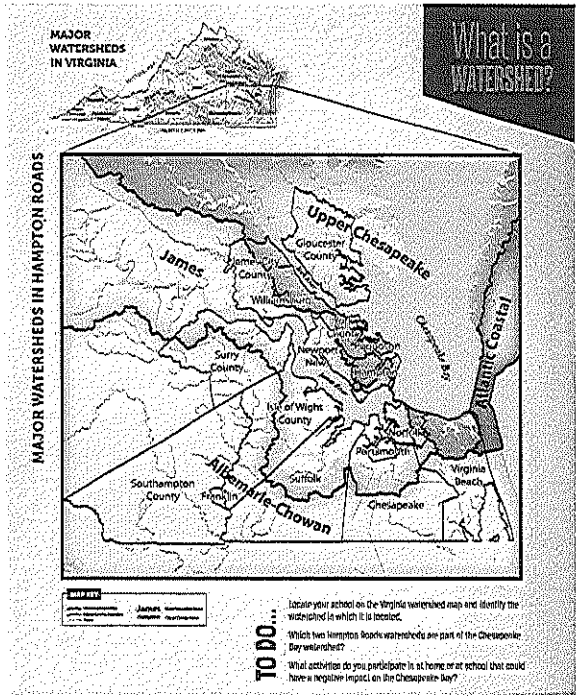
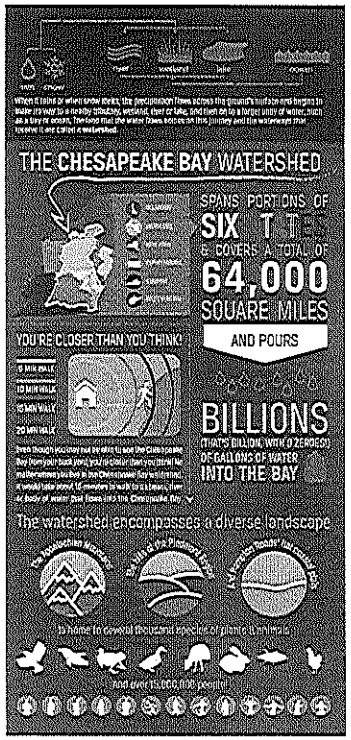






THE 411 ON TMDL

TMDL stands for Total Maximum Daily Load. It describes how much of a pollutant a body of water can receive while still meeting water quality standards. Think of it in terms of ice cream: you can only eat a certain amount in one day without overloading on calories. Too much of the same type of pollutant can have the same effect on a body of water, overloading its environment.

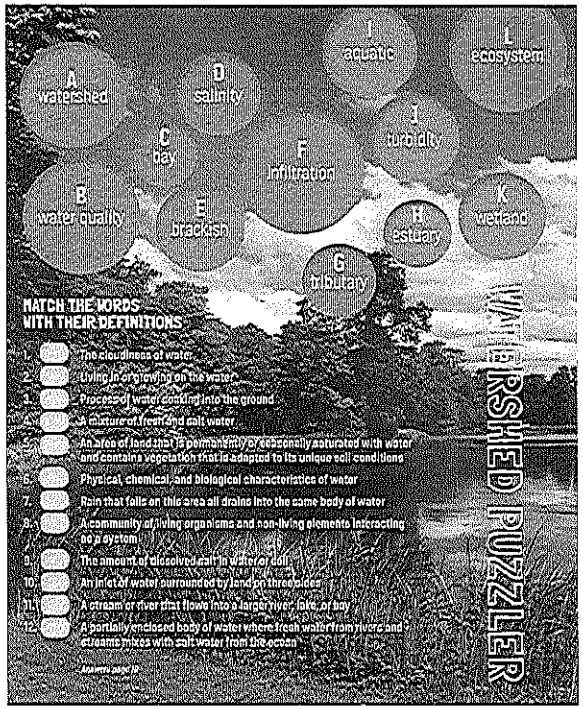
P PHOSPHORUS | N NITROGEN | S SEDIMENT

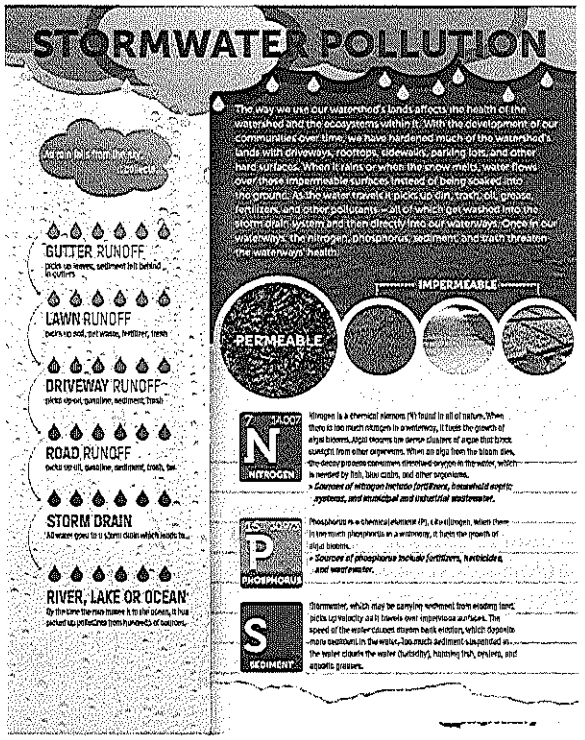
It may surprise you to know that some naturally-occurring pollutants, such as phosphorus, nitrogen and sediment are necessary components of a healthy waterway. The trouble is that human activity, such as over-fertilizing your lawn or not picking up pet waste, greatly increases their concentration in waterways which harms aquatic life.

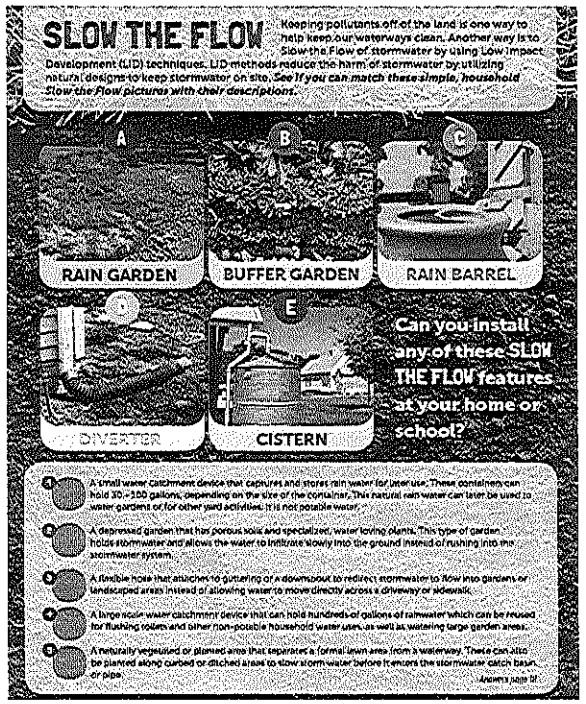
According to the Environmental Protection Agency (EPA), the Chesapeake Bay's water quality is poor. To help reverse this course, the EPA has set a TMDL for nitrogen, phosphorus and sediment. It is our responsibility as citizens to reduce the amount of these pollutants in our waterways.

THIS GUIDE IS PACKED WITH EASY THINGS TO DO AT HOME AND AT SCHOOL TO HELP KEEP POLLUTANTS OUT OF OUR WATERWAYS. A HEALTHY CHESAPEAKE BAY STARTS WITH YOU!

askHRgreen.org







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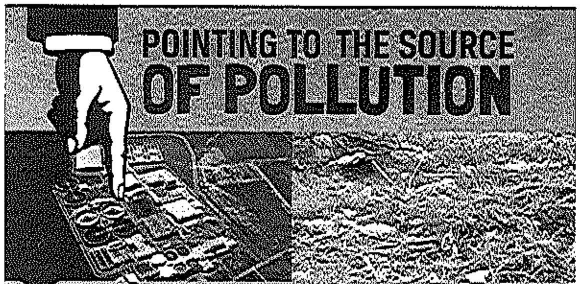
POINTING TO THE SOURCE OF POLLUTION



POINT SOURCE POLLUTION comes from identifiable sources that can be controlled. Factories and wastewater treatment plants are two common types of point sources. The federal government regulates point source pollution. HRSD treats the wastewater generated in Hampton Roads so it can be safely discharged to area waterways. HRSD staff work tirelessly to meet the federal water quality regulations to keep our local waterways clean.

NONPOINT SOURCE POLLUTION is pollution that travels over land as a result of runoff and whose source cannot be identified or controlled. Nonpoint source pollutants come from urban and rural areas, businesses, roads, parking lots, farms, and even forests. A few examples include roadside trash or animal droppings on the ground. When it rains, nonpoint source pollution is washed off the land and into our waterways. This is called stormwater runoff. It's difficult to point your finger to the source of nonpoint source pollution.

CHECK YOUR POLLUTION SOURCE I.Q.

Listed below are pollutants commonly found in the Chesapeake Bay. Mark a "P" on the line for point source pollution and "NP" for nonpoint source pollution.

1. ____ Vehicle oil on parking lot
2. ____ Fertilizer on sidewalk
3. ____ Soap in the street from a carwash
4. ____ Wastewater treatment plant
5. ____ Grass clippings in street
6. ____ Duck and geese feces on the ground
7. ____ Emissions from a power plant
8. ____ Sediment on a parking lot
9. ____ Trash alongside the road
10. ____ Cigarette butt on ground
11. ____ Leaves and branches on street
12. ____ Erosion
13. ____ Dog feces on the ground
14. ____ Crop fertilizer

All About Water

QUENCH YOUR THIRST FOR INFO

Water is a valuable natural resource used for many purposes — drinking, keeping clean, growing crops, swimming and recreation, generating power, and manufacturing goods.

In Hampton Roads, the water that flows through your taps comes from a variety of sources. Depending on where you live, your water may come from surface sources, such as lakes and rivers, or from groundwater. In some rural areas, people get their water from private wells that bring the water to their homes from aquifers, located under the ground. But in most parts of our region, water providers, such as your city or county water utility department, collect and treat water to make it clean and safe to drink. Then it's sent to people's homes through a system of underground pipes.

Water utilities can be privately owned or part of a department within your municipal government. The utilities charge customers for the services they provide, and the revenue pays for the electricity used to pump the water and the chemicals used to treat the water. It also is used to pay for the costs of managing the watershed, protecting water quality, and repairing or replacing the pipes, dams, treatment plants, and other infrastructure used to provide your water. If rates are too low to cover the cost of operations, water utilities sometimes have to postpone repairing or replacing leaky, worn out pipes.

A lot of water can be wasted through leaks. It doesn't matter if the leak occurs in a water main or in your home. Even if you get your water from a private well, wasted water means wasted money. People who use well water must pay for the energy to pump the water, and everyone pays for energy to heat water.

Wasting water can cause other problems:

It leaves less for others to use.

Wells can run dry and aquifers can be depleted, especially during droughts.

Septic systems can be overloaded by too much water.

Low river, stream, and reservoir levels hurt ecosystems and reduce recreational opportunities.

When water supplies get low, water utilities need to develop new water supply resources.

YOU CAN DO YOUR PART BY USING WATER WISELY.

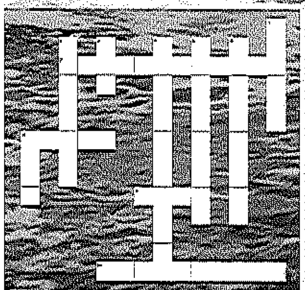
CHECK FOR LEAKY FAUCETS AND TOILETS (FIXING LEAKS IS A BIG WATER SAVER). TURN OFF THE FAUCET WHILE YOU'RE BRUSHING YOUR TEETH. WASH ONLY FULL LOADS OF DISHES AND LAUNDRY. TAKE SHORTER SHOWERS OR USE LESS WATER TO FILL THE BATHTUB. CAN YOU THINK OF OTHER WAYS TO SAVE WATER?

hydroplane
hydration
hydrophobia
hydroelectric
hydrosphere
hydrotherapy
hydroponics
hydraulic
hydrant
hydrology

Meet Your Local Water Provider

USE THE INTERNET TO FIND YOUR LOCAL WATER QUALITY REPORT TO LEARN ABOUT YOUR DRINKING WATER PROVIDER AND ANSWER THE FOLLOWING QUESTIONS:

- What is the name of your local drinking water provider?
- Do you get your water from this provider at home? At school?
- What role does a water utility play in providing for public health and safety?
- What is desalination?
- What is the treatment process used by your water utility and what chemicals do they use to make the water clean and safe to drink?



ACROSS

7. You can help stop water shortages from spreading by practicing ____.
8. A ____ toilet can waste up to 20 gallons of water per day.
10. Install one of these at your downspout to collect stormwater that can be used to water flowers and wash your car. (2 words)

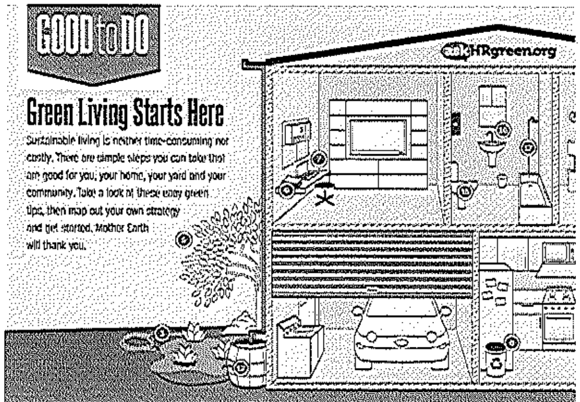
DOWN

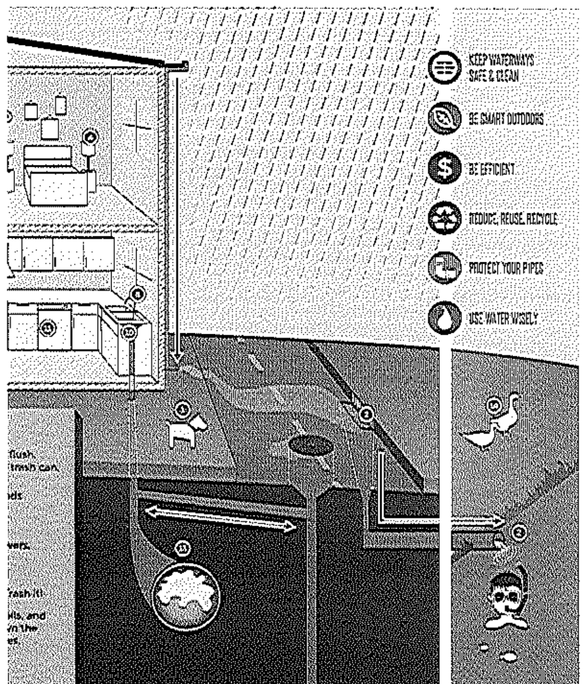
1. Rain that falls on streets and carries pollutants such as fertilizers, oil, and bacteria into streams, rivers, and lakes is known as stormwater ____.
2. This type of precipitation is a result of atmospheric moisture mixing with sulfur and nitrogen oxides emitted from the burning of fossil fuels. (2 words)
3. Less than ____ percent of the Earth's water is drinkable.
4. Surface water (water in lakes, rivers, and streams) is naturally lost through evaporation and naturally replenished by ____.
5. The process by which water renews itself. (2 words)
6. This process removes undesirable particles from water during the treatment process.
8. These were hollowed out to make the first water pipes in the U.S.

GOOD to DO

Green Living Starts Here

Sustainable living is neither time-consuming nor costly. There are simple steps you can take that are good for you, your home, your yard and your community. Take a look at these easy green tips, then map out your own strategy and get started. Mother Earth will thank you.





Fill the circles with the corresponding numbers in the diagram.

- ◯ Turn off the faucet while brushing your teeth.
- ◯ Only rain down the storm drain.
- ◯ Reduce and recycle paper, junk mail, and telephone books.
- ◯ Recycle paper, plastic, glass and aluminum.
- ◯ Catch the rain to water plants.
- ◯ Do not use the garbage disposal.
- ◯ Switch to more efficient light bulbs.
- ◯ Unplug electronics when they are not in use.
- ◯ Use a hose nozzle when watering your garden or washing your car.
- ◯ Drink tap water instead of bottled.
- ◯ Don't feed ducks or geese.
- ◯ Choose native, drought-tolerant trees, shrubs, and plants.
- ◯ Think before you flush. The toilet is not a trash can.
- ◯ Only wash full loads of dishes.
- ◯ Take shorter showers.
- ◯ Pet Waste: Scoop It! Bag It! Trash It!
- ◯ Never pour fats, oils, and grease (FOG) down the drain. It clogs pipes.

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DO THE MATH

How Much Water Does Your Household Use?

This home water audit will give your family an idea of how much water your household uses daily. Your family will need to help you gather some of the answers for this audit. Answer only the questions that apply to your house.

Household Information

TYPE OF DWELLING
☐ Detached single family residence
☐ Town house residence
☐ Condominium residence
☐ Apartment residence

Does your dwelling have an individual water meter?
☐ Yes ☐ No

____ Number of adults living in home
____ Number of children living in home

____ Number of toilets
____ Number of showers

Dishwasher? ☐ Yes ☐ No
Clothes washer? ☐ Yes ☐ No

Water Use

1. **SHOWERS:** How many showers does your family take a day? About how long is each one?
   ____ (Number of showers) X ____ (Number of minutes) = ____ (Total shower time per day)
2. **BATHS:** How many baths does your family take a day? A half-full tub is about 10 gallons, a full tub is about 30 gallons.
   ____ (Number in family) X ____ (Number of baths) = ____ (Total of baths per day)
3. **TOILETS:** How many times a day does your family flush the toilet? (The average is four flushes per person.)
   ____ (Number in family) X ____ (Flushes per day) = ____ (Total flushes per day)
4. **TEETH:** Most family members brush their teeth at least twice a day for about two minutes each time. Leaving the faucet on while brushing your teeth wastes a lot of water. How often does you family brush?
   ____ (Number in family) X ____ (Number of brushes per day) = ____ (Total number of brushes per day)
   ____ (Total number of brushes per day) X 2 MINUTES EACH BRUSH = ____ (Total minutes of brushes per day)
5. **HAND DISHWASHING:** How many times a day does your family wash dishes by hand? About how long does the water run each time?
   ____ (Washes per day) X ____ (Minutes water runs) = ____ (Total washing time per day)
6. **DISHWASHER:** Answer this question only if you have a dishwasher. How many times a week does your family run the dishwasher?
   ____ (Loads per week) ÷ 7 DAYS PER WEEK = ____ (Average loads per day)
7. **LAUNDRY:** Answer only if you have a washing machine. How many loads of laundry does your family do each week?
   ____ (Loads per week) ÷ 7 DAYS PER WEEK = ____ (Average loads per day)

6. OTHER INDOOR WATER USES: Your family also uses water indoors in other ways. List some of these ways.

9. LAWN WATERING: How many times a week does your family water the lawn? About how many minutes do you water each time?

_____ Watering days per week X _____ Watering minutes per day = _____ Total watering minutes per week

_____ Total watering minutes per week ÷ 7 DAYS PER WEEK = _____ Average watering time per day

10. OTHER OUTDOOR WATER USES: Your family may use water outdoors in other ways. List some of the ways.

FIGURE — YOUR FAMILY'S TOTAL DAILY USE

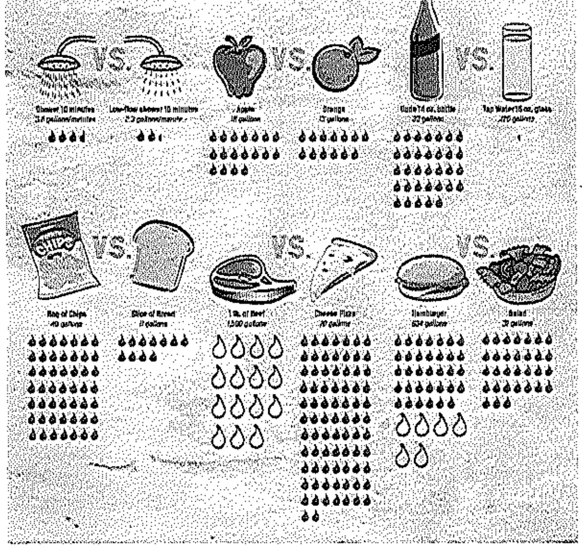
Put your DO THE MATH answers in column C. Multiply columns B and C and put your answers in column D. This is the amount of water your family uses daily for each activity. Next, add column D to reveal the estimate of the total gallons of water your family uses daily.

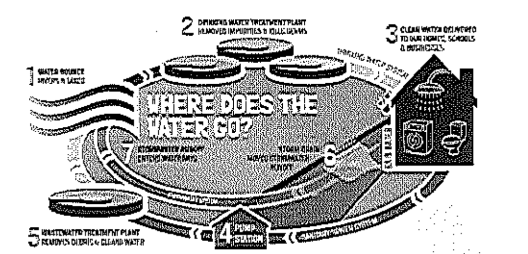
A	B	C	D
Water Use Activity	Gallons per Minute or Use	Minutes or Uses per Day	Total Water Use Per Day
1. SHOWERS	5 gallons per minute	X	=
2. BATHS	36 gallons per use	X	=
3. TOILETS	5 gallons per flush	X	=
4. TEETH	3 gallons per minute	X	=
5. HAND DISHWASHING	3 gallons per minute	X	=
6. DISHWASHER	30 gallons per use	X	=
7. LAUNDRY	40 gallons per use	X	=
8. OTHER INDOOR USE	Put answer from above		=
9. LAWN WATERING	10 gallons per minute	X	=
10. OTHER OUTDOOR WATER USES	Put answer from above		=

TOTAL FAMILY USE PER DAY _____ GALLONS

MAKING THE RIGHT CHOICES
HOW MUCH WATER IS USED FOR EACH?

= 1 GALLON DIRECT USE the water you actually use
= 1 GALLON VIRTUAL USE the water that helped make the things you use
= 100 GALLONS VIRTUAL USE





You've flushed a toilet, let the faucet flow and watched water rush down the street during a rainstorm. But do you really understand where the water goes? **In the Hampton Roads region, there are three very important pipe systems that are part of our regional infrastructure.** The drinking water system brings clean water to our homes, while the sanitary sewer system and the stormwater system are two separate systems that take water away from our homes and streets.

1 Most of the drinking water in Hampton Roads comes from rivers and lakes. 2 This surface water is pumped through huge pipes to a water treatment plant, where impurities are removed and germs are killed. Some people in our region use water that is pumped from deep underground. Unlike surface water, groundwater usually isn't treated to remove impurities, but it is disinfected to kill germs. 3 Once the water is clean and safe to drink, it is pumped through a network of pipes and storage facilities into our homes.

When water leaves our individual homes through sinks, showers, and toilets, it flows through a single small pipe which connects to a larger main pipe in the street. 4 The wastewater is carried through the sanitary sewer system by gravity to a pump station. 5 The pump station collects the wastewater and pushes it by force further down the pipes to the wastewater treatment plant. At the treatment plant, debris is removed and the water is cleaned to remove germs and bacteria before it is released back into our waterways.

6 Rainwater runoff from rooftops and gutters is directed to the stormwater system. The drain usually looks like a small opening in the curb or a grate in the pavement. 7 Unlike the sanitary sewer system, water that enters the stormwater system is never treated and flows directly to our local waterways. This is why it is so important not to litter. Cigarette butts, trash, dirt and grass clippings are all carried by the rain into the storm drain and out to rivers, lakes, or the ocean. This pollution is harmful to our waterways and local wildlife.

EACH SYSTEM HAS A SEPARATE AND SPECIFIC PURPOSE FROM THE OTHERS, AND IT IS IMPORTANT TO UNDERSTAND WHERE THE WATER GOES.

For the following questions, use the information to the left to explain how much water is used to make the items. Explain which required more water. Then turn your explanation into a ratio.

Example: How much water is used to produce an apple versus an orange?

1 apple = 18 gallons of water & 1 orange = 13 gallons of water

It takes 18 gallons of water to produce an apple and 13 gallons of water to produce an orange. It takes more water to produce an apple than an orange. The ratio of water use is 18:13.

How much water is used to produce a hamburger and chips vs. a cheese pizza?

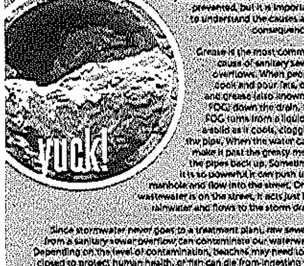
How much water is used to produce a 14 oz. bottle of soda vs. a 16 oz. glass of tap water?

Create your own question and test a classmate!

Answers page 18

Fat-free Drains AS EASY AS 1, 2, 3

The sanitary sewer system and stormwater system are efficient ways to collect and contain two different types of water. Water in the sanitary sewer system is treated, while water in the stormwater system is not. However, sometimes a sanitary sewer overflow does occur, in which case untreated wastewater from the sanitary sewer system enters the stormwater system. These occurrences can be prevented, but it is important to understand the causes and consequences.



Grease is the most common cause of sanitary sewer overflows. When people cook and pour fats, oils, and grease (also known as FOG) down the drain, the FOG turns from a liquid to a solid as it cools, clogging the pipe. When the water can't make it past the greasy mess, the pipes back up. Sometimes it is so powerful it can push up a manhole and flow into the street. Once wastewater is on the street, it acts just like rainwater and flows to the storm drain.

Since stormwater never goes to a treatment plant, raw sewage from a sanitary sewer overflow can contaminate our waterways. Depending on the level of contamination, beaches may need to be closed to protect human health, or fish can die from ingesting the dirty water.

Here are three easy ways to keep your drains fat-free:

Can the Grease
1 Pour used cooking grease into an empty, nonplastic container, such as a soup can, and 2 store it in the freezer. Once solidified, 3 toss the can into the garbage.

Scrape the Plate
Wipe all pots, pans, dishes and cooking utensils with a paper towel prior to washing to absorb the grease.

Catch the Scraps
Eliminate using the garbage disposal. Catch food scraps in your sink with a basket or strainer and toss them into the trash.

Don't let your sanitary sewer system back up. Once it's in the stormwater system, it's too late!

Conservation Professionals
Meet Daniel A. Baxter, Business Recycling Coordinator, City of Newport News Public Works Resource Recovery Division

Tell us about your job.
My job involves promoting recycling, waste reduction, and resource management among local businesses; overseeing recycling and resource recovery programs for municipal buildings and schools, coordinating electronics recycling for municipal operations and schools; providing education and outreach to businesses and residents; and auditing the household hazardous waste, recycling, and recycling contractors with whom we work.

Why did you decide to go into this field?
I have been involved and interested in conservation since I was a child. After [illegible] years in the Navy, I returned to college and pursued degrees in environmental geology, oceanography, and land use management.

What do you enjoy most about your job?
I enjoy meeting new people and working with innovators to develop and implement new solutions to challenges.

What did you study in high school and college that helped prepare you for this line of work?
Math (especially applied statistics up to advanced trigonometry), science, geography, English, civics, and foreign languages.

What advice do you have for students about recycling?
Recycling is a multifaceted discipline. It is constantly changing to meet new challenges. So, I'd advise you to be willing to learn and work with others to develop new innovations in recycling that will make a difference.

resource management Matters

Every day people make hundreds of choices regarding resource use: ride in a car or ride a bike; recycle or throw away your soda can; turn off the water or leave it running while you brush your teeth.

All of these decisions have costs and benefits. Renewable resources such as air, water, and trees are able to replenish themselves over time, yet it is important to balance their use with how quickly the resources can be replenished.

Nonrenewable resources such as coal, oil, natural gas, and nuclear power cannot be reproduced. When these are gone, the resources are gone for good.

TEST YOUR RECYCLING IQ

1. A soda can that is recycled today could be back in your house as a new can in just two months.
2. Aluminum can be recycled up to four times.
3. The average American generates four pounds of trash a day.
4. Glass can be recycled forever.
5. It takes 50 years for aluminum cans to decompose in a landfill.
6. Plastic bags and product wraps can be recycled at most grocery stores.
7. Electronics can be placed in the curbside recycling bin.
8. Recycling conserves resources and saves energy.

Answers page 18

TO RECYCLE, OR NOT TO RECYCLE?

Recycling plays an important role in responsible resource management.

Pitch in to make a difference by always recycling the following items:

FOR THE RECYCLING BIN
- Aluminum, steel and tin cans
- Clean plastic bottles and jugs with necks or pour spouts
- Glass bottles and jars
- Mixed paper (office paper, paper bags, magazines, newspaper and inserts, telephone books, junk mail)
- Empty food boxes and cardboard

FOR SPECIAL RECYCLING
- Plastic bags – Recycled at most grocery stores. Visit plasticfilmrecycling.org to find a store near you.
- Compact fluorescent light bulbs – Recycled at a household hazardous waste event or facility. askHRgreen.org/household-hazardous-waste
- Electronics – Recycled at most electronic stores and at electronic recycling events. askHRgreen.org/electronics-recycling
- Rechargeable batteries – Recycled at household hazardous waste events and most electronic stores. askHRgreen.org/household-hazardous-waste

CLIP AND SAVE!

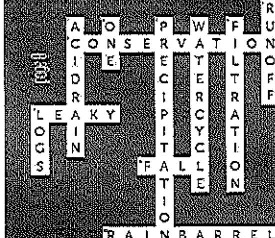
ANSWER GUIDE

page 4
1. J
2. I
3. F
4. E
5. K
6. D
7. A
8. L
9. D
10. C
11. G
12. H

page 6
1. C
2. A
3. D
4. E
5. B

page 7
1. NP
2. NP
3. NP
4. P
5. NP
6. NP
7. P
8. NP
9. NP
10. NP
11. NP
12. NP
13. NP
14. NP

page 8



page 10

16	4	15
2	7	11
9	3	17
8	6	1
12	14	13
10	5	

page 15
1. It takes 683 gallons of water to produce a hamburger and chips and 79 gallons of water to produce a cheese pizza. It takes more water to produce a hamburger and chips than it does to produce a cheese pizza. *The ratio of water use is 683:79. The ratio of water use is 683/79. The ratio of water use is 683 to 79.*
2. It takes 33 gallons of water to produce a 14 oz. bottle of soda and .125 gallons of water to produce a 16 oz. glass of tap water. It takes more water to produce a 14 oz. bottle of soda than it does to produce a 16 oz. glass of tap water. *The ratio of water use is 264:1. The ratio of water use is 264/1. The ratio of water use is 264 to 1.*

page 17
1. True
2. False (Forever)
3. True
4. True
5. False (100 years)
6. True
7. False (take to special electronics collection)
8. True

BMP 1.2C

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GLOSSARY

Acid rain: Rain or any other form of precipitation that is unusually acidic due to emissions of sulfur dioxide and nitrogen oxides.

Algal Blooms: A dense cluster of algae often caused by excess nitrogen and phosphorus. As a group, (1) blooms multiply more freely than other organisms that live beneath them, (2) many produce toxins that are ingested by fish and crabs.

Aquatic: Living or growing in water.

Aquifer: An underground body of porous rock, sand or gravel through which water can easily move.

Basin: An area of water surrounded by land or large island.

Brackish: A mixture of fresh and salt water.

Contamination: The process of removing salt from water so it can be used for drinking or irrigation.

Ecosystem: A community of living organisms and nonliving components interacting as a system.

Estuary: A partially enclosed body of water where freshwater from rivers and streams mixes with salt water from the ocean.

Herbicide: A substance for killing plants, especially weeds.

Impermeable: Not able to let water or liquid pass through.

Impervious: Not able to let anything through.

Infiltration: The process of water seeping into the ground.

Infrastructure: The system of public works such as roads, sewer pipes, stormwater ditches, ponds and pipes, and wastewater pipes.

Municipal: Referring to a town, city or its local government.

Porous: Able to let water or liquid pass through.

Potable: Fit to drink; drinkable.

Revenue: The income of a government from taxes, user fees, customs, or other sources.

Runoff: The water that flows off from the land and into a waterway.

Salinity: The amount of dissolved salt in water or soil.

Septic system: A small scale treatment system that collects and treats wastewater. These systems require periodic pumping and maintenance.

Tributary: A stream or river that flows into a larger river, lake, or bay.

Turbidity: The cloudiness of water.

Velocity: The rate of speed with which something moves.

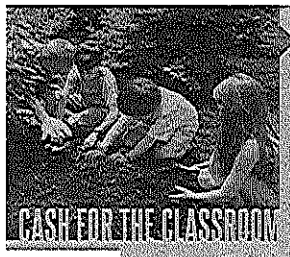
Wastewater: Water that has been used in washing, flushing, or manufacturing.

Watershed: Land that drains or sheds water into the same body of water.

Water main: A principal pipe that distributes drinkable water.

Water quality: The physical, chemical, and biological characteristics of water.

Wetland: An area of land that is permanently or seasonally saturated with water and contains vegetation that is adapted to its unique soil conditions.



CASH FOR THE CLASSROOM

EDUCATORS, TAKE NOTE.

Did you know that askHRgreen.org offers environmental education mini-grants of up to $500 intended to provide funding for environmentally-themed projects, the mini-grant may be used to fund a portion of, or an entire project.

All Hampton Roads school teachers (K-12), youth leaders, or organizations working with youth are eligible to apply. Projects must be specifically tied to suggested environmental topics, which can be found at askhrgreen.org/hr-green-mini-grant-application-package, along with an online application and details.

There is no deadline for applications, which are accepted year round as long as funding is available.

- ☐ Scoop, bag, and trash your dog's waste
- ☐ Recycle paper, plastic, glass, and aluminum
- ☐ Bring reusable bags to the grocery store
- ☐ Turn off the lights when leaving a room
- ☐ Choose tap water instead of bottled water
- ☐ Turn off the water while brushing your teeth
- ☐ Let only rain go down the storm drain
- ☐ Plant a tree
- ☐ Read more and watch less TV
- ☐ Pick up any trash you or others may have dropped

GOOD to DO

PROTECTING THE ENVIRONMENT IS EVERYONE'S RESPONSIBILITY.

Every decision you make and every action you take **makes a difference!**

askHRgreen.org

askHRgreen.org is your go-to resource for all things green in Hampton Roads — from educational tips and primers for keeping local waterways clean to water-saving ideas and simple steps to make local living easy on the environment.

askHRgreen.org is administered through the Hampton Roads Planning District Commission (HRPDC) and powered by the following members: the cities of Chesapeake, Franklin, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach, and Williamsburg; the counties of Gloucester, Isle of Wight, James City, Southampton, Surry and York; and HRSD.

GET INSPIRED TO BE THE BEST ENVIRONMENTAL CITIZEN YOU CAN BE!

LIKE US facebook.com/askHRgreen

FOLLOW US twitter.com/HRgreen

TUNE IN TO youtube.com/user/HRGreenVA

READ OUR BLOG askhrgreen.org/blog

BMP 1.2.2

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Phase II Stormwater Training Topics

Referenced in the following Program Plan Components: 1.1c, 1.3a, and 6.1

Topic	Last offered	Previous dates	Notes
Fleet Maintenance	Mar-05		No longer a priority, just include vehicle washing SOPs under Pollution Prevention Training.
Landscaping	Mar-06		
IDDE	May-13	5/1/2007, 2/1/2008, 10/9/2009	IDDE and Pollution Prevention were covered at the same training.
General Pollution Prevention	May-13	3/1/2004, 2/1/2009	
Parks & Open Space Mgt. (Nutrient Management)	Mar-11		
Erosion and Sediment Control	May-13		

Note: Training topics are reviewed and prioritized at least twice during the permit cycle. Topics were reviewed and prioritized most recently at the September 2011 Ph II meeting, as documented in the meeting summary kept on file at the HRPDC.

BMP 1.1c, 1.3a, 6.1

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Hampton Roads Planning District Commission

Pollution Prevention/Good Housekeeping and Spill Response for Municipal Operations

Training Outline

1. Participant expectations and training format
2. Training objectives
3. Overview of local water resources and pollutant effects on those waterways
4. Overview of relevant laws and regulations for water resources protection
5. Virginia MS4 permit requirements
6. Pollution Prevention and Good Housekeeping for Municipal Operations
    a. Developing a P2/good housekeeping program
    b. Common pollutants and sources
    c. Identifying sources
    d. Identifying best management practices
    e. Developing an implementation and monitoring plan
    f. Additional resources
7. Spill Prevention and Response
    a. Spill prevention
    b. Spill response basics/Spill response safety
    c. Spill response planning
    d. Spill response procedures
    e. Identifying hazards
    f. Spill containment and clean up
    g. Spill reporting and recordkeeping

P2 Training: May 1, 2013 Attendance List

First Name:	Last Name:	Email Address:	Job Title:	Department:
George	Adams	george.adams@jamescitycountyva.gov	Utility Operations Administrator	James City Service Authority
Leah	Aguilar	leah.aguilar@yorkcounty.gov	Engineering Specialist II-BMP Inspector	EDS
William	Allen	wkallen@nngov.com	environmental specialist	engineering / env.svcs
Greg	Atkinson Sr.			
Terry	Barrett	tbarrett@hampton.gov	Master Plumber	Facilities Management
Ronald	Belknap	Poquoson	Utilities Operator	Poquoson Public Utilities
Jodie	Bentley	jbentley@nngov.com	Fleet Support Manager	Vehicle Equipment Services
Edward	Bishop			
John	Blankenship			
Michael	Booker			
Pennie	Boyack	pennie.boyack@nn.k12.va.us	Supervisor of Environmental Health and Safety	Plant Services
John	Browning	jjordan@hampton.gov	Weighmaster	Public Works/Steam Plant
Jerry	Cagle	jerry.cagle@poquoson-va.gov	Mosquito and Drainage Supervisor	Mosquito and Drainage
Kenneth	Charnock	krcharnock@hampton.gov	Construction Inspector II	Street Operations
Jamie	Clark	jclark@nngov.com	Engineer III	City of Newport News, Environmental Services
Godfrey	Clinton	bigdaddy_23663@yahoo.com	master equipement operator	s/w
Paul	Cuomo	paul.cuomo@jamescitycountyva.gov	Stormwater Inspector	James City County General Services
Christopher	DeHart	cdehart@hampton.gov	Environmental Services Team Leader	Public Works Stormwater Maintenance
Lucinda	Dibble			
Tim	DuBois			
Billy	Estes	estesb@wjcc.k12.va.us	Shop foreman	transportation
Michael	Fleming			
Kevin	Gallagher	Hampton		solid waste
Michael	Geer	Poquoson	Equipment Operator	Public Works
Amy	Gray	agray@nngov.com	Assistant Administrator	Public Works
Jason	Hardy	Hampton		Steam Plant
Michael	Hargrave	michael.hargrave@isleofwightus.net	Environmental and Engineering Technician	Engineering
Craig	Hofmeyer	chofmeyer@nngov.com	Environmental Specialist	Engineering

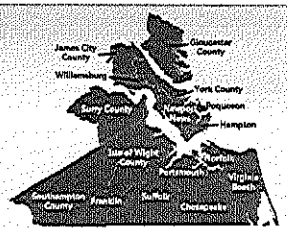
Robert	Isom	risom@hampton.gov	Project Leader	Public Works/Wastewater
James	Kapp	Hampton		
David	Kuzma	dkuzma@nngov.com	MS4 Permit Administrator	City of Newport News Department of Engineering
Mike	Lassiter	mlassiter@suffolkva.us	Asst. Manager	Public Utilities
DeAnna	Lawrence			
Gerry	Lewis			
Jenny	Lippincott	jennifer.lippincott@norfolk.gov	Environmental Specialist	Public Works Operations-Stormwater
Mark	LInkenhoker	mlinkenhoker@nngov.com	Environmental Specialist	Engineering
Steven	Manago	Hampton		
Brandy	McCoy	York Co.		
Jim	McDavid	jmcdavid@nngov.com	Operations Superintendent	Resource Recovery
Chip	McDonough	Hampton		solid waste
John	Miller	jemiller@hampton.gov	Environmental Services	Public Works
Michael	Monelly	mmonelly@nngov.com	Operations Superintendent	City of Newport News Public Works
Bruce	Porter	bporter@suffolkva.us	Supervisor	Public Utilities
Greg	Pressey			
Rick	Rawles			
Paul Tyler	Richardson	ptrichardson@hampton.gov	Bridge and Streets Superintendent	Street Operations
Danielle	Ridley	dridley@isleofwightus.net	Engineering & Environmental Techinican	Engineering Dept.
Ellen	Roberts	ellen.roberts@poquoson-va.gov	City Engineer	Engineering
Erin	Rountree	erountree@suffolkva.us	Environmental Specialist	City of Suffolk Dept. Public Works Engineering
Charles	Sharp	charles.sharp@norfolk.gov	Crew Leader I	Norfolk Public Works
Joe	Solomon			
Jimmie	Sparkmon	jssparkmon@hampton.gov	Senior Inspector	Street Operations
Paul	Springe	kg4gmy@gmail.com	master equipment oprator	solid waste
Tracy	Steele	tsteele@nngov.com	Environmental Specialist	Engineering - Environmental Services Division
Travis	Stratton			
Tobin	Vreeland			
Jeffrey	Weyen	jweyen@nngov.com	Generator Specialist	City of Newport News Public Works
Anthony	Williams			

*

P2 Training: May 2, 2013 Attendees

First Name:	Last Name:	Email Address:	Job Title:	Department:
Glenn	Adams	gadams@suffolkva.us	Street Superintendent II	Public Works Operations
Jonas	Alered	jalered@suffolkva.us	Civil Engineer	Public Works Operations
Carlos	Batten			
Erin	Belt	erin.belt@isleofwightus.net	Environmental Programs Manager	General Services - Engineering
* Mark	Boesen	mark.boesen@poquoson-va.gov	Construction Inspector	Public Works
Kerry	Bond	kbond@suffolkva.us	Street Superindent I	Public Works Operations
Brad	Braendle	bbraendle@suffolkva.us	Fleet and Equipment Services Assistant Manager	Public Works - Fleet Management
Donna	Corbus	corbusd@portsmouthva.gov	Recycling Coordinator	General Services
Quincy	Daniel	qdaniel@hampton.gov	Stormwater Superintendent	Public Works
Shawn	Fluharty	shawn.fluharty@norfolk.gov	Environmental Specialist II	City of Norfolk Public Works
Mark	Fogg	jreuter@vbgov.com	Mechanic II	Parks and Recreation
Nathaniel	Foster	nathaniel.foster@norfolk.gov	Norfolk	Streets & Bridges
Edward	Heide	eheide@suffolkva.us	Civil Engineer I	Public Works
Chris	Hewitt	Isle of Wight		
Amber	Jackson			
Philip	Jones	pjones@suffolkva.us	FOG/Cross Connection Inspector	Public Utilities
Antonio	Jordan	ajordan@suffolkva.us	Operations Manager	Public Works Operations
Mike	Lassiter	mlassiter@suffolkva.us	Asst. Manager	Public Utilities
Melissa	Lindgren	melissa.lindgren@isleofwightus.net	County Engineer	General Services-Engineering
Natalie	Mackie	nmackie@nngov.com	Environmental Scientist	Waterworks
Don	McCau	lvgrimst@vbgov.com	Mechanic II	Parks and Recreation
Bob	Merrick	kkehr@vbgov.com	Mechanic II	Parks and Recreation
Scott	Newbury	druiz@vbgov.com	GK III	Parks and Recreation
Joseph	Norris			
Chad	Oxton	coxton@suffolkva.us	Street Superintendent I	Public Works Operations

Thomas	Patterson	tpatterson@suffolkva.us	Street Superintendent I	Public Works Operations
Bruce	Porter	bporter@suffolkva.us	Supervisor	Public Utilities
Thomas	Roberts	troberts@suffolkva.us	Street Superintendent I	Public Works Operations
Tory	Rowland	trowland@suffolkva.us	Engineering Technician	Public Works - Engineering/Stormwater Division
Charles	Ruffin			
John David	Sanders	jdsanders@hampton.gov	Infrastructure Construction Project Leader	Street Operations
Ventry	Smith	smithv@portsmouthva.gov	Pumping and Conveyance Supt.	Public Utilities
Michael	Snapp	bodina.wright@poquoson-va.gov	Public Utilities	
William Keith	Stewart	wkstewart@hampton.gov	Infrastructure Construction Project Leader	Street Operations
Henry	Strickland	stricklandh@portsmouthva.gov	Landfill superintendent	waste management
Kenneth	Strickland	stricklandk@portsmouthva.gov	Superintentdent	Fleet Management
Amos	Taylor	taylora@portsmouthva.gov	waste management supervisor	general services
John	Taylor	calleva@vbgov.com	GK III	Parks and Recreation
Bob	Watkins	bwatkins@iwus.net	Codes Enforcement Officer	Planning & Zoning
Tom	Watson	bgainey@vbgov.com	GK III	Parks and Recreation
Bradley	Wilkins	bodina.wright@poquoson-va.gov	Equipment Operator Forman	Public Works
James	Williams			
George	Wojcik	wojcikg@portsmouthva.gov	Mosquito Control Administrator	Portsmouth Public Works
Robert Shayne	Zasimowich	rszasimowich@hampton.gov	Team Leader	Street Operations



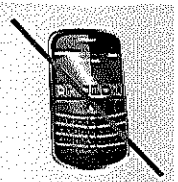
Pollution Prevention and Spill Response for Municipal Operations

HAMPTON ROADS PDC

URS

Participant Expectations and Training Format

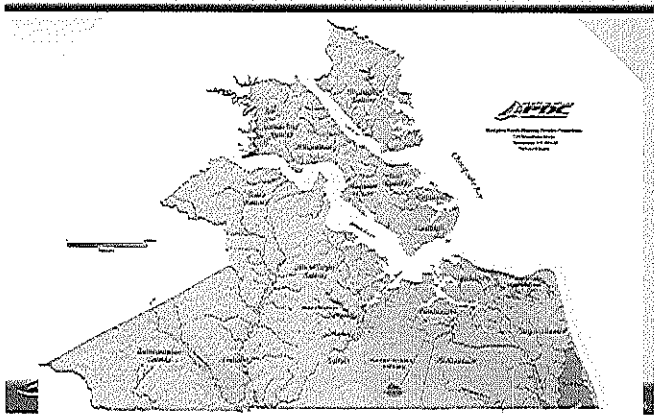
- Silence phones and electronic devices
- Breaks will be taken as needed
- Active participation is encouraged



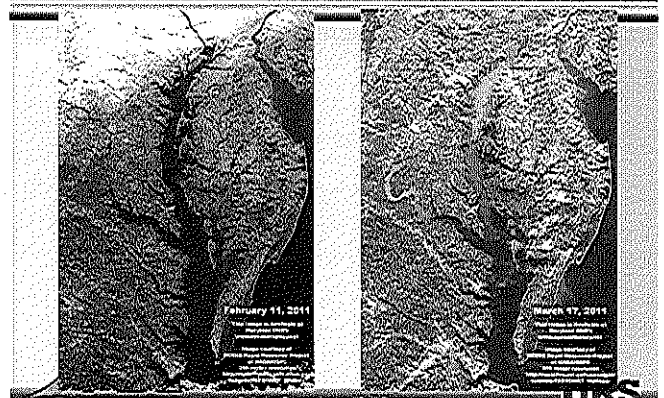
Training Objectives

- Pollution Prevention / Good Housekeeping Program
  - Identify common pollutant sources from municipal operations
  - Identify and implement best management practices for preventing stormwater pollution
  - Monitor the effectiveness of the program
- Spill Prevention and Response
  - Spill Prevention, Control and Countermeasure (SPCC) Plans
  - Implement an effective spill prevention and control program
  - Understand spill hazards and safe response actions

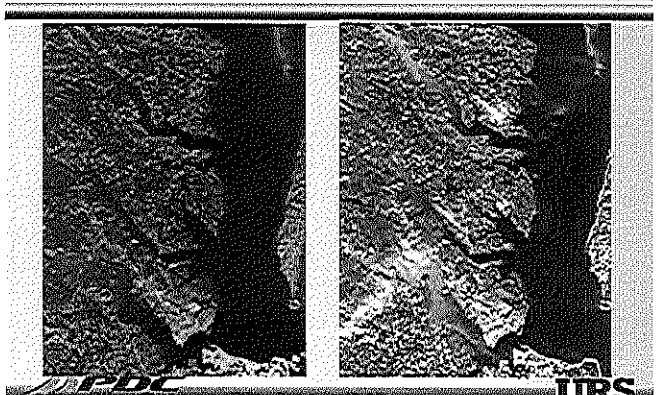
Hampton Roads Water Resources



Pollution Effects on Local Water Resources



Pollution Effects on Local Water Resources



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Laws and Regulations to Protect Water Resources

Laws

- Federal - Clean Water Act
- Code of Virginia: Title 62.1 - Waters of the State, Ports and Harbors.
  - State Water Resources Law
  - State Water Control Law
  - Chesapeake Bay and Virginia Waters Clean-Up and Oversight Act

Laws and Regulations to Protect Water Resources

Regulations

Title 4 – Conservation and Natural Resources
Agency 50 – Virginia Soil and Water Conservation Board
Chapter 60 – Virginia Stormwater Management Program (VSMP) Permit Regulations

Title 9 – Environment
Agency 25 – State Water Control Board
Chapter 31 – Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation

Virginia MS4 Permit Requirements

- Minimum Measure #6: Pollution Prevention/Good Housekeeping for Municipal Operations
- MM 6a: Operations and Maintenance *Activities*
- Develop and implement written procedures designed to minimize or prevent pollutant discharge from:
  - daily operations such as road, street, and parking lot maintenance
  - equipment maintenance
  - the application, storage, transport, and disposal of pesticides, herbicides, and fertilizers

Virginia MS4 Permit Requirements

- At a minimum, the written procedures shall be designed to:
  - Prevent illicit discharges
  - Ensure the proper disposal of waste materials
  - Prevent the discharge of municipal vehicle wash water/wastewater into the MS4 without authorization under a separate VPDES permit
  - Require BMPs when discharging water pumped from utility construction and maintenance activities
  - Minimize the pollutants in stormwater runoff from bulk storage areas
  - Prevent pollutant discharge from leaking municipal automobiles and equipment
  - Ensure that the application of materials, including fertilizers and pesticides, is conducted in accordance with the manufacturer's recommendations

Virginia MS4 Permit Requirements

- Minimum Measure #6b: Municipal *Facility* Pollution Prevention and Good Housekeeping
  - composting facilities
  - equipment storage and maintenance facilities
  - materials storage yards
  - pesticide storage facilities
  - public works yards
  - recycling facilities
  - salt storage facilities
  - solid waste handling and transfer facilities
  - vehicle storage and maintenance yards

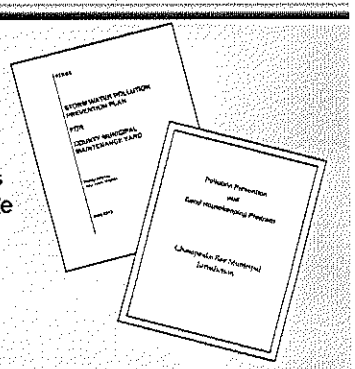
Virginia MS4 Permit Requirements

- Identify which of the municipal high-priority facilities have a high potential of chemicals or other materials to be discharged in stormwater.
- Develop and implement specific stormwater pollution prevention plans (SWPPPs) for all high-priority facilities identified as having a high potential for the discharge of chemicals and other materials in stormwater

Pollution Prevention and Good Housekeeping for Municipal Operations

Developing a P2/Good Housekeeping Program

- Step 1: Identify the pollutant sources and pollutants
- Step 2: Identify best management practices to prevent the discharge of pollutants
- Step 3: Develop an implementation and monitoring plan



Common Pollutant Source Areas and Activities

- Vehicle and equipment parking/storage
- Vehicle and equipment fueling
- Vehicle and equipment maintenance and repair
- Vehicle and equipment washing and steam cleaning
- Waste handling and disposal
- Buildings and grounds maintenance

Common Pollutant Source Areas and Activities

- Outdoor Loading and Unloading of Materials
- Outdoor Container Storage of Liquids
- Outdoor Storage of Bulk Materials
- Outdoor Process Equipment
- Landscape Maintenance

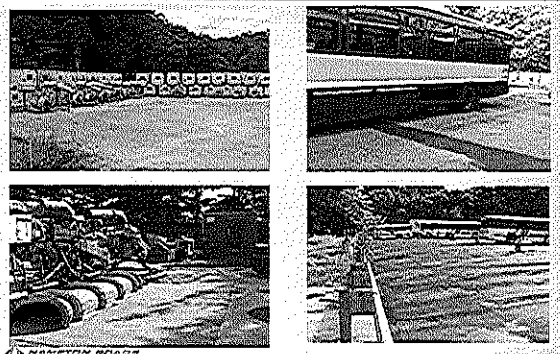
Pollutants from Municipal Operations

- Sediment
- Nutrients
- Metals
- Hydrocarbons
- Pesticides
- Trash
- Bacterial
- Oil & Grease
- Toxins
- Organics

Step 1: Identify Pollutant Sources

- Inspect all outdoor areas of your facility or area of operations
- Note hotspot activities – storage, loading/unloading , maintenance, fueling, waste handling, grounds maintenance, etc.
- Look for evidence of pollutants – sediment trails, oily deposits and stains, loose materials, dead vegetation, etc.

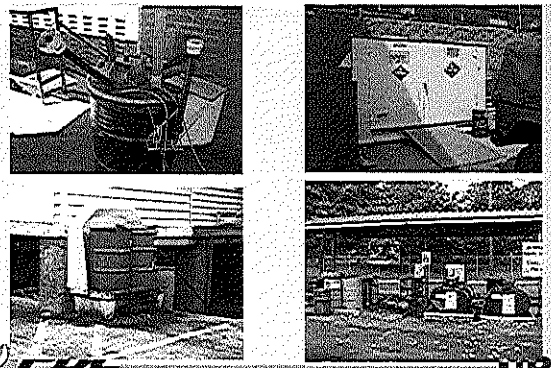
Vehicle and equipment parking/storage



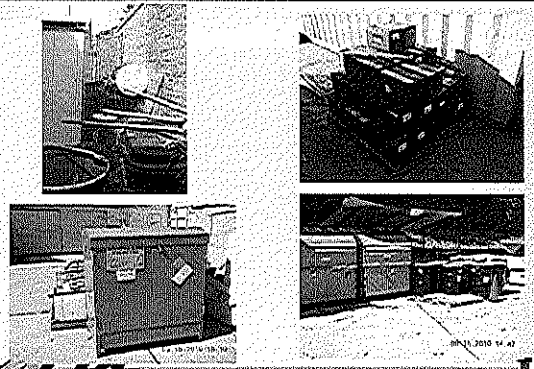
Vehicle and equipment fueling

Waste handling and disposal

Outdoor Container/Equipment Storage

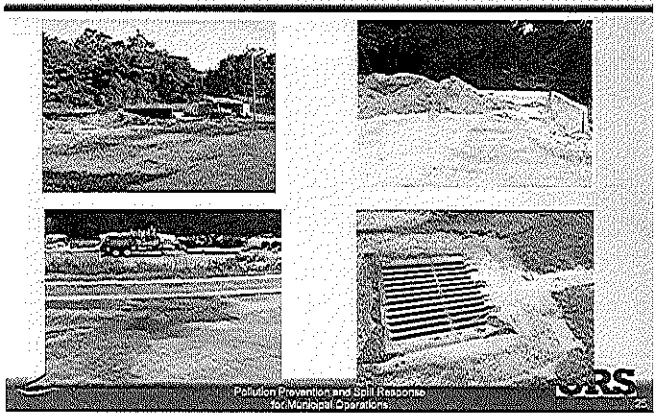


Outdoor Material Storage



Bulk Material Storage

Bulk Material Storage



Step 2: Identify best management practices to prevent the discharge of pollutants

- Identify existing BMPs
- Identify drivers for the existing BMPs
  - Existing SWPPP
  - Standard Operating Procedure
  - Local ordinance
  - Departmental policy

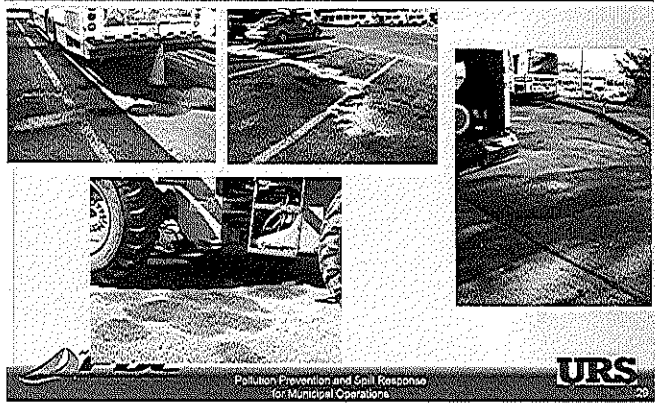
Step 2: Identify best management practices to prevent the discharge of pollutants (cont.)

- Identify new BMPs
- P2/Good Housekeeping BMPs should be focused on:
  - Behavioral/management changes
  - Non-structural practices

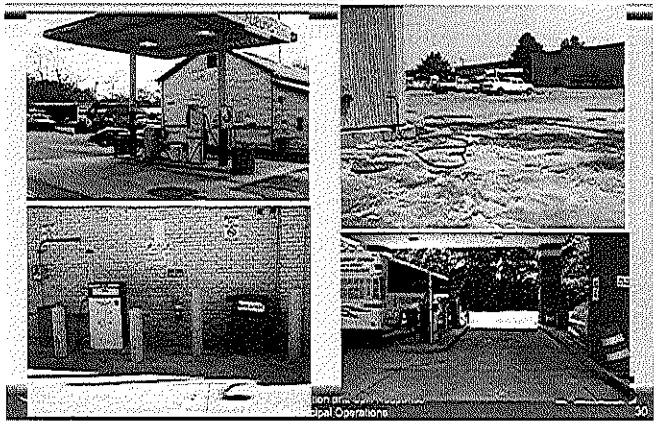
Step 2: Identify best management practices to prevent the discharge of pollutants (cont.)

- BMP categories to consider:
  - Source elimination
  - Source reduction/inventory control
  - Storage/work practices
  - Inspection and maintenance
  - Spill prevention and control
  - Training

Vehicle and equipment parking/storage



Vehicle Fueling and Washing



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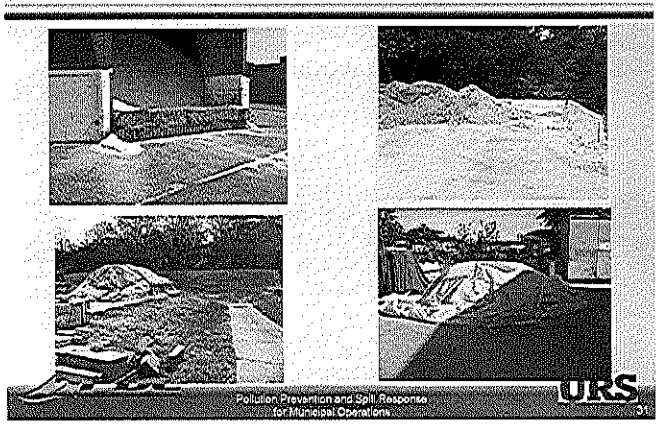
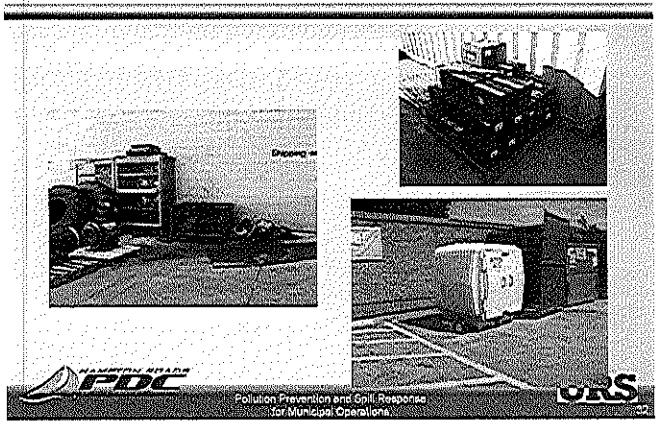
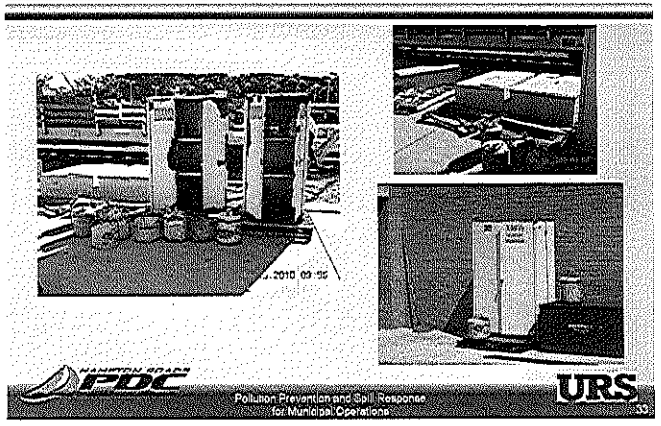
Bulk Material Storage



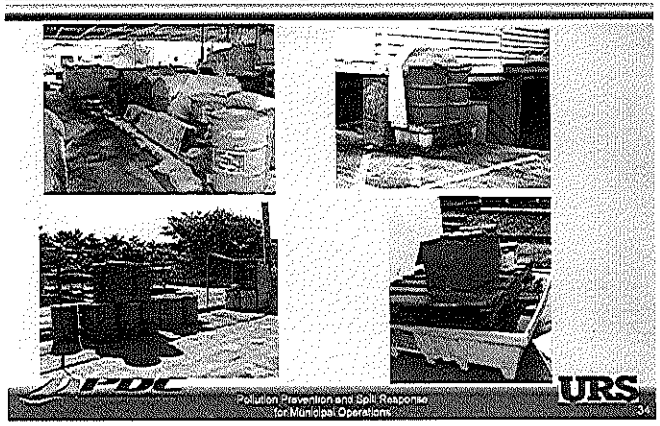
Outdoor Material Storage



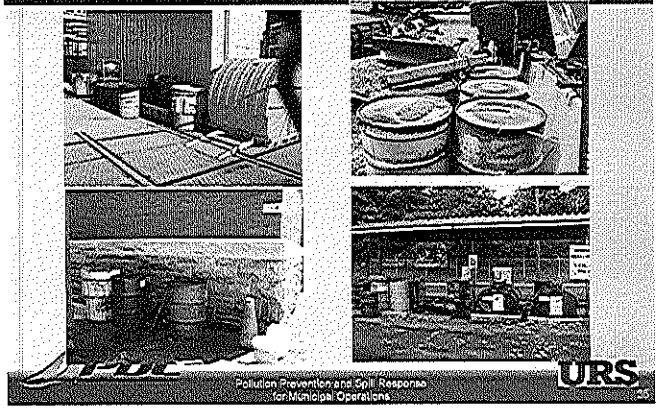
Outdoor Material Storage



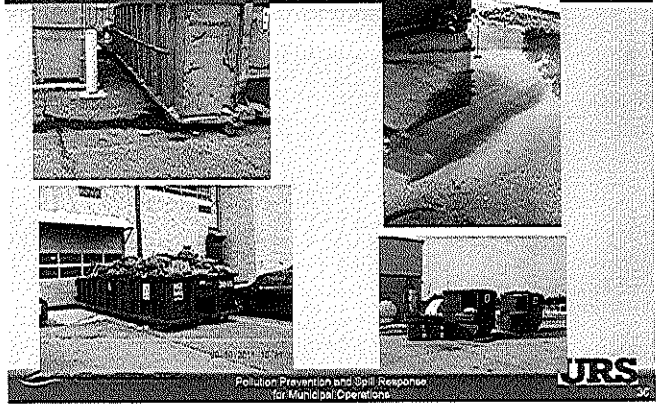
Outdoor Container Storage



Outdoor Container Storage



Waste handling and disposal



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Step 3: Develop an implementation and monitoring plan

- Implementation Plan
  - Develop measurable goals and a schedule for implementing pollution prevention and good housekeeping BMPs
  - The goals must have a yardstick for measuring effectiveness and progress towards achievement
    - Example: number of employees trained, number of inspections performed, frequency of sweeping reduced, etc.
  - Include a recordkeeping system

Step 3: Develop an implementation and monitoring plan

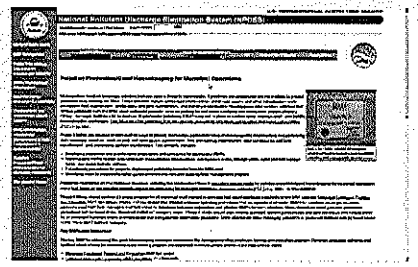
- Examples of measurable goals:
  - Provide containment for drum storage areas
  - Implement weekly exterior inspections
  - Remove/recycle scrap metal and equipment from boneyard
  - Provide spill kits and waste absorbent containers at fueling stations
  - Develop material inventories
  - Develop training program

Step 3: Develop an implementation and monitoring plan

- Monitoring Plan
  - Conduct annual inspections
    - Confirm that BMPs have been implemented
    - Look for evidence of effectiveness
  - Conduct an annual implementation plan evaluation
    - Review routine inspection records; look for trends and improvements
    - Review training records
  - Other methods to consider: surveys, storm water monitoring

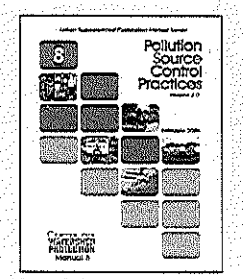
Additional Resources

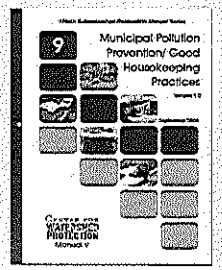
- http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=min_measure&min_measure_id=6



Additional Resources

- http://www.cwp.org/documents/cat_view/68-urban-subwatershed-restoration-manual-series.html





Additional Resources

- http://www.epa.ohio.gov/Portals/41/storm_workshop/ppghptemplateblank.pdf
- http://www2.erie.gov/environment/sites/www2.erie.gov.environment/files/uploads/guidance_document.pdf

Spill Prevention and Response

Spill Prevention and Response

- Preventing spilled materials from contacting storm water and reaching waterways is an important component of any pollution prevention program
- Your facility may be subject to Spill Prevention Control and Countermeasure (SPCC) Plan requirements under federal regulations
- If your operations require the use and storage of oil products and other potentially hazardous materials, a spill response and control plan will help reduce the risk of spilled materials contaminating waterways

SPCC Plans

- Required for facilities with aboveground oil storage capacity greater than 1,320 gallons or 42,000 gallons in underground storage tanks that are not regulated under another program
- Can reasonably expect a discharge to reach navigable waters of the US

SPCC Plans

- What is an SPCC Plan?
  - Document that details the equipment, workforce, and procedures to prevent, control, and respond to a discharge of oil
- Purpose of the SPCCP
  - To prevent discharges of oil into U.S. waters
- What is an "oil"?
  - Any kind, in any form, including: heating oils, motor fuels, lubricating oils, cutting oils, quenching oils, hydraulic oils, transformer oils and cooking oils.

Spill Prevention and Response

- Spill Prevention
  - Practices that reduce the risk of materials being spilled
- Spill Response
  - Preventing spilled materials from reaching waterways or impacting the environment

Spill Prevention

- Common spill prevention practices:
  - Inspection and regular maintenance of liquid containers and equipment
  - Best management practices: clearly-labeled containers, good housekeeping
  - Constant monitoring during liquid transfers/deliveries
  - Secondary containment
  - Routine inspections
  - Site security
  - Annual training

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Spill Response

- Your responsibilities for spill response may vary based on departmental/agency policies
- Your department/agency's policies may specify the size of the spill you can control or clean up
- Safety should be your first priority ALWAYS

Spill Response Safety

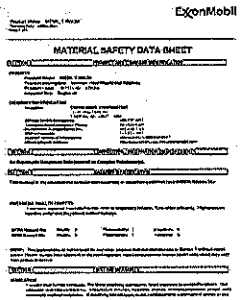
- Think about the ways you could be exposed to hazards:
  - Inhaling vapors, gases, or dusts in air
  - Being splashed by materials while handling containers or waste materials
  - Walking through puddles of spilled materials
  - Touching wet or leaking containers or contaminated equipment

Spill Response Safety

- Always wear your personal protective equipment (PPE) such as gloves, boots, and safety glasses
- Wear the correct PPE for the task
- Know the limitations of the PPE

Spill Response Planning

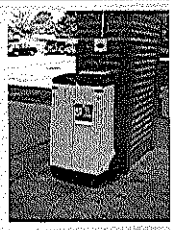
- Evaluate likely spill scenarios
  - Materials
  - Volume
- Use Material Safety Data Sheets (MSDS) to evaluate exposure hazards, appropriate PPE, and disposal requirements for clean up materials
- Make sure roles and responsibilities are clearly defined

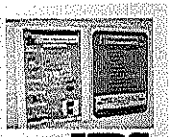

ExxonMobil

MATERIAL SAFETY DATA SHEET

Spill Response Planning

- Make sure roles and responsibilities are clearly defined
- Establish a notification chain-of command
- Identify spill reporting requirements
- Provide adequate spill response materials
- Provide training and written response instructions





Spill Response Procedures

- General Spill Response Procedures

Step 1:	Approach The Scene
Step 2:	Secure The Scene
Step 3:	Identify The Hazards
Step 4:	Assess The Situation
Step 5:	Report The Spill
Step 6:	Contain The Spill
Step 7:	Cleanup The Spill
Step 8:	Complete Spill Documentation

Step 1: Approach the Scene

- Don't rush in!
- Always consider the safety of:
  - Yourself
  - Your coworkers
  - The public
- Do not take risks – act on the cautious side.
- Avoid exposure – Approach upwind, and stay clear of spills, vapors, fumes, and smoke
- If a person is injured, call 911 immediately

Step 2: Secure the Scene

- Isolate the spill
- Keep people away from the scene
  - Divert traffic and pedestrians
- If possible, stop the source of the spill
- Eliminate any ignition sources

Step 3: Identify the Hazards

- Attempt to identify the spilled material
  - May be obvious
  - Characteristics (odor, color, sheen)
  - Labels/Markings
  - Container type
  - Activities in area
  - Placards
  - Hazard warnings

Step 4: Assess the Situation

- Determine the appropriate first response actions and if additional response help is needed
- The response will be dictated by the size of the spill and the hazard
  - Is there a fire, a spill, or a leak?
  - Is there a potential for it to mix with something else?
- Observe your surroundings:
  - Who/what is at risk?
  - Is an evacuation necessary?
  - What resources are required and readily available to contain the spill?

Step 5: Report the Spill

- The Virginia Department of Environmental Quality must be notified within 24 hours of any petroleum spills that:
  - Cause a sheen on the water,
  - Are greater than 25 gallons, or
  - Cannot be cleaned up within 24 hours
- All spills contacting or occurring close to water or that pose a threat to human health or the environment must be reported to the National Response Center **Immediately**
- Consult agency directives for local and municipal notification requirements

Step 6a: Contain the Spill

- Put on the appropriate PPE
- Place booms or available materials around the perimeter of the spill to keep it from spreading
- Apply absorbent materials starting from the downhill and outside edge of the spill

Step 6b: Keep the Spill from Entering Waterways

- Place booms in front of nearest storm drain inlet
- Put absorbent pads over any exposed ground drains
- You may need to construct a dike out of soil or other materials to prevent spill from reaching storm drains and waterways

Step 7a: Clean Up the Spill

- If you have the proper training, small spills of some hazardous materials can be cleaned up according the chemical label and your training
- For incidental spills that you can safely contain, clean up the spill and remove all used spill response materials
- Clean up and disposal responsibility may vary for emergency spills

Step 7b: Complete Spill Follow-up Actions

- Clean and decontaminate all reusable spill cleanup equipment
- Don't bring the contamination home
  - Remove contaminated clothing
  - Place in a bag to wash separately
  - Clean or remove boots
  - Wash your hands
- Be sure to restock your spill response materials and PPE as soon as possible

Step 8: Complete Spill Documentation

- Update facility spill records
- Write a Release Investigation Report if required by the VDEQ
  - VDEQ will send a letter outlining investigation requirements and deadlines when a suspected or confirmed release is reported

Hazard Identification

Types of Hazards

Type of Hazard	Examples	
Physical	Mechanical Electrical Noise	Radiation Confined Space Heat Stress
Chemical	Toxicity Flammability Explosivity	Corrosivity Reactivity
Biological	Bacteria Viruses Plants	

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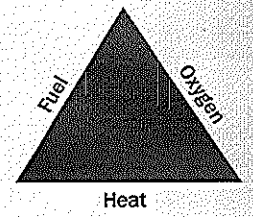
Common Hazards - Flammability

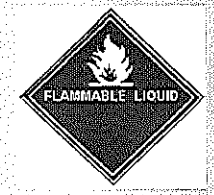
Flammability and volatility

- Fire triangle
  - Burning requires three components
- Flash point (FP)
  - Lowest temperature at which a substance will ignite
  - Low FP = high fire hazard



Common Hazards - Flammability

- Flashpoint (FP) examples:
  - Vegetable oil = 540° F
  - Mineral spirits = 170° F
  - Diesel fuel = 160° F
  - Benzene = 12° F
  - Gasoline = - 45° F
  - Kerosene = 100 to 150 °F



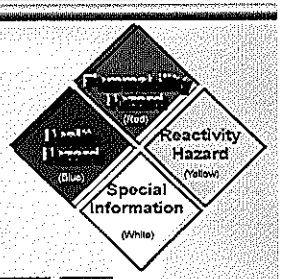
Common Hazards - Flammability

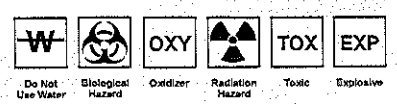
- Safety Measures:
  - Wear appropriate PPE:
    - Protective clothing
    - Leather boots/gloves
    - Eye protection
  - Extinguish all ignition sources
  - Do not use metal tools that could create a spark

NFPA Label

Hazard Information based upon:

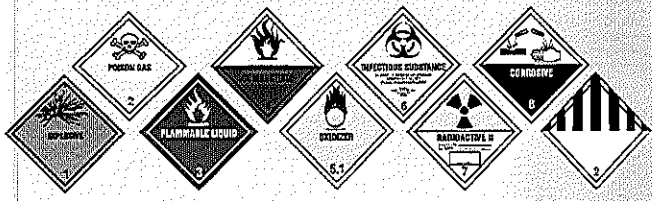
- Color codes
- Numeric codes
  - 0 = Minimum
  - 1 = Light
  - 2 = Moderate
  - 3 = Serious
  - 4 = Severe
- Special Information





Department of Transportation (DOT) Label

Under 49 CFR 172, the U.S. Department of Transportation requires vehicles transporting designated hazardous materials to bear placards and labels



UN GHS Pictograms

Health Hazard

- Carcinogen
- Mutagenicity
- Reproductive Toxicity
- Respiratory Sensitizer
- Target Organ Toxicity
- Aspiration Toxicity

Flame

- Flammables
- Pyrophorics
- Self-Heating
- Emits Flammable Gas
- Self-Reactives
- Organic Peroxides

Exclamation Point

- Irritant (skin and eye)
- Skin Sensitizer
- Acute Toxicity
- Narcotic Effects
- Respiratory Tract Irritant
- Hazardous to Ozone Layer (Non-Mandatory)

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UN GHS Pictograms

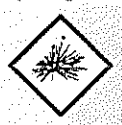
Gas Cylinder

- Gases under Pressure

Corrosion

- Skin Corrosion/Burns
- Eye Damage
- Corrosive to Metals

Exploding Bomb



- Explosives
- Self-Reactives
- Organic Peroxides

UN GHS Pictograms

Flame over Circle

- Oxidizers

Environment (non-mandatory)

- Aquatic Toxicity

Skull and Crossbones

- Acute Toxicity (fatal or toxic)

Material Safety Data Sheets (MSDS)

Material Safety Data Sheets contain reference information

- Material description
  - Common and alternative names
  - Appearance
  - Physical and chemical properties
- Hazards
- Handling and storage
- Spill cleanup
- First aid and firefighting measures
- Contact information

Personal Protective Equipment (PPE)

- The purpose of personal protective equipment (PPE) is to shield workers from chemical, physical, and biological hazards
- Should be used in conjunction with engineering controls and safe work practices
- Required as part of a defensive approach to leaks or spills involving hazardous materials

Selecting Personal Protective Equipment

- Identify the hazards or suspected hazards
- Determine potential exposure routes
- Evaluate performance of the PPE
- Remember: No single combination of PPE is capable of protecting against all hazards

Level D Protection

- Work uniform or coveralls (rubber apron, as needed)
- Chemical-resistant gloves
- Boots or shoes (rubber, as needed)
- Chemical splash face shield or goggles (as needed)
- Used when:
  - No known or suspected atmospheric hazards (air contaminants)
  - Minimal potential for inhalation, splashes or contact with chemicals

Avoid Additional Exposure to Hazardous Materials

- Avoid carrying hazmat contamination away from the spill scene
- Avoid continued contact with hazardous materials
- Avoid exposing family or others to hazardous materials
  - Separate contaminated clothing
  - Observe decontamination protocol

QUESTIONS?

Island Tide

City of Poquoson Parks, Recreation & Events

Summer 2013

Recreation Programs & City Information

Spread Your Wings This Season

50

You and Your Pet Can Save the Bay!

It's amazing how small changes in our routines can make a big difference. One of the most positive changes you can make is also one of the simplest: Clean up after your pets. Bagging pet waste and throwing it in a trash receptacle makes being outdoors more pleasant, and keeps bacteria and nitrogen out of our waters.

Will scooping the poop really make a difference? Believe it or not, cleaning up after pets really does help. Let's look at just our dogs. There are over 1,300 dog licenses in Poquoson. The Food and Drug Administration estimates that dogs on average produce about ¾ pound of waste a day. Doing the math, Poquoson's pooches produce almost 356,000 pounds of waste each year. That is about 178 tons of bacteria-laden waste that can wash into the waters where we fish and crab. Not a pleasant thought, is it?

Do we really see the dog waste effects in our streams? Definitely! Rain water can carry pet waste into streams, causing localized "hot spots" or areas with high bacteria levels. Poquoson Citizens for the Environment recently tested bacterial levels in local waters. They saw an increase in bacteria levels at one location. Upon inspection, they found 23 piles of dog waste in a small grassy area just upstream of their testing site. How would you like to be within smelling distance of that area?

Can picking up after my dog really make a difference? After all, we live next to a wildlife refuge. Here's how it does make a difference: It's not just about water in our rivers or the Bay. It's also about water in the ditch behind our house where our children might play and the water off our dock where we put our crab pots. Pet waste carries bacteria that cause intestinal problems and hookworms. Nitrogen from animal waste promotes algae growth, which in turn reduces oxygen levels in the Bay. Let's keep the bad stuff out of our own backyards.

Are dogs the only problem? Not at all. City staff receives odor complaints about other animals as well. If there's odor, there is bacteria.

What should I do?

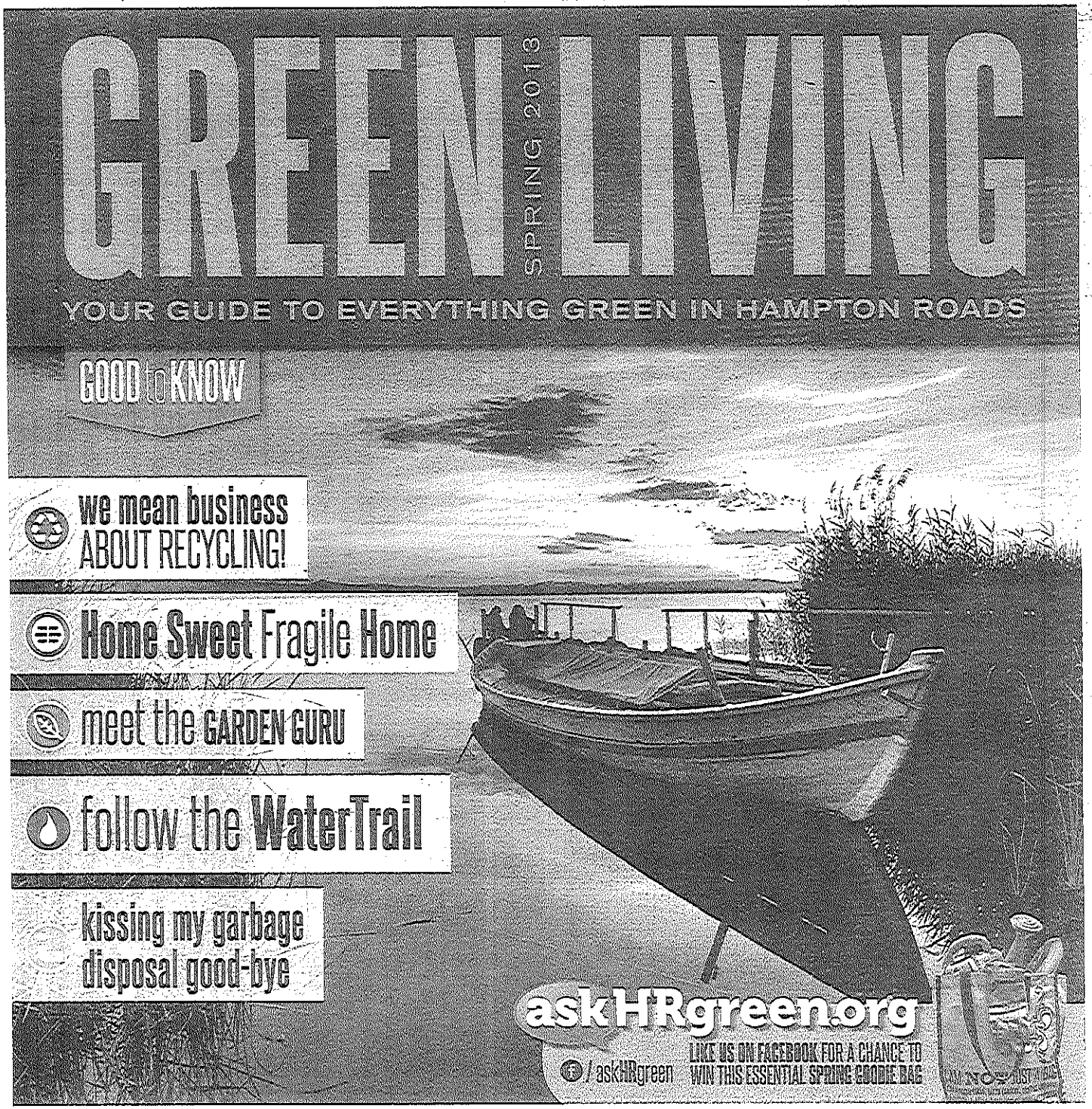
Bag it and can it. Put plastic grocery bags to use scooping up the poop and put it in trash receptacles.

If you have other animals, think about the best way to dispose of their waste. Can stormwater runoff carry it to our waters? What do you do with your kitty litter or your poultry bedding?

Put it in a trash can....NOT over the fence! It used to be that a lot of people would pick up pet waste from their yards and simply throw it over the fence or in the nearest ditch. We aren't sure why....they can still smell it and it's still polluting. Please use the trash can.

We have materials and information that can help. Stop by the Community Development desk at City Hall. We have brochures on keeping our waters clean and sometimes we have doggy waste bags.

And most importantly, thanks for doing your part to Save the Bay. New environmental mandates are going to cost a lot of money over the next few years. If you and your neighbors make small changes, we can reach Bay goals as cost effectively as possible....and won't it be nice to know that we are swimming, boating and fishing in cleaner waters?



AVAILABLE THROUGHOUT CITY HALL / LIBRARY COMPLEX

Poquoson needs volunteers to

Keep

Mother Earth's Favorite Child

Beautiful

Pump Stations Beautification

Drain Inlet Markers Installation

REDUCED VERSION OF POSTER

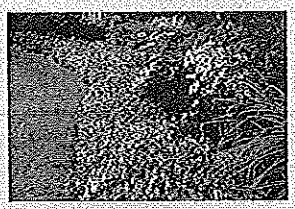
Adopt-A-Spot

Litter

Your Name Here

Litter Pickup

April 20, 2013



Islander Rain Garden

If you can draw, paint, plant, pick up litter we need you.

Please call 868-3000 or go to www.poquoson-va.gov to volunteer

askHRgreen.org

KEEP VIRGINIA BEAUTIFUL

Poquoson Post

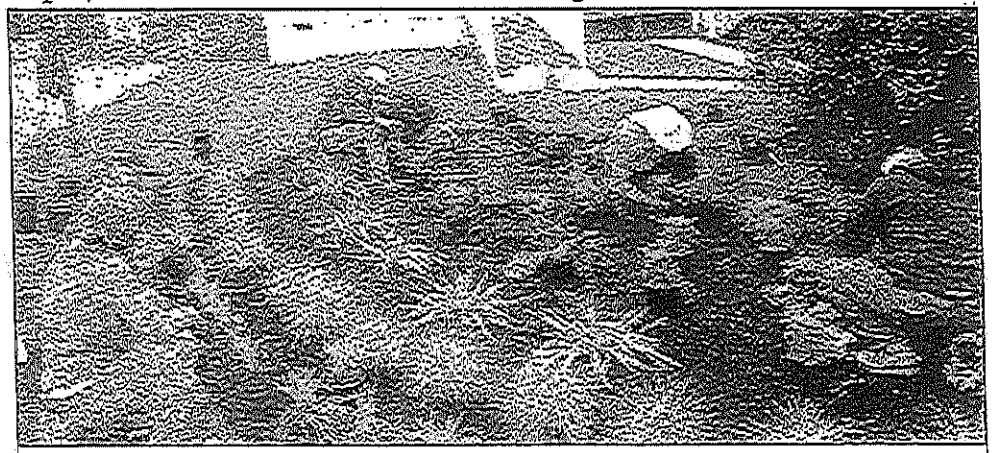
Poquoson's 2nd Annual Cleanup and Beautification Campaign

Submitted By: Evie Insley

In April Poquoson held its 2nd annual cleanup and beautification campaign in conjunction with ask HRGreen.org. This year's ambitious events included over 115 volunteers working around the City headed by Evie Insley and Bodina Wright of Public Works.

Maintenance on pump stations at five locations in the City included fresh paint, mulch, flowering plants, decorative fencing and "Bull Island" murals painted by talented volunteers on three of the five. In addition, an attractive Rain Garden to filter storm water runoff was planted at the Public Works building, playground equipment was installed at South Lawson Park and several Adopt-A-Spot cleanups were also performed in April as ongoing projects. Messick Point and Amory's Wharf, favorites from last year, were also given big cleanups on the 20th. All in all – a lot of love, sweat and hard labor was invested by our citizens and neighbors to keep "Mother Earth's Favorite Child", beautiful.

MANY THANKS go to our sponsors: Verizon Wireless, Farm Fresh, Port Messick, LLC, Citizens Concerned For The Environment, Girl Scouts, Emmaus Baptist Church, Saint Timothy's Orthodox Anglican Church, Saint Kateri Tekakwitha Catholic Community of Poquoson & Tabb, the Poquoson Business Alliance, Dominion Virginia Power and all our friends and neighbors who worked so hard.



Volunteers Constructing a Rain Garden at Odd Road Pump Station

THE REAL ESTATE RECESSION IS OVER...

IT'S A GREAT TIME TO SELL A HOME

1. We are selling homes FASTER than we

THERE ARE FUTURE CONCERNS

1. Interest rates will go up making homes

54

Cruise Ins

Submitted by: Al Crane

MARCH 2013

MA FIRM Maps:

With the recent delivery of FEMA's newly revised Flood Insurance Rate Maps (FIRM) to the City, it is possible that you have already or may in the near future receive queries from the public on this matter. A work session is planned for Monday evening at 6 p.m. so that Council may discuss this matter further. As you know, the City has requested a delay in the initiation of the 90 comment period until November 1, 2013; however, we have not yet received a response. Meanwhile, should you receive queries on this matter, please refer citizens to:

Robin Danforth, P.E., Study Manager
FEMA/DHS Region III
615 Chestnut Street, 6th Floor
Philadelphia, PA 19106
Phone: (215) 931-5573
Email: robin.danforth@dhs.gov

VA Peninsula Foodbank:

On Tuesday, February 26th, the Virginia Peninsula Foodbank served a total of 200 individuals at the City distribution site at the old Municipal Building. Many thanks go to the Poquoson Exchange Club for the tremendous job they did in manning the site and Tabernacle United Methodist Church has already volunteered for the March food distribution.

"Keep Poquoson Beautiful":

In preparation for the long awaited and soon to occur spring season, our employees who serve on the HRgreen Beautification & Recycling Subcommittee, Evie Insley and Bodina Wright, have initiated work on the upcoming "Keep Poquoson Beautiful" project. This year, the City will observe this special event on April 20th in conjunction with "Earth Day" and even now Evie and Bodina are soliciting volunteers to help "spiff up" four of the City's sewer pump stations and plant an "Islander Rain Garden" in front of the new Public Works administrative building. There are a variety of tasks from which volunteers may choose, i.e. painting, planting, hauling dirt, etc. So please contact either Evie (868-3000) or Bodina (868-3590) if you would like to volunteer. Working outside with friends and colleagues will not only be enjoyable, but even more importantly you will be playing an essential role in the further beautification of our community. A copy of the flyer advertising this upcoming event is attached for your information.

Senator Norment:

The City received a letter last week from Senator Tommy Norment thanking us for sharing our legislative concerns with him. He also expressed appreciation to the City for our desire and hard work to clean the Bay. A copy of the letter is attached for your information.

Statewide Tornado Drill:

Please remember that the Statewide Tornado Drill will occur on Tuesday, March 12th at 9:45 a.m. The drill is sponsored by the Virginia Department of Emergency Management, Ready Virginia and the National Weather Service in cooperation with local emergency management offices. More information on the event can be obtained from the VDEM office of Public Affairs at pio@vdem.virginia.gov or (804) 897-6150.

WEEKLY REPORT

CITY OF POQUOSON
500 City Hall Avenue, Poquoson, Virginia 23662-1996
City Manager's Office (757)868-3000 Fax (757)868-3101

April 25, 2013

MEMORANDUM

TO: Mayor and Council Members

FROM: City Manager

SUBJECT: Weekly Report

Highlights from April 19 – April 25, 2013:

"Keep Poquoson Beautiful":

As a follow-up to the brief presentation on the "Keep Poquoson Beautiful" event given at your last meeting by Evie Insley and Bodina Wright, attached you will find detailed information on who participated and the specific projects they completed. Numerous pictures of the event in progress are also attached. Evie, Bodina and all of the volunteers are to be commended for giving of their time and energy to make our City more beautiful as well as environmentally friendly.

Police Incident Summary:

Attached is the first of what will be a monthly Incident Summary of Offenses from the Police Department. This report will highlight any police activity that resulted in a written police report. In the first column, the specific offense is noted; the second column lists the number of incidents in April 2012, in April 2013 and a comparison of the two; and the third column lists incidents from 1/1/12 through 4/24/12, 1/1/13 through 4/24/13 and a comparison. We will provide monthly updates on this report and include as part of our Weekly Report.

National Drug Take Back Day:

Poquoson Police Department will be hosting the DEA National Drug Take Back Day on April 27, 2013 from 10 a.m. to 2 p.m. Citizens can bring any expired or unwanted drugs to the Poquoson Pharmacy located at 498 Wythe Creek Road. This is a great way to safely remove drugs out of your home and help prevent future abuse of these drugs. There are a few items that the Police Department cannot accept: needles, lancets, syringes, thermometers, aerosol cans, empty containers, or infectious waste. Finally, if you find any illegal drugs inside your home, you may drop them at the same location. The Officer on site will take possession of the drugs with no questions asked. If you have any questions or would like to find a drop-off location closer to you, please visit the DEA web site at http://www.justice.gov/dea and click on the Drug Take Back link.

THANK YOU! For the second year Poquoson, "Mother Earth's Favorite Child", held a cleanup and beautification day bringing volunteers of all ages and talents together on April 20th and 22nd. This year's ambitious events included 115 volunteers, an increase from last year event and included the following areas:

Pump Stations on: Wythe Creek Road, Poquoson Avenue, Hansom Drive, Odd Road and Ridge Road which received fresh paint, mulch, flowering plants and in two cases (and perhaps more) beautiful Bull Island appropriate murals. Jessie Able painted the great water scene on Poquoson Avenue on behalf of Iris' Studio and a pair of white egrets was painted by a very talented Dominion Power worker on the Little Florida Road station. Dominion, who adopted this spot, cleaned, planted and fenced the area on Earth Day. We have a young artist who will begin painting a seascape on the Ridge Road pump station in the coming weeks after school. Some of our many volunteers included a Girl Scout troop working on a bronze badge at the Hansom Road pump station, St. Timothy's volunteers worked on the Ridge Road station and St. Kateri's youth volunteered at the Odd Road station with Alvin Insley and Elizabeth and Matthew Wheeler from York County. Carleen, Bodie and Cheri Wright volunteered with painting, mulching and planting at the Wythe Creek and Poquoson Avenue pump stations.

In the naturally formed basin at the front of the Public Works building, a young girl scout troop and members of the Citizens Concerned for Poquoson 's Environment, the Kiwanis, and Tish and Adam Corey planted a Rain Garden which is beautiful and will assist in the filtering of runoff water from the roof of the PW building and the road. Lorie Fox of Virginia Tech and the Poquoson Master Gardeners volunteered in the planning phase of this endeavor.

And the Lions began installation of playground equipment at South Lawson Park.

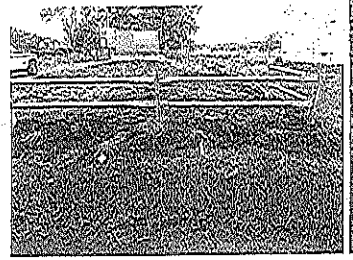
Finally, we had Emmaus Baptist who cleaned Messick Point and then traveled to other areas to assist us. At Amory's Wharf, Mallory Buckley asked her parents to work with her on her 9th Birthday instead of a party with presents.

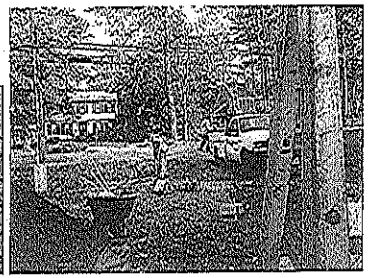
All in all – A lot of love, sweat and hard labor was invested by our citizens and neighbors to keep our little piece of heaven "Beautiful".

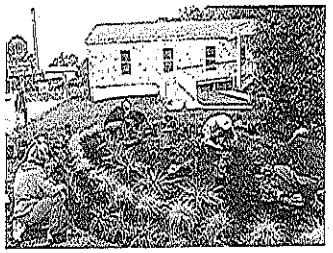
We hope that we included everyone, all who volunteered were greatly appreciated and were not overlooked on purpose, but in our haste to get thanks out there.

MUCH THANKS go to our sponsors: Verizon Wireless, Farm Fresh, Port Messick, LLC, Citizens Concerned For The Environment and the Poquoson Business Alliance.

"Keep Poquoson Beautiful" Photos

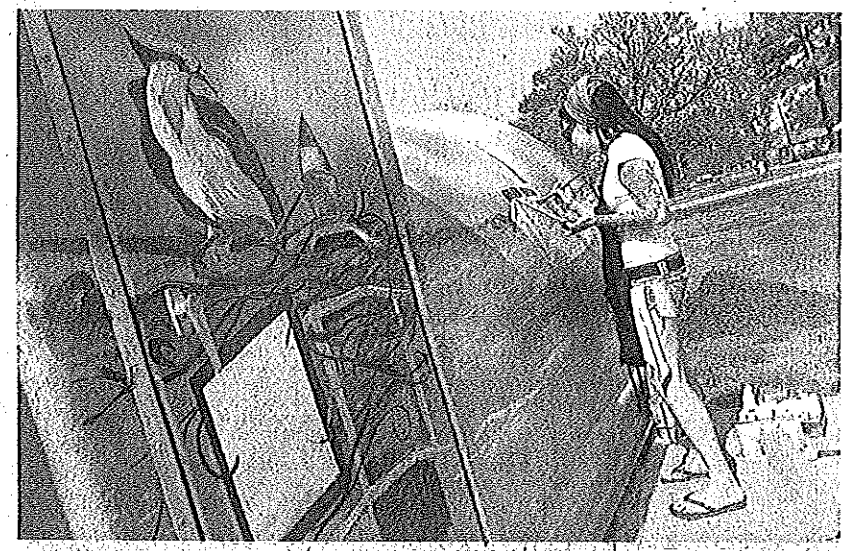






Mural brings life to pump station

Artist captures essence of Poquoson through volunteering her talent to paint scenic views



JUDITH LOWERY/DAILY PRESS PHOTOS

Jessye Abell is painting a watermen-themed mural on a pump station in Poquoson. It is part of "Keep Poquoson Beautiful".

BY SELENE D. GUERRERO
sguerrero@dailypress.com

The sun beat down on the 10-by-6-foot teal water pump station just off Poquoson Avenue. Standing before it was artist Jessye Abell, her hair pulled away from her face by a gray band and stacked black dreadlocks falling down her back.

She glanced at the pump station for a minute, her masterpiece nearly complete.

The mural artist volunteered her skills to Poquoson Parks and Recreation. She worked on three of the city's pump stations Saturday in an effort to add a touch of beauty through the "Keep Poquoson Beautiful" event.

With a black painting apron around her neck dangling like a superhero's cape behind her, Abell made sure the large-scale feat was proportioned.

"I never call it a 'mess up,'" she said of any possible mistakes.

"I just add to it; the more the better. It's difficult to explain."

Abell began sketching the mural April 16, and completed it April 18.

The mural depicts the essence of Poquoson, a nautical scene with a boat floating on the water and an osprey atop a channel marker, the bird making its home in a gnarled nest.

"My mom definitely inspired the images," she said.

Her mother, Cathie Abell-Nelson, also an artist, sketched the image of the osprey and told Abell to put her own spin on it for the mural, and the boat also was inspired by Abell-Nelson's artwork. If it looks familiar that's because it was approved by the Virginia Department of Motor Vehicles to be used as a special license plate.

All of her murals use mixed media such as spray paint, enamel paint, some acrylics and a lacquer to seal the artwork and help it withstand the elements.

Jessye Abell is painting a watermen-themed mural on a pump station in Poquoson. Here she holds a sketch from her mother, local artist Cathie Abell-Nelson.

Find out more

More of Jessye Abell's work can be seen at Iris Art & Framing, 501 Wythe Creek Road, Suite 100, Poquoson. Email her at jinx@hotmail.com. See a video of the mural at dailypress.com.

Abell comes from an artistic family; there are many photographers in the family but her mother and a great-uncle were the painters who inspired her.

Her artistic streak began quite early. At 3 she used Sharpie pens to scribble all over her body. Her skills since have developed and she attributes much of her instruction to Poquoson High School art teacher Paula Bennett.

The teacher encouraged her to show her work, and by high school she was selling it locally.

As for technique, she doesn't do any tracing before starting a mural and sketches everything with paint, straight onto the surfaces. All work is done freehand, a talent she said is in her genes.

"There's no tracing of anything — that would be like cheating. It's all clip art of the brain."

Her inspirations come from all kinds of landscape, and she enjoys taking something small and blowing it up mural-size.

Abell is also a tattoo artist and has had her own studio for 11 years, as long as she's been doing murals.

"Anything can be painted on. You don't need a flat surface."

Abell planned to name the boat in the painting because, as a passer-by warned, a boat without name is unlucky. She plans to christen it Bull Island.

NOTEBOOK

County board OKs signage updates

In an effort to make York County more business friendly, the Board of Supervisors last week approved several ordinance changes that allow business owners more flexibility to promote themselves. The new ordinance changes allow for sidewalk signs, like sandwich boards and A-frame signs, at all county businesses. Sidewalk signs will be limited to 6 square feet and a maximum height of 4 feet.

Jennifer L. Williams and Amanda Kerr

Mounted temporary signs or banners will also be allowed for any business with its own individual exterior entrance.

Another ordinance change expands the allowable size of wall-mounted signs at Riverwalk Landing from a maximum of 5 square feet to a maximum of 50 square feet. The goal of the changes is to improve visibility for businesses to better promote their services.

Planning Commission vacancies

The York County Board of Supervisors is seeking applications from county residents to serve on the planning commission to fill upcoming vacancies for districts 1 and 2. The planning commission is responsible for reviewing and making recommendations on applications for property rezoning, special use permits and zoning and subdivision ordinance text amendments.

Commission members serve four-year terms. The group meets once a month. York residents can get an application to serve on the Planning Commission at the county's website, www.yorkcounty.gov, by clicking on "Online Services" and then "Board Bank Application." Applications can also be obtained at the County Administrator's Office at 224 Ballard St., Yorktown. For more information call 890-3404.

York school recognition

The Washington Post has included two York County high schools in its annual list of the most challenging high schools in the country.

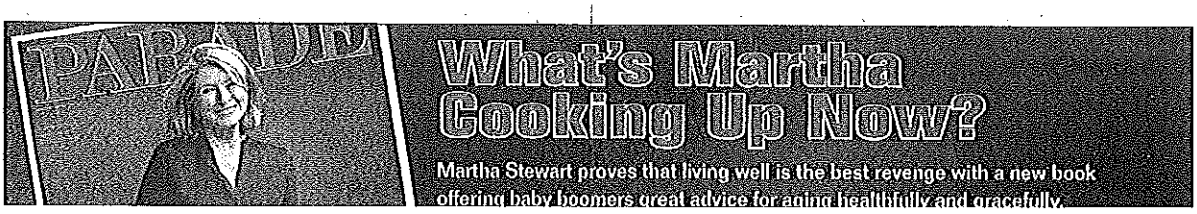
Of the 1,900 schools listed, Bruton High School was ranked 501, and York High School was ranked 517. Advanced Placement, International Baccalaureate and Advanced International Certificate of Education tests and the number of seniors who graduated were factors in each school's ranking.

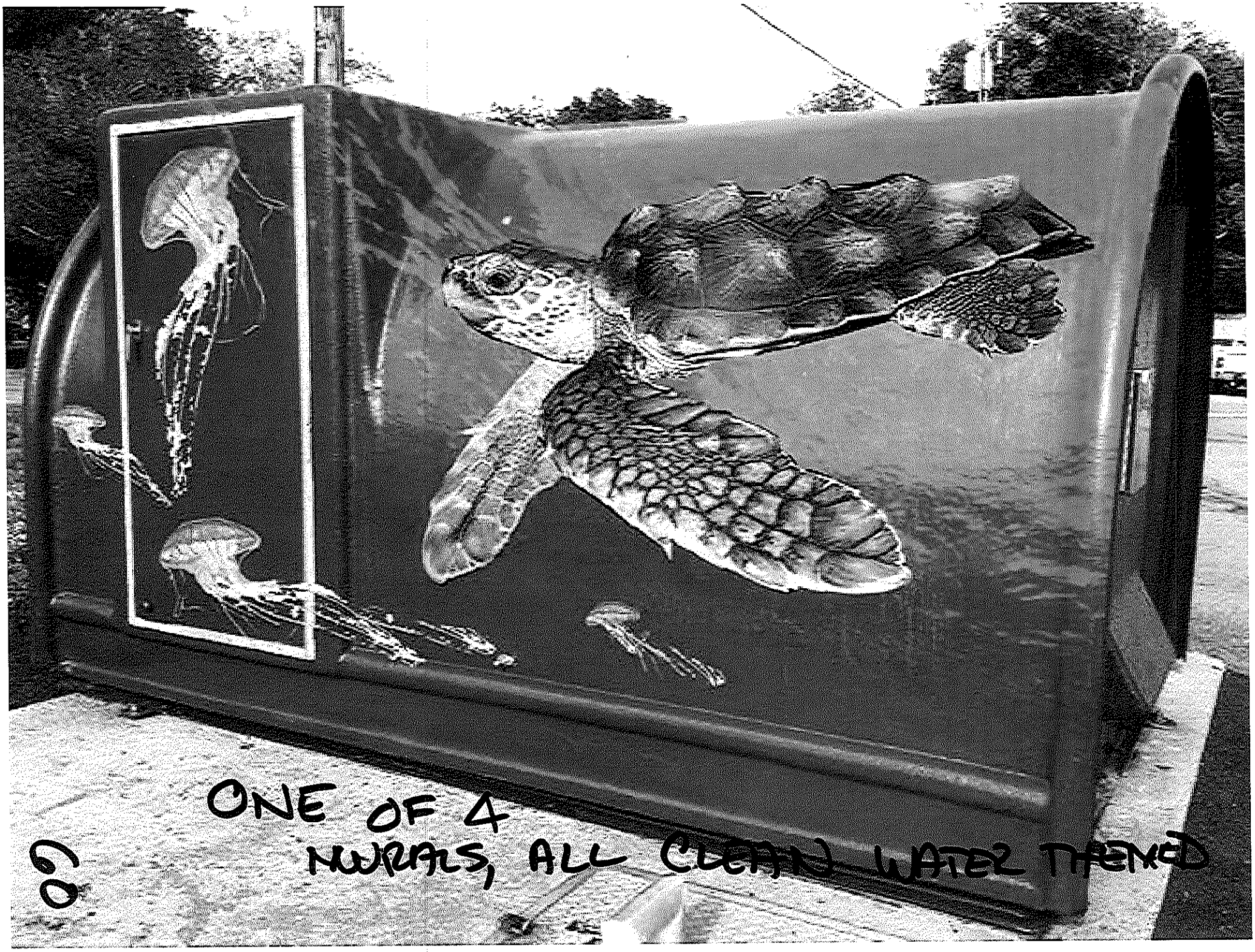
Drug Take Back

Saturday is national "Drug Take Back Day." From 10 a.m. to 2 p.m, York residents can bring any expired or unwanted medications to the York-Poquoson Sheriff's DARE Office at 5338 D George Washington Memorial Highway in the Washington Square Shopping Center, Yorktown. For more information, call 890-3653.

Contact Kerr at 247-4733 or akerr@dailypress.com. Contact Williams at 247-4644 or fwilliams@dailypress.com.

Printed on recycled paper with eco-friendly ink.

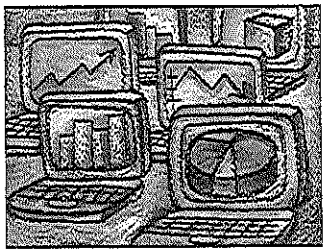



ONE OF 4
MURALS, ALL CLEAN WATER THEMED

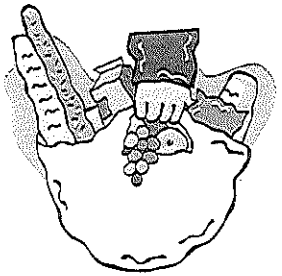
Hurricane Sandy Storm Debris

The City will be picking up debris, **STORM DEBRIS ONLY,** from Wednesday, October 31, 2012 to Tuesday, November 6, 2012. Storm debris (downed limbs, sea grass, water damaged items, etc.) is to be placed curbside. Leaf debris has to be bagged in clear plastic bags (**NO** drawstring) placed curbed side in a separated pile. Any homeowner with debris not out by November 6th must call Public Works at 868-3590 for pick up. Public Works will send an assessment person out to verify the debris was created by Hurricane Sandy before pick up. This service is offered through November 20, 2012. As always, the Convenience Site is available the 1st and 3rd Saturday from 8 AM to 2 PM of every month at 500 City Hall Avenue.

Household Chemical,



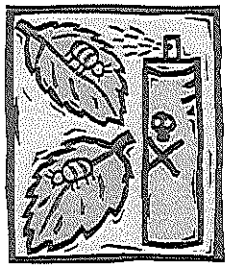
Computer & Electronics,



and Plastic Bag Collection

October 6, 2012 8a.m. to 12p.m.

At the Municipal Pool Parking



Acceptable Items:

**Computers and Electronics * Automotive*

**Household Maintenance *Lawn & Garden*

**Household Cleaning*

If you have any questions, please call868-3590 or go to www.vppsa.org

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Household Chemical Collection

- When possible, keep products in original container with labels intact.
- Wrap leaking containers in newspaper and place in a plastic bag. Ensure all lids and caps are tight.
- Place items securely in boxes for transport. Use newspaper or cardboard as fillers.
- Do not leave material in hot unventilated area for long periods. Do not smoke near chemicals.
- Clean Harbors, the largest hazardous waste disposal company in North America, has been providing disposal services at VPPSA events since they began in 1997. Clean Harbors provides a broad range of hazardous and non-hazardous waste recycling, treatment and disposal, laboratory chemical packing and household hazardous waste management services.

Computer and Electronics Recycling

- You do not need to remove or erase your hard drive. The standard procedure is to either sanitize or destroy all media containing devices in your computer.
- Electronics recycling is provided by Creative Recycling Services (CRS), certified under ISO 14001 for Environmental Management Services. CRS has developed safe and innovative e-cycling solutions using state-of-the-art technology. With a goal of zero waste, CRS manages e-scrap while protecting the environment. For more information and video demonstrations of CRS's industry leading e-scrap process, please visit www.crserecycling.com

At the collection:

- There may be a brief wait in line. A VPPSA employee will ask you a few questions– proof of residency may be required.
- You'll be directed to a work area where VPPSA employees will unload your vehicle. Please stay in your vehicle unless requested to do otherwise.
- There are separate drop off points for household chemicals and electronics
- Be prepared to identify your materials. If you are unsure of any material, please notify the employee who will be unloading them for you.

Thanks for your patience and cooperation.

What is VPPSA?

The Virginia Peninsulas Public Service Authority (VPPSA) is a regional governmental agency, dedicated to helping communities solve their solid waste management needs. There are ten member communities including Hampton, James City County, Poquoson, Williamsburg and York County on the Peninsula, and the counties of Essex, King William., King and Queen, Mathews and Middlesex on the Middle Peninsula.

VPPSA provides a schedule Household Chemical Collection events and Computer/Electronics Recycling events for residents of its member communities on the Peninsula. In addition to these events, VPPSA also provides the following services on the Peninsula:

Curbside Recycling in James City, Poquoson, Williamsburg and York.

Yard Waste Composting at the VPPSA facility at 145 Goodwin Neck Road, Yorktown. Quality mulch and compost products are available for purchase. The Compost Facility is open Monday—Saturday from 8am until 4pm. For more information call 757-898-5012.

For more information go to our website at www.vppsa.org or call us at 757-259-9850.

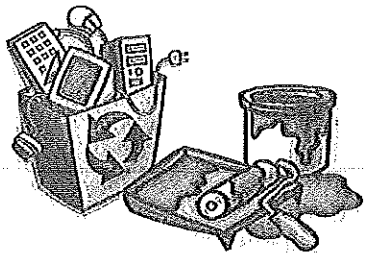
VIRGINIA PENINSULAS
PUBLIC SERVICE AUTHORITY
475 McLaws Circle, Ste 3B
Williamsburg, VA 23185

Phone: 757-259-9850
Fax: 757-259-9855
www.vppsa.org

Printed on Recycled Paper

Household Chemical *and* Computer & Electronics Collections 2012

Schedule & Procedures



Virginia Peninsulas Public Service Authority
757-259-9850

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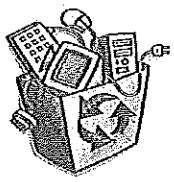
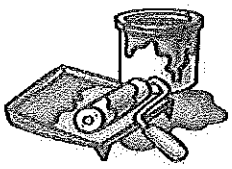


Household Chemical Collections and Computer/Electronics Recycling 2012 Schedule of Events



Providing environmentally safe disposal to the residents of Williamsburg, James City County, York County, Hampton and Poquoson since 1997.

All collections are open to any resident of the above communities; proof of residency may be required.

NO BUSINESSES PLEASE

	Williamsburg/ James City County	York County	Hampton	Poquoson
Location:	Lafayette High School 4460 Longhill Rd	County Drive, Yorktown (off Goodwin Neck Rd)	Public Works Operations Complex 419 N. Armistead Ave	Poquoson Swimming Pool Parking Lot Municipal Drive
Time:	8:00AM—12:00 Noon	8:00AM—12:00 Noon	8:00AM—12:00 Noon	8:00AM—12:00 Noon
Dates:	February 11, 2012 April 14, 2012 June 9, 2012 August 11, 2012 October 13, 2012	March 10, 2012 May 12, 2012 July 14, 2012 September 8, 2012 November 10, 2012	March 17, 2012 May 19, 2012 July 21, 2012 September 15, 2012 November 17, 2012	October 6, 2012

ALL EVENTS END PROMPTLY AT NOON!

WE WILL ACCEPT THE FOLLOWING:

- **Computers and Electronics:** computers & accessories, printers, copiers, telephones, cell phones, fax machines, cameras, video games, stereo equipment, DVD players and VCR's, DVD's, VCR tapes & other media, and any item that plugs into the wall/uses rechargeable batteries & is smaller than a microwave. (Call for additional accepted items.)
- **Household Maintenance:** latex paint, oil based paint, stains, solvents, glue, varnishes, adhesives
- **Automotives:** gasoline and other fuels, waxes, gas/oil mixtures, brake fluid, engine cleaner, tar remover.
  NOTE: Motor oil and antifreeze are not accepted at most events since many communities already accept them at no charge. Call or check our website for more information.
- **Lawn & Garden:** insecticides, weed killers, pesticides, fertilizers, pest strips
- **Household Cleaning:** oven cleaners, drain cleaners, floor waxes, metal polishes, bleach, degreasers, septic tank cleaners, toilet cleaners, jewelry cleaner
- **Miscellaneous:** charcoal fluids, dyes, kerosene, pool chemicals, fluorescent bulbs incl. compact fluorescents (CFLs)

If you have any questions, please call us at 757-259-9850 or go to our website at www.vppsa.org

WE WILL *NOT* ACCEPT:

- X Televisions
- X Explosives
- X Compressed Gas Cylinders
- X Ammunition or Gun Powder
- X Household Trash
- X Business or Medical Waste
- X Radioactive Products
- X Large quantities of unknown materials

Be Ready For Sandy

What can I do to help my property drain?

Keep them clean, and keep them flowing. Remember that the City only maintains the pipes and ditches that carry street water. Citizens are responsible for maintaining the rest. Clean the pipes and ditches on your property. If you have neighbors who are older or who have limited mobility, consider helping them.

It's leaf season. That means that you can clean a storm drain one day, and find it filled with leaves the next. Try to keep your yard clear of yard debris and leaves. Bag what you collect so that it doesn't get into the drainage system. Poquoson workers will have inspected all 13+ miles of the City's drainage system before the storm. There will not be time for staff to go back a second or third time to clean newly fallen leaves. Clean yards, letting Public Works know about major clogs, and safely removing minor leaf accumulation are ways you can help.

Inspect your house and other structures.

Inspect everything. Should anything be moved to a higher level? Are there any chemicals or other substances that might foul the water and harm the environment? Can you do anything else to weather the storm?

Remember that flood vents are intended to pass water so that your home is not damaged by the force of flood water pressing against the foundation. Do not block or alter these vents.

What about wind damage?

Look around your yard. Every object can be a projectile. Keep your yard free of trash and debris. Bring in lawn ornaments and barbeque grills [*Do not grill inside a structure].* Look for loose branches.

What about my vehicles?

Play it safe: Assume public streets will flood. Municipal drainage systems are not designed for the type of rains that come with hurricanes, nor'easters and tropical storms. This is true nationwide. Drainage systems can be overwhelmed by short, very intense rains, and by rains occurring over very long periods of time. If you park on a public street or drive through standing water, you do so with the risk that your

car will be flooded. During extremely intense storms, cars have been flipped over or moved by rushing water.

Plan to evacuate

Poquoson is a low-lying, tidal community with significant amounts of land located within floodplains. If storm surges come ashore, or if there is an extremely high tide, there is no place for the water to go, and the City will flood. There is no "high side of town" during a major storm. During extreme storm events, Poquoson will be placed under an evacuation order. Do not ignore an evacuation order. Having an evacuation plan can make the process safer and hopefully reduce some of the inconvenience.

If there is no evacuation, be safe during the storm.

Avoid flood waters and inundated areas. It is difficult to tell the depth of floodwaters, and you can't see utility boxes, curbs, debris, and other potential dangers under the water. Surging waters are very powerful, and can sweep people off their feet. Flood waters can be polluted. If you get in trouble, help might not be able to reach you, or you can put others at risk.

Stay out of the weather. Intense storms bring torrential rain, strong wind gusts, and tornadoes. Stay sheltered and pay attention to weather updates. Be prepared to move to an interior room if there is a threat of tornadoes. **Do not attempt to clear a drainage structure during a storm.** People have gotten sucked into pipes and have drowned while attempting this. You are more valuable than property that might get flooded. Do not drive anywhere. As the recent floods in Newport News showed us, you never know when you will come upon a flooded roadway. High winds can also topple trees and power lines, creating other driving hazards.

Be smart during power outages. Open flames and outdoor grills inside a house are fire and suffocation hazards.

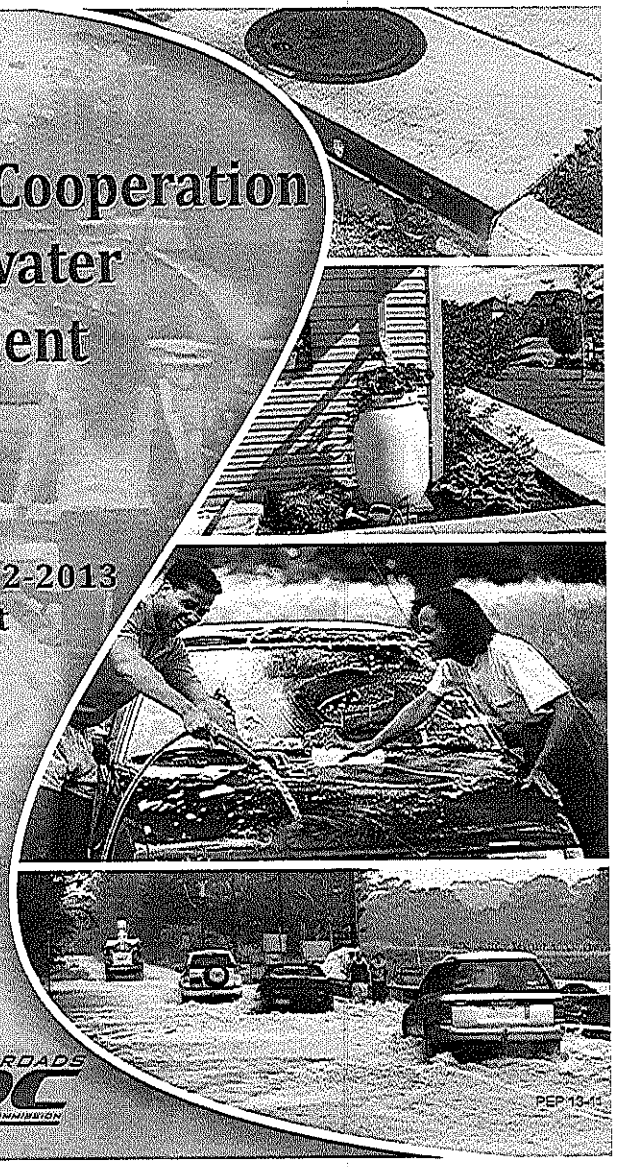
Learn More.

National Weather Service website: http://www.weather.gov/

FEMA website with information on before, during, and after the storm:
http://www.ready.gov/hurricanes:

Regional Cooperation In Stormwater Management

Fiscal Year 2012-2013
A Status Report



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REGIONAL COOPERATION IN STORMWATER MANAGEMENT

FISCAL YEAR 2012-2013

A STATUS REPORT

This report was included in the HRPDC Work Program for FY 2013-2014, approved by the Commission at its Executive Committee Meeting on April 18, 2013

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

September 2013

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Regional Cooperation in Stormwater Management Fiscal Year 2012-2013: A Status Report

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ABSTRACT

This document describes cooperative activities related to stormwater management undertaken by Hampton Roads local governments during Fiscal Year 2012-2013. Activities described include the regional information exchange process, public information and education, legislative and regulatory issues, cooperative regional studies and related programs. This document is used by the region's twelve localities with stormwater permits to assist them in meeting their permit requirements.

ACKNOWLEDGMENTS

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

Preparation of this report was included in the HRPDC Unified Planning Work Program for FY 2013-2014, approved by the Commission at its Executive Committee Meeting of April 18, 2013.

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

INTRODUCTION

Working through the Hampton Roads Planning District Commission, the region's sixteen member cities and counties (Figure 1) cooperated on a variety of stormwater management activities during Fiscal Year 2012-2013. 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.

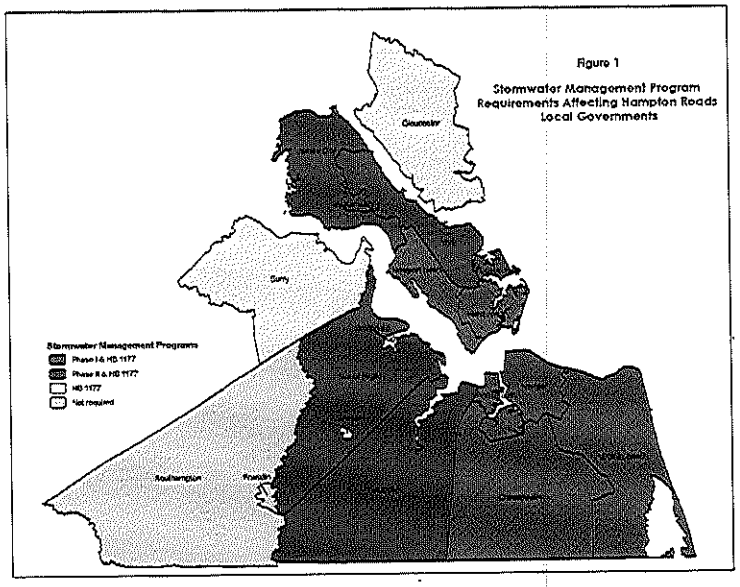

Figure 1

Stormwater Management Program Requirements Affecting Hampton Roads Local Governments

REGIONAL STORMWATER MANAGEMENT PROGRAM GOALS

The HRPDC and local stormwater staffs undertook a comprehensive effort in FY 1998-1999, called the Regional Loading Study. The project included developing a set of regional stormwater management goals to guide the regional program. The goals were presented to

and adopted by the HRPDC at its Executive Committee Meeting in September 1999. They were reaffirmed in the January 2003 approval of the "Memorandum of Agreement (MOA) Establishing the Hampton Roads Regional Stormwater Management Program" and the renewal of the MOA in 2008 and 2013. The adopted Regional Stormwater Management Program Goals, which guide the regional program, are:

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

THE REGIONAL PROGRAM

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

Phase I Localities

The efforts of the Phase I localities this year have focused on tracking regulatory changes to the Construction General Permit and preparing for local program changes required by revisions of the Virginia Stormwater Management Regulations. Localities have continued to follow the Phase I MS4 permit renewal process in Virginia. The Department of Environmental Quality (DEQ) has reissued the Arlington County permit and set a schedule to reissue all the Phase I MS4 permits by the end of FY14. HRPDC staff worked with the localities to review the draft

permits. The Phase I localities have also monitored and commented on the Phase II MS4 General Permit reissued in July 2013, since the permit requirements will likely be proposed in the Phase I MS4 permits.

Phase II Localities

In addition to participating in Regional efforts related to the Chesapeake Bay TMDL and the revision of the Virginia Stormwater Management Regulations, the Phase II localities cooperated to evaluate proposed changes to the Phase II General Permit. The Phase II General Permit was reissued on July 1, 2013. Local staff served on the State's Regional Advisory Panel for the Phase II General Permit to represent the concerns of the stormwater staffs in the region and track proposed changes to the permit.

INFORMATION EXCHANGE

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

Monthly Meetings

The sixteen communities participate in the HRPDC Regional Stormwater Program and their staffs meet twice a month. The Stormwater Technical 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 Joint Environmental Committee meetings include local stormwater and planning staff plus cooperating agencies such as Department of Conservation and Recreation (DCR), Department of Environmental Quality (DEQ), Virginia Department of Transportation, Hampton Roads Sanitation District, and the US Navy.

Increasingly, the region's localities are affected by and involved in the state's TMDL (Total Maximum Daily Load) Studies and Implementation Plan processes for the Chesapeake Bay and locally impaired waterbodies. Issues associated with these programs are also addressed during the monthly meetings. In FY13, the Stormwater Technical Workgroup discussed and provided input to DEQ on the PCB TMDL for the Lower James and Elizabeth River and the bacteria TMDL for the Back and Poquoson Rivers.

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 DCR on state initiatives related to the Virginia Stormwater Management Regulations, by DEQ staff on the development of TMDLs for local waters, and by the Virginia Institute of Marine Science on oyster restoration.

Watershed Roundtables

The Watershed Roundtable approach is Virginia's program to encourage collaboration and information sharing between the public and private sector on nonpoint source pollution management. HRPDC leads the Lower James River (Hampton Roads) Watershed Roundtable and participates in the York River Watershed Council, the Middle James River Roundtable, and the Albemarle-Chowan Roundtable. Members of the Stormwater Technical Workgroup participate in the Hampton Roads Roundtables, along with representatives from other local government departments, regional and state agencies, Soil and Water Conservation Districts and private organizations.

PUBLIC EDUCATION

askHRgreen.org

To support development and operation of the stormwater education program, the HR STORM committee consisting of local stormwater education/public information staff was established in 1997. Beginning in FY11, the HRPDC environmental education programs were combined into a single public awareness program and central resource for environmental education in Hampton Roads known as askHRgreen.org. In June 2011, the askHRgreen.org website launched. The website contains information on earth-friendly landscaping ideas and pointers for keeping local waterways clean, recycling tips, and simple steps to make local living easy on the environment. It also includes a blog written by a team of local experts who work in the region's municipal utility and environmental divisions.

The stormwater subcommittee continues to meet on a monthly basis to discuss education priorities for stormwater. The activities conducted through the askHRgreen.org campaign for the year are summarized in the askHRgreen.org Annual Report.

TRAINING

Since 2004, the HRPDC staff has worked with the six Phase II communities to develop and conduct training programs for local government staff. This year a training event was conducted to review lessons learned from audits in the region including general pollution prevention and good housekeeping at municipal facilities. HRPDC also conducted Erosion and Sediment Control training for contractors to highlight common issues flagged by local government inspectors. HRPDC coordinated with DCR to host training linked to new local program requirements and certifications. HRPDC hosted several webinars on stormwater BMP design and maintenance and emerging policy approaches like green infrastructure. These webinars allow localities to save money by registering once as a group and local staff have an opportunity to discuss the webinar's recommendations and their applicability to the region.

Training Topic	Last offered	Previous dates
Fleet Maintenance	March 2005	
Landscaping	March 2006	
IDDE	Oct 2009	Feb 2008, May 2007
General Pollution	May 2013	March 2004, Feb 2009
Parks & Open Space Mgt.	March 2011	
LID Practices	June 2010	
Erosion & Sediment	May 2013	

LEGISLATIVE & REGULATORY MONITORING

This element of the program involves monitoring state and federal legislative and regulatory activities that may impact local stormwater management programs. Based on this monitoring, the HRPDC staff develops briefing materials for use by the localities, including consideration by the governing bodies. As appropriate, the HRPDC staff in cooperation with the Committee develops consensus positions for consideration by the Commission and local governments. The level of effort devoted to this element has increased significantly over the past six years. During 2012-2013, the regional emphasis was continued participation in the evolving regulatory stormwater program of the Department of Conservation and Recreation and the revisions to the General Permit which covers the Phase II MS4 localities.

Virginia Stormwater Regulations

Revisions to the Stormwater Regulations were approved by the Soil and Water Conservation Board in May 2011 and will be implemented by localities by July 1, 2014. In FY13, HRPDC and local government staff continued to serve on DCR's Stormwater Local Government Advisory Committee. The committee provided input to DCR on implementation of Local Stormwater Programs and need for guidance on creating TMDL Action Plans for the MS4 permits. Other challenges include management of grandfathered permits and defining the permit process for "common plans of development".

The region is also currently represented on the DCR Stormwater BMP Clearinghouse Committee which reviews protocols for proprietary BMP pollutant removal efficiencies. Regional input has been focused on defining the proposed role of the Clearinghouse in approving non-proprietary BMP pollutant removal efficiencies.

HRPDC and local staff have also participated in the regulatory advisory panels for the Phase II General Permit, Construction General Permit, and Nutrient Trading. In each case, the panel representative from the region provided updates to the Stormwater Technical Workgroup or Joint Environmental Committee, collected input, and made recommendations to the panel. In several cases, the Commission submitted comments to the state to endorse revisions to the final proposed regulations.

Chesapeake Bay TMDL and Virginia Phase II Implementation Plan

The Environmental Protection Agency established a Total Maximum Daily Load for the Chesapeake Bay on December 29, 2010. In November 2010, Virginia submitted its Phase I Watershed Implementation Plan (WIP) that outlined the statewide strategies that would be implemented by each source sector. The Phase II WIP outlined the management actions that will be implemented by local governments. Virginia submitted its final Phase II WIP to EPA on March 30, 2012.

Virginia asked localities to submit input for the Phase II WIP including resource needs. As part of the regional input, the "Hampton Roads Regional Planning Framework, Scenario, and Strategies" report was submitted to the state. In FY13, several issues identified in the report were addressed by the Chesapeake Bay Program. HRPDC and local staff participated in workgroups and expert panels to support research on these alternate BMPs and incorporation of local land use data into the Bay model. HRPDC staff have reached out to DCR and DEQ to develop consistent processes for tracking BMPs and calculating their effectiveness to comply with both Virginia Stormwater Regulations and Chesapeake Bay TMDL implementation.

REGIONAL STUDIES

Bacteria Source Tracking

The HRPDC led a regional effort to develop a bacterial identification methodology for the Hampton Roads Region. Proven genetic techniques are being used to differentiate bacteria sources, so that TMDL plans can be designed to address the cause of the bacterial impairment. During FY2013, the study was completed and findings were reviewed with the Stormwater Technical Workgroup and DEQ staff.

Stormwater Program Matrix

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

Land and Water Quality Protection Study

In FY13, HRPDC worked on the first and second phase of the Land & Water Quality Protection study. During the first phase of the project, HRPDC staff analyzed the local consequences of the new water quality requirements for urban and transitional communities and identified available tools to enable localities to meet these requirements while avoiding negative impacts on natural resources. The second phase of the project will focus on working closely with two pilot localities to identify the most appropriate tools and test their application. The project will result in a coastal plain BMP guidance document, recommendations for changes to plans and ordinances in the pilot localities, and a modeling effort to evaluate the water quality impacts of various growth scenarios.

TECHNICAL ASSISTANCE

The HRPDC continues to serve as a clearinghouse for technical assistance to the localities, as well as a point of contact in arranging short-term assistance from one locality to another. The HRPDC Committee process also provides a forum, allowing state regulatory agency staff to meet with the region's localities to discuss evolving stormwater management regulations. In addition, the HRPDC staff provides technical information and advice to all of the participating localities on a wide variety of issues upon request. In FY13, technical assistance to localities was focused on disseminating information related to the Chesapeake Bay TMDL, Virginia's new stormwater regulations, and evaluating the real world challenges of interpreting and implementing the future local stormwater programs.

MEMORANDUM OF AGREEMENT

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

PERMIT ADMINISTRATION AND REPORTING SYSTEM (PARS)

In an effort to streamline reporting and capture data more effectively for local governments, the twelve permitted localities have pooled resources to develop the Permit Administration and Reporting System, or PARS. The region contracted with URS Corporation to develop a web-based data tracking and reporting system. The system is being utilized by local governments to catalog development sites and their associated best management practices (BMPs). The system also enables localities to capture inspection information, catalog stormwater outfalls, document illicit discharge investigations and record public education information. Users can query a variety of reports to satisfy the reporting requirements of their stormwater permits. In FY12, the Stormwater Technical Workgroup reviewed the potential for PARS to track and report the implementation of Chesapeake Bay TMDL strategies. The Chesapeake Bay Program and DEQ continue to refine the data reporting requirements for BMPs so the evaluation of PARS will continue in FY14.

RELATED PROGRAMS AND PROJECTS

In various combinations, the twelve (12) MS4 communities, as well as their non-permitted counterpart communities, participate in a wide variety of related programs. These programs are noted here because of their relationship with stormwater management.

Chesapeake Bay Program

Over the past several years, the Hampton Roads Region has devoted considerable attention to the ongoing Chesapeake Bay Program (CBP). To facilitate local government participation in Chesapeake Bay Program activities, HRPDC and locality staff have participated in the deliberations of many CBP committees and work groups dealing with urban stormwater, land development, watershed planning, land use development, modeling and local government's role in the Bay Program. Since the development of the Chesapeake Bay TMDL in December 2010, the HRPDC staff have continued to follow the activities of the CBP primarily through participation in the Urban Stormwater Workgroup. In FY 2013, local government stormwater staff served on the Streetsweeping and IDDE panels that develop Bay Program efficiencies for new stormwater best management practices. HRPDC staff co-chaired the Bay Program's Land Use Workgroup.

Chesapeake Bay Preservation Act Program

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

Water Quality Management Planning

The state is developing a substantial number of TMDL (Total Maximum Daily Load) Studies and subsequent development of TMDL Implementation Plans. This work follows from the classification of the waters by the state as meeting or failing to meet water quality standards. Water bodies that fail to meet water quality standards are classified as "impaired," triggering the requirement to prepare the TMDL study. The HRPDC staff has coordinated regional involvement in the "impaired waters" listing process. This has entailed providing opportunities through the Joint Environmental Committee for education of local government staff on the TMDL process, development of technical comments on the "impaired waters" list and response to the development of TMDLs themselves.

This year the Stormwater Technical Workgroup has provided input on the PCB TMDL for the Lower James and Elizabeth River and the bacteria TMDL for the Back and Poquoson Rivers. To assist the region's localities in addressing this requirement and ensuring that Implementation Plans are feasible, the HRPDC staff is working with DEQ to devise a cooperative regional partnership to coordinate the TMDL study process with the localities and to develop the required Implementation Plans.

Sanitary Sewer Overflows

In late 2004, the HRPDC staff began implementing an electronic reporting and record keeping system known as the Sanitary Sewer Overflow Reporting System (SSORS). SSORS enables localities to communicate information about sanitary sewer overflows across departmental lines, allowing for easier reporting. The regional fats, oils and grease abatement program (HR FOG) was created to help wastewater utilities by decreasing overflows due to FOG blockages.

However, the FOG education program also benefits the stormwater program because of the potential for FOG to cause illicit discharges to the stormwater system.

CONCLUSION

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

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