

**Annual Report**  
**Northern Virginia**  
**Coastal Resources**  
**Technical Assistance Program**

**October 1, 2010 – September 30, 2011**  
**NOAA Grant #NA10NOS4190205**  
**Grant Year 2010, Task 46**



Northern Virginia Regional Commission



**Virginia Coastal Zone**  
MANAGEMENT PROGRAM

In Grant Year 2010, the Northern Virginia Coastal Resources Technical Assistance Program was funded in part by the Virginia Coastal Zone Management Program at the Department of Environmental Quality, through Grant #NA10NOS4190205 of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, under the Coastal Zone Management Act of 1972, as amended.

Northern Virginia Regional Commission  
[www.novaregion.org](http://www.novaregion.org)

*The Voice of Northern Virginia*

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*On the cover – Potomac River shoreline at Leesylvania State Park, in Prince  
William County, VA*

## Introduction & Summary

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This report fulfills the product requirements set forth in the 2010 Virginia Coastal Zone Management Program Grant, Task 46 (NOAA Grant #NA10NOS4190205) for:

- Product #1 – Annual Report – NoVA Coastal Resources TA Program; and
- Product #2 – Summary of Regional Stormwater Education Campaign

Coordination and Training: NVRC hosted several opportunities for public and private planners, engineers, conservation professionals, and homeowners. The workshop topics fell under the following categories:

- *Bringing the Outdoors In (November 9, 2010)*
- *Revitalization of Vacant Lands (August 10, 2011)*
- *Voluntary Conservation Opportunities (September 7, 2011)*
- *Residential Rain Gardens (October 23, 2010 and September 24, 2011)*

Special Project: NVRC received financial and in-kind contributions from 15 partners this year, for a total budget of \$105,000. NVRC and Arlington County secured the services of Eric Eckl of Water Words That Work, LLC to manage the online component of the campaign including the Northern Virginia Dog Blog, contests, and online advertising. Also, NVRC secured Media Vision, Inc for media buying services and placement of the complimenting radio ads which aired in October 2010.

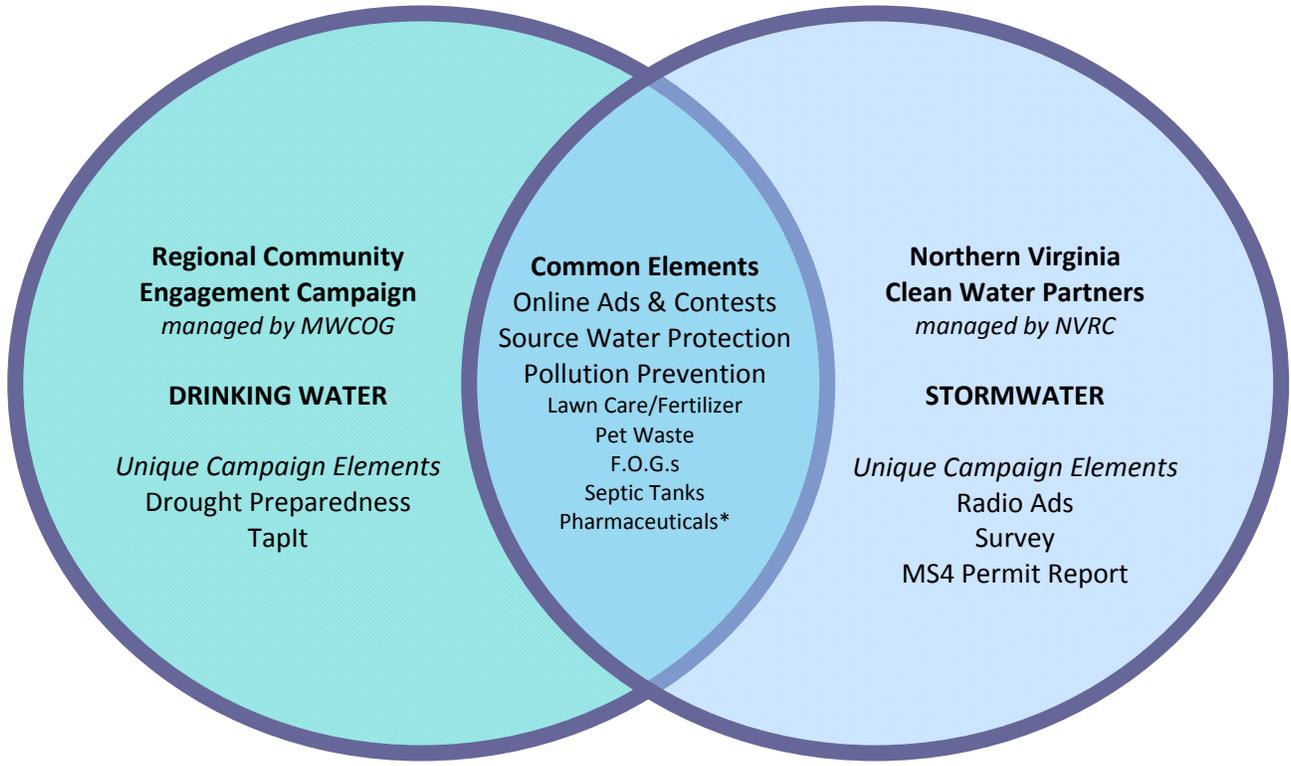
Stormwater pollution-related radio ads aired on five radio stations, 176 times, reaching approximately 967,000 individuals, over a three-week period in October 2010. The first-of-its-kind pilot study examining the use of online advertising for social marketing campaigns focused on changing stormwater pollution-causing behaviors occurred during summer 2009. Below is a preliminary comparison of reach and cost per medium:

Advertising Medium	Total Impressions	Website Visits	Total Cost
Radio	967,000	174	\$30,000
Online	26,266,774	24,257	\$17,678.99

A survey conducted in July 2011 revealed that almost a third of the respondents heard the radio ads or saw the online advertisements. The Partners met three times between October 2010 and September 2011 and held bi-weekly hour-long conference calls. [www.onlyrain.org](http://www.onlyrain.org).

Additionally, there was an increased effort to align the Regional Stormwater Education Campaign with the Community Engagement Campaign, managed by the Metropolitan Washington Council of Governments. While there are unique elements to both campaigns, there are overlaps in messages. It was seen to be in the best interest of both campaigns to support one another via the online components of each campaign and to continue to explore opportunities in the future to collaborate. It was agreed that the Northern Virginia Dog Blog would expand to become the Metro DC Dog Blog ([www.metro-dc-dog-blog.com](http://www.metro-dc-dog-blog.com)).

*General description of common interests between Regional CEC and the Northern Virginia Clean Water Partners:*



*\*This topic requires input and support from additional partners (i.e. Solid Waste Management, Police, etc.)*

EIS/EA/EIR and Permit Reviews: NVRC continues to participate in the EA/EIS and permit intergovernmental review process. Over the fiscal year, NVRC responded to 22 EA/EIS requests as part of the intergovernmental review process. NVRC staff has made significant contributions to the environmental impact reviews regarding the Base Realignment and Closure efforts across the region, particularly as they relate to transportation. NVRC has been influential in the promotion of a ferry system linking areas of Woodbridge to military installations and government facilities located along Northern Virginia shoreline.

# Special Project Summary

## Northern Virginia Clean Water Partners – Regional Stormwater Education Campaign

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The Regional Stormwater Education Campaign was initiated in 2003 to assist localities in leveraging funds to achieve common goals regarding stormwater education and outreach and promote consistent messages for fertilizer and pesticide use, pet waste disposal, and motor oil recycling. The campaign satisfies MS4 (Municipal Separate Storm Sewer System) Phase I and Phase II permit requirements for stormwater education and documenting changes in behavior.

Since 2009, the campaign involves the use online advertising through search engines and social networking sites, in addition to radio advertising. Throughout the course of the campaign, Google, Facebook, and YouTube advertisements appeared over 26 million times on individual computers, with over 85 percent of these ads including action-oriented messages (banner and YouTube ads). Throughout June 2011, three different ads aired on five radio stations approximately 174 times, reaching out to approximately 967,000 individuals (Table 1).

Table 1: Impressions and Website Visits per Advertising Media Type.

Media Type	Impressions	# of Visits to the Website	Cost	Avg. Cost Per Visit to the Website
Online	26,266,774	24,257	\$17,678.99	-
<i>Text Ads</i>	23,887,641	-	-	\$0.71
<i>YouTube Ads</i>	11,981	-	-	\$0.83
<i>Banner Ads</i>	2,367,152	-	-	\$6.05
Radio	967,000	174	\$30,000.00	\$172.41
<b>Campaign Total</b>	<b>27,233,774</b>	<b>24,361</b>	<b>\$47,678.99</b>	<b>-</b>

The Partners hosted two contests to engage current blog followers and to attract new readership. Approximately, 700 Northern Virginia residents completed the Dog Trivia Quiz and the “What Kind of Dog are You?” Personality Quiz. Additionally, the Partners sponsored the “Wag Your Words” Essay Contest, awarding \$5,000 to three local dog-related charities who submitted essays. Visitors cast over 2,300 votes for various essays, which all included a “scoop the poop” message. Caring Hearts Rescue, Inc. won the grand prize with their essay “Great Expectations.”

With support from the advertisements, contests, and simply terrific writing and reader engagement, the Northern Virginia Dog Blog surpassed over 1,000 subscribers during the 2011 campaign season.

In addition to writing the blog, sponsoring contests, and running radio and online advertisements, the campaign’s main website ([www.onlyrain.org](http://www.onlyrain.org)) received a facelift. Traffic on the campaign’s website remains steady with over 500 visitors spending an average of two minutes on the site.

The campaign continues to show signs of being effective at changing behaviors as the summer 2011 survey of 500 Northern Virginia residents reveal one-third of the respondents recall hearing or seeing the advertisements. Of those respondents who heard/saw the ads, five percent state they now pick up their pet waste more often, five percent state they no longer dump motor oil or recycle it, and 17 percent state they fertilize less and are more careful when applying fertilizer.

Over the last five years, survey results show that the majority of Northern Virginia residents are supportive of local governments' spending money on protecting water quality. They believe that the role of individuals is equally as important. Most residents indicate that they take their vehicles to a service station to change their oil or they recycle their used motor oil. However, visitors to the [onlyrain.org](http://onlyrain.org) website are using keywords that suggest many Northern Virginians are still searching for locations to recycle their used motor oil. Similarly, most Northern Virginia residents pick up after their pets because they see it as the right thing to do. For both of these issues, water quality concerns do not raise to the forefront. The reasons for doing them revolve around convenience and being good neighbors.

The 2011 survey was the first time that respondents made it clear that they perceive fertilizers and pesticides from lawns and gardens as the number one cause of pollution in the Potomac River and Chesapeake Bay. This is revealing since over a third of the survey respondents state that they fertilize their property two or more times per year. So it appears that there is still a disconnect between what people perceive as the cause of pollution and the actions they are willing to take when it comes to lawn care. Perhaps efforts to make good lawn care practices more convenient coupled with the idea that Potomac River/Chesapeake Bay-friendly lawns are what good neighbors do will help to narrow this gap. Then again, the survey reveals that only 4 in 10 respondents knew that they lived in the Potomac River Watershed.

The total cost of the 2011 campaign is \$105,000. The 2011 effort is funded and sponsored by 11 local governments and three independent sanitary and drinking water authorities, Doody Calls, the Northern Virginia Regional Commission, and the Virginia Coastal Zone Management Program. Doody Calls joined as the Northern Virginia Clean Water Partners first business representative, donating \$1,000 worth of service and contributing in-kind to the effort. Responses to the survey suggest that public support remains strong for local government programs that improve the quality of water in local and regional streams and rivers and the Chesapeake Bay.

## Coordination and Training

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Past examples include: onsite wastewater systems operations and maintenance, blue/green infrastructure planning, factors affecting the delivery of pollutants to downstream waterways, and Chesapeake Bay Local Assistance trainings. Summaries of the workshops hosted in fiscal year 2010 are below. Their corresponding agendas, attendance list, and feedback responses, if available, are provided in Appendix C.

### ***Bringing the Outdoors In***

Seventy teachers attended a full day training to learn about programs that establish schoolyard habitat areas and readily-available online curriculum to take advantage of them in the classroom. The training atmosphere encouraged collaboration and discussion. Of those participants who provided feedback, 80 percent stated they will build a schoolyard habitat based on what they learned at the training.

### ***Revitalizing Vacant Lands***

To build on the work underway through the Conservation Corridors in Northern Virginia Planning Project, NVRC hosted two meetings to reach additional audiences in discussing conservation opportunities across the region. In August 2011, over 20 participants met to discuss options for revitalizing vacant and underutilized parcels across Northern Virginia to improve water quality and to increase habitat connections. It was revealed that as residential neighborhoods are aging there is increased pressure to revitalize these areas. Many of the localities are attempting to do this in a manner that does not undermine the existing community and encourages community resources, such as parks. However, the availability of vacant lands across the region varies by jurisdiction. Discussion revealed that each jurisdiction has different ways of classifying vacant and underutilized parcels and that a smaller scale analysis might be more beneficial and easier to conceptualize than a regional effort. However, it was recognized that a regional effort could highlight areas with high concentrations of vacant and/or underutilized areas.

### ***Voluntary Conservation Opportunities***

In September 2011, NVRC met with representative from 8 land trusts across the region at The Conservation Fund, in Arlington. The group reviewed regional maps and discussed opportunities to conserve the region's most environmentally-significant areas. Participants were eager to acquire the data and use it for their planning purposes. Also, they were very interested in the method used by NVRC in characterizing the benefits of the identified areas for meeting regulatory requirements, including the Bay TMDL. The meeting resulted in a better understanding of how the Conservation Corridors in Northern Virginia maps and report will be utilized across the region for voluntary conservation purposes.

### ***Residential Rain Gardens - Beautifying Your Yard for Clean Water***

NVRC co-hosted two Beautifying Your Yard for Clean Water workshops on building a small-scale rain garden before 45 people, including local government representatives. The workshops were held at the Northern Virginia Center of VA Tech in Falls Church and at ArtSpace in the Town of Herndon. Every participant who provided feedback stated they plan on building a rain garden based on the information presented at the workshop. The Northern Virginia Soil and Water Conservation District have been contacted by several of the participants who seek additional technical support in properly locating a rain garden on their property. These workshops support efforts to improve habitat and reduce stormwater-related pollution.

## Intergovernmental Reviews

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In FY2010, NVRC reviewed and responded to 22 documents as part of the intergovernmental review process. NVRC staff has made significant contributions to the environmental impact reviews regarding the Base Realignment and Closure efforts across the region, particularly as they relate to transportation. NVRC has been influential in the promotion of a ferry system linking areas of Woodbridge to military installations and government facilities located along Northern Virginia shoreline.

## Additional Coordination

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NVRC continues to support state and local groups engaged in watershed planning initiatives, tributary strategies, and other Chesapeake Bay-related efforts including the following projects:

- *Coastal Planning District Commissions Planning Meetings*
  - March 28, 2011
  - July 7, 2011
- *Coastal Partners Meeting*
  - December 7-9, 2010
- *Virginia Coastal Policy Team*
  - February 15, 2011

NVRC staff participates in and supports the implementation of meetings and conferences for the following organizations that meet quarterly:

- *Potomac Watershed Roundtable*

A regional government – citizen forum whose purpose is to promote collaboration and cooperation on environmental concerns, especially water quality issues, among the various local governments and stakeholder interest groups residing within the Virginia side of the middle and lower Potomac River watershed. Meetings attended include:

  - October 8, 2010
  - January 7, 2011
  - April 1, 2011
  - July 8, 2011
- *Northern Virginia Urban Forestry Roundtable*

Citizen members of tree boards and commissions, elected officials, urban foresters and arborists, landscape architects, builders, developers, and planners desiring to enhance and protect Virginia's urban forest. Meeting attended include:

  - February 11, 2011
  - May 5, 2011
  - September 29, 2011

**Appendix A**

**Summary of Regional Stormwater Education Campaign  
Northern Virginia Clean Water Partners**

# Northern Virginia Clean Water Partners Regional Stormwater Education Campaign 2011 Summary



## Campaign Background

The Regional Stormwater Education Campaign was initiated in 2003 to assist localities in leveraging funds to achieve common goals regarding stormwater education and outreach and promote consistent messages for fertilizer and pesticide use, pet waste disposal, and motor oil recycling.

The campaign satisfies MS4 (Municipal Separate Storm Sewer System) Phase I and Phase II permit requirements for stormwater education and documenting changes in behavior.

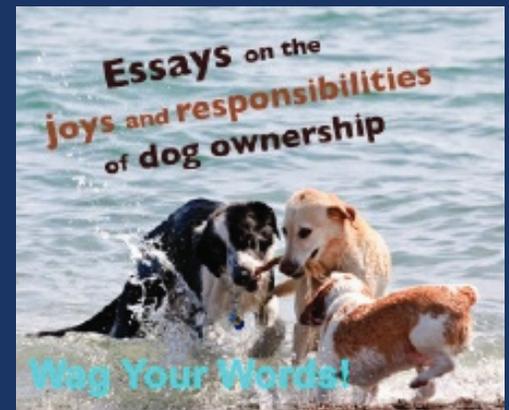
## Key Accomplishments for 2011

- Doody Calls joined as the Northern Virginia Clean Water Partners first business representative, donating \$1,000 worth of service and contributing in-kind to the effort.
- Throughout the course of the campaign, Google, Facebook, and YouTube advertisements appeared over 1.8 million times on individual computers, with over 85 percent of these ads including action-oriented messages (banner and YouTube ads).
- Approximately, 700 Northern Virginia residents completed the Dog Trivia Quiz and the "What Kind of Dog are You?" Personality Quiz.
- With support from the advertisements, contests, and simply terrific writing and reader engagement, the Northern Virginia Dog Blog surpassed over 1,000 subscribers during the 2011 campaign season.
- Throughout June 2011, three different ads aired on five radio stations approximately 174 times, reaching out to approximately 967,000 individuals.
- Additionally, the Partners sponsored the "Wag Your Words" Essay Contest, awarding \$5,000 to three local dog-related charities who submitted essays. Visitors cast over 2,300 votes for the various essays, which all included a "scoop the poop" message. Caring Hearts Rescue, Inc won the grand prize with their essay "Great Expectations."
- An online poll survey of 500 Northern Virginia residents took place to determine the effectiveness of the blog and ads, to reveal any changes in behavior, and to aid in directing the future efforts of the campaign.
- In spring 2011, the campaign main website ([www.onlyrain.org](http://www.onlyrain.org)) received a facelift. Traffic on the campaign's website remains steady with over 500 visitors spending an average of two minutes on the site.

## At a Glance:

Impressions and Visits to Website by Media Type

Media Type	Impressions	# of Visits to the Website
Online	26,266,774	24,257
<i>Text Ads</i>	23,887,641	-
<i>YouTube Ads</i>	11,981	-
<i>Banner Ads</i>	2,367,152	-
Radio	967,000	104
<b>Campaign Total</b>	<b>27,233,774</b>	<b>24,361</b>



Through the Northern Virginia Dog Blog, the Partners hosted the Wag Your Words! Essay Contest in Summer 2011 to promote responsible dog ownership. Six animal shelters and charities submitted essays and compete through online voting for \$5000 in grants to use toward veterinary care, spaying and neutering, dog food, and pet owner education.

Congratulations to:

- 1<sup>st</sup> Place: Caring Hearts Rescue, Inc.
- 2<sup>nd</sup> Place: Pet Assistance League of Virginia
- 3<sup>rd</sup> Place: Friends of Homeless Animals

For more information or to join, please visit:  
[www.onlyrain.org](http://www.onlyrain.org)

# Northern Virginia Clean Water Partners Regional Stormwater Education Campaign 2011 Survey Highlights

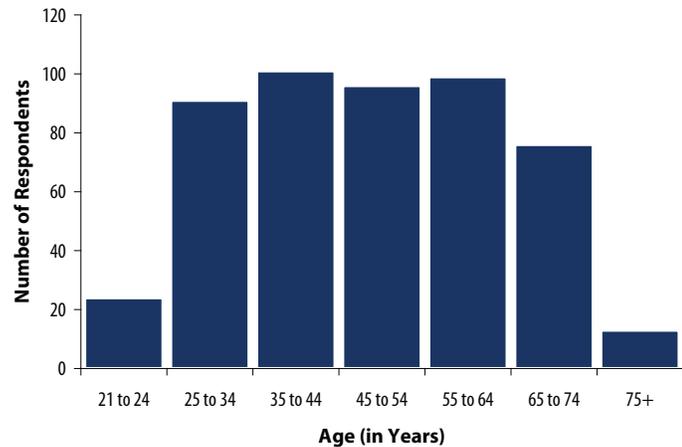
## Overview of Survey Process

Occurred: July 2011  
 Total number of Northern Virginia residents surveyed: 500  
 Survey method: Online Poll, performed by Amplitude Research  
 Confidence interval: 95 percent

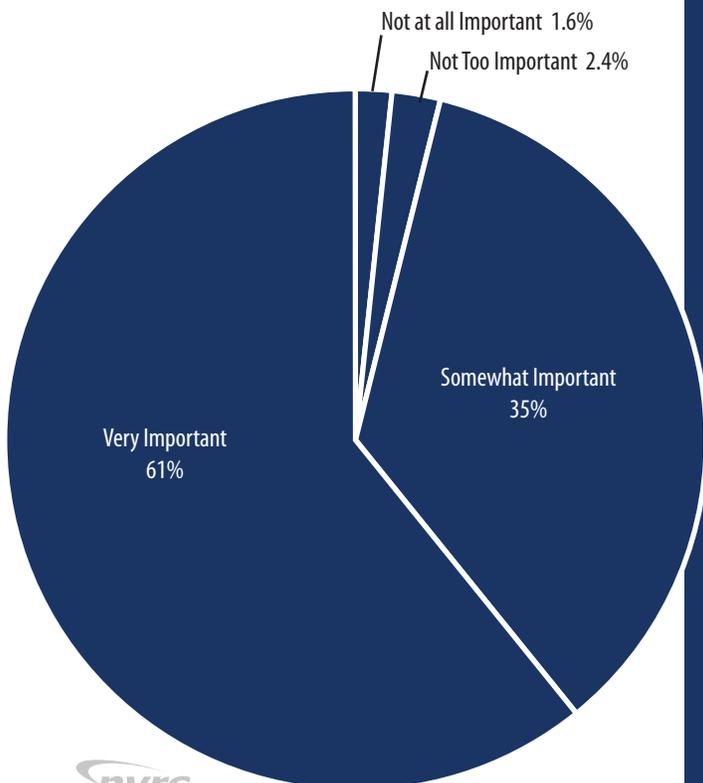
## Respondent Characteristics

- Gender is split fairly evenly between males (48%) and females (52%)
- More than 8-in-10 respondents own their home (84%)
- One-fifth of the respondents have lived in their current residence for 20 or more years. However, the majority (57%) have lived in their current residence for less than 10 years.
- Nearly 4-in-10 (38%) indicate that they believe they live in the Potomac River Watershed. However, 62% do not know or do not believe they live in the Potomac River Watershed.
- Over one-third of respondents (35%) recall hearing or seeing advertisements about picking up pet waste, not dumping motor oil, fertilizing less often, and/or reducing water pollution.

Age Distribution of Respondents



How Important do you feel the actions of individuals are in protecting water quality in local streams, the Potomac River and the Chesapeake Bay?



## Northern Virginia Resident Behaviors

### Pet Waste

Three quarters of the respondents pick up their pet's waste every time it goes on walks. At home, two-thirds of the respondents pick it up at least weekly. The majority of respondents are more motivated to pick up their pet's waste because it is the neighborly thing to do or because they don't want to step in it versus maintaining and improving water quality.

### Lawn Care

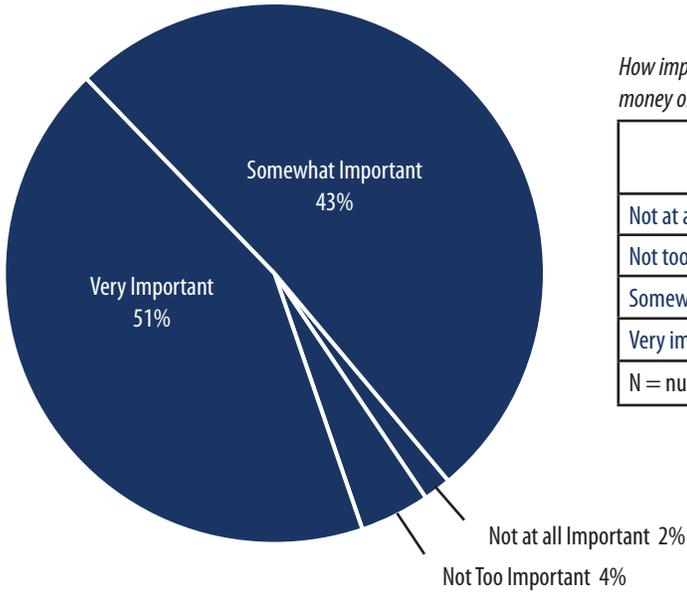
Nearly one-third reported that they never fertilize their lawn. However, an additional one-third report that they fertilize two or more times a year. Those who fertilize once a year are more likely to do so in the spring months.

### Motor Oil

The vast majority of respondents reported that they use an oil change service, when their vehicle needs an oil change. Among the minority who change their own vehicle oil, most of them reported taking the old motor oil to a place where it can be recycled. Only two respondents reported putting old motor oil in the trash, and no one reported dumping it in the gutter or down the sink.

# Northern Virginia Clean Water Partners Regional Stormwater Education Campaign 2011 Survey Highlights

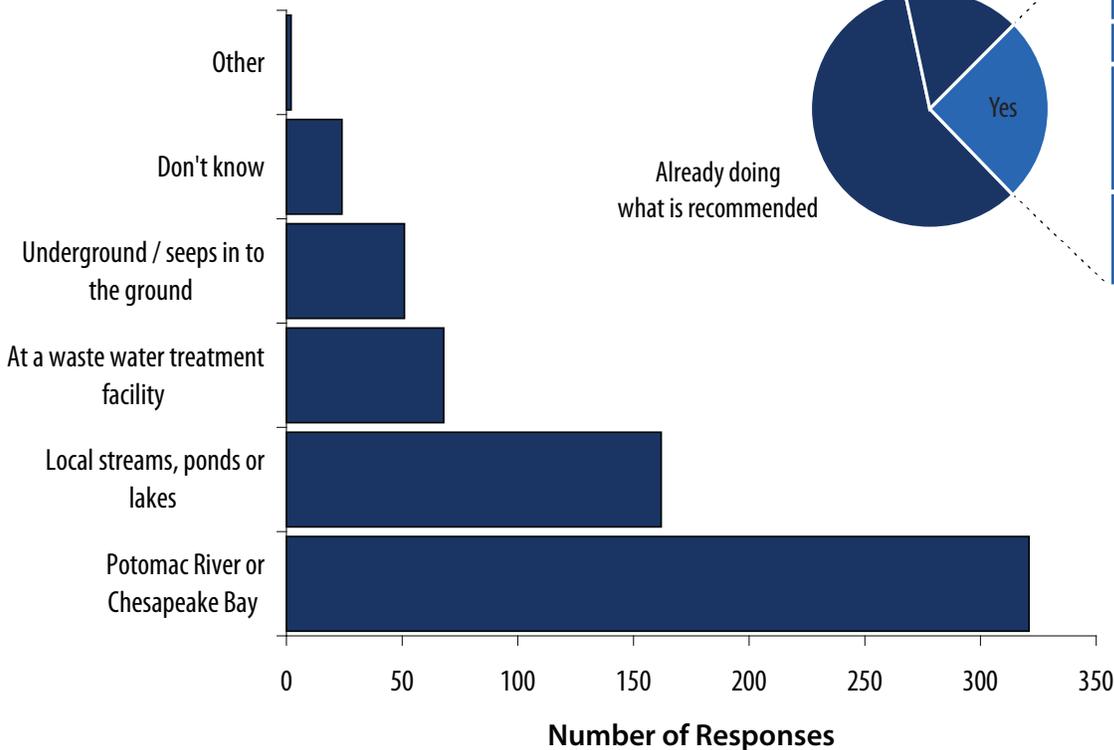
How important do you think it is for local governments to spend more money on protecting water quality?



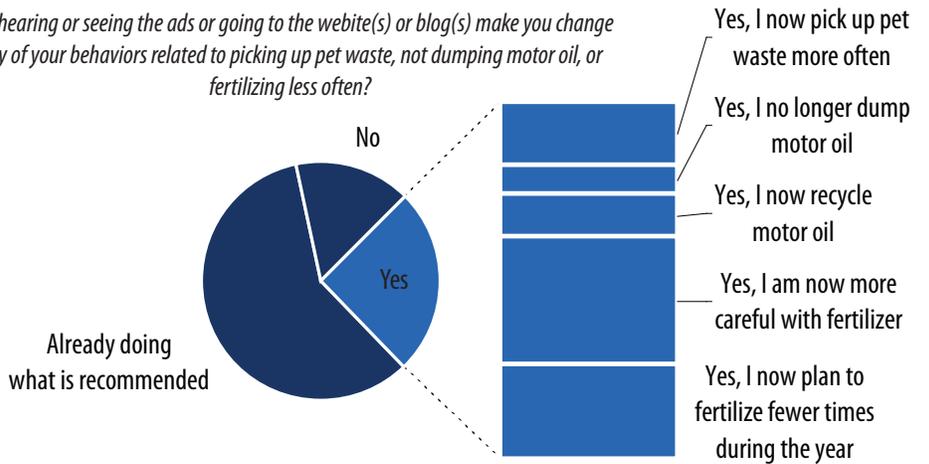
How important do you think it is for local governments to spend more money on protecting water quality? Responses per jurisdiction.

	Alexandria	Arlington	Fairfax Inclusive	Leesburg/Loudoun	Dumfries/Stafford
Not at all important	0%	2%	1%	3%	5%
Not too important	2%	9%	4%	3%	0%
Somewhat important	46%	40%	45%	43%	38%
Very important	52%	49%	50%	51%	57%
N = number of respondents	54	55	269	61	61

Where do you believe storm water eventually ends up?



Did hearing or seeing the ads or going to the website(s) or blog(s) make you change any of your behaviors related to picking up pet waste, not dumping motor oil, or fertilizing less often?

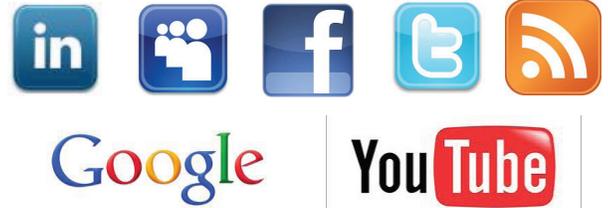




# Northern Virginia Clean Water Partners Regional Stormwater Education Campaign Trends

## Social Media & Search Engine Preferences

While approximately one-third (34%) reported that they don't usually use social media, this leaves approximately two-thirds (66%) who do, with more than half (56%) reporting that they use Facebook regularly. Additionally, when asked about search engines usage, Google was the preferred choice by more than eight-in-ten (84%).



## Motivations and Trends

Over the last five years, survey results show that the majority of Northern Virginia residents are supportive of local governments' spending money on protecting water quality. They believe that the role of individuals is equally as important. Most residents indicate that they take their vehicles to a service station to change their oil or they recycle their used motor oil. However, visitors to the [onlyrain.org](http://onlyrain.org) website are using keywords that suggest many Northern Virginians are still searching for locations to recycle their used motor oil. Similarly, most Northern Virginia residents pick up after their pets because they see it as the right thing to do. For both of these issues, water quality concerns do not raise to the forefront. The reasons for doing them revolve around convenience and being good neighbors.

**Top five** perceived causes of pollution in local streams, the Potomac River, and the Chesapeake Bay:

1. Fertilizers & pesticides from lawns and gardens
2. Garbage/Trash/Litter
3. Polluted runoff from streets & parking lots
4. Factories/Industrial wastes
5. Gas, oil, & exhaust from automobiles

The 2011 survey was the first time that respondents made it clear that they perceive fertilizers and pesticides from lawns and gardens as the number one cause of pollution in the Potomac River and Chesapeake Bay. This is revealing since over a third of the survey respondents state that they fertilize their property two or more times per year. So it appears that there is still a disconnect between what people perceive as the cause of pollution and the actions they are willing to take when it comes to lawn care. Perhaps efforts to make good lawn care practices more convenient coupled with the idea that Potomac River/Chesapeake Bay-friendly lawns are what good neighbors do will help to narrow this gap. Then again, the survey reveals that only 4 in 10 respondents knew that they lived in the Potomac River Watershed.

The Northern Virginia Clean Water Partners is a multi-disciplined group of local governments and drinking water and sanitation authorities working together to address the common issues surrounding pollution prevention, stormwater management, and source water protection.

The primary goal of the partnership is to reduce stormwater-related pollution from entering local waterways.

## Working together we can have healthy streams and rivers.

Only Rain Down the Drain  
[www.onlyrain.org](http://www.onlyrain.org)  
[www.northern-virginia-dog-blog.com](http://www.northern-virginia-dog-blog.com)

### 2011 Northern Virginia Clean Water Partners

- Fairfax County
- Arlington County
- Loudoun County
- Stafford County
- Fairfax Water
- City of Alexandria
- Loudoun Water
- Alexandria Sanitation Authority
- City of Fairfax
- Town of Herndon
- City of Falls Church
- Town of Leesburg
- Town of Vienna
- Town of Dumfries
- Doody Calls
- Northern Virginia Regional Commission
- Virginia Coastal Zone Management Program



## Memorandum

To: Laura Grape, Aileen Winquist, Northern Virginia Clean Water Partners

From: Eric Eckl, Water Words That Work, LLC

Re: Final Report

Date: 8/15/2011

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Here is the report on the only Only Rain Down the Drain Campaign, version 3.0, which ran from 1/9 to 7/13/2011.

### Summary of Accomplishments

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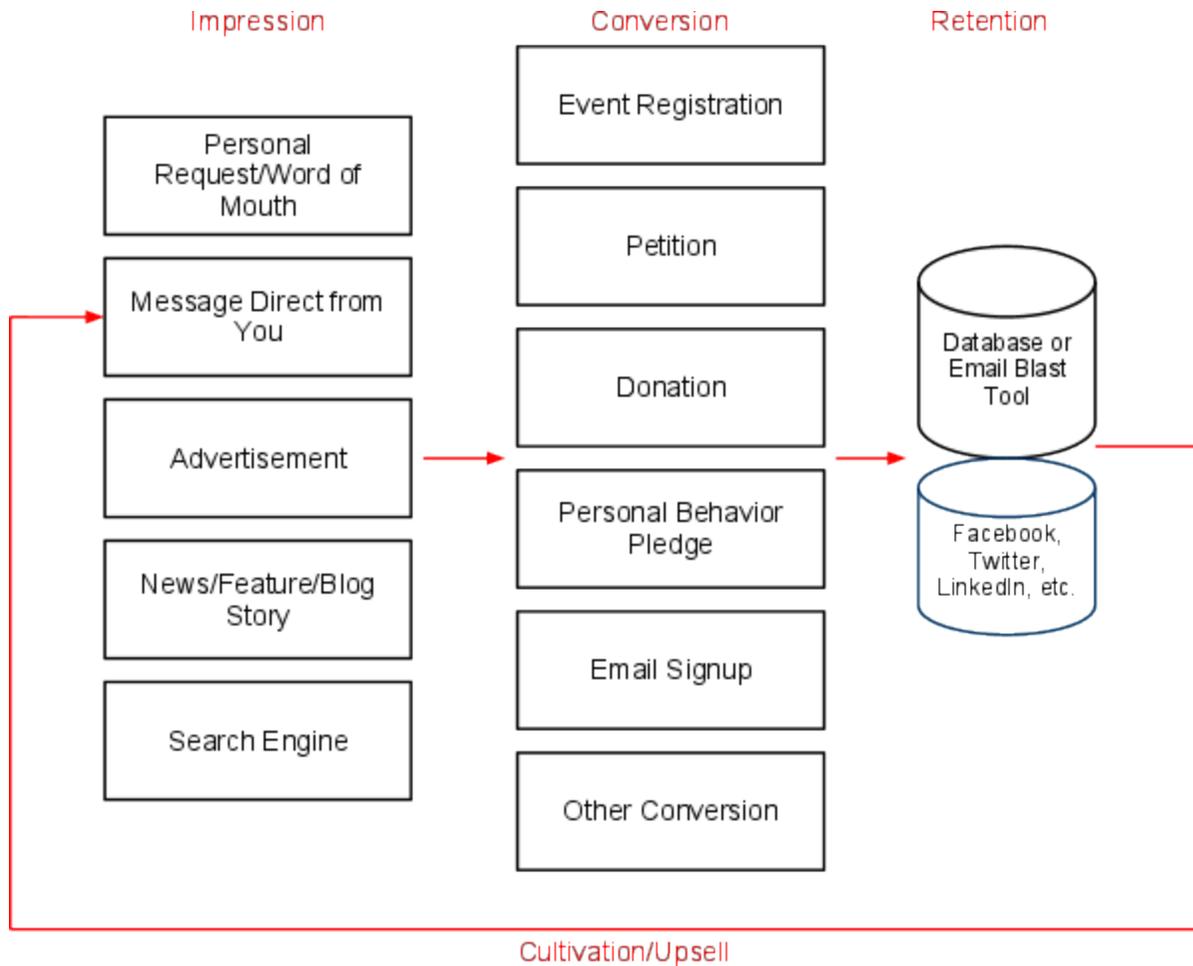
For our third effort at an online pollution prevention campaign, we set our first set of goals for impressions, conversions, and evaluation outcomes -- and we hit or came close to all of them! In addition, we ran three awareness raising contests -- one flop and two successes -- which accelerated the growth of our subscriber base.

We conducted some promising experiments with new forms of advertising that show potential for addressing some of the limitations we have discovered with the approach that centers around blogging.

Finally, our blogger, Susan McCulleogh secured recognition for the dog blog as one of the "[Five Blogs Every Dog Lover Should Follow](#)" from the website Helium.

### Campaign System

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## Impressions

We count the following as "impressions" for the campaign:

- Facebook Ad Views
- Google Ad Views
- Contest Views
- Pageviews on the blog from the state of Virginia. *We set campaign goals for pageviews.*

Note: We count all Virginia pageviews because we cannot track pageviews by county, and only imprecisely by municipality. However, we can targeted our advertising efforts more precisely in the Northern Virginia region and the great bulk of our traffic does come from NVCWP member jurisdictions.

## Conversions

We set goals for the following as "conversions" for the campaign:

- Becoming a "Fan" on Facebook
- Becoming a "Follower" on Twitter
- Subscribing via Email or RSS using the Feedburner service

Water Words That Work, LLC

1069 West Broad Street, Suite 200, Falls Church, VA 22046 703.829.6732

<http://waterwordsthatwork.com>

We also count participation in one of our quizzes or contests as a conversion, but we did not set goals for it.

### Retention

We use the following systems to retain contact information for those who convert:

- Fan list on Facebook
- Twitter follower list on Twitter
- Feedburner RSS/Email subscription service

### Cultivation

We count the following activities as cultivation:

- Writing blog posts that relay out via Twitter, Facebook, RSS, Email
- Engaging in dialogue with these individuals via comments and related features

### Big Steps

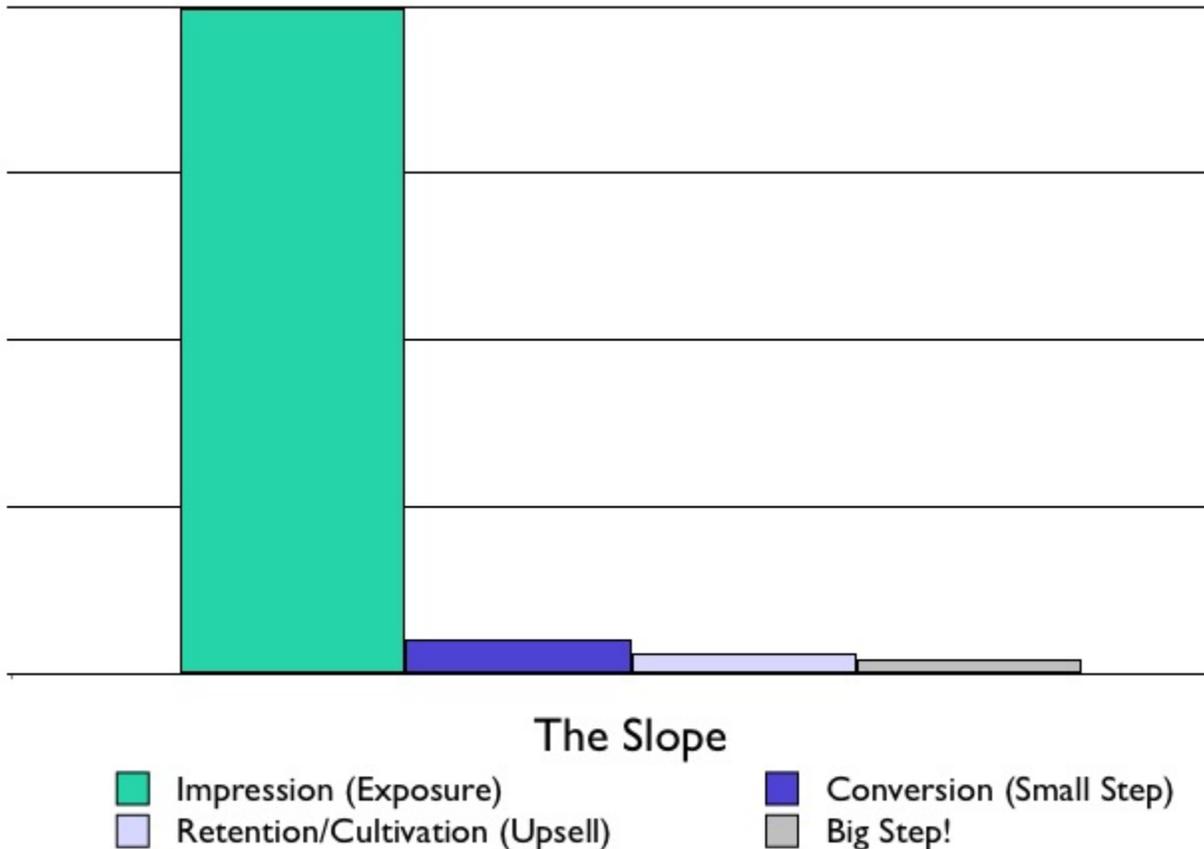
We treat the following activities as big steps for the campaign:

- Completing an online poll about their pet care habits

## The Slope

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**Impression (Exposure)**      **Conversion (Small Step)**  
**Retention/Cultivation (Upsell)**      **Big Step!**

Water Words That Work, LLC

1069 West Broad Street, Suite 200, Falls Church, VA 22046 703.829.6732

<http://waterwordsthatwork.com>

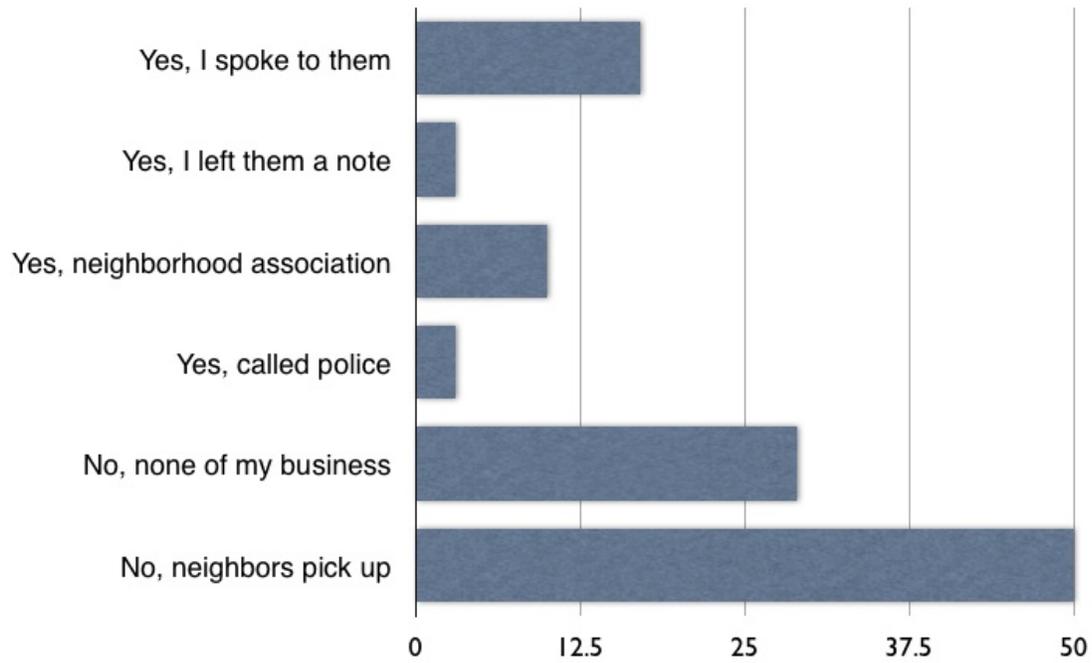
Goal Type	Campaign Goal	Achieved	% of Goal
Impressions	15247	15068	99%
Conversion/Retention	1352	1231*	91%
Cultivation	n/a	142 posts	n/a
Big Step	300	300	100%

The final Facebook Activity -- the Essay Contest -- started during this contract period but concluded after the end of it. We have included Facebook "Fans" recruited during this contest in our tally.

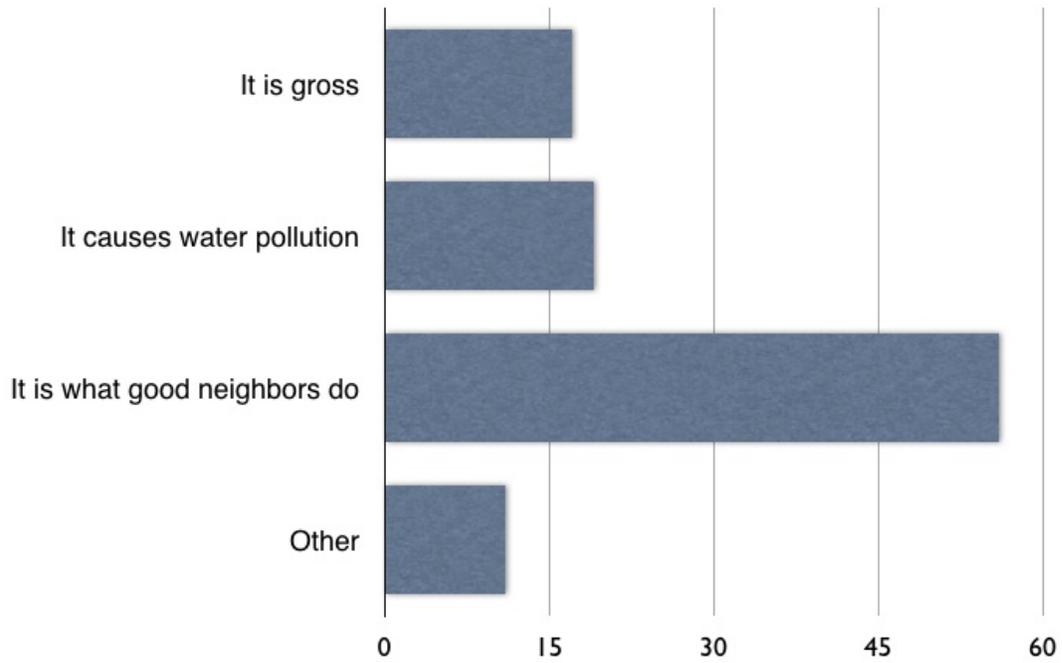
### **Big Step: Survey Responses**

Documenting actual changes to behavior "in the wild" is always a challenge, but our online survey results indicate that those who read the Northern Virginia Dog Blog are responsible dog owners indeed!

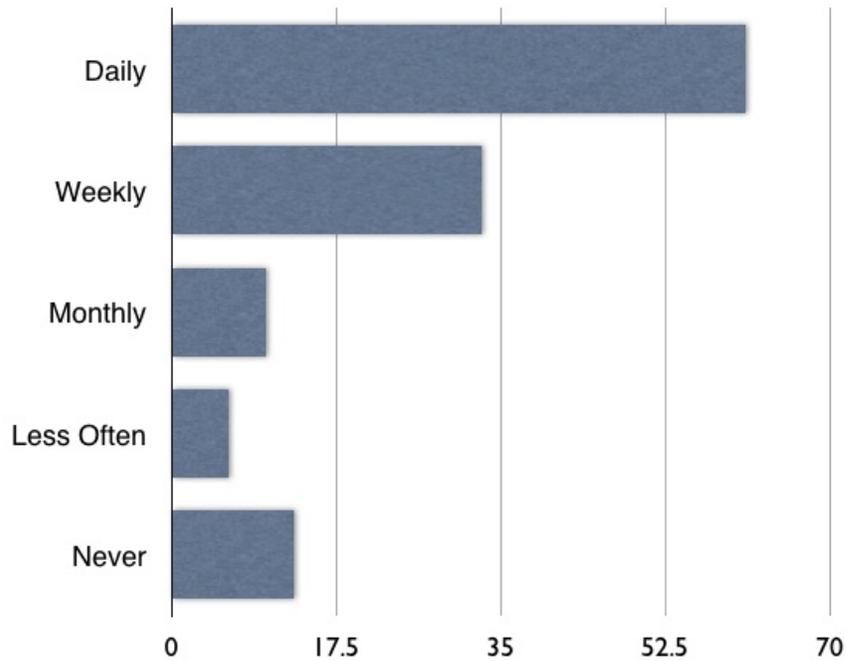
In particular, we see that about 25% of readers have been willing to take action about dog waste in their *neighbors'* yards.



■ Have you ever done something about dog waste in your NEIGHBOR's yard?



■ What is the most important reason to pick up after your dog?



■ How often do you remove dog waste from your yard?

## Contests and Quizzes

As in previous campaigns, we conducted several interactive quizzes and contests.



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**Trivia Quiz.** We conducted a simple dog trivia quiz, which featured a blend of celebrity gossip, historical tidbits, and facts about the dangers of dog waste and proper disposal of it.

In our professional judgement, this quiz was better written and more fun than the first quiz. Nevertheless, we failed to match the success of 2010, when we had more than 330 completed quizzes. In our 2011 quiz, we had just 65 completes. We did experience a Facebook advertising "brownout" during the quiz, which appears to account for the disappointing

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performance.

Fortunately, our subsequent efforts in this area produced much better results.

**What Kind of Dog Are You?** Patterned on a Cosmopolitan Quiz, we created a simple set of questions that paired canine and human traits.

Upon completing the quiz, each individual was designated as a being a particular breed -- which each had their own reasons to urge their master to scoop the poop.

For example, our description of the Boxer is as follows:

You're a Boxer!

Your friends and family can feel your playful spirit from around the corner- most likely because you'll come bounding around with a huge smile on your face. You like having a good time. Always one to start a game or a new adventure, you know that it's not about winning, but about spending time with your loved ones. You don't take yourself too seriously, but you take special care of the well-being of the people around you. And Boxers have a long history dating back to Germany- so you know when to raise a glass and celebrate!

*Because of your German heritage, you like it neat and orderly. That means you want the yards and parks where you play to be free of &^%\$#@! so you can frolic with abandon.*

We had 634 individuals complete this quiz.



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Wag Your Words! Essay Contest

**Grand Prize**  
The Grand Prize winner receives a \$3000 grant to be used toward their mission to encourage responsible ownership, improve the lives of animals looking for homes, and support pet-owners in our community. The Grand Prize winner is the essay that gets the most votes.

**2nd Prize**  
The Second Prize winner receives a \$1250 grant to be used toward their mission to encourage responsible ownership, improve the lives of animals looking for homes, and support pet-owners in our community.

**3rd Prize**  
The Third Prize winner receives a \$750 grant to be used toward their mission to encourage responsible ownership, improve the lives of animals looking for homes, and support pet-owners in our community.

**Contest Instructions**  
1. Write a 400 word essay about what "responsible pet ownership" means to you and your organization. Be sure to mention the importance of proper disposal of pet waste!  
2. Fill out the application form below.  
3. Submit both by Friday, July 15.  
Once our judges determine that you meet our eligibility requirements, we will invite Virginia residents to vote for the winner!  
For questions or assistance, contact 703.829.6732.

**Prize Eligibility**  
Only persons residing in Virginia who are at least 18 years of age can enter.

**Contest Starts**  
July 05, 2011 @ 12:01 am (EDT)

**Contest Ends**  
July 15, 2011 @ 11:59 pm (EDT)

**Need more Details?**  
Read the Official Rules

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**"Wag Your Words" Essay Contest.** We repeated the essay contest formula from the previous year, once again securing a strong result. The contest was structured like this:

Local dog related charities (shelters and rescue leagues) submit essays on the topic of responsible dog ownership. These organizations must encourage proper disposal of pet waste as part of their mission and mention it in the essay. Once the essays are approved, they urge their supporters to participate in the contest and vote for their essay.

The supporters of these charities are introduced to the dog blog during the contest and many of them elect to become fans while it is running.

This year, we increased the size of our grand prize from \$1500 to \$3,000 -- and had 50% more charities enter the contest. We had 2,290 votes for various essays in the

contest -- all of which contained a "scoop the poop" message.

## Experiments and Outcomes

In addition to setting our first-ever goals for the campaign, we also continued our experimentation with alternate forms of online advertising. Based on the performance figures below, we conclude that Google Banner and YouTube ads do have a place in the campaign, each offering strengths and weaknesses that compliment the text ads we have been running for years now.

Ad Type	Impressions	CPM (cost per thousand impressions)	Click Through Rate	Cost Per Click to Website
Google Search (Text)	259,553	\$7.09	1.1%	\$.65
Google Banner	1,569,157	\$2.29	.04%	\$6.10
YouTube	11,981*	\$6.04	.73%	\$.83

\*We continued to run these ads after 7/9/2011, earning additional impressions.

Here is a summary of the appropriate use of these different advertising approaches:

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- **Text Ads:** Most effective for promoting the blog, least effective for "general awareness"
- **Banner Ads:** Effective for "general awareness," least effective for promoting the blog
- **YouTube Ads:** Good for promoting the blog AND general awareness, but we can only reach relatively small numbers of people with them at this time.

## Observations and Lessons Learned

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### Facebook

Facebook continues to be a vital component of this effort, and became the world's most popular website during the course of this campaign.

From the perspective of the advertisers and campaigners (that's us), the rapid growth is a mixed blessing. On one hand, the site is experiencing severe growing pains. On the other hand, Facebook is rolling out new features and services that are useful for us.

Here are a just a few examples:

- Periodic and unexplained advertising "brownouts" where our ad campaigns simply cease sending traffic to our site. One of these occurred while running our Trivia Quiz. Another happened during the essay contest
- Frequent changes to the site's privacy policies, "Fan" page rules, and other systems that impact our blogger's ability to engage with others through Facebook.
- Improving ability to track who our Facebook fans are and where they come from.

## Recommendations for the Future

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We have proposed continuing this campaign in 2011 and 2012 -- setting one year goals for impressions, conversions, cultivation, and big steps. Key elements in that proposal are:

- **Improve "Bang for the Buck."** Bring the cost down by making technological changes and coordinating more closely with the Metropolitan Washington Council of Governments on their effort.
- **Expand Advertising Efforts.** Build on this campaign's successful experiments and invest more effort in online advertising that delivers a compelling message to those who are not sufficiently interested to read the blog. Also, we want to have alternative methods to promote contests and quizzes when Facebook "brown outs" on us.
- **Expand the Scope.** We believe the blog will grow faster and have more influence if we expand the scope to include the entire Metro DC area, including suburban Maryland.



# **Northern Virginia Regional Commission**

## **2011 Resident Survey**

### *Summary Report of Findings*

7/19/2011

**Amplitude Research**  **nc**

## Study Methodology

The Northern Virginia Regional Commission (NVRC) commissioned Amplitude Research, Inc. to conduct a survey of residents of northern Virginia to measure beliefs and attitudes related to pollution of the Potomac River and Chesapeake Bay.

Amplitude Research worked together with NVRC personnel to develop the 2011 survey. Amplitude Research administered the 2011 study online between July 5, 2011 and July 12, 2011. In the end, 500 surveys were completed by web panelists who live in one of the areas of Virginia listed in the second table below.

### Do you live in the state of Virginia?

Legend	Response Choice	Frequencies	Count
1	Yes	 100.0%	500
2	No		0
	<b>Total (N)</b>		<b>500</b>

### Which of the following best describes where you live (county or city or town)?

Legend	Response Choice	Frequencies	Count
1	Alexandria	 10.8%	54
2	Arlington	 11.0%	55
3	Dumfries	 2.8%	14
4	Fairfax (city of)	 3.8%	19
5	Fairfax (county of)	 34.8%	174
6	Falls Church	 5.6%	28
7	Herndon	 5.4%	27
8	Leesburg	 2.8%	14
9	Loudoun County	 9.4%	47
10	Stafford County	 9.4%	47
11	Vienna	 4.2%	21
12	None of the above		0
	<b>Total (N)</b>		<b>500</b>

Later in this report, the results for some of the questions are "broken out" by area, in addition to presenting the results for the total sample. However, the specific areas listed above were grouped together into larger areas so that each larger area used for analysis had a reasonable number of respondents. Ideally, it is best to have more than 50 respondents for a subgroup that is examined separately.

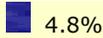
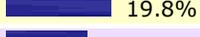
Residents from Leesburg and Loudoun County were combined into a single category labeled "**Leesburg / Loudoun**," since the town of Leesburg lies within Loudoun County. Another category used for analysis was "**Dumfries / Stafford**," since Dumfries lies just north of Stafford

County. Although Dumfries is not located within Stafford County, it is closer to Stafford than to the other counties covered in the survey. (There were too few survey respondents living in Dumfries to examine the results for Dumfries alone.) The City of Fairfax, Falls Church, Herndon, and Vienna were combined with Fairfax County to create the category "**Fairfax Inclusive**," since these cities and towns lie within the Fairfax County area. Although the City of Fairfax and City of Falls Church are distinct areas, their location falls within the larger area circumscribed by Fairfax County.

The City of Alexandria can be examined separately, since there were more than 50 survey respondents from this city. Similarly, there were enough survey respondents from Arlington County to examine this county separately.

The minimum age to participate in the survey was 21. The table below shows the number of survey respondents by age category.

Which of the following categories includes your age?

Legend	Response Choice	Frequencies	Count
1	Under 18		0
2	18 to 20		0
3	21 to 24	 4.8%	24
4	25 to 34	 18.2%	91
5	35 to 44	 20.2%	101
6	45 to 54	 19.2%	96
7	55 to 64	 19.8%	99
8	65 to 74	 15.2%	76
9	75 or older	 2.6%	13
	<b>Total (N)</b>		<b>500</b>

For analysis purposes later in this report, the categories "21 to 24" and "25 to 34" were combined into the broader category of "21 to 34." At the same time, the categories "65 to 74" and "75 or older" were combined into the broader category of "65 or older."

## Sampling Variability

While examining the survey findings, it is helpful to keep in mind that the results are based on a sample and are therefore subject to sampling variability, often referred to as “sampling error.” The degree of uncertainty for an estimate (e.g., a particular percentage from the survey) arising from sampling variability is represented through the use of a margin of error. A sampling margin of error at the “95% confidence level” can be interpreted roughly as providing a 95% probability that the interval created by the estimate plus and minus the margin of error contains the true value. (The “true” value would be known only if everyone in the target market was surveyed rather than just a sample.) In addition to sampling variability, results may be subject to various sources of non-sampling error (e.g., non-response bias, respondent misinterpretation of question wording, etc.). The degree of non-sampling error is not represented by the sampling margin of error and is usually unknown.

For a “sample size” of 500 survey respondents, the “maximum” margin of sampling error for percentages from the survey is +/- 4.4 percentage points at the 95% confidence level. Here, “maximum” refers to the margin of error being highest for proportions from the survey near 50%, while the margin of error declines as percentages get further from 50%. For example, given the same sample size of 500 respondents, a result from the survey near 10% or 90% would have a margin of sampling error of +/- 2.6 percentage points.

The margin of sampling error increases as the sample size decreases. Thus, when a question is asked of only a subset of the total sample, the associated margin of sampling error is larger than that quoted above. Also, even if a question is asked of all respondents, when examining results for a particular subgroup, the margin of sampling error depends on the number of respondents in that subgroup. For example, the “maximum” margin of sampling error would be +/- 9.8 percentage points at the “95% confidence level” when based on a subgroup of 100 survey respondents.

This suggests that results for different subgroups can be considered “similar” when the differences are small (i.e., small enough to be within the range of sampling error).

## Other Respondent Characteristics

- In addition to questions about geographic area and age, respondents were also asked to indicate their gender, whether they own or rent their residence, and how long they have lived in their current residence. As shown in the table below, the survey was roughly split between males (48%, rounded up from 47.6% in the table) and females (52%).

Are you:

Legend	Response Choice	Frequencies	Count
1	Male	 47.6%	238
2	Female	 52.4%	262
	<b>Total (N)</b>		<b>500</b>

- More than eight-in-ten (84%) survey respondents were homeowners.

Which of the following best describes your residence?

Legend	Response Choice	Frequencies	Count
1	I own my home	 84.0%	420
2	I rent my home	 16.0%	80
3	Neither		0
	<b>Total (N)</b>		<b>500</b>

- One-fifth (20%) have lived in their current residence for 20 or more years. On the other end of the spectrum, 9% have lived in their current residence for less than one year.

For how many years have you lived in your current residence?

Legend	Response Choice	Frequencies	Count
1	Less than 1 year	 9.0%	45
2	1 to 3 years	 18.0%	90
3	4 to 9 years	 30.4%	152
4	10 to 19 years	 22.6%	113
5	20 or more years	 20.0%	100
	<b>Total (N)</b>		<b>500</b>

- For some of the questions covered in the following sections of this report, the results are broken out by subgroups defined by the questions above. For the subgroup of those living in their current residence for less than 1 year, the sample size of 45 respondents is not large, but results for this subgroup are still shown separately in some parts of this report, as some readers may be interested in how residents in a new home differ from others.

## Potomac River Watershed

- Early in the survey, respondents were asked if they lived within the "Potomac River Watershed." As shown in the table below, nearly four-in-ten (38%) indicated that they believed that they did in fact live within the Potomac River Watershed. However, roughly the same proportion (38%) did not know.

### Do you live within the Potomac River Watershed?

Legend	Response Choice	Frequencies	Count
1	Yes	 38.2%	191
2	No	 23.4%	117
3	Not Sure	 38.4%	192
	<b>Total (N)</b>		<b>500</b>

- Given the high proportion not sure, it is interesting to examine the results by different subgroups of the total sample. To begin, the table below shows that a high proportion in each area were not sure if they lived in the "Potomac River Watershed" or not. In particular, more than half (57%) of the respondents living in the City of Alexandria were not sure.

<b>Live Within Potomac River Watershed</b>	<b>Alexandria</b>	<b>Arlington</b>	<b>Fairfax inclusive</b>	<b>Leesburg Loudoun</b>	<b>Fumfries Stafford</b>
Yes	26%	44%	39%	41%	38%
No	17%	20%	23%	23%	33%
Not Sure	57%	36%	38%	36%	29%
<i>N = number of respondents</i>	54	55	269	61	61

- One might expect that those who have lived in their residence for longer would be less likely to say they were not sure about the correct answer to the question above. The table below shows that this is the case. For example, among those who have lived in their current residence for 20 or more years, 24% were not sure whether or not they lived in the Potomac River Watershed, whereas half of those living in their residence for 1 to 3 years were not sure. (The difference between 24% and 50% is "statistically significant.")

<b>Live Within Potomac River Watershed</b>	<b>Have Lived in Current Residence</b>	<b>1 to 3 years</b>	<b>4 to 9 years</b>	<b>10 to 19 years</b>	<b>20 or more years</b>
Yes	31%	24%	33%	47%	52%
No	16%	26%	24%	23%	24%
Not Sure	53%	50%	43%	30%	24%
<i>N = number of respondents</i>	45	90	152	113	100

- Age can be associated to some extent with how long a person has lived in their current residence. However, even if an older person has not lived in their current residence for very long, they may have lived in other locations in or near northern Virginia. More time in or near the area may increase the likelihood that they have learned about the Potomac River Watershed. This line of thinking motivates breaking out the results for the question above by age group, as in the table below.

<b>Live Within Potomac River Watershed</b>	<b>Age</b>				
	<b>18 to 34</b>	<b>35 to 54</b>	<b>55 to 64</b>	<b>65 to 74</b>	<b>75+</b>
Yes	21%	29%	44%	43%	61%
No	23%	29%	27%	18%	20%
Not Sure	56%	42%	29%	39%	19%
<i>N = number of respondents</i>	115	101	96	99	89

- This shows that younger residents were more likely than older residents to be unsure. For example, among those under the age of 35, more than half (56%) were not sure if they lived within the Potomac River Watershed. In contrast, among those age 65 or older, only 19% were unsure, and 61% believed that they did in fact live in the "Potomac River Watershed."
- In addition to age and length of time living in their current residence, gender and homeownership were related to the question above. As shown in the next table (below), females were more likely than males to be unsure if they lived within the Potomac River Watershed. Separately, renters were more likely than homeowners to be unsure.

<b>Live Within Potomac River Watershed</b>	<b>Gender</b>		<b>Homeownership</b>	
	<b>Male</b>	<b>Female</b>	<b>Homeowners</b>	<b>Renters</b>
Yes	48%	29%	41%	25%
No	24%	23%	23%	22%
Not Sure	28%	48%	36%	53%
<i>N = number of respondents</i>	238	262	420	80

- As a technical note, when a subgroup is described as "more likely" or "less likely" than another subgroup to give a particular response, this means that the difference between these subgroups is "statistically significant" at the "95% confidence level." Intuitively, the term "statistically significant" means that it is reasonable to be confident that the difference reflects more than mere "sampling error."

## Beliefs About Local Water Pollution

- When asked what they thought was the "Number one" cause of pollution in local streams, the Potomac River, and the Chesapeake Bay, the most frequently selected response option was "Fertilizers and pesticides from lawns and farms" (38%).
  - In the survey, the options shown in the table below were presented to respondents on the computer screen, and respondents were asked to select one of the options.

What do you think is the **number one cause** of pollution in local streams, the Potomac River, and the Chesapeake Bay? (Please select only one)

Response Choice	Frequencies	Count
Fertilizers and pesticides from lawns and farms	37.6%	188
Garbage / trash / litter	18.2%	91
Polluted runoff from streets and parking lots	16.8%	84
Factories / Industrial waste	7.8%	39
Gas, oil and exhaust from automobiles	2.6%	13
Pet waste	0.6%	3
Don't know / not sure	14.6%	73
Other	1.8%	9
<b>Total (N)</b>		<b>500</b>

- The table below shows that "Fertilizers and pesticides from lawns and farms" was the most often selected response option among respondents living in each area.

<b>Believed #1 Cause of Local Water Pollution</b>					
	Alexandria	Arlington	Fairfax inclusive	Leesburg □ Loudoun	□umfries □ Stafford
Fertilizers and pesticides from lawns and farms	28%	31%	42%	38%	33%
Garbage / trash / litter	20%	16%	17%	20%	23%
Polluted runoff from streets and parking lots	15%	16%	18%	21%	8%
Factories / Industrial waste	13%	15%	6%	3%	10%
Gas, oil and exhaust from automobiles	7%	2%	3%	2%	0%
Pet waste	2%	0%	1%	0%	0%
Don't know / not sure	13%	18%	12%	13%	23%
Other	2%	2%	1%	3%	3%
<i>N = number of respondents</i>	54	55	269	61	61

- However, among those who have lived in their current residence for less than four years, the most often selected response option was "Garbage / trash / litter," while those who have lived in their current residence for 20 or more years were more likely to select "Fertilizers and pesticides from lawns and farms."

<b>Believed #1 Cause of Local Water Pollution</b>	<b>Have Lived in Current Residence</b>				
	<b>1 year or less</b>	<b>2 to 4 years</b>	<b>5 to 9 years</b>	<b>10 to 19 years</b>	<b>20 or more years</b>
Fertilizers and pesticides from lawns and farms	20%	19%	36%	44%	57%
Garbage / trash / litter	29%	27%	15%	19%	9%
Polluted runoff from streets and parking lots	20%	20%	15%	18%	14%
Factories / Industrial waste	11%	10%	12%	4%	2%
Gas, oil and exhaust from automobiles	7%	3%	2%	2%	2%
Pet waste	0%	1%	1%	0%	0%
Don't know / not sure	11%	19%	16%	11%	15%
Other	2%	1%	3%	2%	1%
<i>N = number of respondents</i>	45	90	152	113	100

- Similarly, older respondents were more likely than younger respondents to select "Fertilizers and pesticides from lawns and farms" as the top cause of local water pollution.

<b>Believed #1 Cause of Local Water Pollution</b>	<b>Age</b>				
	<b>18 to 29</b>	<b>30 to 49</b>	<b>50 to 69</b>	<b>70 to 89</b>	<b>90+</b>
Fertilizers and pesticides from lawns and farms	15%	31%	44%	46%	58%
Garbage / trash / litter	29%	26%	16%	13%	4%
Polluted runoff from streets and parking lots	22%	9%	20%	14%	19%
Factories / Industrial waste	14%	9%	6%	6%	2%
Gas, oil and exhaust from automobiles	6%	2%	2%	1%	1%
Pet waste	0%	1%	1%	0%	1%
Don't know / not sure	13%	20%	9%	19%	12%
Other	1%	2%	2%	1%	3%
<i>N = number of respondents</i>	115	101	96	99	89

- More than one-third of both males and females selected "Fertilizers and pesticides from lawns and farms."

**Believed #1 Cause of Local Water Pollution**

	Male	Female	Homeowners	Renters
Fertilizers and pesticides from lawns and farms	41%	35%	42%	16%
Garbage / trash / litter	15%	21%	17%	25%
Polluted runoff from streets and parking lots	19%	15%	15%	24%
Factories / Industrial waste	9%	7%	8%	9%
Gas, oil and exhaust from automobiles	2%	3%	2%	5%
Pet waste	1%	0%	0%	1%
Don't know / not sure	11%	17%	14%	19%
Other	2%	2%	2%	1%
<i>N = number of respondents</i>	238	262	420	80

- Homeowners were more likely than renters to select "Fertilizers and pesticides from lawns and farms." In fact, among renters, this option was selected *third* most often (except for don't know).
- As shown in the next table, most gave a rating of *at least* "Somewhat important" for the importance of actions of individuals in protecting local water quality. More than half (61%) gave a rating of "Very important."

How important do you feel the actions of individuals are in protecting water quality in local streams, the Potomac River and the Chesapeake Bay?

Legend	Response Choice	Frequencies	Count
1	Not at all important	1.6%	8
2	Not too important	2.4%	12
3	Somewhat important	35.2%	176
4	Very important	60.8%	304
	<b>Total (N)</b>		<b>500</b>

- The majority among each of the subgroups examined for previous questions gave a rating of "Very important" for the question above. For example, the subgroup with the lowest proportion giving a "Very important" rating was males; but, even in this subgroup, 56% gave a rating of "Very important." (Among females, 65% gave a rating of "Very important.")

- In another question designed to assess beliefs about local water pollution, nearly two-thirds (64%) correctly indicated that storm water ultimately ends up in the Potomac River or Chesapeake Bay. However, this leaves 36% who did not select this option. Interestingly, the respondent was allowed to select multiple options in the question below. For example, those who selected "Local streams, ponds or lakes" could have also selected "Potomac River or Chesapeake Bay" if they wanted to. This suggests that there is room to educate more residents about how storm water impacts the Potomac River and Chesapeake Bay.

"Storm water" is rain or other water that flows into the street, along the gutter and into the storm drain. To the best of your knowledge, where do you believe storm water eventually ends up?

Response Choice	Frequencies	Count
Potomac River or Chesapeake Bay	64.2%	321
Local streams, ponds or lakes	32.4%	162
At a waste water treatment facility	13.6%	68
Underground / seeps in to the ground	10.2%	51
Don't know	4.8%	24
Other	0.4%	2
<b>Total (N)</b>		<b>500</b>

- The table below shows that "Potomac River or Chesapeake Bay" was selected more often than other options among respondents in each area, especially among residents of Arlington and the Fairfax area (including Fairfax County and the cities within / surrounded by the county - i.e., "Fairfax Inclusive").

<b>Believed Destination of Storm Water</b>	<b>Alexandria</b>	<b>Arlington</b>	<b>Fairfax Inclusive</b>	<b>Leesburg Loudoun</b>	<b>Fumfries Stafford</b>
Potomac River or Chesapeake Bay	46%	71%	70%	59%	54%
Local streams, ponds or lakes	33%	35%	29%	39%	38%
At a waste water treatment facility	28%	18%	10%	18%	8%
Underground / seeps in to the ground	11%	15%	11%	7%	7%
Don't know	4%	2%	5%	7%	7%
<i>N = number of respondents</i>	54	55	269	61	61

- As shown on the next page, those age 45 or older were more likely than those under the age of 45 to select "Potomac River or Chesapeake Bay." Also, males were more likely than females, and homeowners were more likely than renters to select this option.

**Believed Destination of Storm Water**

Have Lived in Current Residence  
1 year

1 to 5 years

6 to 10 years

11 to 20 years

21 or more years

Potomac River or Chesapeake Bay	62%	58%	58%	67%	77%
Local streams, ponds or lakes	44%	41%	35%	32%	16%
At a waste water treatment facility	22%	22%	14%	6%	9%
Underground / seeps in to the ground	16%	14%	11%	11%	3%
Don't know	7%	9%	5%	4%	2%

N = number of respondents

45

90

152

113

100

**Believed Destination of Storm Water**

Age 18 to 29

30 to 39

40 to 49

50 to 59

60+

Potomac River or Chesapeake Bay	55%	56%	67%	70%	76%
Local streams, ponds or lakes	49%	34%	27%	26%	22%
At a waste water treatment facility	21%	20%	8%	13%	3%
Underground / seeps in to the ground	15%	15%	11%	5%	3%
Don't know	8%	7%	5%	1%	2%

N = number of respondents

115

101

96

99

89

**Believed Destination of Storm Water**

Male

Female

Homeowners

Renters

Potomac River or Chesapeake Bay	72%	57%	68%	46%
Local streams, ponds or lakes	34%	31%	30%	44%
At a waste water treatment facility	12%	15%	11%	25%
Underground / seeps in to the ground	10%	10%	9%	15%
Don't know	2%	8%	4%	9%

N = number of respondents

238

262

420

80

- The next question starts by informing respondents about how polluted runoff causes pollution in the Potomac River and Chesapeake Bay and then asks if they would be more or less likely to act to reduce pollutants going into storm drains. The majority would be at least somewhat more likely to take corrective actions when given this information. However, there were still some who would not change (19%) or would be *less* likely to act (7%).

Many people are surprised to learn that polluted water runoff is the number one cause of pollution in the Potomac River and Chesapeake Bay. When it rains and when snow melts, the water picks up pollutants on the land and washes them into local waterways. Knowing this, would you be more likely or less likely to take actions to reduce the amount of pollutants that you personally put into storm drains?

Legend	Response Choice	Frequencies	Count
1	Much less likely	 2.8%	14
2	Somewhat less likely	 4.4%	22
3	No more or less likely	 18.6%	93
4	Somewhat more likely	 39.2%	196
5	Much more likely	 35.0%	175
	<b>Total (N)</b>		<b>500</b>

- A strong majority in each area were *at least* somewhat more likely to act to reduce pollutants in storm drains after being told that water runoff is the number one cause of pollution in the Potomac River and Chesapeake Bay.

<b>Likelihood Act to Reduce Storm Drain Pollutants</b>	<b>Alexandria    Arlington    Fairfax inclusive    Leesburg Loudoun    umfries Stafford</b>				
	<b>Alexandria</b>	<b>Arlington</b>	<b>Fairfax inclusive</b>	<b>Leesburg Loudoun</b>	<b>umfries Stafford</b>
Much less likely	2%	2%	1%	7%	8%
Somewhat less likely	0%	9%	6%	3%	0%
No more or less likely	7%	18%	20%	23%	16%
Somewhat more likely	43%	40%	38%	36%	45%
Much more likely	48%	31%	35%	31%	31%
<i>N = number of respondents</i>	54	55	269	61	61

- As shown in the tables on the next page, it was also true among other subgroups that the majority were at least somewhat likely to act to reduce pollution in storm drains.

**Likelihood Act to Reduce Storm Drain Pollutants**

Have Lived in Current Residence  
1 year

1 to 2 years

3 to 4 years

5 to 9 years

10 or more years

Much less likely	0%	1%	5%	4%	1%
Somewhat less likely	7%	2%	5%	4%	6%
10 or more or less likely	16%	22%	16%	22%	16%
Somewhat more likely	35%	46%	46%	28%	37%
Much more likely	42%	29%	28%	42%	40%

N = number of respondents      45      90      152      113      100

**Likelihood Act to Reduce Storm Drain Pollutants**

Age  
18 to 24

25 to 34

35 to 44

45 to 54

55+

Much less likely	2%	1%	5%	3%	3%
Somewhat less likely	5%	2%	5%	4%	6%
10 or more or less likely	18%	18%	20%	16%	21%
Somewhat more likely	45%	44%	31%	43%	30%
Much more likely	30%	35%	39%	34%	40%

N = number of respondents      115      101      96      99      89

**Likelihood Act to Reduce Storm Drain Pollutants**

Male

Female

Homeowners

Renters

Much less likely	4%	2%	3%	1%
Somewhat less likely	6%	3%	4%	6%
10 or more or less likely	23%	15%	18%	20%
Somewhat more likely	38%	40%	38%	45%
Much more likely	29%	40%	37%	28%

N = number of respondents      238      262      420      80

- Although the majority of both males and females were at least somewhat likely to act, it is still noteworthy that a higher proportion of females (40%) than males (29%) were "Much more likely" to act to reduce pollution going into storm drains. (The difference between 40% and 29% is large enough to be "statistically significant" at the "95% confidence level.")

- While the above question referred to the respondent's likelihood of acting to reduce water pollution, the question covered in the next table referred to spending by local governments. Approximately half (51%) felt it is "Very important" and more than four-in-ten (43%) felt it is "Somewhat important" for local governments to spend more money on protecting water quality. Combined, 94% gave a rating of *at least* "Somewhat important."

How important do you think it is for local governments to spend more money on protecting water quality?

Legend	Response Choice	Frequencies	Count
1	Not at all important	1.8%	9
2	Not too important	4.0%	20
3	Somewhat important	43.2%	216
4	Very important	51.0%	255
	<b>Total (N)</b>		<b>500</b>

- Among each of the subgroups examined for previous questions, most gave a rating of at least somewhat important for the question above. The results are not broken out by subgroup for this question because the results did not differ significantly by any of these subgroups.

## Advertising

- Slightly more than one-third (35%) indicated that they have heard ads on the radio or seen ads on websites or blogs about reducing water pollution.

Have you heard any ads on the radio, or have you seen any ads on websites or blogs about picking up pet waste, not dumping motor oil, fertilizing less often, and/or reducing water pollution?

Legend	Response Choice	Frequencies	Count
1	Yes	 35.0%	175
2	No	 51.8%	259
3	Not Sure	 13.2%	66
	<b>Total (N)</b>		<b>500</b>

- More than one-fourth in each area indicated awareness of such ads, as shown below.

<b>Heard / Seen Ads About Reducing Water Pollution</b>	<b>Alexandria      Arlington      Fairfax inclusive      Leesburg      umfries Loudoun      Stafford</b>				
	Yes	32%	27%	37%	28%
No	61%	62%	50%	49%	46%
Not Sure	7%	11%	13%	23%	13%
<i>N = number of respondents</i>	54	55	269	61	61

- Those who have lived in their residence the longest (i.e., 20 or more years) were more likely to report awareness of the ads than those who have lived in their residence for only a few years or less.

<b>Heard / Seen Ads About Reducing Water Pollution</b>	<b>Have Lived in Current Residence</b>				
	<b>0 to 4 years</b>	<b>5 to 9 years</b>	<b>10 to 19 years</b>	<b>20 to 29 years</b>	<b>30 or more years</b>
Yes	29%	27%	35%	37%	43%
No	56%	67%	52%	45%	44%
Not Sure	15%	6%	13%	18%	13%
<i>N = number of respondents</i>	45	90	152	113	100

- Those age 45 and older were more likely than younger residents to report awareness of the ads, as shown below (on the next page).

**Heard / Seen Ads  
About Reducing  
Water Pollution**

**Age**  
18 to 24      25 to 34      35 to 44      45 to 54      55 to 64

Yes	27%	27%	44%	39%	40%
No	62%	63%	42%	46%	44%
Not Sure	11%	10%	14%	15%	16%

*N = number of respondents*      115      101      96      99      89

- At the same time, males were more likely than females, and homeowners were more likely than renters, to report awareness of the ads.

**Heard / Seen Ads  
About Reducing  
Water Pollution**

**Male      Female      Homeowners      Renters**

Yes	41%	29%	37%	24%
No	47%	56%	49%	66%
Not Sure	12%	15%	14%	10%

*N = number of respondents*      238      262      420      80

- The question below was asked of only those who reported awareness of the ads. For example, 10% of those aware of the ads indicated that they are now more careful with fertilizer, since hearing or seeing the ads.

Did hearing or seeing those ads or going to the website(s) or blog(s) make you change any of your behaviors related to picking up pet waste, not dumping motor oil, or fertilizing less often? (Select all that apply)

Legend	Response Choice	Frequencies	Count
1	Yes, I now pick up pet waste more often	 5.14%	9
2	Yes, I no longer dump motor oil	 2.28%	4
3	Yes, I now recycle motor oil	 3.42%	6
4	Yes, I am now more careful with fertilizer	 10.28%	18
5	Yes, I now plan to fertilize fewer times during the year	 7.42%	13
6	I was already doing what is recommend to reduce water pollution	 66.28%	116
7	None of the above applies to me	 17.71%	31
	<b>Total (N)</b>		<b>175</b>

- Other desirable reactions, such as picking up pet waste more often, recycling motor oil, and fertilizing fewer times during the year, were reported by some respondents.

## Behavior Among Dog Owners

- Nearly one-third (32%) of the survey respondents indicated that they have a dog (or someone else in their household has a dog). Several questions were asked of these dog owners. (However, since a subset of the total sample reported having a dog, the results for the questions applicable only to dog owners are not broken out by demographic subgroups.)

Do you (or does another person in your household) have a dog?

Legend	Response Choice	Frequencies	Count
1	Yes	 32.0%	160
2	No	 68.0%	340
	<b>Total (N)</b>		<b>500</b>

- Among the survey respondents who have a dog in their household, the majority either identified themselves as the primary person caring for their dog(s) *or* indicated that they share the responsibility equally with other members of their household.

Who in your household is the primary person who cares for your dog(s)?

Legend	Response Choice	Frequencies	Count
1	I am	 49.37%	79
2	Spouse or partner	 16.25%	26
3	One of my children	 3.12%	5
4	Other person	 1.87%	3
5	We all share responsibility equally	 29.37%	47
	<b>Total (N)</b>		<b>160</b>

- Next, more than three-fourths (77%) indicated that they "Always" pick up after their dog(s) when taking the dog(s) for a walk. Most others "Usually" do so.

When taking your dog(s) for a walk, how often do you pick up after your dog(s)?

Legend	Response Choice	Frequencies	Count
1	Always / every time dog leaves waste	 76.87%	123
2	Usually	 11.87%	19
3	Half the time	 0.62%	1
4	Sometimes	 1.87%	3
5	Rarely	 2.5%	4
6	Never	 1.87%	3
7	Not applicable / don't walk dog(s)	 4.37%	7
	<b>Total (N)</b>		<b>160</b>

- In their own yard, more than one-third (34%) remove dog waste "Daily." Nearly another one-third (31%) remove dog waste from their yard "Weekly." Combined, nearly two-thirds of dog owners are removing dog waste from their yard *at least* weekly.

How often do you (or does someone else from your household) remove dog waste from your yard?

Legend	Response Choice	Frequencies	Count
1	Daily	34.37%	55
2	Weekly	31.25%	50
3	Monthly	8.75%	14
4	Less often than once a month	8.12%	13
5	Never	8.75%	14
6	Not applicable / don't have a yard	8.75%	14
<b>Total (N)</b>			<b>160</b>

- When asked about the "Most important reason" for picking up after their dog(s), nearly half (46%) selected "It's what good neighbors do." Second in line was not wanting to step in the dog waste (19%). The *third* most often selected response option was "It causes water pollution."

What is the **most important reason** to pick up after your dog(s)?  
(Please select only one)

Response Choice	Frequencies	Count
It's what good neighbors do	45.8%	71
Don't want to step in it	19.35%	30
It causes water pollution	12.9%	20
It is gross	9.67%	15
City / township ordinance	5.16%	8
Odor	2.58%	4
Other reason	3.87%	6
None / no reason to	0.64%	1
<b>Total (N)</b>		<b>155</b>

- One implication of the above results is that many are not *primarily* motivated by concerns about water pollution when it comes time to pick up dog waste. It is more common to feel an obligation to be a good neighbor. This suggests that advertising (or other forms of communication) about the need to remove dog waste could begin with a reminder that "Good neighbors pick up after their dog," and then the need for reducing water pollution could be inserted as an *added* motivation.

- In addition to the "Most important reason" for picking up after their dog(s), respondents were also asked to select any other reasons that motivate them. As shown in the table below, an additional 23% selected "It causes water pollution" as a motivation.

What other reasons (if any) have motivated you to pick up after your dog(s)?

Response Choice	Frequencies	Count
Don't want to step in it	38.96%	60
It's what good neighbors do	33.76%	52
It is gross	28.57%	44
City / township ordinance	25.32%	39
Odor	24.02%	37
It causes water pollution	22.72%	35
None of the above	3.24%	5
<b>Total (N)</b>		<b>154</b>

- Combining the table above with the table on the previous page, a total of 36% were motivated to pick up after their dog(s) because "It causes water pollution." (That is, take 13% from the previous page + 23% from the table above to get 36%.) While it is encouraging to see more than one-third motivated to pick up after their dog by wanting to reduce water pollution, this also means that nearly two-thirds are not thinking about water pollution in this context. This implies that there is room to "educate" more northern Virginia residents about how dog waste is an important cause of water pollution, and "picking up after your dog" is an important action that helps reduce water pollution.
  - As a technical side note, the two questions above were not asked of respondents who indicated that they never walk their dog(s) and never pick up dog waste in their yard (or don't have a yard). However, it was rare for a dog owner to say they don't walk their dog *and* that they don't have a yard / never pick up dog waste in the yard. Thus, most of the respondents who were dog owners were asked the questions in the previous two tables. More specifically, 155 respondents were asked about the most important reason to pick up after their dog. Next, 154 respondents were asked about other motivations for picking up after their dog. One respondent was not asked the second question, because this respondent selected "No reason to" in the first question.
  - As another technical side note, the option selected by a respondent as the most important reason for picking up after their dog was not shown on the screen again when asking that respondent about other reasons for picking up after their dog. This means that it was not possible for a respondent to (incorrectly) select the same option in both questions. For example, this implies that the respondents selecting "It causes water pollution" as another reason (second question) were separate from and incremental to the respondents who selected "It causes water pollution" as the most important reason (first question).

## Behavior Related to Lawns & Gardens

- More than three-fourths (76%) of the survey respondents indicated that their current home has a lawn or garden. Of these respondents, two-thirds (67%, as shown in the second table below) identified themselves as the primary person taking care of the lawn or garden. Several questions about lawns and gardens were then asked only of these respondents.

### Does your home have a lawn or garden?

Legend	Response Choice	Frequencies	Count
1	Yes	 76.4%	382
2	No	 23.6%	118
<b>Total (N)</b>			<b>500</b>

### Are you the primary person who takes care of the lawn or garden?

Legend	Response Choice	Frequencies	Count
1	Yes	 67.27%	257
2	No	 32.72%	125
<b>Total (N)</b>			<b>382</b>

- The first question about lawns and gardens addressed actions related to grass clippings. As shown in the table below, nearly half (46%) reported mulching their grass clippings. One-fifth (20%) bag the grass clippings and put them in compost / recycling bags. These are the recommended behaviors. However, approximately one-in-seven (14%) reported putting grass clippings in the regular trash, and there is room to educate these residents about the best way to handle grass clippings.

### What do you do with grass clippings from your lawn or garden?

Response Choice	Frequencies	Count
Mulch them and leave them on the ground	 45.91%	118
Bag them and put them in compost / recycling bags for pick up	 19.84%	51
Bag them and put them in the regular trash	 13.61%	35
Put them in a compost pile / bin	 7.78%	20
Have a lawn care service cut my lawn	 6.61%	17
Other	 2.72%	7
Not applicable / don't have grass clippings	 3.5%	9
<b>Total (N)</b>		<b>257</b>

- When it comes to leaves that collect on the lawn or garden, nearly one-third (30%) reported putting them in compost / recycling bags. However, approximately one-fifth (20%) put them in the regular trash, and there is room to educate these residents about the best way to handle leaves.

#### What do you do with leaves that collect on your lawn or garden?

Response Choice	Frequencies	Count
Bag them and put them in compost / recycling bags for pick up	 29.57%	76
Bag them and put them in the regular trash	 19.84%	51
Mulch them and leave them on the ground	 15.17%	39
Rake to the curb / street for municipal pickup	 12.45%	32
Put them in a compost pile / bin	 10.89%	28
Don't do anything with them / just leave them on the ground	 6.22%	16
Other	 3.89%	10
Not applicable / don't have leaves	 1.94%	5
<b>Total (N)</b>		<b>257</b>

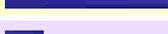
- When dealing with weeds, more than half (57%) reported pulling them out by hand. However, it is possible to report more than one way of dealing with weeds. Slightly more than one-third (35%) use "spot treatments," and one-fourth (25%) apply "weed and feed." Also, another 11% have a lawn service apply weed killer.

#### How do you treat weeds in your lawn or garden? (Select all that apply)

Response Choice	Frequencies	Count
I pull the weeds out by hand	 57.19%	147
I "spot treat" the weeds with weed killer	 35.01%	90
I apply a product like "weed and feed" that contains weed treatment and fertilizer	 24.51%	63
Have a lawn care service apply treatments to kill the weeds	 11.28%	29
Nothing / I don't treat weeds / leave the weeds alone	 8.56%	22
<b>Total (N)</b>		<b>257</b>

- Nearly one-third (31%) reported that they never fertilize their lawn, as shown in the table below. On the other end of the spectrum, 6% fertilize four or more times a year, and 7% fertilize three times a year.

Which of the following best describes how often you fertilize your lawn?

Legend	Response Choice	Frequencies	Count
1	Once a year in the spring	 15.17%	39
2	Once a year in the summer	 1.94%	5
3	Once a year in the fall	 9.33%	24
4	Twice a year	 21.01%	54
5	Three times a year	 6.61%	17
6	Four or more times a year	 5.83%	15
7	Never	 30.73%	79
8	I have a lawn care service fertilize my yard	 7.39%	19
9	Don't know	 1.94%	5
<b>Total (N)</b>			<b>257</b>

- Among those who fertilize once a year, there was a slightly higher percentage doing so in the spring rather than the fall. This suggests that there is room to educate more residents of northern Virginia that fertilizing in the fall is better for local waterways than fertilizing in the spring.

## Behavior Related to Changing Vehicle Oil

- Most (95%) of the survey respondents reported owning a car or truck.

### Do you own a car or truck?

Legend	Response Choice	Frequencies	Count
1	Yes	 95.4%	477
2	No	 4.6%	23
<b>Total (N)</b>			<b>500</b>

- Most (87%) of the car / truck owners surveyed reported that they use an oil change service, when their vehicle needs an oil change.

### When you need to change the oil in your car or truck, what do you do with the old motor oil?

Response Choice	Frequencies	Count
I don't change the oil myself / I take it to a garage / oil change service	 86.58%	413
Take the old motor oil to a gas station or hazmat facility for recycling	 12.57%	60
Put it in the trash	0.41%	2
Store it in my garage		0
Dump it in the gutter or down the storm sewer		0
Dump it down the sink		0
Other	0.41%	2
<b>Total (N)</b>		<b>477</b>

- Among the minority who change their own vehicle oil, most of them reported taking the old motor oil to a place where it can be recycled. Only two respondents reported putting old motor oil in the trash, and no one reported dumping it in the gutter or down the sink.

## Social Media & Internet Search

- While approximately one-third (34%) reported that they don't usually use social media, this leaves approximately two-thirds (66%) who do, with more than half (56%) reporting that they use Facebook regularly. (To be sure, recall that this was a web survey, and social media usage may be more common among those who complete web surveys than those who don't.)

What form(s) of social media do you use regularly? (Check all that apply)

Response Choice	Frequencies	Count
Facebook	55.8%	279
YouTube	24.0%	120
LinkedIn	23.6%	118
Twitter	10.2%	51
RSS feeds	3.2%	16
MySpace	0.6%	3
Other	1.0%	5
None / don't usually use social media	34.2%	171
<b>Total (N)</b>		<b>500</b>

Social Media Use Regularly	Fairfax Inclusive				
	Alexandria	Arlington	Fairfax Inclusive	Leesburg Loudoun	Lumfries Stafford
Facebook	72%	60%	53%	57%	49%
YouTube	33%	36%	22%	18%	20%
LinkedIn	37%	33%	23%	20%	10%
Twitter	15%	16%	8%	13%	7%
RSS feeds	6%	5%	3%	0%	2%
Other	2%	2%	0%	2%	2%
MySpace	0%	0%	1%	0%	2%
None / don't usually use social media	17%	27%	38%	31%	44%
<i>N = number of respondents</i>	54	55	269	61	61

- Alexandria had a relatively low proportion not using social media, while more than two-thirds from this area use Facebook regularly.
- As might be expected, younger age groups were more likely than older age groups to report using social media, as shown on the next page.
- At the same time, females were more likely than males to use Facebook regularly, and renters were more likely than homeowners to use Facebook.

**Social Media Use Regularly**

**Have Lived in Current Residence**  
0 to 1 year

1 to 2 years

3 to 4 years

5 to 9 years

10 or more years

Facebook	71%	70%	62%	50%	34%
YouTube	42%	38%	22%	19%	11%
LinkedIn	29%	30%	22%	25%	17%
Twitter	20%	21%	10%	5%	2%
RSS feeds	4%	6%	3%	4%	1%
Other	0%	1%	1%	1%	1%
MySpace	0%	0%	1%	2%	0%
None / don't usually use social media	20%	18%	30%	40%	56%

N = number of respondents      45      90      152      113      100

**Social Media Use Regularly**

**Age**  
18 to 29

30 to 39

40 to 49

50 to 59

60+

Facebook	85%	67%	63%	35%	20%
YouTube	46%	25%	27%	11%	6%
LinkedIn	26%	29%	29%	23%	9%
Twitter	22%	20%	4%	1%	1%
RSS feeds	6%	6%	2%	0%	1%
Other	1%	2%	1%	0%	1%
MySpace	0%	2%	0%	1%	0%
None / don't usually use social media	8%	23%	27%	51%	71%

N = number of respondents      115      101      96      99      89

**Social Media Use Regularly**

**Male**

**Female**

**Homeowners**

**Renters**

Facebook	47%	63%	52%	76%
YouTube	25%	23%	22%	36%
LinkedIn	26%	21%	24%	21%
Twitter	9%	11%	8%	23%
RSS feeds	3%	3%	2%	8%
Other	1%	1%	1%	1%
MySpace	1%	0%	1%	0%
None / don't usually use social media	40%	29%	38%	16%

N = number of respondents      238      262      420      80

- When asked about search engines, Google was the preferred choice by more than eight-in-ten (84%).

### What is your preferred Internet search engine?

Response Choice	Frequencies	Count
Google	84.4%	422
Yahoo!	8.6%	43
Bing	4.4%	22
Other	2.2%	11
None / don't usually use Internet search	0.4%	2
<b>Total (N)</b>		<b>500</b>

## Appendix: Questionnaire

### INTRODUCTION

Welcome, and thank you for participating in this important research survey.

S1. Are you:

- Male
- Female

S2. Which of the following categories includes your age?

- Under 18 **ERROR**
- 18 to 20 **ERROR**
- 21 to 24
- 25 to 34
- 35 to 44
- 45 to 54
- 55 to 64
- 65 to 74
- 75 or older

S3. Which of the following best describes your residence?

- I own my home
- I rent my home
- Neither **ERROR**

S4. Do you live in the state of Virginia?

- Yes
- No **ERROR**

S5. Which of the following best describes where you live (county or city or town)?

- Alexandria
- Arlington
- Dumfries
- Fairfax (city of)
- Fairfax (county of)
- Falls Church
- Herndon
- Leesburg
- Loudoun County
- Stafford County
- Vienna
- None of the above **ERROR**



6. Many people are surprised to learn that polluted water runoff is the number one cause of pollution in the Potomac River and Chesapeake Bay. When it rains and when snow melts, the water picks up pollutants on the land and washes them into local waterways. Knowing this, would you be more likely or less likely to take actions to reduce the amount of pollutants that you personally put into storm drains?

- Much less likely
- Somewhat less likely
- No more or less likely
- Somewhat more likely
- Much more likely

7. Do you (or does another person in your household) have a dog?

- Yes
- No

8. Who in your household is the primary person who cares for your dog(s)?

- I am
- Spouse or partner
- One of my children
- Other person
- We all share responsibility equally

9. When taking your dog(s) for a walk, how often do you pick up after your dog(s)?

- Always / every time the dog leaves waste
- Usually
- Half the time
- Sometimes
- Rarely
- Never
- Not applicable / I don't take the dog(s) on walks

10. How often do you (or does someone else from your household) remove dog waste from your yard?

- Daily
- Weekly
- Monthly
- Less often than once a month
- Never
- Not applicable / don't have a yard

**SECTION 11: BIF REASON OR NOT APPLICABLE TO QUESTIONS**

11a. What is the most important reason to pick up after your dog(s)? (Please select only one)

- City / township ordinance
- Don't want to step in it
- It causes water pollution
- It is gross
- It's what good neighbors do
- Other
- Other reason
- None / no reason to **SECTION TO QUESTIONS**

11b. What other reasons (if any) have motivated you to pick up after your dog(s)? **PROGRAMMING**

NOTE: SHOW WHAT WAS SELECTED IN 11a

- City / township ordinance
- Don't want to step in it
- It causes water pollution
- It is gross
- It's what good neighbors do
- Other
- One of the above

12. Does your home have a lawn or garden?

- Yes **SECTION TO QUESTIONS**
- No **SECTION TO QUESTIONS**

13. Are you the primary person who takes care of the lawn or garden?

- Yes **SECTION TO QUESTIONS**
- No **SECTION TO QUESTIONS**

14a. What do you do with grass clippings from your lawn or garden?

- Bag them and put them in the regular trash
- Bag them and put them in compost / recycling bags for pick up
- Mulch them and leave them on the ground
- Put them in a compost pile / bin
- Have a lawn care service cut my lawn
- Other
- Not applicable / don't have grass clippings

14b. What do you do with leaves that collect on your lawn or garden?

- Bag them and put them in the regular trash
- Bag them and put them in compost / recycling bags for pick up
- Rake to the curb / street for municipal pickup
- Mulch them and leave them on the ground
- Put them in a compost pile / bin
- Don't do anything with them / Just leave them on the ground
- Other
- Not applicable / don't have leaves

15. How do you treat weeds in your lawn or garden? (Select all that apply)

- I apply a product like Weed and Feed that contains weed treatment and fertilizer
- I spot treat the weeds with weed killer
- I pull the weeds out by hand
- I have a lawn care service apply treatments to kill the weeds
- Other
- Nothing / I don't treat weeds / leave the weeds alone

16. Which of the following best describes how often you fertilize your lawn?

- Once a year in the spring
- Once a year in the summer
- Once a year in the fall
- Twice a year
- Three times a year
- Four or more times a year
- Never
- I have a lawn care service fertilize my yard
- Don't know

17. Do you own a car or truck?

- Yes **COTE**  **TQ**
- No **STOQ**

18. When you need to change the oil in your car or truck, what do you do with the old motor oil?

- I don't change the oil myself / I take it to a garage / oil change service
- Take the old motor oil to a gas station or haulmat facility for recycling
- Store it in my garage
- Put it in the trash
- Dump it in the gutter or down the storm sewer
- Dump it down the sink
- Other

19. How important do you think it is for local governments to spend more money on protecting water quality?

- Not at all important
- Not too important
- Somewhat important
- Very important

Survey Page Break

20. Have you heard any ads on the radio, or have you seen any ads on websites or blogs about picking up pet waste, not dumping motor oil, fertilizing less often, and/or reducing water pollution?

- Yes **CONFIDENTIAL**
- No **SECRET**
- Not sure **SECRET**

21. Did hearing or seeing those ads or going to the website(s) or blog(s) make you change any of your behaviors related to picking up pet waste, not dumping motor oil, or fertilizing less often?  
(Select all that apply)

- Yes, I now pick up pet waste more often
- Yes, I no longer dump motor oil
- Yes, I now recycle motor oil
- Yes, I am now more careful with fertilizer
- Yes, I now plan to fertilize fewer times during the year
- I was already doing what is recommend to reduce water pollution
- None of the above applies to me

22. What form(s) of social media do you use regularly? (Check all that apply)

- None / don't usually use social media
- Facebook
- MySpace
- RSS feeds
- Twitter
- LinkedIn
- YouTube
- Other: \_\_\_\_\_

23. What is your preferred Internet search engine?

- None / don't usually use Internet search
- Bing
- Google
- Yahoo
- Other: \_\_\_\_\_

# Northern Virginia Clean Water Partners

## 2011 Campaign Plan

### CAMPAIGN TOPICS

- Pet waste
- Lawn and garden
- General Stormwater

### CAMPAIGN ELEMENTS

*The campaign will continue to focus on online and radio promotion. Additional printed materials will be developed particularly for the lawn & garden component. The cost and feasibility of “point of purchase” opportunities will be explored, as well.*

#### *Online*

- Improve the onlyrain.org webpage and create a Facebook fan site
- Continue running the dog blog through July 1, 2011
  - Reduce the number of poop-related posts, allow for more fun discussions.
  - Increase the frequency of contests, including trivia.
  - Explore the opportunity for a viral video contest
- Explore the partnership with the MWCOG to support Lawn and Garden Blog and possible contests.
- Focus on the creation of banner ads and run as the primary online advertising component with teaser ads as secondary.
- **\*\*NEW\*\*** Create and run video PSA to be displayed before YouTube videos

#### *Radio*

- Continue to run radio advertisements (DogBeep and General Stormwater)

#### *Point of Purchase*

- Explore the feasibility, including costs associated with developing a point of purchase component to the campaign. Particularly for promoting the messages related to lawn & garden.

#### *Annual Survey & Evaluation*

- Conduct annual online survey of Northern Virginians.
- Conduct polls on blog(s) to get feedback on behaviors of readers.
  - Include same questions from online polls to better gauge behaviors of readers versus general Northern Virginians.

## **SUB-COMMITTEES**

- Partners will divide responsibilities among three sub-committees:
  - Messaging and Promotions (Chair, Laura)
  - Evaluation (Chair, Aileen)
  - Partnerships (Chair, Steve Hubble)
- Each sub-committee will develop a list of tasks for the next year.

## **GENERAL SCHEDULE**

### *Winter (Jan, Feb, early-Mar)*

- Run blog
- Develop plan for contests
- Coordinate Contests, run 1<sup>st</sup> Contest
- Coordinate with media buyer

### *Spring (late-Mar, Apr, May)*

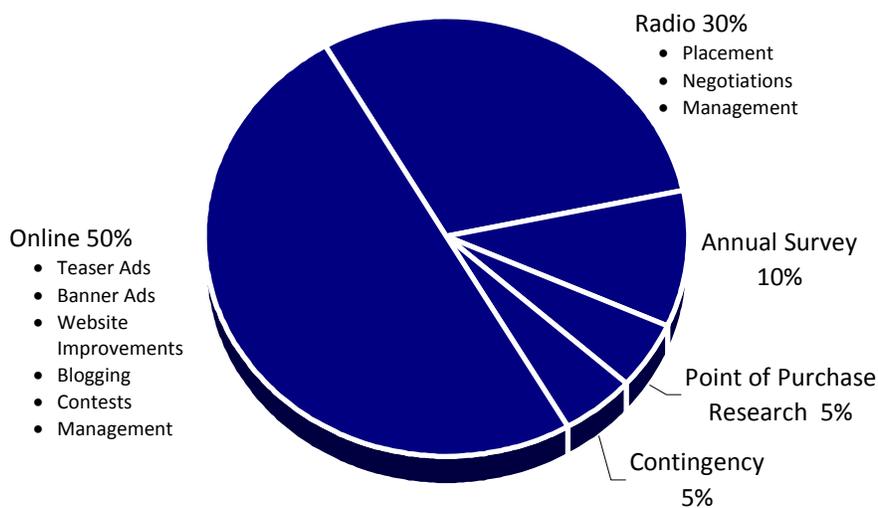
- Run blog
- Run Contests
- Apr-May: Run radio advertisements

### *Summer (Jun, Jul, Aug)*

- Run blog through June 30<sup>th</sup>.
- Jun – conduct annual survey
- Jun 30 – end of fiscal year.
- Jul – process data for inclusion in annual report
- Aug 19 – provide annual report

Partners	2010 Financial Commitments
City of Alexandria	\$3,000
City of Fairfax	\$1,500
City of Falls Church	\$1,050
Arlington County	\$12,000
Fairfax County	\$50,000
Loudoun County	\$16,275
Stafford County	\$5,000
Town of Vienna	\$1,000
Town of Herndon	\$1,800
Town of Dumfries	\$500
Town of Leesburg	\$2,000
Fairfax Water	\$5,000
Loudoun Water	\$2,500
Alexandria Sanitation Authority	\$2,500
<b>\$104,125</b>	

### General Budget Distribution, by percentage



## Appendix B

### Northern Virginia Clean Water Partners Planning Meeting Summaries

# Northern Virginia Clean Water Partners

## PLANNING MEETING

Monday, November 22, 2010

10 a.m. – NOON

NVRC – Occoquan Conference Room

**The purpose of this meeting** is for the group to review the efforts over the last year and to develop a general plan for the 2011 campaign. A priority is for the group to reach consensus on whether or not to continue with the dog blog, which will end in mid-December, under the current contract.

## AGENDA

1. Welcome & Introductions
2. Recap and Summary of the 2010 Campaign  
*Eric Eckl, Water Words That Work*
3. Campaign Plan for the Next Year
  - a. Topics – Motor Oil, Pet Waste, Lawn Care, Others?
  - b. Elements
    - i. Advertising
    - ii. Contests
    - iii. Potential Partnership with the COG blogs (Lawn & Garden)
  - c. Schedule
  - d. Sub-Committees
  - e. Communication & Logistics
4. Next Steps
  - a. Annual Survey
  - b. Giveaways
    - i. Logo
    - ii. Slogan
5. What else is going on?!

Other upcoming events:

**VWMC Workshop -- Enhance Your MS4 Program: Outreach and Monitoring Strategies for Local Governments - December 8, 2010** -- Waterman's Hall, Virginia Institute of Marine Science Campus -- Gloucester Point, Virginia -- This one-day workshop is designed for individuals who work with Municipal Separate Storm Sewer Systems (MS4s) and are looking to enhance the outreach and monitoring components of their MS4 programs. Details about the workshop are posted at [www.VirginiaWMC.org](http://www.VirginiaWMC.org). **Registration closes on December 2, 2010.**

# Northern Virginia Clean Water Partners

## PLANNING MEETING

Monday, November 22, 2010

10 a.m. – NOON

NVRC – Occoquan Conference Room

**THE PURPOSE OF THIS MEETING** is for the group to review the efforts over the last year and to develop a general plan for the 2011 campaign. A priority is for the group to reach consensus on whether or not to continue with the dog blog, which will end in mid-December, under the current contract.

## IN ATTENDANCE

Name	Organization	Email
Laura Grape	NVRC	<a href="mailto:lgrape@novaregion.org">lgrape@novaregion.org</a>
Babur Baser	Town of Dumfries	<a href="mailto:bbaser@dumfriesvirginia.org">bbaser@dumfriesvirginia.org</a>
Aileen Winquist	Arlington County	<a href="mailto:awinquist@arlingtonva.us">awinquist@arlingtonva.us</a>
Devita Godette-Eason	City of Falls Church	<a href="mailto:dgeason@fallschurchva.gov">dgeason@fallschurchva.gov</a>
Steve Hubble	Stafford County	<a href="mailto:shubble@co.stafford.va.us">shubble@co.stafford.va.us</a>
Randy Williford	Loudoun County	<a href="mailto:Randy.williford@loudoun.gov">Randy.williford@loudoun.gov</a>
Jeanne Bailey	Fairfax Water	<a href="mailto:jbailey@fairfaxwater.org">jbailey@fairfaxwater.org</a>
Irene Haske	Fairfax County	<a href="mailto:Irene.haske@fairfaxcounty.gov">Irene.haske@fairfaxcounty.gov</a>
Eric Eckl	Water Words That Work	<a href="mailto:eeckl@waterwordsthatwork.com">eeckl@waterwordsthatwork.com</a>

## SUMMARY OF OUTCOMES

*The group discussed several elements of the 2011 Campaign and agreed to the following:*

## CAMPAIGN TOPICS

- Pet waste
- Lawn and garden
- General Stormwater

## CAMPAIGN ELEMENTS

*The campaign will continue to focus on online and radio promotion. Additional printed materials will be developed particularly for the lawn & garden component. The cost and feasibility of “point of purchase” opportunities will be explored, as well.*

### Online

- Improve the onlyrain.org webpage and create a Facebook fan site
- Continue running the dog blog through July 1, 2011
  - Reduce the number of poop-related posts, allow for more fun discussions.
  - Increase the frequency of contests, including trivia.
  - Explore the opportunity for a viral video contest

- Explore the partnership with the MWCOG to support Lawn and Garden Blog and possible contests.
- Focus on the creation of banner ads and run as the primary online advertising component with teaser ads as secondary.

#### *Radio*

- Continue to run radio advertisements (DogBeep and General Stormwater)

#### *Point of Purchase*

- Explore the feasibility, including costs associated with developing a point of purchase component to the campaign. Particularly for promoting the messages related to lawn & garden.

#### *Annual Survey & Evaluation*

- Conduct annual online survey of Northern Virginians.
- Conduct polls on blog(s) to get feedback on behaviors of readers.
  - Include same questions from online polls to better gauge behaviors of readers versus general Northern Virginians.

### **SUB-COMMITTEES**

- Partners will divide work among three sub-committees:
  - Messaging and Promotions (Chair, Laura)
  - Evaluation (Chair, Aileen)
  - Partnerships (Chair, Steve Hubble)
- Each sub-committee will develop a list of tasks for the next year.

### **GENERAL SCHEDULE**

#### *Winter (Jan, Feb, early-Mar)*

- Run blog
- Develop plan for contests
- Coordinate Contests, run 1<sup>st</sup> Contest
- Coordinate with media buyer

#### *Spring (late-Mar, Apr, May)*

- Run blog
- Run Contests
- Apr-May: Run radio advertisements

#### *Summer (Jun, Jul, Aug)*

- Run blog through June 30<sup>th</sup>.
- Jun – conduct annual survey
- Jun 30<sup>th</sup> – end of fiscal year.
- Jul – process data for inclusion in annual report
- Aug 19 – provide annual report

# Northern Virginia Clean Water Partners

## PLANNING MEETING

Monday, January 24, 2011

10 a.m. – NOON

NVRC – Occoquan Conference Room

**The purpose of this meeting** is for the group to review the proposed campaign plan for the Spring 2011 effort. Through a facilitated discussion the Partners will set targets for the campaign reach in support of reporting needs.

## AGENDA

1. Welcome & Introductions
2. Final Review of the 2011 Campaign Plan  
*Possible new addition – online video PSAs on YouTube*
3. Setting Campaign Targets
4. Reporting Needs & Expectations
5. Updates from the Partners  
*HB 1751 – Restrictions/Penalties on use of fertilizers containing phosphorus*
6. Next Steps

Other upcoming events of potential interest:

- 2011 U.S. EPA Community Involvement Training Conference: July 19 – 21, Washington, D.C.  
Theme: "Community Involvement in the 21st Century: Embracing Diversity, Expanding Engagement, Utilizing Technology." <http://www.epa.gov/ciconference/>

# Northern Virginia Clean Water Partners

## PLANNING MEETING SUMMARY

Monday, November 22, 2010

10 a.m. – NOON

NVRC – Occoquan Conference Room

**THE PURPOSE OF THIS MEETING** is for the group to review the proposed campaign plan for the Spring 2011 effort. Through a facilitated discussion the Partners will set targets for the campaign reach in support of reporting needs.

## IN ATTENDANCE

Name	Organization	Email
Laura Grape	NVRC	<a href="mailto:lgrape@novaregion.org">lgrape@novaregion.org</a>
Babur "Jack" Baser	Town of Dumfries	<a href="mailto:bbaser@dumfriesvirginia.org">bbaser@dumfriesvirginia.org</a>
Aileen Winquist	Arlington County	<a href="mailto:awinquist@arlingtonva.us">awinquist@arlingtonva.us</a>
Devita Godette-Eason	City of Falls Church	<a href="mailto:dgeason@fallschurchva.gov">dgeason@fallschurchva.gov</a>
Julie Elliot	Stafford County	<a href="mailto:jelliott@co.stafford.va.us">jelliott@co.stafford.va.us</a>
Randy Williford	Loudoun County	<a href="mailto:Randy.williford@loudoun.gov">Randy.williford@loudoun.gov</a>
Douglas Day	Town of Herndon	<a href="mailto:doug.day@herndon.gov-va">doug.day@herndon.gov-va</a>
Jesse Maines	City of Alexandria	<a href="mailto:jesse.maines@alexandriava.gov">jesse.maines@alexandriava.gov</a>
Dave Jensen	Doody Calls	<a href="mailto:djensen@doodycalls.com">djensen@doodycalls.com</a>
Eric Eckl	Water Words That Work	<a href="mailto:eeckl@waterwordsthatwork.com">eeckl@waterwordsthatwork.com</a>

## SUMMARY OF OUTCOMES

*The discussion kicked-off with a presentation by Eric Eckl to refresh the Partners on the elements of the online campaign, as well as to provide an update on the blogging effort since November.*

## 2011 CAMPAIGN PLAN

The group decided to proceed with the proposal for the blog campaign and online advertising component of the campaign, which will focus on delivering messages via:

- Blog posts
- Contests
- Teaser "text" ads
- Banner ads; and
- Video PSAs on YouTube

The Partners will modify existing 15 to 30-second video PSAs produced at the local level or gathered from EPA's NPS Toolbox.

One modification to the proposal is to make the “Point of Purchase” Feasibility Research study optional and dependent upon the results of the upcoming General Assembly sessions, particularly for the lawn and garden component. This relates to several bills coming out restricting and penalizing the use of phosphorus-based fertilizers. Depending up the General Assembly’s decisions, the responsibility for advertising this information will either fall on the businesses or the local governments.

## **MWCOG – COMMUNITY ENGAGEMENT CAMPAIGN**

### *Lawn & Garden Blog*

The Partners decided to look at opportunities to provide support to the CEC’s Lawn & Garden Blog, in the following ways:

- Sponsor advertisements
- Co-sponsor contests
- Provide links on the Only Rain and Northern Virginia Dog Blog

In the June/July timeframe, the Partners will look for further opportunities to formally expand the reach of the campaign into other MWCOG jurisdictions.

### *Northern Virginia Dog Blog*

## **POLLUTANT REDUCTION NUMBERS AND RETURN ON INVESTMENT**

The Partners discussed calculating the benefits of the campaign in reducing nutrients in local and regionally-significant waterbodies. For example, how much nitrogen, phosphorus, and bacteria are out of the system due to the efforts of the campaign?

Demonstrating this “return on investment” will not only support the localities in meeting TMDL requirements, but will also provide additional justification for continuing the program in the future.

It was recommended that a smaller group of Partners from the evaluation subcommittee meet to discuss the development of such measures.

# Northern Virginia Clean Water Partners

## PLANNING MEETING

Tuesday, May 24, 2011

1:30 – 3:30 p.m.

NVRC – Chesapeake Conference Room

**The purpose of this meeting** is to provide an update on the efforts of the spring 2011 campaign and to begin discussing next steps for carrying this effort into the summer.

## AGENDA

1. Welcome & Introductions
2. Update on the spring 2011 online campaign effort
3. Looking ahead to 2011-2012 campaign  
- Consideration of emerging issues?
4. Update on other campaign elements
5. Updates from the Partners  
- MWCOG's TapIt Campaign
6. Next Steps

Other upcoming events of potential interest:

- 2011 U.S. EPA Community Involvement Training Conference: July 19 – 21, Washington, D.C.  
Theme: "Community Involvement in the 21st Century: Embracing Diversity, Expanding Engagement, Utilizing Technology." <http://www.epa.gov/ciconference/>

# Northern Virginia Clean Water Partners

## PLANNING MEETING SUMMARY

Tuesday, May 24, 2011

1:30 – 3:30 p.m.

NVRC – Occoquan Conference Room

**THE PURPOSE OF THIS MEETING** is to provide an update on the efforts of the spring 2011 campaign and to begin discussing next steps for carrying this effort into the summer.

### IN ATTENDANCE

Name	Organization	Email
Laura Grape	NVRC	<a href="mailto:lgrape@novaregion.org">lgrape@novaregion.org</a>
Jeanne Bailey	Fairfax Water	<a href="mailto:jbailey@fairfaxwater.org">jbailey@fairfaxwater.org</a>
Aileen Winquist	Arlington County	<a href="mailto:awinquist@arlingtonva.us">awinquist@arlingtonva.us</a>
Heidi Bonnaffon	MWCOG	<a href="mailto:hbonnaffon@mwkog.org">hbonnaffon@mwkog.org</a>
Steve Hubble	Stafford County	<a href="mailto:shubble@co.stafford.va.us">shubble@co.stafford.va.us</a>
Randy Williford	Loudoun County	<a href="mailto:Randy.williford@loudoun.gov">Randy.williford@loudoun.gov</a>
Douglas Day	Town of Herndon	<a href="mailto:doug.day@herndon.gov">doug.day@herndon.gov</a>
Dave Jensen	Doody Calls	<a href="mailto:djensen@doodycalls.com">djensen@doodycalls.com</a>
Eric Eckl	Water Words That Work	<a href="mailto:eeckl@waterwordsthatwork.com">eeckl@waterwordsthatwork.com</a>

### SUMMARY OF OUTCOMES

*The discussion kicked-off with a presentation by Eric Eckl to update the Partners on the efforts of the spring 2011 online campaign efforts. Laura provided an overview and status update on the other campaign elements (radio, survey, and promotional items). Partners highlighted several new opportunities to promote the effort and get promotional products at the same time. Laura discussed an effort to streamline the contracting effort between WWTW, MWCOG, and NVRC and to coordinate efforts with the Regional Community Engagement Campaign.*

*Eric's presentation is available at: [https://docs.google.com/present/view?id=df7xt35n\\_3163db5q3bdq](https://docs.google.com/present/view?id=df7xt35n_3163db5q3bdq)*

*Laura's presentation is available at: [https://docs.google.com/present/view?id=dcxfzc5s\\_61fhndhscm](https://docs.google.com/present/view?id=dcxfzc5s_61fhndhscm)*

### UPDATE ON THE SPRING 2011 ONLINE CAMPAIGN EFFORT

The general feeling from the group is that the online component of the campaign is heading in the right direction. The group decided to:

- Pursue targeting ad placement by demographics (i.e. "aim at those who aren't already thinking about the issue.")
- Pull favorite PSAs from EPA's NPS Toolbox.
- Continue running PSAs in front of YouTube ads and pursue the development of 15-second ads.
  - Irene will coordinate with Fairfax County's Channel 16 to produce several 15-second video PSAs to run before YouTube videos and for use in other advertising avenues. She mentioned that the ads would be developed at no cost to the Partners. Also, Aileen and Dave volunteered to help with this effort.
- Run one more contest this spring (Essay Contest) and use the funds that would have been used for the "Favorite Things" contest toward promotion of the Essay Contest.

## UPDATE ON OTHER CAMPAIGN ELEMENTS

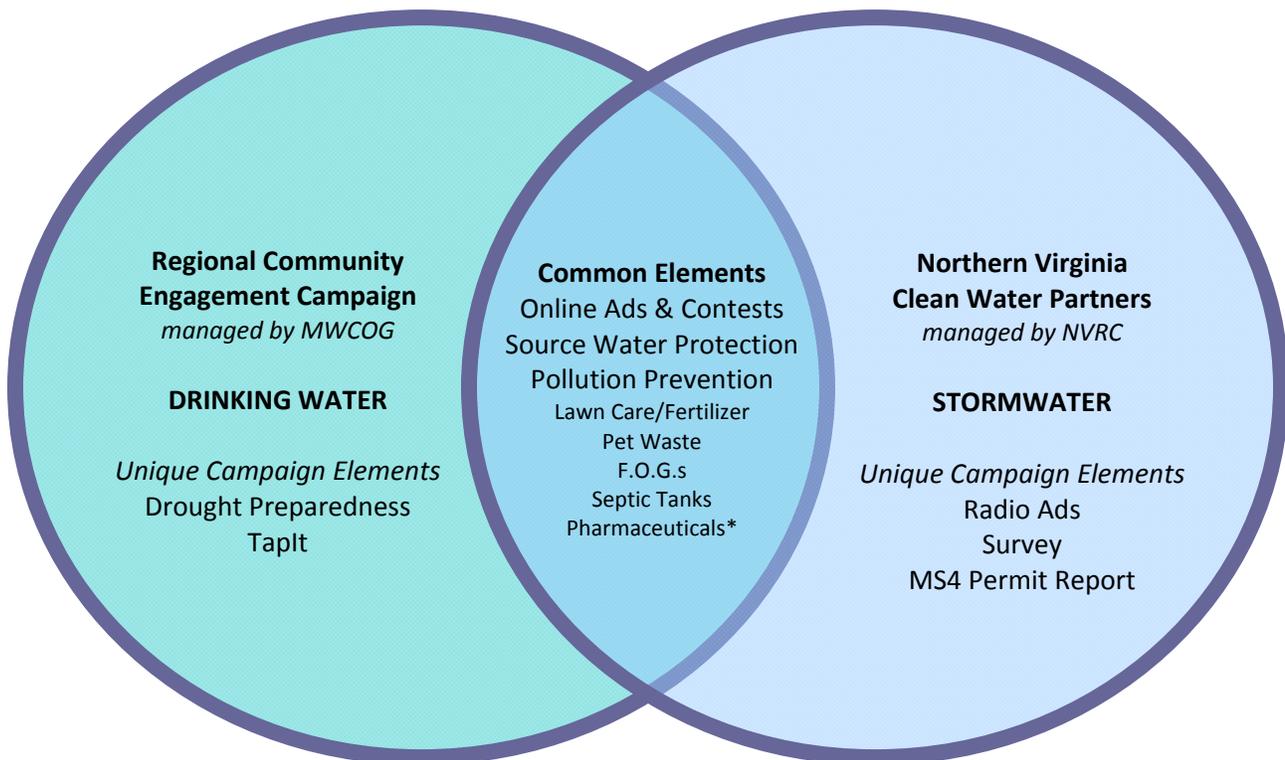
All of the other campaign elements are in the works. Based on Laura’s presentation, the group decided to:

- Conduct the annual survey in late-June and include results in the FY11 MS4 Report.
- Purchase pet bandanas and pet waste bag dispensers in time for local summer fairs.
  - Dave mentioned that he has several “brokers” that could help in receiving quotes. Aileen may have a higher resolution image of the Only Rain logo and will provide this to Laura.
- Ask media buyer whether or not it would be better to run several radio ads on a station or just one.

## LOOKING AHEAD TO THE 2011-2012 CAMPAIGN

The Partners mentioned that they were happy to hear that the common work elements between WWTW, MWCOG, and NVRC will be consolidated under one contract, managed by NVRC. This will provide a 30 percent cost savings for both campaigns. Each campaign will still maintain their unique values and interests. A memorandum of agreement is being developed to help describe where the common elements of the campaigns are, roles and responsibilities, and how decisions will be made. Also, the Partners expressed interest in partnering with localities in Maryland and D.C.

*General description of common interests between Regional CEC and the Northern Virginia Clean Water Partners:*



*\*This topic requires input and support from additional partners (i.e. Solid Waste Management, Police, etc.)*

Additionally the group brainstormed the following ideas for inclusion in the 2011-2012 Campaign:

- Have a presence at community events. For example, Dave Jensen mentioned that Doody Calls would be happy to have Stormy the Rain Drop join Doodle in the Vienna Halloween parade. He will provide the group with a list of events that Doody Calls will be participating in. Others are encouraged to provide their information for events that they will host/participate in as well to help with planning the purchase of promotional materials.

- Engage the Community Association Institute (CAI) through a variety of FREE efforts, including:
  - Host educational workshops for Community Managers. Dave Jensen stated Doody Calls will sponsor these efforts.
  - (Wo)Man a booth at the CAI Expo in March
  - Provide content for the Quorum magazine
- Conduct a video contest to engage local school students in the development of a video PSA. Prizes could include scholarship money and bragging rights (i.e. video is used as commercial).
- Consider running ads on Verizon FiOS. Dave mentioned that Doody Calls purchased time on Verizon FiOS at a rate of \$20 - \$50 for a 30 second spot that ran on Animal Planet, TLC, HGTV, and other similar television stations. Doody Calls saw a surge in new clients because of this effort.

## **UPDATES FROM THE PARTNERS**

### *Regional TapIt Campaign:*

Heidi shared an overview of the TapIt campaign that DC Water is getting ready to kick off. MWCOG is interested in expanding this to other parts of the metro region, as well. Businesses that become TapIt partners will allow people to come in and fill their reusable water bottles for free. It is an effort to reduce the reliance on bottled water and to increase awareness about the safety of tap water. TapIt partners will have a sign that they can post to alert people that they are a refill station.

For more information, visit TapIt's website at: [www.tapitwater.com](http://www.tapitwater.com)