Polluted stormwater runoff is the number one cause of poor water quality in Northern Virginia's streams and rivers. When it rains and snows, water runs off streets, driveways, yards and parking lots and mixes with pollutants, such as litter, fertilizer, pet waste, road salt, and auto fluids. These pollutants then enter storm drains on the street and are discharged directly into nearby streams.

To reduce the impacts of stormwater pollution, the Northern Virginia Clean Water Partners joined together to improve residents' knowledge and behavior through an ongoing public education campaign.

**About the Partnership**

The Northern Virginia Clean Water Partners is composed of a group of local governments, drinking water and sanitation authorities, and businesses that share the common goals to keep Northern Virginia residents healthy and safe by reducing the amount of pollution from stormwater runoff that reaches local creeks and rivers, and empower individuals to take action to reduce pollution.

To meet these goals, the partners work together to:
- Identify high priority water quality issues for the region
- Identify the target audience(s) for outreach
- Educate the region's residents on simple ways to reduce pollution around their homes
- Monitor changes in behavior through surveys and other data collection techniques
- Pilot new cost-effective opportunities for public outreach and education

Membership is voluntary and each member makes an annual contribution to fund the program. By working together, the partners are able to leverage their funds to develop and implement a range of bilingual education and outreach strategies throughout Northern Virginia.

"Only rain down the storm drain"
- Partnership Motto

The 2022 campaign helped to satisfy MS4 (Municipal Separate Storm Sewer System) Phase I and Phase II permit requirements for stormwater education and documenting changes in behavior.

For more information visit onlyrain.org
**2022 Campaign Overview**

The Northern Virginia Clean Water Partners identified the following water quality issues to highlight in their 2022 campaign:

- **Nutrients (Phosphorus and Nitrogen)**
- **Bacteria**
- **Salt**
- **Illicit Discharges (e.g., pesticides, motor oil, etc.)**

Target audiences for these issues include pet owners, winter salt applicators, home mechanics, and residents with a lawn or garden. To reach these audiences, the campaign used a combination of social media, television, printed advertising, and the Only Rain website to distribute messaging that would improve stormwater-related knowledge and behaviors. Partners also participated in local events throughout the year to engage residents and raise campaign awareness.

To expand outreach and engagement, the 2022 campaign also included several new social marketing tools, including:

- A "Clean Water Pledge" on onlyrain.org for participants to adopt a new clean water behavior
- New “made for social media” psa’s for target audiences on Facebook and Twitter
- A quarterly e-newsletter
- A Facebook Group for people to interact and connect on reducing stormwater runoff

**Social Media**

The Clean Water Partners created Facebook and Twitter accounts as a part of their 2020 campaign strategy.

Since July 1, 2021, the Facebook page has gained 120 new followers for a total of 403 current followers. During the campaign year, the page had 405 posts, 29,216 post engagements, and 12,740 post link clicks. The Clean Water Partners Facebook Group also gained 53 members.

The Twitter account currently has 131 followers, with 50 new followers since July 1, 2021. Over the year, the account had 408 tweets, 1,051 tweet engagements, and 68 link clicks.

**Video Advertisements**

The campaign continued to reach residents through a series of video advertisements that focused on residential stormwater management actions. In 2022, the campaign aired two public service announcements (one in English and one in Spanish) on a combination of English and Spanish language networks for a total of 820,154 impressions, or views.
Key Facts and Figures for 2022

- **3,984** visits to OnlyRain.org
- **500** Stormwater Survey responses
- **32** Clean Water Pledges
- **820,154** Premium digital TV impressions* (cable network ads)
- **1,257,502** Total social media impressions* (Facebook and Twitter)
- **30,267** Engagements with social media posts (Facebook and Twitter)

*Impressions are the number of times an ad appeared on a single television or computer screen.

It’s best to think twice before you use salt to de-ice this season. Winter salt can easily runoff into our waterways causing problems for our friends downstream. Learn what you can use instead: onlyrain.org #OnlyRain

Top reaching Facebook post of the campaign year
Annual Stormwater Survey

Survey Goal
The Clean Water Partners conduct an annual online survey of 500 Northern Virginia residents to better understand their stormwater-related knowledge and behaviors over time. Results help the partners to assess their campaign’s effectiveness and direct future education and outreach efforts.

Results

Stormwater and Watershed Knowledge
Only 37% of Northern Virginia residents believe that they live within the Potomac River Watershed, representing a 7% decrease from 2020. 28% of residents are not sure if they live in the watershed and 7% do not know what a watershed is.

When asked where stormwater eventually ends up, 61% of residents responded that it goes to the Potomac River or Chesapeake Bay, while nearly half believe that it goes to a wastewater treatment plant (27%) or do not know where it ends up (18%). Responses to this question have been consistent since 2019.

Overall, results relating to resident knowledge indicate a need for more general education on the Chesapeake Bay watershed and how stormwater runoff ends up in its waterways.

Information and Advertising
Nearly one-third (32%) of residents in 2022 reported that they have seen or received at least some form of information about reducing water pollution in the past 12 months. 24% have heard of specific opportunities to participate in water quality improvement activities, such as stream clean ups and storm drain stenciling.

28% of residents recalled viewing a Clean Water Partners ad on TV, Facebook, or Twitter prior to taking the survey. While similar to 2021 (29%), this response represents a significant increase from 2020 (22%).

After viewing an ad, 42% of residents stated that they now pick up pet waste more often, 37% plan to fertilize less frequently, 12% now properly dispose of motor oil, and 40% were already taking action to reduce water pollution.

When shown the “only rain down the storm drain” fish logo, 66% of residents reported seeing the logo prior to the survey. While over 50% of residents have recognized the logo each year since 2013, the 2022 response was the highest so far with a 5% increase from 2021. This result highlights a growing awareness of the campaign in recent years through new advertising and engagement efforts.
Resident Behaviors

The survey asked specific questions to understand changes in Northern Virginia residents' behaviors around relevant stormwater management and pollution issues, including pet waste, lawn and garden care, car fluids, and household hazardous waste.

As in 2021, nearly half (48%) of residents reported owning a dog. Of those that walk their dog, 70% stated that they always pick up their dog's waste, while 4% rarely or never pick up the waste.

When asked why they pick up their dog's waste, 32% of residents selected that "it's what good neighbors do" and 21% responded that their actions were due to city or county ordinances. Although there was a slight increase from 2021 (14%), only 17% of residents noted picking up their pet's waste because it causes water pollution.

Based on the percentage of new dog owners in recent years, these results underscore the need and opportunity for further outreach and education around pet waste impacts on local waterways.

77% of residents with a lawn or garden reported fertilizing their lawn at least once a year. Similar to 2021, 21% of residents fertilize twice a year, compared to those that only fertilize in the spring (16%) or in the fall (6%). Notably, 12% stated that they use a lawn care service, indicating that they also fertilize at least once a year.

For those that cut their own grass, only 28% of residents keep their grass clippings on their lawn or garden. 50% bag their clippings and either recycle them (27%) or put them in the regular trash (23%). Future engagement with lawn and garden owners might include information about the various benefits of leaving grass clippings in the yard.

Respondents were provided descriptions of a rain barrel, rain garden, and conservation landscaping and asked whether they have heard of these stormwater management features and would be interested in getting one for their property. While there was a decline in those that had heard of each feature from 2021, there were increases in those reporting that they had seen the features in the neighborhood and were interested in getting one. Specifically, from 2021, there was a 5% increase in those interested in having some form of conservation landscaping on their property.

To build on greater levels of interest, the campaign could provide further resources and opportunities to support residents in obtaining and maintaining these features in the future.
Two-thirds (67%) of residents know if their locality has a specific location to drop off household hazardous waste. Responses to this question have consistently remained above 60% since 2018.

The majority of residents (75%) reported going to an auto center for an oil change or taking their old motor oil to a gas station or hazmat facility for recycling (10%). However, similar to past years, nearly 10% of residents store their used motor oil in their garage, place it in the trash, or dump it down the storm drain, sink or onto the ground.

50% of residents reported that they wash their car or truck at least every other month, with 14% washing it multiple times a month. In particular, there has been a continuous annual increase in residents that wash their automobiles at home (30% in 2018 versus 43% in 2022) and decrease in those that take their car to a carwash (45% in 2018 and 36% in 2022). For those that wash their cars or trucks at home, about half (52%) stated that they use environmentally friendly detergent, while 10% solely use water.

With an increasing number of residents washing their automobiles at home, related engagement should be centered around safe washing practices or encouragement to go to a carwash where dirty water is sent to a wastewater treatment plant.

Next Steps

Through a combination of social media, TV, and the Only Rain website, the 2022 campaign was able to reach a broad span of Northern Virginia residents around stormwater runoff and pollution. New social marketing features, such as the quarterly e-newsletter, further advanced the campaign’s messaging and outreach goals.

The 2023 campaign will aim to build off of current momentum and continue to integrate fresh tools to engage residents around various stormwater issues. The next campaign year will include:

- A new campaign video
- Enhanced social media content strategies, such as a "spot the stormdrain sticker" contest
- Monthly partner highlights
- And more!
# 2022 Survey at a Glance

The Clean Water Partners conduct an annual survey to better understand Northern Virginia residents’ stormwater knowledge and behaviors in order to inform future education and outreach efforts.

## Watershed Knowledge

Only 37% of residents believe that they live in the Potomac River Watershed. 7% do not know what a watershed is.

## Where does stormwater go?

- Nearly 2/3 of residents think stormwater ends up in the Chesapeake Bay. About 1/4 think it goes to a wastewater treatment plant.

## Automobile Behaviors

3/4 of residents take their car to an auto center for an oil change. Only about 1/3 take their car to a commercial carwash.

## Lawn Fertilizer Practices

- 77% of residents fertilize their lawn at least once a year. 23% either never fertilize or only fertilize when a soil test recommends it.

## Other Behaviors

- 66% of residents recognize the Clean Water Partners logo!

- 1/2 of residents would probably or definitely report potential pollution to their town or county.

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Prepared by Northern Virginia Regional Commission on behalf of the 2022 Clean Water Partners.
Additional Information

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**2022 Clean Water Partners:**
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This summary was produced by Northern Virginia Regional Commission on behalf of the 2022 Clean Water Partners.