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MS4 Annual Report 2023-2024
Appendix 2
Public Education and Outreach
Public Participation and Involvement

Appendix 2-A Communication Strategies and Outcomes



MS4 Annual Report 2023-2024
Appendix 2
Public Education and Outreach
Public Participation and Involvement

MCM 1 Program Matrix

| Polutant of Concern | Exhibit Type | Exhibit Description | Lead Department/Division | Quantity/Views | Notes |
|--|-----------------|--|----------------------------|------------------------------------|--|
| Illicit discharges and illegal dumping | Media Materials | Social Media post- Keep Leesburg Beautiful | Public Information Office | 38 reactions, 4 comments, 3 shares | Post on 3/14/2024. |
| | Media Materials | Stormwater Website | Public Information Office | 488 visits | Visits totalled from all 12 SWM subpages from April-June 2024. |
| | Media Materials | HHW Social Media Post | Public Information Office | 2 posts | Posts made on 10/17/2023 and 3/13/2024. |
| | Media Materials | Clean Water Partners Website | NVRC- Clean Water Partners | * | *Summary of Clean Water Partner Activities in Appendix 2. |
| | Media Materials | Social media post- Storm drain marking | Public Information Office | 6 reactions, 1 shares | Post on 3/21/2024. |
| Bacteria | Media materials | Social media post- PAWS for Clean Water Campaign | Public Information Office | 4 reactions, 1 share | Post on 8/29/2023. |
| | Media Materials | Clean Water Partners Website | NVRC- Clean Water Partners | * | *Summary of Clean Water Partner Activities in Appendix 2. |
| | Media materials | Social media post- Pet waste | Public Information Office | 3 reactions, 1 share | Post made on 8/22/2023. |
| Nutrients | Media Materials | Clean Water Partners Website | NVRC- Clean Water Partners | * | *Summary of Clean Water Partner Activities in Appendix 2. |



MS4 Annual Report 2023-2024
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Public Participation and Involvement

Northern Virginia Clean Water Partners Annual Summary



Northern Virginia Clean Water Partners

Annual Summary of Results
July 1, 2023 - June 30, 2024

This summary was produced by the Northern Virginia Regional Commission on behalf of the 2024 Clean Water Partners.



Stormwater Pollution in Northern Virginia

Water bodies in Northern Virginia, including the region's numerous streams, lakes, and rivers, provide a range of environmental, social, and economic benefits to surrounding communities. However, when waterways are polluted and water quality becomes impaired, their key resources are reduced and result in negative impacts to both humans and the natural environment.

Polluted stormwater runoff is the number one cause of poor water quality in Northern Virginia's waterways. 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 behaviors through an ongoing public education campaign.

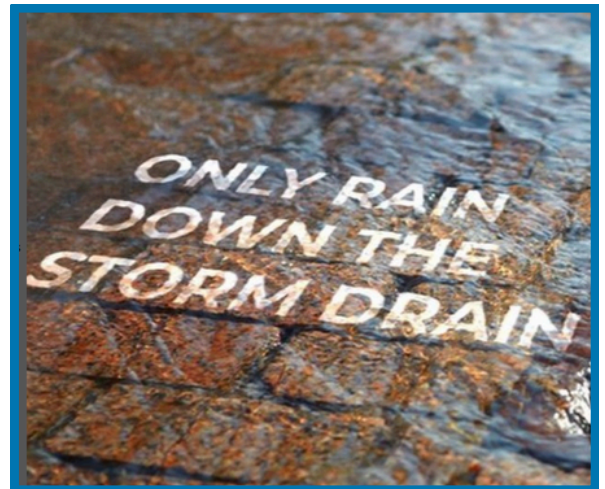
About the Partnership

The Northern Virginia Clean Water Partners (NVCWP) 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 2024 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

2024 Campaign Overview

The Northern Virginia Clean Water Partners identified the following water quality issues to highlight in their 2024 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 and other paid advertising, printed materials, and the Only Rain website to distribute messaging that encourages pollution reduction practices. The partners also tabled at local events and led other in-person activities throughout the year to engage residents and raise campaign awareness.

The 2024 campaign also continued to update outreach and engagement programming through a number of new social marketing tools, including:

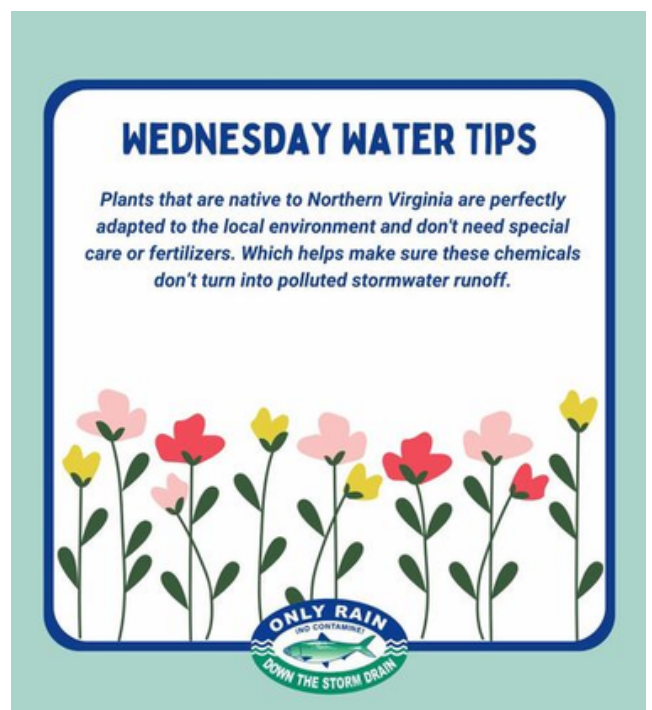
- Enhanced website features
- New social media content, including “Wednesday Water Tips”
- A new campaign video
- New forms of paid advertising

Social Media Highlights

In 2024, the NVCWP continued to grow its social media presence over a number of platforms to reach the campaign's target audiences.

The partners created Facebook and Twitter/X accounts as a part of their 2020 campaign strategy. Since July 1, 2023, the Facebook page has gained 64 new followers for a total of 612 current followers. During the campaign year, the page included 276 posts with 624 post engagements and 188 post link clicks. The Twitter/X account currently has 193 followers with 28 new followers since 2023. Over the year, the account had 262 tweets, 1,093 tweet engagements, and 91 link clicks.

In December 2022, the partners created an Instagram account to engage additional members of the public. The Instagram account added 69 followers and created 231 posts during the 2024 campaign. In July 2023, the NVCWP also added a Threads account, which gained 65 followers and shared 101 posts over the year.



Top reaching Instagram and Facebook image in 2024

Video Advertisements

The campaign engages residents through video advertisements that focus on residential stormwater management actions. In 2024, the campaign aired both two videos, one of which also aired in Spanish, on a combination of 45 English and Spanish language networks for a total of 12,354 ads aired and 1,034,052 impressions, or views.

Key Facts and Figures for 2024



*Impressions are the number of times an ad appeared on a TV, computer, or other electronic device.

**Non-social media impressions include impressions on Google Search, Reddit, and other websites outside of Twitter/X and Meta platforms (Facebook, Instagram, and Threads).

Annual Stormwater Survey

Survey Goal

The Northern Virginia Clean Water Partners conduct an annual online survey of approximately 500 residents in the region 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

Similar to 2023 (69%), 71% of Northern Virginia residents reported that they are familiar with the term "watershed". When asked which watershed they live in, 39% of residents selected that they live within the Potomac River watershed, and 27% selected that they live in the Chesapeake Bay watershed. Responses to this question have not significantly changed over the past five years.

When asked where stormwater eventually ends up, 32% of residents responded that it only goes to the Potomac River or Chesapeake Bay, and 20% selected that it only goes to a wastewater treatment plant. 41% of residents reported that it ends up at both destinations.

Information and Advertising

28% of residents reported that they have seen or received at least some form of information about reducing water pollution in the past 12 months. Of those who were aware of an event for water quality improvement, such as stream clean ups or storm drain stenciling, 54% reported participating in the event. While this response represents a decrease from 2023 (69%), event participation has still significantly increased since 2018.

33% of survey respondents selected that they were familiar with the NVCWP prior to the survey, and when shown the "only rain down the storm drain" fish logo, 54% of residents reported having previously seen the logo. Both responses represent a decrease from 2023. However, similar to last year, 71% stated that they trust information from the campaign, and 67% would contact the NVCWP if they had questions about water quality.

This year's survey results indicate that while recognition of the NVCWP and general water quality activities in the region have declined, the majority of residents continue to have positive perceptions of the campaign and an interest in taking part in related projects. As such, future programming will not only aim to bring greater awareness to the campaign, but also to other water quality improvement initiatives in the region that residents can participate in.



Campaign Impact

Residents who have viewed at least one NVCWP ad were asked a series of questions about the impact of the ads, including ways that their behaviors have changed since then. Over 80% of respondents reported that they now have a greater understanding of pet waste, fertilizer, and motor oil impacts on local water quality. Further, nearly three-quarters (73%) of respondents stated that they now pick up more pet waste, 82% fertilize less frequently, and 81% now dispose of motor oil properly. As in previous years, the survey reflects that NVCWP ads promote positive behaviors to reduce stormwater pollution. In addition, over 75% of respondents noted that they were already taking at least one of the actions to reduce pollution, suggesting that the ads also serve as valuable reinforcements for these behaviors.

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.



In a decrease from 2023 (51%), 43% of residents reported owning at least one dog. Of those that walk their dog, 87% stated that they always or usually pick up their dog's waste during walks. The majority also reported picking up after their pet in their own yard on a daily basis (59%), while 24% pick up on a weekly basis.

When asked why they pick up their dog's waste, 22% of residents responded that their actions were due to water pollution concerns, and 18% selected that "it's what good neighbors do". In a decrease from 2023 (25%), 19% of residents noted picking up their pet's waste due to a city or county ordinance.

In 2024, there was a slight shift in reasons that residents pick up pet waste, while general behaviors remained consistent from previous years. Related messaging should continue to encourage individuals to pick up waste in their yard more frequently to minimize pollution.



When asked about reporting potential water pollution, 49% of residents stated that they know who to contact, and in an increase from the past five years, about two-thirds (67%) selected that they would probably or definitely contact someone to report a potential source of water pollution.

Of those who were equally likely to call and not to call, as well as those that would not call, there was a decrease in those that selected their reason being that they would prefer not to communicate with officials or authorities (25% in 2024 compared to 32% in 2023), and a slight increase in those that selected being "too busy" (22% in 2024 compared to 18% in 2023).



novacwp #DYK there's a stormwater hotline for reporting what goes down the storm drain? If you see someone dumping waste down the drain or water flowing in the drain when it hasn't rained in 72 hours, call your local hotline.



60% of residents reported knowing if their locality has a specific drop-off location for household hazardous waste (HHW). This response did not significantly change from 2023 (61%). While the majority of residents continue to know of drop-off sites, additional education should focus on types of HHW that can be taken to these locations to promote better trash and recycling practices.



Survey 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 installing one on their property. In general, 2024 results showed slight decreases in familiarity, ownership, and interest in all three forms of stormwater management compared to 2023.

Residents were more likely to already have conservation landscaping on their property than the other two stormwater management features. Yet, as in prior years, residents were most familiar with rain barrels, and 25% reported already owning at least one on their property. Residents were least familiar with rain gardens, although one-third (33%) noted an interest in having one in their yard.



As a new survey topic, respondents were asked questions to measure attitudes and behaviors related to snow and ice maintenance, including the use of deicers (e.g., road salt) and abrasives (e.g., sand). Notably, during snowy and icy conditions, 34% of residents stated that they always or frequently apply deicers at their residence, and 17% always or frequently apply an abrasive. Of those that use a deicer, residents tend to most frequently apply before (31%) or after (32%) storm events, while 15% selected that it varies or depends on the circumstance.

Respondents were also asked about their perceptions, positive and negative, of the impacts from road salt application. The majority of residents feel that salt has a positive impact on emergency vehicle safety (62%), motorist safety (65%), and pedestrian safety (69%). However, only 41% of residents also feel that it has a negative impact on local waterways.

These results stress that while residents have a positive perception of salt application for public safety, they do not necessarily recognize its negative impacts on the environment and drinking water. As such, future education efforts should focus on highlighting when to apply salt to maximize safety and also underscore the importance of smart salting practices to protect the health of local waterways.





Of those that own or lease a car, 64% of residents reported taking their vehicle to a commercial car wash, while 37% wash their vehicle at home. Responses to this question have fluctuated over the past 5 years, in which only 21% of residents reported washing their car at home in 2023 and 43% reported doing so in 2022.

For those that wash their cars or trucks at home, residents continue to most frequently clean their vehicle three to four times a year (27%), while 3% wash less than once a year and 13% wash more than 12 times a year. To clean their vehicle, over half of residents reported using an environmentally-friendly detergent (52%) and washing on pervious surfaces, including grass, gravel, and/or dirt (53%).

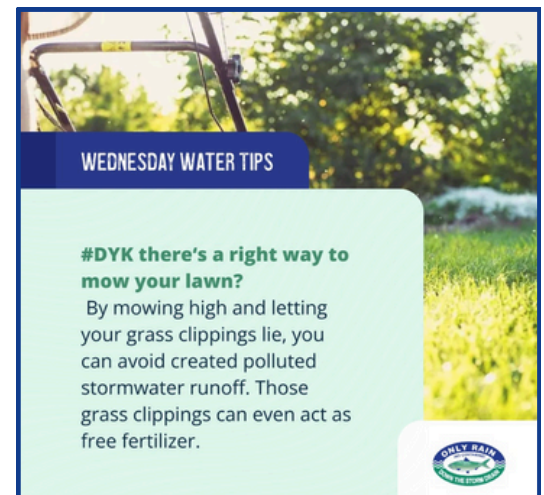
60% of residents reported going to an auto center for an oil change, and nearly a quarter (24%) take their old motor oil to a gas station or hazmat facility for recycling. In addition, 15% of respondents noted that they store their used motor oil in their garage, place it in the trash, or dump it down the storm drain, sink or onto the ground.

With multi-year increases in residents that take their motor oil to facilities for recycling, as well as those that store their oil or put it in the trash, future education should include safe storage practices and easily accessible information on recycling locations in the region to ensure that the oil does not eventually end up in the environment.



Two-thirds (66%) of residents with a lawn or garden stated that they use a lawn care service at least once a year. Similar to 2023, 74% of residents with a lawn or garden reported using fertilizer at least once a year. However, there was a slight increase in residents that fertilize only when a soil test recommends it (11%), and those that never fertilize (15%). Moreover, over the past five years, there has also been an increase in residents who fertilize twice per year compared to just once a year, which indicates the need for additional outreach to reinforce the use of soil tests to determine if and when fertilizing is actually necessary to support healthy lawn care.

When asked how they dispose of their grass clippings, the highest percentage of respondents (36%) reported that they put the clippings in compost or recycling bags for pick up. 21% bag and place clippings in the trash, and 32% leave it on the lawn or garden. If grass clippings ended up in the street, 66% of residents reported sweeping or blowing them back into their lawn, while 17% leave them in the street and 18% sweep them into the storm drain.



2025 Campaign Goals

The Clean Water Partners will continue to identify and implement new strategies to better engage Northern Virginia residents and improve their stormwater-related knowledge and behaviors in 2025. The next campaign year will include an updated quarterly e-newsletter, improved website content, new fact sheets and infographics, and more!

Northern Virginia Clean Water Partners

2024 Survey at a Glance

The Northern Virginia Clean Water Partners (NVCWP) 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



About 1/4 (27%) of residents believe they live in the Chesapeake Bay watershed.



71% of residents were familiar with the term "watershed" prior to the survey.

Stormwater Runoff



About 1/3 of residents believe that stormwater ends up in the Chesapeake Bay or Potomac River, while 20% think that it goes to a wastewater treatment plant. 41% think that it ends up at both destinations.

Automobile Care

64% of vehicle owners go to a commercial car wash at least once a year. Of those that clean their car at home, nearly 3/4 report only using water or environmentally-friendly detergent.



Advertising Reach

54% of residents recognize the Clean Water Partners logo. When asked about perceptions of NVCWP ads, over 80% trust the information conveyed and believe the ads are important.

Lawn Care

74%

of residents fertilize their lawn or garden at least once a year. 26% either never fertilize or only fertilize when a soil test recommends it.

Conservation Landscaping

1/4

of residents already have a rain barrel, rain garden, and/or conservation landscaping on their property. Over 1/3 are interested in obtaining one or more for their property.

Winter Salt

1/3

of residents always or frequently apply deicer (e.g., salt) at their residence during snowy or icy conditions.

Dog Owners



87% of dog owners report always or usually picking up their pet's waste while on a walk.

Pollution Reporting

67%

of residents would probably or definitely report potential pollution to their town or county.

Additional Information

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Coastal Program Manager

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Fairfax, VA 22031



Website: www.onlyrain.org

**Social Media:**

- **Facebook:** facebook.com/NVCWP
- **X (Formerly Twitter):** twitter.com/nova_cwp
- **Instagram:** instagram.com/novacwp
- **Threads:** threads.net/@novacwp

2024 Clean Water Partners:

Fairfax County | Arlington County | Loudoun County | Loudoun Water | Fairfax Water | City of Alexandria | City of Fairfax | City of Falls Church | City of Manassas | City of Manassas Park | Stafford County | Town of Leesburg | Town of Dumfries | Town of Herndon | Town of Vienna | Prince William County | Northern Virginia Regional Commission | George Mason University | Virginia Coastal Zone Management Program | Fairfax County Public Schools | Northern Virginia Soil and Water Conservation District | Prince William County Public Schools



MS4 Annual Report 2023-2024
Appendix 2
Public Education and Outreach
Public Participation and Involvement

Northern Virginia Regional Commission 2024 Only Rain Survey

Northern Virginia Resident Stormwater Knowledge and Behavior Study

Summary Report of Findings
August 9 2024



Prepared for:
Northern Virginia Regional Commission

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1 INTRODUCTION AND APPROACH

Keisler Social & Behavioral Research (Keisler Research) was contracted by the Northern Virginia Regional Commission (NVRC) to conduct a survey of northern Virginia residents to capture knowledge, perceptions, beliefs, and behaviors surrounding stormwater and water pollution. The survey also assesses awareness and perceptions of two media campaigns conducted by the Northern Virginia Clean Water Partners (NVCWP) on stormwater drainage and water pollution, as well as awareness perceptions of NVCWP as an organization. The survey instrument is provided in the Appendix.

The survey was administered online in May and June of 2024 on the Alchemer survey platform. Individuals that participate in Alchemer’s survey panel, and other partner survey panels, were invited to participate in the survey. Compensation was provided in the form of points on the Alchemer panel system, which can be redeemed for gift cards, prize drawings, and retail deals. To qualify for the survey, respondents must have been 21 years of age or older at the time of participation and reside in of the following cities and counties in northern Virginia: Fairfax County, Loudoun County, Prince William County, Arlington County, and Alexandria.

2 SUMMARY OF 2024 FINDINGS

2.2 Participant Characteristics

The final dataset includes surveys of 500 adults residing in Northern Virginia. Northern Virginia is defined as the following cities and counties: Fairfax County, Loudoun County, Prince William County, Arlington County, and Alexandria. All participants were above 21 years of age.

A demographic summary of survey participants is provided in Table 1. Survey participants were about evenly split between women (50.0%) and men (49.6%), with 0.4% identifying as non-binary or gender non-conforming. All participants were above 21 years of age. The most common age groups were between ages 35 and 44 (22.8%) and ages 25 to 34 (21.2%). Ages 75 and older were the least common, at 7.2% of participants. White respondents make up over 50%

of the sample and African American or Black respondents comprised just over one-quarter of the sample.

The locality with the most survey respondents is Fairfax County (not Fairfax City, Herndon, or Vienna) at 17.6% followed by Loudoun County (not Leesburg) at 13.2% with Falls Church (2.4%) and Manassas Park (1.2%) having the smallest rates in the sample. Household income is fairly evenly split amongst participants, with most participants living in a household with an income between \$50,000 and \$124,999.

About three-fourths of the sample have lived in their residence between 1 and 9 years, while 22.2% have lived in their current residence for 10 to 19 years and 25.8% have for 20 or more years. A majority of participants (62.2%) own their residence. Most participants also have a lawn or garden in their home (80.2%) and a majority also own or lease a vehicle (86.0%). Slightly less than half of participants (42.8%) own at least one dog.

Almost all participants report that English is their primary language (90.6%); the remaining 9.4% of respondents report a variety of languages as their primary language. The survey was administered in English only, and therefore all respondents are fluent in English.

Respondents report working in a wide variety of occupations, though the largest occupation category reported is “retired”.

Table 1. Survey participant demographic characteristics.

| Demographic | Subcategory | Percentage |
|-----------------------|---------------------------|------------|
| Gender | Female | 50.0% |
| | Male | 49.6% |
| | Non-binary/non-conforming | 0.4% |
| Age | 21 to 24 | 8.4% |
| | 25 to 34 | 21.2% |
| | 35 to 44 | 22.8% |
| | 45 to 54 | 14.8% |
| | 55 to 64 | 13.8% |
| | 65 to 74 | 11.8% |
| | 75 or older | 7.2% |
| Residence Type | Owned | 62.2% |
| | Rented | 35.0% |
| | Military housing | 0.6% |
| | Transitional housing | 0.4% |
| | Other | 1.8% |

| Demographic | Subcategory | Percentage |
|--|---|---|
| Locality | Alexandria | 13.0% |
| | Arlington | 11.8% |
| | Fairfax County, but not one of the cities/towns listed | 17.6% |
| | Fairfax County: Fairfax City | 9.8% |
| | Fairfax County: Herndon | 4.0% |
| | Fairfax County: Vienna | 3.2% |
| | Falls Church | 2.4% |
| | Loudoun County, but not Leesburg | 13.2% |
| | Loudoun County: Leesburg | 5.6% |
| | Prince William County, but not one of the cities/towns listed | 8.8% |
| | Prince William County: Dumfries | 4.4% |
| | Prince William County: Manassas | 5.0% |
| | Prince William County: Manassas Park | 1.2% |
| | Occupation | Accommodation/hospitality and food services |
| Administrative | | 3.6% |
| Agriculture, forestry, fishing and hunting, and mining | | 1.6% |
| Arts, entertainment, and recreation | | 1.4% |
| Construction | | 4.0% |
| Currently unemployed | | 8.4% |
| Educational services | | 3.8% |
| Finance and insurance | | 5.4% |
| Health care and/or social assistance | | 5.0% |
| Information or information technology | | 7.6% |
| Manufacturing | | 3.0% |
| Other - Write In (Required) | | 6.4% |
| Other services | | 6.8% |
| Professional and/or scientific | | 4.4% |
| Public administration | | 2.2% |
| Real estate and/or rental and leasing | | 1.8% |
| Retail trade | | 8.2% |
| Retired | | 17.0% |
| Student only (no other occupation) | | 3.4% |
| Transportation and warehousing | | 1.6% |
| Utilities | 1.2% | |
| Waste management services | 0.4% | |
| Wholesale trade | 2.0% | |
| Income | Less than \$35,000 | 12.6% |
| | \$35,000 to \$49,999 | 11.2% |
| | \$50,000 to \$74,999 | 13.0% |
| | \$75,000 to \$99,999 | 21.2% |

| Demographic | Subcategory | Percentage |
|------------------------------------|----------------------------------|------------|
| | \$100,000 to \$124,999 | 14.2% |
| | \$125,000 to \$149,999 | 9.0% |
| | \$150,000 to \$174,999 | 4.4% |
| | \$175,000 to \$199,999 | 5.4% |
| | \$200,000 or greater | 9.0% |
| Race | African American/Black | 25.0% |
| | American Indian/Native Alaskan | 2.0% |
| | Asian | 16.0% |
| | Hispanic/Latino | 10.4% |
| | Native Hawaiian/Pacific Islander | 0.2% |
| | White/Caucasian | 52.2% |
| | Other - Write In | 1.4% |
| Language | Amharic or Somali | 0.2% |
| | Arabic | 0.6% |
| | Chinese | 0.8% |
| | English | 90.6% |
| | Korean | 1.4% |
| | Other - Write In (Required) | 1.2% |
| | Spanish | 3.4% |
| | Tagalog (including Filipino) | 0.6% |
| | Urdu | 0.2% |
| | Vietnamese | 1.0% |
| Residence Years | Less than 1 year | 7.2% |
| | 1 to 3 years | 21.8% |
| | 4 to 9 years | 23.0% |
| | 10 to 19 years | 22.2% |
| | 20 or more years | 25.8% |
| Lawn or Garden at Residence | Yes | 80.2% |
| | No | 19.4% |
| Own or Lease a Vehicle | Yes | 86.0% |
| | No | 13.2% |
| Dog Ownership | Yes | 42.8% |
| | No | 56.6% |

2.3 Behaviors and Behavioral Drivers

2.3.3 Lawn/Garden Fertilization

Respondents were asked about their behavior regarding lawns or gardens and if their residence has a lawn or garden of any size. Results are summarized in Table 2 and displayed in

Figure 1. Most of those surveyed (80.2%) report having a lawn or garden, no matter how small. Of those with a lawn or garden, 65.8% report using a lawn care service at least once per year and almost all (93.0%) are familiar with how their lawn is cared for. Respondents with lawns were asked how often their lawns were fertilized, regardless of whether fertilization was done by someone in the household or an outside service. The response options were “1 time a year”, “2 times a year”, “3 times a year”, “4+ times a year”, “Only if/when a soil test indicates the grass needs fertilizer”, “Never”, or “Not sure”. Far fewer (11.1%) fertilize only when a soil test indicates the grass needs fertilizer, and 15.2% never fertilize their lawn or garden.

Lawn and garden fertilization behaviors generally did not differ between demographic subgroups, with the exception that home owners more frequently report being familiar with their lawn care than do renters.

Table 2. Lawn and garden fertilization behaviors by demographic group.

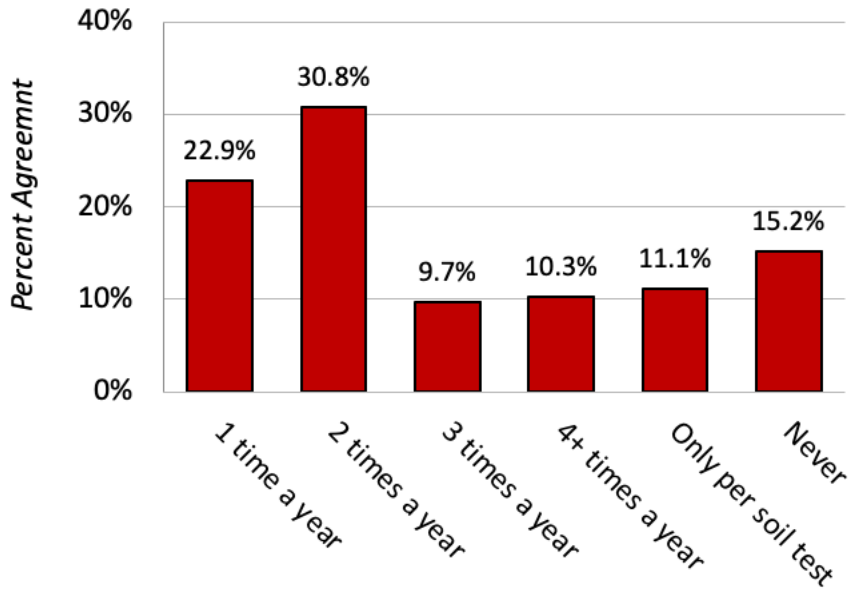
| Demographic | Sub-category | Familiar with Lawn/Garden Care | Lawn Care Service Used 1+ times a Year | Frequency of Lawn Fertilization | | | | | |
|-------------|----------------------------|--------------------------------|--|---------------------------------|--------------|-------------|--------------|--------------------|--------------|
| | | | | 1x per year | 2x per year | 3x per year | 4x per year | Only per soil test | Never |
| | All Respondents | 93.0% | 65.8% | 22.9% | 30.8% | 9.7% | 10.3% | 11.1% | 15.2% |
| Gender | Male | 95.3% | 64.2% | 24.9% | 28.0% | 8.8% | 9.8% | 11.9% | 16.6% |
| | Female | 90.8% | 68.0% | 20.4% | 34.7% | 10.9% | 10.9% | 10.2% | 12.9% |
| Age | 21 to 24 | 87.5% | 59.4% | 20.8% | 33.3% | 12.5% | 4.2% | 16.7% | 12.5% |
| | 25 to 34 | 89.9% | 77.2% | 19.7% | 34.8% | 13.6% | 12.1% | 12.1% | 7.6% |
| | 35 to 44 | 93.9% | 75.5% | 16.7% | 30.0% | 14.4% | 17.8% | 11.1% | 10.0% |
| | 45 to 54 | 95.4% | 65.6% | 39.3% | 25.0% | 3.6% | 7.1% | 12.5% | 12.5% |
| | 55 to 64 | 92.0% | 41.2% | 20.5% | 38.5% | 2.6% | 5.1% | 5.1% | 28.2% |
| | 65 to 74 | 97.9% | 58.3% | 26.1% | 26.1% | 6.5% | 4.3% | 8.7% | 28.3% |
| | 75 or older | 92.6% | 65.4% | 15.0% | 30.0% | 10.0% | 10.0% | 15.0% | 20.0% |
| Locality | Alexandria | 85.0% | 72.5% | 24.1% | 31.0% | 6.9% | 13.8% | 10.3% | 13.8% |
| | Arlington | 86.0% | 72.7% | 31.4% | 22.9% | 8.6% | 20.0% | 2.9% | 14.3% |
| | Fairfax - Inclusive | 92.1% | 64.5% | 24.8% | 28.7% | 10.1% | 7.0% | 12.4% | 17.1% |
| | Prince William - Inclusive | 98.8% | 57.8% | 23.3% | 31.5% | 5.5% | 8.2% | 15.1% | 16.4% |

| Demographic | Sub-category | Familiar with Lawn/Garden Care | Lawn Care Service Used 1+ times a Year | Frequency of Lawn Fertilization | | | | | |
|--------------------|------------------------|--------------------------------|--|---------------------------------|-------------|-------------|-------------|--------------------|-------|
| | | | | 1x per year | 2x per year | 3x per year | 4x per year | Only per soil test | Never |
| | Leesburg/Loudoun | 96.3% | 69.6% | 14.7% | 37.3% | 14.7% | 12.0% | 9.3% | 12.0% |
| Ethnicity | Not Hispanic/Latino | 92.3% | 66.1% | 23.6% | 30.1% | 9.7% | 10.0% | 11.3% | 15.2% |
| | Hispanic/Latino | ** | 63.2% | 15.6% | 37.5% | 9.4% | 12.5% | 9.4% | 15.6% |
| Years of Residence | Less than 1 year | 83.3% | 55.6% | 30.8% | 30.8% | 7.7% | 23.1% | ** | 7.7% |
| | 1 to 3 years | 94.5% | 54.2% | 27.0% | 31.7% | 6.3% | 6.3% | 11.1% | 17.5% |
| | 4 to 9 years | 87.4% | 77.0% | 15.9% | 33.3% | 10.1% | 11.6% | 15.9% | 13.0% |
| | 10 to 19 years | 92.9% | 71.4% | 21.4% | 27.4% | 15.5% | 11.9% | 13.1% | 10.7% |
| | 20 or more years | 97.6% | 61.8% | 25.0% | 31.3% | 7.1% | 8.9% | 8.0% | 19.6% |
| Home Ownership | Owned | 95.9% | 68.5% | 21.1% | 31.3% | 10.6% | 11.3% | 10.2% | 15.5% |
| | Rented | 86.9% | 59.6% | 27.1% | 28.6% | 7.1% | 7.1% | 15.7% | 14.3% |
| Household Income | Less than \$35,000 | 90.7% | 47.6% | 21.2% | 30.3% | 6.1% | 9.1% | 12.1% | 21.2% |
| | \$35,000 to \$49,999 | 88.6% | 60.0% | 25.0% | 29.2% | ** | 8.3% | 25.0% | 12.5% |
| | \$50,000 to \$74,999 | 93.5% | 50.0% | 40.0% | 20.0% | 2.5% | 2.5% | 15.0% | 20.0% |
| | \$75,000 to \$99,999 | 93.5% | 71.7% | 23.8% | 32.5% | 6.3% | 11.3% | 8.8% | 17.5% |
| | \$100,000 to \$124,999 | 93.2% | 74.1% | 22.2% | 27.8% | 16.7% | 11.1% | 11.1% | 11.1% |
| | \$125,000 to \$149,999 | 92.9% | 76.2% | 22.2% | 27.8% | 16.7% | 8.3% | 11.1% | 13.9% |
| | \$150,000 to \$174,999 | ** | 73.7% | 5.0% | 50.0% | 5.0% | 10.0% | 15.0% | 15.0% |
| | \$175,000 to \$199,999 | 95.8% | 70.8% | 4.3% | 34.8% | 30.4% | 21.7% | 8.7% | ** |
| | \$200,000 or greater | 92.3% | 65.0% | 25.8% | 35.5% | 6.5% | 12.9% | ** | 19.4% |

* *Red font* indicates significant differences within a demographic subgroup.

** *Insufficient data for between-group comparison.*

Figure 1. Frequency of lawn fertilization.



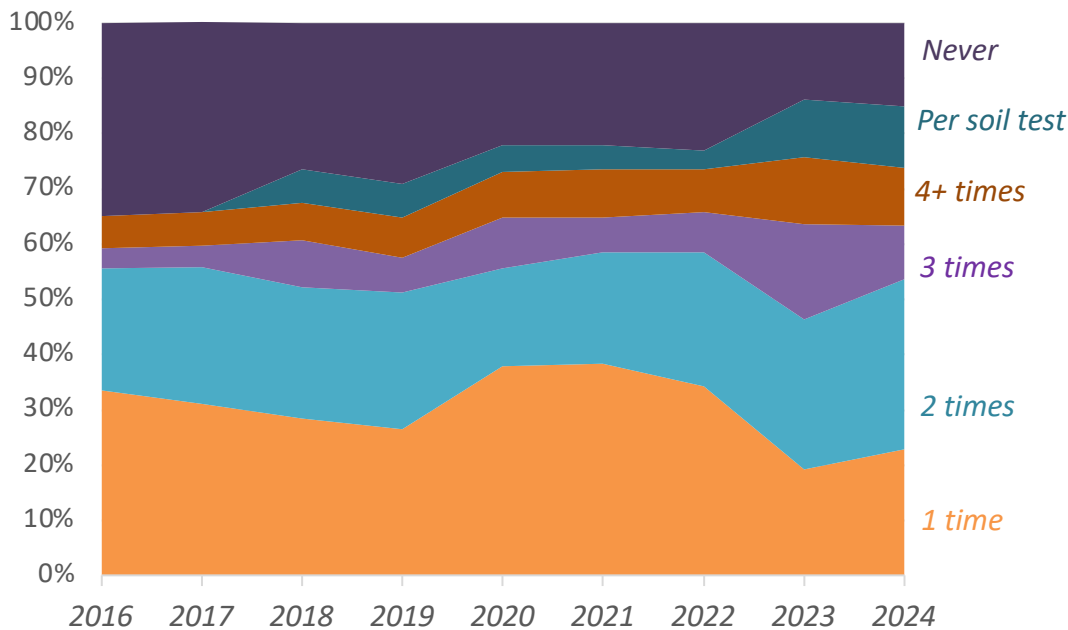
Reported frequency of lawn fertilization from 2016-2024 can be seen in Table 3. Respondents in 2020 and 2021 reported fertilizing their lawn *once per year* at higher rates than 2024 respondents. Additionally, respondents in 2020 reported lower rates of fertilizing *two* times per year than 2024 respondents. In 2022, the frequency of fertilizing per a soil test was less than in 2024 and from 2016-2019 the frequency of respondents never fertilizing their lawn was greater than in 2024.

Table 3. Lawn fertilization frequency across years.

| Frequency of Lawn Fertilization | Year of Survey | | | | | | | | |
|---------------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| 1 time | 33.6% | 31.0% | 28.4% | 26.4% | 37.8% | 38.3% | 34.3% | 19.3% | 22.9% |
| 2 times | 22.0% | 24.8% | 23.9% | 24.8% | 17.7% | 20.3% | 24.1% | 27.1% | 30.8% |
| 3 times | 3.6% | 3.8% | 8.3% | 6.4% | 9.2% | 6.2% | 7.3% | 17.3% | 9.7% |
| 4+ times | 5.8% | 6.2% | 6.8% | 7.2% | 8.4% | 8.6% | 7.7% | 12.0% | 10.3% |
| Per soil test | * | * | 6.1% | 6.0% | 4.8% | 4.5% | 3.5% | 10.5% | 11.1% |
| Never | 35.0% | 34.3% | 26.5% | 29.2% | 22.1% | 22.1% | 23.1% | 13.8% | 15.2% |

* **Red font** indicates that the value significantly differs from the current 2024 value. Asterisks (*) indicate that the question did not appear in the survey that year.

Figure 2. Lawn fertilization frequency across years.



2.3.4 Grass Clipping Disposal

Respondents that reported having a lawn or garden were asked how they dispose of their grass clippings. The provided response options were “Bagged and put in the regular trash”, “Bagged and put in compost/recycling bags for pick up”, “Left on the lawn/garden”, “Put in a compost

pile/bin”, “Not sure”, “Other”, and “Not applicable/don’t have grass clippings”. As shown in Table 4 and Figure 3, the most common response is bagging the grass and putting it in compost or recycling for pickup, with 35.6% providing this response. The next most common response (32.2%) is leaving the grass on their lawn/garden, while 21.3% of respondents bag it and put it in the regular trash. Finally, 10.9% report putting their grass in a compost pile or bin. Older age groups had higher rates of leaving their grass clippings on the lawn, as did people from Fairfax.

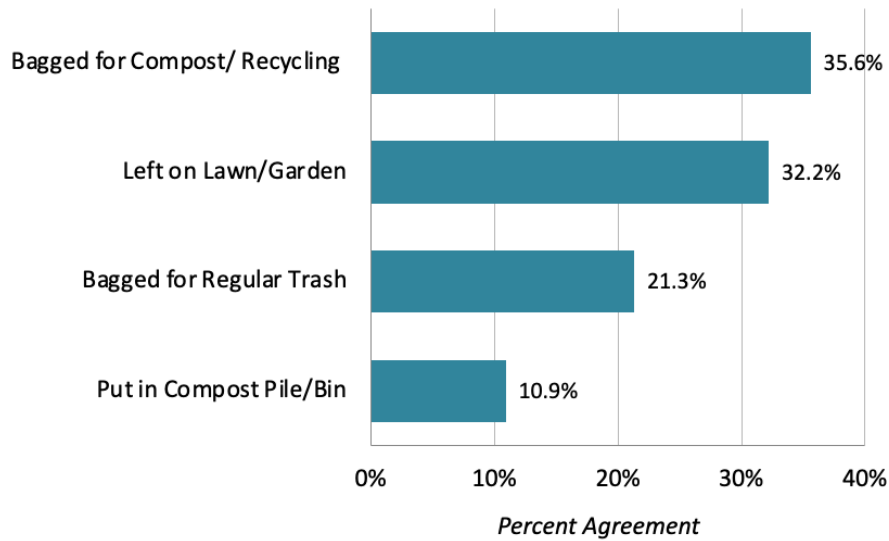
Table 4. Disposal of grass clippings by demographic group.

| Demographic | Sub-category | Grass Clippings Handling | | | |
|--------------------|----------------------------|---------------------------------|---|---------------------|-------------------------|
| | | Bagged and put in Regular Trash | Bagged and put in Compost/ Recycling for Pickup | Left on Lawn/Garden | Put in Compost Pile/Bin |
| | All Respondents | 21.3% | 35.6% | 32.2% | 10.9% |
| Gender | Male | 20.3% | 33.2% | 34.8% | 11.8% |
| | Female | 22.7% | 39.0% | 28.4% | 9.9% |
| Age | 21 to 24 | 31.8% | 27.3% | 27.3% | 13.6% |
| | 25 to 34 | 36.4% | 27.3% | 18.2% | 18.2% |
| | 35 to 44 | 25.9% | 42.4% | 21.2% | 10.6% |
| | 45 to 54 | 14.3% | 41.1% | 33.9% | 10.7% |
| | 55 to 64 | 10.5% | 34.2% | 55.3% | 0.0% |
| | 65 to 74 | 7.7% | 41.0% | 38.5% | 12.8% |
| | 75 or older | 8.7% | 21.7% | 65.2% | 4.3% |
| Locality | Alexandria | 32.1% | 32.1% | 17.9% | 17.9% |
| | Arlington | 18.2% | 54.5% | 12.1% | 15.2% |
| | Fairfax - Inclusive | 16.0% | 33.6% | 42.0% | 8.4% |
| | Prince William - Inclusive | 29.5% | 29.5% | 33.3% | 7.7% |
| | Leesburg/Loudon | 18.3% | 38.0% | 29.6% | 14.1% |
| Ethnicity | Not Hispanic/Latino | 20.3% | 35.9% | 32.5% | 11.2% |
| | Hispanic/Latino | 29.4% | 32.4% | 29.4% | 8.8% |
| Years of Residence | Less than 1 year | 25.0% | 25.0% | 33.3% | 16.7% |
| | 1 to 3 years | 25.0% | 31.7% | 31.7% | 11.7% |
| | 4 to 9 years | 22.4% | 35.8% | 25.4% | 16.4% |
| | 10 to 19 years | 31.7% | 31.7% | 28.0% | 8.5% |
| | 20 or more years | 10.2% | 41.7% | 39.8% | 8.3% |
| Home Ownership | Owned | 19.4% | 36.4% | 34.4% | 9.9% |
| | Rented | 27.1% | 34.3% | 22.9% | 15.7% |
| Household Income | Less than \$35,000 | 29.0% | 25.8% | 38.7% | 6.5% |

| Demographic | Sub-category | Grass Clippings Handling | | | |
|-------------|------------------------|---------------------------------|---|---------------------|-------------------------|
| | | Bagged and put in Regular Trash | Bagged and put in Compost/ Recycling for Pickup | Left on Lawn/Garden | Put in Compost Pile/Bin |
| | \$35,000 to \$49,999 | 28.0% | 32.0% | 36.0% | 4.0% |
| | \$50,000 to \$74,999 | 13.9% | 33.3% | 41.7% | 11.1% |
| | \$75,000 to \$99,999 | 20.3% | 30.4% | 36.7% | 12.7% |
| | \$100,000 to \$124,999 | 22.0% | 40.0% | 20.0% | 18.0% |
| | \$125,000 to \$149,999 | 24.3% | 48.6% | 16.2% | 10.8% |
| | \$150,000 to \$174,999 | 13.3% | 40.0% | 33.3% | 13.3% |
| | \$175,000 to \$199,999 | 27.3% | 40.9% | 22.7% | 9.1% |
| | \$200,000 or greater | 14.7% | 35.3% | 44.1% | 5.9% |

* *Red font* indicates significant differences within a demographic subgroup.

Figure 3. Disposal of grass clippings.



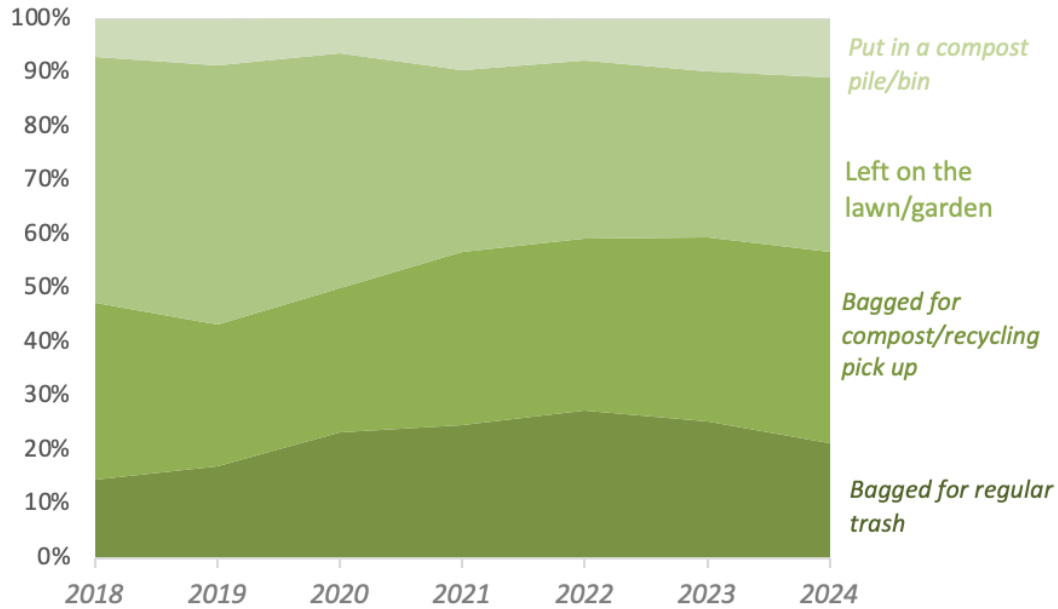
As can be seen in Table 5, respondents in 2018 and 2019 reported leaving grass clippings on their lawn or garden at higher rates than do 2024 respondents. Otherwise, there were no significant differences between this year’s survey responses to this question and previous years.

Table 5. Disposal of grass clippings across years.

| Grass clipping disposal | Year of Survey | | | | | | | | |
|--------------------------------------|----------------|------|-------|-------|-------|-------|-------|-------|-------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| Bagged for regular trash | * | * | 14.5% | 17.0% | 23.3% | 24.6% | 27.3% | 25.4% | 21.3% |
| Bagged for compost/recycling pick up | * | * | 32.8% | 26.4% | 26.7% | 32.3% | 32.0% | 34.1% | 35.6% |
| Left on the lawn/garden | * | * | 45.7% | 48.1% | 43.8% | 33.7% | 33.1% | 30.8% | 32.2% |
| Put in a compost pile/bin | 5.8% | 6.2% | 7.0% | 8.5% | 6.3% | 9.5% | 7.6% | 9.7% | 10.9% |

* *Red font* indicates that the value significantly differs from the current 2024 value. Asterisks (*) indicate that the question did not appear in the survey that year.

Figure 4. Disposal of grass clippings across years.



Participants were also asked what is done with grass clippings if they end up in the street, if anything. The response options were “They are left there”, “They are swept or blown back into the lawn”, or “They are swept or blown into the storm drain”. Of those with a lawn or garden, 65.5% report sweeping or blowing them back into their lawn, while 18.1% report sweeping or blowing them into the storm drain, as can be seen in Table 6 and Figure 5. Lastly, 16.5% report leaving their grass clippings in the street. Men report higher rates of leaving their grass clippings in the street, at 20.9% compared to 10.2% of women.

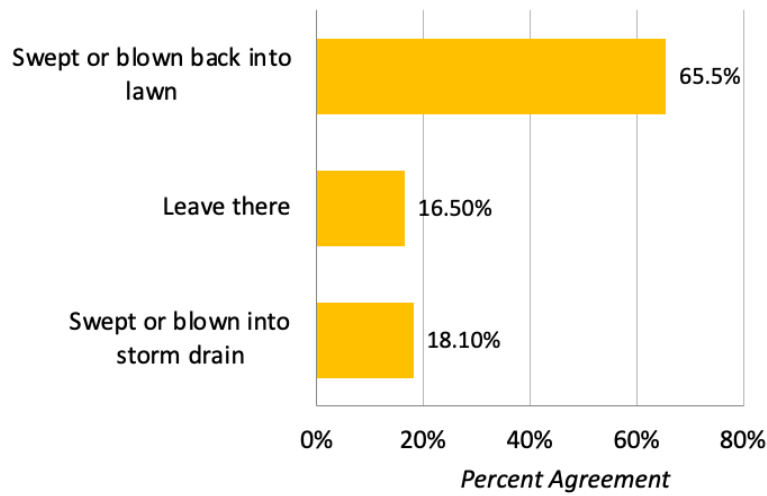
Table 6. Handling of grass clippings in street by demographic group.

| Demographic | Sub-category | Grass Clippings on Street Handling | | |
|-------------|------------------------|------------------------------------|-----------------------------------|---------------------------------|
| | | Leave There | Swept or Blown Back into the Lawn | Swept or Blown into Storm Drain |
| | All Respondents | 16.5% | 65.5% | 18.1% |
| Gender | Male | 20.9% | 62.8% | 16.3% |
| | Female | 10.2% | 69.3% | 20.4% |
| Age | 21 to 24 | 18.2% | 45.5% | 36.4% |
| | 25 to 34 | 12.9% | 61.3% | 25.8% |

| Demographic | Sub-category | Grass Clippings on Street Handling | | |
|--------------------|----------------------------|------------------------------------|-----------------------------------|---------------------------------|
| | | Leave There | Swept or Blown Back into the Lawn | Swept or Blown into Storm Drain |
| | | | | |
| | 35 to 44 | 17.2% | 62.1% | 20.7% |
| | 45 to 54 | 15.4% | 76.9% | 7.7% |
| | 55 to 64 | 22.9% | 65.7% | 11.4% |
| | 65 to 74 | 14.3% | 71.4% | 14.3% |
| | 75 or older | 17.6% | 76.5% | 5.9% |
| Locality | Alexandria | 21.4% | 60.7% | 17.9% |
| | Arlington | 0.0% ² | 75.8% | 24.2% |
| | Fairfax - Inclusive | 17.4% | 65.2% | 17.4% |
| | Prince William - Inclusive | 17.6% | 66.2% | 16.2% |
| | Leesburg/Loudon | 19.7% | 62.1% | 18.2% |
| Ethnicity | Not Hispanic/Latino | 17.2% | 65.2% | 17.6% |
| | Hispanic/Latino | 9.7% | 67.7% | 22.6% |
| Years of Residence | Less than 1 year | 7.7% | 76.9% | 15.4% |
| | 1 to 3 years | 12.3% | 64.9% | 22.8% |
| | 4 to 9 years | 12.3% | 63.1% | 24.6% |
| | 10 to 19 years | 22.5% | 63.8% | 13.8% |
| | 20 or more years | 17.9% | 67.4% | 14.7% |
| Home Ownership | Owned | 19.1% | 64.4% | 16.5% |
| | Rented | 7.4% | 69.1% | 23.5% |
| Household Income | Less than \$35,000 | 12.0% | 68.0% | 20.0% |
| | \$35,000 to \$49,999 | 14.8% | 59.3% | 25.9% |
| | \$50,000 to \$74,999 | 11.4% | 68.6% | 20.0% |
| | \$75,000 to \$99,999 | 18.4% | 60.5% | 21.1% |
| | \$100,000 to \$124,999 | 16.7% | 58.3% | 25.0% |
| | \$125,000 to \$149,999 | 3.1% | 90.6% | 6.3% |
| | \$150,000 to \$174,999 | 29.4% | 58.8% | 11.8% |
| | \$175,000 to \$199,999 | 22.7% | 63.6% | 13.6% |
| | \$200,000 or greater | 25.0% | 67.9% | 7.1% |

* *Red font indicates significant differences within a demographic subgroup.*

Figure 5. Handling of grass clippings in the street.



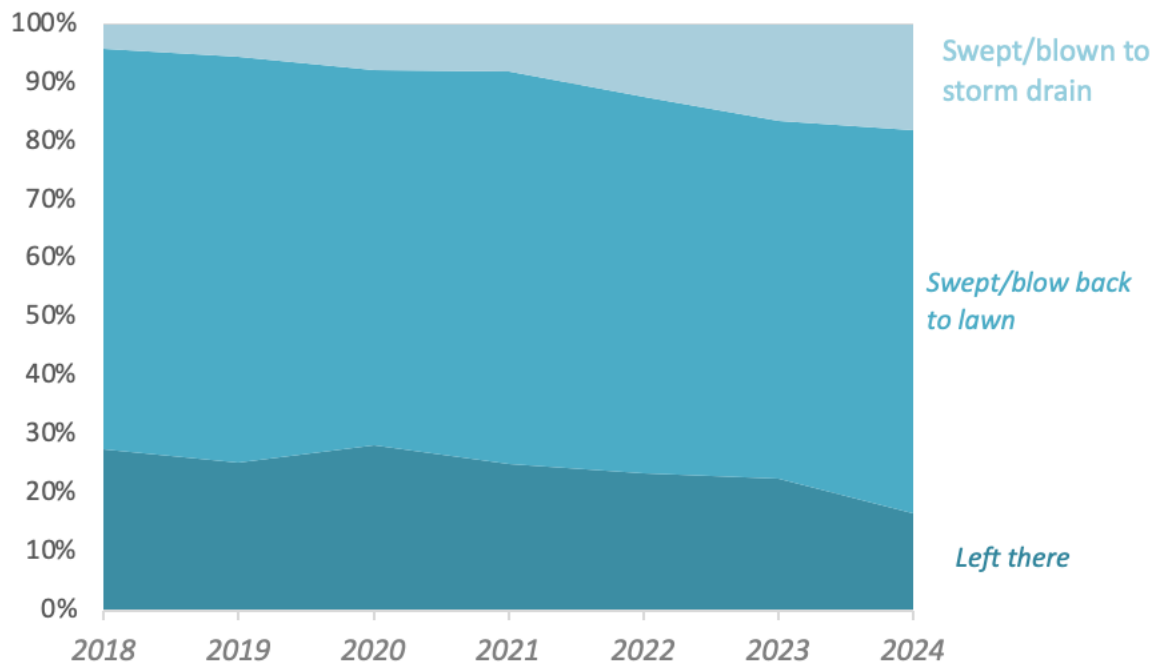
Survey respondents in 2018-2021 reported lower rates of sweeping or blowing grass clippings from the street into the storm drain than 2024 respondents. Otherwise, as shown in Table 7, there were no significant differences between previous years response rates when compared to 2024 survey response rates regarding handling of grass clippings in the street.

Table 7. Handling of grass clippings in the street across years.

| Grass clippings in street | Year of Survey | | | | | | | | |
|----------------------------|----------------|------|-------|-------|-------|-------|-------|-------|-------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| Left there | * | * | 27.5% | 25.3% | 28.3% | 25.1% | 23.4% | 22.6% | 16.5% |
| Swept/blow back to lawn | * | * | 68.4% | 69.3% | 63.9% | 67.0% | 64.2% | 60.9% | 65.5% |
| Swept/blown to storm drain | * | * | 4.1% | 5.3% | 7.8% | 7.9% | 12.4% | 16.6% | 18.1% |

* *Red font* indicates that the value significantly differs from the current 2024 value. Asterisks (*) indicate that the question did not appear in the survey that year.

Figure 6. Handling of grass clippings in the street across years.



2.3.5 Pet Waste Pickup

Respondents who indicated they are responsible or partially responsible for at least one dog were asked how often they pick up after their dog(s) while on a walk. The response options were “Always”, “Usually”, “Sometimes”, “Rarely”, “Never”, or “Not applicable/I don’t take the dog(s) on walks”. These respondents were also asked how often they picked up after their dog(s) in their yard, where the response options ranged from “Daily” to “Never”. The responses are summarized in Table 8 and displayed in Figure 7. Of all respondents, 43.1% report having one or more dog(s) in their household for which they are at least partially responsible. Most dog owners (87.1%) report they always or usually pick up after their dog(s) on walks. Most also report picking up after their dog(s) in the yard on a daily basis (58.9%) and fewer report picking up after their dog(s) on a weekly basis (23.9%).

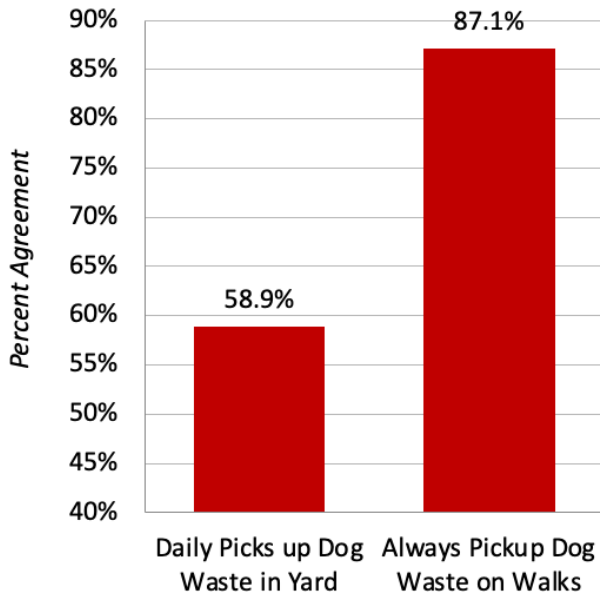
Generally, younger people reported owning dogs at a higher rate than older people. People aged 25 to 34 reported owning dogs at the highest rate (55.2%).

Table 8. Frequency of picking up dog waste by demographic group.

| Demographic | Sub-category | Own a Dog | Always Pickup Dog Waste on Walks | Daily Picks up Dog Waste in Yard | Weekly Picks up Dog Waste in Yard |
|----------------------|----------------------------|--------------|----------------------------------|----------------------------------|-----------------------------------|
| | All Respondents | 43.1% | 87.1% | 58.9% | 23.9% |
| Gender | Male | 42.9% | 83.7% | 56.4% | 26.6% |
| | Female | 43.5% | 90.6% | 61.6% | 20.9% |
| Age | 21 to 24 | 46.3% | 89.5% | 58.8% | 11.8% |
| | 25 to 34 | 55.2% | 79.3% | 50.0% | 36.0% |
| | 35 to 44 | 51.3% | 84.5% | 61.2% | 28.6% |
| | 45 to 54 | 50.0% | 94.4% | 81.3% | 3.1% |
| | 55 to 64 | 36.2% | 91.3% | 47.1% | 35.3% |
| | 65 to 74 | 22.0% | 100.0% | 54.5% | 18.2% |
| | 75 or older | 11.1% | 100.0% | 25.0% | 0.0% |
| Locality | Alexandria | 34.4% | 86.4% | 62.5% | 25.0% |
| | Arlington | 39.0% | 78.3% | 63.6% | 22.7% |
| | Fairfax - Inclusive | 41.8% | 89.5% | 61.9% | 20.6% |
| | Prince William - Inclusive | 47.4% | 93.3% | 56.4% | 23.1% |
| | Leesburg/Loudon | 49.5% | 81.8% | 52.5% | 30.0% |
| Ethnicity | Not Hispanic/Latino | 42.0% | 88.0% | 57.9% | 25.8% |
| | Hispanic/Latino | 51.9% | 81.5% | 66.7% | 9.5% |
| Years of Residence | Less than 1 year | 25.0% | 77.8% | 50.0% | 25.0% |
| | 1 to 3 years | 38.0% | 95.1% | 58.1% | 29.0% |
| | 4 to 9 years | 44.7% | 86.0% | 45.2% | 28.6% |
| | 10 to 19 years | 57.3% | 82.5% | 62.7% | 23.5% |
| | 20 or more years | 38.8% | 89.4% | 68.8% | 16.7% |
| Home Ownership | Owned | 50.5% | 87.6% | 60.4% | 24.5% |
| | Rented | 29.3% | 90.2% | 58.3% | 19.4% |
| Household Income | Less than \$35,000 | 30.2% | 94.4% | 66.7% | 13.3% |
| | \$35,000 to \$49,999 | 29.1% | 87.5% | 38.5% | 30.8% |
| | \$50,000 to \$74,999 | 39.1% | 92.0% | 68.8% | 18.8% |
| | \$75,000 to \$99,999 | 48.1% | 80.0% | 57.8% | 24.4% |
| | \$100,000 to \$124,999 | 46.5% | 87.9% | 50.0% | 36.7% |
| | \$125,000 to \$149,999 | 54.5% | 87.5% | 76.2% | 14.3% |
| | \$150,000 to \$174,999 | 45.5% | 90.0% | 57.1% | 14.3% |
| | \$175,000 to \$199,999 | 48.1% | 75.0% | 38.5% | 30.8% |
| \$200,000 or greater | 51.1% | 95.5% | 70.0% | 20.0% | |

* *Red font indicates significant differences within a demographic subgroup.*

Figure 7. Frequency of picking up dog waste.



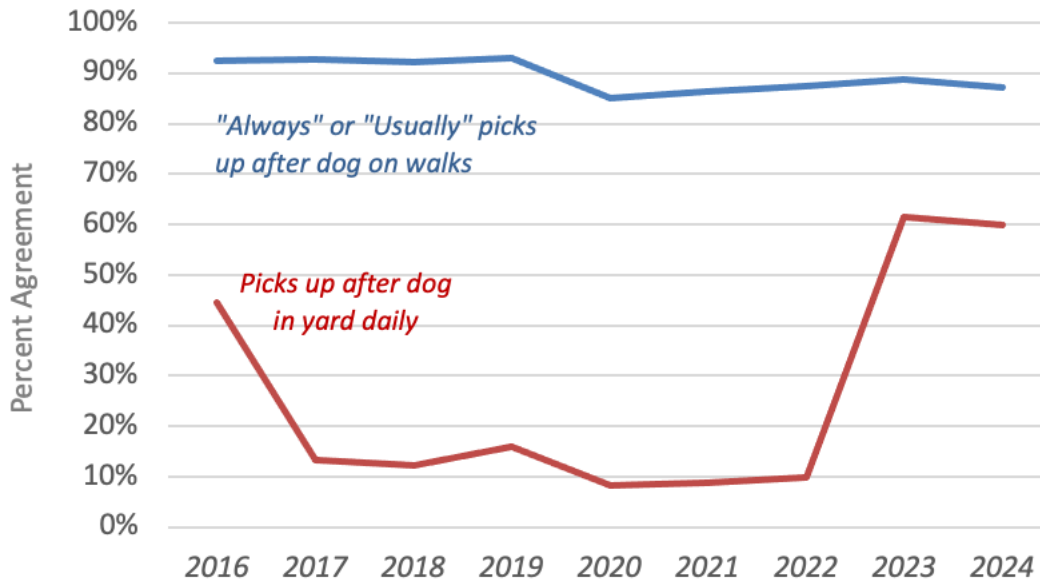
Rates of respondents reporting they “always” or “usually” pick up after their dog(s) on walks and pick after their dog(s) in the yard “daily” from 2016-2024 can be seen below in Table 9. From 2017-2022, reported rates of picking up from the yard daily were lower than in 2024. While "daily" is the most common response regarding frequency of picking in the yard in 2023 and 2024, "weekly" was the most common response in 2017-2022.

Table 9. Frequency of picking up dog waste across years.

| Survey Question Response | Year of Survey | | | | | | | | |
|---|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| "Always" or "Usually" picks up after dog on walks | 92.4% | 92.7% | 92.1% | 93.0% | 85.0% | 86.4% | 87.5% | 88.7% | 87.1% |
| Picks up after dog in yard daily | 44.6% | 13.3% | 12.2% | 16.0% | 8.3% | 8.7% | 9.9% | 61.5% | 59.9% |

* *Red font* indicates that the value significantly differs from the current 2024 value.

Figure 8. Frequency of picking up dog waste across years.



Participants who indicated that they pick up dog waste with any frequency either on walks or in their own yard were asked the most important reason for doing so, the results of which can be seen in Table 10 and Figure 9. The response options were “City/county ordinance”, “Don’t want to step in it”, “It causes water pollution”, “It is gross”, “It’s what good neighbors do”, “Odor”, or “Other reason”. In response to this question, 22.4% of dog owners report their most important reason being that it causes water pollution. Additionally, 18.6% report their most important reason being that it is required by city or county ordinances and 18.0% report doing so because it is what good neighbors do. Finally, 16.1% report doing so because it is gross, 14.9% don’t want to step in it, and 5.0% do so because of the odor. Hispanic/Latino respondents report higher rates of picking up dog waste because of a city/county ordinance.

Table 10. Most important reason for picking up dog waste by demographic group.

| Demographic | Sub-category | Reason for Picking Up Dog Waste | | | | | | |
|-------------|------------------------|---------------------------------|--------------------------|---------------------------|--------------|-----------------------------|-------------|--------------|
| | | City/county ordinance | Don't want to step in it | It causes water pollution | It is gross | It's what good neighbors do | Odor | Other reason |
| | All Respondents | 18.6% | 14.9% | 22.4% | 16.1% | 18.0% | 5.0% | 4.3% |

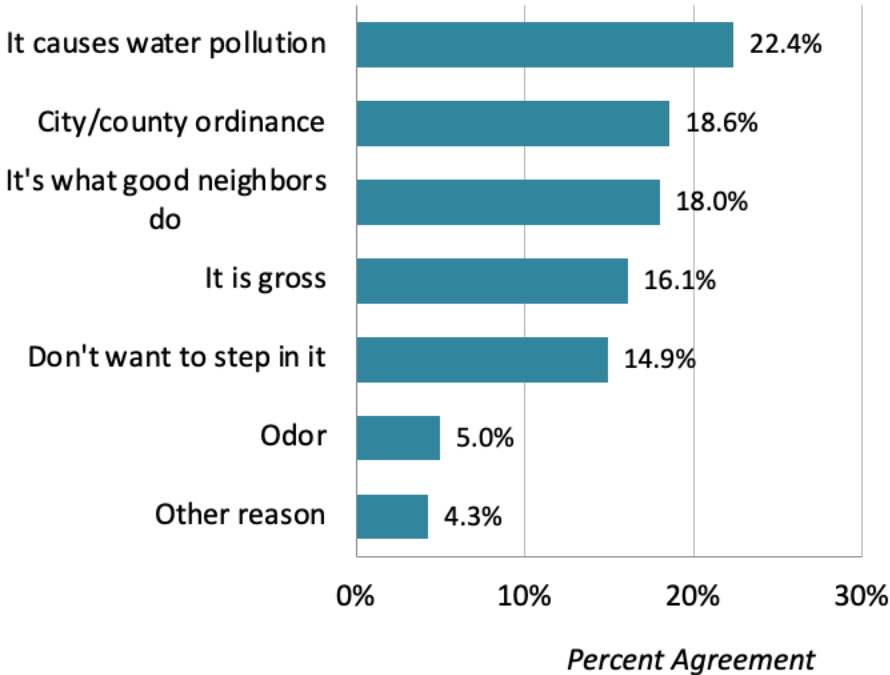
| Demographic | Sub-category | Reason for Picking Up Dog Waste | | | | | | |
|--------------------|----------------------------|---------------------------------|--------------------------|---------------------------|-------------|-----------------------------|-------|--------------|
| | | City/county ordinance | Don't want to step in it | It causes water pollution | It is gross | It's what good neighbors do | Odor | Other reason |
| Gender | Male | 21.2% | 16.5% | 23.5% | 15.3% | 18.8% | 3.5% | 1.2% |
| | Female | 15.8% | 13.2% | 21.1% | 17.1% | 17.1% | 6.6% | 7.9% |
| Age | 21 to 24 | 0.0% | 21.4% | 14.3% | 42.9% | 21.4% | 0.0% | 0.0% |
| | 25 to 34 | 20.8% | 14.6% | 20.8% | 16.7% | 10.4% | 12.5% | 2.1% |
| | 35 to 44 | 29.8% | 12.8% | 21.3% | 10.6% | 21.3% | 2.1% | 2.1% |
| | 45 to 54 | 10.3% | 17.2% | 27.6% | 13.8% | 20.7% | 3.4% | 6.9% |
| | 55 to 64 | 7.7% | 7.7% | 30.8% | 15.4% | 23.1% | 0.0% | 15.4% |
| | 65 to 74 | 12.5% | 25.0% | 25.0% | 12.5% | 12.5% | 0.0% | 12.5% |
| | 75 or older | 50.0% | 0.0% | 0.0% | 0.0% | 50.0% | 0.0% | 0.0% |
| Locality | Alexandria | 33.3% | 13.3% | 13.3% | 13.3% | 13.3% | 6.7% | 6.7% |
| | Arlington | 31.8% | 4.5% | 45.5% | 9.1% | 9.1% | 0.0% | 0.0% |
| | Fairfax - Inclusive | 15.5% | 20.7% | 17.2% | 17.2% | 22.4% | 3.4% | 3.4% |
| | Prince William - Inclusive | 18.8% | 21.9% | 18.8% | 18.8% | 15.6% | ** | 6.3% |
| | Leesburg/Loudon | 8.8% | 5.9% | 23.5% | 17.6% | 20.6% | 14.7% | 5.9% |
| Ethnicity | Not Hispanic/Latino | 16.3% | 14.9% | 23.4% | 15.6% | 18.4% | 5.7% | 5.0% |
| | Hispanic/Latino | 35.0% | 15.0% | 15.0% | 20.0% | 15.0% | 0.0% | ** |
| Years of Residence | Less than 1 year | 14.3% | 28.6% | 28.6% | 14.3% | 0.0% | 0.0% | 14.3% |
| | 1 to 3 years | 14.3% | 28.6% | 21.4% | 14.3% | 17.9% | 3.6% | ** |
| | 4 to 9 years | 24.3% | 13.5% | 16.2% | 18.9% | 18.9% | 5.4% | 2.7% |
| | 10 to 19 years | 22.9% | 8.3% | 18.8% | 14.6% | 27.1% | 4.2% | 2.1% |
| | 20 or more years | 12.2% | 12.2% | 31.7% | 17.1% | 9.8% | 7.3% | 9.8% |
| Home Ownership | Owned | 18.4% | 13.6% | 22.4% | 17.6% | 19.2% | 4.8% | 4.0% |
| | Rented | 15.6% | 21.9% | 25.0% | 12.5% | 9.4% | 6.3% | 6.3% |
| Household Income | Less than \$35,000 | 7.7% | 30.8% | 23.1% | 15.4% | 23.1% | 0.0% | ** |
| | \$35,000 to \$49,999 | 27.3% | 18.2% | 36.4% | 18.2% | 0.0% | 0.0% | 0.0% |
| | \$50,000 to \$74,999 | 35.7% | 14.3% | 14.3% | 14.3% | 14.3% | 7.1% | 0.0% |
| | \$75,000 to \$99,999 | 20.5% | 12.8% | 15.4% | 23.1% | 12.8% | 7.7% | 7.7% |
| | \$100,000 to \$124,999 | 14.3% | 10.7% | 35.7% | 10.7% | 21.4% | 7.1% | 0.0% |
| | \$125,000 to \$149,999 | 25.0% | 0.0% | 20.0% | 20.0% | 15.0% | 5.0% | 10.0% |
| | \$150,000 to \$174,999 | ** | 42.9% | 0.0% | 28.6% | 14.3% | 14.3% | ** |

| Demographic | Sub-category | Reason for Picking Up Dog Waste | | | | | | |
|-------------|------------------------|---------------------------------|--------------------------|---------------------------|-------------|-----------------------------|------|--------------|
| | | City/county ordinance | Don't want to step in it | It causes water pollution | It is gross | It's what good neighbors do | Odor | Other reason |
| | \$175,000 to \$199,999 | 40.0% | 10.0% | 20.0% | 0.0% | 30.0% | ** | ** |
| | \$200,000 or greater | ** | 21.1% | 26.3% | 10.5% | 31.6% | ** | 10.5% |

* *Red font* indicates significant differences within a demographic subgroup.

** Insufficient data for between-group comparison.

Figure 9. Reason for picking up dog waste.



Below, in Table 11, survey responses from 2016-2024 regarding reasons for picking up dog waste can be seen. In 2016, fewer respondents reported their reason for picking up dog waste as a city or county ordinance, compared to 2024 respondents. Survey respondents in 2020 reported lower rates of picking up dog waste because it causes water pollution, compared to 2024 respondents. Finally, respondents to this survey question in the years 2016, 2017, 2019, and 2020

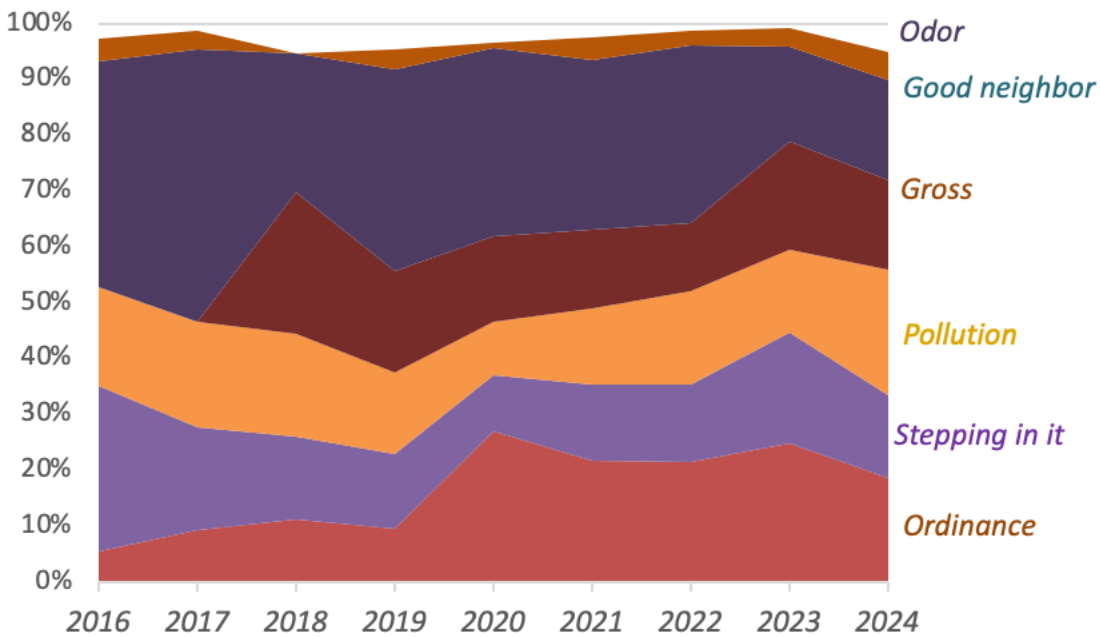
reported higher rates of picking up dog waste because it's what good neighbors do, compared to 2024 respondents.

Table 11. Reason for picking up dog waste across years.

| Reason | Year of Survey | | | | | | | | |
|-----------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| City/county ordinance | 5.5% | 9.2% | 11.1% | 9.4% | 27.0% | 21.6% | 21.4% | 24.9% | 18.6% |
| Don't want to step in it | 29.5% | 18.4% | 15.0% | 13.5% | 10.1% | 13.7% | 13.9% | 19.8% | 14.9% |
| It causes water pollution | 17.8% | 19.1% | 18.3% | 14.6% | 9.6% | 13.7% | 16.8% | 14.8% | 22.4% |
| It is gross | * | * | 25.5% | 18.1% | 15.2% | 14.1% | 12.2% | 19.4% | 16.1% |
| It's what good neighbors do | 40.4% | 48.7% | 24.8% | 36.3% | 33.7% | 30.3% | 31.9% | 16.9% | 18.0% |
| Odor | 4.1% | 3.3% | * | 3.5% | 1.1% | 4.1% | 2.5% | 3.4% | 5.0% |
| Other reason | 2.7% | 1.3% | 5.2% | 4.7% | 3.4% | 2.5% | 1.3% | 0.8% | 4.3% |

* *Red font* indicates that the value significantly differs from the current 2024 value. Asterisks (*) indicate that the question did not appear in the survey that year.

Figure 10. Reason for picking up pet waste across years.



2.3.6 Behaviors Related to Vehicles

Respondents were next asked about their behavior regarding changing motor oil and how the used motor oil is disposed. Because the survey queries knowledge and behaviors regarding changing the motor oil of their personal vehicles, respondents were first asked if they own a personal vehicle. The majority of respondents (86.7%) report having a personal vehicle that they own or lease, as seen in Table 12. Alexandria and Arlington had lower rates of owning or leasing a personal vehicle while Leesburg/Loudon had the highest rates. People who own their home have higher rates of owning or leasing a vehicle and rates of vehicle ownership tended to increase with higher household incomes.

2.3.6.1 Disposing of Motor Oil

Those who own or lease a personal vehicle were then asked how they dispose of motor oil when their vehicle oil is changed (Table 12 and Figure 11). Response options were “I don’t change the oil myself/I take it to a garage/oil change service”, “Take the motor oil to a gas station or hazmat 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”, “Dump it on the ground”, and an option to

write-in another method not listed. Most of these respondents (59.8%) report taking their vehicle to a garage or oil changing service when the oil needs to be changed. Additionally, 23.5% report taking the old motor oil to a gas station or hazmat facility, 7.0% store it in their garage, 5.6% put it in the trash, 1.6% dump it in the gutter or storm drain, 1.2% dump it on the ground, and no respondents report dumping it down the sink.

Men reported using a gas station or hazmat facility at higher rates than women. Older respondents reported higher rates of using an oil change service, as did Hispanic/Latino respondents and renters. Hispanic/Latino respondents also reported higher rates of putting their motor oil in the trash. Finally, home owners reported higher rates of using a gas station or hazmat facility.

Table 12. Vehicle possession and motor oil disposal by demographic group.

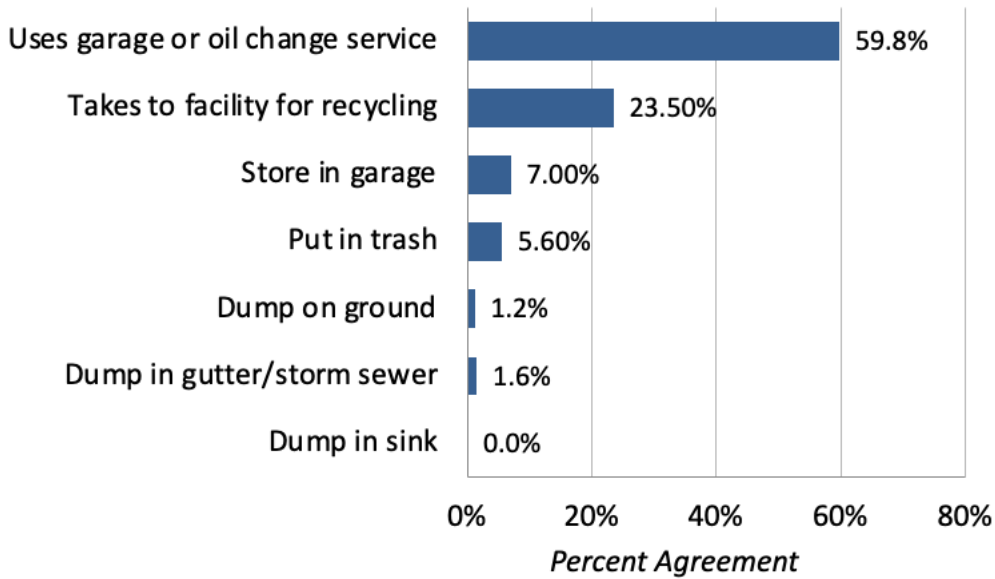
| Demographic | Sub-category | Own or Lease Vehicle | Motor Oil Disposal | | | | | | |
|-------------|----------------------------|----------------------|-------------------------------------|--------------------------------|-----------------|------------------|-------------------------------|--------------|----------------|
| | | | Uses a Garage or Oil Change Service | Gas Station or Hazmat Facility | Store in Garage | Put in the Trash | Dump in Gutter or Storm Sewer | Dump in Sink | Dump on Ground |
| | All Respondents | 86.7% | 59.8% | 23.5% | 7.0% | 5.6% | 1.6% | 0.0% | 1.2% |
| Gender | Male | 87.1% | 56.0% | 28.2% | 6.0% | 6.0% | 0.5% | 1.4% | 1.9% |
| | Female | 87.0% | 63.6% | 18.7% | 7.9% | 5.1% | 2.8% | 0.9% | 0.9% |
| Age | 21 to 24 | 85.4% | 51.4% | 31.4% | 8.6% | 5.7% | 2.9% | 0.0% | 0.0% |
| | 25 to 34 | 89.5% | 47.9% | 26.6% | 10.6% | 10.6% | 2.1% | 1.1% | 1.1% |
| | 35 to 44 | 88.5% | 40.0% | 28.0% | 15.0% | 11.0% | 3.0% | 3.0% | 0.0% |
| | 45 to 54 | 83.8% | 71.0% | 22.6% | 1.6% | 1.6% | 0.0% | 0.0% | 3.2% |
| | 55 to 64 | 88.4% | 70.5% | 27.9% | 1.6% | 0.0% | 0.0% | 0.0% | 0.0% |
| | 65 to 74 | 83.1% | 87.8% | 8.2% | 0.0% | 0.0% | 2.0% | 2.0% | 0.0% |
| | 75 or older | 82.9% | 82.8% | 6.9% | 0.0% | 0.0% | 0.0% | 0.0% | 10.3% |
| Locality | Alexandria | 80.0% | 71.2% | 15.4% | 3.8% | 9.6% | 0.0% | 0.0% | 0.0% |
| | Arlington | 78.0% | 50.0% | 28.3% | 10.9% | 8.7% | 0.0% | 0.0% | 2.2% |
| | Fairfax - Inclusive | 89.1% | 64.4% | 22.1% | 6.1% | 4.9% | 1.8% | 0.0% | 0.6% |
| | Prince William - Inclusive | 84.5% | 56.1% | 24.4% | 4.9% | 4.9% | 2.4% | 4.9% | 2.4% |
| | Leesburg/Loudon | 94.6% | 52.9% | 27.6% | 10.3% | 3.4% | 2.3% | 1.1% | 2.3% |
| Ethnicity | Not Hispanic/Latino | 86.9% | 61.4% | 22.8% | 6.5% | 4.7% | 1.8% | 1.3% | 1.6% |
| | Hispanic/Latino | 84.6% | 45.5% | 29.5% | 11.4% | 13.6% | ** | ** | ** |
| | Less than 1 year | 75.0% | 70.4% | 7.4% | 11.1% | 7.4% | 3.7% | 0.0% | 0.0% |

| Demographic | Sub-category | Own or Lease Vehicle | Motor Oil Disposal | | | | | | |
|--------------------|------------------------|----------------------|-------------------------------------|--------------------------------|-----------------|------------------|-------------------------------|--------------|----------------|
| | | | Uses a Garage or Oil Change Service | Gas Station or Hazmat Facility | Store in Garage | Put in the Trash | Dump in Gutter or Storm Sewer | Dump in Sink | Dump on Ground |
| Years of Residence | 1 to 3 years | 83.5% | 67.0% | 22.0% | 4.4% | 3.3% | 2.2% | 1.1% | 0.0% |
| | 4 to 9 years | 85.8% | 57.7% | 21.6% | 8.2% | 7.2% | 3.1% | 1.0% | 1.0% |
| | 10 to 19 years | 90.0% | 43.4% | 27.3% | 13.1% | 9.1% | 0.0% | 3.0% | 4.0% |
| | 20 or more years | 90.6% | 67.2% | 26.7% | 1.7% | 2.6% | 0.9% | 0.0% | 0.9% |
| Home Ownership | Owned | 94.5% | 55.7% | 27.1% | 7.2% | 5.5% | 1.7% | 1.0% | 1.7% |
| | Rented | 74.7% | 67.7% | 16.9% | 6.9% | 4.6% | 1.5% | 1.5% | 0.8% |
| Household Income | Less than \$35,000 | 60.3% | 60.5% | 26.3% | 0.0% | 2.6% | 5.3% | 2.6% | 2.6% |
| | \$35,000 to \$49,999 | 76.4% | 57.1% | 23.8% | 7.1% | 7.1% | 2.4% | 0.0% | 2.4% |
| | \$50,000 to \$74,999 | 95.3% | 67.2% | 19.7% | 6.6% | 4.9% | 0.0% | 0.0% | 1.6% |
| | \$75,000 to \$99,999 | 89.6% | 63.2% | 17.9% | 9.5% | 7.4% | 1.1% | 1.1% | 0.0% |
| | \$100,000 to \$124,999 | 90.0% | 50.8% | 28.6% | 7.9% | 4.8% | 3.2% | 1.6% | 3.2% |
| | \$125,000 to \$149,999 | 91.1% | 56.1% | 22.0% | 14.6% | 4.9% | 2.4% | ** | ** |
| | \$150,000 to \$174,999 | 95.5% | 66.7% | 14.3% | 4.8% | 14.3% | ** | ** | ** |
| | \$175,000 to \$199,999 | 96.2% | 56.0% | 28.0% | 4.0% | 4.0% | ** | 8.0% | 0.0% |
| | \$200,000 or greater | 97.8% | 59.1% | 34.1% | 2.3% | 2.3% | ** | ** | 2.3% |

* *Red font indicates significant differences within a demographic subgroup.*

** *Insufficient data for between-group comparison.*

Figure 11. Motor oil handling behaviors.



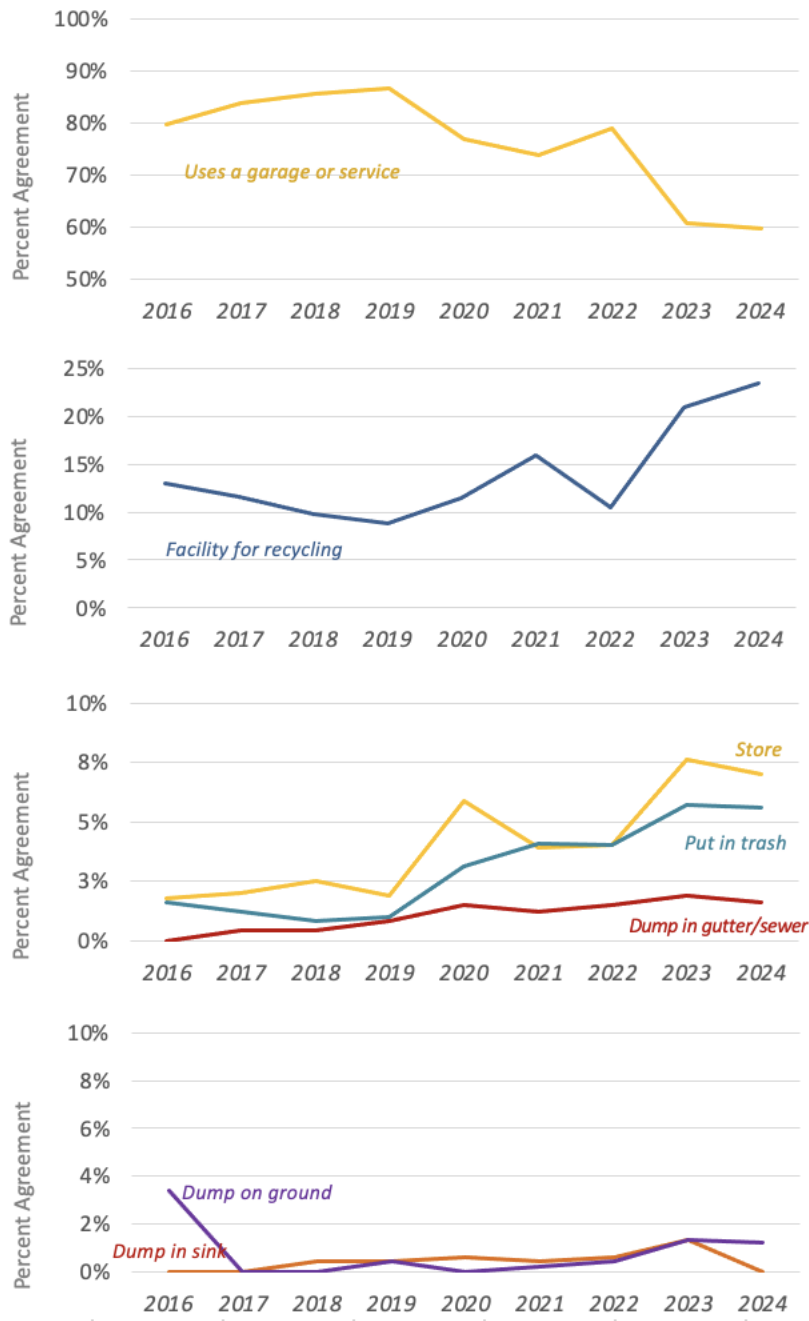
Reported motor oil handling behaviors from years 2016-2024 can be seen below in Table 13. First, reported use of using a garage or oil change service were higher from years 2016-2022 than in 2024. Survey respondents from years 2016-2020 along with 2022 report less frequent use of recycling facilities than 2024 respondents. Additionally, respondents in 2016-2021 reported less frequent oil storage, and respondents in 2016-2019 reported putting their motor oil in the trash less frequently than 2024 respondents.

Table 13. Motor oil handling behaviors across years.

| Motor oil disposal | Year of Survey | | | | | | | | |
|-------------------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| Uses a Garage or Oil Change Service | 79.8% | 83.7% | 85.7% | 86.5% | 76.8% | 73.7% | 78.9% | 60.7% | 59.8% |
| Facility for Recycling | 13.0% | 11.6% | 9.8% | 8.8% | 11.5% | 16.0% | 10.5% | 21.0% | 23.5% |
| Store | 1.8% | 2.0% | 2.5% | 1.9% | 5.9% | 3.9% | 4.0% | 7.6% | 7.0% |
| Put in the Trash | 1.6% | 1.2% | 0.8% | 1.0% | 3.1% | 4.1% | 4.0% | 5.7% | 5.6% |
| Dump in Gutter/Sewer | 0.0% | 0.4% | 0.4% | 0.8% | 1.5% | 1.2% | 1.5% | 1.9% | 1.6% |
| Dump in Sink | 0.0% | 0.0% | 0.4% | 0.4% | 0.6% | 0.4% | 0.6% | 1.3% | 0.0% |
| Dump on Ground | 3.4% | 0.0% | 0.0% | 0.4% | 0.0% | 0.2% | 0.4% | 1.3% | 1.2% |

* *Red font* indicates that the value significantly differs from the current 2024 value.

Figure 12. Motor oil handling behaviors across years.



2.3.6.2 Vehicle Washing

Participants who reported owning or leasing a vehicle were also asked about their vehicle washing behaviors. Respondents were asked where they have washed their personal vehicle in the past year, with response options being “At my home or someone else’s home”, “At a

commercial car wash”, “I haven’t washed my vehicle”, and the option to write in another response not listed. Of those who own or lease a personal vehicle, 37.4% said they wash their car/truck at home, as shown in Table 14 and Figure 13. Home owners report washing their vehicle at home at higher rates than renters.

Table 14. Vehicle washing behaviors by demographic group.

| Demographic | Sub-category | Wash Car at Home | Wash Car in Grass, Gravel, or Dirt | Wash Car using Enviro-Friendly Detergent | Wash Car using only Water (No Soap) | Wash Car at Commercial Location | Have not Washed Car in Past Year |
|--------------------|----------------------------|------------------|------------------------------------|--|-------------------------------------|---------------------------------|----------------------------------|
| | All Respondents | 37.4% | 52.7% | 51.6% | 21.6% | 64.0% | 7.2% |
| Gender | Male | 41.5% | 46.1% | 51.0% | 26.7% | 66.5% | 6.0% |
| | Female | 33.6% | 60.7% | 52.4% | 15.5% | 62.0% | 8.4% |
| Age | 21 to 24 | 40.5% | 75.0% | 37.5% | 29.4% | 69.0% | 4.8% |
| | 25 to 34 | 43.4% | 58.7% | 65.2% | 22.7% | 72.6% | 11.3% |
| | 35 to 44 | 45.6% | 61.5% | 53.8% | 28.8% | 65.8% | 3.5% |
| | 45 to 54 | 43.2% | 59.4% | 43.8% | 12.5% | 56.8% | 6.8% |
| | 55 to 64 | 24.6% | 17.6% | 41.2% | 11.8% | 60.9% | 10.1% |
| | 65 to 74 | 28.8% | 29.4% | 52.9% | 11.8% | 54.2% | 5.1% |
| | 75 or older | 16.7% | ** | 33.3% | 33.3% | 63.9% | 8.3% |
| Locality | Alexandria | 33.8% | 45.5% | 54.5% | 36.4% | 61.5% | 10.8% |
| | Arlington | 40.7% | 66.7% | 75.0% | 9.1% | 64.4% | 5.1% |
| | Fairfax - Inclusive | 36.8% | 50.0% | 36.8% | 20.6% | 61.1% | 10.8% |
| | Prince William - Inclusive | 33.0% | 37.5% | 40.6% | 28.1% | 67.0% | 2.1% |
| | Leesburg/Loudoun | 43.6% | 65.0% | 70.0% | 17.1% | 68.1% | 4.3% |
| Ethnicity | Not Hispanic/Latino | 38.2% | 51.2% | 52.9% | 21.9% | 63.2% | 7.1% |
| | Hispanic/Latino | 30.8% | 68.8% | 37.5% | 18.8% | 71.2% | 7.7% |
| Years of Residence | Less than 1 year | 19.4% | 42.9% | 42.9% | 14.3% | 52.8% | 8.3% |
| | 1 to 3 years | 31.2% | 44.1% | 32.4% | 15.2% | 67.0% | 5.5% |
| | 4 to 9 years | 38.3% | 46.5% | 60.5% | 27.9% | 60.0% | 8.7% |
| | 10 to 19 years | 44.1% | 65.3% | 57.1% | 30.6% | 70.3% | 5.4% |
| | 20 or more years | 41.1% | 52.8% | 52.8% | 13.2% | 62.8% | 8.5% |
| Home Ownership | Owned | 45.0% | 54.0% | 54.0% | 21.0% | 70.1% | 7.7% |
| | Rented | 25.1% | 50.0% | 45.5% | 25.0% | 54.3% | 6.9% |
| Household Income | Less than \$35,000 | 28.6% | 50.0% | 44.4% | 16.7% | 36.5% | 3.2% |
| | \$35,000 to \$49,999 | 17.9% | 60.0% | 50.0% | 30.0% | 58.9% | 5.4% |
| | \$50,000 to \$74,999 | 38.5% | 58.3% | 37.5% | 29.2% | 64.6% | 7.7% |

| Demographic | Sub-category | Wash Car at Home | Wash Car in Grass, Gravel, or Dirt | Wash Car using Enviro-Friendly Detergent | Wash Car using only Water (No Soap) | Wash Car at Commercial Location | Have not Washed Car in Past Year |
|-------------|------------------------|------------------|------------------------------------|--|-------------------------------------|---------------------------------|----------------------------------|
| | \$75,000 to \$99,999 | 41.5% | 40.9% | 43.2% | 20.9% | 74.5% | 5.7% |
| | \$100,000 to \$124,999 | 47.9% | 50.0% | 55.9% | 14.7% | 62.0% | 14.1% |
| | \$125,000 to \$149,999 | 51.1% | 52.2% | 82.6% | 21.7% | 71.1% | 4.4% |
| | \$150,000 to \$174,999 | 40.9% | 66.7% | 55.6% | 22.2% | 68.2% | 4.5% |
| | \$175,000 to \$199,999 | 33.3% | 88.9% | 66.7% | 44.4% | 74.1% | 11.1% |
| | \$200,000 or greater | 33.3% | 53.3% | 40.0% | 13.3% | 71.1% | 8.9% |

* *Red font indicates significant differences within a demographic subgroup.*

** *Insufficient data for between-group comparison.*

Figure 13. Vehicle washing locations.

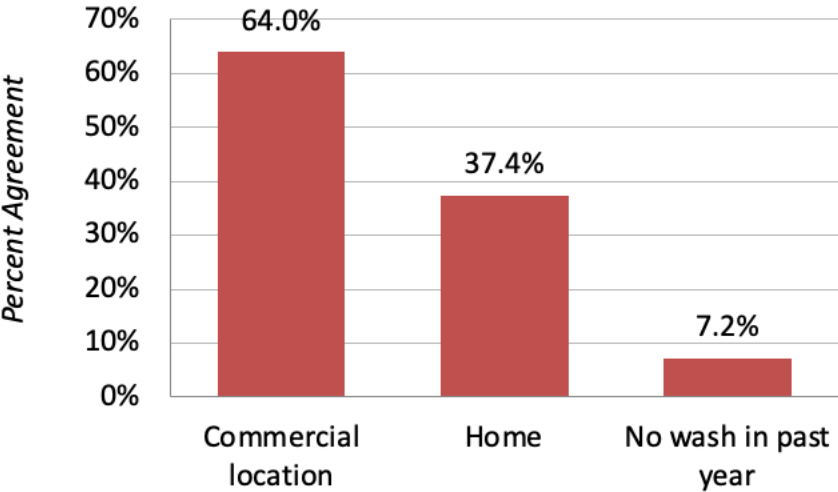
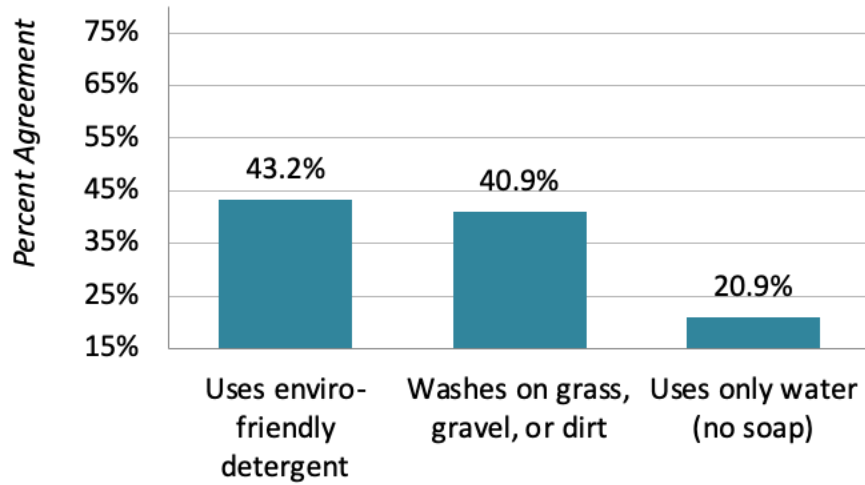


Figure 14. Desirable behaviors associated with vehicle washing.



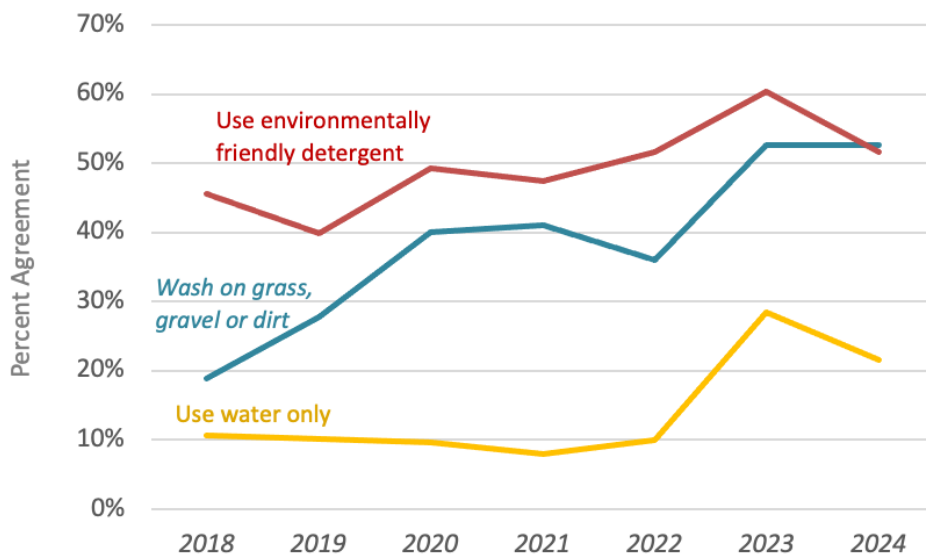
Below, Table 15 displays reported rates of vehicle washing behaviors from 2018-2024. Notably, reported rates of washing vehicles on grass, gravel or dirt were lower in 2018, 2019 and 2022 than in 2024. Additionally, reported use of only water to wash vehicles was lower in years 2018-2022 than in 2024.

Table 15. Vehicle washing behaviors across years.

| Vehicle washing behavior | Year of Survey | | | | | | |
|--|----------------|-------|-------|-------|-------|-------|-------|
| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| Wash on grass, gravel or dirt | 18.8% | 27.7% | 40.1% | 41.0% | 36.0% | 52.6% | 52.7% |
| Use environmentally friendly detergent | 45.6% | 39.9% | 49.2% | 47.5% | 51.7% | 60.3% | 51.6% |
| Use water only | 10.7% | 10.1% | 9.6% | 8.0% | 10.0% | 28.5% | 21.6% |

* *Red font indicates that the value significantly differs from the current 2024 value.*

Figure 15. Vehicle washing behaviors across years.



Those who reported washing their vehicle at home were asked about their water quality-related behaviors when washing their car. Response options were “Yes”, “No”, and “Not sure” for the following statements:

- I wash it on the grass, gravel, or dirt
- I use environmentally friendly detergent
- I use water only (no soap or detergent)

Of the 21.0% of respondents that wash their vehicle at home, 52.7% report washing it on the grass, gravel, or dirt (Table 14 and Figure 14). Additionally, 51.6% report using environmentally friendly detergent. Respondents from Fairfax reported using environmentally friendly detergent at lower rates than respondents in other areas. Finally, 21.6% report only using water. A majority, 64.0%, report washing their vehicle at a commercial car wash. Home owners report washing their vehicle at commercial locations at higher rates than renters.

Next, those who report washing their vehicle at home were asked how many times per year they do so, with response options being “Less than once a year”, “1-2 times per year”, “3-4 times per year”, “5-6 times per year”, “7-12 times per year”, “12+ times per year”. These response rates can be seen in Table 16 and Figure 16. The most common response, at 27.3%, was 3-4 times per

year. Next, 23.5% report washing their vehicle at home 1-2 times per year, and 19.8% do so 5-6 times per year. Less commonly, 13.9% of those who wash their personal vehicle at home report doing so 7-12 times per year, 12.8% report doing so 12+ times per year, and 2.7% do so less than once per year. Hispanic participants reported washing vehicles 3-4 times per year at a lower rate than non-Latinos, 14.0% compared to 28.1% respectively. There are otherwise no demographic trends among frequency of home car washing.

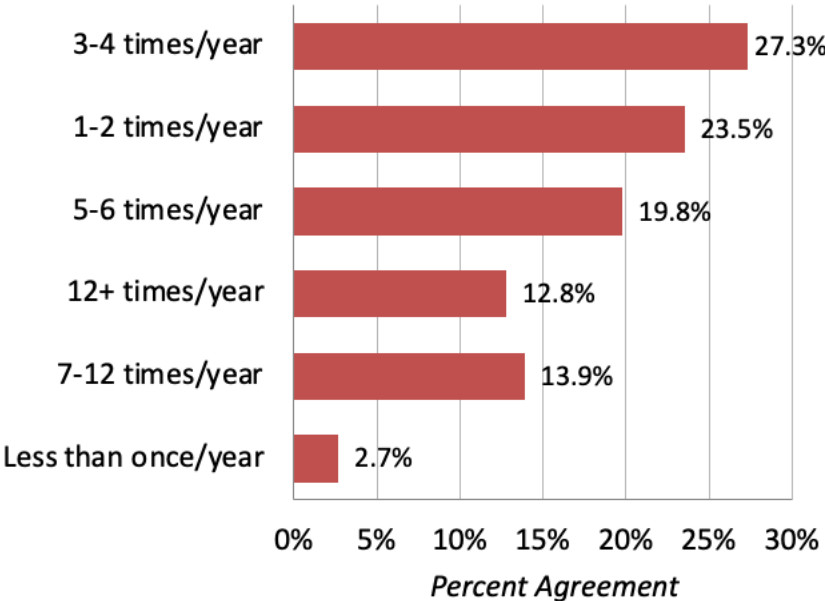
Table 16. Frequency of car washing at home by demographic group.

| Demographic | Sub-category | Frequency of Car Washing at Home | | | | | |
|--------------------|----------------------------|----------------------------------|--------------------|--------------------|--------------------|---------------------|--------------------|
| | | Less than once a year | 1-2 times per year | 3-4 times per year | 5-6 times per year | 7-12 times per year | 12+ times per year |
| | All Respondents | 2.7% | 23.5% | 27.3% | 19.8% | 13.9% | 12.8% |
| Gender | Male | 4.0% | 21.4% | 24.6% | 20.6% | 13.3% | 16.1% |
| | Female | 4.2% | 25.7% | 29.9% | 16.2% | 11.4% | 12.6% |
| Age | 21 to 24 | 6.1% | 31.8% | 28.8% | 10.6% | 10.6% | 12.1% |
| | 25 to 34 | 2.7% | 20.0% | 23.6% | 20.0% | 14.5% | 19.1% |
| | 35 to 44 | 4.9% | 14.8% | 19.7% | 26.2% | 14.8% | 19.7% |
| | 45 to 54 | 5.9% | 29.4% | 33.3% | 13.7% | 11.8% | 5.9% |
| | 55 to 64 | 3.3% | 23.3% | 33.3% | 13.3% | 13.3% | 13.3% |
| | 65 to 74 | 0.0% | 30.0% | 43.3% | 13.3% | 6.7% | 6.7% |
| | 75 or older | 0.0% | 50.0% | 25.0% | 25.0% | 0.0% | 0.0% |
| Locality | Alexandria | 5.4% | 23.2% | 21.4% | 10.7% | 16.1% | 23.2% |
| | Arlington | 4.8% | 21.4% | 33.3% | 19.0% | 4.8% | 16.7% |
| | Fairfax - Inclusive | 4.7% | 27.6% | 22.4% | 18.8% | 11.8% | 14.7% |
| | Prince William - Inclusive | 3.9% | 24.7% | 32.5% | 14.3% | 11.7% | 13.0% |
| | Leesburg/Loudon | 1.4% | 11.1% | 30.6% | 29.2% | 18.1% | 9.7% |
| Ethnicity | Not Hispanic/Latino | 4.0% | 23.5% | 28.1% | 18.2% | 12.8% | 13.4% |
| | Hispanic/Latino | 4.7% | 18.6% | 14.0% | 23.3% | 11.6% | 27.9% |
| Years of Residence | Less than 1 year | 13.0% | 21.7% | 21.7% | 4.3% | 26.1% | 13.0% |
| | 1 to 3 years | 4.1% | 27.8% | 26.8% | 13.4% | 9.3% | 18.6% |
| | 4 to 9 years | 2.8% | 23.9% | 26.6% | 16.5% | 11.0% | 19.3% |
| | 10 to 19 years | 4.2% | 17.7% | 24.0% | 27.1% | 18.8% | 8.3% |
| | 20 or more years | 3.3% | 22.8% | 30.4% | 21.7% | 8.7% | 13.0% |
| Home Ownership | Owned | 3.7% | 22.6% | 26.9% | 22.3% | 11.3% | 13.3% |
| | Rented | 4.6% | 24.8% | 26.6% | 7.3% | 16.5% | 20.2% |
| | Less than \$35,000 | 6.3% | 37.5% | 28.1% | 3.1% | 15.6% | 9.4% |

| Demographic | Sub-category | Frequency of Car Washing at Home | | | | | |
|------------------|------------------------|----------------------------------|--------------------|--------------------|--------------------|---------------------|--------------------|
| | | Less than once a year | 1-2 times per year | 3-4 times per year | 5-6 times per year | 7-12 times per year | 12+ times per year |
| Household Income | \$35,000 to \$49,999 | 3.1% | 25.0% | 25.0% | 9.4% | 18.8% | 18.8% |
| | \$50,000 to \$74,999 | 4.3% | 25.7% | 14.3% | 22.9% | 17.1% | 15.7% |
| | \$75,000 to \$99,999 | 2.3% | 24.1% | 19.5% | 18.4% | 16.1% | 19.5% |
| | \$100,000 to \$124,999 | 5.2% | 13.8% | 43.1% | 19.0% | 8.6% | 10.3% |
| | \$125,000 to \$149,999 | 3.6% | 27.3% | 29.1% | 23.6% | 3.6% | 12.7% |
| | \$150,000 to \$174,999 | 3.8% | 7.7% | 38.5% | 19.2% | 11.5% | 19.2% |
| | \$175,000 to \$199,999 | 10.5% | 21.1% | 21.1% | 26.3% | 15.8% | 5.3% |
| | \$200,000 or greater | 2.6% | 21.1% | 31.6% | 21.1% | 7.9% | 15.8% |

* *Red font* indicates significant differences within a demographic subgroup.

Figure 16. Frequency of car washing at home.



2.3.7 Home Landscaping Water Conservation

Respondents were asked about their familiarity with and possession of various water conservation methods including rain barrels, rain gardens, and conservation landscaping. Results are summarized in Table 17 and displayed in Figure 17. Survey participants were given a definition of each conservation method and asked “Which of the following statements are true for you?” with response options “Yes”, “No”, and “Don’t know” for the listed statements (using rain barrels as an example):

- I have a rain barrel.
- I am familiar with rain barrels.
- I don’t have a rain barrel but I’m interested in getting one.

When asked about rain barrels, 25.0% report having one, 70.4% report being familiar with them, and 38.2% are interested in getting one. Regarding rain gardens, 21.6% have one, 43.8% are familiar with them and 33.3% are interested in getting one. Finally, when asked about their familiarity with conservation landscaping, 28.6% report having it, 50.8% report being familiar with it and 33.3% report being interested in installing it.

Table 17. Familiarity with home water conservation methods by demographic group.

| Demographic | Sub-category | Have Rain Barrel | Familiar with Rain Barrel | Want a Rain Barrel | Have Rain Garden | Familiar with Rain Garden | Want a Rain Garden | Have Cons. Landscape | Familiar with Cons. Landscape | Want Cons. Landscape |
|-------------|------------------------|------------------|---------------------------|--------------------|------------------|---------------------------|--------------------|----------------------|-------------------------------|----------------------|
| | All Respondents | 25.0% | 70.4% | 38.2% | 21.6% | 43.8% | 33.3% | 28.6% | 50.8% | 33.3% |
| Gender | Male | 22.6% | 74.6% | 42.3% | 22.5% | 48.5% | 36.8% | 33.1% | 56.8% | 34.6% |
| | Female | 27.5% | 66.0% | 34.6% | 20.9% | 39.1% | 30.2% | 24.4% | 45.1% | 32.0% |
| Age | 21 to 24 | 17.1% | 48.7% | 52.6% | 17.5% | 46.3% | 30.8% | 32.5% | 51.2% | 31.6% |
| | 25 to 34 | 39.8% | 62.1% | 37.1% | 32.3% | 53.0% | 40.4% | 34.6% | 49.5% | 36.9% |
| | 35 to 44 | 40.2% | 70.9% | 43.9% | 35.1% | 53.1% | 37.6% | 36.6% | 58.0% | 38.9% |
| | 45 to 54 | 24.7% | 75.7% | 40.3% | 16.9% | 44.4% | 32.9% | 27.8% | 55.6% | 38.0% |
| | 55 to 64 | 10.4% | 79.7% | 36.9% | 7.5% | 30.9% | 33.8% | 14.9% | 37.3% | 30.8% |
| | 65 to 74 | 5.4% | 74.1% | 28.6% | 12.3% | 32.7% | 23.6% | 25.0% | 51.9% | 25.5% |
| | 75 or older | ** | 82.4% | 21.2% | 3.1% | 24.2% | 15.2% | 12.5% | 45.5% | 14.7% |
| Locality | Alexandria | 12.3% | 65.6% | 39.1% | 15.9% | 50.0% | 34.4% | 12.3% | 46.9% | 32.8% |
| | Arlington | 42.1% | 80.4% | 29.8% | 33.3% | 52.7% | 29.1% | 32.1% | 52.7% | 37.7% |

| Demographic | Sub-category | Have Rain Barrel | Familiar with Rain Barrel | Want a Rain Barrel | Have Rain Garden | Familiar with Rain Garden | Want a Rain Garden | Have Cons. Landscape | Familiar with Cons. Landscape | Want Cons. Landscape |
|--------------------|----------------------------|------------------|---------------------------|--------------------|------------------|---------------------------|--------------------|----------------------|-------------------------------|----------------------|
| | Fairfax - Inclusive | 16.8% | 64.0% | 42.0% | 16.4% | 39.1% | 31.6% | 27.0% | 49.2% | 30.9% |
| | Prince William - Inclusive | 21.1% | 70.2% | 40.0% | 15.6% | 37.9% | 31.3% | 22.9% | 41.5% | 38.7% |
| | Leesburg/Loudon | 44.3% | 80.2% | 33.3% | 35.6% | 49.5% | 40.7% | 47.7% | 65.6% | 30.2% |
| Ethnicity | Not Hispanic/Latino | 24.6% | 71.7% | 37.3% | 22.3% | 43.3% | 32.1% | 29.9% | 50.3% | 32.2% |
| | Hispanic/Latino | 28.6% | 59.2% | 46.8% | 14.9% | 48.0% | 43.8% | 16.7% | 54.9% | 43.5% |
| Years of Residence | Less than 1 year | 13.9% | 54.3% | 45.7% | 8.8% | 37.1% | 37.1% | 14.7% | 40.0% | 44.1% |
| | 1 to 3 years | 13.0% | 62.3% | 42.1% | 13.6% | 39.0% | 33.3% | 19.6% | 40.2% | 38.1% |
| | 4 to 9 years | 24.1% | 67.3% | 46.7% | 20.7% | 45.9% | 38.3% | 19.6% | 56.8% | 34.6% |
| | 10 to 19 years | 34.6% | 73.8% | 45.8% | 26.4% | 46.3% | 39.6% | 41.5% | 54.2% | 38.3% |
| | 20 or more years | 31.4% | 81.6% | 18.3% | 28.5% | 45.5% | 22.1% | 37.1% | 54.9% | 20.7% |
| Home Ownership | Owned | 32.8% | 75.7% | 36.9% | 26.8% | 47.2% | 33.2% | 35.9% | 57.2% | 33.7% |
| | Rented | 11.0% | 62.0% | 40.1% | 10.8% | 37.1% | 33.9% | 15.9% | 40.1% | 32.9% |
| Household Income | Less than \$35,000 | 14.5% | 54.8% | 36.1% | 9.8% | 36.1% | 29.5% | 16.1% | 40.3% | 30.0% |
| | \$35,000 to \$49,999 | 16.7% | 67.9% | 44.2% | 15.1% | 38.2% | 35.3% | 16.4% | 37.7% | 30.8% |
| | \$50,000 to \$74,999 | 16.1% | 65.0% | 38.1% | 17.7% | 36.1% | 27.4% | 23.8% | 46.8% | 27.9% |
| | \$75,000 to \$99,999 | 26.0% | 68.0% | 43.7% | 19.6% | 38.2% | 33.3% | 25.5% | 45.6% | 37.5% |
| | \$100,000 to \$124,999 | 36.2% | 63.8% | 38.6% | 33.3% | 52.9% | 45.6% | 38.2% | 64.7% | 42.9% |
| | \$125,000 to \$149,999 | 38.6% | 81.8% | 30.2% | 35.6% | 53.3% | 25.0% | 40.0% | 62.2% | 25.0% |
| | \$150,000 to \$174,999 | 33.3% | 90.5% | 30.0% | 23.8% | 57.1% | 35.0% | 52.4% | 66.7% | 21.1% |
| | \$175,000 to \$199,999 | 42.3% | 85.2% | 31.8% | 40.0% | 72.0% | 36.4% | 45.8% | 73.1% | 45.5% |
| | \$200,000 or greater | 14.3% | 88.6% | 35.7% | 11.9% | 38.6% | 31.0% | 27.9% | 45.2% | 31.0% |

* *Red font indicates significant differences within a demographic subgroup.*

** *Insufficient data for between-group comparison*

There were no significant differences in response rates regarding home water conservation methods from 2023 to 2024. These can be seen below in Table 18.

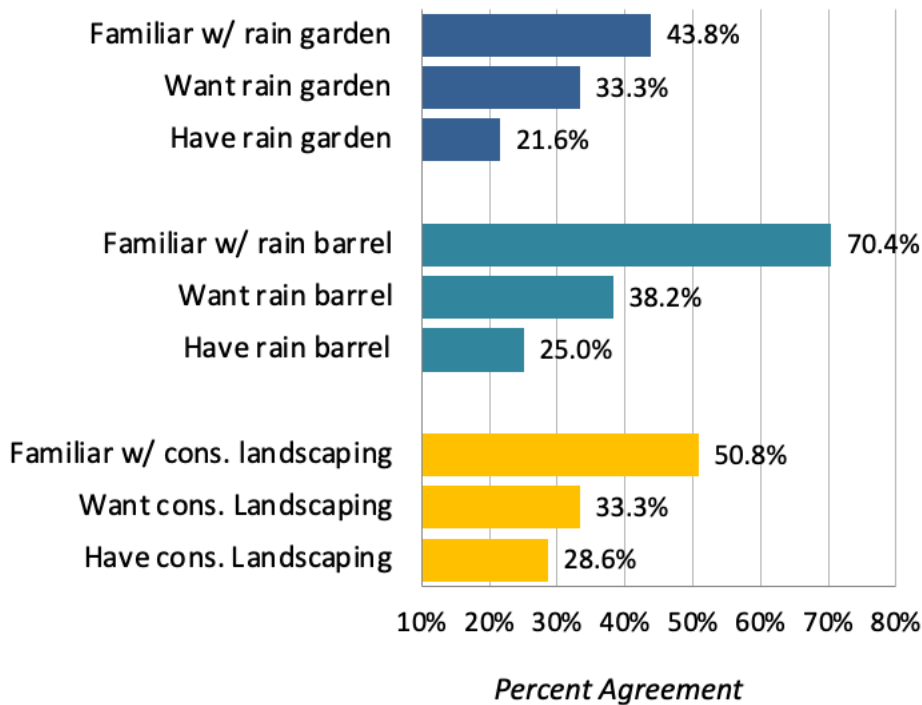
Table 18. Familiarity with home water conservation methods across years.

| Survey Question Response | Year of Survey | | | | | | |
|-----------------------------------|----------------|------|------|------|------|-------|-------|
| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| Have Rain Barrel | * | * | * | * | * | 27.7% | 25.0% |
| Familiar Rain Barrel | * | * | * | * | * | 70.7% | 70.4% |
| Want Rain Barrel | * | * | * | * | * | 44.9% | 38.2% |
| Have Rain Garden | * | * | * | * | * | 25.5% | 21.6% |
| Familiar Rain Garden | * | * | * | * | * | 50.5% | 43.8% |
| Want Rain Garden | * | * | * | * | * | 41.6% | 33.3% |
| Have Conservation Landscaping | * | * | * | * | * | 37.1% | 28.6% |
| Familiar Conservation Landscaping | * | * | * | * | * | 59.1% | 50.8% |
| Want Conservation Landscaping | * | * | * | * | * | 42.0% | 33.3% |

* *Red font* indicates that the value significantly differs from the current 2024 value. There are no significant differences from the 2024 value in this table.

* Question did not appear on survey.

Figure 17. Familiarity with home water conservation methods.



Men show greater familiarity with rain barrels and conservation landscaping as well as higher rates of currently having conservation landscaping, as shown in Table 17. Respondents aged 35 to 44 report the greatest frequency of having a rain barrel and having a rain garden.

Leesburg/Loudon residents reported the highest frequency of having a rain barrel, a rain garden, and conservation landscaping, compared to other localities. Additionally, they also exhibit the highest rates of being familiar with conservation landscaping. Respondents who have lived in their homes for longer periods of time tended to report having rain barrels and conservation landscaping at higher rates than those who have lived in their residences for shorter periods of times. They also reported higher rates of being familiar with rain barrels. Home owners reported higher rates of having rain barrels, rain gardens, and conservation landscaping than renters. They also reported higher rates of familiarity with rain barrels and conservation landscaping. Finally, people with higher household incomes tended to report higher rates of familiarity with rain barrels.

2.3.8 Engagement in Water Quality Improvement Activities

Respondents were asked about their awareness of and engagement in community activities that promote better water quality in the past 12 months. Results are summarized in Table 19 and displayed in Figure 18. When asked about their familiarity with water quality activities, 25.9% report being aware of a water quality activity in the past 12 months. Respondents in Arlington reported the highest rates of awareness, as did home owners. Of those who were aware of an event in the past 12 months, 53.5% report participating in the event. Men reported higher rates of participation compared to women. People who have lived in their residence for only 1 to 3 years reported the lowest rates of participation.

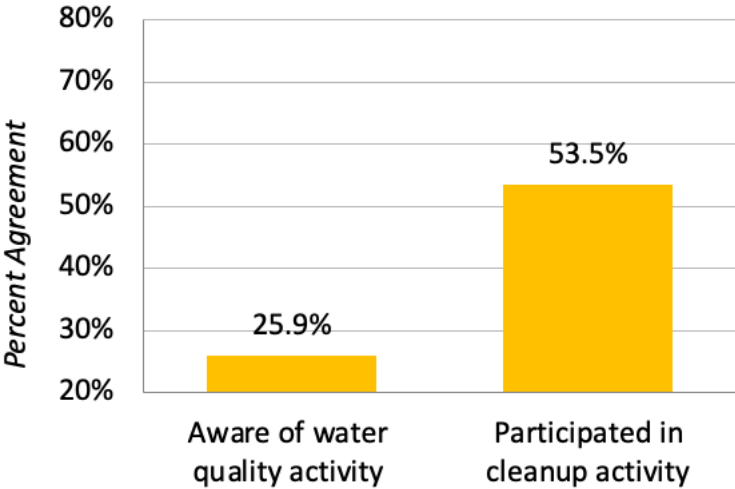
Table 19. Cleanup engagement behaviors by demographic group.

| Demographic | Sub-category | Aware of Water Quality Activity in Last 12 Months | Participated in Cleanup Activity in Last 12 Months |
|--------------------|----------------------------|---|--|
| | All Respondents | 25.9% | 53.5% |
| Gender | Male | 27.0% | 62.7% |
| | Female | 24.9% | 43.5% |
| Age | 21 to 24 | 19.0% | 62.5% |
| | 25 to 34 | 36.8% | 61.5% |
| | 35 to 44 | 35.4% | 65.0% |
| | 45 to 54 | 18.9% | 42.9% |
| | 55 to 64 | 15.9% | 45.5% |
| | 65 to 74 | 15.3% | 22.2% |
| | 75 or older | 22.2% | 12.5% |
| Locality | Alexandria | 21.5% | 35.7% |
| | Arlington | 40.7% | 58.3% |
| | Fairfax - Inclusive | 23.8% | 38.6% |
| | Prince William - Inclusive | 19.6% | 68.4% |
| | Leesburg/Loudon | 30.1% | 71.4% |
| Ethnicity | Not Hispanic/Latino | 26.0% | 52.6% |
| | Hispanic/Latino | 25.0% | 61.5% |
| Years of Residence | Less than 1 year | 19.4% | 42.9% |
| | 1 to 3 years | 18.3% | 25.0% |
| | 4 to 9 years | 26.1% | 70.0% |
| | 10 to 19 years | 33.6% | 59.5% |
| | 20 or more years | 27.1% | 51.4% |
| Home Ownership | Owned | 30.6% | 56.8% |
| | Rented | 17.1% | 46.7% |

| Demographic | Sub-category | Aware of Water Quality Activity in Last 12 Months | Participated in Cleanup Activity in Last 12 Months |
|------------------|------------------------|---|--|
| Household Income | Less than \$35,000 | 23.8% | 26.7% |
| | \$35,000 to \$49,999 | 19.6% | 63.6% |
| | \$50,000 to \$74,999 | 10.8% | 57.1% |
| | \$75,000 to \$99,999 | 29.2% | 45.2% |
| | \$100,000 to \$124,999 | 39.4% | 50.0% |
| | \$125,000 to \$149,999 | 35.6% | 81.3% |
| | \$150,000 to \$174,999 | 27.3% | 33.3% |
| | \$175,000 to \$199,999 | 34.6% | 77.8% |
| | \$200,000 or greater | 13.3% | 66.7% |

* *Red font indicates significant differences within a demographic subgroup.*

Figure 18. Cleanup activity engagement.



Response rates regarding cleanup engagement behaviors from years 2018-2024 can be seen below in Table 20. Respondents in 2018 and 2019 reported lower rates of participating in activities than 2024 respondents. Otherwise, there were no significant differences in previous years responses when compared to 2024.

Table 20. Cleanup engagement behaviors across years.

| Survey Question Response | Year of Survey | | | | | | |
|----------------------------|----------------|-------|-------|-------|-------|-------|-------|
| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| Heard about activities | 24.6% | 21.0% | 25.2% | 30.4% | 24.4% | 33.2% | 25.9% |
| Participated in activities | 26.0% | 29.5% | 60.3% | 53.9% | 59.8% | 68.5% | 53.5% |

* *Red font* indicates that the value significantly differs from the current 2024 value. There are no significant differences from the 2024 value in this table.

2.3.9 Roadway Materials

Four new questions were added to the 2024 survey instrument to measure residents’ behaviors and perceptions related to roadway materials for icy conditions. The new questions are:

- **During snowy and icy conditions, how often (if at all) do you (or a family member) apply deicer (e.g., salt) at your residence?** [always or most of the time, frequently, sometimes, occasionally, rarely, never, don’t know]
- [skipped if the “rarely” or “never” was given in the previous question] **Do you (or a family member) typically apply deicer (e.g., salt) at your residence before, during, or after a winter storm event?** [Select all that apply: Before, During, After Depends / varies too much to say, Other, Don’t know]
- **During snowy and icy conditions, how often (if at all) do you (or a family member) apply an abrasive for traction (e.g., sand) at your residence?** [always or most of the time, frequently, sometimes, occasionally, rarely, never, don’t know]
- **In general, how would you rate the impact (if any) on each of the following from using salt for winter storm events?** [5-point scale from “very positive” to “ery negative”, and “don’t know/not sure”]: Tap/Drinking water, local waterways, emergency vehicle safety, motorist safety, pedestrian safety, economic and civic activity.

Respondents varied in frequency of applying deicer at their residences, with about one third reporting “always or frequently”, one-third reporting “Sometimes or occasionally” and one third reporting “rarely or never”. Deicer use varies by location, with fewer respondents in Arlington and Leesburg/Loudon reporting the use of deicer “always or frequently”.

Table 21. Frequency of applying a deicer at one's residence, by demographic group.

| Demographic | Sub-category | Always or frequently | Sometimes or Occasionally | Rarely or never |
|--------------------|----------------------------|----------------------|---------------------------|-----------------|
| | All Respondents | 33.7% | 37.2% | 29.2% |
| Gender | Male | 31.6% | 38.9% | 29.5% |
| | Female | 35.7% | 35.7% | 28.6% |
| Age | 21 to 24 | 45.0% | 27.5% | 27.5% |
| | 25 to 34 | 46.6% | 41.7% | 11.7% |
| | 35 to 44 | 34.9% | 47.7% | 17.4% |
| | 45 to 54 | 31.5% | 38.4% | 30.1% |
| | 55 to 64 | 20.3% | 31.9% | 47.8% |
| | 65 to 74 | 20.3% | 27.1% | 52.5% |
| | 75 or older | 32.4% | 26.5% | 41.2% |
| Locality | Alexandria | 34.9% | 33.3% | 31.7% |
| | Arlington | 19.6% | 44.6% | 35.7% |
| | Fairfax - Inclusive | 33.3% | 38.3% | 28.3% |
| | Prince William - Inclusive | 46.3% | 26.3% | 27.4% |
| | Leesburg/Loudon | 29.0% | 44.1% | 26.9% |
| Ethnicity | Not Hispanic/Latino | 33.0% | 37.1% | 30.0% |
| | Hispanic/Latino | 40.0% | 38.0% | 22.0% |
| Years of Residence | Less than 1 year | 44.1% | 38.2% | 17.6% |
| | 1 to 3 years | 38.5% | 29.8% | 31.7% |
| | 4 to 9 years | 34.2% | 39.6% | 26.1% |
| | 10 to 19 years | 38.5% | 38.5% | 22.9% |
| | 20 or more years | 22.5% | 39.5% | 38.0% |
| Home Ownership | Owned | 30.8% | 39.3% | 29.9% |
| | Rented | 38.9% | 33.5% | 27.5% |
| Household Income | Less than \$35,000 | 43.1% | 29.3% | 27.6% |
| | \$35,000 to \$49,999 | 45.3% | 26.4% | 28.3% |
| | \$50,000 to \$74,999 | 32.3% | 52.3% | 15.4% |
| | \$75,000 to \$99,999 | 32.7% | 34.6% | 32.7% |
| | \$100,000 to \$124,999 | 22.9% | 47.1% | 30.0% |
| | \$125,000 to \$149,999 | 40.0% | 35.6% | 24.4% |
| | \$150,000 to \$174,999 | 14.3% | 47.6% | 38.1% |
| | \$175,000 to \$199,999 | 29.6% | 33.3% | 37.0% |
| | \$200,000 or greater | 34.1% | 27.3% | 38.6% |

* *Red font indicates significant differences within a demographic subgroup. Because the frequency categories are correlated (i.e., the sum to 100%), statistical tests were only run for the "Always or frequently" category.*

Responses also varied in terms of when a deicer is used, if used at all. Among those reporting deicer use, approximately one third used them before and after a storm. Fewer (21.8%) use deicers during a storm, and 15.4% responded that it depends on the circumstances/it varies. Older adults are less likely than younger adults to use deicer before and during a storm. Further, fewer low-income respondents use deicer before or during a storm compared to middle- and middle-to-higher income respondents; however, the highest income respondents also report less frequent use before and during storms, relative to middle- and middle-to-higher income respondents.

Table 22. When respondents apply deicers, by demographic group.

| Demographic | Sub-category | Before Storm | During Storm | After Storm | Depends |
|--------------------|----------------------------|--------------|--------------|--------------|--------------|
| | All Respondents | 31.2% | 21.8% | 31.6% | 15.4% |
| Gender | Male | 33.9% | 23.8% | 34.7% | 13.7% |
| | Female | 28.4% | 20.0% | 28.8% | 17.2% |
| Age | 21 to 24 | 45.2% | 16.7% | 28.6% | 14.3% |
| | 25 to 34 | 34.9% | 30.2% | 38.7% | 20.8% |
| | 35 to 44 | 33.3% | 26.3% | 40.4% | 16.7% |
| | 45 to 54 | 41.9% | 32.4% | 28.4% | 13.5% |
| | 55 to 64 | 17.4% | 15.9% | 20.3% | 14.5% |
| | 65 to 74 | 18.6% | 1.7% | 23.7% | 15.3% |
| | 75 or older | 22.2% | 11.1% | 27.8% | 2.8% |
| Locality | Alexandria | 29.2% | 20.0% | 29.2% | 20.0% |
| | Arlington | 25.4% | 25.4% | 27.1% | 11.9% |
| | Fairfax - Inclusive | 33.0% | 19.5% | 28.6% | 14.6% |
| | Prince William - Inclusive | 41.2% | 18.6% | 34.0% | 14.4% |
| | Leesburg/Loudon | 22.3% | 28.7% | 39.4% | 17.0% |
| Ethnicity | Not Hispanic/Latino | 29.9% | 21.4% | 30.1% | 16.3% |
| | Hispanic/Latino | 42.3% | 25.0% | 44.2% | 7.7% |
| Years of Residence | Less than 1 year | 25.0% | 19.4% | 22.2% | 27.8% |
| | 1 to 3 years | 33.9% | 14.7% | 25.7% | 13.8% |
| | 4 to 9 years | 36.5% | 23.5% | 27.0% | 18.3% |

| Demographic | Sub-category | Before Storm | During Storm | After Storm | Depends |
|------------------|------------------------|--------------|--------------|-------------|---------|
| | 10 to 19 years | 36.0% | 31.5% | 44.1% | 13.5% |
| | 20 or more years | 21.7% | 18.6% | 32.6% | 12.4% |
| Home Ownership | Owned | 29.3% | 24.8% | 35.7% | 14.5% |
| | Rented | 35.4% | 17.1% | 23.4% | 17.1% |
| Household Income | Less than \$35,000 | 23.8% | 17.5% | 19.0% | 15.9% |
| | \$35,000 to \$49,999 | 41.1% | 5.4% | 25.0% | 16.1% |
| | \$50,000 to \$74,999 | 41.5% | 24.6% | 49.2% | 10.8% |
| | \$75,000 to \$99,999 | 25.5% | 19.8% | 35.8% | 17.0% |
| | \$100,000 to \$124,999 | 26.8% | 32.4% | 35.2% | 16.9% |
| | \$125,000 to \$149,999 | 44.4% | 24.4% | 35.6% | 8.9% |
| | \$150,000 to \$174,999 | 27.3% | 22.7% | 22.7% | 13.6% |
| | \$175,000 to \$199,999 | 29.6% | 33.3% | 29.6% | 18.5% |
| | \$200,000 or greater | 24.4% | 22.2% | 17.8% | 20.0% |

* Red font indicates significant differences within a demographic subgroup.

The use of roadway abrasives is less common than salt use: 17.2% of respondents use abrasives “always or frequently”, and slightly more than half use them “rarely or never”. Older adults report using abrasives “always or frequently” less commonly than younger adults.

Table 23. Frequency of applying an abrasive at one’s residence, by demographic group.

| Demographic | Sub-category | Always or frequently | Sometimes or Occasionally | Rarely or never |
|-------------|------------------------|----------------------|---------------------------|-----------------|
| | All Respondents | 17.2% | 27.7% | 55.1% |
| Gender | Male | 19.4% | 27.0% | 53.6% |
| | Female | 14.7% | 28.1% | 57.1% |
| Age | 21 to 24 | 18.4% | 15.8% | 65.8% |
| | 25 to 34 | 24.7% | 42.3% | 33.0% |
| | 35 to 44 | 28.7% | 32.4% | 38.9% |
| | 45 to 54 | 10.3% | 27.9% | 61.8% |
| | 55 to 64 | 10.3% | 17.6% | 72.1% |

| Demographic | Sub-category | Always or frequently | Sometimes or Occasionally | Rarely or never |
|--------------------|----------------------------|----------------------|---------------------------|-----------------|
| | 65 to 74 | 5.2% | 19.0% | 75.9% |
| | 75 or older | 6.1% | 18.2% | 75.8% |
| Locality | Alexandria | 18.0% | 21.3% | 60.7% |
| | Arlington | 17.3% | 30.8% | 51.9% |
| | Fairfax - Inclusive | 14.7% | 27.1% | 58.2% |
| | Prince William - Inclusive | 26.6% | 13.8% | 59.6% |
| | Leesburg/Loudon | 11.8% | 45.2% | 43.0% |
| | | | | |
| Ethnicity | Not Hispanic/Latino | 17.3% | 26.8% | 55.8% |
| | Hispanic/Latino | 16.3% | 34.7% | 49.0% |
| Years of Residence | Less than 1 year | 18.2% | 18.2% | 63.6% |
| | 1 to 3 years | 15.8% | 20.0% | 64.2% |
| | 4 to 9 years | 19.4% | 29.6% | 50.9% |
| | 10 to 19 years | 24.3% | 32.7% | 43.0% |
| | 20 or more years | 10.2% | 29.9% | 59.8% |
| Home Ownership | Owned | 18.4% | 29.5% | 52.1% |
| | Rented | 14.5% | 23.7% | 61.8% |
| Household Income | Less than \$35,000 | 18.9% | 22.6% | 58.5% |
| | \$35,000 to \$49,999 | 18.8% | 27.1% | 54.2% |
| | \$50,000 to \$74,999 | 11.1% | 28.6% | 60.3% |
| | \$75,000 to \$99,999 | 15.7% | 30.4% | 53.9% |
| | \$100,000 to \$124,999 | 17.4% | 34.8% | 47.8% |
| | \$125,000 to \$149,999 | 25.6% | 30.2% | 44.2% |
| | \$150,000 to \$174,999 | 9.1% | 27.3% | 63.6% |
| | \$175,000 to \$199,999 | 29.6% | 18.5% | 51.9% |
| | \$200,000 or greater | 14.0% | 18.6% | 67.4% |

* *Red font indicates significant differences within a demographic subgroup. Because the frequency categories are correlated (i.e., the sum to 100%), statistical tests were only run for the “Always or frequently” category.*

Finally, respondents were asked about their perceptions, positive and negative, of the impact of roadway salt use on various factors. The majority of respondents feel that roadway salt use has a positive impact on emergency vehicle safety (61.8%), motorist safety (65.1%), and pedestrian safety (68.8%), as seen in Table 24. Less than one third view the impact on tap/drinking water

(31.1%) and local waterways as positive (30.5%). Perceptions of the positive impact of salt use on tap water and local waterways varied by age and by tenure in one’s residence.

Table 24. Perceived impact of roadway salting as “very positive” or “somewhat positive”, by demographic group.

| Demographic | Sub-category | Tap water | Local waterways | Emerg. vehicles | Motorist safety | Ped. safety | Eco. and civic act. |
|--------------------|----------------------------|--------------|-----------------|-----------------|-----------------|--------------|---------------------|
| | All Respondents | 31.1% | 30.5% | 61.8% | 65.1% | 68.8% | 45.5% |
| Gender | Male | 31.4% | 32.4% | 63.9% | 66.5% | 69.6% | 49.5% |
| | Female | 31.0% | 28.8% | 59.9% | 63.9% | 68.2% | 41.5% |
| Age | 21 to 24 | 29.3% | 28.1% | 58.1% | 53.1% | 59.4% | 28.1% |
| | 25 to 34 | 53.4% | 51.7% | 73.6% | 69.0% | 72.1% | 52.9% |
| | 35 to 44 | 44.7% | 42.6% | 67.6% | 65.0% | 66.3% | 56.4% |
| | 45 to 54 | 23.0% | 20.6% | 64.7% | 72.1% | 80.9% | 52.9% |
| | 55 to 64 | 13.0% | 17.7% | 53.2% | 62.3% | 72.6% | 37.7% |
| | 65 to 74 | 10.2% | 13.7% | 47.1% | 64.7% | 60.8% | 39.2% |
| | 75 or older | 11.4% | 9.1% | 50.0% | 58.8% | 57.6% | 18.2% |
| Locality | Alexandria | 25.0% | 25.5% | 57.9% | 68.4% | 66.7% | 55.4% |
| | Arlington | 39.7% | 40.7% | 74.5% | 69.1% | 70.9% | 56.4% |
| | Fairfax - Inclusive | 28.1% | 25.0% | 62.7% | 63.9% | 66.7% | 38.0% |
| | Prince William - Inclusive | 30.2% | 26.3% | 53.2% | 64.6% | 73.8% | 48.1% |
| | Leesburg/Loudon | 37.0% | 41.4% | 62.8% | 63.2% | 68.2% | 43.5% |
| Ethnicity | Not Hispanic/Latino | 29.7% | 29.9% | 61.3% | 64.9% | 69.2% | 45.2% |
| | Hispanic/Latino | 44.0% | 35.7% | 67.5% | 67.5% | 65.0% | 48.7% |
| Years of Residence | Less than 1 year | 28.6% | 40.0% | 51.6% | 51.6% | 54.8% | 45.2% |
| | 1 to 3 years | 32.4% | 23.9% | 63.0% | 66.3% | 73.1% | 43.0% |
| | 4 to 9 years | 33.9% | 35.0% | 62.2% | 70.0% | 71.4% | 45.9% |
| | 10 to 19 years | 38.7% | 40.4% | 67.7% | 70.1% | 73.7% | 58.2% |
| | 20 or more years | 21.7% | 20.9% | 58.3% | 59.3% | 62.5% | 36.3% |
| Home Ownership | Owned | 33.8% | 31.8% | 64.1% | 66.2% | 70.5% | 44.5% |
| | Rented | 25.9% | 27.5% | 57.2% | 64.2% | 65.8% | 46.4% |
| Household Income | Less than \$35,000 | 27.9% | 24.0% | 46.0% | 52.0% | 54.9% | 32.0% |
| | \$35,000 to \$49,999 | 20.4% | 28.0% | 56.0% | 64.0% | 69.4% | 50.0% |

| Demographic | Sub-category | Tap water | Local waterways | Emerg. vehicles | Motorist safety | Ped. safety | Eco. and civic act. |
|-------------|------------------------|-----------|-----------------|-----------------|-----------------|-------------|---------------------|
| | \$50,000 to \$74,999 | 35.9% | 29.6% | 61.1% | 72.7% | 76.4% | 56.4% |
| | \$75,000 to \$99,999 | 34.0% | 35.6% | 63.3% | 66.3% | 66.7% | 43.3% |
| | \$100,000 to \$124,999 | 36.6% | 31.7% | 69.8% | 64.5% | 73.0% | 46.8% |
| | \$125,000 to \$149,999 | 37.8% | 40.9% | 75.0% | 74.4% | 69.8% | 53.5% |
| | \$150,000 to \$174,999 | 31.8% | 22.2% | 64.7% | 64.7% | 76.5% | 52.9% |
| | \$175,000 to \$199,999 | 44.4% | 44.0% | 80.0% | 80.0% | 69.6% | 62.5% |
| | \$200,000 or greater | 11.1% | 14.3% | 47.6% | 52.4% | 69.0% | 23.8% |

* *Red font indicates significant differences within a demographic subgroup.*

Respondents more frequently perceive the impact of salting on local waterways as negative, as seen in Table 25. Additionally, older adults more frequently perceive the impact of salt as on tap water and local waterways as negative, compared to other age groups.

Table 25. Perceived impact of roadway salting as “very negative” or “somewhat negative”, by demographic group.

| Demographic | Sub-category | Tap water | Local waterways | Emerg. vehicles | Motorist safety | Ped. safety | Eco. and civic act. |
|-------------|------------------------|--------------|-----------------|-----------------|-----------------|-------------|---------------------|
| | All Respondents | 33.1% | 41.3% | 10.6% | 12.2% | 9.5% | 10.2% |
| Gender | Male | 32.2% | 41.1% | 10.2% | 10.7% | 7.9% | 9.3% |
| | Female | 33.5% | 40.9% | 10.6% | 13.4% | 10.6% | 10.6% |
| Age | 21 to 24 | 19.5% | 40.6% | 6.5% | 18.8% | 18.8% | 15.6% |
| | 25 to 34 | 16.5% | 21.3% | 8.0% | 12.6% | 8.1% | 6.9% |
| | 35 to 44 | 26.3% | 24.8% | 11.8% | 16.0% | 11.9% | 10.9% |
| | 45 to 54 | 40.5% | 47.1% | 8.8% | 7.4% | 5.9% | 8.8% |
| | 55 to 64 | 39.1% | 59.7% | 12.9% | 11.5% | 6.5% | 11.5% |
| | 65 to 74 | 59.3% | 62.7% | 15.7% | 7.8% | 9.8% | 11.8% |
| | 75 or older | 48.6% | 66.7% | 8.8% | 11.8% | 9.1% | 9.1% |
| Locality | Alexandria | 32.8% | 40.0% | 10.5% | 8.8% | 10.5% | 12.5% |
| | Arlington | 36.2% | 37.0% | 5.5% | 9.1% | 10.9% | 7.3% |
| | Fairfax - Inclusive | 33.5% | 47.5% | 10.8% | 12.3% | 9.0% | 8.9% |

| Demographic | Sub-category | Tap water | Local water-ways | Emerg. vehicles | Motorist safety | Ped. safety | Eco. and civic act. |
|--------------------|----------------------------|-----------|------------------|-----------------|-----------------|-------------|---------------------|
| | Prince William - Inclusive | 32.3% | 45.0% | 16.5% | 13.9% | 8.8% | 13.9% |
| | Leesburg/Loudon | 31.5% | 29.9% | 8.1% | 14.9% | 9.4% | 9.4% |
| Ethnicity | Not Hispanic/Latino | 33.9% | 42.6% | 10.9% | 13.0% | 9.7% | 10.9% |
| | Hispanic/Latino | 26.0% | 28.6% | 7.5% | 5.0% | 7.5% | 2.6% |
| Years of Residence | Less than 1 year | 22.9% | 33.3% | 16.1% | 22.6% | 16.1% | 16.1% |
| | 1 to 3 years | 26.9% | 42.4% | 9.8% | 12.0% | 7.5% | 8.6% |
| | 4 to 9 years | 33.9% | 36.0% | 13.3% | 15.0% | 12.2% | 9.2% |
| | 10 to 19 years | 28.8% | 36.4% | 7.1% | 6.2% | 8.1% | 9.2% |
| | 20 or more years | 44.2% | 51.3% | 10.4% | 12.4% | 8.0% | 11.5% |
| Home Ownership | Owned | 34.7% | 42.7% | 9.9% | 12.1% | 9.2% | 11.0% |
| | Rented | 30.6% | 39.9% | 12.5% | 12.6% | 10.5% | 9.3% |
| Household Income | Less than \$35,000 | 34.4% | 48.0% | 20.0% | 22.0% | 17.6% | 20.0% |
| | \$35,000 to \$49,999 | 29.6% | 34.0% | 6.0% | 10.0% | 6.1% | 4.0% |
| | \$50,000 to \$74,999 | 23.4% | 25.9% | 7.4% | 7.3% | 5.5% | 3.6% |
| | \$75,000 to \$99,999 | 33.0% | 40.0% | 10.0% | 12.4% | 12.2% | 11.1% |
| | \$100,000 to \$124,999 | 28.2% | 33.3% | 9.5% | 8.1% | 7.9% | 11.3% |
| | \$125,000 to \$149,999 | 35.6% | 38.6% | 11.4% | 9.3% | 7.0% | 7.0% |
| | \$150,000 to \$174,999 | 50.0% | 66.7% | 11.8% | 17.6% | 11.8% | 17.6% |
| | \$175,000 to \$199,999 | 29.6% | 32.0% | 4.0% | 12.0% | 4.3% | 8.3% |
| | \$200,000 or greater | 48.9% | 73.8% | 14.3% | 16.7% | 9.5% | 11.9% |

2.4 Knowledge

2.4.3 Awareness of “Watersheds” and Household Hazardous Waste Disposal

Respondents were asked a series of questions in order to assess their knowledge about local water systems and stormwater drainage. Participants were asked if they were familiar with the term “watershed”. Regardless of the response (yes or no), all respondents were then shown this definition of the term:

A watershed is an area of land that channels rainfall and snowmelt to creeks, streams, and rivers, and eventually to outflow points such as reservoirs, bays, and the ocean.

Next, participants were asked where they believe stormwater goes, given the option “a wastewater treatment facility”, “the Potomac River or Chesapeake Bay”, “All of the above”, “None of the above”, and “Other”.

Of all respondents, 71.3% report that they are familiar with the term “watershed”, as can be seen in Table 26 and Figure 19. Men are more likely to be familiar with the term (78.5%) compared to women (64.6%). Otherwise, there are no strong demographic trends amongst respondents.

Table 26. Awareness of watersheds and knowledge of stormwater drainage by demographic group.

| Demographic | Sub-category | Know term "watershed" | Stormwater goes... | | | | | Know HHW Dro-off |
|--------------------|----------------------------|-----------------------|--------------------|-------------------|--------------|-------------|-------------|------------------|
| | | | WW Treatment | Potom. or Chespk. | All above | None | Other | |
| | All Respondents | 71.3% | 20.2% | 31.5% | 40.9% | 7.0% | 0.4% | 60.1% |
| Gender | Male | 78.5% | 20.2% | 33.1% | 41.9% | 4.8% | ** | 64.5% |
| | Female | 64.6% | 20.1% | 30.1% | 39.8% | 9.2% | 0.8% | 56.2% |
| Age | 21 to 24 | 75.0% | 19.0% | 35.7% | 40.5% | 4.8% | ** | 40.5% |
| | 25 to 34 | 67.9% | 27.4% | 27.4% | 37.7% | 7.5% | ** | 60.4% |
| | 35 to 44 | 71.4% | 19.3% | 28.1% | 44.7% | 7.9% | ** | 61.9% |
| | 45 to 54 | 76.7% | 25.7% | 23.0% | 50.0% | 1.4% | ** | 62.2% |
| | 55 to 64 | 66.2% | 15.9% | 31.9% | 40.6% | 11.6% | ** | 65.2% |
| | 65 to 74 | 66.1% | 13.8% | 39.7% | 36.2% | 8.6% | 1.7% | 54.2% |
| | 75 or older | 83.3% | 11.1% | 52.8% | 27.8% | 5.6% | 2.8% | 72.2% |
| Locality | Alexandria | 65.1% | 18.5% | 35.4% | 36.9% | 7.7% | 1.5% | 49.2% |
| | Arlington | 82.8% | 15.3% | 32.2% | 47.5% | 5.1% | ** | 69.5% |
| | Fairfax - Inclusive | 70.7% | 22.3% | 27.7% | 44.0% | 6.0% | ** | 58.7% |
| | Prince William - Inclusive | 74.2% | 22.7% | 34.0% | 35.1% | 8.2% | ** | 58.8% |
| | Leesburg/Loudon | 66.3% | 18.1% | 33.0% | 39.4% | 8.5% | 1.1% | 66.0% |
| Ethnicity | Not Hispanic/Latino | 72.9% | 19.7% | 31.3% | 41.6% | 6.9% | 0.4% | 60.2% |
| | Hispanic/Latino | 57.7% | 25.0% | 32.7% | 34.6% | 7.7% | ** | 59.6% |
| Years of Residence | Less than 1 year | 69.4% | 22.2% | 36.1% | 36.1% | 5.6% | ** | 20.0% |
| | 1 to 3 years | 63.9% | 22.9% | 35.8% | 33.0% | 7.3% | 0.9% | 48.6% |
| | 4 to 9 years | 75.0% | 20.0% | 25.2% | 47.0% | 7.0% | 0.9% | 64.3% |
| | 10 to 19 years | 71.6% | 22.5% | 29.7% | 41.4% | 6.3% | ** | 64.0% |

| Demographic | Sub-category | Know term "water shed" | Stormwater goes... | | | | | Know HHW Dro-off |
|------------------|------------------------|------------------------|--------------------|-------------------|-----------|-------|-------|------------------|
| | | | WW Treatment | Potom. or Chespk. | All above | None | Other | |
| | 20 or more years | 74.4% | 15.6% | 33.6% | 43.0% | 7.8% | ** | 73.6% |
| Home Ownership | Owned | 77.7% | 21.3% | 32.9% | 41.3% | 4.5% | ** | 71.0% |
| | Rented | 60.8% | 18.3% | 28.0% | 42.9% | 10.3% | 0.6% | 41.7% |
| Household Income | Less than \$35,000 | 54.8% | 17.5% | 25.4% | 44.4% | 11.1% | 1.6% | 32.3% |
| | \$35,000 to \$49,999 | 68.5% | 23.2% | 23.2% | 44.6% | 8.9% | ** | 46.4% |
| | \$50,000 to \$74,999 | 55.4% | 15.6% | 39.1% | 40.6% | 4.7% | ** | 63.1% |
| | \$75,000 to \$99,999 | 77.4% | 29.2% | 33.0% | 32.1% | 5.7% | ** | 58.5% |
| | \$100,000 to \$124,999 | 75.4% | 15.5% | 32.4% | 46.5% | 5.6% | ** | 69.0% |
| | \$125,000 to \$149,999 | 84.4% | 13.3% | 33.3% | 51.1% | 2.2% | ** | 73.3% |
| | \$150,000 to \$174,999 | 77.3% | 31.8% | 40.9% | 18.2% | 9.1% | ** | 77.3% |
| | \$175,000 to \$199,999 | 88.5% | 22.2% | 22.2% | 33.3% | 22.2% | ** | 70.4% |
| | \$200,000 or greater | 73.3% | 13.3% | 33.3% | 48.9% | 2.2% | 2.2% | 73.3% |

* *Red font indicates significant differences within a demographic subgroup.*

** *Insufficient data for between-group comparison.*

As seen in Table 26, 61.1% of respondents report believing it goes to a wastewater treatment facility (the sum of “wastewater treatment facility”, 20.2% and “all of the above”, 40.9%) and 72.3% report believing it goes into the Chesapeake Bay or Potomac River (the sum of “the Potomac River or Chesapeake Bay”, 31.5% and “all of the above”, 40.9%). Finally, 7.0% report believing it does not go to any of the listed locations and 0.4% report believing it goes to another place. There are no demographic trends. There is a significant increase, however, in the percentage of respondents who believe that stormwater goes to a wastewater treatment facility and either the Potomac River or Chesapeake Bay, as seen in the table below across years.

Figure 19. Knowledge of watersheds and HHW.

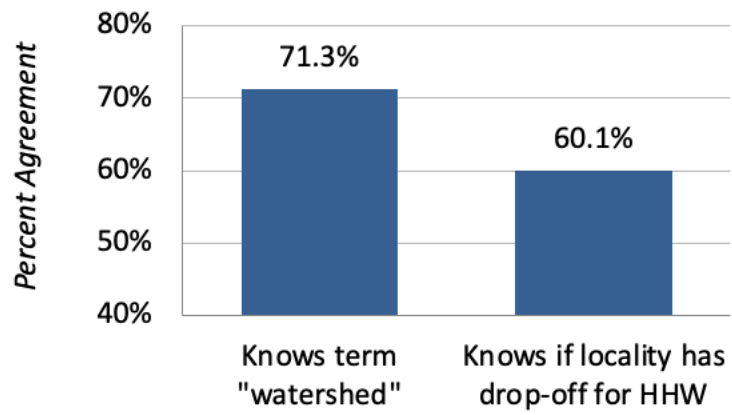


Figure 20. Stormwater destination beliefs.

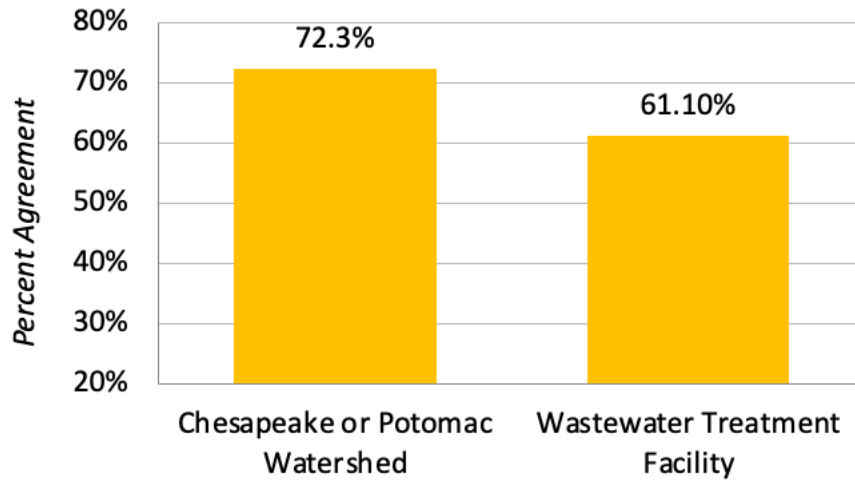


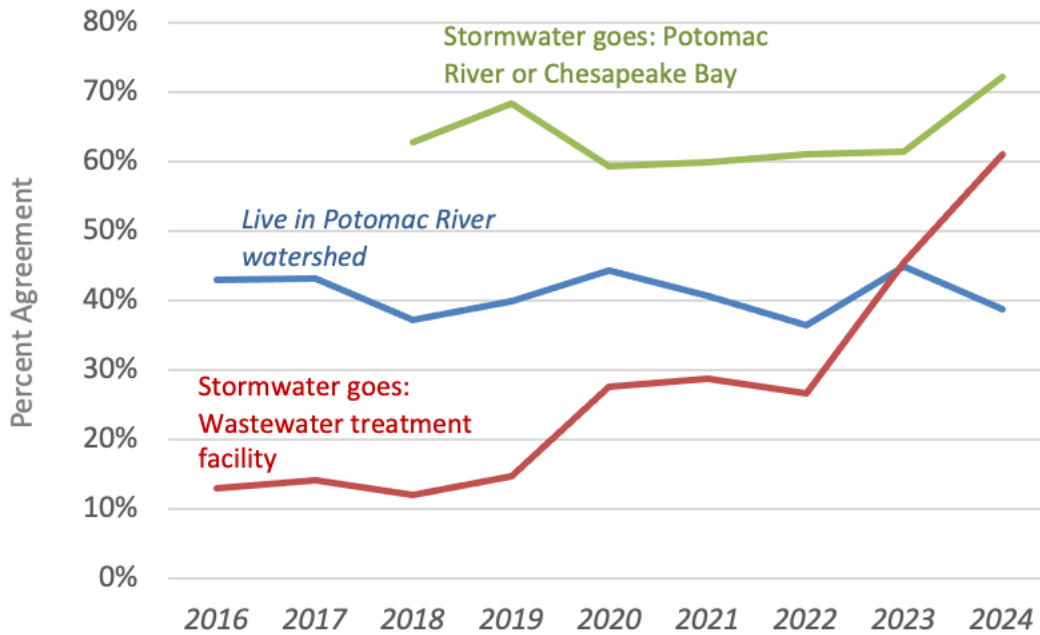
Table 27. Stormwater destination beliefs across years.

| Survey Questions Response | Year of Survey | | | | | | | | |
|--|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| "Yes" to Do you live in the Potomac River watershed? | 43.0% | 43.2% | 37.2% | 40.0% | 44.4% | 40.8% | 36.6% | 44.9% | 38.9% |
| "A wastewater treatment facility" to [Where does] storm water eventually end up? | 13.0% | 14.2% | 12.0% | 14.8% | 27.6% | 28.8% | 26.8% | 45.6% | 61.1% |
| "Potomac River or Chesapeake Bay" to [Where does] storm water eventually end up? | * | * | 62.8% | 68.4% | 59.4% | 60.0% | 61.2% | 61.6% | 72.3% |

* *Red font* indicates that the value significantly differs from the current 2024 value.

Asterisks (*) indicate that the question did not appear in the survey that year.

Figure 21. Storm water destination beliefs across years.



Participants were also asked whether they knew if their locality has a specific place for residents to drop off Household Hazardous Waste (HHW), with response options being “Yes, I know whether we have a location for drop-offs” and “No, I’m not sure whether we have a location for drop-offs”; refer to Table 26. When asked about HHW 60.1% of respondents report knowing if their locality has a specific drop off location for it, which can be seen in Table 26 and Figure 19.

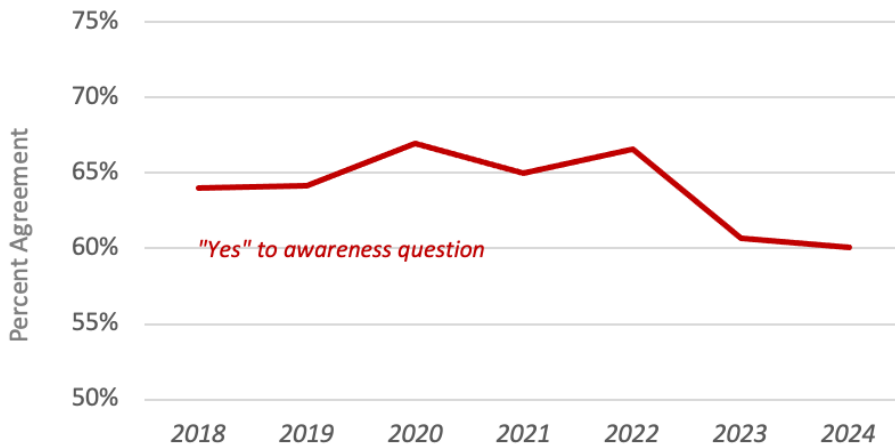
There were no significant differences in reports of being aware of an HHW drop-off facility in 2024 when compared to responses from surveys in 2018-2023. These rates can be seen below in Table 28.

Table 28. Awareness of HHW across years.

| Survey Question Response | Year of Survey | | | | | | | | |
|-----------------------------|----------------|------|-------|-------|-------|-------|-------|-------|-------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| "Yes" to awareness question | * | * | 64.0% | 64.2% | 67.0% | 65.0% | 66.6% | 60.7% | 60.1% |

* *Red font* indicates that the value significantly differs from the current 2024 value. Asterisks (*) indicate that the question did not appear in the survey that year.

Figure 22. Awareness of HHW across years.



2.4.4 Identifying the Local Watershed

Survey participants were asked “Do live in the...” and given a list of three watershed areas.

Response options were “Yes”, “No”, and “Don’t know” for the listed areas:

- Chesapeake Bay watershed?
- Potomac River watershed?
- Another watershed not listed?

For reference, a map of the Chesapeake Bay watershed and the Potomac River watershed can be seen below in Figure 24. As can be seen in Table 29 and Figure 23, 27.1% report that they live in the Chesapeake Bay watershed, 38.9% report that they live in the Potomac River watershed, and 7.5% report that they live in another watershed that was not listed in the survey. Men report higher rates of living in the Chesapeake Bay watershed or another watershed. Leesburg/Loudon

residents reported the Potomac River watershed as their local watershed at higher rates than residents of other localities. People who have lived in their residence for 10 to 19 years report the highest rates of living in the Chesapeake Bay watershed. Generally, people with higher incomes reported living in both the Chesapeake Bay watershed and Potomac River watershed at higher rates than those with lower incomes.

Table 29. Identifying the local watershed by demographic.

| Demographic | Sub-category | Chesapeake Bay watershed | Potomac River watershed | Another watershed |
|--------------------|----------------------------|--------------------------|-------------------------|-------------------|
| | All Respondents | 27.1% | 38.9% | 7.5% |
| Gender | Male | 37.0% | 43.3% | 11.9% |
| | Female | 17.8% | 34.9% | 3.4% |
| Age | 21 to 24 | 34.2% | 36.8% | 5.7% |
| | 25 to 34 | 23.5% | 33.3% | 11.1% |
| | 35 to 44 | 33.9% | 41.2% | 11.5% |
| | 45 to 54 | 23.6% | 40.8% | 5.6% |
| | 55 to 64 | 22.7% | 35.3% | 4.5% |
| | 65 to 74 | 28.6% | 45.3% | 2.1% |
| | 75 or older | 21.2% | 42.9% | 3.1% |
| Locality | Alexandria | 29.7% | 33.3% | 4.8% |
| | Arlington | 35.7% | 36.2% | 3.8% |
| | Fairfax - Inclusive | 28.5% | 34.5% | 6.5% |
| | Prince William - Inclusive | 22.8% | 37.0% | 14.1% |
| | Leesburg/Loudon | 21.6% | 54.9% | 6.4% |
| Ethnicity | Not Hispanic/Latino | 27.5% | 38.7% | 7.3% |
| | Hispanic/Latino | 23.9% | 40.4% | 9.5% |
| Years of Residence | Less than 1 year | 22.9% | 31.4% | 5.9% |
| | 1 to 3 years | 16.7% | 35.6% | 4.0% |
| | 4 to 9 years | 25.9% | 38.4% | 10.5% |
| | 10 to 19 years | 42.2% | 36.5% | 10.9% |
| | 20 or more years | 24.8% | 46.0% | 5.2% |
| Home Ownership | Owned | 33.9% | 40.4% | 8.9% |
| | Rented | 15.0% | 35.5% | 4.3% |
| Household Income | Less than \$35,000 | 11.7% | 24.1% | 3.5% |
| | \$35,000 to \$49,999 | 12.7% | 31.5% | 3.8% |
| | \$50,000 to \$74,999 | 19.4% | 37.5% | 3.4% |

| Demographic | Sub-category | Chesapeake Bay watershed | Potomac River watershed | Another watershed |
|-------------|------------------------|--------------------------|-------------------------|-------------------|
| | \$75,000 to \$99,999 | 33.0% | 39.6% | 8.2% |
| | \$100,000 to \$124,999 | 25.7% | 36.2% | 7.4% |
| | \$125,000 to \$149,999 | 31.0% | 37.2% | 9.8% |
| | \$150,000 to \$174,999 | 45.5% | 66.7% | 15.8% |
| | \$175,000 to \$199,999 | 60.0% | 63.0% | 20.0% |
| | \$200,000 or greater | 34.9% | 45.5% | 9.5% |

* *Red font indicates significant differences within a demographic subgroup.*

Figure 23. Local watershed identification.

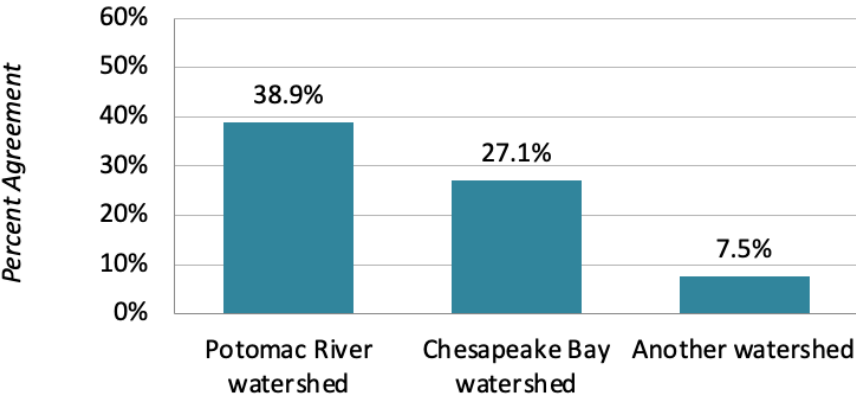


Figure 24. Map of Chesapeake Bay and Potomac River watersheds.¹



2.4.5 Identification of Pollution

Participants were provided with two images, as seen below (Figure 25), and asked if either photo contains a potential source of water pollution, with response options being “Yes”, “No”, “Not sure”, and “Cannot see image”. The results are summarized in Table 30 and displayed in Figure 26. When asked about the provided images, 80.8% report that yes, they would consider the images to be a potential source of water pollution. There were no demographic trends.

¹ Interstate Commission on the Potomac River Basin. (n.d.). *Potomac River Basin Atlas*. Potomac River Basin Atlas - Subwatersheds. <https://www.potomacriver.org/Atlas-Maps/Subwatersheds/>



2.4.6 Reporting Pollution and Barriers to Reporting Pollution

Participants were asked if they knew who to contact to report potential water pollution with the response options “I definitely know”, “I think I know”, “I don’t think I know”, and “I definitely don’t know”. They were also asked the likelihood that they would call officials to report potential pollution so it could be investigated with the response options being “I definitely would”, “I probably would”, “I’m equally likely to call and to not call”, “I probably would not”, and “I definitely would not”. The responses are summarized in Table 30 and Figure 25.

Table 30. Water pollution knowledge and behaviors by demographic group.

| Demographic | Sub-category | ID Water Pollution | Know Who to Contact | Would Call Officials |
|-------------|------------------------|--------------------|---------------------|----------------------|
| | All Respondents | 80.8% | 49.0% | 66.6% |
| Gender | Male | 81.8% | 54.0% | 68.3% |
| | Female | 80.0% | 44.4% | 65.1% |
| Age | 21 to 24 | 85.4% | 45.2% | 52.4% |

| Demographic | Sub-category | ID Water Pollution | Know Who to Contact | Would Call Officials |
|--------------------|----------------------------|--------------------|---------------------|----------------------|
| | All Respondents | 80.8% | 49.0% | 66.6% |
| | 25 to 34 | 81.1% | 53.8% | 65.7% |
| | 35 to 44 | 83.3% | 53.5% | 67.3% |
| | 45 to 54 | 86.3% | 48.6% | 68.9% |
| | 55 to 64 | 73.5% | 46.4% | 60.9% |
| | 65 to 74 | 76.8% | 42.4% | 71.2% |
| | 75 or older | 75.0% | 41.7% | 82.9% |
| Locality | Alexandria | 79.0% | 38.5% | 66.2% |
| | Arlington | 89.7% | 57.6% | 71.2% |
| | Fairfax - Inclusive | 79.8% | 46.5% | 61.7% |
| | Prince William - Inclusive | 79.4% | 51.5% | 75.3% |
| | Leesburg/Loudon | 79.8% | 53.2% | 64.5% |
| Ethnicity | Not Hispanic/Latino | 80.5% | 48.4% | 65.4% |
| | Hispanic/Latino | 82.7% | 53.8% | 76.9% |
| Years of Residence | Less than 1 year | 80.0% | 38.9% | 69.4% |
| | 1 to 3 years | 81.7% | 37.6% | 62.4% |
| | 4 to 9 years | 86.7% | 55.7% | 68.7% |
| | 10 to 19 years | 83.5% | 53.2% | 70.9% |
| | 20 or more years | 72.7% | 51.9% | 63.8% |
| Home Ownership | Owned | 79.6% | 54.7% | 69.3% |
| | Rented | 83.1% | 37.7% | 60.0% |
| Household Income | Less than \$35,000 | 77.8% | 41.3% | 71.4% |
| | \$35,000 to \$49,999 | 71.4% | 39.3% | 62.5% |
| | \$50,000 to \$74,999 | 68.8% | 52.3% | 56.9% |
| | \$75,000 to \$99,999 | 81.7% | 46.2% | 62.9% |
| | \$100,000 to \$124,999 | 84.3% | 59.2% | 77.1% |
| | \$125,000 to \$149,999 | 90.9% | 62.2% | 71.1% |
| | \$150,000 to \$174,999 | 90.9% | 40.9% | 63.6% |
| | \$175,000 to \$199,999 | 96.3% | 66.7% | 76.9% |
| | \$200,000 or greater | 81.8% | 37.8% | 62.2% |

* *Red font indicates significant differences within a demographic subgroup*

When asked about who to contact for reporting potential water pollution, 49.0% report knowing who to contact. Men (54.0%) reported higher rates of knowing who to contact in the case of suspected water pollution than women (44.4%). Of all respondents, 66.6% report that they would contact someone to report a potential source of water pollution. There were no demographic trends in responses to these questions.

Those who reported being equally likely to call and not to call and who reported that they would probably or definitely not call were asked what their primary reason is for not calling. These results are summarized in Table 31 and displayed in Figure 26. Response options given were “I’m too busy”, “It’s not my responsibility”, “It’s none of my business”, “I prefer not to communicate with officials or authorities”, and an option to write-in another reason not listed. Of these respondents, 25.3% report their reason for not calling being that they’d prefer not to communicate with officials or authorities. Additionally, 21.7% report being too busy, 20.5% report it being none of their business, and 16.3% report that it is not their responsibility. Men reported their reason being that it’s not their responsibility at higher rates than women, at 23.1% and 10.3% respectively.

Table 31. Barriers to reporting pollution by demographic group.

| Demographic | Sub-category | Too Busy | Not my Responsibility | None of my Business | Don't Want to Communicate with Authorities | Other |
|-------------|----------------------------|-------------------|-----------------------|---------------------|--|-------------------|
| | All Respondents | 21.7% | 16.3% | 20.5% | 25.3% | 16.3% |
| Gender | Male | 20.5% | 23.1% | 25.6% | 19.2% | 11.5% |
| | Female | 23.0% | 10.3% | 16.1% | 29.9% | 20.7% |
| Age | 21 to 24 | 35.0% | 30.0% | 5.0% | 30.0% | 0.0% ² |
| | 25 to 34 | 27.8% | 11.1% | 19.4% | 30.6% | 11.1% |
| | 35 to 44 | 27.0% | 16.2% | 29.7% | 18.9% | 8.1% |
| | 45 to 54 | 17.4% | 8.7% | 26.1% | 13.0% | 34.8% |
| | 55 to 64 | 18.5% | 11.1% | 7.4% | 33.3% | 29.6% |
| | 65 to 74 | 0.0% ² | 29.4% | 29.4% | 23.5% | 17.6% |
| | 75 or older | 0.0% ² | 16.7% | 33.3% | 33.3% | 16.7% |
| Locality | Alexandria | 9.1% | 27.3% | 18.2% | 36.4% | 9.1% |
| | Arlington | 35.3% | 11.8% | 17.6% | 29.4% | 5.9% |
| | Fairfax - Inclusive | 18.6% | 14.3% | 21.4% | 22.9% | 22.9% |
| | Prince William - Inclusive | 20.8% | 8.3% | 20.8% | 29.2% | 20.8% |
| | Leesburg/Loudon | 30.3% | 21.2% | 21.2% | 18.2% | 9.1% |
| Ethnicity | Not Hispanic/Latino | 21.4% | 15.6% | 22.1% | 24.7% | 16.2% |
| | Hispanic/Latino | 25.0% | 25.0% | 0.0% ² | 33.3% | 16.7% |

| Demographic | Sub-category | Too Busy | Not my Responsibility | None of my Business | Don't Want to Communicate with Authorities | Other |
|--------------------|------------------------|----------|-----------------------|---------------------|--|-------|
| Years of Residence | Less than 1 year | 18.2% | 9.1% | 27.3% | 36.4% | 9.1% |
| | 1 to 3 years | 26.8% | 14.6% | 12.2% | 29.3% | 17.1% |
| | 4 to 9 years | 19.4% | 16.7% | 22.2% | 33.3% | 8.3% |
| | 10 to 19 years | 28.1% | 15.6% | 18.8% | 18.8% | 18.8% |
| | 20 or more years | 15.2% | 19.6% | 26.1% | 17.4% | 21.7% |
| Home Ownership | Owned | 25.3% | 21.1% | 21.1% | 17.9% | 14.7% |
| | Rented | 17.1% | 8.6% | 20.0% | 35.7% | 18.6% |
| Household Income | Less than \$35,000 | 16.7% | 11.1% | 16.7% | 38.9% | 16.7% |
| | \$35,000 to \$49,999 | 28.6% | 23.8% | 4.8% | 38.1% | 4.8% |
| | \$50,000 to \$74,999 | 10.7% | 17.9% | 17.9% | 35.7% | 17.9% |
| | \$75,000 to \$99,999 | 23.1% | 15.4% | 30.8% | 25.6% | 5.1% |
| | \$100,000 to \$124,999 | 12.5% | 18.8% | 31.3% | 6.3% | 31.3% |
| | \$125,000 to \$149,999 | 23.1% | 15.4% | 15.4% | 23.1% | 23.1% |
| | \$150,000 to \$174,999 | 25.0% | 25.0% | 25.0% | 12.5% | 12.5% |
| | \$175,000 to \$199,999 | 33.3% | 0.0% ² | 50.0% | 0.0% ² | 16.7% |
| | \$200,000 or greater | 35.3% | 11.8% | 5.9% | 11.8% | 35.3% |

* *Red font indicates significant differences within a demographic subgroup.*

Figure 25. Water pollution identification and knowledge.

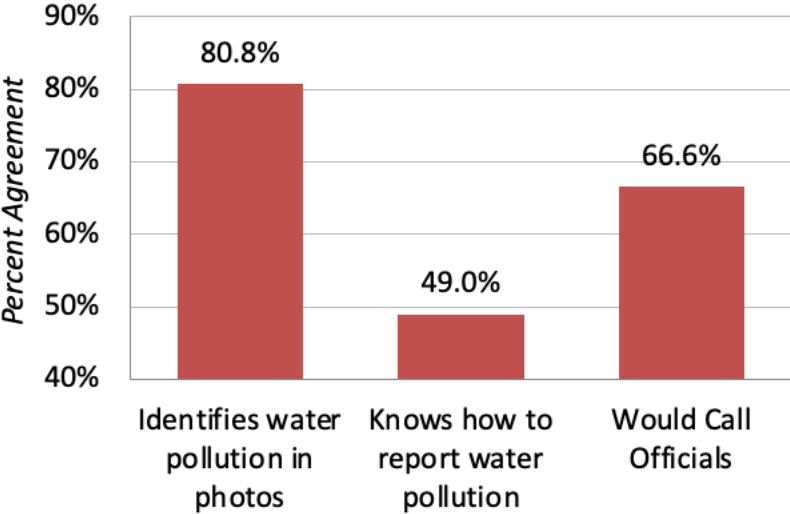
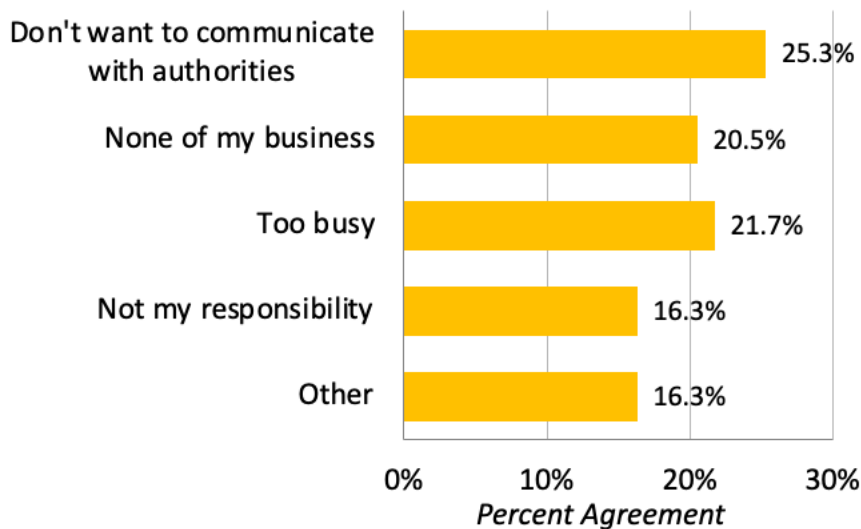


Figure 26. Barriers to reporting water pollution.



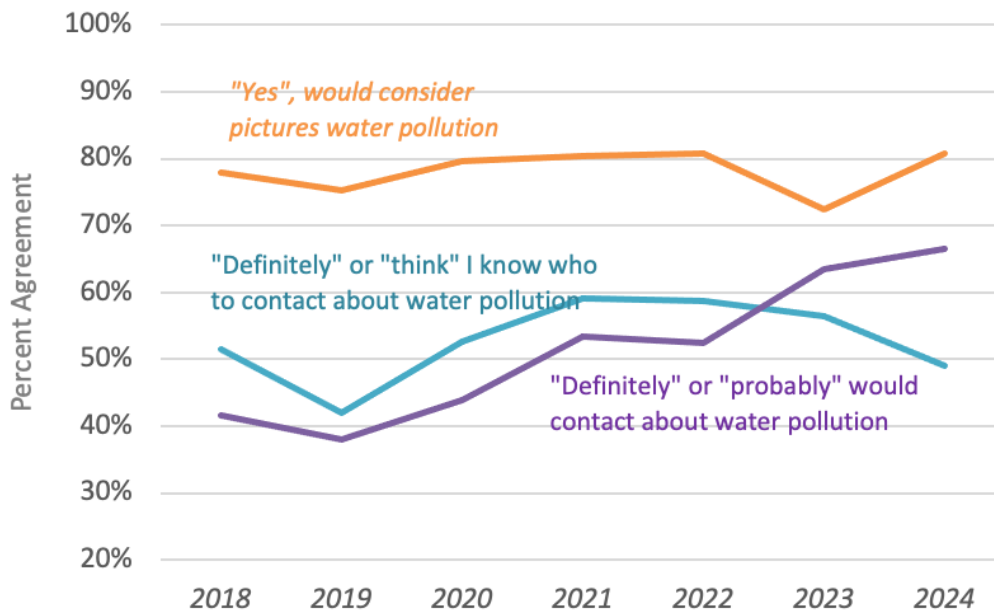
Response rates regarding water pollution knowledge from years 2018-2024 can be seen below in Table 32 and Figure 27. Notably, reports of definitely knowing or thinking they know who to contact about water pollution were higher in years 2021 and 2022 than in 2024. Additionally, respondents to surveys in 2018-2022 exhibit lower rates of indicating that they would “definitely” or “probably” report potential water pollution, compared to 2024 respondents.

Table 32. Water pollution knowledge across years.

| Survey Questions Response | Year of Survey | | | | | | |
|---|----------------|-------|-------|-------|-------|-------|-------|
| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| "Yes", would consider pictures water pollution | 78.0% | 75.2% | 79.6% | 80.4% | 80.8% | 72.4% | 80.8% |
| "Definitely" or "think" I know who to contact about water pollution | 51.6% | 42.0% | 52.6% | 59.2% | 58.8% | 56.5% | 49.0% |
| "Definitely" or "probably" would contact about water pollution | 41.6% | 38.0% | 44.0% | 53.4% | 52.4% | 63.4% | 66.6% |

* *Red font indicates that the value significantly differs from the current 2024 value.*

Figure 27. Water pollution knowledge across years.



Response rates of primary reasons for not calling to report water pollution in 2023 and 2024 can be seen below in Table 33. There were no significant differences in response rates between 2023 and 2024.

Table 33. Barriers to reporting water pollution across years.

| Survey Questions Response | Year of Survey | | | | | | |
|---|----------------|------|------|------|------|-------|-------|
| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| Too busy | * | * | * | * | * | 17.6% | 21.7% |
| Not my responsibility | * | * | * | * | * | 17.6% | 16.3% |
| None of my business | * | * | * | * | * | 23.1% | 20.5% |
| Prefer not to communicate with officials or authorities | * | * | * | * | * | 31.5% | 25.3% |
| Other | * | * | * | * | * | 10.2% | 16.3% |

* *Red font* indicates that the value significantly differs from the current 2024 value. Asterisks (*) indicate that the question did not appear in the survey that year.

2.5 Campaign Perceptions

2.5.3 Campaign Awareness

Survey participants were asked questions to better understand their level of awareness of water pollution campaigns; their responses are below in Table 34 and Figure 29. Respondents were provided with the logo depicted in Figure 28 and asked if they had seen the logo before. Of respondents, 54.2% report having previously seen the provided logo. Men reported having seen the logo at higher rates than women, at 61.1% compared to 47.1%. Generally, reported recognition of the logo decreases as age increases. Finally, residents of Arlington report having seen the logo at higher rates than residents of other localities at 70.7%. Residents of Prince William reported having seen the logo at lower rates than residents of other localities at 38.5%.

Figure 28. Logo for the ‘Only Rain Down the Drain’ Campaign.



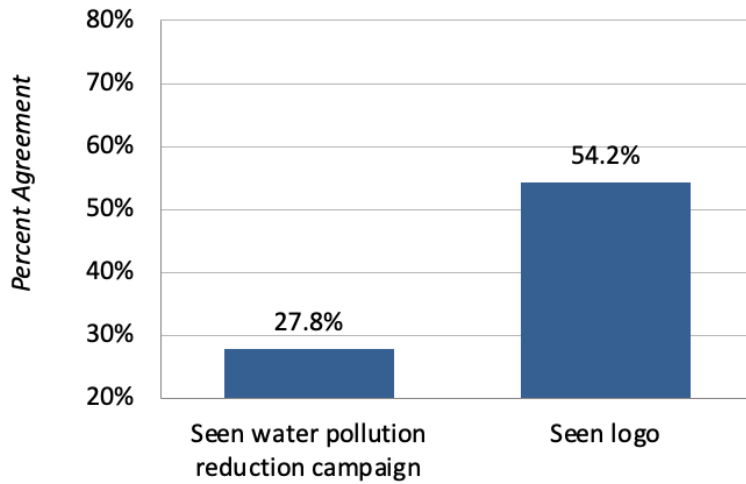
Table 34. Percentage of respondents who have seen campaigns by demographic group.

| Demographic | Sub-category | Seen the Logo Previously | Seen Water Pollution Reduction Campaign |
|-------------|----------------------------|--------------------------|---|
| | All Respondents | 54.2% | 27.8% |
| Gender | Male | 61.1% | 35.9% |
| | Female | 47.1% | 20.0% |
| Age | 21 to 24 | 73.8% | 26.2% |
| | 25 to 34 | 56.2% | 35.8% |
| | 35 to 44 | 56.4% | 43.9% |
| | 45 to 54 | 64.9% | 20.3% |
| | 55 to 64 | 41.2% | 13.0% |
| | 65 to 74 | 39.7% | 18.6% |
| | 75 or older | 44.4% | 13.9% |
| Locality | Alexandria | 54.7% | 26.2% |
| | Arlington | 70.7% | 40.7% |
| | Fairfax - Inclusive | 58.2% | 23.2% |
| | Prince William - Inclusive | 38.5% | 23.7% |
| | Leesburg/Loudon | 51.6% | 34.0% |

| Demographic | Sub-category | Seen the Logo Previously | Seen Water Pollution Reduction Campaign |
|--------------------|------------------------|--------------------------|---|
| Ethnicity | Not Hispanic/Latino | 53.8% | 28.1% |
| | Hispanic/Latino | 57.1% | 25.0% |
| Years of Residence | Less than 1 year | 48.5% | 16.7% |
| | 1 to 3 years | 47.2% | 22.0% |
| | 4 to 9 years | 59.6% | 28.7% |
| | 10 to 19 years | 59.6% | 37.8% |
| | 20 or more years | 51.9% | 26.4% |
| Home Ownership | Owned | 55.9% | 33.4% |
| | Rented | 52.0% | 19.4% |
| Household Income | Less than \$35,000 | 50.0% | 22.2% |
| | \$35,000 to \$49,999 | 57.1% | 17.9% |
| | \$50,000 to \$74,999 | 49.2% | 18.5% |
| | \$75,000 to \$99,999 | 43.4% | 26.4% |
| | \$100,000 to \$124,999 | 68.6% | 38.0% |
| | \$125,000 to \$149,999 | 55.6% | 42.2% |
| | \$150,000 to \$174,999 | 66.7% | 36.4% |
| | \$175,000 to \$199,999 | 57.7% | 48.1% |
| | \$200,000 or greater | 56.8% | 17.8% |

* *Red font indicates significant differences within a demographic subgroup.*

Figure 29. Water pollution reduction campaign awareness.



Reported recognition of the provided logo from years 2016-2024 can be seen below in Table 35. Reported familiarity with the campaign from years 2018-2024 can also be seen in this table. In

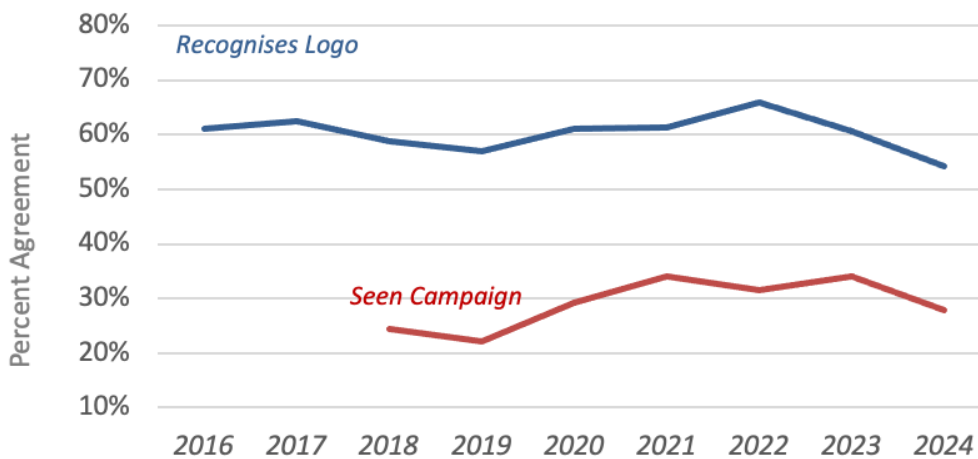
2022, reported recognition of the logo were significantly higher than in 2024. Otherwise, there were no significant differences in response rates between previous years and 2024.

Table 35. Logo and campaign recognition across years.

| Survey Question Response | Year of Survey | | | | | | | | |
|--------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| Recognizes Logo | 61.2% | 62.4% | 58.8% | 57.0% | 61.0% | 61.4% | 65.8% | 60.7% | 54.2% |
| Seen Campaign | * | * | 24.4% | 22.2% | 29.2% | 34.0% | 31.6% | 34.1% | 27.8% |

* *Red font* indicates that the value significantly differs from the current 2024 value. Asterisk (*) indicates that the survey question did not appear that year.

Figure 30. Logo and campaign recognition across years.



Additionally, as described previously, 25.9% report being aware of a water quality activity in the past 12 months. Lastly, respondents were asked if they have seen or received information about reducing water pollution from any source in the past 12 months, with 27.8% of respondents reporting yes, they have seen or received this kind of information. Men reported higher rates of seeing or receiving this information at higher rates than women, at 35.9% compared to 20.0%. Generally, reports of seeing or receiving this information decreased with age. Finally, owners reported seeing or receiving this information at a rate of 33.4% compared to 19.4% of renters, as can be seen in Table 34.

Survey participants were shown both the “Only Rain Down the Drain” and “Pollution Solutions” advertisements in a random order and asked questions about recognition and perceptions of both. Some participants report not being able to see one or both of the videos, in which case their data was excluded from analysis for these questions.

2.5.3.1 Only Rain Down the Drain (ORDD)

Participants were shown the advertisement “Only Rain Down the Drain” (ORDD) and asked a series of questions about it. First, participants were asked if they had seen the ad or a similar one on TV, Facebook, or Twitter and given the response options “Yes”, “No”, “Not sure”, and “Video did not play”. After seeing the ORDD advertisement, 19.2% of respondents report having seen the ad previously, as can be seen in Table 36 and Figure 31. Participants were then asked about their perceptions of the ad by listing a series of statements with the option to “Strongly disagree”, “Disagree”, “Neither disagree nor agree”, “Agree”, and “Strongly Agree”. The statements were:

- I understand the information in the ad.
- The ad is relevant to me.
- I trust the information in the ad.
- The ad’s message is important.
- The ad is persuasive.
- I think the ad would be effective.

In response to these statements, 83.3% report understanding the information in the ad, 78.8% report believing that the ad is relevant, 80.1% report trusting the information in the ad, 83.7% report thinking the information in the ad is important, 70.5% report believing the ad is persuasive, and 71.9% think the ad is effective. The ad perception results for both ads are shown in Figure 32.

Table 36. Perceptions of ‘Only Rain Down the Drain’ (ORDD) advertisement by demographics.

| Demographic | Sub-category | Recog. | Underst. | Relevnt. | Trust | Import. | Persuas. | Effect. |
|-------------|------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | All Respondents | 19.2% | 83.3% | 78.8% | 80.1% | 83.7% | 70.5% | 71.9% |
| Gender | Male | 19.6% | 83.4% | 79.6% | 82.3% | 83.9% | 70.5% | 70.8% |
| | Female | 19.0% | 83.0% | 78.2% | 77.8% | 83.3% | 70.8% | 73.3% |
| Age | 21 to 24 | 24.3% | 86.5% | 80.6% | 88.2% | 84.8% | 76.5% | 73.5% |
| | 25 to 34 | 27.7% | 78.2% | 75.5% | 74.5% | 80.6% | 64.9% | 70.2% |

| Demographic | Sub-category | Recog. | Underst. | Relevnt. | Trust | Import. | Persuas. | Effect. |
|--------------------|----------------------------|--------|----------|----------|-------|---------|----------|---------|
| | 35 to 44 | 26.2% | 79.2% | 81.0% | 80.6% | 79.6% | 67.3% | 71.2% |
| | 45 to 54 | 18.2% | 85.1% | 85.2% | 82.0% | 86.9% | 72.1% | 73.8% |
| | 55 to 64 | 6.2% | 92.3% | 74.6% | 79.0% | 87.1% | 75.4% | 74.2% |
| | 65 to 74 | 10.3% | 81.0% | 78.4% | 82.4% | 86.3% | 78.4% | 74.0% |
| | 75 or older | 8.8% | 90.9% | 75.8% | 81.8% | 87.5% | 66.7% | 66.7% |
| Locality | Alexandria | 21.7% | 80.0% | 74.5% | 76.4% | 81.5% | 68.5% | 69.1% |
| | Arlington | 20.0% | 78.2% | 84.6% | 82.4% | 76.9% | 67.3% | 65.4% |
| | Fairfax - Inclusive | 20.0% | 84.6% | 79.2% | 84.3% | 86.7% | 71.1% | 70.3% |
| | Prince William - Inclusive | 18.9% | 84.1% | 73.8% | 73.2% | 84.0% | 69.5% | 74.4% |
| | Leesburg/Loudon | 15.9% | 85.4% | 82.1% | 79.8% | 82.9% | 73.8% | 78.6% |
| Ethnicity | Not Hispanic/Latino | 19.1% | 83.7% | 77.6% | 79.7% | 83.1% | 69.4% | 70.8% |
| | Hispanic/Latino | 20.4% | 79.6% | 89.1% | 84.1% | 88.6% | 81.4% | 81.8% |
| Years of Residence | Less than 1 year | 20.6% | 76.5% | 68.8% | 90.3% | 86.7% | 74.2% | 80.6% |
| | 1 to 3 years | 13.3% | 81.6% | 83.3% | 83.0% | 86.4% | 70.8% | 75.3% |
| | 4 to 9 years | 20.0% | 84.8% | 77.2% | 75.8% | 80.8% | 66.3% | 67.7% |
| | 10 to 19 years | 26.9% | 83.7% | 77.2% | 79.2% | 83.0% | 73.3% | 70.3% |
| | 20 or more years | 16.5% | 84.9% | 80.7% | 79.8% | 83.9% | 70.6% | 72.0% |
| Home Ownership | Owned | 19.9% | 84.7% | 81.0% | 81.3% | 83.9% | 71.9% | 72.5% |
| | Rented | 16.8% | 80.8% | 75.4% | 76.4% | 82.1% | 67.9% | 70.2% |
| Household Income | Less than \$35,000 | 19.0% | 77.2% | 70.0% | 72.9% | 81.6% | 63.3% | 65.3% |
| | \$35,000 to \$49,999 | 21.2% | 78.4% | 68.8% | 83.3% | 78.7% | 68.8% | 77.1% |
| | \$50,000 to \$74,999 | 21.2% | 78.8% | 72.5% | 78.4% | 78.4% | 64.7% | 66.7% |
| | \$75,000 to \$99,999 | 13.7% | 84.3% | 81.4% | 78.9% | 81.7% | 76.8% | 72.3% |
| | \$100,000 to \$124,999 | 18.8% | 78.6% | 80.9% | 79.1% | 84.8% | 76.1% | 80.6% |
| | \$125,000 to \$149,999 | 33.3% | 90.5% | 87.8% | 87.8% | 90.2% | 68.3% | 78.0% |
| | \$150,000 to \$174,999 | 9.1% | 90.9% | 75.0% | 80.0% | 80.0% | 65.0% | 60.0% |
| | \$175,000 to \$199,999 | 22.2% | 92.6% | 92.3% | 88.5% | 92.3% | 73.1% | 69.2% |
| | \$200,000 or greater | 18.2% | 90.9% | 83.3% | 78.6% | 90.5% | 68.3% | 66.7% |

* *Red font indicates significant differences within a demographic subgroup.*

Figure 31. Recognition of ‘ ‘Only Rain Down the Drain’ and ‘Pollution Solution’s advertisements.

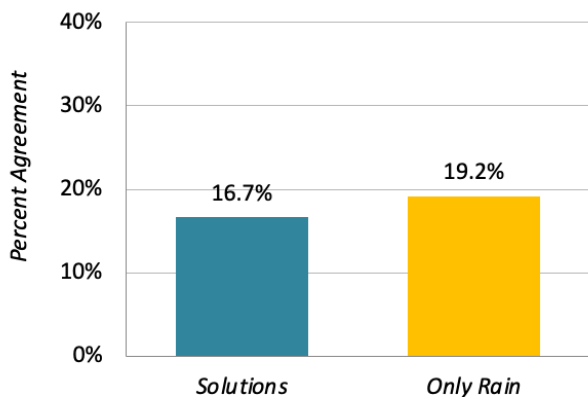
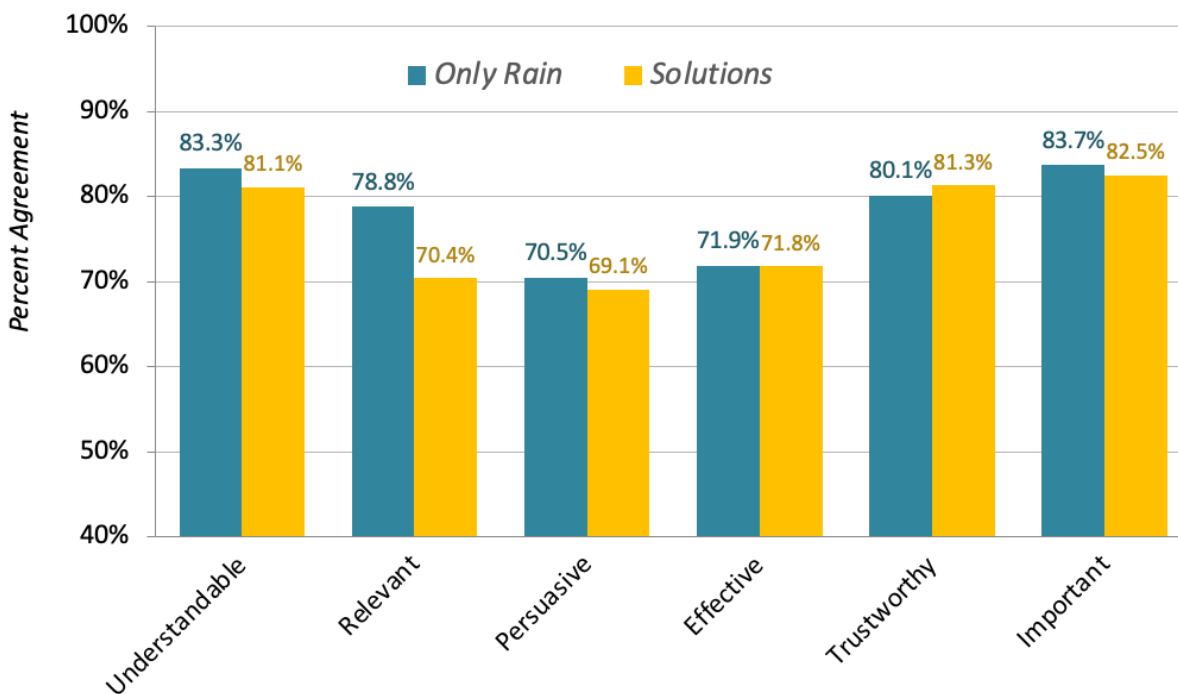


Figure 32. Perceptions of ‘Only Rain Down the Drain’ and ‘Pollution Solutions’ advertisement.



Rates of reported recognition of the ad “Only Rain Down the Drain” from 2016 to 2024 can be seen below in Table 39. Notably, respondents to the 2021 survey reported higher rates of recognition when compared to 2024. Additionally, in Table 38, rates of reported perception of

the ad in 2023 and 2024 can be seen. In 2023, the rate of seeing the ad as relevant were lower than in 2024. Otherwise, there were no significant differences in response rates regarding this ad.

Table 37. Recognition of 'Only Rain Down the Drain' across years.

| Response to Survey Question | Year of Survey | | | | | | | | |
|-----------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| Recognize "Only Rain" | 15.6% | 23.6% | 14.8% | 15.4% | 22.0% | 29.0% | 27.8% | 23.3% | 19.2% |

Table 38. Perceptions of 'Only Rain Down the Drain' across years.

| Response to Survey Question | Year of Survey | |
|-----------------------------|----------------|-------|
| | 2023 | 2024 |
| Understand | 79.4% | 83.3% |
| Relevant | 70.7% | 78.8% |
| Trust | 78.9% | 80.1% |
| Important | 84.2% | 83.7% |
| Persuasive | 68.5% | 70.5% |
| Effective | 73.0% | 71.9% |

2.5.3.2 Pollution Solutions

Participants were shown the ad “Pollution Solutions” and asked a series of questions about it. First, participants were asked if they had seen the ad or a similar one on TV, Facebook, or Twitter and given the response options “Yes”, “No”, “Not sure”, and “Video did not play”. After seeing the ‘Pollution Solutions’ ad, 16.7% of respondents report having seen the ad previously, as shown in Table 39 and Figure 31. Generally, older people reported having seen the ad previously at lower rates. Participants were then asked about their perceptions of the ad by listing a series of statements with the option to “Strongly disagree”, “Disagree”, “Neither disagree nor agree”, “Agree”, and “Strongly Agree”. The statements were:

- I understand the information in the ad.
- The ad is relevant to me.
- I trust the information in the ad.
- The ad’s message is important.
- The ad is persuasive.

- I think the ad would be effective.

In response to these statements, 81.1% of respondents report understanding the ad, 70.4% report believing the ad is relevant, 81.3% report trusting the information in the ad, 82.5% report thinking the information in the ad is important, 69.1% report believing the ad is persuasive and 71.8% report thinking the ad is effective. The results of both ads are shown in Figure 32.

Because this campaign is new in 2024, there is recognition or perceptions data from previous years.

Table 39. Perceptions of ‘Pollution Solutions’ advertisement by demographic group.

| | Sub-category | Recog. | Underst. | Relevnt. | Trust | Import. | Persuas. | Effect. |
|--------------------|----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | All Respondents | 16.7% | 81.1% | 70.4% | 81.3% | 82.5% | 69.1% | 71.8% |
| Gender | Male | 18.5% | 80.9% | 73.2% | 82.0% | 85.7% | 71.3% | 74.1% |
| | Female | 15.0% | 81.6% | 67.9% | 80.9% | 79.5% | 67.1% | 69.7% |
| Age | 21 to 24 | 18.9% | 83.8% | 65.7% | 87.9% | 90.9% | 72.7% | 71.9% |
| | 25 to 34 | 23.8% | 71.6% | 67.0% | 78.1% | 73.2% | 64.3% | 64.3% |
| | 35 to 44 | 25.9% | 83.2% | 67.6% | 80.0% | 79.0% | 68.6% | 72.4% |
| | 45 to 54 | 18.6% | 77.1% | 76.9% | 78.1% | 84.4% | 67.2% | 74.6% |
| | 55 to 64 | 6.0% | 90.9% | 76.9% | 79.7% | 87.5% | 67.2% | 73.4% |
| | 65 to 74 | 5.3% | 82.5% | 76.5% | 90.0% | 90.0% | 84.0% | 80.0% |
| | 75 or older | ** | 87.9% | 59.4% | 84.4% | 87.5% | 66.7% | 71.9% |
| Locality | Alexandria | 16.4% | 73.8% | 68.4% | 71.9% | 73.2% | 63.2% | 70.2% |
| | Arlington | 23.6% | 81.8% | 78.4% | 76.9% | 80.8% | 72.5% | 70.6% |
| | Fairfax - Inclusive | 16.4% | 84.1% | 73.7% | 85.8% | 86.5% | 66.9% | 71.0% |
| | Prince William - Inclusive | 15.4% | 81.3% | 59.8% | 77.1% | 78.3% | 72.3% | 72.3% |
| | Leesburg/Loudon | 14.4% | 79.8% | 71.4% | 85.5% | 85.7% | 72.6% | 75.0% |
| Ethnicity | Not Hispanic/Latino | 16.5% | 81.6% | 71.3% | 81.4% | 82.5% | 68.8% | 71.9% |
| | Hispanic/Latino | 18.4% | 77.6% | 63.0% | 80.4% | 82.6% | 71.7% | 71.7% |
| Years of Residence | Less than 1 year | 18.8% | 78.8% | 54.8% | 77.4% | 80.6% | 67.7% | 60.0% |
| | 1 to 3 years | 8.9% | 74.3% | 72.3% | 77.4% | 76.3% | 64.5% | 73.1% |
| | 4 to 9 years | 21.7% | 84.8% | 75.0% | 86.6% | 85.9% | 70.7% | 71.7% |
| | 10 to 19 years | 25.0% | 82.2% | 73.5% | 80.4% | 82.2% | 67.6% | 72.5% |
| | 20 or more years | 11.0% | 83.3% | 66.7% | 81.8% | 85.1% | 73.1% | 73.3% |
| Home Ownership | Owned | 19.1% | 84.2% | 72.0% | 84.5% | 86.7% | 73.2% | 75.4% |
| | Rented | 11.7% | 75.3% | 68.2% | 75.0% | 74.3% | 62.2% | 66.0% |
| Household Income | Less than \$35,000 | 12.1% | 69.0% | 61.2% | 70.8% | 70.8% | 64.6% | 68.8% |

| | Sub-category | Recog. | Underst. | Relevnt. | Trust | Import. | Persuas. | Effect. |
|--|------------------------|--------|----------|----------|-------|---------|----------|---------|
| | \$35,000 to \$49,999 | 15.1% | 83.0% | 63.3% | 77.6% | 76.0% | 64.0% | 63.3% |
| | \$50,000 to \$74,999 | 15.5% | 75.9% | 62.5% | 80.4% | 76.8% | 55.4% | 69.6% |
| | \$75,000 to \$99,999 | 16.8% | 81.2% | 70.7% | 82.1% | 82.3% | 70.5% | 72.6% |
| | \$100,000 to \$124,999 | 21.7% | 81.2% | 64.7% | 80.9% | 85.1% | 76.5% | 73.5% |
| | \$125,000 to \$149,999 | 30.2% | 85.7% | 90.7% | 86.0% | 90.7% | 78.6% | 86.0% |
| | \$150,000 to \$174,999 | 9.5% | 81.0% | 70.0% | 84.2% | 89.5% | 78.9% | 78.9% |
| | \$175,000 to \$199,999 | 14.8% | 92.3% | 84.0% | 92.0% | 88.0% | 76.0% | 68.0% |
| | \$200,000 or greater | 9.1% | 90.9% | 80.5% | 85.4% | 92.7% | 65.9% | 68.3% |

* *Red font indicates significant differences within a demographic subgroup.*

** *Insufficient data for comparison to other subgroups.*

2.5.4 Campaign Impact

Survey participants who reported recognizing one or both advertisements were asked a series of questions about the potential impact of the ad(s) on their behaviors.

2.5.4.1 Impact of advertisements on pet waste clean-up

Respondents were asked how certain behaviors have changed since they first saw the ad(s), if they had seen the advertisements prior to the current survey. The first set of questions asked about their current pet waste disposal behaviors, the results of which can be seen in Table 40 and Figure 33. Participants were provided the following statements with response options being “Yes”, “No”, or “Does not apply”:

- I understand more about the impact of pet waste on water quality.
- I’d like to pick up pet waste more often, though I haven’t made any changes yet.
- I now pick up pet waste more often.
- I was already doing what is recommended to reduce water pollution from pet waste.

Of those respondents who had seen the ad prior to completing the current survey, 82.9% report understanding more about pet waste, 70.3% report wanting to pick up pet waste more often despite not having made any changes yet, 73.3% report now picking pet waste up more often and

84.9% report already doing what is recommended. Non-Hispanic/Latino respondents report understanding more about pet waste at higher rates than Hispanic/Latino respondents, at 85.3% compared to 60.0%.

Table 40. Ad impact on pet waste clean-up behavior by demographic group among participants who had seen the advertisement prior to completing the current survey.

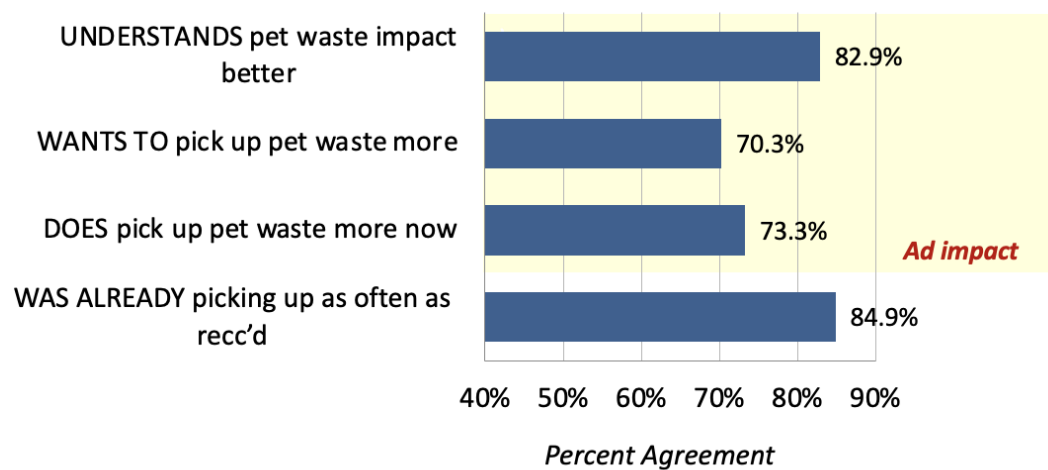
| Demographic | Sub-category | Understands Pet Waste | Want to Pick Up More | More Pick-up Now | Pet Waste Already |
|--------------------|----------------------------|-----------------------|----------------------|------------------|-------------------|
| | All Respondents | 82.9% | 70.3% | 73.3% | 84.9% |
| Gender | Male | 87.3% | 72.0% | 80.0% | 88.0% |
| | Female | 78.0% | 68.3% | 65.0% | 81.4% |
| Age | 21 to 24 | ** | 71.4% | 83.3% | 83.3% |
| | 25 to 34 | 78.1% | 81.5% | 71.4% | 80.6% |
| | 35 to 44 | 78.4% | 75.0% | 66.7% | 81.8% |
| | 45 to 54 | 92.9% | 50.0% | 92.9% | 92.9% |
| | 55 to 64 | 71.4% | 25.0% | 50.0% | ** |
| | 65 to 74 | ** | 100.0% | ** | ** |
| Locality | 75 or older | ** | 50.0% | 0.0% | 100.0% |
| | Alexandria | 81.3% | 91.7% | 76.9% | 84.6% |
| | Arlington | 80.0% | 40.0% | 78.6% | 86.7% |
| | Fairfax - Inclusive | 87.5% | 75.0% | 71.9% | 84.8% |
| | Prince William - Inclusive | 81.3% | 80.0% | 85.7% | 78.6% |
| Ethnicity | Leesburg/Loudon | 77.8% | 64.7% | 58.8% | 88.9% |
| | Not Hispanic/Latino | 85.3% | 69.5% | 76.8% | 86.9% |
| Years of Residence | Hispanic/Latino | 60.0% | 77.8% | 37.5% | 66.7% |
| | Less than 1 year | 77.8% | ** | 50.0% | 83.3% |
| | 1 to 3 years | 75.0% | 70.0% | 80.0% | 90.9% |
| | 4 to 9 years | 86.2% | 75.0% | 60.9% | 72.0% |
| | 10 to 19 years | 84.8% | 80.0% | 80.6% | 84.4% |
| Home Ownership | 20 or more years | 81.8% | 40.0% | 83.3% | ** |
| | Owned | 82.4% | 66.2% | 75.4% | 87.7% |
| Household Income | Rented | 80.8% | 77.8% | 76.2% | 83.3% |
| | Less than \$35,000 | 84.6% | 91.7% | 53.8% | 81.8% |
| | \$35,000 to \$49,999 | 83.3% | 87.5% | 88.9% | 83.3% |

| Demographic | Sub-category | Understands Pet Waste | Want to Pick Up More | More Pick-up Now | Pet Waste Already |
|-------------|------------------------|-----------------------|----------------------|------------------|-------------------|
| | \$50,000 to \$74,999 | 70.0% | 62.5% | 33.3% | 55.6% |
| | \$75,000 to \$99,999 | 73.7% | 60.0% | 85.7% | 71.4% |
| | \$100,000 to \$124,999 | 85.0% | 57.9% | 68.4% | 94.7% |
| | \$125,000 to \$149,999 | 85.7% | 61.5% | 85.7% | ** |
| | \$150,000 to \$174,999 | ** | 66.7% | ** | 50.0% |
| | \$175,000 to \$199,999 | ** | 83.3% | 66.7% | ** |
| | \$200,000 or greater | 87.5% | 85.7% | 83.3% | ** |

* *Red font indicates significant differences within a demographic subgroup.*

** *Insufficient data for between-group comparison.*

Figure 33. Ad impact on pet waste behaviors.



2.5.4.2 Impact of advertisements on lawn/garden fertilization

Next, respondents were asked about their fertilizer behaviors. Participants were provided with the following statements with the response options being “Yes”, “No”, or “Does not apply”:

- I understand more about the impact of fertilizer on water quality.
- I’d like to fertilize fewer time during the year.

- I now plan to fertilize fewer times during the year.
- I was already doing what is recommended to reduce water pollution from fertilizer.

Of respondents who reported seeing the ad(s) previously, 81.6% report understanding more about the impact of fertilizer on water quality, 78.2% report wanted to fertilize fewer times despite not making any changes yet, 81.6% report now fertilizing less frequently and 78.1% report that they were already doing what is recommended as can be seen in Table 41 and Figure 34.

Table 41. Ad impact on fertilizing behavior by demographic group of those who had seen the advertisement prior to completing the survey.

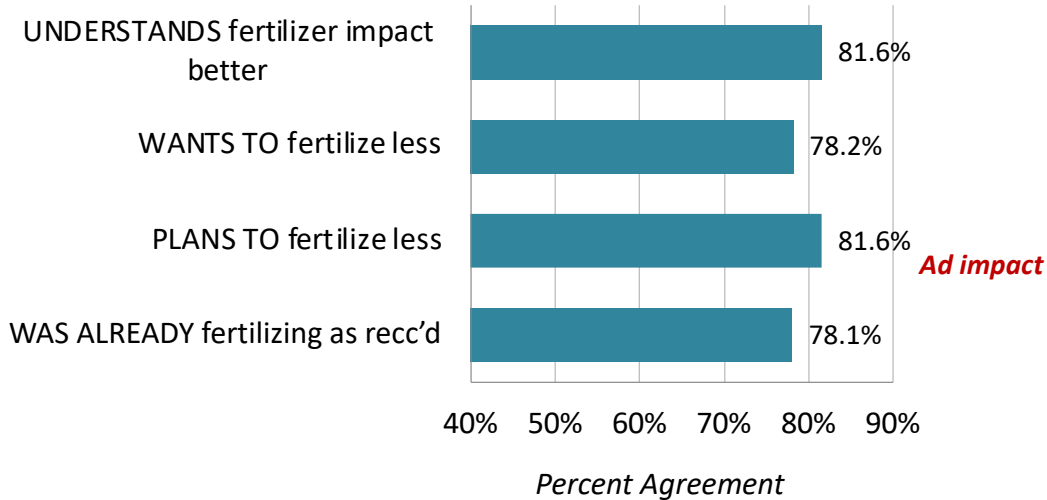
| Demographic | Sub-category | Understand Fertilizer | Want to Fertilizer Less | Fertilizes Less Now | Was Fertilizing Less Already |
|--------------------|----------------------------|-----------------------|-------------------------|---------------------|------------------------------|
| | All Respondents | 81.6% | 78.2% | 81.6% | 78.1% |
| Gender | Male | 83.0% | 85.1% | 78.3% | 77.4% |
| | Female | 80.0% | 70.0% | 85.4% | 79.1% |
| Age | 21 to 24 | ** | 66.7% | 83.3% | 83.3% |
| | 25 to 34 | 93.8% | 75.9% | 82.1% | 71.0% |
| | 35 to 44 | 69.7% | 75.0% | 78.1% | 85.7% |
| | 45 to 54 | 85.7% | 92.3% | 92.3% | 78.6% |
| | 55 to 64 | 50.0% | 75.0% | 50.0% | 80.0% |
| | 65 to 74 | ** | ** | ** | 75.0% |
| | 75 or older | 66.7% | 100.0% | 100.0% | 0.0% |
| Locality | Alexandria | 80.0% | 90.9% | 76.9% | 84.6% |
| | Arlington | 60.0% | 76.9% | 75.0% | 93.3% |
| | Fairfax - Inclusive | 82.9% | 74.2% | 83.9% | 72.2% |
| | Prince William - Inclusive | 86.7% | 85.7% | 92.3% | 80.0% |
| | Leesburg/Loudon | 94.4% | 72.2% | 77.8% | 70.6% |
| Ethnicity | Not Hispanic/Latino | 80.7% | 78.2% | 82.1% | 79.1% |
| | Hispanic/Latino | 90.0% | 77.8% | 77.8% | 70.0% |
| Years of Residence | Less than 1 year | 85.7% | 83.3% | 83.3% | 85.7% |
| | 1 to 3 years | 83.3% | 80.0% | ** | 83.3% |
| | 4 to 9 years | 88.5% | 70.8% | 70.8% | 72.0% |
| | 10 to 19 years | 78.1% | 80.0% | 83.9% | 80.6% |
| | 20 or more years | 76.2% | 82.4% | 81.3% | 76.2% |
| | Owned | 79.7% | 75.0% | 77.8% | 76.8% |

| Demographic | Sub-category | Understand Fertilizer | Want to Fertilizer Less | Fertilizes Less Now | Was Fertilizing Less Already |
|------------------|------------------------|-----------------------|-------------------------|---------------------|------------------------------|
| Home Ownership | Rented | 88.0% | 89.5% | 90.0% | 79.2% |
| Household Income | Less than \$35,000 | ** | ** | 81.8% | 81.8% |
| | \$35,000 to \$49,999 | 90.9% | 80.0% | 81.8% | 66.7% |
| | \$50,000 to \$74,999 | 90.0% | 77.8% | 66.7% | 77.8% |
| | \$75,000 to \$99,999 | 62.5% | 50.0% | 91.7% | 66.7% |
| | \$100,000 to \$124,999 | 73.7% | 66.7% | 83.3% | 84.2% |
| | \$125,000 to \$149,999 | 78.6% | 84.6% | 84.6% | 85.7% |
| | \$150,000 to \$174,999 | 66.7% | 66.7% | 33.3% | ** |
| | \$175,000 to \$199,999 | ** | ** | 80.0% | 66.7% |
| | \$200,000 or greater | 85.7% | ** | ** | 85.7% |

* *Red font* indicates significant differences within a demographic subgroup.

** Insufficient data for between-group comparison.

Figure 34. Ad impact on fertilization behaviors.



2.5.4.3 Impact of advertisements on motor oil disposal

Finally, survey participants were asked about their behaviors regarding disposing of motor oil after watching the advertisements. Respondents were provided the following statements with the option to respond “Yes”, “No”, or “Does not apply”:

- I understand more about the impact of motor oil on water quality.
- I'd like to dispose of motor oil properly, though I haven't made any changes yet.
- I now properly dispose of motor oil.
- I was already doing what is recommended to reduce water pollution from motor oil.

Of the respondents, 87.8% report understanding more about the impact of motor oil on water quality, 73.3% report wanting to dispose of motor oil properly despite not making any changes yet, 80.9% report now properly disposing of motor oil and 87.8% of respondents were already doing what is recommended as shown in Table 42 and Figure 35. Respondents who have lived in their residence for 20 or more years report the lowest rates of wanting to dispose of motor oil properly despite not making any changes yet compared to respondents who have lived in their residences for fewer years.

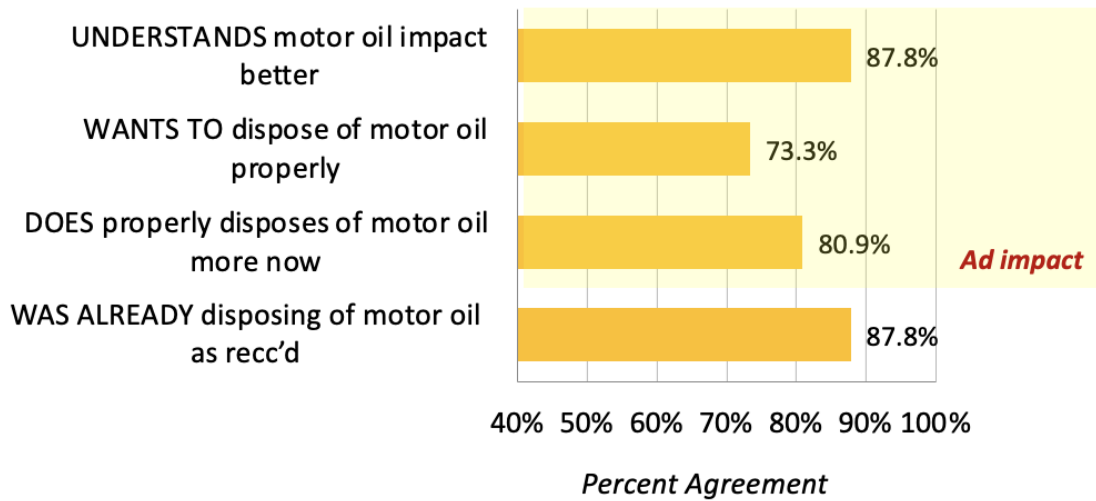
Table 42. Ad impact on motor oil (MO) disposal by demographic group among respondents who had seen the advertisement prior to completing the survey.

| Demographic | Sub-category | MO Understand | Wants to Dispose Properly | Now Disposes Properly | Was Already Disposing Properly |
|-------------|----------------------------|---------------|---------------------------|-----------------------|--------------------------------|
| | All Respondents | 87.8% | 73.3% | 80.9% | 87.8% |
| Gender | Male | 88.9% | 72.3% | 80.0% | 90.6% |
| | Female | 86.4% | 74.4% | 82.1% | 84.4% |
| Age | 21 to 24 | 100.0% | 83.3% | 83.3% | 100.0% |
| | 25 to 34 | 86.7% | 73.1% | 85.7% | 80.6% |
| | 35 to 44 | 83.3% | 82.9% | 65.6% | 86.1% |
| | 45 to 54 | 92.9% | 50.0% | 92.3% | 92.3% |
| | 55 to 64 | 80.0% | 33.3% | 100.0% | 100.0% |
| | 65 to 74 | 100.0% | 100.0% | 100.0% | 100.0% |
| | 75 or older | 100.0% | 100.0% | 100.0% | 100.0% |
| Locality | Alexandria | 92.9% | 84.6% | 93.3% | 93.3% |
| | Arlington | 92.9% | 41.7% | 66.7% | 93.3% |
| | Fairfax - Inclusive | 83.8% | 72.4% | 80.0% | 88.2% |
| | Prince William - Inclusive | 93.8% | 80.0% | 86.7% | 87.5% |
| | Leesburg/Loudon | 82.4% | 82.4% | 76.5% | 77.8% |
| Ethnicity | Not Hispanic/Latino | 89.8% | 74.0% | 82.5% | 89.8% |
| | Hispanic/Latino | 70.0% | 66.7% | 66.7% | 70.0% |

| Demographic | Sub-category | MO Understand | Wants to Dispose Properly | Now Disposes Properly | Was Already Disposing Properly |
|--------------------|------------------------|---------------|---------------------------|-----------------------|--------------------------------|
| Years of Residence | Less than 1 year | 100.0% | 100.0% | 66.7% | 75.0% |
| | 1 to 3 years | 90.9% | 66.7% | 90.0% | 100.0% |
| | 4 to 9 years | 95.8% | 72.7% | 66.7% | 76.9% |
| | 10 to 19 years | 82.4% | 87.9% | 86.7% | 91.2% |
| | 20 or more years | 81.8% | 44.4% | 89.5% | 94.7% |
| Home Ownership | Owned | 84.7% | 71.2% | 78.8% | 87.1% |
| | Rented | 95.5% | 76.5% | 85.7% | 91.7% |
| Household Income | Less than \$35,000 | 90.9% | 80.0% | 80.0% | 83.3% |
| | \$35,000 to \$49,999 | 100.0% | 77.8% | 90.9% | 100.0% |
| | \$50,000 to \$74,999 | 88.9% | 85.7% | 75.0% | 70.0% |
| | \$75,000 to \$99,999 | 82.4% | 71.4% | 70.6% | 83.3% |
| | \$100,000 to \$124,999 | 88.9% | 52.9% | 93.8% | 89.5% |
| | \$125,000 to \$149,999 | 78.6% | 71.4% | 85.7% | 100.0% |
| | \$150,000 to \$174,999 | 66.7% | 100.0% | 33.3% | 66.7% |
| | \$175,000 to \$199,999 | 100.0% | 83.3% | 50.0% | 80.0% |
| | \$200,000 or greater | 87.5% | 83.3% | 100.0% | 100.0% |

* *Red font indicates significant differences within a demographic subgroup.*

Figure 35. Ad impact on motor oil behaviors.



2.5.4.4 Impact of ads across years

Reported impact of the ads on behaviors regarding pet waste, fertilizer, and motor oil in 2023 and 2024 can be seen below in Table 43. There were no significant differences between 2023 and 2024.

Table 43. Ad impact across years.

| Survey Questions Response | | Year of Survey | |
|---------------------------|------------------------------------|----------------|-------|
| | | 2023 | 2024 |
| Pet Waste | Understands | 85.5% | 82.9% |
| | Wants to change | 77.6% | 70.3% |
| | Has picked up more | 76.6% | 73.3% |
| | Was already picking up | 83.0% | 84.9% |
| Fertilizer | Understands | 85.0% | 81.6% |
| | Wants to change | 74.7% | 78.2% |
| | Plans on fertilizing less | 76.3% | 81.6% |
| | Was already fertilizing less | 71.4% | 78.1% |
| Motor Oil | Understands | 84.4% | 87.8% |
| | Wants to change | 75.7% | 73.3% |
| | Now disposes of motor oil properly | 79.3% | 80.9% |
| | Was already disposing properly | 82.0% | 87.8% |

* *Red font* indicates that the value significantly differs from the current 2024 value.

2.5.5 Perceptions of the Campaign Sponsor (NVCWP)

Survey participants were asked about their perceptions of the campaign sponsor, the Northern Virginia Clean Water Partners, as perceptions of the campaign sponsor are known to impact consumer perceptions of the campaign. Table 44 and Figure 36 shows the percentage of respondents that indicate that they “Agree” or “Strongly Agree” with statements about NVCWP, on a 5-point scale of “Strongly Disagree”, “Disagree”, “Neither agree nor Disagree”, “Agree” and “Strongly Agree”. The statements were:

- I was familiar with the NVCWP before this survey
- I trust information from the NVCWP
- I would contact the NVCWP if I had a question or concern about water quality
- The NVCWP shares my values when it comes to water quality

Approximately one-third, 33.3%, indicate they are familiar with NVCWP. In addition, 71.2% of participants reported they trust information from NVCWP. Next, 69.7% of participants reported believing that they share values about water quality with NVCWP. Finally, 66.8% of respondents stated that they would contact NVCWP if they had questions about water with consistent results across subgroup demographics. Men report the greatest familiarity with NVCWP, at 39.4% compared to 27.4% among women. Generally, reported familiarity with NVCWP decreased as age increased.

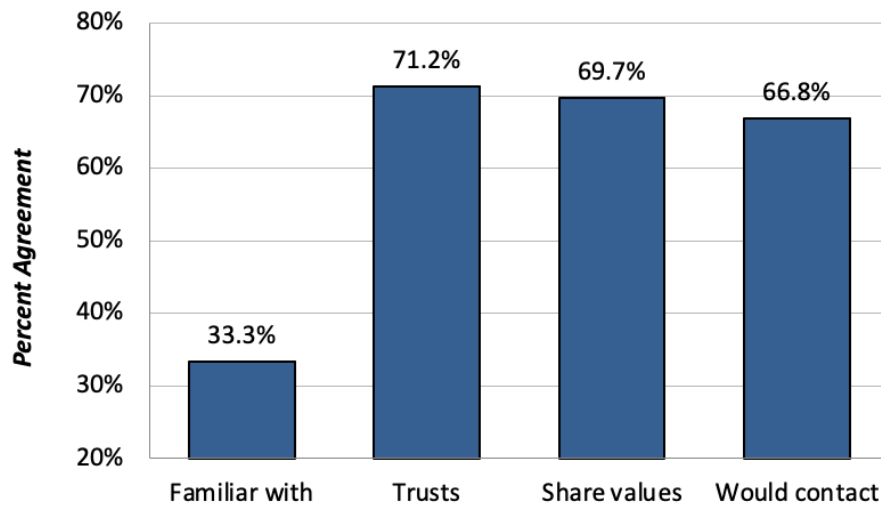
Table 44. Perceptions of the campaign sponsor, NVCWP, by demographic group.

| Demographic | Sub-category | Familiar with NVCWP | Trusts NVCWP | Share Values with NVCWP | Would Contact NVCWP |
|-------------|------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| | | Agree or Strongly Agree | Agree or Strongly Agree | Agree or Strongly Agree | Agree or Strongly Agree |
| | All Respondents | 33.3% | 71.2% | 69.7% | 66.8% |
| Gender | Male | 39.4% | 74.8% | 73.5% | 71.3% |
| | Female | 27.4% | 67.9% | 66.1% | 62.6% |
| Age | 21 to 24 | 42.9% | 76.9% | 71.1% | 60.5% |
| | 25 to 34 | 41.9% | 71.7% | 68.4% | 67.7% |
| | 35 to 44 | 39.8% | 70.5% | 66.7% | 70.8% |
| | 45 to 54 | 36.5% | 72.1% | 70.6% | 70.6% |
| | 55 to 64 | 17.6% | 67.2% | 69.2% | 58.5% |
| | 65 to 74 | 15.5% | 73.6% | 73.6% | 69.2% |

| Demographic | Sub-category | Familiar with NVCWP | Trusts NVCWP | Share Values with NVCWP | Would Contact NVCWP |
|----------------------|----------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| | | Agree or Strongly Agree | Agree or Strongly Agree | Agree or Strongly Agree | Agree or Strongly Agree |
| | 75 or older | 27.8% | 67.6% | 74.3% | 62.9% |
| Locality | Alexandria | 35.4% | 69.8% | 67.7% | 61.9% |
| | Arlington | 37.9% | 74.5% | 72.7% | 70.9% |
| | Fairfax - Inclusive | 27.6% | 75.4% | 70.3% | 65.5% |
| | Prince William - Inclusive | 29.2% | 60.2% | 63.6% | 64.0% |
| | Leesburg/Loudon | 44.6% | 72.7% | 73.9% | 73.0% |
| Ethnicity | Not Hispanic/Latino | 33.0% | 71.4% | 68.8% | 65.4% |
| | Hispanic/Latino | 35.3% | 69.4% | 77.1% | 79.2% |
| Years of Residence | Less than 1 year | 27.8% | 64.7% | 70.6% | 61.8% |
| | 1 to 3 years | 23.9% | 69.3% | 65.0% | 67.3% |
| | 4 to 9 years | 38.9% | 71.0% | 73.1% | 71.3% |
| | 10 to 19 years | 41.8% | 81.0% | 75.5% | 71.0% |
| | 20 or more years | 30.5% | 66.4% | 65.0% | 60.0% |
| Home Ownership | Owned | 36.0% | 74.5% | 72.6% | 69.4% |
| | Rented | 28.2% | 66.0% | 65.0% | 61.5% |
| Household Income | Less than \$35,000 | 27.0% | 70.9% | 67.9% | 62.5% |
| | \$35,000 to \$49,999 | 34.5% | 68.6% | 55.1% | 58.8% |
| | \$50,000 to \$74,999 | 37.5% | 66.7% | 68.9% | 63.9% |
| | \$75,000 to \$99,999 | 25.5% | 66.3% | 67.3% | 64.4% |
| | \$100,000 to \$124,999 | 40.0% | 76.1% | 80.6% | 76.1% |
| | \$125,000 to \$149,999 | 44.4% | 84.4% | 82.2% | 84.4% |
| | \$150,000 to \$174,999 | 27.3% | 85.7% | 71.4% | 71.4% |
| | \$175,000 to \$199,999 | 63.0% | 76.0% | 66.7% | 72.0% |
| \$200,000 or greater | 15.9% | 61.4% | 65.9% | 53.5% | |

* *Red font indicates significant differences within a demographic subgroup.*

Figure 36. Perceptions of NVCWP.



Changes in perceptions of NVCWP across between 2023 and 2024 are shown in the table below. Familiarity with the organization decreased from 2023, from 42.2% to 33.3%. Trust, sentiment of shared values with NVCWP, and reported likelihood to contact NVCWP if needed remained the same.

Table 45. Perceptions of NVCWP across years.

| | Survey Year | |
|-------------------------|-------------|-------|
| | 2023 | 2024 |
| Familiar with NVCWP | 42.2% | 33.3% |
| Trusts NVCWP | 73.5% | 71.2% |
| Share Values with NVCWP | 74.5% | 69.7% |
| Would Contact NVCWP | 70.9% | 66.8% |

* *Red font* indicates that the value significantly differs from the current 2024 value.

2.6 Message Sources

Survey participants were asked about their TV service provider and which channels they watch in order to get a better understanding of their sources of messaging. Provided options for TV service provider were “Verizon”, “Comcast”, “Cox”, “Xfinity”, “Do not have cable TV”, “Do not watch TV”, “I don’t know”, and the option to write-in another provider not listed. As shown in Table 46 and Figure 37, 40.8% of participants report using Verizon as their TV service

provider, 9.0 % report using Comcast, 11.8% report using Cox and 15.6% report using Xfinity. Additionally, 15.8 % report not having cable, 2.0% report not watching TV, 0.2% report using some other service not listed, and 4.8% of respondents report not knowing which TV service provider they use.

Women reported using Xfinity at a higher rate than men, at 19.2% compared to 12.1%. Reported Verizon use is highest amongst Leesburg/Loudon, Arlington, and Fairfax residents. Additionally, reported Cox use is higher in Fairfax and Alexandria. Reported use of Verizon as a TV service provider also tends to increase with age. Additionally, home owners reported using Verizon at a higher rate (48.9%) compared to renters (27.4%). Younger people report using Xfinity as a TV service provider at higher rates than older people. Renters also report using Xfinity at a rate of 24.6% compared to 10.0% of owners. Finally, renters report not having cable TV at higher rates than home owners, at 22.3% and 12.5% respectively.

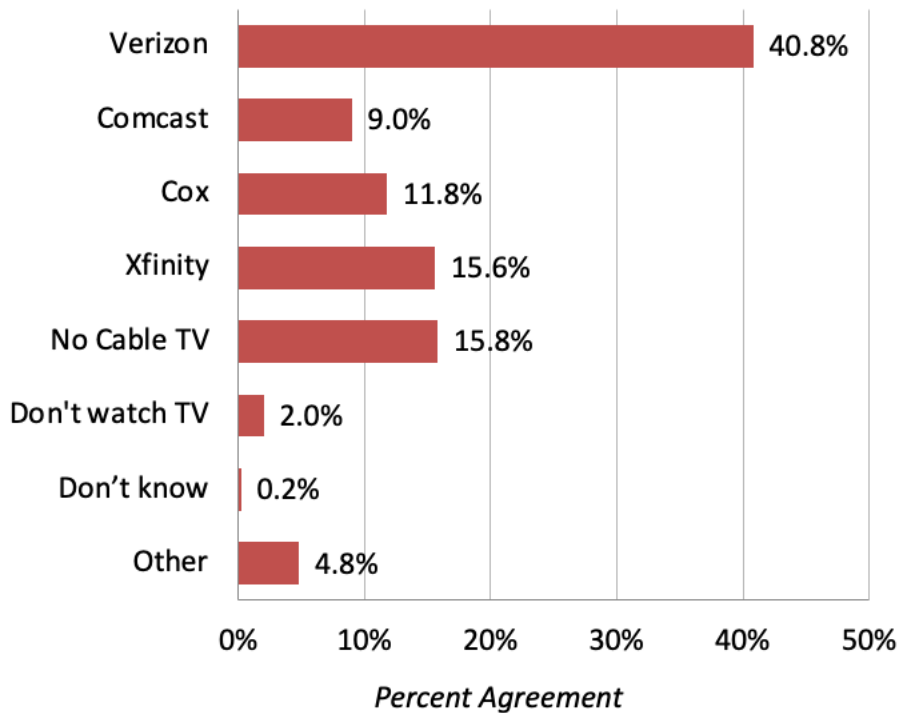
Table 46. TV service providers among respondents by demographic group.

| Demographic | Sub-category | TV Service Provider | | | | | | | |
|-------------|----------------------------|---------------------|-------------|--------------|--------------|--------------|----------------|-------------|-------------|
| | | Verizon | Comcast | Cox | Xfinity | No Cable TV | Don't watch TV | Don't know | Other |
| | All Respondents | 40.8% | 9.0% | 11.8% | 15.6% | 15.8% | 2.0% | 0.2% | 4.8% |
| Gender | Male | 44.4% | 7.7% | 12.9% | 12.1% | 16.5% | 1.2% | 0.4% | 4.8% |
| | Female | 37.2% | 10.4% | 10.8% | 19.2% | 14.8% | 2.8% | 0.0% | 4.8% |
| Age | 21 to 24 | 42.9% | 11.9% | 16.7% | 14.3% | 11.9% | 2.4% | 0.0% | 0.0% |
| | 25 to 34 | 42.5% | 6.6% | 9.4% | 19.8% | 17.0% | 1.9% | 0.0% | 2.8% |
| | 35 to 44 | 43.0% | 14.0% | 13.2% | 11.4% | 14.0% | 3.5% | 0.0% | 0.9% |
| | 45 to 54 | 36.5% | 10.8% | 10.8% | 14.9% | 23.0% | 0.0% | 1.4% | 2.7% |
| | 55 to 64 | 36.2% | 5.8% | 5.8% | 15.9% | 15.9% | 4.3% | 0.0% | 15.9% |
| | 65 to 74 | 44.1% | 0.0% | 13.6% | 15.3% | 15.3% | 0.0% | 0.0% | 11.9% |
| | 75 or older | 38.9% | 13.9% | 19.4% | 19.4% | 8.3% | 0.0% | 0.0% | 0.0% |
| Locality | Alexandria | 24.6% | 15.4% | 15.4% | 24.6% | 10.8% | 1.5% | 0.0% | 7.7% |
| | Arlington | 45.8% | 11.9% | 6.8% | 23.7% | 10.2% | 0.0% | 0.0% | 1.7% |
| | Fairfax - Inclusive | 42.7% | 5.4% | 20.5% | 3.8% | 21.6% | 3.2% | 0.5% | 2.2% |
| | Prince William - Inclusive | 36.1% | 10.3% | 1.0% | 28.9% | 13.4% | 2.1% | 0.0% | 8.2% |
| | Leesburg/Loudon | 50.0% | 8.5% | 6.4% | 13.8% | 13.8% | 1.1% | 0.0% | 6.4% |
| Ethnicity | Not Hispanic/Latino | 41.1% | 8.9% | 11.6% | 15.8% | 15.4% | 1.8% | 0.2% | 5.1% |
| | Hispanic/Latino | 38.5% | 9.6% | 13.5% | 13.5% | 19.2% | 3.8% | 0.0% | 1.9% |
| | Less than 1 year | 13.9% | 2.8% | 16.7% | 30.6% | 25.0% | 8.3% | 0.0% | 2.8% |

| Demographic | Sub-category | TV Service Provider | | | | | | | |
|--------------------|------------------------|---------------------|----------|-------|---------|-------------|----------------|------------|-------|
| | | Verizon | Com-cast | Cox | Xfinity | No Cable TV | Don't watch TV | Don't know | Other |
| Years of Residence | 1 to 3 years | 36.7% | 5.5% | 6.4% | 22.9% | 21.1% | 2.8% | 0.0% | 4.6% |
| | 4 to 9 years | 44.3% | 13.0% | 13.9% | 14.8% | 12.2% | 0.0% | 0.0% | 1.7% |
| | 10 to 19 years | 45.0% | 9.9% | 10.8% | 7.2% | 18.0% | 1.8% | 0.9% | 6.3% |
| | 20 or more years | 45.0% | 9.3% | 14.0% | 13.2% | 10.1% | 1.6% | 0.0% | 7.0% |
| Home Ownership | Owned | 48.9% | 10.0% | 12.2% | 10.0% | 12.5% | 1.0% | 0.3% | 5.1% |
| | Rented | 27.4% | 7.4% | 10.9% | 24.6% | 22.3% | 2.9% | 0.0% | 4.6% |
| Household Income | Less than \$35,000 | 25.4% | 9.5% | 15.9% | 17.5% | 23.8% | 4.8% | 0.0% | 3.2% |
| | \$35,000 to \$49,999 | 30.4% | 8.9% | 8.9% | 25.0% | 17.9% | 3.6% | 0.0% | 5.4% |
| | \$50,000 to \$74,999 | 44.6% | 7.7% | 9.2% | 10.8% | 18.5% | 3.1% | 0.0% | 6.2% |
| | \$75,000 to \$99,999 | 42.5% | 7.5% | 13.2% | 21.7% | 10.4% | 0.9% | 0.9% | 2.8% |
| | \$100,000 to \$124,999 | 45.1% | 14.1% | 9.9% | 14.1% | 12.7% | 0.0% | 0.0% | 4.2% |
| | \$125,000 to \$149,999 | 42.2% | 4.4% | 20.0% | 11.1% | 15.6% | 0.0% | 0.0% | 6.7% |
| | \$150,000 to \$174,999 | 59.1% | 4.5% | 22.7% | 4.5% | 4.5% | 4.5% | 0.0% | 0.0% |
| | \$175,000 to \$199,999 | 55.6% | 14.8% | 3.7% | 7.4% | 14.8% | 3.7% | 0.0% | 0.0% |
| | \$200,000 or greater | 40.0% | 8.9% | 4.4% | 11.1% | 22.2% | 0.0% | 0.0% | 13.3% |

* *Red font indicates significant differences within a demographic subgroup.*

Figure 37. TV service providers.



TV channel options provided in the survey were “HLN TV”, “Oxygen”, “Toon”, “ENT”, “Animal Planet”, “CNN”, “ESPN”, “History”, “National Geographic”, “Lifetime”, “The CW”, “Home and Garden”, and “None of the above”. When asked which TV channels they watched (see Table 47 and Figure 38), 45.8% of respondents report watching CNN, 40.6% report watching ESPN, 36.8% report watching National Geographic, 27.2% report watching Animal Planet, 21.8% report watching Lifetime and 21.0% report watching Home and Garden. Additionally, 17.0% report not watching any of the listed channels, 13.4% reporting watching The CW, 9.8% report watching Oxygen, 7.0% report watching HLN TV, 6.0% report watching Toon and 3.8% report watching ENT.

Men report watching CNN, ESPN, History Channel, and National Geographic at higher rates than women. Younger people tend to report watching Animal Planet at higher rates than older people. Residents of Leesburg/Loudon report watching CNN at higher rates than residents of other localities. Additionally, Prince William residents report watching Lifetime at the highest rates and Arlington residents report watching Home and Garden at the highest rates.

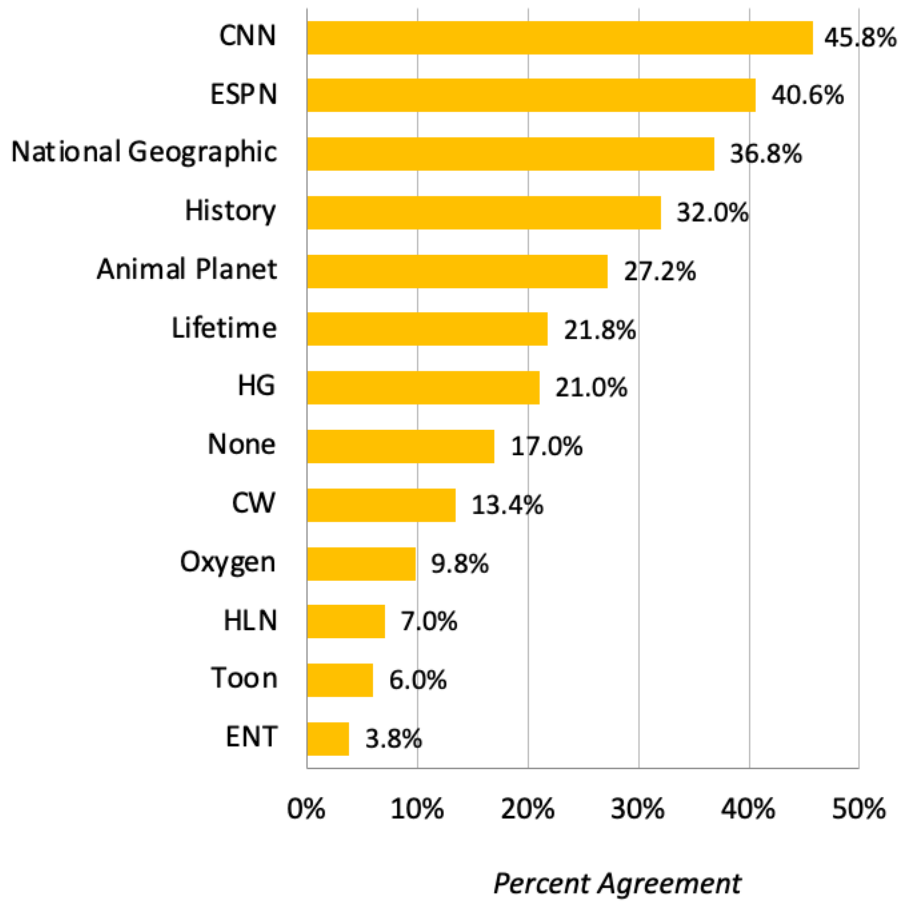
Table 47. TV channels that respondents report watching by demographic group.

| Demographic | Sub-category | TV Channels Watched | | | | | | | | | | | | |
|--------------------|----------------------------|---------------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|---------------------|--------------|--------------|--------------|--------------|
| | | HLN | Oxygen | Toon | ENT | AP | CNN | ESPN | History | National Geographic | Lifetime | CW | HG | None |
| | All Respondents | 7.0% | 9.8% | 6.0% | 3.8% | 27.2% | 45.8% | 40.6% | 32.0% | 36.8% | 21.8% | 13.4% | 21.0% | 17.0% |
| Gender | Male | 8.1% | 7.3% | 6.9% | 4.0% | 26.6% | 50.4% | 51.2% | 39.1% | 41.9% | 19.4% | 14.5% | 20.6% | 15.3% |
| | Female | 6.0% | 12.4% | 5.2% | 3.6% | 28.0% | 41.6% | 30.0% | 25.2% | 32.0% | 24.4% | 12.4% | 21.6% | 18.4% |
| Age | 21 to 24 | 2.4% | 4.8% | 11.9% | 7.1% | 23.8% | 40.5% | 45.2% | 19.0% | 33.3% | 9.5% | 9.5% | 11.9% | 21.4% |
| | 25 to 34 | 7.5% | 14.2% | 7.5% | 5.7% | 38.7% | 49.1% | 46.2% | 26.4% | 42.5% | 23.6% | 10.4% | 27.4% | 13.2% |
| | 35 to 44 | 12.3% | 8.8% | 6.1% | 6.1% | 30.7% | 50.0% | 43.9% | 27.2% | 36.0% | 22.8% | 14.9% | 21.9% | 14.9% |
| | 45 to 54 | 9.5% | 12.2% | 12.2% | 2.7% | 33.8% | 41.9% | 44.6% | 39.2% | 35.1% | 21.6% | 21.6% | 23.0% | 18.9% |
| | 55 to 64 | 2.9% | 5.8% | 0.0% | 1.4% | 18.8% | 49.3% | 34.8% | 34.8% | 31.9% | 24.6% | 11.6% | 14.5% | 20.3% |
| | 65 to 74 | 3.4% | 11.9% | 1.7% | 0.0% | 11.9% | 39.0% | 32.2% | 42.4% | 35.6% | 23.7% | 10.2% | 23.7% | 13.6% |
| Locality | 75 or older | 2.8% | 5.6% | 0.0% | 0.0% | 13.9% | 41.7% | 25.0% | 41.7% | 41.7% | 19.4% | 13.9% | 13.9% | 25.0% |
| | Alexandria | 4.6% | 9.2% | 4.6% | 4.6% | 30.8% | 53.8% | 50.8% | 27.7% | 40.0% | 20.0% | 9.2% | 24.6% | 15.4% |
| | Arlington | 13.6% | 10.2% | 10.2% | 0.0% | 32.2% | 47.5% | 39.0% | 35.6% | 44.1% | 18.6% | 11.9% | 30.5% | 15.3% |
| | Fairfax - Inclusive | 4.3% | 7.0% | 4.3% | 3.8% | 24.9% | 41.1% | 38.9% | 33.0% | 34.6% | 20.5% | 13.0% | 14.1% | 23.8% |
| | Prince William - Inclusive | 9.3% | 17.5% | 8.2% | 6.2% | 24.7% | 36.1% | 38.1% | 26.8% | 32.0% | 34.0% | 17.5% | 18.6% | 14.4% |
| Ethnicity | Leesburg/Loudon | 7.4% | 7.4% | 5.3% | 3.2% | 28.7% | 58.5% | 40.4% | 36.2% | 39.4% | 14.9% | 13.8% | 28.7% | 8.5% |
| | Not Hispanic/Latino | 7.4% | 9.8% | 5.8% | 3.8% | 27.5% | 46.0% | 40.4% | 32.8% | 36.2% | 21.7% | 14.1% | 21.4% | 17.2% |
| Years of Residence | Hispanic/Latino | 3.8% | 9.6% | 7.7% | 3.8% | 25.0% | 44.2% | 42.3% | 25.0% | 42.3% | 23.1% | 7.7% | 17.3% | 15.4% |
| | Less than 1 year | 11.1% | 11.1% | 11.1% | 2.8% | 30.6% | 30.6% | 38.9% | 27.8% | 36.1% | 16.7% | 2.8% | 11.1% | 27.8% |
| | 1 to 3 years | 1.8% | 13.8% | 6.4% | 0.9% | 21.1% | 41.3% | 41.3% | 27.5% | 31.2% | 18.3% | 7.3% | 14.7% | 20.2% |

| Demographic | Sub-category | TV Channels Watched | | | | | | | | | | | | |
|------------------|------------------------|---------------------|--------|-------|-------|-------|-------|-------|---------|---------------------|----------|-------|-------|-------|
| | | HLN | Oxygen | Toon | ENT | AP | CNN | ESPN | History | National Geographic | Lifetime | CW | HG | None |
| | 4 to 9 years | 5.2% | 9.6% | 7.0% | 6.1% | 31.3% | 49.6% | 43.5% | 34.8% | 35.7% | 22.6% | 15.7% | 19.1% | 13.0% |
| | 10 to 19 years | 9.0% | 7.2% | 5.4% | 4.5% | 29.7% | 47.7% | 35.1% | 33.3% | 40.5% | 23.4% | 17.1% | 27.0% | 18.0% |
| | 20 or more years | 10.1% | 8.5% | 3.9% | 3.9% | 25.6% | 48.8% | 42.6% | 33.3% | 39.5% | 24.0% | 16.3% | 25.6% | 14.0% |
| Home Ownership | Owned | 8.4% | 8.7% | 5.1% | 4.5% | 28.9% | 50.5% | 43.7% | 33.4% | 41.5% | 21.5% | 14.8% | 23.8% | 14.8% |
| | Rented | 5.1% | 12.0% | 8.0% | 2.3% | 25.7% | 40.0% | 38.3% | 31.4% | 29.7% | 22.3% | 10.9% | 17.1% | 19.4% |
| Household Income | Less than \$35,000 | 7.9% | 19.0% | 11.1% | 6.3% | 27.0% | 42.9% | 30.2% | 31.7% | 34.9% | 27.0% | 14.3% | 15.9% | 23.8% |
| | \$35,000 to \$49,999 | 0.0% | 5.4% | 5.4% | 0.0% | 23.2% | 30.4% | 35.7% | 25.0% | 25.0% | 17.9% | 10.7% | 16.1% | 21.4% |
| | \$50,000 to \$74,999 | 4.6% | 9.2% | 6.2% | 3.1% | 20.0% | 36.9% | 41.5% | 20.0% | 26.2% | 21.5% | 12.3% | 13.8% | 20.0% |
| | \$75,000 to \$99,999 | 6.6% | 12.3% | 3.8% | 2.8% | 33.0% | 48.1% | 38.7% | 31.1% | 37.7% | 20.8% | 9.4% | 22.6% | 15.1% |
| | \$100,000 to \$124,999 | 11.3% | 11.3% | 7.0% | 4.2% | 31.0% | 56.3% | 42.3% | 28.2% | 40.8% | 18.3% | 16.9% | 21.1% | 9.9% |
| | \$125,000 to \$149,999 | 11.1% | 2.2% | 2.2% | 0.0% | 28.9% | 40.0% | 44.4% | 42.2% | 60.0% | 33.3% | 22.2% | 24.4% | 13.3% |
| | \$150,000 to \$174,999 | 9.1% | 4.5% | 0.0% | 0.0% | 27.3% | 45.5% | 50.0% | 40.9% | 54.5% | 9.1% | 9.1% | 22.7% | 13.6% |
| | \$175,000 to \$199,999 | 7.4% | 7.4% | 7.4% | 14.8% | 29.6% | 55.6% | 40.7% | 51.9% | 25.9% | 22.2% | 22.2% | 40.7% | 18.5% |
| | \$200,000 or greater | 6.7% | 6.7% | 8.9% | 6.7% | 20.0% | 60.0% | 53.3% | 40.0% | 35.6% | 22.2% | 8.9% | 24.4% | 17.8% |

* *Red font* indicates significant differences within a demographic subgroup.

Figure 38. TV channels watched.



3 APPENDIX

3.2 Survey Instrument

2024 Stormwater Survey

Survey Instrument

Programming instructions

- Programming instructions are in [SQUARE BRACKETS].
- Skip/branch logic is in [RED SQUARE BRACKETS].
- All items are single-select unless otherwise noted.
- Retain response option order unless noted.
- Retain grid item order unless noted.
- Allow respondents to go back/forward.
- Respondents may skip any question, but give one prompt if they move forward without a response. Terminate if a screener question is skipped.

Consent and screening

We're conducting this survey to understand opinions related to storm water. Everything you say will be anonymous. You'll watch a couple short videos, so please make sure your sound is on. The survey should take about 10 minutes.

Do you want to proceed?

Yes

No [END SURVEY]

| Section | Construct | Q # | Question |
|--------------|----------------|-----|--|
| Demographics | Sex | S1 | <p>First, we'll ask a few questions about you.</p> <p>What is your gender identity?</p> <p>Male Female Non-binary/non-conforming Prefer not to answer</p> |
| Demographics | Age | S2 | <p>Which of the following categories includes your age?</p> <p>Under 18 [END SURVEY] 18 to 20 [END SURVEY] 21 to 24 25 to 34 35 to 44 45 to 54 55 to 64 65 to 74 75 or older</p> |
| Demographics | Residence Type | S3 | <p>Is your home...?</p> <p>Owned Rented Military housing Transitional housing Other (Please specify): None of the above [END SURVEY]</p> |
| Demographics | VA Residency | S4 | <p>Do you live in the state of Virginia?</p> <p>Yes No [END SURVEY]</p> |

| | | | |
|--------------|----------------|----|--|
| Demographics | NoVA Residency | S5 | <p>Do you live in one of the following towns, cities, or counties? Please select only one location.</p> <p>Alexandria Arlington Fairfax County: Fairfax City Fairfax County: Herndon Fairfax County: Vienna Fairfax County, but not one of the cities/towns listed Falls Church Henrico County [END SURVEY] Loudoun County: Leesburg Loudoun County, but not Leesburg Prince William County: Dumfries Prince William County: Manassas Prince William County: Manassas Park Prince William County, but not one of the cities/towns listed Richmond [END SURVEY] Virginia Beach [END SURVEY] None of the above [END SURVEY]</p> |
| Demographics | Occupation | S6 | <p>What is your occupation/sector of work? [RETAIN ORDER, DO NOT RANDOMIZE]</p> <ol style="list-style-type: none"> a. Student only (no other occupation) b. Retired c. Currently unemployed d. Agriculture, forestry, fishing and hunting, and mining e. Construction f. Manufacturing g. Wholesale trade h. Retail trade i. Transportation and warehousing j. Utilities k. Information or information technology l. Finance and insurance, m. Real estate and/or rental and leasing n. Professional and/or scientific o. Administrative p. Waste management services q. Educational services r. Health care and/or social assistance s. Arts, entertainment, and recreation t. Accommodation/hospitality and food services u. Public administration v. Other services w. Other: _____ |

| | | | |
|--------------|--------------------|----|--|
| Demographics | HH Income | S7 | <p>What is your household's annual income?</p> <p>Less than \$35,000 \$35,000 to \$49,999 \$50,000 to \$74,999 \$75,000 to \$99,999 \$100,000 to \$124,999 \$125,000 to \$149,999 \$150,000 to \$174,999 \$175,000 to \$199,999 \$200,000 or greater</p> |
| Demographics | Ethnicity | S8 | <p>Which of the following describes your ethnicity? (Please select all that apply)</p> <p>African American/Black American Indian/Native Alaskan Asian Hispanic/Latino Native Hawaiian/Pacific Islander White/Caucasian Other: _____</p> |
| Demographics | Language | S9 | <p>What is the main language spoken in your home?</p> <p>a. English b. Spanish c. Chinese d. Vietnamese e. Arabic f. Korean g. Tagalog (including Filipino) h. Urdu i. Amharic or Somali j. French (including Cajun) k. Persian (including Farsi, Dari) l. Other: _____</p> |
| Demographics | Years in residence | Q1 | <p>How many years have you lived in your current residence?</p> <p>Less than 1 year 1 to 3 years 4 to 9 years 10 to 19 years 20 or more years</p> |

| Behavior | Lawn or garden at residence | Q2 | Does your home have a lawn or garden, no matter how small? Yes No | | | | | | | | | | | | | | | | |
|-------------------------------|-----------------------------|----|---|--|-----|----|------------|---------------------------|--|--|--|--------------------------|--|--|--|-------------------------------|--|--|--|
| Behavior | Lawn care familiarity | Q3 | [IF Q2 = YES] Are you familiar with how your garden or lawn is cared for (e.g., fertilizer use, mowing)? Yes No | | | | | | | | | | | | | | | | |
| Behavior | Lawn care use | Q4 | [IF Q2 = YES] Do you use a lawn care service at least once a year? Yes No | | | | | | | | | | | | | | | | |
| Behavior | Vehicle owner | Q5 | Do you own or lease a personal vehicle? Yes No | | | | | | | | | | | | | | | | |
| Demographics | Own a dog | Q6 | Is there one or more dogs in your home that you are at least partially responsible for? Yes No | | | | | | | | | | | | | | | | |
| Knowledge | Watershed | Q7 | Are you familiar with the term “watershed”? Yes No [DISPLAY TEXT ON NEXT PAGE AFTER RESPONSE HAS BEEN ENTERED.] A watershed is an area of land that channels rainfall and snowmelt to creeks, streams, and rivers, and eventually to outflow points such as reservoirs, bays, and the ocean. | | | | | | | | | | | | | | | | |
| Demographics | Reside within watershed | Q8 | Do you live in the.... <table border="1"> <thead> <tr> <th></th> <th>YES</th> <th>NO</th> <th>Don't Know</th> </tr> </thead> <tbody> <tr> <td>Chesapeake Bay watershed?</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Potomac River watershed?</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Another watershed not listed?</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | YES | NO | Don't Know | Chesapeake Bay watershed? | | | | Potomac River watershed? | | | | Another watershed not listed? | | | |
| | YES | NO | Don't Know | | | | | | | | | | | | | | | | |
| Chesapeake Bay watershed? | | | | | | | | | | | | | | | | | | | |
| Potomac River watershed? | | | | | | | | | | | | | | | | | | | |
| Another watershed not listed? | | | | | | | | | | | | | | | | | | | |

| | | | |
|-------------|-------------------------------|-----|--|
| Perceptions | Storm water final destination | Q9 | <p>“Stormwater” is rainwater that flows into the street, along the gutter and into the storm drain. To the best of your knowledge, where does stormwater go?</p> <p>A wastewater treatment facility Potomac River and Chesapeake Bay All of the above None of the above Other: _____</p> |
| Behavior | Dog walk cleanup frequency | Q10 | <p>[IF Q6= YES]</p> <p>When taking your dog(s) for a walk, how often do you pick up after your dog(s)?</p> <p>Always Usually Sometimes Rarely Never Not applicable/I don’t take the dog(s) on walks</p> |
| Behavior | Dog yard clean up frequency | Q11 | <p>[IF Q6 = YES AND Q2 = YES]</p> <p>How often do you (or someone else from your household) remove your dog’s waste from your yard?</p> <p>Not applicable – dog not allowed to go in the home’s yard Daily Weekly Monthly Less often than once a month Never Not sure</p> |

| | | | |
|----------|------------------------------------|-----|--|
| Belief | Reason for dog clean up | Q12 | <p>[IF Q10 = (Always, Usually, Sometimes, Rarely) AND Q11 = (Daily, Weekly, Monthly, Less often than once a month)]</p> <p>What is the most important reason to pick up after your dog(s)? (Please select only one)</p> <p>City/county ordinance Don't want to step in it It causes water pollution It is gross It's what good neighbors do Odor Other reason None/no reason to</p> |
| Behavior | Grass clippings handling | Q13 | <p>[IF Q3 = YES] How are grass clippings from your lawn disposed of?</p> <p>Bagged and put in the regular trash Bagged and put in compost/recycling bags for pick up Left on the lawn/garden Put in a compost pile/bin Not sure Other Not applicable/don't have grass clippings</p> |
| Behavior | Grass clippings on street handling | Q14 | <p>[IF Q3 = YES] After your grass has been mown, what is done if grass clippings end up in the street?</p> <p>They are left there. They are swept or blown back into the lawn. They are swept or blown into the storm drain Not applicable/don't have grass clippings Other: _____ Not sure</p> |
| Behavior | Lawn fertilization frequency | Q15 | <p>[IF Q3 = YES] Which of the following best describes how often your lawn is fertilized?</p> <p>1 time a year 2 times a year 3 times a year 4+ times a year Only if/when if a soil test indicates the grass needs fertilizer Never Not sure</p> |

| Knowledge | Rain barrel familiarity | Q16 | <p>A rain barrel is a barrel you put under your downspout to collect rain water that you can use around your yard. Which of the following statements are true for you?</p> <table border="1"> <thead> <tr> <th></th> <th>YES</th> <th>NO</th> </tr> </thead> <tbody> <tr> <td>I have a rain barrel.</td> <td></td> <td></td> </tr> <tr> <td>I am familiar with rain barrels.</td> <td></td> <td></td> </tr> <tr> <td>I don't have a rain barrel but I'm interested in getting one.</td> <td></td> <td></td> </tr> </tbody> </table> | | YES | NO | I have a rain barrel. | | | I am familiar with rain barrels. | | | I don't have a rain barrel but I'm interested in getting one. | | |
|--|--------------------------------------|-----|---|--|-----|----|---|--|--|--|--|--|--|--|--|
| | YES | NO | | | | | | | | | | | | | |
| I have a rain barrel. | | | | | | | | | | | | | | | |
| I am familiar with rain barrels. | | | | | | | | | | | | | | | |
| I don't have a rain barrel but I'm interested in getting one. | | | | | | | | | | | | | | | |
| Knowledge | Rain garden familiarity | Q17 | <p>A rain garden is a bowl-shaped garden area where runoff can collect and soak into the ground. Which of the following statements are true for you?</p> <table border="1"> <thead> <tr> <th></th> <th>YES</th> <th>NO</th> </tr> </thead> <tbody> <tr> <td>I have a rain garden.</td> <td></td> <td></td> </tr> <tr> <td>I am familiar with rain gardens.</td> <td></td> <td></td> </tr> <tr> <td>I don't have a rain garden but I'm interested in installing one.</td> <td></td> <td></td> </tr> </tbody> </table> | | YES | NO | I have a rain garden. | | | I am familiar with rain gardens. | | | I don't have a rain garden but I'm interested in installing one. | | |
| | YES | NO | | | | | | | | | | | | | |
| I have a rain garden. | | | | | | | | | | | | | | | |
| I am familiar with rain gardens. | | | | | | | | | | | | | | | |
| I don't have a rain garden but I'm interested in installing one. | | | | | | | | | | | | | | | |
| Knowledge | Conservation landscaping familiarity | Q18 | <p>Conservation landscaping is replacing an area of lawn or bare soil in your yard with native plants. Which of the following statements are true for you?</p> <table border="1"> <thead> <tr> <th></th> <th>YES</th> <th>NO</th> </tr> </thead> <tbody> <tr> <td>I have conservation landscaping in my yard.</td> <td></td> <td></td> </tr> <tr> <td>I am familiar with conservation landscaping.</td> <td></td> <td></td> </tr> <tr> <td>I don't have conservation landscaping but I'm interested in installing it.</td> <td></td> <td></td> </tr> </tbody> </table> | | YES | NO | I have conservation landscaping in my yard. | | | I am familiar with conservation landscaping. | | | I don't have conservation landscaping but I'm interested in installing it. | | |
| | YES | NO | | | | | | | | | | | | | |
| I have conservation landscaping in my yard. | | | | | | | | | | | | | | | |
| I am familiar with conservation landscaping. | | | | | | | | | | | | | | | |
| I don't have conservation landscaping but I'm interested in installing it. | | | | | | | | | | | | | | | |
| Behavior | Vehicle oil handling | Q19 | <p>[IF Q5 = YES] When you need to change the oil in your car or truck, what do you do with the old motor oil?</p> <p>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 hazmat 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 Dump it on the ground Other: _____ [please specify]</p> | | | | | | | | | | | | |

| Knowledge | HHW drop off knowledge | Q20 | <p>Do you know whether or not your locality has a specific place for residents to drop off household hazardous waste (HHW)? HHW includes items like automobile fluids, pesticides and herbicides, oil-based paint and paint thinners, etc.</p> <p>Yes, I know whether we have a location for drop-offs. No, I'm not sure whether we have a location for drop-offs.</p> | | | | | | | | | | | | | | | | |
|--|--------------------------------|-----|--|--|-----|----|----------|--|--|--|--|--|--|--|--|---|--|--|--|
| Behavior | Wash vehicle at home | Q21 | <p>[IF Q5 = YES] In the past year, where have you washed your personal vehicle? Check all that apply. [MULTISELECT]</p> <p>At my home or someone else's home At a commercial car wash I haven't washed my vehicle Other: _____ [please specify]</p> | | | | | | | | | | | | | | | | |
| Behavior | Wash vehicle at home frequency | Q22 | <p>[IF Q21 = At my/someone else's home] How often do you typically wash your car/truck at home?</p> <p>Less than once a year 1- 2 times per year 3-4 times per year 5-6 times per year 7-12 times per year 12+ times per year</p> | | | | | | | | | | | | | | | | |
| Behavior | Wash vehicle method | Q23 | <p>[IF Q21 = At my/someone else's home] When you wash your car/truck at home, which of the following apply?</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;"></th> <th style="width: 10%;">YES</th> <th style="width: 10%;">NO</th> <th style="width: 10%;">NOT SURE</th> </tr> </thead> <tbody> <tr> <td>I wash it on the grass, gravel or dirt</td> <td></td> <td></td> <td></td> </tr> <tr> <td>I use environmentally friendly detergent</td> <td></td> <td></td> <td></td> </tr> <tr> <td>I use water only (no soap or detergent)</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | YES | NO | NOT SURE | I wash it on the grass, gravel or dirt | | | | I use environmentally friendly detergent | | | | I use water only (no soap or detergent) | | | |
| | YES | NO | NOT SURE | | | | | | | | | | | | | | | | |
| I wash it on the grass, gravel or dirt | | | | | | | | | | | | | | | | | | | |
| I use environmentally friendly detergent | | | | | | | | | | | | | | | | | | | |
| I use water only (no soap or detergent) | | | | | | | | | | | | | | | | | | | |

| | | | |
|-----------|------------------------------------|-----|--|
| Knowledge | Pollution identification | Q24 | <p>Looking at the picture below, would you consider either to be a potential source of water pollution?</p> <p>[MEDIA: SurveyImage_POLLUTION.png]</p> <p>Yes No Not sure Cannot see image</p> |
| Knowledge | Pollution reporting knowledge | Q25 | <p>Do you feel that you know who to contact to report potential water pollution?</p> <p>I definitely know I think I know I don't think I know I definitely don't know</p> |
| Behavior | Likelihood to report pollution | Q26 | <p>What is the likelihood that you would call county or town officials to report potential pollution so they could investigate the cause?</p> <p>I definitely would I probably would I'm equally likely to call and to not call I probably would NOT I definitely would NOT</p> |
| Behavior | Reason for not reporting pollution | Q27 | <p>[IF Q26 = Equally likely, Probably not or Definitely not]</p> <p>What is the primary reason that you would not call county or town officials to report potential pollution?</p> <p>I'm too busy It's not my responsibility It's none of my business I prefer not to communicate with officials or authorities Other: _____</p> |
| Behavior | Salt/abrasive | Q28 | <p>During snowy and icy conditions, how often (if at all) do you (or a family member) apply deicer (e.g., salt) at your residence?</p> <p>Always or most of the time Frequently Sometimes Occasionally Rarely Never Don't know</p> |

| Behavior | Salt/abrasive | Q29 | <p>[SKIP IF Q28 = "RARELY" OR "NEVER"]</p> <p>Do you (or a family member) typically apply deicer (e.g., salt) at your residence before, during, or after a winter storm event? (Select all that apply.)</p> <p>Before During After Depends / varies too much to say Other: _____ [please specify] Don't know</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---------------|--------------------|--|--------------------|---------------|---------------------|---------------------|--------------------|---------------|---------------------|--------------------|--|--|--|--|--|--|-----------------|--|--|--|--|--|--|--------------------------|--|--|--|--|--|--|-----------------|--|--|--|--|--|--|-------------------|--|--|--|--|--|--|-----------------------------|--|--|--|--|--|--|
| Behavior | Salt/abrasive | Q30 | <p>During snowy and icy conditions, how often (if at all) do you (or a family member) apply <u>an abrasive for traction</u> (e.g., sand) at your residence?</p> <p>Always or most of the time Frequently Sometimes Occasionally Rarely Never Don't know</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Perception | Salt/abrasive | Q31 | <p>In general, how would you rate the impact (if any) on each of the following from using salt for winter storm events? That is, for each item, please indicate if you feel that applying salt for winter storm events has a very positive, somewhat positive, somewhat negative, very negative, or little or no impact on that item. [RANDOMIZE]</p> <table border="1"> <thead> <tr> <th></th> <th>Very positive</th> <th>Some-what positive</th> <th>No or little impact</th> <th>Some-what negative</th> <th>Very negative</th> <th>Don't know/not sure</th> </tr> </thead> <tbody> <tr> <td>Tap/Drinking water</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Local waterways</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Emergency vehicle safety</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Motorist safety</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Pedestrian safety</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Economic and civic activity</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | Very positive | Some-what positive | No or little impact | Some-what negative | Very negative | Don't know/not sure | Tap/Drinking water | | | | | | | Local waterways | | | | | | | Emergency vehicle safety | | | | | | | Motorist safety | | | | | | | Pedestrian safety | | | | | | | Economic and civic activity | | | | | | |
| | Very positive | Some-what positive | No or little impact | Some-what negative | Very negative | Don't know/not sure | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tap/Drinking water | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Local waterways | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Emergency vehicle safety | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Motorist safety | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pedestrian safety | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Economic and civic activity | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | |
|-----------|--|-----|---|
| Sources | TV service provider | Q32 | <p>What TV service provider do you use? [RANDOMIZE FIRST FOUR OPTIONS]</p> <p>Verizon Comcast Cox Xfinity Do not have cable TV Do not watch TV Other: _____ I don't know</p> |
| Sources | TV channels | Q33 | <p>White of the following channels, if any, do you watch? [RANDOMIZE ALL BUT LAST]</p> <p>HLN TV Oxygen Toon ENT Animal Planet CNN ESPN History National Geographic Lifetime CW Home and Garden None of the above</p> |
| Knowledge | Clean up activity awareness in past 12 months | Q34 | <p>Thinking about the last 12 months, have you heard about any opportunities to participate in a water quality activity, such as a stream clean up, helping to install storm drain labels, etc.?</p> <p>Yes No Not sure</p> |
| Behavior | Cleanup activity participation in the past 12 months | Q35 | <p>[IF Q34 = YES] Thinking about the last 12 months, have you participated in a water quality activity, such as a stream clean up, helping to install storm drain labels, etc.?</p> <p>Yes No</p> |

| <i>Instruction</i> | | | <p>Please watch the video below, then we'll ask you a couple questions about it. [VIDEO ORDER RANDOMIZED: "Only Rain Down the Drain!", "Pollution Solutions"]</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------------|----------|---|-------|----------------|--|--|--|--|-------------------|----------|---------------------------|-------|----------------|---|--|--|--|--|--|---------------------------|--|--|--|--|--|------------------------------------|--|--|--|--|--|--------------------------------|--|--|--|--|--|-----------------------|--|--|--|--|--|------------------------------------|--|--|--|--|--|
| Awareness | Ad familiarity | Q36 | <p>Before this survey, had you seen this ad, or a similar one on TV, Facebook, or Twitter?</p> <p>Yes No Not sure Video did not play</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Perception | Ad perceptions | Q37 | <p>[IF Q36 NOT = 'Video did not play']</p> <p>Thinking of the ad video you just saw, indicate whether you agree or disagree with the following statements about it.</p> <table border="1"> <thead> <tr> <th></th> <th>Strongly Disagree</th> <th>Disagree</th> <th>Neither disagree or agree</th> <th>Agree</th> <th>Strongly Agree</th> </tr> </thead> <tbody> <tr> <td>I understand the information in the ad.</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>The ad is relevant to me.</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>I trust the information in the ad.</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>The ad's message is important.</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>The ad is persuasive.</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>I think the ad would be effective.</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | | | | | Strongly Disagree | Disagree | Neither disagree or agree | Agree | Strongly Agree | I understand the information in the ad. | | | | | | The ad is relevant to me. | | | | | | I trust the information in the ad. | | | | | | The ad's message is important. | | | | | | The ad is persuasive. | | | | | | I think the ad would be effective. | | | | | |
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| <i>Instruction</i> | | | <p>Please watch the video below, then we'll ask you a couple questions about it. [VIDEO ORDER COUNTERBALANCED: "Only Rain Down the Drain!", "Pollution Solutions"]</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Awareness | Ad familiarity | Q38 | <p>Before this survey, had you seen this ad, or a similar one on TV, Facebook, or Twitter?</p> <p>Yes No Not sure Video did not play</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------------|----------|---|-------|-------------------|----------|---------------------------|-------|----------------|---|--|--|--|--|--|---------------------------|--|--|--|--|--|------------------------------------|--|--|--|--|--|--------------------------------|--|--|--|--|--|-----------------------|--|--|--|--|--|------------------------------------|--|--|--|--|--|
| Perception | Ad perceptions | Q39 | <p>[IF Q38 NOT 'Video did not play']</p> <p>Thinking of the ad video you just saw, indicate whether you agree or disagree with the following statements about it.</p> <table border="1"> <thead> <tr> <th></th> <th>Strongly Disagree</th> <th>Disagree</th> <th>Neither disagree or agree</th> <th>Agree</th> <th>Strongly Agree</th> </tr> </thead> <tbody> <tr> <td>I understand the information in the ad.</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>The ad is relevant to me.</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>I trust the information in the ad.</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>The ad's message is important.</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>The ad is persuasive.</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>I think the ad would be effective.</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | Strongly Disagree | Disagree | Neither disagree or agree | Agree | Strongly Agree | I understand the information in the ad. | | | | | | The ad is relevant to me. | | | | | | I trust the information in the ad. | | | | | | The ad's message is important. | | | | | | The ad is persuasive. | | | | | | I think the ad would be effective. | | | | | |
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| Behavior | Ad impact | Q40 | <p>[IF Q38 = YES OR Q36 = YES]</p> <p>Thinking back to when you first saw the ad(s), please indicate if the following statements are true for you now compared to then? (Select all that apply.)</p> <table border="1"> <thead> <tr> <th></th> <th>YES</th> <th>NO</th> <th>DOES NOT APPLY</th> </tr> </thead> <tbody> <tr> <td>I understand more about the impact of pet waste on water quality.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>I'd like to pick up pet waste more often, though I haven't made any changes yet.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>I now pick up pet waste more often.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>I was already doing what is recommended to reduce water pollution from pet waste</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>[PAGE BREAK. KEEP QUESTION AND RESPONSE LABELS ON SCREEN]</p> <table border="1"> <thead> <tr> <th></th> <th>YES</th> <th>NO</th> <th>DOES NOT APPLY</th> </tr> </thead> <tbody> <tr> <td>I understand more about the impact of fertilizer on water quality.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>I'd <i>like to</i> fertilize fewer times during the year.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>I now plan to fertilize fewer times during the year.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>I was already doing what is recommended to reduce water pollution from fertilizer.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>[PAGE BREAK. KEEP QUESTION AND RESPONSE LABELS ON SCREEN.]</p> <table border="1"> <thead> <tr> <th></th> <th>YES</th> <th>NO</th> <th>DOES NOT APPLY</th> </tr> </thead> <tbody> <tr> <td>I understand more about the impact of motor oil on water quality.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>I'd like to dispose of motor oil properly, though I haven't made any changes yet.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>I now properly dispose of motor oil.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>I was already doing what is recommended to reduce water pollution.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | YES | NO | DOES NOT APPLY | I understand more about the impact of pet waste on water quality. | | | | I'd like to pick up pet waste more often, though I haven't made any changes yet. | | | | I now pick up pet waste more often. | | | | I was already doing what is recommended to reduce water pollution from pet waste | | | | | YES | NO | DOES NOT APPLY | I understand more about the impact of fertilizer on water quality. | | | | I'd <i>like to</i> fertilize fewer times during the year. | | | | I now plan to fertilize fewer times during the year. | | | | I was already doing what is recommended to reduce water pollution from fertilizer. | | | | | YES | NO | DOES NOT APPLY | I understand more about the impact of motor oil on water quality. | | | | I'd like to dispose of motor oil properly, though I haven't made any changes yet. | | | | I now properly dispose of motor oil. | | | | I was already doing what is recommended to reduce water pollution. | | | |
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| | YES | NO | DOES NOT APPLY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | YES | NO | DOES NOT APPLY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| I understand more about the impact of fertilizer on water quality. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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|-----------|-------------------------------------|-----|---|
| Awareness | Received info about water pollution | Q41 | <p>Have you seen or received information about reducing water pollution from any source in the past 12 months?</p> <p>Yes No Not sure</p> |
| Awareness | Rain logo familiarity | Q42 | <p>Have you seen the logo below before? [MEDIA: SHOW SURVEYIMAGE_LOGO]</p> <p>Yes No Cannot see image</p> |

| Perceptions | Sponsor awareness and perceptions | Q43 | <p>[DISPLAY TEXT ON SEPARATE PAGE.]</p> <p><i>The Northern Virginia Clean Water Partners is 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.</i></p> <p>[PAGE BREAK.]</p> <p>Indicate whether you agree or disagree with the following statements about the Northern Virginia Clean Water Partners (NVCWP).</p> <table border="1"> <thead> <tr> <th></th> <th>Strongly Disagree</th> <th>Disagree</th> <th>Neither disagree or agree</th> <th>Agree</th> <th>Strongly Agree</th> </tr> </thead> <tbody> <tr> <td>I was familiar with the NVCWP before this survey.</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>I trust information from the NVCWP.</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>I would contact the NVCWP if I had a question or concern about water quality.</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>The NVCWP shares my values when it comes to water quality.</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | Strongly Disagree | Disagree | Neither disagree or agree | Agree | Strongly Agree | I was familiar with the NVCWP before this survey. | | | | | | I trust information from the NVCWP. | | | | | | I would contact the NVCWP if I had a question or concern about water quality. | | | | | | The NVCWP shares my values when it comes to water quality. | | | | | |
|---|-----------------------------------|----------|--|-------|-------------------|----------|---------------------------|-------|----------------|---|--|--|--|--|--|-------------------------------------|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|
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[FINAL PAGE]

Thank you for completing the survey! The survey was sponsored by the Northern Virginia Clean Water Partners. To learn about the Northern Virginia Clean Water Partners, visit onlyrain.org.



MS4 Annual Report 2023-2024
Appendix 2
Public Education and Outreach
Public Participation and Involvement


Media Materials: Illicit Discharges and Illegal Dumping

Town of Leesburg, Virginia
March 14 · 🌐

Tune in to tomorrow's Live in Leesburg where we'll discuss the upcoming "Keep Leesburg Beautiful" campaign, in April.

Learn more about the month-long cleanup, how to sign up for the official clean-up event, and where your help is needed most.

Have questions? Post them below or join us live, right here on the Town's Facebook page, tomorrow at 12:30 p.m. More details can also be found here >>
<https://bit.ly/KeepLeesburgBeautiful>



19 1 share

Like Comment Share



 **Town of Leesburg, Virginia**
October 17, 2023 · 🌐

This Saturday in Leesburg! Visit the link below for full details.

Household Hazardous Waste Event

Saturday, October 21, 2023
Leesburg Park and Ride
41951 Gourley Transit Drive
Leesburg

8:30 a.m. - 2:30 p.m.



 **loudoun.gov/hhw**

 **Loudoun County Government** ✓
October 16, 2023 · 🌐

Is a Fall Cleanup on your list of things to do around the house? #Loudoun County's next household hazardous waste collection event is this Saturday, October 21,... See more

  7 4 shares

 Like  Comment  Share

 Comment as Chad Minnick 



MS4 Annual Report 2023-2024
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Public Participation and Involvement



Town of Leesburg, Virginia

March 21 · 🌐

Tune in to tomorrow's "Live in Leesburg" where we'll discuss part two of the Town's Keep Leesburg Beautiful campaign...storm sewer inlet inventory!

The Town provides adult safety vests, maps, checklists, and storm drain decals with adhesive discs (pictured). Volunteers can replace missing or damaged decals while noting any inlets that are blocked or in need of repair.

Learn more when we go live this Friday at 12:30 p.m. Can't tune in but have questions? Post them below and we'll be sure to address them.



👍 6

2 shares

👍 Like

💬 Comment

➦ Share



MS4 Annual Report 2023-2024
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Media Materials: Bacteria

Town of Leesburg, Virginia
August 29, 2023 · 🌐

For today's **#TipTuesday**, we'd like to remind you of the Town's PAWS for Clean Water program. It was established by the Town of Leesburg's Public Works Department to promote responsible pet ownership and pet waste pollution prevention. The program is designed to encourage pet owners to consistently pick up after their pets to help reduce stormwater pollution from pet waste.

To join, simply complete the online pledge form found here >> <https://bit.ly/47SvvY4>. ... See more

4 1 share



MS4 Annual Report 2023-2024
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Town of Leesburg, Virginia

August 22, 2023 · 🌐

For today's #TipTuesday during the #DogDaysofSummer we want to remind you to pick up after your four-legged friend.

It's not just a tip, it's the law.

You'll see dog waste stations with bags around the Town.

Remember, don't pollute, scoop the poop!

#LeesburgVA



👍 3

1 share

👍 Like

💬 Comment

➦ Share



MS4 Annual Report 2023-2024
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Public Education and Outreach
Public Participation and Involvement



Town of Leesburg, Virginia

March 14 · 🌐



Tune in to tomorrow's Live in Leesburg where we'll discuss the upcoming "Keep Leesburg Beautiful" campaign, in April.

Learn more about the month-long cleanup, how to sign up for the official clean-up event, and where your help is needed most.

Have questions? Post them below or join us live, right here on the Town's Facebook page, tomorrow at 12:30 p.m. More details can also be found here >>

<https://bit.ly/KeepLeesburgBeautiful>



👍 19

1 share

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💬 Comment

➦ Share



MS4 Annual Report 2023-2024
Appendix 2
Public Education and Outreach
Public Participation and Involvement

Appendix 2-B Public Involvement Activities and Outcomes



MS4 Annual Report 2023-2024
Appendix 2
Public Education and Outreach
Public Participation and Involvement

MCM 2 Program Matrix

| Public Involvement Opportunity | Activity Description | Lead Department/Division | Number of Events/Locations | Number of Volunteers/Contacts | Notes |
|--------------------------------|---------------------------------------|---|-----------------------------------|-------------------------------|---|
| Restoration | Keep Leesburg Beautiful Clean Up Days | Department of Public Works & Capital Projects | Event days in April and June 2024 | 131 | Increased from 126 in FY 22-23. |
| Educational Events | Town Flower and Garden Festival | Department of Public Works & Capital Projects | 2 event days: 4/15-16/2023 | 8 staff volunteers | 100 SWM Ed handouts given, 30 pet waste bag dispensers given. |
| | Only Rain Survey | Clean Water Partners-NVRC | * | * | See report in Appendix 2. |
| Disposal or Collection Events | Shred Event | Department of Public Works & Capital Projects | 2 events | Approx. 500 cars participated | Report shows 14,220 lbs of materials shredded. |
| Pollution Prevention | Public Pollution Reporting | Department of Public Works & Capital Projects | -- | 34 total contacts | 10 of 34 led to work orders. All 10 work orders were completed. |
| | Storm Drain Marking | Department of Public Works & Capital Projects | No event days in 2024 | NA | Town reviewing program as part of its PEOP update. |



MS4 Annual Report 2023-2024
Appendix 2
Public Education and Outreach
Public Participation and Involvement

Shred Event



Certificate of Destruction

This is to certify that all records & materials received from

Contact Danielle Southerland
Name Town of Leesburg - Shred Event
Address 25 W. Market Street
Leesburg, VA 20176
Invoice 20646 5/31/2024

520 Evergreen Mill Road SE
520 Evergreen Mill Road SE
Heritage High School
Leesburg, VA 20175

| <u>Date</u> | <u>Ticket</u> | <u>Description</u> | <u>Quantity</u> |
|-------------|---------------|----------------------------|-----------------|
| 05/11/24 | 21567 | 14220 Weight | 14,220.00 |
| | | 15 Shred Event Hourly Rate | 15.00 |

Rover Records Management hereby certifies that all materials received for confidential destruction throughout the preceding schedule of services was confidentially handled, completely destroyed beyond recognition and recycled.

Invoice Number: 20646
Invoice Date: 5/31/2024

By



Rover Records Management



Records MGMT | Secure Shred | IT Recycling | Document Imaging

Rover Records Management
101 East Main St • Berryville, VA 22611
Phone: 703-348-6207 Fax: 571-402-4100
www.GoRover.com





MS4 Annual Report 2023-2024
Appendix 2
Public Education and Outreach
Public Participation and Involvement

Keep Leesburg Beautiful Events



Keep Leesburg Beautiful Volunteer Registration

Use this form to Apply to participate in efforts relating to the Keep Leesburg Beautiful program.

We appreciate your efforts to make Leesburg a cleaner and more attractive community. If you have any questions, contact the Public Works Department at Trash@LeesburgVA.Gov or 703-737-7069.

Here is a [list](#) of locations you can choose from.

Please provide the following information about you, your team, and your proposed Keep Leesburg Beautiful activity. We will have the materials needed (cleanup or storm drain marking/inventory) 3 business days prior to your scheduled activity. Materials can be picked up at Town Hall from 8:30-5:00 Monday through Friday. Once materials are ready for pickup we will send you an email to confirm.

Contact Information

Name of Applicant*

Aarav Reddy

Company, Organization, or Team Name*

Reddy

E-mail*

aaravcg@gmail.com

Confirmation Emails will be sent to this Address

Phone Number*

7039734881

Would you like to receive ongoing electronic communications about the Town's sustainability programs? *

- Yes
 No

Mailing Address*

Street Address

17674 Tobermory Pl

Address Line 2

City

Leesburg

Zip Code

20147

State

VA

Participant Information

Number of Total Participants*

3

Used for supplying Vests/Gloves

Number of Youth Sizes Needed*

1

Used for the supplied Vests/Gloves

Planned Date of Activity*

07/13/2024

Type of Activity*

Litter/Trash Collection

Location 1*

W&OD Trail (other than Plaza St)

Location 2*

Plaza Street (W&OD Trail Area)

Location 3 *

Crosstrail Blvd (Village at Leesburg)

Suggest a Locaiton

Don't see a Location on our list that needs some attention? Enter it below and we'll consider adding it to next years list!

| Location | Description |
|----------|-------------|
| | |

Staff Review

Staff Approved Activity? *

Yes

Approved Location *

W&OD Trail (other than Plaza St)

Supply Pickup Date *

07/12/2024

Supply Pickup Location *

Town Hall (25 W Market St)



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Contact Information

Name of Applicant*

Alvaro A Mejia

Company, Organization, or Team Name*

Any

E-mail*

aa8320758@gmail.com

Confirmation Emails will be sent to this Address

Phone Number*

5714401393

Would you like to receive ongoing electronic communications about the Town's sustainability programs?*

- Yes
 No

Mailing Address*

Street Address

61 Hancock PI NE

Address Line 2

City

Leesburg

Zip Code

20176

State

VA

Participant Information

Number of Total Participants*

1

Used for supplying Vests/Gloves

Number of Youth Sizes Needed*

0

Used for the supplied Vests/Gloves

Planned Date of Activity*

06/28/2024

Type of Activity*

Litter/Trash Collection

Location 1*

Route 15 Bypass (From Kohl's to Potomac Crossing)

Location 2*

Battlefield Pkwy & Woods Edge Rd (Edwards Landing Area)

Location 3 *

Crosstrail Blvd (Village at Leesburg)

Suggest a Locaiton

Don't see a Location on our list that needs some attention? Enter it below and we'll consider adding it to next years list!

| Location | Description |
|----------|-------------|
| | Trash |

Staff Review

Staff Approved Activity? *

Yes

Approved Location *

Route 15 Bypass (From Kohl's to Potomac Crossing)

Supply Pickup Date *

06/28/2024

Supply Pickup Location *

Town Hall (25 W Market St)



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Contact Information

Name of Applicant*

Berlin Cunningham

Company, Organization, or Team Name*

Swimkids swim school

E-mail*

Berlin.Clemens@swimkids.us

Phone Number*

7039627946

Confirmation Emails will be sent to this Address

Would you like to receive ongoing electronic communications about the Town's sustainability programs?*

- Yes
 No

Mailing Address*

Street Address

681 Potomac Station Dr

Address Line 2

City

Leesburg

Zip Code

20176

State

VA

Participant Information

Number of Total Participants*

10

Used for supplying Vests/Gloves

Number of Youth Sizes Needed*

0

Used for the supplied Vests/Gloves

Planned Date of Activity*

04/06/2024

Type of Activity*

Litter/Trash Collection

Location 1*

Edwards Ferry Rd (Costco - Woods near store)

Location 2*

Potomac Station Community (Various Areas)

Location 3*

Brandon Park (Park Property)

Suggest a Locaiton

Don't see a Location on our list that needs some attention? Enter it below and we'll consider adding it to next years list!

| Location | Description |
|----------|-------------|
| | |

Staff Review

Staff Approved Activity?*

Yes

Approved Location*

Edwards Ferry Rd (Costco - Woods near store)

Supply Pickup Date*

04/05/2024

Supply Pickup Location*

Town Hall (25 W Market St)



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Contact Information

Name of Applicant*

DeAnna Burke

Company, Organization, or Team Name*

Dunlap Bennett & Ludwig

E-mail*

dburke@dbllawyers.com

Phone Number*

7037271552

Confirmation Emails will be sent to this Address

Would you like to receive ongoing electronic communications about the Town's sustainability programs? *

- Yes
 No

Mailing Address*

Street Address

211 Church Street SE

Address Line 2

Suite 100

City

Leesburg

State

VA

Zip Code

20175

Participant Information

Number of Total Participants*

10

Used for supplying Vests/Gloves

Number of Youth Sizes Needed*

0

Used for the supplied Vests/Gloves

Planned Date of Activity*

04/12/2024

Type of Activity*

Litter/Trash Collection

Location 1*

W&OD Trail (other than Plaza St)

Location 2*

Fort Evans Rd (Btwn Market St & Heritage Way)

Location 3*

Catoctin Circle (Area behind Giant or Police Safety Center)

Suggest a Locaiton

Don't see a Location on our list that needs some attention? Enter it below and we'll consider adding it to next years list!

| Location | Description |
|-------------------------------|-------------|
| Around the office in Leesburg | |

Staff Review

Staff Approved Activity?*

Yes

Approved Location*

Fort Evans Rd (Btwn Market St & Heritage Way)

Supply Pickup Date*

04/11/2024

Supply Pickup Location*

Town Hall (25 W Market St)



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Contact Information

Name of Applicant*

George Brant

Company, Organization, or Team Name*

n/a

E-mail*

georgebrant19@gmail.com

Phone Number*

7048587561

Confirmation Emails will be sent to this Address

Would you like to receive ongoing electronic communications about the Town's sustainability programs?*

- Yes
 No

Mailing Address*

Street Address

279 High Rail Terrace SE

Address Line 2

City

Leesburg

State

VA

Zip Code

20175

Participant Information

Number of Total Participants*

1

Used for supplying Vests/Gloves

Number of Youth Sizes Needed*

0

Used for the supplied Vests/Gloves

Planned Date of Activity*

04/07/2024

Type of Activity*

Litter/Trash Collection

Location 1*

W&OD Trail (other than Plaza St)

Location 2*

Town Branch (W&OD Trail - Dry Mill Rd)

Location 3*

Market Station

Suggest a Locaiton

Don't see a Location on our list that needs some attention? Enter it below and we'll consider adding it to next years list!

| Location | Description |
|----------|-------------|
| | |

Staff Review

Staff Approved Activity?*

Yes

Approved Location*

Market Station

Supply Pickup Date*

04/05/2024

Supply Pickup Location*

Town Hall (25 W Market St)



Keep Leesburg Beautiful Volunteer Registration

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Contact Information

Name of Applicant*

George Hobbs

Company, Organization, or Team Name*

PVI Panthers (Sophomore Class '26)

E-mail*

sarafhobbs@yahoo.com

Phone Number*

6178728169

Confirmation Emails will be sent to this Address

Would you like to receive ongoing electronic communications about the Town's sustainability programs?*

- Yes
 No

Mailing Address*

Street Address

40290 Iron Liege Court

Address Line 2

City

Leesburg

State

VA

Zip Code

20176

Participant Information

Number of Total Participants*

3

Used for supplying Vests/Gloves

Number of Youth Sizes Needed*

0

Used for the supplied Vests/Gloves

Planned Date of Activity*

04/13/2024

Type of Activity*

Litter/Trash Collection

Location 1*

Balls Bluff Elementary Entrance (school entrance, perimeter)

Location 2*

Town Branch (W&OD Trail - Dry Mill Rd)

Location 3*

Catoctin Circle (Area behind Giant or Police Safety Center)

Suggest a Locaiton

Don't see a Location on our list that needs some attention? Enter it below and we'll consider adding it to next years list!

| Location | Description |
|----------|-------------|
| | |

Staff Review

Staff Approved Activity?*

Yes

Approved Location*

Balls Bluff Elementary Entrance (school entrance, perimeter)

Supply Pickup Date*

04/12/2024

Supply Pickup Location*

Town Hall (25 W Market St)



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Contact Information

Name of Applicant*

Jack Barnes

Company, Organization, or Team Name*

Loudoun United FC

E-mail*

jbarnes@loudoununitedfc.com

Confirmation Emails will be sent to this Address

Phone Number*

913-704-9702

Would you like to receive ongoing electronic communications about the Town's sustainability programs?*

- Yes
 No

Mailing Address*

Street Address

42095 Loudoun United Dr

Address Line 2

City

Leesburg

Zip Code

20175

State

Virginia

Participant Information

Number of Total Participants*

10

Used for supplying Vests/Gloves

Number of Youth Sizes Needed*

0

Used for the supplied Vests/Gloves

Planned Date of Activity*

04/09/2024

Type of Activity*

Litter/Trash Collection

Location 1*

Crosstrail Blvd (Village at Leesburg)

Location 2*

Crosstrail Blvd (Village at Leesburg)

Location 3*

Crosstrail Blvd (Village at Leesburg)

Suggest a Locaiton

Don't see a Location on our list that needs some attention? Enter it below and we'll consider adding it to next years list!

| Location | Description |
|----------|-------------|
| | |

Staff Review

Staff Approved Activity?*

Yes

Approved Location*

Crosstrail Blvd (Village at Leesburg)

Supply Pickup Date*

04/08/2024

Supply Pickup Location*

Town Hall (25 W Market St)



Keep Leesburg Beautiful Volunteer Registration

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Contact Information

Name of Applicant*

Jack Barnes

Company, Organization, or Team Name*

Loudoun United FC

E-mail*

jbarnes@loudoununitedfc.com

Phone Number*

913-704-9702

Confirmation Emails will be sent to this Address

Would you like to receive ongoing electronic communications about the Town's sustainability programs?*

- Yes
 No

Mailing Address*

Street Address

42095 Loudoun United Dr

Address Line 2

City

Leesburg

Zip Code

20175

State

Virginia

Participant Information

Number of Total Participants*

8

Used for supplying Vests/Gloves

Number of Youth Sizes Needed*

0

Used for the supplied Vests/Gloves

Planned Date of Activity*

04/03/2024

Type of Activity*

Landscaping/Beautification

Location 1*

Crosstrail Blvd (Village at Leesburg)

Location 2*

Crosstrail Blvd (Village at Leesburg)

Location 3*

Crosstrail Blvd (Village at Leesburg)

Suggest a Locaiton

Don't see a Location on our list that needs some attention? Enter it below and we'll consider adding it to next years list!

| Location | Description |
|----------|-------------|
| | |

Staff Review

Staff Approved Activity?*

Yes

Approved Location*

Crosstrail Blvd (Village at Leesburg)

Supply Pickup Date*

04/02/2024

Supply Pickup Location*

Town Hall (25 W Market St)



Keep Leesburg Beautiful Volunteer Registration

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Contact Information

Name of Applicant*

Jamie Cupolo

Company, Organization, or Team Name*

Team Drymill

E-mail*

jamiecupolo@gmail.com

Phone Number*

7037281939

Confirmation Emails will be sent to this Address

Would you like to receive ongoing electronic communications about the Town's sustainability programs?*

- Yes
 No

Mailing Address*

Street Address

714 Anne St. SW

Address Line 2

City

Leesburg

Zip Code

20175

State

VA

Participant Information

Number of Total Participants*

4

Used for supplying Vests/Gloves

Number of Youth Sizes Needed*

1

Used for the supplied Vests/Gloves

Planned Date of Activity*

04/14/2024

Type of Activity*

Litter/Trash Collection

Location 1*

Virginia Village Shopping Center (Area behind Shops)

Location 2*

W&OD Trail (other than Plaza St)

Location 3 *

Town Branch (W&OD Trail - Dry Mill Rd)

Suggest a Locaiton

Don't see a Location on our list that needs some attention? Enter it below and we'll consider adding it to next years list!

| Location | Description |
|----------|-------------|
| | |

Staff Review

Staff Approved Activity? *

Yes

Approved Location *

Virginia Village Shopping Center (Area behind Shops)

Supply Pickup Date *

04/12/2024

Supply Pickup Location *

Town Hall (25 W Market St)



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Contact Information

Name of Applicant *

Kat

Company, Organization, or Team Name *

Keep leesburg beautiful

E-mail *

Escarlenb@icloud.com

Phone Number *

5715289554

Confirmation Emails will be sent to this Address

Would you like to receive ongoing electronic communications about the Town's sustainability programs? *

- Yes
 No

Mailing Address *

Street Address

108 Fort Evans Rd SE

Address Line 2

F

City

Leesburg

State

VA

Zip Code

20175

Participant Information

Number of Total Participants *

1

Used for supplying Vests/Gloves

Number of Youth Sizes Needed *

2

Used for the supplied Vests/Gloves

Planned Date of Activity *

07/19/2024

Type of Activity *

Litter/Trash Collection

Location 1 *

Fort Evans Rd (Btwn Market St & Heritage Way) (Fort Evans Rd (Btwn Market St & Heritage Way))

Location 2 *

Edwards Ferry Rd (Costco - Woods near store) (Edwards Ferry Rd (Costco - Woods near store))

Location 3 *

Battlefield Pkwy & Woods Edge Rd (Edwards Landing Area) (Battlefield Pkwy & Woods Edge Rd (Edwards Landing Area))

Suggest a Locaiton

Don't see a Location on our list that needs some attention? Enter it below and we'll consider adding it to next years list!

| Location | Description |
|----------|-------------|
| | |

Staff Review

Staff Approved Activity? *

No (No)

If Not Approved, why not? *

Tote and supplies will not be ready for pickup by 7/19. Please choose another day if possible.

Approved Location *

Fort Evans Rd (Btwn Market St & Heritage Way) (Fort Evans Rd (Btwn Market St & Heritage Way))

Supply Pickup Date *

07/25/2024

Supply Pickup Location *

Town Hall (25 W Market St)



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Contact Information

Name of Applicant*

Laura Galvin

Company, Organization, or Team Name*

LCDS

E-mail*

laura.galvin@lcds.org

Phone Number*

7037773841

Confirmation Emails will be sent to this Address

Would you like to receive ongoing electronic communications about the Town's sustainability programs?*

- Yes
 No

Mailing Address*

Street Address

20600 Red Cedar Drive

Address Line 2

City

Leesburg

State

VA

Zip Code

20175

Participant Information

Number of Total Participants*

27

Used for supplying Vests/Gloves

Number of Youth Sizes Needed*

0

Used for the supplied Vests/Gloves

Planned Date of Activity*

04/22/2024

Type of Activity*

Litter/Trash Collection

Location 1*

W&OD Trail (other than Plaza St)

Location 2*

Brandon Park (Park Property)

Location 3 *

Town Branch (W&OD Trail - Dry Mill Rd)

Suggest a Locaiton

Don't see a Location on our list that needs some attention? Enter it below and we'll consider adding it to next years list!

| Location | Description |
|----------------|-------------|
| Trailside Park | Trash |

Staff Review

Staff Approved Activity? *

Yes

Approved Location *

W&OD Trail (other than Plaza St)

Supply Pickup Date *

04/19/2024

Supply Pickup Location *

Town Hall (25 W Market St) 8:30 AM to 5:00 PM M-F



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Contact Information

Name of Applicant*

Leigh Faugust

Company, Organization, or Team Name*

Pack 311

E-mail*

lafaugust@gmail.com

Confirmation Emails will be sent to this Address

Phone Number*

6178382691

Would you like to receive ongoing electronic communications about the Town's sustainability programs?*

- Yes
 No

Mailing Address*

Street Address

201 COUNTRY CLUB DR SW

Address Line 2

City

Leesburg

Zip Code

20175

State

VA

Participant Information

Number of Total Participants*

6

Used for supplying Vests/Gloves

Number of Youth Sizes Needed*

6

Used for the supplied Vests/Gloves

Planned Date of Activity*

04/06/2024

Type of Activity*

Litter/Trash Collection

Location 1*

W&OD Trail (other than Plaza St)

Location 2*

Virginia Village Shopping Center (Area behind Shops)

Location 3*

Plaza Street (W&OD Trail Area)

Suggest a Locaiton

Don't see a Location on our list that needs some attention? Enter it below and we'll consider adding it to next years list!

| Location | Description |
|----------|-------------|
| | |

Staff Review

Staff Approved Activity?*

Yes

Approved Location*

W&OD Trail (other than Plaza St)

Supply Pickup Date*

04/06/2024

Supply Pickup Location*

Raflo Park



Keep Leesburg Beautiful Volunteer Registration

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We appreciate your efforts to make Leesburg a cleaner and more attractive community. If you have any questions, contact the Public Works Department at Trash@LeesburgVA.Gov or 703-737-7069.

Here is a [list](#) of locations you can choose from.

Please provide the following information about you, your team, and your proposed Keep Leesburg Beautiful activity. We will have the materials needed (cleanup or storm drain marking/inventory) 3 business days prior to your scheduled activity. Materials can be picked up at Town Hall from 8:30-5:00 Monday through Friday. Once materials are ready for pickup we will send you an email to confirm.

Contact Information

Name of Applicant*

Lindsay Austin

Company, Organization, or Team Name*

Austin Family

E-mail*

Lindsaygaustin@gmail.com

Phone Number*

4802768995

Confirmation Emails will be sent to this Address

Would you like to receive ongoing electronic communications about the Town's sustainability programs?*

- Yes
 No

Mailing Address*

Street Address

203

Address Line 2

Stoneledge PI NE

City

Leesburg

State

VA

Zip Code

20176

Participant Information

Number of Total Participants*

3

Used for supplying Vests/Gloves

Number of Youth Sizes Needed*

2

Used for the supplied Vests/Gloves

Planned Date of Activity*

04/06/2024

Type of Activity*

Litter/Trash Collection

Location 1*

Huntmaster Terrace to Exeter Pond (Exeter)

Location 2*

Battlefield Pkwy & Woods Edge Rd (Edwards Landing Area)

Location 3*

Edwards Ferry Rd (Costco - Woods near store)

Suggest a Locaiton

Don't see a Location on our list that needs some attention? Enter it below and we'll consider adding it to next years list!

| Location | Description |
|------------|-------------------------------|
| Raflo park | Keep leesburg beautiful event |

Staff Review

Staff Approved Activity?*

Yes

Approved Location*

Huntmaster Terrace to Exeter Pond (Exeter)

Supply Pickup Date*

04/06/2024

Supply Pickup Location*

Raflo Park



Keep Leesburg Beautiful Volunteer Registration

Use this form to Apply to participate in efforts relating to the Keep Leesburg Beautiful program.

We appreciate your efforts to make Leesburg a cleaner and more attractive community. If you have any questions, contact the Public Works Department at Trash@LeesburgVA.Gov or 703-737-7069.

Here is a [list](#) of locations you can choose from.

Please provide the following information about you, your team, and your proposed Keep Leesburg Beautiful activity. We will have the materials needed (cleanup or storm drain marking/inventory) 3 business days prior to your scheduled activity. Materials can be picked up at Town Hall from 8:30-5:00 Monday through Friday. Once materials are ready for pickup we will send you an email to confirm.

Contact Information

Name of Applicant*

Lisa Hamaker

Company, Organization, or Team Name*

Town of Leesburg Utilities

E-mail*

lhamaker@leesburgva.gov

Confirmation Emails will be sent to this Address

Phone Number*

703-737-7130

Would you like to receive ongoing electronic communications about the Town's sustainability programs?*

- Yes
 No

Mailing Address*

Street Address

1385 Russel Branch Parkway

Address Line 2

City

Leesburg

Zip Code

20176

State

VA

Participant Information

Number of Total Participants*

10

Used for supplying Vests/Gloves

Number of Youth Sizes Needed*

0

Used for the supplied Vests/Gloves

Planned Date of Activity*

04/17/2024

Type of Activity*

Litter/Trash Collection

Location 1*

W&OD Trail (other than Plaza St)

Location 2*

W&OD Trail (other than Plaza St)

Location 3 *

W&OD Trail (other than Plaza St)

Suggest a Locaiton

Don't see a Location on our list that needs some attention? Enter it below and we'll consider adding it to next years list!

| Location | Description |
|---|----------------------|
| WO&D Trail between Tuscarora Creek Park and Old Mill Boarding Kennel & Hill in front of Utilities | Trash/Litter Pick-up |

Staff Review

Staff Approved Activity? *

Yes

Approved Location *

W&OD Trail (other than Plaza St)

Supply Pickup Date *

04/16/2024

Supply Pickup Location *

Town Hall (25 W Market St)



Keep Leesburg Beautiful Volunteer Registration

Use this form to Apply to participate in efforts relating to the Keep Leesburg Beautiful program.

We appreciate your efforts to make Leesburg a cleaner and more attractive community. If you have any questions, contact the Public Works Department at Trash@LeesburgVA.Gov or 703-737-7069.

Here is a [list](#) of locations you can choose from.

Please provide the following information about you, your team, and your proposed Keep Leesburg Beautiful activity. We will have the materials needed (cleanup or storm drain marking/inventory) 3 business days prior to your scheduled activity. Materials can be picked up at Town Hall from 8:30-5:00 Monday through Friday. Once materials are ready for pickup we will send you an email to confirm.

Contact Information

Name of Applicant*

Matthew Van Mater

Company, Organization, or Team Name*

NJHS

E-mail*

matt.vanmaterjr@gmail.com

Phone Number*

(571) 567-9937

Confirmation Emails will be sent to this Address

Would you like to receive ongoing electronic communications about the Town's sustainability programs? *

- Yes
 No

Mailing Address*

Street Address

202 Catocin Cir SW

Address Line 2

City

Leesburg

Zip Code

20175

State

VA

Participant Information

Number of Total Participants*

10

Used for supplying Vests/Gloves

Number of Youth Sizes Needed*

5

Used for the supplied Vests/Gloves

Planned Date of Activity*

06/19/2024

Type of Activity*

Litter/Trash Collection

Location 1*

Davis Avenue (Dead End Near Food Lion)

Location 2*

Balls Bluff Elementary Entrance (school entrance, perimeter)

Location 3 *

Town Branch (W&OD Trail - Dry Mill Rd)

Suggest a Locaiton

Don't see a Location on our list that needs some attention? Enter it below and we'll consider adding it to next years list!

| Location | Description |
|----------|-------------|
| | |

Staff Review

Staff Approved Activity? *

Yes

Approved Location *

Davis Avenue (Dead End Near Food Lion)

Supply Pickup Date *

06/18/2024

Supply Pickup Location *

Town Hall (25 W Market St)



MS4 Annual Report 2023-2024
Appendix 2
Public Education and Outreach
Public Participation and Involvement

Appendix 2-C Standard Operating Procedure Update

Public Education & Outreach Plan Public Participation Plan

Town of Leesburg

Stormwater Management / MS4 Permit Compliance



25 West Market Street
Leesburg, VA 20176

February 15, 2024
Version 2024-1

Updated by:



4229 Lafayette Center Drive, Suite 1850
Chantilly, Virginia 20151
703-870-7000
Task Number (2023-012 - T002)



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Town of Leesburg
Public Education and Outreach Plan/Public Participation Opportunities Plan

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Appendice(s)

Appendix A – Town of Leesburg PEOP Documentation Form



Amendment Log

Date of Amendment: [Insert Date Here](#)

Individual(s) Completing Amendment: [Insert Name\(s\) Here](#)

Summary of Modifications:

[Insert Summary Narrative here](#)

Date of Amendment: [Insert Date Here](#)

Individual(s) Completing Amendment: [Insert Name\(s\) Here](#)

Summary of Modifications:

[Insert Summary Narrative here](#)

Date of Amendment: [Insert Date Here](#)

Individual(s) Completing Amendment: [Insert Name\(s\) Here](#)

Summary of Modifications:

[Insert Summary Narrative here](#)

Date of Amendment: [Insert Date Here](#)

Individual(s) Completing Amendment: [Insert Name\(s\) Here](#)

Summary of Modifications:

[Insert Summary Narrative here](#)

Additional copies of this page should be made and inserted as necessary to ensure all document revisions are recorded.



Signatory Authorizations

The Town's MS4 Program Plan contains authorization for the following positions to sign reports and other information requested by the State Water Control Board (SWCB) or the Department of Environmental Quality (DEQ):

- Insert positions here
- Insert positions here

Report Certification

As required by the MS4 General Permit, Part III. K. 4.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name: _____

Signature: _____

Title: _____

Date: _____



1.0 Background

The Town of Leesburg operates a Municipal Separate Storm Sewer System (MS4) that is regulated under the federal Clean Water Act and the Virginia State Water Control Law. The Virginia Department of Environmental Quality (DEQ) has issued the Town coverage under the Virginia Pollutant Discharge Elimination System (VPDES) General Permit for Discharges of Stormwater from Small MS4s (MS4 General Permit). Under the MS4 General Permit, the Town is required to develop and implement numerous Standard Operating Procedures (SOPs) for implementing its MS4 Program. These SOPs address specific compliance requirements in the MS4 General Permit's six (6) Minimum Control Measures (MCM):

- MCM 1 - Public Education and Outreach
- MCM 2 - Public Involvement and Participation
- MCM 3 - Illicit Discharge Detection and Elimination
- MCM 4 - Construction Site Stormwater Runoff and Erosion and Sediment Control
- MCM 5 - Post-Construction Stormwater Management for New Development and Development on Prior Developed Lands
- MCM 6 - Pollution Prevention and Good Housekeeping for Facilities Owned or Operated by the Permittee within the MS4 Service Area

2.0 Operating Procedures Covered in this Document

This document serves a dual purpose as both the Town's Public Education and Outreach Plan (PEOP) under the requirements contained in the MS4 General Permit MCM 1 – Public Education and Outreach and the Town's Opportunities for Public Involvement Plan under MCM 2 – Public Involvement and Participation. The operational procedures in this SOP provide guidance and direction to Town employees, contractors, and other Town personnel regarding:

- Public Education and Outreach
 - The High-Priority Stormwater Issues Selected by the Town
 - The Importance of the High-Priority Stormwater Issues
 - Measures and Actions the Public Can Take to Minimize the Impact of High-Priority Stormwater Issues
 - Contact Information Where the Public Can Find Additional Information
 - The Strategies Selected by the Town for Delivery of Messages to the Target Audiences
 - The Anticipated Schedule for Message Delivery to the Public
- Opportunities for Public Involvement¹
 - The Activities Promoted by the Town for Public Involvement Aimed at Improving Water Quality and Supporting Local Restoration and Clean-Up Projects.

¹ Procedures for Receiving, Responding, and Documenting Public Reports and Comments are Found in the SOP for *Receiving, Responding, and Documenting Stormwater-Related Public Reports & Comments*



3.0 PEOP

3.1 MS4 General Permit Requirements

The [Town] shall implement a public education and outreach program designed to:

- (1) Increase the public's knowledge of how to reduce stormwater pollution, placing priority on reducing impacts to impaired waters and other local water pollution concerns;*
- (2) Increase the public's knowledge of hazards associated with illegal discharges and improper disposal of waste, including pertinent legal implications; and*
- (3) Implement a diverse program with strategies that are targeted toward individuals or groups most likely to have significant stormwater impacts.*

The [Town] shall identify no fewer than three high-priority stormwater issues to meet the goal of educating the public in accordance with Part I E 1 a [of the MS4 General Permit]. High-priority issues may include the following examples: Chesapeake Bay nutrients, pet wastes, local receiving water impairments, TMDLs, high-quality receiving waters, litter control, BMP maintenance, anti-icing, and deicing agent application, planned green infrastructure redevelopment, planned ecosystem restoration projects, and illicit discharges from commercial sites.

The high-priority public education and outreach program, as a whole, shall:

- (1) Clearly identify the high-priority stormwater issues;*
- (2) Explain the importance of the high-priority stormwater issues;*
- (3) Include measures or actions the public can take to minimize the impact of the high-priority stormwater issues; and*
- (4) Provide a contact and telephone number, website, or location where the public can find out more information.*

The [Town] shall use two or more of the strategies listed in Table 1 per year to communicate to the target audience the high-priority stormwater issues identified in accordance with Part I E 1 b [of the MS4 General Permit], including how to reduce stormwater pollution.

Table 1. Strategies for Public Education and Outreach

| <i>Strategies</i> | <i>Examples (Provided as Examples and Are Not Meant to be All Inclusive or Limiting)</i> |
|--------------------------------------|--|
| <i>Traditional written materials</i> | <i>Informational brochures, newsletters, fact sheets, utility bill inserts, or recreational guides for targeted groups of citizens</i> |
| <i>Alternative materials</i> | <i>Bumper stickers, refrigerator magnets, t-shirts, or drink koozies</i> |
| <i>Signage</i> | <i>Temporary or permanent signage in public places or facilities, vehicle signage, billboards, or storm drain stenciling</i> |
| <i>Media materials</i> | <i>Information disseminated through electronic media, radio, televisions, movie theater, newspaper, or GIS story maps</i> |



| <i>Strategies</i> | <i>Examples (Provided as Examples and Are Not Meant to be All Inclusive or Limiting)</i> |
|------------------------------------|---|
| <i>Speaking engagements</i> | <i>Presentations to school, church, industry, trade, special interest, or community groups</i> |
| <i>Curriculum materials</i> | <i>Materials developed for school-aged children, students at local colleges or universities, or extension classes offered to local citizens</i> |
| <i>Training materials</i> | <i>Materials developed to disseminate during workshops offered to local citizens, trade organization, or industrial officials</i> |
| <i>Public education activities</i> | <i>Booth at community fair, demonstration of stormwater control projects, presentation of stormwater materials to schools to meet applicable education Standards of Learning or curriculum requirements, or watershed walks</i> |
| <i>Public meetings</i> | <i>Public meetings on proposed community stormwater management retrofits, green infrastructure redevelopment, ecosystem restoration projects, TMDL development, climate change's effects on stormwater management, voluntary residential low impact development, or other stormwater issues</i> |

The [Town] may coordinate its public education and outreach efforts with other MS4 permittees; however, each permittee shall be individually responsible for meeting all of its state permit requirements.

The MS4 program plan shall include:

- (1) A list of the high-priority stormwater issues the permittee will communicate to the public as part of the public education and outreach program;*
- (2) The rationale for selection of each high-priority stormwater issue and an explanation of how each education or outreach strategy is intended to have a positive impact on stormwater discharges;*
- (3) Identification of the target audience to receive each high-priority stormwater message;*
- (4) Nontraditional permittees may identify staff, students, members of the general public, and other users of facilities operated by the permittee as the target audience for education and outreach strategies;*
- (5) Traditional permittees may identify staff and students as part of the target audience for education and outreach strategies; however, staff shall not be the majority of the target audience;*
- (6) Staff training required in accordance with Part I E 6 d [of the MS4 General Permit] does not qualify as a strategy for public education and outreach;*
- (7) The strategies from Table 1 of Part I E 1 d [of the MS4 General Permit] to be used to communicate each high-priority stormwater message; and*
- (8) The anticipated time periods the messages will be communicated or made available to the public.*

3.2 Town of Leesburg High-Priority Stormwater Issues

The Town has identified three high-priority stormwater issues. Table 2 lists these high-priority stormwater issues and includes the selection rationale and the target audiences for each.



Table 2. Town of Leesburg High Priority Stormwater Issues

| Issue | Selection Rationale | Target Audience |
|--|--|--|
| Bacteria | Pet waste can contain harmful bacteria that can run off into streams when not properly disposed of. These harmful bacteria are detrimental to both human health and the health of the stream ecosystem. With pet owners responsible for thousands of dogs throughout the Town, the potential for pet waste pollution is significant. Three water bodies to which Town stormwater discharges - Sycolin Creek, Tuscarora Creek, and Goose Creek – have been identified in the 2022 Water Quality Report as having bacteria impairments. Public education can play a meaningful role in reducing bacteria pollution by educating owners about the human health and legal consequences of not picking up pet waste. | Pet Owners |
| Illicit Discharges and Illegal Dumping | Illicit discharges and illegal dumping can seriously impact local water quality resources. In addition to stormwater pollution, illegal dumping can also cause blockages in the system and lead to flooding. Field observations and resident complaints have identified illicit discharges of cooking oils at restaurants as well as other illicit discharges in residential communities. These discharges can be mitigated through education about the proper disposal methods of these contaminants and the legal consequences of non-compliance. | General Population/ Restaurants |
| Excessive Nutrients | Excessive nutrients entering waterways can cause harmful algal blooms, anoxic conditions, and death of aquatic organisms, including fish. The Town's stormwater discharges ultimately reach the Chesapeake Bay, which has nutrient (phosphorus and nitrogen) limitations based on EPA's Total Maximum Daily Load (TMDL) study for nutrients. Most residences in Leesburg are single-family houses or townhomes where the property owner or a landscape company may manage the lawn. Public education targeted at homeowners and landscaping companies can affect behavior in a way that will reduce the amount of nutrients entering local waterways and, eventually, the Chesapeake Bay from landscaping activities. Nutrient reductions will also be promoted through the Town's efforts to have pet owners clean up after their pets. | Single family/ townhome residents, HOAs, Landscaping companies, Pet owners |

3.3 Message Delivery Mechanisms

The Town has numerous mechanisms in place to communicate with the public, including its residents, business owners, and target audiences. These methods are available to assist in delivering public education and outreach regarding each of the Town's high-priority stormwater. The Town's communication mechanisms include:

- Traditional written materials
- Alternate materials
- Signage
- Media materials
- Public education activities

These available mechanisms and their direct applicability to delivering the Town's PEOP are further explained in the following sections.



3.3.1 Traditional Written Materials

The Town has two methodologies for delivering messages to its citizenry, including the Town Newsletter and Direct Mailings.

Direct Mailings

The Town has the ability to send direct mailings to residents, business owners, and property owners in the Town. In addition to having access to property records and business licenses, the Department of Public Works (DPW) maintains a Community Outreach Master List comprised of contacts for the following communities:

- Homeowner Associations
- Condominium Associations
- Apartment Complexes
- Shopping Centers
- Assisted Living Facilities.

DPW can develop individualized lists based on location, type of business, organization, or other means to provide stormwater public education and outreach specific to the targeted audience.

3.3.2 Alternative Materials

Pet Waste Bag Dispensers

DPW currently has two versions of Pet Waste Bag Dispenser – Blue Dog Bone and Red Fire Hydrant - that the department gives away at public education and outreach events as a means of reinforcing the importance of pet owners cleaning up after their pet. The Pet Waste Bag Dispensers are also provided to pet owners who sign the Paws for Clean Water Pledge as part of the Town's stormwater public participation programming.

3.3.3 Signage

Pet Waste Signs

The Town has installed Pet Waste Signs at nine (9) Town parks, encouraging pet owners to dispose of pet waste properly. At eight of the nine Town parks, these signs are included at Town-installed Pet Waste Disposal Stations. Pet waste signs have been installed at the following locations:

- Brandon Park, 878 Harrison St. SE (39.105497, -77.561264)
- Carrvale Park, 919 Marshall St. NE (39.117759, -77.543649)
- Georgetown Park, 221 S. King St. (39.112845, -77.567471) – Sign only
- Greenway Park, 102 Shadetree Way SW (39.092171, -77.588194)
- Leesburg Dog Park (Olde Izaak Walton Park), 850 Davis Ave. SE (39.101859, -77.567672)
- Raflo Park, 345 Harrison St. SE (39.108888, -77.563050)
- Rotary Park, 22 North St. NE (39.117304, -77.562044)
- Town Green, 25 W. Market St. (39.114514, -77.565691)
- Tuscarora Park, 425 Solitude Ct SE (39.094467, -77.542526)



The Parks and Recreation Department (PRD) is responsible for the maintenance and upkeep of the signs and pet waste stations. DPW is responsible for maintaining a GIS layer of all pet waste signs and station locations within Town parks.

3.3.4 Media Materials

Social Media

The Town, through its Public Information Office (PIO), maintains an active presence on various social media platforms, including:

- Facebook (https://www.facebook.com/LeesburgVirginia/?ref=embed_page)
- Instagram (https://www.instagram.com/p/C07Xb0oRza_/)
- Nextdoor (<https://nextdoor.com/agency-detail/va/leesburg/town-of-leesburg/>)
- X (formerly Twitter) (https://twitter.com/i/flow/login?redirect_after_login=%2FTownofLeesburg)
- YouTube (<https://www.youtube.com/@TownofLeesburgVirginia>)

These social media platforms provide the Town with the ability to message the target audiences regarding high-priority stormwater issues. Social media accounts can be used to advertise stormwater public education and outreach events and public participation opportunities, such as upcoming speaking events or upcoming Town clean-ups. The PIO is responsible for posting materials while individual departments are responsible for providing the content.

Town Website

The Town maintains a website that contains information about Leesburg, including its stormwater management program. The key webpage regarding stormwater management is the DPW's Water Quality and Stormwater Management webpage found at <https://www.leesburgva.gov/departments/public-works/water-quality-stormwater-management>. This webpage includes information regarding the MS4 program, including the MS4 Permit, Program Plan, and Annual Reports, as well as providing additional links to other stormwater-related Town webpages. The PIO is responsible for uploading content on the website while DPW is responsible for ensuring the content is kept current and for responding to input received via the webpage.

Regional Outreach Participation

The Town is a partner in the Northern Virginia Clean Water Partners (NVCWP). The NVCWP 'Only Rain Down the Drain' regional stormwater education initiative is managed by Northern Virginia Regional Commission (NVRC). The campaign uses cable television and website advertisements, publications, and a website, onlyrain.org, to encourage the public to keep pollutants such as excess fertilizer and used motor oil from flowing into storm drains. The Only Rain Down the Drain Campaign relies primarily on media materials for message distribution – TV, radio, social media, and web pages. The DPW is responsible for maintaining the Town's inclusion in the partnership while the NVRC is responsible for the administration and implementation of the Clean Water Partners commitments.



3.3.5 Public Education Activities

Flower & Garden Festival

The Town holds its Flower and Garden Festival annually on the third week of April. The festival draws crowds from in and around Leesburg and hosts vendors associated with landscaping and gardening businesses.

DPW staffs a stormwater educational booth at the Flower & Garden Festival, which is held each spring. During the festival, stormwater educational materials, including information about stormwater pollution prevention, are handed out to attendees.

3.4 Message Library

DPW maintains a large library of historic stormwater issue messages developed throughout the history of the Town's PEOP. The messages that are available, and their format, as of January 1, 2024 are provided in (Table 3). DPW maintains the messages in an electronic format that is usable as is or can be modified to be more event specific depending upon the target audience. The message library will continue to expand as additional messages are created in the future.

Table 3. Town of Leesburg Stormwater Message Library Contents as of January 1, 2024

| Message Name | Format | High Priority Stormwater Issue(s) | | |
|--|-------------|-----------------------------------|--------------------------------------|---------------------|
| | | Bacteria | Illicit Discharges & Illegal Dumping | Excessive Nutrients |
| Pet Waste Bag Dispensers | Alternative | | ✓ | |
| Automotive Services and Preventing Stormwater Pollution | Brochure | | | ✓ |
| Landscaping Responsibility – Preventing Stormwater Pollution | Brochure | | ✓ | |
| Stormwater Pollution Prevention: Dumpsters and Loading Docks | Brochure | | ✓ | ✓ |
| Best Management Practices for Fat, Oil, and Grease (FOG) | Brochure | | ✓ | |
| Stormwater Pollution Prevention Vehicle & Fueling Operations | Brochure | | ✓ | |
| Painting Without Pollution | Brochure | | ✓ | ✓ |
| Good Neighbors Preventing Stormwater Pollution: Good Cleaning Practices for Food & Restaurant Industries | Brochure | | ✓ | |
| Snow and Ice Maintenance Tips for Residents | Brochure | | ✓ | |
| Stormwater Pollution Prevention Focus: Business and Industry Illicit Discharge | Brochure | | ✓ | |
| Spotting Illicit Discharge Activities | Brochure | | | ✓ |
| Fertilizer Isn't Good Fish Food | Digital | ✓ | | ✓ |
| Psst! Did You Know It's Important to Scoop The Poop | Digital | | ✓ | |
| I Don't Swim in Your Living Room | Digital | | ✓ | |
| I Don't Throw Trash in Your Family Room | Digital | ✓ | | ✓ |
| All the Cool People Pick Up After Their Pets | Digital | | | ✓ |
| Living Green: A Citizen's Guide to Springtime Stormwater Pollution Prevention | Mailer | ✓ | ✓ | ✓ |



| Message Name | Format | High Priority Stormwater Issue(s) | | |
|---|-------------------------|-----------------------------------|--------------------------------------|---------------------|
| | | Bacteria | Illicit Discharges & Illegal Dumping | Excessive Nutrients |
| Town of Leesburg MS4 Permit Requirements and Activities | PowerPoint Presentation | | | ✓ |
| Town of Leesburg News Stormwater Pollution by Lawn Care | Press Release | ✓ | | ✓ |
| Pet Waste Signs | Signs | ✓ | ✓ | ✓ |
| Water Quality & Stormwater Management | Webpage | ✓ | ✓ | ✓ |
| Additional Stormwater Information & Resources | Webpage | | | ✓ |
| Fertilizing Safely and Responsibly | Webpage | ✓ | | |
| PAWS for Clean Water | Webpage | | ✓ | |
| Illicit Discharge Information & Reporting | Webpage | ✓ | ✓ | ✓ |
| How You Can Help the Environment | Webpage | | | |

The current list of available messages can be obtained from DPW.

3.5 PEOP Strategies to be Implemented

PEOP strategies are comprised of three parts as listed below:

- Message
- Delivery Method
- Schedule

Figure 1. Town of Leesburg PEOP Strategies Consist of Message, Delivery Method, and Schedule

To be effective, the PEOP strategies must be flexible and opportunistic in addressing the high-priority stormwater issue current to the situation or activity. Individual delivery methods and messages should be modified as necessary to provide the most effective outreach opportunity for the high priority stormwater issue. The Town will implement the following eight (8) strategies to meet the minimum public education and outreach requirements necessary to comply with the MS4 General Permit. The permit requires the permittee to annually utilize two (2) or more of the MS4 General Permit Strategies for each of the three (3) high priority stormwater issues. Individual messages can be selected or modified from those in the Message Library or created specifically for the individual event. New messages should be saved in the electronic version of the Message Library for future utilization. Individual events completed for Strategies 6, 7, and 9 should be documented using the Town of Leesburg MS4 PEOP Documentation Form (Appendix A).



3.5.1 Strategy 1. Distribute Public Education Materials Through the Town's Water Quality and Stormwater Webpage

| Strategy: Distribute Public Education Materials Through the Town's Water Quality and Stormwater Webpage | | | | | | | | | | |
|---|--|---|--------|-------------------|------|---|--------|---------------------|------|---|
| High-Priority Stormwater Issue(s) | Bacteria | | ✓ | Illicit Discharge | | | ✓ | Excessive Nutrients | | ✓ |
| Implementation Year | FY24 | ✓ | FY25 | ✓ | FY26 | ✓ | FY27 | ✓ | FY28 | ✓ |
| Implementation Quarter | Spring | ✓ | Summer | ✓ | Fall | ✓ | Winter | ✓ | | |
| Delivery Method | Media materials | | | | | | | | | |
| Responsible Party | DPW | | | | | | | | | |
| Description | DPW will provide public access to electronic versions of messages concerning high-priority stormwater issues and how the public can address their impacts. Access to messages not provided on the webpage itself can be provided via links to other web pages, including the NVRC Only Rain Down the Drain webpage, or individual documents. DPW is responsible for ensuring the links are current and functional. | | | | | | | | | |
| Recommended Library Messages | Messages may include those listed in Table 3 or any other appropriate message provided all three high-priority stormwater issues are addressed. | | | | | | | | | |
| Compliance Documentation | DPW will include a link to the Water Quality and Stormwater webpage in the MS4 annual report. | | | | | | | | | |

3.5.2 Strategy 2. Provide Pet Waste Signs at the Town Parks

| Strategy: Pet Waste Signs at the Town Parks | | | | | | | | | | |
|---|---|---|--------|-------------------|------|---|--------|---------------------|------|---|
| High-Priority Stormwater Issue(s) | Bacteria | | ✓ | Illicit Discharge | | | | Excessive Nutrients | | ✓ |
| Implementation Year | FY24 | ✓ | FY25 | ✓ | FY26 | ✓ | FY27 | ✓ | FY28 | ✓ |
| Implementation Quarter | Spring | ✓ | Summer | ✓ | Fall | ✓ | Winter | ✓ | | |
| Delivery Method | Signage | | | | | | | | | |
| Responsible Party | DPR/DPW | | | | | | | | | |
| Description | DPR will maintain Pet Waste signs at Town parks. DPW will maintain a GIS layer of the locations of all pet waste signs at Town Parks. | | | | | | | | | |
| Recommended Library Messages | Pet Waste Signs | | | | | | | | | |
| Compliance Documentation | DPW will include a location map identifying the location of the Pet Waste Signs in the MS4 Annual Report. | | | | | | | | | |



3.5.3 Strategy 3. Use the Town's Social Media Platforms to Deliver Messages Regarding Pet Waste Cleanup

| Strategy: Use the Town's Social Media Platforms to Deliver Messages Regarding Pet Waste Cleanup | | | | | | | | | | |
|--|---|---|--------|-------------------|------|------|---------------------|---|------|---|
| High-Priority Stormwater Issue(s) | Bacteria | | ✓ | Illicit Discharge | | | Excessive Nutrients | | ✓ | |
| Implementation Year | FY24 | ✓ | FY25 | ✓ | FY26 | ✓ | FY27 | ✓ | FY28 | ✓ |
| Implementation Quarter | Spring | | Summer | | ✓ | Fall | Winter | | | |
| Delivery Method | Media materials | | | | | | | | | |
| Responsible Party | DPW/PIO | | | | | | | | | |
| Description | DPW will provide PIO with a message regarding the importance of pet owners cleaning up after pets. The PIO will publish the message on a minimum of one of the Town's social media platforms. | | | | | | | | | |
| Recommended Library Messages | Digital Messages – "Psst! Did You Know It's Important to Scoop The Poop" and "All the Cool People Pick Up After Their Pets" | | | | | | | | | |
| Compliance Documentation | DPW will include a copy of the published message and the date published in the MS4 Annual Report. | | | | | | | | | |

3.5.4 Strategy 4. Use the Town's Social Media Platforms to Deliver Messages Regarding Illicit Discharges and Illegal Dumping

| Strategy: Use the Town's Social Media Platforms to Deliver Messages Regarding Illicit Discharges and Illegal Dumping | | | | | | | | | | |
|---|--|---|--------|-------------------|------|------|------|---------------------|------|---|
| High-Priority Stormwater Issue(s) | Bacteria | | | Illicit Discharge | | | ✓ | Excessive Nutrients | | |
| Implementation Year | FY24 | ✓ | FY25 | ✓ | FY26 | ✓ | FY27 | ✓ | FY28 | ✓ |
| Implementation Quarter | Spring | | Summer | | | Fall | ✓ | Winter | | |
| Delivery Method | Media materials | | | | | | | | | |
| Responsible Party | DPW/PIO | | | | | | | | | |
| Description | DPW will provide PIO with a message regarding illicit discharges and illegal dumping. The PIO will publish the message on a minimum of one of the Town's social media platforms. | | | | | | | | | |
| Recommended Library Messages | Digital Messages – "I Don't Swim in Your Living Room" and "I Don't Throw Trash in Your Family Room" | | | | | | | | | |
| Compliance Documentation | DPW will include a copy of the published message and the date published in the MS4 Annual Report. | | | | | | | | | |



3.5.5 Strategy 5. Use the Town's Social Media Platforms to Deliver Messages Regarding Fertilizer Application

| Strategy: Use the Town's Social Media Platforms to Deliver Messages Regarding Fertilizer Application | | | | | | | | | | |
|--|---|---|--------|-------------------|------|---|---------------------|---|------|---|
| High-Priority Stormwater Issue(s) | Bacteria | | | Illicit Discharge | | | Excessive Nutrients | | ✓ | |
| Implementation Year | FY24 | ✓ | FY25 | ✓ | FY26 | ✓ | FY27 | ✓ | FY28 | ✓ |
| Implementation Quarter | Spring | ✓ | Summer | | Fall | | Winter | | | |
| Delivery Method | Media materials | | | | | | | | | |
| Responsible Party | DPW/PIO | | | | | | | | | |
| Description | DPW will provide PIO with a message regarding the importance of proper fertilizer application. The PIO will publish the message on a minimum of one of the Town's social media platforms. | | | | | | | | | |
| Recommended Library Messages | Digital Message – "Fertilizer Isn't Good Fish Food" | | | | | | | | | |
| Compliance Documentation | DPW will include a copy of the published message and the date published in the MS4 Annual Report. | | | | | | | | | |

3.5.6 Strategy 6. Provide Stormwater Outreach at the DPW Booth During the Annual Flower & Garden Festival

| Strategy: Provide Stormwater Outreach at the DPW Booth During the Annual Flower & Garden Festival | | | | | | | | | | |
|---|--|---|--------|-------------------|------|---|---------------------|---|------|---|
| High-Priority Stormwater Issue(s) | Bacteria | | ✓ | Illicit Discharge | | ✓ | Excessive Nutrients | | ✓ | |
| Implementation Year | FY24 | ✓ | FY25 | ✓ | FY26 | ✓ | FY27 | ✓ | FY28 | ✓ |
| Implementation Quarter | Spring | ✓ | Summer | | Fall | | Winter | | | |
| Delivery Method | Public Education Activities | | | | | | | | | |
| Responsible Party | DPW | | | | | | | | | |
| Discussion | DPW will staff a booth at the Town's Flower & Garden Festival. Staff will be available to discuss the high-priority stormwater issues and what the Town residents and business owners can do to help reduce stormwater pollution. DPW will utilize this opportunity to distribute stormwater educational brochures and pet waste bags. | | | | | | | | | |
| Recommended Library Messages | DPW will provide interaction with participants and provide take-away messages as appropriate. Available takeaway messages may include those listed in Table 3 or any other appropriate message, provided take-away messages for each of the three high-priority stormwater issues are available for distribution. | | | | | | | | | |
| Documentation | DPW will complete a Town of Leesburg MS4 PEOP Documentation Form for this event. | | | | | | | | | |



3.5.7 Strategy 7. Utilize Pet Waste Bag Dispensers to Reinforce the Importance of Pet Waste Cleanup

| Strategy: Utilize Pet Waste Bag Dispensers to Reinforce the Importance of Pet Waste Cleanup | | | | | | | | | | |
|--|---|---|--------|-------------------|------|---|---------------------|---|------|---|
| High-Priority Stormwater Issue(s) | Bacteria | | ✓ | Illicit Discharge | | | Excessive Nutrients | | ✓ | |
| Implementation Year | FY24 | ✓ | FY25 | ✓ | FY26 | ✓ | FY27 | ✓ | FY28 | ✓ |
| Implementation Quarter | Spring | ✓ | Summer | ✓ | Fall | ✓ | Winter | ✓ | | |
| Delivery Method | Alternative Materials | | | | | | | | | |
| Responsible Party | DPW | | | | | | | | | |
| Description | DPW will provide Pet Waste Bag Dispensers as a means to reinforce the importance for pet owners to clean up after their pets. Pet Waste Bag Dispensers will be distributed in conjunction with PEOP strategies and Public Participation activities. | | | | | | | | | |
| Recommended Library Messages | Pet Waste Bag Dispensers | | | | | | | | | |
| Compliance Documentation | For PEOP and Public Participation events other than the PAWs for Clean Water Pledge program, DPW will complete a Town of Leesburg MS4 PEOP Documentation Form where alternative materials are distributed. | | | | | | | | | |

3.5.8 Strategy 8. Partner With Other Northern Virginia Localities and Government Entities in the Regional Clean Water Partners' Only Rain Down the Drain Campaign

| Strategy: Partner With Other Northern Virginia Localities and Government Entities in the Regional Clean Water Partners' Only Rain Down the Drain Campaign | | | | | | | | | | |
|--|---|---|--------|-------------------|------|---|---------------------|---|------|---|
| High-Priority Stormwater Issue(s) | Bacteria | | ✓ | Illicit Discharge | | ✓ | Excessive Nutrients | | ✓ | |
| Implementation Year | FY24 | ✓ | FY25 | ✓ | FY26 | ✓ | FY27 | ✓ | FY28 | ✓ |
| Implementation Quarter | Spring | ✓ | Summer | ✓ | Fall | ✓ | Winter | ✓ | | |
| Delivery Method | Media materials | | | | | | | | | |
| Responsible Party | DPW/NVRC | | | | | | | | | |
| Description | DPW is responsible for maintaining a current Memorandum of Agreement with NVRC. NVRC is responsible for implementing the Clean Waters Program. For information regarding the Clean Waters Program, see https://www.novaregion.org/408/Clean-Water-Partners . DPW will provide a link to the Only Rain Down the Drain webpage on its Water Quality and Stormwater webpage. | | | | | | | | | |
| Recommended Library Messages | NVRC is responsible for the development of all messages delivered as part of the NVCWP. | | | | | | | | | |
| Compliance Documentation | DPW will include a link to the NVCWP Annual Summary that details the messages and activities completed by the partnership during the previous reporting year. | | | | | | | | | |



4.0 Additional Strategies Implemented Outside of the Eight (8) Required Strategies

For PEOP activities implemented that are outside of the eight (8) required strategies, the Town must complete a Town of Leesburg MS4 PEOP Documentation Form (Appendix A) for documenting the Town effort and reporting with the MS4 Annual Report.

4.1 Potential PEOP Additions

The Town is actively looking at ways to improve its public education and outreach program and is considering additional strategies for development during this permit cycle. The PEOP will be updated to include new opportunities as they are incorporated into the Town's outreach actions. The potential public education and outreach strategies under consideration include:

4.1.1 Potential Strategy 1: Stormwater-Specific Newsletter

| Potential Strategy: Stormwater-Specific Newsletter | | | | | | |
|--|---|---|-------------------|---|---------------------|---|
| High-Priority Stormwater Issue(s) | Bacteria | ✓ | Illicit Discharge | ✓ | Excessive Nutrients | ✓ |
| Implementation Year | TBD | | | | | |
| Implementation Quarter | TBD | | | | | |
| Delivery Method | Traditional written materials | | | | | |
| Responsible Party | DPW | | | | | |
| Description | DPW will publish a quarterly stormwater-specific newsletter that includes educational messages on stormwater pollution prevention. This newsletter will also provide the opportunity to advertise stormwater outreach events like the Flower and Garden Festival. | | | | | |
| Recommended Library Messages | To be developed | | | | | |
| Compliance Documentation | DPW will include a copy of the newsletter and the date mailed in the MS4 annual report. | | | | | |

4.1.2 Potential Strategy 2: School Curriculum

| Potential Strategy: School Curriculum | | | | | | |
|---------------------------------------|---|---|-------------------|---|---------------------|---|
| High-Priority Stormwater Issue(s) | Bacteria | ✓ | Illicit Discharge | ✓ | Excessive Nutrients | ✓ |
| Implementation Year | TBD | | | | | |
| Implementation Quarter | TBD | | | | | |
| Delivery Method | Curriculum materials | | | | | |
| Responsible Party | DPW | | | | | |
| Description | DPW will develop stormwater educational materials and presentations to meet the Virginia Standards of Learning. | | | | | |
| Recommended Library Messages | To be developed | | | | | |
| Compliance Documentation | DPW will include a copy of educational curriculum materials, and the date and number of students in attendance of each presentation in the MS4 annual report. | | | | | |



4.1.3 Potential Strategy 3: SWMF Owner and Operator Training

| Potential Strategy: SWMF Owner and Operator Training | | | | | | |
|--|--|--|-------------------|--|---------------------|--|
| High-Priority Stormwater Issue(s) | Bacteria | | Illicit Discharge | | Excessive Nutrients | |
| Implementation Year | TBD | | | | | |
| Implementation Quarter | TBD | | | | | |
| Delivery Method | Training materials | | | | | |
| Responsible Party | DPW | | | | | |
| Description | DPW may develop stormwater management facility maintenance educational materials to be used by stormwater management facility owners and operators. | | | | | |
| Recommended Library Messages | To be developed | | | | | |
| Compliance Documentation | DPW will include a copy of educational materials and the date and number of operators/owners in attendance for each presentation in the MS4 annual report. | | | | | |

4.1.4 Potential Strategy 4: New Pet Owner Kit

| Potential Strategy: New Pet Owner Kit | | | | | | |
|--|---|---|-------------------|--|---------------------|---|
| High-Priority Stormwater Issue(s) | Bacteria | ✓ | Illicit Discharge | | Excessive Nutrients | ✓ |
| Implementation Year | TBD | | | | | |
| Implementation Quarter | TBD | | | | | |
| Delivery Method | Alternative materials | | | | | |
| Responsible Party | DPW | | | | | |
| Description | DPW may consider stocking vet offices and animal shelters with new pet owner kits, which will include pet waste dispensers and educational pamphlets about the importance of picking up after your pet. | | | | | |
| Recommended Library Messages | Pet Waste Bag Dispensers Psst! Did You Know It's Important to Scoop The Poop | | | | | |
| Compliance Documentation | DPW will include a list of the locations where pet kits are available across the Town. | | | | | |



4.1.5 Potential Strategy 5: Storm Drain Stenciling

| Potential Strategy: Storm Drain Stenciling | | | | | | |
|--|--|--|-------------------|---|---------------------|--|
| High-Priority Stormwater Issue(s) | Bacteria | | Illicit Discharge | ✓ | Excessive Nutrients | |
| Implementation Year | TBD | | | | | |
| Implementation Quarter | TBD | | | | | |
| Delivery Method | Signage | | | | | |
| Responsible Party | DPW | | | | | |
| Description | DPW will inventory the current storm drain markers and place storm drain markers on publicly visible storm drain inlets in conjunction with their everyday operations. | | | | | |
| Recommended Library Messages | N/A | | | | | |
| Compliance Documentation | DPW will include the number of storm drain markers on public stormwater infrastructure in the MS4 annual report. | | | | | |

5.0 Public Involvement and Participation

5.1 MS4 General Permit Requirements

The [Town] shall develop and implement procedures for the following:

- (1) The public to report potential illicit discharges, improper disposal, or spills to the MS4, complaints regarding land disturbing activities, or other potential stormwater pollution concerns;*
- (2) The public to provide comments on the permittee's MS4 program plan;*
- (3) Responding to public comments received on the MS4 program plan ; and*
- (4) Maintaining documentation of public comments received on the MS4 program and associated MS4 program plan and the permittee's response.*

b. No later than three months after this permit's effective date, the [Town] shall update and maintain the webpage dedicated to the MS4 program and stormwater pollution prevention. The following information shall be posted on this webpage:

- (1) The effective MS4 permit and coverage letter;*
- (2) The most current MS4 program plan or location where the MS4 program plan can be obtained;*
- (3) The annual report for each year of the term covered by this permit no later than 30 days after submittal to the department;*
- (4) For permittees whose regulated MS4 is located partially or entirely in the Chesapeake Bay watershed, the most current Chesapeake Bay TMDL action plan or location where the Chesapeake Bay TMDL action plan can be obtained;*



- (5) For permittees whose regulated MS4 is located partially or entirely in the Chesapeake Bay watershed, the Chesapeake Bay TMDL implementation annual status reports for each year of the term covered by this permit no later than 30 days after submittal to the department;
- (6) A mechanism for the public to report potential illicit discharges, improper disposal, or spills to the MS4, complaints regarding land disturbing activities, or other potential stormwater pollution concerns in accordance with Part I E 2 a (1) [of the MS4 General Permit]; and,
- (7) Methods for how the public can provide comments on the permittee's MS4 program plan in accordance with Part I E 2 a (2) [of the MS4 General Permit] and if applicable, the Chesapeake Bay TMDL action plan in accordance with Part II A 13 [of the MS4 General Permit].

[The Town] shall implement no fewer than four activities per year from two or more of the categories listed in Table 2 to provide an opportunity for public involvement to improve water quality and support local restoration and clean-up projects.

Table 4. Public Involvement Opportunities

| Public Involvement Opportunities | Examples (Provided as Example and Are Not Meant to be All Inclusive or Limiting) |
|----------------------------------|--|
| Monitoring | Establish or support citizen monitoring group |
| Restoration | Stream, watershed, shoreline, beach, or park clean-up day, adopt-a-waterway program, tree plantings, and riparian buffer plantings |
| Public education activities | Booth at community fair, demonstration of stormwater control projects, climate change's effects on stormwater management, presentation of stormwater materials to schools to meet applicable education Standards of Learning or curriculum requirements, or watershed walks |
| Public meetings | Public meetings on proposed community stormwater management retrofits, green infrastructure redevelopment, ecosystem restoration projects, TMDL development, voluntary residential low impact development, climate change's effects on stormwater management, or other stormwater issues |
| Disposal or collection events | Household hazardous chemicals collection, vehicle fluids collection |
| Pollution prevention | Adopt-a-storm drain program, implement a storm drain marking program, promote use of residential stormwater BMPs, implement pet waste stations in public areas, adopt-a-street program. |

The [Town] may coordinate the public involvement opportunities listed in Table 2 with other MS4 permittees; however, each permittee shall be individually responsible for meeting all of the permit requirements.

The [Town] may include staff and students in public participation events; however, the activity cannot solely include or be limited to staff participants with stormwater, groundskeeping, and maintenance duties in order for an event to qualify as a public participation event.



Staff training required in accordance with Part I E 6 d [of the MS4 General Permit] does not qualify as a public participation event unless the training activity solicits participation from target audiences beyond staff or contractors with stormwater, groundskeeping, and maintenance duties.

The MS4 program plan shall include:

- (8) The webpage address where mechanisms for the public to report (i) potential illicit discharges, improper disposal, or spills to the MS4, (ii) complaints regarding land disturbing activities, or (iii) other potential stormwater pollution concerns;*
- (9) The webpage address that contains the methods for how the public can provide input on the permittee's MS4 program; and*
- (10) A description of the public involvement activities to be implemented by the permittee, the anticipated time period the activities will occur, and a metric for each activity to determine if the activity is beneficial to water quality. An example of metrics may include the weight of trash collected from a stream cleanup or the number of participants in a hazardous waste collection event.*

5.2 Public Participation

The Town's website includes the Water Quality & Stormwater Management webpage, which is dedicated to the Town's MS4 Program and associated activities. The URL for this webpage is <https://www.leesburgva.gov/departments/public-works/water-quality-stormwater-management>.

The Water Quality & Stormwater Management webpage includes the following documents:

- The Town's current Notice of Coverage under the VPDES General Permit for Discharges of Stormwater from Small MS4s (Registration #VAR040059)
- A link to the MS4 General Permit on the Virginia Legislative Information Services Administrative Code webpage at URL <https://law.lis.virginia.gov/admincode/title9/agency25/chapter890/>.
- The MS4 Program Plan
- A copy of the most recent final Chesapeake Bay Action Plan
- Copies of TMDL Action Plans developed and implemented under the MS4 General Permit Local TMDL Special Condition
- Copies of MS4 Annual Reports submitted under the current MS4 General Permit Notice of Coverage
- Copies of Chesapeake Bay TMDL Implementation Annual Status Reports created under the current MS4 General Permit Notice of Coverage

Unless required specifically as an MS4 General Permit condition, the documents placed on the Water Quality and Stormwater web page are final documents that have undergone internal and external review and obtained the necessary approvals prior to being posted on the web page.

The webpage also includes directions for the public regarding the following:

- Reporting of potential illicit discharges, improper material disposal or spills to the MS4, land disturbing activity complaints, and other stormwater pollution concerns, and
- Submission of comments regarding the Town's MS4 Program Plan.



The Town will utilize the Water Quality & Stormwater Management webpage as the means to solicit comments regarding its draft Chesapeake Bay TMDL Action Plan prior to submission to DEQ as required by the MS4 General Permit.

The Town will follow the latest version of the Town Standard Operating Procedures for Receiving, Responding, and Documenting Stormwater-Related Public Reports & Comments to receive, respond, and document community participation.

5.2.1 Water Quality & Stormwater Management Webpage Update Requirements

The following updates to the webpage must be made to remain in compliance with the MS4 General Permit:

- The webpage must be updated to include the required information no later than **February 1, 2024**.
- The MS4 Program Plan must be updated to meet the conditions of the 2023 MS4 General Permit by May 1, 2024. The updated MS4 Program Plan must be posted on the webpage no later than 30 days of it being updated (**May 31, 2024**).
- The MS4 Annual Report for the previous reporting cycle (July – June) must be posted on the webpage no later than 30 days after its October 1 submittal to DEQ (**Annually by October 31**).
- The MS4 Annual Report for the previous reporting cycle (July – June) must be posted on the webpage no later than 30 days after its October 1 submittal to DEQ (**Annually by October 31**).
- The Chesapeake Bay TMDL Action Plan must be posted on the webpage no later than 30 days after its October 31, 2024 submittal to DEQ (**November 30, 2024**).
- The Chesapeake Bay TMDL Implementation Status Report for the previous reporting cycle (July – June) must be posted on the webpage no later than 30 days after its October 1 submittal to DEQ (**Annually by October 31**).

5.3 Public Involvement

The Town provides numerous Public Involvement opportunities that are reflective of the PEOP high-priority stormwater issues. These include:

- The Keep Leesburg Beautiful Campaign
- Pet Waste Stations at Town Parks
- Participation in the Flower & Garden Festival
- PAWS for Clean Water Promotional Pledge
- Loudoun County Household Hazardous Waste Collection Events

These public involvement opportunities are further described in the following sections.

5.3.1 Public Involvement Opportunity 1: Keep Leesburg Beautiful Campaign

| Opportunity Type | Restoration – Clean Up Days |
|--------------------------|---|
| Schedule | Annually; Every Spring |
| Responsible Party | DPW |
| Effectiveness Evaluation | DPW will utilize data collected as part of the Keep Leesburg Beautiful campaign, including individual project reports, to estimate the number of participants and amount of litter collected. |



Keep Leesburg Beautiful (KLB) is a town-wide litter minimization program undertaken by volunteers and administered by the DPW. Youth groups, community organizations, churches, businesses, homeowner associations, families, and individuals are encouraged to participate. KLB participation is promoted through the Town's webpage, social media, and quarterly newsletter (Figure 2). Additional information regarding the Keep Leesburg Beautiful event is available at <https://www.leesburgva.gov/departments/public-works/keep-leesburg-beautiful>.

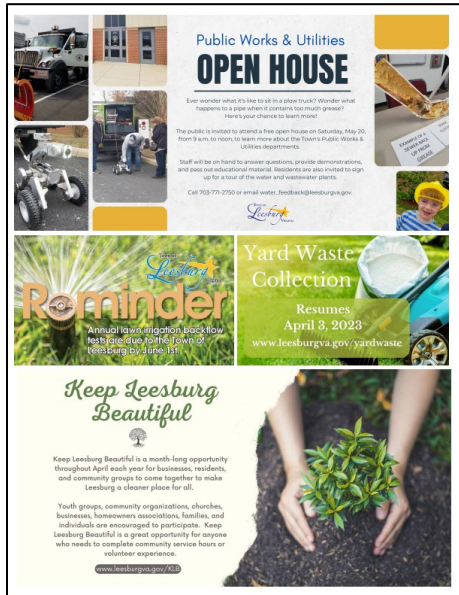


Figure 2. Keep Leesburg Beautiful Promotion in the Spring 2023 Newsletter

KLB's largest event is a month-long opportunity each April for businesses, residents, and community groups to come together to make Leesburg a cleaner place. Since 2020, a Keep Leesburg Beautiful litter clean-up challenge has also been held in the fall to encourage residents to continue their community beautification and litter collection efforts throughout the year. Participants are encouraged to submit a Keep Leesburg Beautiful Project Report that details:

- The date and location of the activity
- The type of activity
- The number of participants
- The number of hours spent
- An estimate of the amount of trash collected (e.g., number of trash bags, size of clean-up area, etc.)

The Town will count each KLB Project Report as a separate Public Involvement opportunity in the MS4 Annual Report based on their implementation at separate locations and/or dates.

5.3.2 Public Involvement Opportunity 2: Pet Waste Stations

| Opportunity Type | Pollution Prevention – Pet Waste Stations in Public Areas |
|--------------------------|--|
| Schedule | Year-Round |
| Responsible Party | DPW |
| Effectiveness Evaluation | DPW will confirm the presence of each of the eight (8) Pet Waste Stations at the identified locations. |



The Town will provide public access to Pet Waste Stations at eight (8) town parks throughout the year (Figure 3). The Pet Waste Stations contain a message, pet waste bags, and a nearby trash can. The locations of these Pet Waste Stations are:

- Brandon Park, 878 Harrison St. SE (39.105497, -77.561264)
- Carrvale Park, 919 Marshall St. NE (39.117759, -77.543649)
- Greenway Park, 102 Shadetree Way SW (39.092171, -77.588194)
- Leesburg Dog Park (Olde Izaak Walton Park), 850 Davis Ave. SE (39.101859, -77.567672)
- Raflo Park, 345 Harrison St. SE (39.108888, -77.563050)
- Rotary Park, 22 North St. NE (39.117304, -77.562044)
- Town Green, 25 W. Market St. (39.114514, -77.565691)
- Tuscarora Park, 425 Solitude Ct SE (39.094467, -77.542526)



Figure 3. Town of Leesburg Pet Waste Station at the Entrance to the Leesburg Dog Park at Olde Izaak Walton Park

The Town will count each Pet Waste Station as a separate Public Involvement opportunity in the MS4 Annual Report based on their implementation at separate Town Parks.

5.3.3 Public Involvement Opportunity 3: Flower & Garden Festival

| Opportunity Type | Public Education Activity – Booth at Community Festival |
|--------------------------|--|
| Schedule | Annually; 3rd Weekend of April |
| Responsible Party | DPW |
| Effectiveness Evaluation | DPW will provide an estimate of the number of festival attendees and the number and types of PEOP messages distributed in the MS4 Annual Report. |



The Flower & Garden Festival was founded in 1990 and has since blossomed into the premier festival in Leesburg, boasting an average of 30,000 visitors throughout the weekend. The Town of Leesburg produces the festival, with participation from many different departments including Parks and Recreation, Public Works, Leesburg Police, and Leesburg Utilities. DPW will have a booth at the festival to answer stormwater-related questions and discuss stormwater activities with the visitors. Concurrent with the public education activity, DPW will distribute PEOP materials and messages during the festival. The Town will count participation at the Flower & Garden Show as one Public Involvement opportunity in the MS4 Annual Report.

5.3.4 Public Involvement Opportunity 4: PAWS for Clean Water Promotional Pledge

| Opportunity Type | Pollution Prevention – Promote the Use of Pet Waste BMPs |
|--------------------------|---|
| Schedule | Continuously |
| Responsible Party | DPW |
| Effectiveness Evaluation | Beginning with PY01, the Town will track the annual cumulative number of pet waste pledges submitted to the Town and will report both numbers in the MS4 Annual Report. |

The PAWS for Clean Water is a promotional program directed toward pet owners that encourages them to clean up after their pets. Pet owners submit to the Town a signed pledge confirming that they will clean up after their pet. In return, the Town provides pet owners with promotional Pet Waste Bag Dispensers. The PAWS for Clean Water program is promoted through the Town webpage, social media, and other PEOP and Public Involvement activities.

The Town will count the Paws for Clean Water program as one Public Involvement opportunity in the MS4 Annual Report.

5.3.5 Public Involvement Opportunity 5: Loudoun County Household Hazardous Collection Events

| Opportunity Type | Disposal or Collection Event – Household Hazardous Waste Collection Events |
|--------------------------|--|
| Schedule | Annually |
| Responsible Party | Loudoun County Department of Public Works |
| Effectiveness Evaluation | The Town will provide the number of Household Hazardous Waste Collection Events held within the Town limits during the reporting period. The Town will provide documentation of its promotion of the County Household Hazardous Waste Collection Events. |

Loudoun County conducts Household Hazardous Waste (HHW) collection events from March through November to collect used and unwanted household hazardous materials such as gasoline and household chemicals, and the events are held at various locations throughout the county, including locations within the Town. Town residents are eligible to participate in the household hazardous waste collection events provided they provide proof of County residency. The Town will promote the County's Household Hazardous Waste Collection Program as part of the Town's Trash and Recycling Services outreach efforts.

The Town will count each Loudoun County Household Hazardous Waste Collection Event that occurs within the Town limits as a separate Public Involvement opportunity in the MS4 Annual Report.



Town of Leesburg
Public Education and Outreach Plan/Public Participation Opportunities Plan

Appendix A – Town of Leesburg PEOP Documentation Form



TOWN OF LEESBURG

Stormwater Public Education and Outreach Plan Documentation Form

The Town of Leesburg is required to implement a Public Education and Outreach Program to address the following high-priority stormwater issues:

- Bacteria Pollution
- Illicit Discharges and Illegal Dumping
- Excessive Nutrients

The Town must employ a minimum of two of each of the strategies in Table 1 annually to:

- Increase the public's knowledge of how to reduce stormwater pollution, placing priority on reducing impacts to impaired waters and other local water pollution concerns;
- Increase the public's knowledge of hazards associated with illegal discharges and improper disposal of waste, including pertinent legal implications; and
- Implement a diverse program with strategies that are targeted toward individuals or groups most likely to have significant stormwater impacts.

Table 5. Strategies for Public Education and Outreach Delivery

| Messaging Strategy | Description |
|-------------------------------|--|
| Traditional Written Materials | Informational brochures, newsletters, fact sheets, utility bill inserts, or recreational guides for targeted groups of citizens |
| Alternative Materials | Bumper stickers, refrigerator magnets, t-shirts, or drink koozies |
| Signage | Temporary or permanent signage in public places or facilities, vehicle signage, billboards, or storm drain stenciling |
| Media Materials | Information disseminated through electronic media, televisions, movie theater, newspaper, or GIS story maps |
| Speaking Engagements | Presentations to school, church, industry, trade, special interest, or community groups |
| Curriculum Materials | Materials developed for school-aged children, students at local colleges or universities, or extension classes offered to local citizens |
| Training Materials | Materials developed to disseminate during workshops offered to local citizens, trade organizations, or industrial officials |
| Public Education Activities | Booth at community fair, demonstration of stormwater control projects, presentation of stormwater materials to schools to meet applicable education Standards of Learning or curriculum requirements, or watershed walks |
| Public Meetings | Public meetings on proposed community stormwater management retrofits, green infrastructure redevelopment, ecosystem restoration projects, TMDL development, climate change's effects on stormwater management, voluntary residential low impact development, or other stormwater issues |

The Town's Public Education and Outreach Plan (PEOP) identifies and describes numerous strategies that have been and will be implemented to comply with the MS4 General Permit. For the strategies that are not regularly reoccurring or continuous, specifically Strategies 6, 7, and 9, one of these Public Education and Outreach Documentation Forms should be completed.



Town of Leesburg
Public Education and Outreach Plan/Public Participation Opportunities Plan

| Town of Leesburg MS4 PEOP Documentation Form | | | | | |
|--|--------------------------|---------------------------------------|--------------------------|---------------------|--------------------------|
| Event Name | | | | | |
| Event Date | | Estimated Number of Attendees | | | |
| Host Organization | | | | | |
| Event Description | | | | | |
| High-Priority Stormwater Issue(s) Addressed (Check Applicable) | | | | | |
| Bacteria | <input type="checkbox"/> | Illicit Discharge and Illegal Dumping | <input type="checkbox"/> | Excessive Nutrients | <input type="checkbox"/> |
| MS4 General Permit Messaging Strategy / Delivery Method Employed (Check Applicable) | | | | | |
| Traditional Written Material | <input type="checkbox"/> | Public Education Activities | <input type="checkbox"/> | Media Materials | <input type="checkbox"/> |
| Alternative Materials | <input type="checkbox"/> | Speaking Engagements | <input type="checkbox"/> | Training Materials | <input type="checkbox"/> |
| Signage | <input type="checkbox"/> | Curriculum Materials | <input type="checkbox"/> | Public Meetings | <input type="checkbox"/> |
| Messages Delivered | | | | | |
| Messages Utilized from Message Library (List) | | | | | |
| New Messages (List) | | | | | |
| Town Participation | | | | | |
| List Town Staff (Include Department) | | | | | |
| Documentation, such as event dates, audience, presentation titles, and copies of the individual strategies (.pdf of publications, copies of presentations, etc.), must be kept on file in case of DEQ audit or inspection. | | | | | |



Town of Leesburg
Public Education and Outreach Plan/Public Participation Opportunities Plan



Town of Leesburg
Public Education and Outreach Plan/Public Participation Opportunities Plan



Town of Leesburg MS4 PEOP Documentation Form

Event Name: [Click or tap here to enter text](#)

Event Date: [Click or tap here to enter text](#)

Estimated Number of Attendees: [Click or tap here to enter text](#)

Host Organization: [Click or tap here to enter text](#)

Event Description: [Click or tap here to enter text](#)

High-Priority Stormwater Issue(s) Addressed (Check All That Apply)

- Bacteria
- Illicit Discharge and Illegal Dumping
- Excessive Nutrients

MS4 General Permit Messaging Strategy / Delivery Method Employed (Check All That Apply)

- Traditional Written Material
- Public Education Activities
- Media Materials
- Alternative Materials
- Speaking Engagements
- Training Materials
- Signage
- Curriculum Materials
- Public Meetings

Messages Delivered

Messages Utilized from Message Library (List): [Click or tap here to enter text](#)

New Messages (List): [Click or tap here to enter text](#)

Town Participation

List Town Staff (Include Department): [Click or tap here to enter text](#)

Documentation, such as event dates, audience, presentation titles, copies of the individual strategies (.pdf of publications, copies of presentations, etc.), must be kept on file in case of DEQ audit or inspection.