



# Municipal Separate Storm Sewer System (MS4) Year 4 Annual Report

**2021 – 2022 Reporting Period**

**Permit No. VAR040057**

*In compliance with the "General VPDES Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems" VAR 040057*



Department of Transportation and Environmental Services  
2900-B Business Center Drive  
Alexandria, VA 22314  
703.746.6499

**September 30, 2022**





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**General VPDES Permit for  
Small Municipal Separate Storm Sewer Systems  
Permit No. VAR040057  
Year 4 Annual Report  
July 1, 2021 – June 30, 2022  
  
City of Alexandria, Virginia**



Submitted by  
City of Alexandria  
Department of Transportation and Environmental Services  
2900-B Business Center Drive, Alexandria, VA 22314

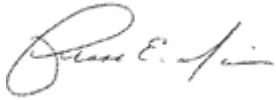


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## CERTIFICATION

"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."



Division Chief, Transportation  
and Environmental Services,  
Stormwater Management

9/30/2022

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Jesse E. Maines

Name

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Title

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Date



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# General VPDES Permit for Small Municipal Separate Storm Sewer Systems Permit No. VAR040057

Year 4 Annual Report  
July 1, 2021 – June 30, 2022  
City of Alexandria, Virginia

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## **ACRONYMS**

AWL – Animal Welfare League  
BMP – Best Management Practice  
C&I – Construction and Inspection  
COVID-19 - Novel Coronavirus Disease  
CSS – Combined Sewer System  
CRM - Customer Relations Management  
DEQ – Virginia Department of Environmental Quality  
E&SC – Erosion and Sediment Control  
EIU – Environmental Industrial Unit  
EMO – Environmental Management Ordinance  
EPC – Environmental Policy Commission  
GI – Green Infrastructure  
HOA – Home Owners Association  
LID – Low Impact Development  
MCM – Minimum Control Measure  
MS4 - Municipal Separate Storm Sewer System  
NMP - Nutrient Management Plans  
NVRC – Northern Virginia Regional Commission  
OEQ – Office of Environmental Quality  
PCB - polychlorinated biphenyls  
PSA - Public Service Announcement  
PY – Permit Year  
RCPA – Department of Recreation, Parks and Cultural Activities  
SEAS - School Environmental Action Showcase  
SWCB – State Water Control Board  
SWM - Stormwater Management Division  
SWPPP – Stormwater Pollution Prevention Plan  
SWWG – Stormwater Work Group  
T&ES – Department of Transportation and Environmental Services  
TMDL – Total Maximum Daily Load  
VCA – Veterinary Centers of America  
VESCL – Virginia Erosion and Sediment Control Law  
VESCR – Virginia Erosion and Sediment Control Regulations  
VPDES - Virginia Pollutant Discharge Elimination System  
VSMP – Virginia Stormwater Management Program



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## 1 Introduction

This 2021 – 2022 MS4 Annual Report is prepared by the City of Alexandria (City) Department of Transportation and Environmental Services (T&ES) in accordance with the requirements of the General VPDES (Virginia Pollutant Discharge Elimination System) Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (9VAC25-890-40 *et seq.*). The City was originally issued General Permit VAR040057 on July 8, 2003 under the program. DEQ reissued the current five-year permit effective November 1, 2018.

Under the terms of the General Permit, the City has developed a Municipal Separate Storm Sewer System (MS4) Program Plan to implement six minimum control measures aimed at reducing the discharge of pollutants to the “maximum extent practicable.” Minimum control measures are:

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

The General Permit requires that the City submit annual reports no later than October 1<sup>st</sup> covering the reporting period of the preceding July 1<sup>st</sup> through June 30<sup>th</sup>. This annual report covers the period of July 1, 2021, through June 30, 2022. The 2018-2023 General Permit outlines the requirements for the annual report in 9VAC25-890.

## 2 General Information

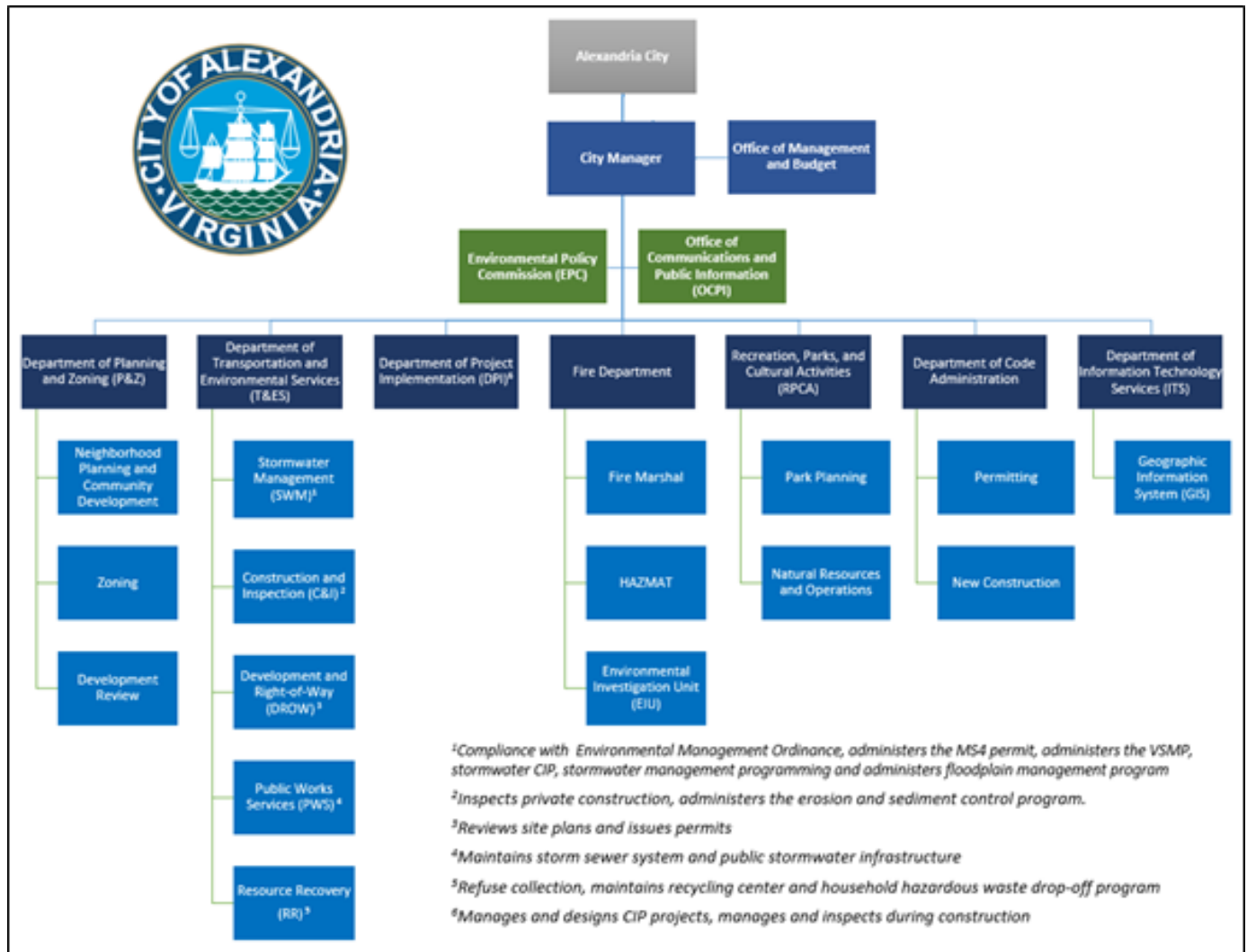
This section provides general information as required in Part I D 2 of the General Permit.

| Name of Permittee:  | System Name:                | Reporting Period:         | Permit Number:              |
|---|-----------------------------|---------------------------|-----------------------------|
| City of Alexandria  | City of Alexandria MS4      | 2021 - 2022               | VAR040057                   |
| <b>Modifications to Roles and Responsibilities:</b> None. |                             |                           |                             |
| <b>6<sup>th</sup> Order HUC:</b>                          | <b>Potomac River (PL28)</b> | <b>Cameron Run (PL26)</b> | <b>Four Mile Run (PL25)</b> |

The organizational chart outlines major stormwater activities and functions divided among several different departments and divisions. Additional information about each department is found in the MS4 Program Plan. In 2016, The City created a separate Stormwater Management Division (SWM) in Transportation and Environmental Services that has the primary responsibility for coordinating permit compliance.



## Stormwater Management Organizational Chart – Roles and Responsibilities





### 3 2021 – 2022 Permit Conditions Compliance Status

The following provides the status of best management practices for each of the six minimum control measures (MCMs) during the 2021 – 2022 reporting period or Permit Year 4 (PY4). The City previously updated the MS4 Program Plan based on the requirements in the 2018-2023 General Permit. This annual report is organized to reflect the City's current MS4 Program Plan, so that the BMPs under each MCM follow the format for the program plan. Each section in this report begins with a summary table describing the task, the implementation year, the measurable goal as described in the City's MS4 Program Plan, and task status. Following the summary table is a more detailed discussion of the implementation status of each task. Additional support materials are found in the appendices.

Due to the ongoing COVID-19 global pandemic, some of the activities administered in accordance with education, outreach, public involvement, and participation, and training remained virtual during PY4, but most transitioned back to in-person. Information regarding these activities is included in this report.

The City completed the update of the MS4 Program Plan to comply with the 2018-2023 permit requirements on May 1, 2019, and made revisions effective July 1, 2020, and also July 1, 2021. Additional updates to the MS4 Program Plan are effective July 1, 2022 and summarized herein.

#### 3.1 Public Education and Outreach (MCM #1)

Table 1 summarizes activities associated with Minimum Control Measure #1 and their completion status. Additional detail is provided after the table and in Appendix A.

*Table 1. Summary of Activities for MCM #1*

| Strategy                           | BMP   | Measurable Goal   | Status     |
|------------------------------------|---|---|------------|
| 1A – Traditional Written Materials | Distribute pamphlets and other written materials about proper fertilization, pet waste, household hazardous waste, and other water quality topics at outreach events. | Dates and location of outreach events with the approximate number of attendees. | ✓ Complete |
| 1B – Alternative Materials         | Distribute promotional items (giveaways) at education and outreach events. Include the Eco-City Alexandria Clean Waterways logo on these items, where possible.       | Dates and location of outreach events with the approximate number of attendees. | ✓ Complete |
| 1C - Signage                       | Place BMP identification signs at surface structural stormwater BMPs (bioretention, swales, green roofs, etc.)  | The total number of BMPs within the City.                                       | ✓ Complete |
| 1C - Signage                       | Installation, maintenance, and re-stocking of pet waste stations with   | Number of existing and new pet waste stations.                                  | ✓ Complete |



| Strategy                  | BMP  | Measurable Goal   | Status     |
|---------------------------|--|---|------------|
|                           | appropriate signage.   | Number of pet waste bags used and distributed to refill stations.   |            |
| 1C - Signage              | Install storm drain markers.   | Number of markers placed.   | ✓ Complete |
| 1C - Signage              | Install and maintain stream crossing signs.  | Number of existing signs and number of signs added or replaced.   | ✓ Complete |
| 1D – Media Materials      | Use eNews (City electronic news distribution system), social media (Facebook or Twitter), television, and/or websites to convey message.   | The number of individuals signed up to receive the City’s eNews.<br>The number of Facebook Page followers and Twitter followers.<br>The number of visits to the Stormwater Management webpage.<br>Clean Water Partners Only Rain Summary Report of Findings.                  | ✓ Complete |
| 1D – Media Materials      | Have a reporting mechanism on the City’s website so that residents can report potential illicit discharges.  | The number of stormwater pollution related complaints received.   | ✓ Complete |
| 1D – Media Materials      | Use social media (Facebook, Instagram, or Twitter), website, and/or television including airing the City’s stormwater pollution prevention video on the government/community access channel. | The number of individuals signed up to receive the City’s eNews and the number of Facebook Page, Instagram, and Twitter followers.<br>The number of visits to the Stormwater Management webpages including the TMDL, MS4, and What You Can Do to Protect Stormwater webpages. | ✓ Complete |
| 1E – Speaking Engagements | Present at no less than 2 events per year and include messages about excess nutrients, pet waste, illicit discharges and other stormwater quality issues.                                    | Dates and locations of presentations with the approximate number of attendees.  | ✓ Complete |

\*The City uses Alexandria eNews, which is a service that allows users to receive information through email on nearly 100 topics (including stormwater related messages).

## Public Education and Outreach Plan Development

The Public Education and Outreach Program identified (1) Chesapeake Bay Nutrients (phosphorus and nitrogen), (2) Pet Waste; and (3) Illicit Discharges, as high-priority water quality issues as part of the update to the Program Plan and created three distinct sets of BMPs to address these issues. A summary of specific strategies chosen from General Permit Table 1 and implemented during this reporting period for each of the high-priority water quality issues is provided at the end of this BMP section. The City also continues to implement BMPs associated



with other aspects of water quality and has included these in the updated Public Education and Outreach Plan.

## **Clean Water Partners**

The City continues to participate in the Northern Virginia Regional Commission (NVRC) Clean Water Partners, a regional educational partnership among other MS4 permittees: Fairfax County; Arlington County; Loudoun County; Fairfax Water; City of Fairfax; City of Falls Church; City of Manassas; Town of Leesburg; Town of Dumfries; Doody Calls; Northern Virginia Regional Commission; George Mason University; Virginia Coastal Zone Management Program; Fairfax County Public Schools; Prince William County Public Schools; and the Northern Virginia Soil and Water Conservation District. For the 2021 – 2022 reporting period, the Clean Water Partners used television, print, internet advertising and the “Only Rain” website ([www.onlyrain.org](http://www.onlyrain.org)) to distribute messages linked to specific stormwater problems associated with high-priority water quality issues, such as proper pet waste disposal, not bagging lawn clippings, planting native plants, and proper disposal of waste.

The program’s three high-priority water quality issues are specifically bacteria, nutrients, and chemical contaminants which are consistent with the City’s identified issues.

Included in Appendix A and referenced below under BMP 1D measure of effectiveness is the annual report on the Clean Water Partners program efforts with information on the effectiveness of the program based on the results of the program’s annual survey. Specifically, the program conducted an online poll survey of 500 Northern Virginia residents to determine the effectiveness of on-line efforts and a series of TV, Facebook, and Twitter ads to reveal any changes in behavior, and to aid in directing the future efforts of the campaign. As a new strategy in 2020, the Partners contracted with a digital communications firm to develop and implement a social media campaign on Facebook and Twitter. The results so far have shown that these platforms are an effective way to engage with the target audiences.

Approximately 38% of Alexandrians responding to the survey recalled seeing ads on TV, Facebook, or Twitter on reducing water pollution.

The annual survey found that due to seeing the reducing water pollution advertisements:

- 42% of respondents pick up pet waste more often;
- 37% of respondents plan to fertilize fewer times during the year; and
- 12% of respondents now properly dispose of motor oil.

The survey also documented the following regarding responding Alexandrians:

- 62% believe stormwater ends up in local streams, Potomac River or Chesapeake Bay;
- 73% recognized the “Only Rain Down the Storm Drain” logo used by the program;
- 44% have received information about reducing water pollution in the past 12 months;
- 35% had heard of water quality activities in the past 12-months; and



- 62% said that they probably or would report potential pollution to the City.

### **BMP 1A Traditional Written Materials**

Traditional written materials are a proven and reliable strategy. The City has created stormwater educational flyers/brochures that are distributed at various outreach events. The brochures are included in Appendix A.

#### **Measure of Effectiveness**

Dates and locations of outreach events where these brochures were made available with the approximate number of attendees can be found in the table under [BMP 2C](#). No changes to the MS4 Program Plan were deemed necessary.

### **BMP 1B Alternative Materials**

Also distributed at outreach events are promotional items, or alternative materials, which are giveaways that include the City's Eco-City Clean Waterways logo. T&ES-SWM makes it a priority to select promotional items that are useful and related to stormwater while the logo brings awareness of the City's goal of improved water quality and clean waterways.

#### **Measure of Effectiveness**

Dates and locations of outreach events where these promotional items were distributed with the approximate number of attendees can be found in the table under [BMP 2C](#). No changes to the MS4 Program Plan were deemed necessary.

### **BMP 1C Signage**

The City continues to require all new and redevelopment projects to provide signage or labeling to identify new surface structural stormwater BMPs as part of the site plan approval process.

Additionally, the City has installed stream crossing signs at locations where hike and/or bike trails cross major waterways. The City maintains and replaces these signs as needed. No additional signs were installed during this reporting period. The City maintains 20 signs at 18 road crossings and five signs at three trail crossings. The signs promote awareness of Alexandria's surface water resources, water bodies, drainage basins, and location in the Chesapeake Bay Watershed.

The City was one of the first localities in Northern Virginia to implement a storm drain marking program. The City continues to require new development and redevelopment to mark storm drain inlets within the development and located within 50 feet of the project with information on the drainage destination of waters entering the structures. In addition, City staff continue to promote the storm drain marking program at community outreach events and to work with interested residents to implement storm drain marking.



### **Measure of Effectiveness**

- BMP signage is required for surface structural stormwater BMPs installed and a photo of the BMP sign and a copy of a final site plan sheet calling for the BMP signage can be found in Appendix A. See Appendix D for a list of all stormwater BMPs installed in this permit cycle.
- The City continues to maintain the stream crossing signs so that they are in good condition. A photo of one of the stream crossing signs can be found in Appendix A.
- Storm drain markers were installed as a requirement of development or redevelopment and a sample plan sheet with this requirement is provided in Appendix A. For FY22 approximately 60 new drain markers have been placed. During FY2022, the City created and deployed new phone application for tracking the status of storm drain markers using ArcGIS.
- No changes to the MS4 Program Plan were deemed necessary.

### **BMP 1D Media Materials**

The City continues to host a stormwater quality webpage, located at [www.alexandriava.gov/Stormwater](http://www.alexandriava.gov/Stormwater). The page includes information about the City's Stormwater Management Program, the Chesapeake Bay Action Plan, the City's Virginia Stormwater Management Program (VSMP), the MS4 Program – to include the Program Plan and annual reports – and provides information for residents to learn how they can protect local streams and rivers. In addition, pages linked to this main page contain external links for the Chesapeake Bay Preservation Act, VSMP requirements, and the Construction General Permit. It also contains information and links to the City's Environmental Management, and Erosion and Sediment Control ordinances. Staff continues to add new content to the site and update existing content.

In addition, the City highlights upcoming events or important information, and posts information on the T&ES Facebook, Instagram, and Twitter account. These tools are used to promote water quality events such as volunteer stream cleanups, build your own rain barrel workshops, and pre-made rain barrel sales events, and raise awareness of water quality topics.

The City also uses *Alexandria eNews* to distribute information through email on nearly 100 topics (including stormwater related messages). Users sign up for these email alerts and choose to receive specific informational topics. For example, individuals may choose to receive news with a specific focus on environmental and water quality issues, and/or information on volunteer opportunities, tips, and workshops. T&ES and the Office of Communication & Public Information (OCPI) work closely together to widely distribute eNews messages and other Citywide information. Example eNews distributed during FY2022 is included in Appendix A.

The City maintains its online resident reporting capabilities (See BMP 3A). The City's Alex311 system information is prominent on the City's main page and subordinate pages.



### **Measure of Effectiveness**

See the tables under the High Priority Issues for the following:

- The number of individuals signed up to receive the City's eNews.
- The number of Facebook Page followers, Instagram followers, and Twitter followers.
- The number of visits to the Stormwater Management webpage.

See Appendix A for the following:

- Sample eNews, Facebook posts, Instagram posts, and Twitter posts

The Clean Water Partners Only Rain Summary Report of Findings No changes to the MS4 Program Plan were deemed necessary.

### **BMP 1E Speaking Engagements**

T&ES-SWM staff often presents at various meetings and events including rain barrel workshops, homeowner association meetings, community events, and stream clean-ups. These activities all create awareness regarding the importance of preventing stormwater pollution. Table 3 provides an overview of Outreach activities including speaking engagements.

### **Measure of Effectiveness**

The events were virtual, with dates and approximate number of attendees at each speaking engagement can be found in the table under General Stormwater Pollution Prevention Public Education and Outreach. No changes to the MS4 Program Plan were deemed necessary.

## **High-Priority Issues**

### **#1 – Chesapeake Bay Nutrients**

Chesapeake Bay nutrients (nitrogen and phosphorus) have been identified as the as the first high-priority water quality issue. The following strategies were implemented in accordance with the MS4 Program Plan and as described in the BMPs 1A, 1C, 1D, and 1E above. Documentation of each activity is found in Appendix A.

1. Distributed proper fertilization brochures and other written materials at outreach events, where applicable.
2. Used eNews (City electronic news distribution system), social media (Instagram, Facebook, and Twitter), television, and/or websites to convey messages regarding Chesapeake Bay Nutrients. Message addressed seasonally specific stormwater pollution prevention tactics for nutrients and pointed readers back to the City's website with additional information on the topic.
3. Maintained and updated a "Stormwater Management" webpage at [www.alexandriava.gov/Stormwater](http://www.alexandriava.gov/Stormwater) related to the proper application and use of fertilizers



to protect water quality. Also, a link to the NVRC [www.onlyrain.org](http://www.onlyrain.org) website was included.

4. Placed BMP identification signs at surface structural stormwater BMPs (bioretention, swales, green roofs, etc.) as each BMP is installed.
5. Presented at events and included a message about excess nutrients in stormwater.
6. Continued to participate in the NVRC Clean Water Partners program the partners used television, print, internet advertising and the Only Rain website to distribute messages such as over fertilization of lawns and gardens. The Clean Water Partners 2022 Summary and Survey may be found in Appendix A.

The goal of these strategies is to reach a wide audience with a message regarding the potential impact of nutrients on the Chesapeake Bay as well as specific actions that can be taken to reduce pollution. The table below provides the potential reach of different media used in the City's Public Education and Outreach Plan.

For a list of public education and outreach events, please see the table under [BMP 2C](#). In addition, Appendix A contains examples and supporting materials for these best management practices.

## **#2 – Pet Waste**

The second high-priority water quality issue identified is bacteria from pet waste. The following activities were implemented during this permit cycle in accordance with the MS4 Program Plan to address pet waste.

1. Distributed pet waste pamphlets and other written materials at all appropriate outreach events where applicable.
2. Used eNews (City electronic news distribution system), social media (Facebook, Instagram, and Twitter), television, and/or websites to convey message of the importance of picking up after pets and disposing of the waste properly.
3. Continued to maintain City pet waste stations and supply bags for stations. Five hundred (500) pet waste bags were provided during this permit cycle. Additional installations of stations will continue to occur, where appropriate, to make pick-up and disposal more convenient. Also, there are many residential communities in the City that install and maintain their own pet waste stations.
4. Distributed “dog bone” pet waste bag dispensers and refills at outreach event.
5. Continues to participate in the NVRC Clean Water Partners regional efforts, with the survey found in Appendix A.

The goal of these strategies is to reach a wide audience with the pet waste message and specific actions to reduce pollution.



The Clean Water Partners annual survey found that 42% of respondents picked up pet waste more often after seeing the advertisements.

For a list of public education and outreach events, please see the table in Section [BMP 2C](#). In addition, Appendix A contains examples and supporting materials for these best management practices.

### #3 – Illicit Discharges

The third high-priority water quality issue identified is illicit discharges. The following activities were implemented in accordance with the MS4 Program Plan during the permit year to address illicit discharges.

1. Used eNews (City electronic news distribution system), social media (Facebook or Twitter), television, and/or websites to convey messages regarding illicit discharges.
2. Maintained the [www.alexandriava.gov/Stormwater](http://www.alexandriava.gov/Stormwater) webpage which includes a page specifically related to illicit discharges for the targeted businesses and the general public, and included a link to the NVRC [www.onlyrain.org](http://www.onlyrain.org) website.
3. Continued to participate in the NVRC Clean Water Partners regional efforts. During FY2022, the Partners focused on bacteria, pet waste, illicit discharges, and salt. A new [video PSA](#) was developed and disseminated. The Northern [Virginia Clean Water Partners 2022 Summary](#) and Survey can be found in Appendix A.

The goal of these strategies is to reach a wide audience with an illicit discharge message and specific actions to reduce pollution.

Table 2 provides strategy, potential target reach, and estimated reach information for the high-priority issues.

Table 2. *Estimated Reach of High-Priority Issues*

| Media                           | Potential Target Reach                     | Estimated Permit Year Reach  |
|---------------------------------|--|--|
| eNews message                   | Environmental eNews Subscribers – 7,619    | 100% of Environmental eNews Subscribers  |
| Social Media Message            | Instagram, Facebook, and Twitter Followers | T&ES Facebook Page has 2,237 followers. T&ES has 2,484 Twitter followers. Instagram has 1,491 followers. |
| Stormwater Webpage              | 3,972 unique page views                    | 100% of unique page views  |
| Clean Water Partners Video PSAs | 820,154 Impressions                        | 100% of Impressions  |



## General Stormwater Pollution Prevention Public Education and Outreach

The City implemented the following activities during the permit cycle in accordance with the MS4 Program Plan.

1. Distributed other written materials about water quality and stormwater pollution prevention at outreach events. For FY2022, this information was shared during in-person and virtual events; the City continued to update and refine it's online stormwater presence, including the Stormwater Quality [webpage](#) which includes a link to the [City's BMP site tour](#).
2. The City maintained several webpages to help engage the community with stream restoration efforts:
  - [Taylor Run Stream Restoration](#)
    - [Virtual Site Tour](#)
  - [Strawberry Run Stream Restoration](#)
  - [Lucky Run Stream Restoration](#)
3. Used social media (Facebook, Instagram, and Twitter), webpages, and/or television including airing the City's stormwater pollution prevention video on the government/community access channel.
4. Maintained stream crossing signs to promote awareness of Alexandria's surface water resources, water bodies, and drainage basins.
5. Presented at events to include message about water quality and stormwater pollution prevention.

The goal of this BMP is to reach a wide audience with a general pollution prevention message as well as specific actions that can be taken to reduce pollution. The following table summarizes the City's public education and outreach activities and events where information on pollution prevention and water quality were distributed. Appendix A contains examples from the City's general education program.

*Table 3. Summary of Public Education and Outreach Activities*

| Activity                                      | Date       | Topic   | Number of Participants (approximate) |
|---|------------|---|--------------------------------------|
| Eco-City Academy Presentation (Virtual)       | 10/13/2021 | Stormwater Management   | 12                                   |
| Girl Scout Troop 60140 Presentation (Virtual) | 2/24/2022  | Stormwater Management in support of the WOW! Wonders of Water badge requirements. | 15                                   |
| Citizens City Academy Presentation (Virtual)  | 11/18/2021 | Water Resources, including Stormwater Management                                  | 15                                   |



| Activity  | Date       | Topic                                      | Number of Participants (approximate) |
|---|------------|--|--------------------------------------|
| Flood Mitigation Pilot Grant Presentation (Virtual)             | 8/10/2021  | Stormwater Management and Flood Mitigation | 15                                   |
| Ad Hoc Stormwater Utility Advisory Group Presentation (Virtual) | 8/12/2021  | Stormwater Management and Flood Mitigation | 10                                   |
| Fairlington Towne Onsite Meeting                                | 12/3/2021  | Flood Mitigation and Stormwater Management | 10                                   |
| Hume Ave Virtual Meeting  | 12/15/2021 | Flood Mitigation and Stormwater Management | 10                                   |
| Energy and Climate Change Task Force Presentation (Virtual)     | 12/7/2021  | Flood Mitigation and Stormwater Management | 15                                   |
| Environmental Policy Commission                                 | 6/27/2022  | Strawberry Run / Stream Restoration        | 15                                   |
| Environmental Policy Commission Presentation (Virtual)          | 3/21/2022  | Stream Restoration Stakeholder Engagement  | 15                                   |
| Environmental Policy Commission Presentation (Virtual)          | 1/24/2022  | Chesapeake Bay TMDL                        | 15                                   |
| Environmental Policy Commission Presentation (Virtual)          | 10/18/2021 | Stream Restoration Stakeholder Engagement  | 15                                   |
| Bellefonte Ave On Site Visit                                    | 4/14/2022  | Flood Mitigation and Stormwater Management | 8                                    |

### 3.2 Public Involvement/Participation (MCM #2)

The following table is a summary of activities for Minimum Control Measure #2 and their completion status. Additional detail is provided after the table and in Appendix B.

Table 4. *Summary of Activities for MCM #2*

| BMP  | Measurable Goal   | Status     |
|--|---|------------|
| <b>2A Public Reports, Input, and Participation Procedures</b>              |   |            |
| Maintain the City's web-based reporting (Alex311) and call center systems. | Include a screen shot of Alex311 and phone number for T&ES Stormwater management.                 | ✓ Complete |
| Post MS4 Program Plan on webpage and document input/feedback.              | Document that the program plan has been placed on the webpage and any input received on the plan. | ✓ Complete |



| <b>2B MS4 Program and Stormwater Pollution Prevention Webpage</b>                                 |  |            |
|---|--|------------|
| Maintain the City's MS4 and Stormwater Pollution Prevention Webpage                               | Provide the address of the webpage and a snapshot of the webpage.  | ✓ Complete |
| <b>2C Local Activities Public Involvement</b>   |  |            |
| Implement at least two clean-ups per year   | Document sponsorship and participation in clean-up events including approximate participation                | ✓ Complete |
| Participate in at least two educational events per year   | Document sponsorship and participation in educational events, including approximate participation            | ✓ Complete |
| Continuously implement the storm drain marker program and maintain City owned pet waste stations. | Document the number of individuals marking storm drains and the maintenance of City owned pet waste stations | ✓ Complete |

## **BMP 2A Public Reports, Input, and Participation Procedures**

The City implemented the following BMPs during this permit year in accordance with the MS4 Program Plan.

1. Maintained Alex311 web-based problem reporting and call center (311) that can be used by residents and others to report suspected illicit discharges (including improper disposal or spills), complaints (including ones regarding land disturbing issues), and other input. During this reporting period, no public input on the MS4 program was received. Input pertaining to stormwater illicit discharges is included in Section 3 of this report.
2. Posted the updates to the MS4 Program Plan no later than 30 days after the update (10/1) to the City's Stormwater MS4 Program webpage ([www.alexandriava.gov/93364](http://www.alexandriava.gov/93364)). The webpage includes a general email address (MS4ProgramPlan@alexandriava.gov) and the main phone number for T&ES-SWM for the public to use to submit input and feedback on the plan.

## **Measure of Effectiveness**

1. A hyperlink to the Alex311 webpage is provided in Appendix B. Potential illicit discharge complaints, some which were received through Alex311, may be found in Appendix C. The MS4 Program Plan was updated with information on Alex311 in FY20.
2. The updated MS4 Program Plan was posted in July 2020. No comments were received for the plan. BMP 2B MS4 Program and Stormwater Pollution Prevention Webpage



## **BMP 2B MS4 Program and Stormwater Pollution Prevention Webpage**

The City has developed a website dedicated to stormwater pollution prevent, water quality and the MS4 Program at [www.alexandriava.gov/Stormwater](http://www.alexandriava.gov/Stormwater) that has links to other aspects of the stormwater management program. The site provides information about the program, serves as a forum to distribute educational materials, includes information on where to report suspected illegal dumping, and makes documents accessible to the public for review and comment.

In accordance with Part I.E.2.b, the City’s MS4 Program and Stormwater Pollution Prevention webpage was updated to contain:

1. Current MS4 permit and coverage letter;
2. Most current MS4 Program Plan;
3. Annual reports from FY2015 to current;
4. T&ES-SWM main phone number and Alex311 link through “Contact Us” at the top of the page for reporting illicit discharges or other potential stormwater pollution concerns; and
5. Email address ([MS4ProgramPlan@alexandriava.gov](mailto:MS4ProgramPlan@alexandriava.gov)) for providing input on the MS4 Program Plan and other general inquiries about the program.

### **Measure of Effectiveness**

The address to the City’s MS4 Program webpage is <https://www.alexandriava.gov/stormwater-management/municipal-separate-storm-sewer-system-ms4-permit>. No updates to the MS4 Program Plan were deemed necessary.

## **BMP 2C Local Activities Public Involvement**

The City sponsors, promotes, and participates in numerous local events to educate citizens about the importance of preventing stormwater pollution. During FY2022, the City held many activities to promote stormwater awareness and water quality including sever listed below and those presented in Table 5.

- The City held three clean up events and a rain barrel workshop during FY2022 which are included in Table 5.
- The City hosted two storm drain marking events with youth in Alexandria – one with elementary school-aged children and one with high school-aged children.
- The City hosted “Imagine a Day without Water” in October through “One Water Alexandria”. Initiated in 2018, One Water Alexandria is a partnership between the three water entities that serve the City of Alexandria: Virginia American Water, who provides drinking water; the City of Alexandria, who owns the sanitary and storm sewer infrastructure; and Alexandria Renew Enterprises (AlexRenew), who owns the water resource recovery facility, interceptors, pump stations, and combined sewer outfalls.
- The City’s annual Earth Day event was updated into a month-long celebration with events across the City. The City’s Stormwater Management Division held “Stormwater Day at the Park” on April 30, 2022, in celebration of Earth Day (Month).



## **Measure of Effectiveness**

The T&ES-SWM organized, coordinated, and participated in several virtual activities focused on water quality in the City of Alexandria where staff had the opportunity to educate participants about stormwater pollution and prevention and provide online resources focused on education and outreach (see Table 5). These activities all create awareness regarding the importance of preventing stormwater pollution. No updates to the MS4 Program Plan were deemed necessary.

*Table 5. Public Stormwater Outreach Events during PY4*

| Activity  | Date       | Participants | Event Details   |
|---|------------|--------------|---|
| Chesapeake Bay Clean Up at the Potomac River                            | 6/4/2022   | 10           | Volunteers came out to pick up litter along the banks of the Potomac River.   |
| Storm Drain Marking - Alexandria City High School, Volunteer Alexandria | 5/23/2022  | 15           | The City worked with Volunteer Alexandria to host a storm drain marking event with high school students and interested public. The markings took place in Taylor Run watershed adjacent to Alexandria City High School. |
| Rain Barrel Workshop at the Nature Center                               | 5/21/2022  | 12           | The City hosted a small, outdoor, rain barrel workshop for interested community members.  |
| Stormwater Day at the Park  | 4/30/2022  | 50           | In celebration of Earth Day, the City's Stormwater Management Division hosted an event at Bren Brenman Park to educate the public about stormwater management and water quality.  |
| Spring Clean Up at Windmill Hill  | 4/9/2022   | 30           | Volunteers came out to pick up litter along the Potomac River at Windmill Hill, the City's living shoreline project.  |
| Storm Drain Marking - Girl Scout Troop 60140                            | 3/3/2022   | 15           | A Daisy Girl Scout Troop (3 <sup>rd</sup> grade) learned about stormwater management and marked storm drains near their elementary school, Mount Vernon Community School.   |
| Fall Clean Up at Four Mile Run  | 10/23/2021 | 15           | Volunteers came out to pick up litter in the Four Mile Run watershed.   |
| Imagine a Day without Water   | 10/21/2021 | 50           | One Water Alexandria hosted an event at Waterfront Park in Old Town, Alexandria, where materials were distributed to the public who stopped by to learn about water resources in the City.                              |

During PY4, the City continued implementation of the [Flood Action Alexandria](#) program. Launched in early 2021, Flood Action Alexandria brings together experts from the Department of Transportation and Environmental Services Stormwater Management Division and Sanitary Infrastructure Division, as well as the Department of Project Implementation and an [Ad Hoc Stormwater Utility and Flood Mitigation Advisory Group](#) to address flood issues, specifically related to stormwater, across the City. The City has experienced more frequent and severe storms due to climate change and is working through Flood Action Alexandria to accelerate infrastructure improvements, conduct education and



outreach, support monitoring and emergency operations, and help improve the City’s overall resilience.

As part of this effort, the City installed new rain gauges throughout the City in May 2021, which are tracked by local watershed. In 2021, the City launched a new “[Locate Your Watershed](#)” built on a GIS platform to help educate residents on which local watershed they live in. A Project Dashboard, also built on a GIS platform, that provides details on flood mitigation infrastructure projects. The Ad Hoc group participates in frequent meetings to learn and discuss issues pertaining to sewer infrastructure, flooding, and the stormwater utility fee. The City received funding from the Virginia Department of Conservation and Recreation to enhance hardened infrastructure projects aimed at reducing flood impacts and incorporating green infrastructure.

### 3.3 Illicit Discharge Detection and Elimination (MCM #3)

The following table is a summary of activities for Minimum Control Measure #3 and their completion status. Additional detail is provided after the table and in Appendix C.

*Table 6. Summary of Activities for MCM #3*

| BMP   | Measurable Goal   | Status     |
|---|---|------------|
| <b>3A Storm Sewer System Outfall Map and Outfall Information Table</b>                |   |            |
| Maintain an up-to-date storm sewer map and outfall information table.                 | Keep up-to-date storm sewer map and outfall information table available on request.   | ✓ Complete |
| Update the storm sewer map and outfall table by October 1 <sup>st</sup> of each year. | Include PDF of updated storm sewer map and information table in the annual report. Provide a summary of updates.  | ✓ Complete |
| Provide GIS shapefiles to DEQ no later than July 1, 2019                              | Include documentation of submittal.   | ✓ Complete |
| Notify downstream MS4s of any new physical interconnections.                          | Include copies of previous notifications and list and provide any notifications from the permit year.   | ✓ Complete |
| <b>3B Prohibition on Illicit Discharges</b>   |   |            |
| Enforce prohibition on illicit discharges (Chapter 13 of City Code).                  | Report number of illicit discharges identified and report how they were controlled or eliminated. Review City IDDE Program Manual and corresponding City Code and make recommendations accordingly. | ✓ Complete |



| BMP  | Measurable Goal   | Status     |
|--|---|------------|
| <b>3C Illicit Discharge Detection and Elimination Written Procedures</b>                                     |   |            |
| Maintain, implement and enforce the written procedures found in the City's IDDE Program Manual.              | Follow procedures and update as necessary.  | ✓ Complete |
| Investigate suspected illicit discharges.  | Report number of suspected illicit discharges and provide a narrative on how they were controlled or eliminated.  | ✓ Complete |
| Screen at least 50 outfalls annually such that no more than 50 are screened in the previous 12-month period. | Include documentation of the outfall screening completed during the permit year to include results, resolution, and investigation closure. Any follow-up actions will also be included. | ✓ Complete |
| <b>3D Alex311</b>  |   |            |
| Maintain Alex311   | Include a screen capture of Alex311. Document the number and types of incidents handled.  | ✓ Complete |
| <b>3E Household Hazardous Waste (HHW) Program</b>  |   |            |
| Provide HHW collection services to all residents   | Provide copies of the program web site and brochures. Document program participants and the number of equivalent barrels of waste accepted.   | ✓ Complete |
| <b>3F Identification of Permitted Stormwater Discharges</b>  |   |            |
| Keep up-to-date permitted discharges information and distribute to field crews.                              | Provide up-to-date map and list of state-permitted stormwater discharges.   | ✓ Complete |
| <b>3G Prohibition of Outdoor Cleaning of Restaurant Equipment</b>  |   |            |
| Enforce prohibition on outdoor cleaning of restaurant equipment.   | Document example SUP, if one has been done in the permit year.  | ✓ Complete |

### **BMP 3A Storm Sewer System Outfall Map and Outfall Information Table**

The City has previously developed and continues to maintain a storm sewer system map showing all features required in the MS4 permit, including all stormwater outfalls discharging to the waters of the Commonwealth, as well as pipes, catch basins, and inlets. The map provides a valuable tool to fully understand the storm system and aids in investigating and eliminating possible illicit discharges. The



data used to develop this map is continuously updated as new systems are installed and needed refinements to the system area discovered. The updated data is used to create the map which is exported for the annual report each permit cycle. Therefore, data shown on the map reflects all changes and updates to the City's documented storm sewer system as the date on the map.

The City shall continue to identify physical interconnections with other regulated MS4s and notify in writing any downstream regulated MS4 of any new physical interconnections.

### **Measure of Effectiveness**

The storm sewer system map and corresponding outfall information table have been updated to reflect any changes to the MS4 occurring on or before June 30<sup>th</sup> of the reporting year. Updates to the storm sewer system map are completed as redevelopment occurs and when refinements to the system are realized. The most current storm sewer system map and associated outfall table has been provided in Appendix C.

On July 30, 2020, the City provided an updated letter of adjacent MS4 jurisdictions that likely interconnections exist however, none have been identified. The letters were shared with National Park Service, George Washington Memorial Parkway, Arlington County, Fairfax County, and Virginia Department of Transportation. Copies of these notifications can be found in Appendix C. No updates to the MS4 Program Plan were deemed necessary.

### **BMP 3B Prohibition on Illicit Discharges**

The purpose of this BMP is to ensure that the City has the legal tools necessary to effectively prohibit illicit discharges and to conduct necessary enforcement in the case of an illicit discharge. City Council has adopted appropriate measures, including civil and criminal penalties, to prohibit illicit discharges. The City Attorney has reviewed the City Code and has determined that no additional changes are needed at this time. In recent years, the City did recognize the need for civil penalties for offenses that are not categorized as criminal. As a result, the City updated the Environmental Offenses ordinance to include civil penalties for identified illicit discharges.

### **Measure of Effectiveness**

Appendix C provides a summary of illicit discharge complaints and a narrative on how each complaint was handled, including how any actual discharge was controlled or eliminated as appropriate. No pattern of illicit discharges necessitated a review of policies, procedures, or ordinances. No updates to the MS4 Program Plan were deemed necessary.

### **BMP 3C Illicit Discharge Detection and Elimination Written Procedures**

Pursuant to the 2013-2018 General Permit program plan update requirements, the City developed the Illicit Discharge Detection and Elimination Program manual which included written policies, procedures, and legal authority for the detection, investigation, and elimination of illicit discharges. Outfall field screening is performed in accordance with the IDDE Program manual which includes the requirement outlined in Part I.E.3.c of the 2018-2023 permit. The City's IDDE Program manual was



updated to ensure current methodology and compliance with the current permit, to include the use of civil penalties. This manual can be found in the City's MS4 Program Plan.

The City continues to maintain, implement and enforce the written policies and procedures found in the City's IDDE Program manual. This includes:

- Documenting and tracking reported suspected illicit discharges or illicit discharges discovered during dry weather field screening, and the results of any investigations in accordance with the requirements in Part I.E.3.c.(2) of the 2018-2023 permit.
- Performing dry weather field screening on at least 50 outfalls annually such that no more than 50% are screened in the previous 12-month period. Outfalls were prioritized for field screening by the City in accordance with the rationale and procedure found in the IDDE Program manual.
- The use of enforcement actions and legal penalties as outlined in the IDDE Program manual, when necessary.

### **Measure of Effectiveness**

A list of illicit discharges to the MS4 including spills reaching the MS4 can be found in Appendix C. In addition, a list of all investigations performed for reported suspected illicit discharges to include results, resolution, and date of investigation closure can also be found in Appendix C.

A total of 50 outfalls were screened during the reporting period as part of the dry weather screening program, with a table summarizing the effort found in Appendix C. The MS4 Program Plan and IDDE written procedures (Program Manual) will be updated (PY5) to include the updated afterhours Emergency Standby Procedures that include after-hours notification and reporting for illicit discharges to clarify this process.

### **BMP 3D Alex311**

Alex311 uses a web-based reporting form, smart phone app, and call center built upon the Salesforce Customer Relationship Management (CRM) system. The Salesforce CRM system is a cloud-based repository for public complaints and service requests. The CRM is integrated with the City's asset management database, Cityworks™, for public submissions requiring asset maintenance or investigation. Illicit discharge and illegal dumping complaints are investigated by T&ES-Stormwater Management Division and the Fire Marshal's Environmental and Industrial Unit (EIU). All public submissions are tracked through the City's CRM database and Cityworks™.

The Alex 311 Call Center connects customers to information, services, and solutions using phone (703-746-HELP or 311) and web-based portals to receive and process requests and complaints. The 311 Call Center enables the City to standardize best practices and knowledge base information throughout the City in support of citizen engagement, customer service, service request and case management services. The 311 Call Center provides improved tracking and information updates for customers through the life cycle of the service request, streamlined service request creation and management, and data-driven analytics such as dashboards and maps.



### **Measure of Effectiveness**

The City (through T&ES-Stormwater and EIU reporting mechanisms) handled 33 water quality and illicit discharge related complaints or incidents during this reporting period. Appendix C provides a summary of the complaints and a narrative on how each discharge was controlled or eliminated. The T&ES SWM Division receives complaints directly from Alex311 and/or documents the information received via email, phone or another source. Reports are also made via 911. The EIU is responsible for entering this information into the EnerGov database. The SWM Division receives and enters data into Alex311 for incidents handled solely by their office. During coordinated responses, the EIU and SWM Division maintain both the EnerGov and Alex311 database. Screen shots of EnerGov, Alex311, and Cityworks™ are provided in Appendix C.

### **BMP 3E Household Hazardous Waste (HHW) Program**

Participation in the household hazardous waste (HHW) program continues to be a popular and effective program with approximately 14,528 participants using the program in this permit year. Materials are calculated based on 55-gallon drums or equivalent (barrels). The number of barrels has been tracked since 2008 when the materials were put into the large barrels or drums. As a result, the City continues to track this number as “equivalent” barrels. The webpage [alexandriava.gov/19206](http://alexandriava.gov/19206) includes information on the types of materials that may be left at the drop-off points and the schedule for drop-offs. The following table provides a snapshot of HHW program statistics.

*Table 7. HHW Users and Barrels by Fiscal Year (FY)*

| Year   | Users  | Barrels (or Equivalent Barrels) of HHW |
|--------|--------|--|
| FY2008 | 4,987  | -                                      |
| FY2009 | 6,067  | 754                                    |
| FY2010 | 7,059  | 875                                    |
| FY2011 | 7,920  | 822                                    |
| FY2012 | 7,698  | 702                                    |
| FY2013 | 8,424  | 759                                    |
| FY2014 | 9,535  | 516                                    |
| FY2015 | 10,476 | 504                                    |
| FY2016 | 9,976  | 409                                    |
| FY2017 | 10,974 | 359                                    |
| FY2018 | 11,431 | 309                                    |
| FY2019 | 12,278 | 328                                    |
| FY2020 | 11,975 | 298                                    |
| FY2021 | 16,359 | 385                                    |
| FY2022 | 14,528 | 353                                    |



### **Measure of Effectiveness**

Hyperlinks to the HHW webpage and the most recent program brochure is provided in Appendix C. No updates to the MS4 Program Plan were deemed necessary.

### **BMP 3F Identification of Permitted Stormwater Discharges**

The City continues to obtain updated information annually on state-permitted stormwater discharges within the City limits and maintains a map of these discharges. The purpose of this BMP is to provide field operations staff with a visual tool for identifying permitted and non-permitted discharges.

### **Measure of Effectiveness**

A current map and table of state-permitted stormwater discharges, current as of June 2022 is in Appendix C. No updates to the MS4 Program Plan were deemed necessary.

### **BMP 3G Prohibition of Outdoor Cleaning of Restaurant Equipment**

The City continues to include in the Special Use Permit (SUP) issued for restaurant facilities a standard condition that states: “Kitchen equipment shall not be cleaned outside, nor shall any cooking residue be washed into the streets, alleys, or storm sewers.”

### **Measure of Effectiveness**

A sample of a Development Special Use Permit (DSUP) reviewed during the reporting period with the appropriate language regarding restaurant equipment is found in Appendix C. No updates to the MS4 Program Plan were deemed necessary.

## **3.4 Construction Site Stormwater Runoff Control (MCM #4)**

The following table is a summary of activities for Minimum Control Measure #4 and their completion status. Additional detail is provided in the table below and in Appendix D.

*Table 8. Summary of Activities for MCM #4*

| BMP   | Measurable Goal   | Status     |
|---|---|------------|
| <b>4A Maintain DEQ Erosion and Sediment Control Program Consistency</b> |   |            |
| Maintain E&SC program consistency with State regulations.               | Document the City program consistency with state law and regulations. | ✓ Complete |
| <b>4B Site Control Implementation</b>                                   |   |            |



| BMP  | Measurable Goal   | Status     |
|--|---|------------|
| Ensure that the proper controls are implemented to prevent nonstormwater discharges to the MS4.  | Implement City's Policies and Procedures for Construction Site Runoff Control Inspections   | ✓ Complete |
| <b>4C Construction General Permit Inspections and Tracking</b>   |   |            |
| Require applicable land-disturbing activities secure coverage under the construction general permit.   | Require construction general permits as required in accordance with City ordinance.   | ✓ Complete |
| Review and approve SWPPPs and ensure SWPPP implementation.   | Review and approve SWPPPs. Document total number of inspections; provide a summary of enforcement actions included number and type. | ✓ Complete |
| Maintain a database log for tracking all land disturbing activities.   | Summarize annual land disturbing activities that secured a construction general permit  | ✓ Complete |
| Inspect land-disturbing activities in compliance with the E&S ordinance, the EMO and written policies and procedures.  | Document total number of inspections; provide a summary of enforcement actions included number and type.                            | ✓ Complete |
| Ensure inspectors and plan reviewers are certified and keep records on file.   | Document certifications held by City staff and ensure they stay up-to-date.   | ✓ Complete |
| Utilize legal authority to require compliance with an approved plan or require plan revisions or modifications if the inspection shows an approved plan to be inadequate to control stormwater runoff. | Document total number of inspections; provide a summary of enforcement actions included number and type.                            | ✓ Complete |

#### **BMP 4A Maintain Erosion and Sediment Control Program Consistency**

The City's construction site stormwater runoff program is implemented in accordance with Part I.E.4.a of the permit.

The City's Erosion and Sediment Control Program continues to be consistent with the Virginia Erosion and Sediment Control Law (VESCL) and attendant regulations. During the 2014 – 2015



permit year, the City reviewed the Erosion and Sediment Control (E&SC) Ordinance for consistency with the Environmental Management Ordinance (EMO) and adopted the appropriate amendments to the E&SC ordinance.

### **Measure of Effectiveness**

The effectiveness of the City's program is measured by consistency with State regulations as determined by staff from the T&ES-SWM. No consistency issues were identified during this permit year. Following review of the E&SC ordinance in the 2014-2015 permit year, the City amended the language for consistency with the EMO. The City Council adopted the amendments on June 10, 2015. No updates to the MS4 Program Plan were deemed necessary.

### **BMP 4B Site Control Implementation**

The City has incorporated language into its plan review checklist, policies and procedures, and Sec. 13-111 of the EMO which requires applicable proposed land disturbing activities to secure coverage under the construction general permit prior to commencing land-disturbance. Proper controls are required to be implemented at these sites to prevent nonstormwater discharges to the MS4. These nonstormwater discharges include wastewater, concrete washout, fuels and oils, and other illicit discharges. To ensure that these controls are in place, the City has developed a policies and procedures document entitled *Policies and Procedures for Construction Site Runoff Control Inspections* which can be found in Appendix D of the City's MS4 Program Plan.

### **Measure of Effectiveness**

Implement City's *Policies and Procedures for Construction Site Runoff Control Inspections*.

### **BMP 4C Construction General Permit Inspections and Tracking**

The City received local VSMP authority approval to administer the Construction General Permit effective July 1, 2014. Since this date, applicable construction sites had to submit stormwater pollution prevention plans (SWPPP) to the City for review and approval in order to secure coverage under the General VPDES Permit for Stormwater Discharges Associated with Construction Activities prior to final site plan release. This requirement is found in Sec. 13-111 of the EMO. The City also revised the plan review checklist and plan review standard conditions to reflect this requirement. A copy of the SWPPP template can be found on the City's website at [www.alexandriava.gov/50216](http://www.alexandriava.gov/50216).

Part I.E.4.c of the permit requires the City to conduct inspections and have written inspection procedures of land-disturbing activities. The City has developed a policies and procedures document entitled *Policies and Procedures for Construction Site Runoff Control Inspections* as described in BMP 4B and found in the City's MS4 Program Plan.

Land disturbing activities are tracked by T&ES-Development and Right-of-Way (DROW) through the plan review process. The information is recorded and logged when final approved plan mylars and grading plans are released. Reports are sent to T&ES-SWM who provides the data quarterly to DEQ.



In accordance with 9VAC25-850-40, inspectors and plan reviewers are required to maintain the appropriate certification of competency from the state.

The City continues to use its legal authority to require compliance with an approved plan or require plan revisions or modifications if the inspection shows an approved plan to be inadequate to control stormwater runoff. Stormwater staff reviewed each plan set the City receives for compliance with the EMO. If changes to the plans are required, the plans will be reviewed again to ensure compliance.

### **Measure of Effectiveness**

Land disturbing projects that occurred during the reporting period have been conducted in accordance with the department approved standards and specifications for erosion and sediment control. No updates to the MS4 Program Plan were deemed necessary.

The following table provides an annual summary of land-disturbing activities data required to be reported under permit Section II 4.f. This data, broken down quarterly, has been provided to DEQ through the construction general permit process. A total of 37 projects were released; with a total of approximately 37.47 acres disturbed.

*Table 9. Land-Disturbing Activities*

| Reference #    | Address                     | Disturbed Acres | Project Released Date |
|----------------|-----------------------------|-----------------|-----------------------|
| GRD2022-00004  | 1 E Uhler Avenue            | 0.3034          | 6/30/2022             |
| DSUP2021-10031 | 2412 Richmond Highway       | 0.92            | 6/28/2022             |
| GRD2022-00021  | 1118 Janney's Lane          | 0.4591          | 6/28/2022             |
| DSUP2021-10003 | 5801 Duke Street            | 0.42            | 6/23/2022             |
| DSP2019-00028  | 701 N Henry Street          | 0.7539          | 6/3/2022              |
| GRD2022-00009  | 220 E Monroe Street         | 0.1287          | 6/2/2022              |
| GRD2022-00002  | 2410 Ridge Road             | 0.05            | 6/2/2022              |
| GRD2021-00071  | 32 N Donleson Street        | 0.2284          | 5/27/2022             |
| GRD2022-00007  | 20 E Maple Street           | 0.101           | 5/24/2022             |
| GRD2022-00003  | 3303 Cameron Mill Road      | 0.1434          | 5/18/2022             |
| DSP2020-00005  | 318 S Whiting Street        | 0.192           | 5/11/2022             |
| GRD2021-00023  | 1413 & 1415 Princess Street | 0.0804          | 5/11/2022             |
| GRD2022-00014  | 3802 Chelsea Court          | 0.5009          | 5/2/2022              |
| DSP2021-00006  | 205 Duncan Avenue           | 0.3007          | 4/29/2022             |
| GRD2022-00012  | 5801 Duke Street            | 25.454          | 4/25/2022             |
| GRD2021-00008  | 3926 Richmond Highway       | 0.86            | 4/22/2022             |
| GRD2020-00035  | 1417 Princess Street        | 0.0358          | 4/20/2022             |
| GRD2022-00010  | 111 Stewart Avenue          | 0.1273          | 4/14/2022             |
| DSP2019-00026  | 226 W Glebe Road            | 0.297           | 4/12/2022             |
| CIP2020-00009  | 2599 Gadsby Place           | 2.98            | 04/11/22              |
| GRD2022-00001  | 401 High Street             | 0.2812          | 3/24/2022             |



|                |                          |          |            |
|----------------|--------------------------|----------|------------|
| DSUP2021-10026 | 3701 Braddock Road       | 11.71    | 3/23/2022  |
| GRD2021-00073  | 3829 Taft Avenue         | 0.1513   | 3/22/2022  |
| GRD2021-00079  | 500 Holland Lane         | 3.09     | 3/9/2022   |
| DSP2020-00010  | 845 N Howard Street      | 1.47     | 3/4/2022   |
| GRD2021-00072  | 308 E Raymond Avenue     | 0.12     | 3/4/2022   |
| DSUP2020-10030 | 2610 Richmond Hwy        | 1.73     | 3/1/2022   |
| DSUP2020-10035 | 4901 Esinehower Avenue   | 6.82     | 2/24/2022  |
| GRD2021-00056  | 1615 Frost Street        | 0.5389   | 1/26/2022  |
| GRD2021-00066  | 202 Vassar Place         | 0.2034   | 1/26/2022  |
| GRD2021-00078  | 1117 Queen Street        | 0.0561   | 1/26/2022  |
| DSUP2021-10018 | 3103 Park Center Drive   | 0        | 1/25/2022  |
| DSUP2020-10028 | 2414 Richmond Hwy        | 1.95     | 01/14/22   |
| PRK2021-00001  | 1115 Martha Custis Drive | 0.38     | 12/30/2021 |
| GRD2021-00075  | 306 Clifford Avenue      | 0.1276   | 12/28/2021 |
| DSP2015-00025  | 2300 Jeff Davis Hwy      | 2.7      | 12/22/2021 |
| GRD2021-00067  | 4103 Seminary Road       | 0.2813   | 12/14/2021 |
| GRD2021-00057  | 4817 Pecock Avenue       | 0.4869   | 12/14/2021 |
| DSUP2020-10028 | 2412 Richmond Hwy        | 1.73     | 12/10/2021 |
| DSUP2020-10028 | 2412 Richmond Hwy        | 3.41     | 12/09/21   |
| GRD2021-00074  | 304 E Bellefonte Avenue  | 0.0631   | 12/9/2021  |
| DSUP2021-10003 | 1500 Duke Street         | 0.42     | 12/3/2021  |
| CIP2021-00001  | 500 N Pitt Avenue        | 0.02     | 11/23/2021 |
| GRD2021-00070  | 2900 Potomac Avenue      | 1.076    | 11/23/2021 |
| GRD2021-00053  | 7 W Walnut Avenue        | 0.0896   | 11/22/2021 |
| GRD20210-0068  | 302 E Del Ray Avenue     | 0.16     | 11/19/2021 |
| GRD2021-00069  | 207 E Howell Avenue      | 0.1236   | 11/18/2021 |
| GRD2021-00055  | 110 W Nelson Avenue      | 0.1329   | 10/20/2021 |
| GRD2021-00058  | 1130 Fairfax Street      | 0.67     | 10/18/2021 |
| GRD2021-00019  | 1525 Kenwood Avenue      | 0.05     | 10/18/2021 |
| DSUP2021-10002 | 100 Jones Point Drive    | 1.09     | 10/15/2021 |
| DSP2020-00031  | 2610 Richmond Hwy        | 14.65    | 10/07/21   |
| DSUP2020-10024 | 3801 Potomac Avenue      | 15.80055 | 9/23/2021  |
| GRD2021-00045  | 1196 Janney's Lane       | 0.4781   | 9/22/2021  |
| CIP2020-00017  | 4125 Mt Vernon Avenue    | 8.58     | 9/21/2021  |
| DSUP2020-00012 | 3601 Potomac Avenue      | 4.01     | 8/26/2021  |
| GRD2021-00013  | 109 Stewart Street       | 0.1142   | 8/26/2021  |
| DSUP2020-10019 | 1525 Kenwood Avenue      | 2.07     | 08/16/21   |
| GRD2021-00015  | 506 N Quaker Lane        | 0.1896   | 8/12/2021  |
| GRD2021-00041  | 1102 Vassar Lane         | 0.2762   | 8/4/2021   |
| GRD2021-00044  | 623 S Patirck Street     | 0.1164   | 7/26/2021  |
| DSUP2020-10024 | 3601 Potomac Avenue      | 1.91     | 07/23/21   |



The City performed a total of 1,060 onsite inspections – 193 outside of the MS4 boundary and 867 inside of the MS4. As described in the MS4 Program Plan, T&ES-C&I inspectors perform other duties beyond E&SC inspections. For this reason, inspectors may visit a site up to two times daily. During this time, inspectors may provide verbal direction regarding E&SC and stormwater measures. This verbal direction is considered formal but may not always be documented formally in an inspection report unless a required inspection and report is due, or if a major corrective action is required. Due to this enhanced oversight, City inspectors provide continual direction which helps keep a site in order. No enforcement actions and no Stop Work Orders were issued during the permit year.

The applicable City staff have obtained DEQ certifications (Stormwater Management Program Administrator, Plan Reviewer, and/or Inspector) or are in the process of obtaining these certifications. All applicable staff are currently fully certified, provisionally certified, or have the necessary training scheduled.

### 3.5 Post Construction Stormwater Management (MCM #5)

The following table is a summary of activities for Minimum Control Measure #5 and their completion status. Additional detail is provided after the table and in Appendix E.

Table 10. *Summary of Activities for MCM #5*

| BMP/Task   | Year | Measurable Goal  | Status     |
|--|------|--|------------|
| <b>5A Stormwater Facility BMP Inventory</b>                                |      |  |            |
| Maintain an updated electronic BMP database for reporting.                 | All  | Provide a table and electronic spreadsheet of all BMPs brought online during the reporting period. | ✓ Complete |
| <b>5B Stormwater Facility BMP Maintenance Agreements and Guidelines</b>    |      |  |            |
| Require the proper execute and recordation of BMP maintenance agreements.  | All  | Provide a sample of a properly executed and recorded BMP agreement.                                | ✓ Complete |
| <b>5C Implement Bay Act and Local VSMP Authority</b>                       |      |  |            |
| Continue to implement the Environmental Management Ordinance.              | All  | Comply with DEQ Bay Act reporting and review requirements and implement the ordinance.             | ✓ Complete |
| <b>5D Stormwater Facility BMP Design Guidelines</b>                        |      |  |            |
| Require adherence to Virginia BMP Clearinghouse and Virginia BMP Handbook. | All  | Ensure design is consistent with VSMP regulations and summarize any changes to standards.          | ✓ Complete |



| <b>5E Public Stormwater BMP Facility Inspection and Maintenance</b>                     |     |   |            |
|---|-----|---|------------|
| Inspect public BMP facilities for proper operation at least once annually.              | All | Document the number of BMPs inspected each year and provide summary information.                        | ✓ Complete |
| <b>5F Private Stormwater BMP Facility Inspection and Enforcement</b>                    |     |   |            |
| Inspect all BMP facilities for proper operation at least once during the permit period. | All | Document total number of inspections completed, and the number of enforcement actions, when applicable. | ✓ Complete |

## **BMP 5A VSMP Implementation**

The City amended the EMO for consistency with the new VSMP regulations and maintained consistency with the Chesapeake Bay Act requirements and received provisional approval as a local VSMP authority effective July 1, 2014 and received full approval in November 2014.

The City continues to implement a stormwater management program, including design standards, that are compliant with the Chesapeake Bay Preservation Area Designation and Management Regulations and the VSMP regulations, as incorporated in the EMO. Section 13-109 of the EMO, requires that development and redevelopment projects subject to VSMP Part II.B technical criteria conform to the design specifications of the Virginia BMP Clearinghouse for stormwater facility BMPs, and utilize the Virginia Runoff Reduction Method spreadsheet to demonstrate compliance with water quality and quantity requirements. Grandfathered projects and those meeting the “time limits” associated with coverage under the construction general permit are subject to the Part II. C technical criteria and may use stormwater facility BMPs previously approved by the City and adhere to the design guidelines in the Alexandria Supplement to the Northern Virginia BMP Handbook. The City has also adopted a Green Building Policy that includes a requirement for all new private development and redevelopment projects to meet a minimum of 65% of their state phosphorous reductions using green infrastructure, which was first promulgated through a [“Use of manufactured/Proprietary Stormwater BMPs”](#) memo to industry. The Green Building Policy require City projects must meet 100% of their state phosphorous reductions through green infrastructure.

The City adopted combination of homeowner outreach and education for owners of stormwater facility BMPs on individual residential lots.

### **Measure of Effectiveness**

A copy of the approval letter designating the City as a local VSMP authority and a copy of the City’s adopted ordinance is provided in Appendix E. No updates to the MS4 Program Plan were deemed necessary.

## **BMP 5B Public Stormwater Facility Inspection and Maintenance**

Pursuant to the general permit, the City inspects public facilities at least once every year. The inspections are performed according to the written policies and procedures entitled *Policies and*



*Procedures for Post-Construction BMP Inspection and Maintenance* which can be found in Appendix E of the City's MS4 Program Plan. The City inspected all 119 stormwater facility BMPs that it currently owns and operates. Of these 119 facilities, two were found to be no longer functioning and beyond repair; 2007-0102 01, Vegetated Roof 1 at E. Windsor and 2004-0038 01 Wetland/Stream Restoration at 3700-3721 Taft Ave. The City will work with VA DEQ to have these BMPs removed from the BMP Warehouse.

### **Measure of Effectiveness**

A summary of inspection results is provided in Appendix E. Additionally, per request, the FY2022 Stormwater Management Facility (SMF) inspection for Lake Cook is included in Appendix E. Sixty-five (65) facilities required maintenance based on the annual inspection. None required "significant maintenance" (defined as non-routine maintenance). Additional information about the significant maintenance can be found in Appendix E. No updates to the MS4 Program Plan were deemed necessary.

## **BMP 5C Private Stormwater Facility Inspection and Enforcement**

Pursuant to the general permit, the City inspects privately-owned stormwater facilities at least once every five years. Per Section 13-109 of the EMO, facility owners must perform periodic inspection and required maintenance to ensure the long-term functioning of the facilities as originally designed to protect water quality. The inspections are performed according to the written policies and procedures entitled *Policies and Procedures for Post-Construction BMP Inspection and Maintenance* which can be found in Appendix E of the City's MS4 Program Plan. These policies and procedures were reviewed and updated in April 2019 as part of continuous improvement and for consistency with the current permit.

### **Measure of Effectiveness**

One hundred and two (102) total private stormwater facility inspections were completed this permit year, with four (4) actions being sent out this permit year related to these inspections. Please note that additional enforcement actions may be taken in response to these inspections; however, these actions may not take place until the next reporting period since owners have 90 days to complete the maintenance. A list of the inspections and corresponding data is provided in Appendix E. No updates to the MS4 Program Plan were deemed necessary.

## **BMP 5D Stormwater Facility Inventory and Reporting**

The City continues to use Microsoft Access to track all stormwater facilities and/or BMPs that were implemented to improve water quality. As required by Part I.E.5.d of the permit, tracked information includes:

- 1) Stormwater management facility or BMP type;
- 2) Stormwater management facility or BMPs location as latitude and longitude;
- 3) Acres treated by the stormwater management facility or BMP, including total acres, pervious acres, and impervious acres;



- 4) Date the facility was brought online (MM/YYYY). If the date brought online is not known, a date of June 30, 2005 will be used.
- 5) 6<sup>th</sup> Order Hydrologic Unit Code (HUC) in which the stormwater management facility is located;
- 6) Whether the facility stormwater management facility or BMP is owned or operated by the permittee or privately owned;
- 7) Whether or not the stormwater management facility or BMP is part of the permittee's Chesapeake Bay TMDL action plan required in Part II A or local TMDL action plan required in Part II B, or both;
- 8) If the stormwater management facility or BMP is privately owned, whether a maintenance agreement exists; and
- 9) The date of the permittee's most recent inspection of the stormwater management facility or BMP.

### **Measure of Effectiveness**

During this permit year, 31 stormwater management facilities and/or BMPs were installed in the City to improve water quality. All required information for the new facilities brought online is provided in Appendix E. A map of the City's stormwater management facilities and/or BMPs is provided in Appendix E. No updates to the MS4 Program Plan were deemed necessary.

The City electronically reported the BMPs installed under the construction general permit using the construction general permit database during this reporting period.

The City electronically reported the BMPs installed this permit year (excluding the ones already submitted using the construction general permit database) using the DEQ BMP Reporting Warehouse.

### **BMP 5E Stormwater Facility Maintenance Agreements**

The City continues to require the execution and subsequent recordation of Stormwater BMP Facilities Maintenance / Monitoring Agreement to ensure long term operation and maintenance of new BMPs per the EMO. In addition, staff has also created a BMP maintenance vendor list for use by facility owners and operators.

### **Measure of Effectiveness**

A sample BMP maintenance agreement that was submitted during this permit year and a screen capture that the form may be downloaded from the City's website Appendix E. The City continues the program of mailing educational letters that include maintenance responsibilities to single-family property owners with on-lot BMPs. An example of the letter and sample maintenance information sent to single-family residential BMP owners during this permit year is also located in Appendix E. No updates to the MS4 Program Plan were deemed necessary.



### 3.6 Pollution Prevention and Good Housekeeping for Municipal Facilities (MCM #6)

For the purposes of this annual report, municipal facilities are those facilities owned or operated by the City.

The following table is a summary of activities for Minimum Control Measure #6 and their completion status. Additional detail is provided after the table and in Appendix F.

*Table 11. Summary of Activities for MCM #6*

| BMP  | Measurable Goal  | Status     |
|--|--|------------|
| <b>6A Written Pollution Prevention and Good Housekeeping Procedures</b>                      |  |            |
| Implement Standard Operating Procedures for Daily Operations                                 | Document any updates to SOPs and any new SOPs.   | ✓ Complete |
| <b>6B Stormwater Pollution Prevention Plans for High-Priority Facilities</b>                 |  |            |
| Implement SWPPPs and annually review and add/remove as necessary                             | Document any new facilities requiring SWPPPs or any removed. Continue to implement SWPPPs.                       | ✓ Complete |
| <b>6C Turf and Nutrient Management Plans</b>   |  |            |
| Implement Turf and Nutrient Management Plans and annually review and add/remove as necessary | Document any new areas requiring turf and nutrient management plans or any removed. Continue to implement SWPPs. | ✓ Complete |
| <b>6D Prohibiting Deicing Agents with Urea</b>   |  |            |
| Ensure that the City did not use deicing agents that included urea.                          | Statement that the City didn't using deicing agents that included urea.  | ✓ Complete |
| <b>6E Contractor Controls and Oversight</b>  |  |            |
| Ensure proper procedures and controls are implemented by City contractors.                   | Document any changes to process or procedures.   | ✓ Complete |
| <b>6F Training</b>   |  |            |



| BMP  | Measurable Goal  | Status     |
|--|--|------------|
| Conduct yearly training to applicable employees. Training topics will rotate each year between recognizing illicit discharge and pollution prevention and good housekeeping. | A summary report on the required training, including a list of training events, the training date, the number of employees attending training and the objective of the training. | ✓ Complete |
| <b>6G Street Sweeping and Leaf Collection Programs</b>   |  |            |
| Continue to implement the City's street sweeping and leaf collection programs.   | Document lane miles swept and cubic yards of debris collected. Document the amount of leaves collected.  | ✓ Complete |
| <b>6H Catch Basin and Inlet Cleaning Program</b>   |  |            |
| Continue the City's catch basin and inlet cleaning program.  | Document the number of catch basins and inlets cleaned.  | ✓ Complete |
| <b>6I Employee Complaint Reporting Program</b>   |  |            |
| Continue to implement the "Report a Problem" program.  | Document ongoing implementation.   | ✓ Complete |
| <b>6J Environmental Stakeholder Groups</b>   |  |            |
| Participate in Environmental Stakeholder Groups  | Presentation with the City's Environmental Policy Commission   | ✓ Complete |

## **BMP 6A Written Pollution Prevention and Good Housekeeping Procedures**

Part I.E.6.a of the permit requires the maintenance and implementation of written procedures for public facilities for best practices for stormwater pollution prevention. During the 2013-2018 permit cycle, the City developed standard operating procedures (SOPs) to minimize or prevent pollutant discharge from daily operations such as road, street, and parking lot maintenance; equipment maintenance; and the application, storage, transport, and disposal of pesticides, herbicides, and fertilizers.

The City continues to implement these SOPs and are utilized as part of the employee training program in accordance with Permit Part I.E.6.b. These SOPs will be reviewed once during this permit cycle to ensure they include up-to-date information and effective procedures.



### **Measure of Effectiveness**

The SOPs for Daily Operations are included in Appendix F of the City’s MS4 Program Plan for those applicable operations. No SOPs required updating during this permit year. No updates to the MS4 Program Plan were deemed necessary.

### **BMP 6B Stormwater Pollution Prevention Plans for High-Priority Facilities**

During the 2013-2018 permit cycle, the City identified its high-priority municipal facilities that may require the development and implementation of a SWPPP. This list was further refined for those high-priority municipal facilities with a high potential for discharging pollutants. Also completed during the previous permit cycle, the City developed an inspection checklist to be used at municipal facilities. The checklist covers good housekeeping practices, material storage and handling, as well as maintenance practices. The checklist is included in the SWPPPs developed for applicable municipal facilities.

The City continues to maintain and implement the SWPPPs for the identified municipal facilities. Facilities implementing SWPPPs keep an updated copy onsite, and SWPPPs have been incorporated into the pollution prevention training given to municipal employees.

### **Measure of Effectiveness**

The following table provides the list of the municipalities with SWPPPs along with other pertinent information. Upon review of the City’s municipal facilities, no additional SWPPPs were developed or removed during the permit year. Periodic inspections continue to be completed and documented in the SWPPPs. The City updated the “Equipment and Materials Storage” SWPPP for the facility located at 133 South Quaker to indicate that this also includes the “Vehicle Wash Facility” at this location. Table 12 and the MS4 Program Plan were updated with the most current SWPPP Locations.

*Table 12. Summary Public Facilities with SWPPPs*

| Facility  | Facility Location          | Site Activity   | SWPPP Location  |
|---|----------------------------|---|---|
| Middle Yard at 3220 Colvin Street (“Sign Shop”)           | 3220 Colvin Street         | Equipment and Material Storage                                    | 3220 Colvin Street                                    |
| Household Hazardous Waste & Electronics Recycling Center  | 3224 Colvin Street         | Waste Storage and Transfer  | 2900-B Business Center Dr. – Resource Recovery Office |
| Equipment and Materials Storage and Vehicle Wash Facility | 133 South Quaker Lane      | Vehicle, Material and Equipment Storage and Vehicle Wash Facility | 2900-B Business Center Dr. – Operations Office        |
| Material Storage Yard                                     | 3130 Business Center Drive | Material and Waste Storage  | 2900-B Business Center Dr. – Operations Office        |



|  |                                |   |  |
|--|--------------------------------|---|--|
| Field Operations Center                  | 2900-A/B Business Center Drive | Vehicle, Material and Equipment Storage | 2900-B Business Center Dr. – Operations Office |
| Leaf Mulch Facility                      | 4125 Eisenhower Avenue         | Material Storage                        | 3220 Colvin Street                             |
| Transportation Division Impound Lot      | 5249 Eisenhower Avenue         | Vehicle Storage                         | 5249 Eisenhower Avenue                         |
| Impound Lot                              | 3000 Business Center Drive     | Vehicle Storage                         | 5249 Eisenhower Avenue                         |
| Vehicle and Equipment Maintenance Center | 3550 Wheeler Avenue            | Vehicle, Material and Equipment Storage | 3550 Wheeler Avenue                            |
| Fuel Island                              | 3400 Duke Street               | Vehicle Fueling and Fuel Transfer       | 3550 Wheeler Avenue                            |

## **BMP 6C Turf and Nutrient Management**

Part I.E.6.i of the permit requires the maintenance and implementation of turf and landscape nutrient management plans (NMPs) that were developed during the 2013-2018 permit cycle. These plans were developed for municipal properties where nutrients were applied in acres that exceeded one acre contiguous.

The list of municipal lands where nutrient management plans are required and have been completed is presented below. This list includes the location and corresponding acreage for each plan and will be updated as needed.

### **Measure of Effectiveness**

The City updated all of the existing NMPs in the 2016-2017 reporting period. The updated list and information for completed plans is presented below, which includes the location of the NMPs. The total acreage of managed turf with approved and active NMPs for facilities greater than one-acre is 60.6 acres.

Upon review of the City's municipal operations, no new locations that required turn and landscape NMPs were identified and none were removed. The plan expiration date is indicated in Table 13. These plans will be reviewed during the next permit year. The MS4 Program Plan was updated to include the revised plan expiration date.



Table 13. *Nutrient Management Plans for More than One-Acre*

| Facility                        | Street Address            | Latitude     | Longitude    | Acres       | Date of Plan Expiration | Total         |
|---------------------------------|---------------------------|--------------|--------------|-------------|-------------------------|---------------|
| Armistead Boothe Field          | 520 Cameron Station Blvd  | 38°48'25.6"N | 77°05'22.9"W | 1.7         | 6/29/2023               | 2.87%         |
| Armistead Boothe Park           | 520 Cameron Station Blvd  | 38°48'18.9"N | 77°07'37.5"W | 1.2         | 6/29/2023               | 1.97%         |
| Ben Brenman Park                | 4800 Ben Brenman Park Dr. | 38°48'30"N   | 77° 6'52"W   | 10.7        | 6/29/2023               | 17.57%        |
| Duke St Dog Park                | 4657 Duke St              | 38°48'43.5"N | 77° 6'45.8"W | 1.1         | 6/29/2023               | 1.74%         |
| Founders Park                   | 351 North Union Street    | 38°48'27"N   | 77° 2'20"W   | 3.7         | 6/29/2023               | 6.06%         |
| Four Mile Run Park              | 3700 Commonwealth Ave     | 38°50'24"N   | 77° 3'34"W   | 7.3         | 6/29/2023               | 12.07%        |
| George Washington Middle School | 1005 Mt. Vernon Ave       | 38°49'15.6"N | 77°03'13.4"W | 2.8         | 6/29/2023               | 4.64%         |
| Harborside Park                 | 487 S. Union St           | 38°47'58.8"N | 77°02'28.5"W | 1.3         | 6/29/2023               | 2.13%         |
| Hensley Park                    | 4200 Eisenhower Ave       | 38°48'12"N   | 77° 6'29"W   | 4.7         | 6/29/2023               | 7.67%         |
| Luckett Park                    | 3540 Wheeler Ave          | 38°48'26.3"N | 77°05'22.8"W | 1.3         | 6/29/2023               | 2.16%         |
| Montgomery Park                 | 901 North Royal Street    | 38°48'51"N   | 77° 2'27"W   | 1.1         | 6/29/2023               | 1.78%         |
| Oronoco Park                    | 100 Madison Street        | 38°48'40"N   | 77° 2'23"W   | 3.8         | 6/29/2023               | 6.25%         |
| Potomac Yards Park              | 2501 Potomac Ave          | 38°49'44.2"N | 77° 2'52.6"W | 5.5         | 6/29/2023               | 9.09%         |
| Rivergate Park                  | 2 Montgomery Street       | 38°48'46"N   | 77° 2'17"W   | 2.8         | 6/29/2023               | 4.54%         |
| Simpson Park                    | 426 E. Monroe Ave         | 38°49'18"N   | 77° 3'4"W    | 5.3         | 6/29/2023               | 8.80%         |
| West Point                      | 1 Oronoco St.             | 38°48'12"N   | 77° 2'21"W   | 3.3         | 8/18/2023               | 5.45%         |
| Windmill Hill Dog Park          | 501 South Union Street    | 38°47'58"N   | 77° 2'30"W   | 3.2         | 6/29/2023               | 5.21%         |
| <b>Total</b>                    |                           |              |              | <b>60.6</b> |                         | <b>100.0%</b> |

## **BMP 6D Prohibiting Deicing Agents with Urea**

Nutrients, if improperly applied, have the potential to pollute the local waterways, the Potomac River and the Chesapeake Bay. Part I.E.6.k of the permit prohibits the use of deicing agents containing urea or other forms of nitrogen or phosphorus to parking lots, roadways, and sidewalks, or other paved surfaces.

### **Measure of Effectiveness**

The City did not apply deicing agents containing urea or other forms of nitrogen or phosphorus to roadways, parking lots, sidewalks, or other paved surfaces during this reporting period. No updates to the MS4 Program Plan were deemed necessary.



## **BMP 6E Contractor Controls and Oversight**

The City continues to ensure that contractors working on behalf of the City follow procedures and employ required control measures to ensure that operations do not contribute to stormwater pollution. SOPs for pesticide and herbicide application place requirements on contractors. City employees charged with oversight of City capital projects receive annual water quality training. City capital improvement projects include pollution prevention language. The City will continue to implement this BMP and report on changes annually.

### **Measure of Effectiveness**

During the permit year, the City continued to implement SOPs (described under BMP 6A), required necessary permits and certifications, had necessary language in contracts, and provided water quality training to City employees charged with oversight of City capital projects. No updates to the MS4 Program Plan were deemed necessary.

## **BMP 6F Training**

Staff whose normal duties require a considerable amount of field work play a valuable role in identifying and addressing illicit discharges. Employees performing applicable duties shall be trained in recognizing and reporting illicit discharges no less than once every 24-months. Training provides the appropriate tools for field staff to recognize, document relevant information and report the incident for follow up by the appropriate staff.

City staff engages in daily activities that have the potential to adversely impact water quality. The likelihood of these impacts occurring may be minimized or avoided by providing staff training on pollution prevention and good housekeeping. Employees performing applicable duties shall be trained in pollution prevention and good housekeeping no less than once every 24-months.

In addition, employees hired by the City who apply pesticides and herbicides shall be trained or certified with the Virginia Pesticide Control Act. Certification by the Virginia Department of Agriculture and Consumer Services (VDACS) Pesticide and Herbicide Applicator program shall constitute compliance with this requirement.

The City's employees and contractors serving as plan reviewers, plan inspectors, program administrators, construction site operators and those implementing the City's stormwater program will obtain and maintain the appropriate certification as required under the Virginia Erosion and Sediment Control Law and the Virginia Stormwater Management Act. The employees whose duties include emergency response will be properly trained in spill reporting which may be satisfied through a larger emergency response training program.

### **Measure of Effectiveness**

The T&ES-SWM continues to provide annual training in compliance with the permit and the City's MS4 Program Plan. As indicated in the MS4 permit plan, this program year's (PY4) training focused on Illicit Discharge Detection and Elimination (IDDE). In addition to the training summarized in Table 14, a brief video highlighting staff's role in IDDE was shared in an employee newsletter during the Program Year that reached over 100 staff (see Appendix F).



*Table 14. Summary of IDDE Training*

| Date      | Department   | Trainees |
|-----------|--|----------|
| 4/20/2022 | Recreation, Parks & Cultural Activities                                  | 16       |
| 5/25/2022 | Transportation & Environmental Services Development & Right of Way (C&I) | 8        |
| 5/25/2022 | Transportation & Environmental Services Public Works Services            | 14       |
| 6/6/2022  | Transportation & Environmental Services Resource Recovery                | 15       |
| 4/18/2022 | Code Administration (Virtual)  | 23       |

## **BMP 6G Street Sweeping and Leaf Collection Programs**

The City continues to implement a City-wide street sweeping program to remove possible sources of nutrients, sediment, and impacts to biological and chemical oxygen demand in order to protect local waterways, the Potomac River and the Chesapeake Bay. Additionally, collected leaves are turned to mulch and provided to for use on residential lawns; which decreases the use of fertilizers.

### **Measure of Effectiveness**

The City swept approximately 1,872 lane miles this permit year. The amount of street lane miles swept changes slightly each year depending on weather conditions and other factors. No updates to the MS4 Program Plan were deemed necessary.

The City's Curbside Leaf Collection program performed the following:

1. Distributed approximately 51,376 biodegradable bags to various locations throughout city facilities.
2. Total cubic yards collected: 16,337

The City collected 766.84 tons of yard waste that was taken to MES Organics Composting Facility.

## **BMP 6H Catch Basin and Inlet Cleaning Program**

The City has a long-standing program to inspect and clean stormwater catch basins and inlets. The catch basin and inlet cleaning program is meant to both reduce spot flooding and drainage problems as well as to prevent materials, including floatables and vegetative debris captured in inlets, from continuing to local streams. Catch basin cleaning varies year by year depending on the weather.



### **Measure of Effectiveness**

The City maintained approximately 2,495 catch basins and inlets during this permit year which consists of inspection, cleaning and reparations. No updates to the MS4 Program Plan were deemed necessary.

### **BMP 6I Employee Complaint Reporting**

The City continues to implement the “Report a Problem” program to empower employees to report problems, to include illicit discharges or issues with the functioning of City assets. The program provides a way of reporting problems associated with City infrastructure, including stormwater management.

### **Measure of Effectiveness**

A screen shot of the “Report a Problem” program from the City’s intranet is provided in Appendix F. No updates to the MS4 Program Plan were deemed necessary.

### **BMP 6J Environmental Stakeholder Groups**

The City receives input on the stormwater program from several stakeholder groups including the Environmental Policy Commission (EPC), the Stormwater Work Group (SWWG), the Fire Department’s Environmental and Industrial Use Unit (EIU), and the Eco-City Steering Committee.

The EPC is appointed by the City Council and makes recommendations on environmental issues, including stormwater management. The City Manager has established two internal stakeholder groups to work on stormwater issues and make policy decisions to ensure regulatory compliance and shape the stormwater program. The Water Quality Steering Committee, transitioned into the Eco-City Alexandria Steering Committee during the final reporting period of the 2013-2018 permit and is comprised of deputy city managers, department heads, and staff from T&ES-IEQ, and is charged with making policy decisions and setting the course for the City’s environmental programming under the Eco-City Alexandria initiative, which include Water Resources. The Stormwater Work Group (SWWG) is an internal stakeholder group comprised of interdepartmental City staff with the deputy director of IEQ as the chair, the division chief as alternate, and other supervisory level staff. The SWWG’s mission is to develop and coordinate the City’s response across various City departments to MS4 permit requirements, including the Chesapeake Bay TMDL. The SWWG is charged with supporting development of policy, programs and plans to administer the local VSMP program and the MS4 general permit. The EIU acts as the lead for coordination of environmental issues, including water quality investigation, enforcement, and documentation.

### **Measure of Effectiveness**

As indicated in Table 3, the Stormwater Management Division presented to the Environmental Policy Commission four (4) times during PY4. These presentations focused on stream restorations in relation to the Chesapeake Bay TMDL. During the program year, informal and more formal staff discussions occurred between the Stormwater Management Division and departments across the City. It was determined that during PY4, the SWWG did not need to hold a separate meeting because of these



discussions taking place. However, as the new MS4 permit comes online, the SWWG will start to ramp up and meet to discuss the impacts of that on the City and the Stormwater Program moving forward. The MS4 Program Plan was updated to indicate that the SWWG will meet as necessary.

### **3.7 Evaluation of MS4 Program Implementation**

---

In accordance with Part I.D.2.e of the permit, the City has reviewed and assessed program implementation, including a review of each MCM and corresponding BMPs established to meet the requirements of the City's permit and have found them to be appropriate and effective. During the program year, the following updates were made to the MS4 Program Plan:

- Updated the locations of the hard-copy SWPPPs for the Impound Lots, HHW facility, and updated the reference to what is referred to as the "Sign Shop" on Colvin.
- Updated the frequency of the meetings for the SWWG.
- Updated the Local TMDL section to note that the annual report does include a summary of actions.

### **3.8 Chesapeake Bay TMDL**

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Finalized in December 2010 by the United States Environmental Protection Agency (EPA), the Chesapeake Bay TMDL and the associated Watershed Implementation Plans (WIPs) developed by the Commonwealth of Virginia, set limits on nitrogen, phosphorus and sediment entering the Bay. The 2013 – 2018 general permit included new special conditions to address the Chesapeake Bay TMDL.

In January 2016, the City received official approval the City's final Chesapeake Bay TMDL Action Plan for 5% Reductions from DEQ. The following table was submitted in DEQ's approval letter documenting their concurrence and approval of the City's strategies that would achieve over 39% of the total annual reductions for each pollutant of concern.

All strategies in the Phase 1 Action Plan to achieve over 39% reduction have been implemented.

- The Eisenhower Pond 19 has been completed and was reported with the permit year 2015-2016 Annual Report.
- The Four Mile Run Urban Stream Restoration Project was substantially complete in the summer of 2016 and brought online during permit year 2016-2017.
- The Windmill Hill Living Shoreline, although not documented in the Phase 1 Action Plan, was substantially complete during permit year 2017-2018.
- Several retrofits on City properties were completed in this permit cycle as documented in the Phase 2 Action Plan.



- Construction of the Lake Cook Retrofit project was substantially complete in September 2018 or during the beginning of permit year 2018-2019. The project was awarded Stormwater Local Assistance Fund (SLAF) grant funding from DEQ.

The 2018-2023 general permit builds on the previous permit cycle and incorporates pollution reduction targets with a total of 40% reductions in the L2 Scoping loads required by the end of this permit cycle (2023). As a condition in the permit, the means and methods to achieve the 40% reductions must be included in the City's Phase 2 Chesapeake Bay TMDL Action Plan. The Phase 2 Action Plan was submitted by October 31, 2019. The final Phase 2 Action Plan can be found in Appendix G and incorporated into the MS4 Program Plan. In accordance with the permit, a public comment period on the draft was implemented in August 2019, with the final draft accepted by the City Council on September 24, 2019, and the final Action Plan submitted October 31, 2019.

The Phase 2 Action Plan documents one additional project to meet the 40% pollution reduction targets – the Ben Brenman (Cameron Station) Pond Retrofit project. This project also received SLAF grant funding and construction began in Winter 2018/2019 and was considered substantially complete as of June 2020. Table 16 provides a summary of the required reductions per permit cycle as of the 2018-2023 MS4 General Permit specific to Alexandria, VA, as indicated in the Phase 2 Chesapeake Bay Action Plan.

*Table 15. Summary of Required Reductions by Permit Cycle*

| Phase        | Permit Cycle | Required Reduction (%) | Nitrogen (TN) (lbs/yr) | Phosphorus (TP) (lbs/yr) | Suspended Solids (TSS) (lbs/yr) |
|--------------|--------------|------------------------|------------------------|--------------------------|---------------------------------|
| 1            | 2013-2018    | 5%                     | 380                    | 50                       | 43,097                          |
| 2            | 2018-2023    | 35%                    | 2,659                  | 351                      | 301,678                         |
| 3            | 2023-2028    | 60%                    | 4,558                  | 602                      | 517,162                         |
| <b>Total</b> |              | <b>100%</b>            | <b>7,597</b>           | <b>1,004</b>             | <b>861,937</b>                  |

As documented in this annual report, the City has programs for catch basin cleaning and street sweeping. In addition, RPCA has been implementing a tree planting program. Since Expert Panel Reports have been developed to credit these strategies, the City will be working on extracting the necessary data from our programs to compute the related pollutant reductions in accordance with the Expert Panel Reports in the near future.

In accordance with the Phase 1 and Phase 2 Action Plans, BMPs installed as part of redevelopment projects have been certified, documented, and uploaded to the DEQ BMP Warehouse. A list of BMPs installed during the permit year is included in Appendix E. No credits were acquired during this permit year.

During PY4, two BMPs were found to be removed or in major disrepair. BMP ID 2007-0102 is a Vegetated Roof and was found to be completely removed from the facility. BMP ID 2004-0038 01 is a stream restoration completed in 2010 and was found to have “failed” based on a forensic analysis that was completed. The stream project restored approximately 600 linear feet of the downstream portion of Strawberry Run and the City calculated 40.80 lbs/yr of TP reductions



using the linear foot method from this project. However, the published [Strawberry Run Downstream Forensic Investigation](#) (June 2022) found that the restoration no longer functions as designed. The Credits received for these two SMFs are shown in Table 16 and will be removed from the BMP Warehouse; the Bay TMDL calculations; and reflected in the Phase 3 Bay TMDL Action Plan (forthcoming).

*Table 16. Credits Received from 2010 Strawberry Run Restoration and Vegetated Green Roof, Windsor Ave.*

| Project  | TN Reductions<br>(lbs/yr) | TP Reductions<br>(lbs/yr) | TSS Reductions<br>(lbs/yr) |
|--|---------------------------|---------------------------|----------------------------|
| <b>2010 Strawberry Run Restoration<br/>(2004-0038 01)</b>    | 45                        | 40.80                     | 26,928                     |
| <b>Vegetated Green Roof, Windsor Ave.<br/>(2007-0102 01)</b> | 0.06                      | 0.01                      | 5                          |

The progress made during this reporting period toward the Chesapeake Bay required pollutant reductions are presented in Table 17.

*Table 17. Progress during PY4 – Individual Facilities/Retrofits (July 1, 2021 – June 30, 2022)*

| Project                               | TN<br>Reductions<br>(lbs/yr) | Percent of<br>TN 100%<br>Goal | TP<br>Reductions<br>(lbs/yr) | Percent of<br>TP 100%<br>Goal | TSS<br>Reductions<br>(lbs/yr) | Percent of<br>TSS<br>100%<br>Goal |
|---------------------------------------|------------------------------|-------------------------------|------------------------------|-------------------------------|-------------------------------|-----------------------------------|
| <b>Development SWM<br/>Facilities</b> | 14                           | 0.18%                         | 10                           | 1.02%                         | 4,800                         | 0.56%                             |

The City's overall progress toward meeting the Chesapeake Bay required pollutant reductions are presented in Table 18. This table takes into account the removal of the Credits Received from the 2010 Strawberry Run Restoration and the Vegetated Green Roof, Windsor Ave. (Table 16) as shown "As of June 30, 2022".

*Table 18. Cumulative Progress by Permit Year (2019 – Current)*

| Cumulative<br>Progress         | TN<br>Reductions<br>(lbs/yr) | Percent of<br>TN 100%<br>Goal | TP<br>Reductions<br>(lbs/yr) | Percent of<br>TP 100%<br>Goal | TSS<br>Reductions<br>(lbs/yr) | Percent of<br>TSS 100%<br>Goal |
|--------------------------------|------------------------------|-------------------------------|------------------------------|-------------------------------|-------------------------------|--------------------------------|
| <b>As of June 30,<br/>2018</b> | 2,690                        | 35%                           | 402                          | 40%                           | 361,990                       | 42%                            |
| <b>As of June 30,<br/>2019</b> | 4,314                        | 57%                           | 571                          | 57%                           | 498,151                       | 58%                            |
| <b>As of June 30,<br/>2020</b> | 5,265                        | 69%                           | 728                          | 72%                           | 588,728                       | 68%                            |
| <b>As of June 30,<br/>2021</b> | 5,327                        | 70%                           | 743                          | 74%                           | 595,822                       | 69%                            |
| <b>As of June 30,<br/>2022</b> | 5,282                        | 70%                           | 702                          | 70%                           | 568,889                       | 66%                            |



In response to citizen requests, in April 2021, City Council directed staff to “pause” the Taylor Run and Strawberry Stream restoration projects and work with the City’s Environmental Policy Commission (EPC) to evaluate alternatives to natural channel design and collaborate with the community to build consensus for work to be done on both Taylor Run and Strawberry Run. An update on the status of these projects will be provided during the next annual report. At the same City Council Legislative Session in April 2021, Council direct staff to continue the Lucky Run stream restoration and restore 950 linear feet of urban stream that received a \$800,000 matching Stormwater Local Assistance Fund (SLAF) grant funds. During the reporting period, the Lucky Run stream restoration project went out to bid and the City anticipates the project to start in November 2022.

As of June 2019, the City achieved the required pollutant reductions required through the 2018 – 2023 MS4 permit. The City will continue to report cumulative progress as well as fiscal year progress through the MS4 Annual Report.

### **3.9 Local TMDLs**

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The City has four existing TMDLs with an approved WLA for the MS4 area, two of which were approved prior to July 2008 and two of which were approved between July 2008 and June 2013.

A TMDL for bacteria related to fecal coliform was approved in 2004 for the non-tidal portion of Four Mile Run, and in 2007 a TMDL for PCBs was approved for the Tidal Potomac watershed. Given that these TMDLs were approved prior to July 2008, TMDL Action Plans were completed by June 30, 2015 and were submitted with the permit year 2015-2016 Annual Report.

In 2010, the SWCB issued approval of bacteria TMDLs for Tidal Four Mile Run, and the Hunting Creek, Cameron Run, and Holmes Run watersheds. In both recent TMDLs, bacterial water quality is based on levels of *E. coli*. Since these TMDLs were approved between July 2008 and June 2013, the corresponding TMDL Action Plans were completed by June 30, 2016 and were submitted with the 2016-2017 annual report. Based on guidance and conversations with DEQ staff, the City developed a comprehensive Bacteria TMDL Action Plan that addresses bacteria impairments for those affected watersheds. Beginning with the Non-Tidal Four Mile Run TMDL Action Plan which was due by June 30, 2015, the City incorporated the successive TMDLs for Hunting Creek, Cameron Run, and Holmes Run to create a comprehensive Bacteria TMDL Action Plan.

In accordance with the permit, these Local TMDL Action Plans were updated prior to May 2020 (18 months after the permit effective date). The permit also has a requirement for plans to be developed for TMDLs approved by EPA between July 1, 2013 and June 30, 2018 that have WLAs no later than May 2021 (30 months after permit effective date); however, the City does not have any new TMDLs that meet this criteria. Part II.B.3 of the permit provides a list of items to be included in each Local TMDL Action Plan. Based on the type of TMDL (bacteria, sediment, phosphorus, nitrogen, or PCBs), there is list of different strategies the City must choose from to address the impairments.

The City of Alexandria’s Bacteria TMDL Action Plan was updated in 2020 after a 15-day public comment period (no comments were received). This Action Plan is found in Appendix G. Information pertaining to the updates are found in the PY2 Annual Report. DEQ completed their review and found the Plan acceptable on April 13, 2022.



The City of Alexandria's Tidal Potomac PCB TMDL Action Plan was updated in 2020 after a 15-day public comment period (no comments were received). This Action Plan is found in Appendix G. Information pertaining to the updates are found in the PY2 Annual Report. DEQ completed their review of the updated Action Plan and found it acceptable on April 13, 2022.

Actions taken pursuant to these updated TMDL action plans are in alignment with the education and outreach and public participation sections of the MS4 Program Plan and are included in this Annual Report under MCM #1 and #2 for pet waste (bacteria). In addition, the City developed best management practices regarding BMPs as documented in the June 30, 2015, Tidal Potomac PCB TMDL Action Plan.

The Action Plan is currently being implemented and includes the following BMPs:

1. City will include standard condition language for all site plan (DSP and DSUP) requiring a site characterization for PCBs during the redevelopment of a property where PCBs have been historically used or stored; or during the redevelopment of a property that falls into a DEQ identified high risk category for PCBs. The language was updated in permit year 2015-2016 and was included in all site plan reviews, placing the onus on the developer to perform due diligence; and is reviewed by the City.
2. The PCB brochure updated this Program Year. The brochure educates about residents and development community about PCBs and may be found on the website. Hyperlinks to the website and the brochure can be found in Appendix A.

## **4 Results of Information Collected and Analyzed**

No information, including monitoring data, was required to be collected or analyzed under the City's permit.

## **5 MS4 Program Regional Efforts and Agreements**

The City continues to participate in with other localities in the Northern Virginia Regional Commission's Clean Water Partners to conduct regional public education and outreach activities, as discussed in Section 3.1. A copy of the Clean Water Partners Agreement can be found in Appendix A of the City's MS4 Program Plan. The City does not rely on other government entities to satisfy permit obligations.

## **6 Approval Status of Qualifying Local Programs**

The City relies on implementation of the Erosion and Sediment Control Ordinance, mandated by the Virginia Erosion and Sediment Control Regulations (VESCR), to help satisfy Minimum Control Measure #4 - Construction Site Stormwater Runoff Control. During permit year 2014-2015, the City's Erosion and Sediment Control (E&SC) Ordinance was reviewed and revised for consistency with amendments to the Virginia Stormwater Management Act and the Virginia Stormwater Management Program (VSMP) Regulations, and the renumbering of these, as well



as the Virginia Erosion and Sediment Control Law (VESCL) and VESCR when administration of these programs was shifted from DCR to DEQ. The adoption of amendments to the City's E&SC ordinance during permit year 2014-2015 are discussed in BMP 4A.

In addition, the City relies on implementation of the EMO, mandated by the Virginia Chesapeake Bay Preservation Area Designation and Management Regulations, and the VSMP regulations as incorporated into the EMO, to help satisfy Minimum Control Measure #5 - Post Construction Stormwater Management.

The City's Erosion and Sediment Control Program has been reviewed and found consistent by the Virginia Soil and Water Conservation Board. In addition, the Chesapeake Bay Local Assistance Board (now superseded by the Virginia Soil and Water Conservation Board) has also found the City's Environmental Management Ordinance to be fully consistent with state regulations.

The City's approved VSMP Local Stormwater Management Program application included amendments to the EMO Ordinance for consistency with the new VSMP regulations and maintained the Chesapeake Bay Act requirements. The City received provisional approval as a local VSMP authority effective July 1, 2014, and received full approval in November 2014. Documentation of approval is included in Appendix E.



## 7 Contact Information

Mr. Jesse Maines, MPA, PMP, Division Chief  
T&ES, Stormwater Management  
703.746.4643 (direct)  
703.746.6499 (main)

Ms. Jessica Lassetter, MNR, Senior Environmental Specialist  
T&ES, Stormwater Management  
703.746.4127



## 8 Appendices





**General VPDES Permit for  
Small Municipal Separate Storm Sewer Systems  
Permit No. VAR040057**

Year 4 Annual Report  
July 1, 2021 – June 30, 2022  
City of Alexandria, Virginia

**Appendix A (*Hyperlinks are Provided for Some Materials*)  
Minimum Control Measure #1, Public Education and Outreach**

1. [Best Management Practices for Lawn Care Companies Brochure](#)
2. [Best Management Practices for Restaurant and Food Service Brochure](#)
3. [Best Management Practice for Automotive Garages and Service Centers Brochure](#)
4. [You Can Protect Alexandria Waterways Brochure](#)
5. [Pet Waste Brochure](#)
6. [Polychlorinated Biphenyls Brochure](#)
7. [Household Hazardous Waste & Electronics Recycling Program Pamphlet](#)
8. BMP Sign Requirement on Plan Set with Storm Drain Marker
9. Sign for Stormwater Management Facilities
10. Photo of Stream Crossing Sign
11. [City's Stormwater Management Website](#)
12. City's Stormwater Management Website Metrics, FY2022
13. [City's Website with Information about Volunteering for Storm Drain Marking](#)
14. Sample eNews
15. Social Media Examples
16. Northern Virginia Region Commission 2022 Only Rain Survey (Clean Water Partners)
17. [Northern Virginia Clean Water Partners 2022 Summary](#)
18. [Stormwater Management Primer Developed for the Ad Hoc Stormwater Utility and Flood Mitigation Advisory Group](#)







## Appendix A

### Sign for Stormwater Management Facility





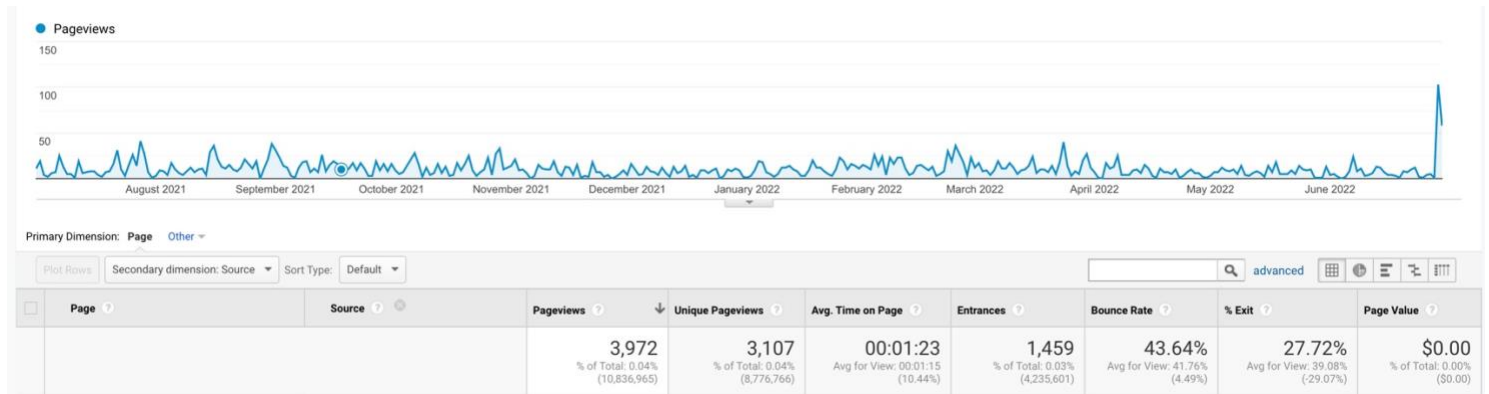
**Appendix A**

**Sign for Stream Crossing**





## Metrics for alexandriava.gov/Stormwater metrics for July 1, 2021 to June 30, 2022



**Page views:** 3,972

**Unique page views:** 3,107

**Landing page path** (how people got to /Stormwater): direct URL (1,792), city main page (340), Flood Map page (196), TES page (124), Flood Action page (113), Types of Sewers page (82), Sewers page (62), City departments page (51)

**Source** (origin of web traffic): Google, direct URL, Instagram, Twitter, among others

**Social users:** 3,923 (not set), Instagram (21), Twitter (21), Facebook (10)

**Average time on page:** 1:23

**Users location:** 1,359 (Alexandria), 309 (no location set), 216 (Ashburn), 144 (Arlington), 134 (New York), 124 (Washington), 103 (Dale City), 93 (Baltimore), 82 (Richmond), 72 (Fairfax)

**Visitor type:** 2,152 (returning visitor), 1,823 (new visitor)

**Source:** Google, direct URL, Instagram, Twitter, among others: 3,244 (non mobile), 731 (mobile)

**Bounce rate** (percentage of users who left /Stormwater after viewing just that page): 43.64%

**Exit Page** (the page users viewed last after visiting /Stormwater): /Stormwater (1,287), SWU fee for residential properties page (175), Flood Map page (134), Virginia Stormwater Management Program page (113), SWU fee page (82), Flooding and Drainage page (82), Alex311 page (72), Flood Action page (72), Stormwater BMPs page (72), Stormwater Quality page (62)



**From:** [Alexandria eNews](#)  
**To:** [Jessica Lassetter](#)  
**Subject:** City of Alexandria and AlexRenew Celebrate Earth Day Throughout April  
**Date:** Tuesday, March 29, 2022 4:55:31 PM

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# City of Alexandria and AlexRenew Celebrate Earth Day Throughout April

*For Immediate Release: March 29, 2022*

Earth Day was founded on April 22, 1970, when thousands of people came together to demand cleaner air and water. The City of Alexandria and AlexRenew will celebrate Earth Day throughout April with virtual and in-person events, providing information to empower residents to make an impact on the environment and drive change.

The international theme of Earth Day 2022 is “[Invest in Our Planet](#),” which focuses on the importance of taking action, and what individuals and organizations can do to make a difference.

During this year’s Earth Day-related events, participants can:

- Raise funds to help beautify and protect Alexandria’s environment on a two-mile dog walk in Old Town, led by Mayor Justin Wilson, NBC Meteorologist Chuck Bell and Monte Durham of “Say Yes to the Dress Atlanta,” on Saturday, April 2.
- Clean up litter at All Veterans Park and Windmill Hill Park in conjunction with the Alice Ferguson Foundation’s watershed cleanup on Saturday, April 9.
- Enjoy a bike ride celebrating the 50th anniversary of the Mount Vernon Trail with the Washington Area Bicyclists Association, Walk/Bike Arlington and East Coast Greenway. Participate in giveaways and a scavenger hunt for kids at this April 16 event.
- Learn how to live more sustainably by reducing plastic and packaging in a Reduce and Reuse Workshop with the City’s Resource Recovery team on April 21.
- Visit Ben Brenman Park (4800 Brenman Park Drive) to receive a tree to take home, participate in a kids bike rodeo and check out electric vehicles on April 24.
- Build your own rain gauge, participate in a kids’ game, learn about stormwater management practices you can implement on your property, snap pictures at an interactive selfie station and enter to win a rain barrel during Stormwater Day at Ben Brenman Park on April 30.

Year-round opportunities for action include working at stream cleanups, participating in the Eco-City Academy and becoming an Eco-City Ambassador, becoming an Energy Master and joining environmental education classes and activities at the Jerome “Buddie” Ford Nature Center (5750 Sanger Ave.). Residents can also attend meetings



and review past presentations to the [Environmental Policy Commission](#) to learn about the City's ongoing efforts.

**Visit [alexandriava.gov/EarthDay](http://alexandriava.gov/EarthDay) for a full list of events and activities, or for more information about Earth Day.**

For inquiries from the news media only, contact Andrea Blackford, Editorial Communications Manager, at [andrea.blackford@alexandriava.gov](mailto:andrea.blackford@alexandriava.gov) or 703.746.3959.

*To request reasonable disability accommodation,*  
contact [geralyn.taylor@alexandriava.gov](mailto:geralyn.taylor@alexandriava.gov) or call 703.746.4084, Virginia Relay 711.

# # #

This news release is available at [alexandriava.gov/go/3494](http://alexandriava.gov/go/3494).

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## Jessica Lassetter

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**From:** Alexandria eNews <noreply@everbridge.net>  
**Sent:** Wednesday, June 29, 2022 3:03 PM  
**To:** Jessica Lassetter  
**Subject:** City of Alexandria to Offer Limited Supply of Free Rain Barrels to Residents this Summer

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

## City of Alexandria to Offer Limited Supply of Free Rain Barrels to Residents this Summer

The City of Alexandria Transportation and Environmental Services (T&ES) Stormwater Management Division will be offering a limited supply of free [rain barrels](#) to residents living in the City. Complete the [application form](#) by **July 31** to register for a free rain barrel. Additionally, a limited number of rain barrels will be reserved for raffles at each of the four library branch locations in the City.

Participants must live in the City of Alexandria and demonstrate how the rain barrel will be used.

The City encourages the use of rain barrels which capture and store runoff from roofs that would otherwise be directed into the storm sewer network. Residential rain barrels offer the following benefits:

*Provide your plants with water they will love!* Unlike treated water, which is "softened" with dissolved minerals, rain water is naturally soft. The water stored in your rain barrel is better than municipal water for washing your car and watering indoor or outdoor plants.

*Save money and water!* Instead of water from the tap or faucet, you can use the water you've saved to keep your home landscape happy and growing. You'll also reduce your municipal water bill. The City also offers a credit towards your [stormwater utility fee](#) for the installation and proper use of a rain barrel on your property.

*Protect the Chesapeake Bay!* Water stored in your rain barrel won't rush off into our streams. Instead, as you use the stored rain water around the home and garden, it will absorb slowly into the ground replenishing groundwater supplies. By decreasing the volume of storm runoff, rain barrels also help moderate stream erosion and the resulting pollution that is impairing the Chesapeake Bay.

This program is in partnership with the [Northern Virginia Rain Barrel Partnership Program](#), sponsored through the Northern Virginia Soil and Water Conservation District. The Partnership hosts build-your-own rain barrel workshops throughout the Northern Virginia area.

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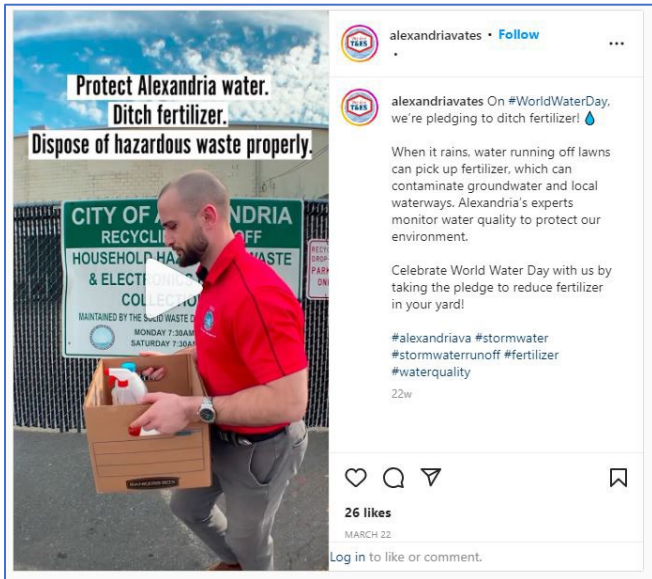
## FY2022 Examples City of Alexandria Social Media Posts

During FY2022, the City of Alexandria Stormwater Management Division increased its social media presence as it relates to Chesapeake Bay Nutrients, Pet Waste, and Illicit Discharges, as identified in the MS4 Program Plan.

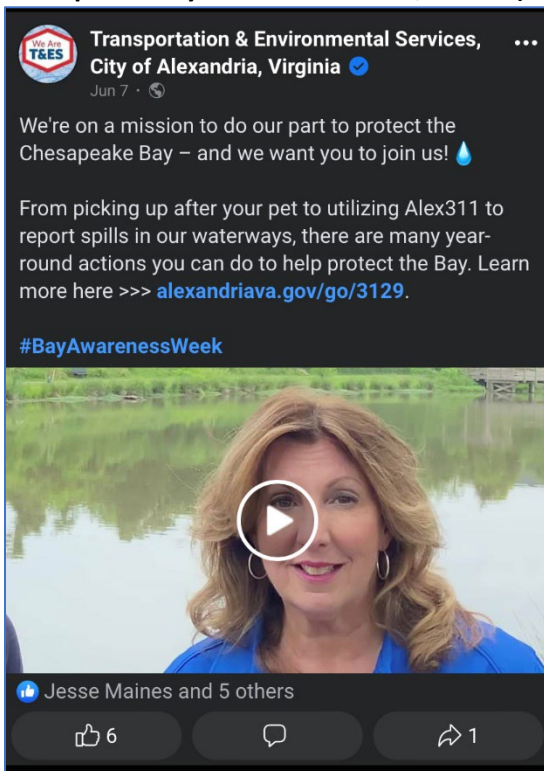
The @AlexandriaVATES social media account is on Twitter, Facebook and Instagram. These pages provide an overview of the social media messaging and links to Instagram posts to offer a look at how the Stormwater Management Division engaged the public. In some of the posts, the total “video views” was captured and provided.

### Fertilizer Reduction, March 22, 2022

Video Views: 1,296



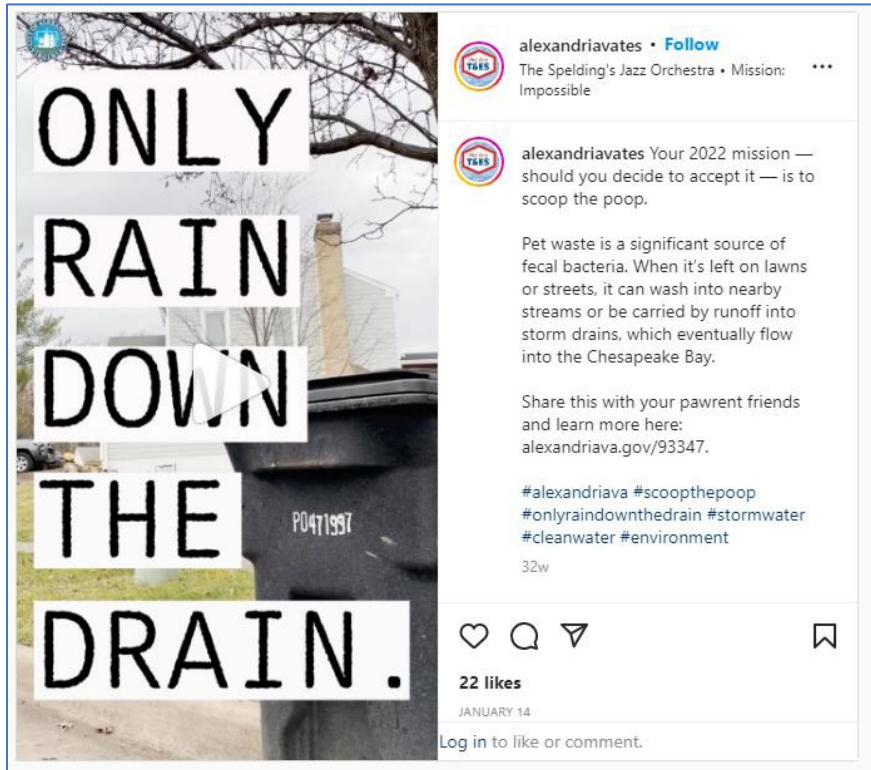
### Chesapeake Bay Awareness Week, June 7 (Facebook); [Instagram Link](#)





## Only Rain Down the Drain Messaging, January 14, 2022

Video Views: 1,132

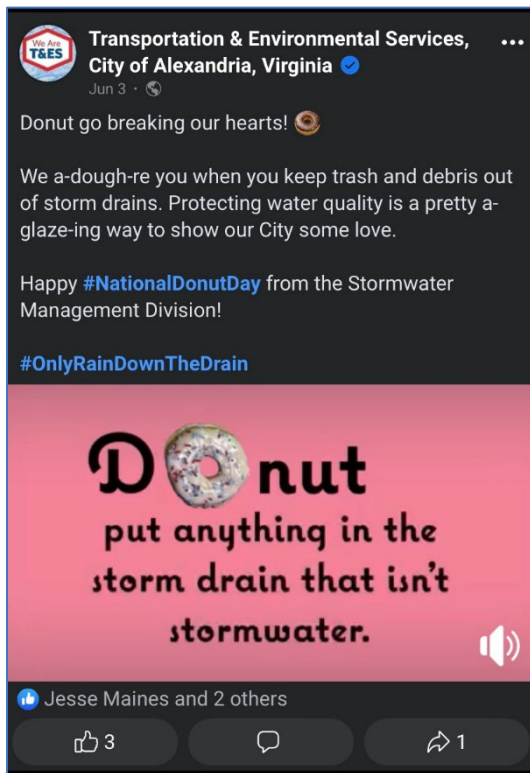


## Vehicle Maintenance Awareness, June 21, 2022



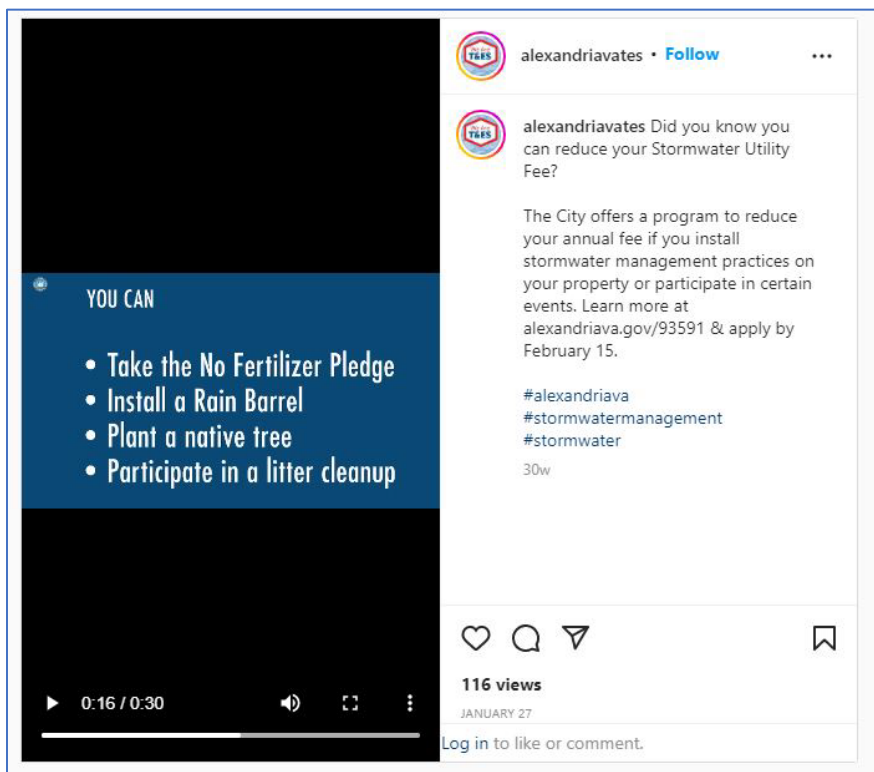


## Only Rain Down the Drain, June 3, 2022 (Facebook)



## Stormwater Utility Fee – Credit Program


Video Views: 387





## Stormwater Utility Fee – Credit Program, February 4, 2022

Video Views: 4,178



Build a rain garden

Install a rain barrel

Plant native trees

Lay permeable pavement

Litter Cleanup Activities

Give up fertilizer

alexandriavates • Follow  
rocyaeardrumz • Original audio

alexandriavates There's still time to apply to the Stormwater Utility Fee Credit Program!

You can reduce your annual fee if you install stormwater management practices on your property or participate in certain events. Learn more at [alexandriava.gov/93591](https://alexandriava.gov/93591) & apply by February 15.

#alexandriava #stormwater #stormwatermanagement

29w

top\_tone Or the city could lower taxes.

29w Reply


61 likes

FEBRUARY 4

Log in to like or comment.

## Stormwater Utility Fee – Credit Program, February 8, 2022

Video Views: 1,995



☑ Dig a rain garden

☑ Install a rain barrel

☑ Plant a native tree

You could dig it rain garden, install a rain barrel or plant a native tree.

alexandriavates • Follow  
Original audio

alexandriavates You have ONE week left to submit your applications for the Stormwater Utility Fee Credit program!

- ☑ Install a rain barrel
- ☑ Dig a rain garden
- ☑ Plant a native tree
- ☑ More eligible practices on our website

Learn more: [alexandriava.gov/100797](https://alexandriava.gov/100797)

#AlexandriaVA #stormwater #stormwatermanagement

28w

26 likes


FEBRUARY 8

Log in to like or comment.



## Storm Drain Inlet Marking Program, March 21, 2022

Video Views: 2,519



Keep trash out of the storm drains!

**alexandriavates** • Follow  
Original audio

**alexandriavates** Thank you to Girl Scout Troop 60140 for helping us protect our local waterways! 🌊💧

The Girl Scouts helped us place "No Dumping" markers on storm drain inlets in Del Ray. The markers remind people to not dump waste down storm drains, which lead to local waterways.

Does your civic group want to place markers on inlets? Email us at [stormwater@alexandriava.gov](mailto:stormwater@alexandriava.gov).

#alexandriava #stormwater #stormwatermanagement #onlyraindownthedrain #girlscouts

23w

59 likes  
MARCH 21  
Log in to like or comment.

## Storm Drain Inlet Marking Program, April 29, 2022



**alexandriavates** • Follow  
Alexandria, Virginia

**alexandriavates** It's shoutout time! 📣

Volunteers from @acpsk12 Alexandria City High School and @volunteeralexandria helped the Stormwater Management Division place markers on storm drains in local watersheds.

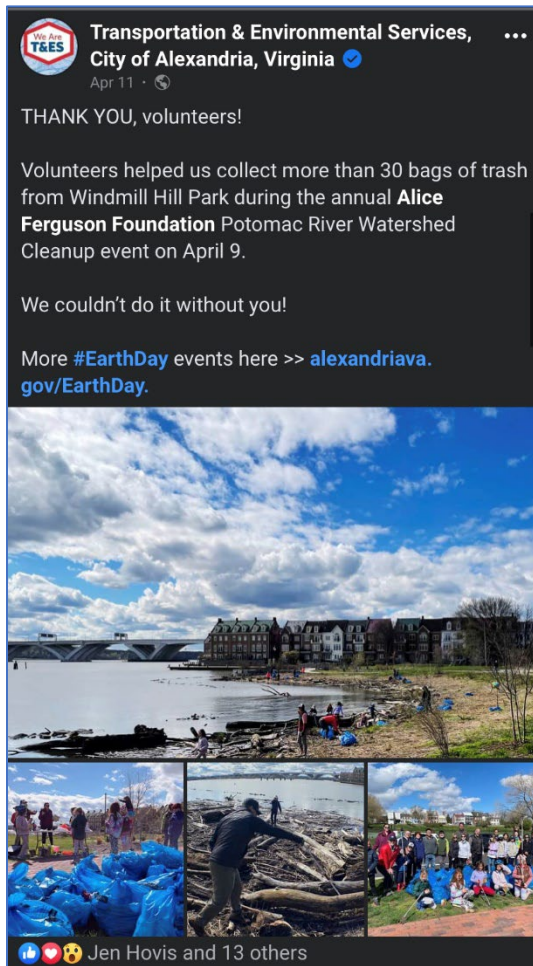
Markers remind people to not dump litter down storm drains, which lead to local waterways.

37 likes  
APRIL 29  
Log in to like or comment.



### [Litter Clean Up, April 11, 2022](#) (Facebook)

Litter clean up event took place April 9, 2022 in partnership with the Alice Ferguson Foundation.



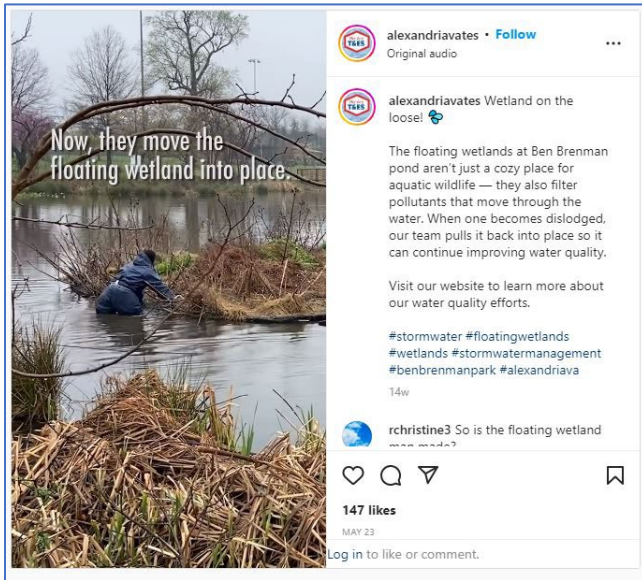
### [Stormwater Day at the Park, May 2, 2022](#)





## [Ben Brenman BMP \(Small repair, Floating Wetland became dislodged\), May 23, 2022](#)

Video views: 5,932



## [Stormwater BMP Inspection Program, April 27, 2022](#)

Video views: 4,431

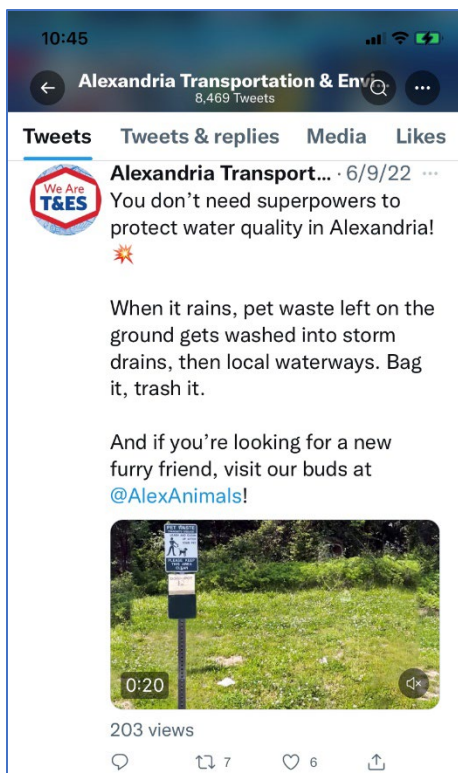




## Litter Reduction, Twitter, June 23, 2022



## Pet Waste Education, Twitter, June 9, 2022









# **Northern Virginia Regional Commission**

## **2022 Only Rain NVRC Survey**

### *Summary Report of Findings*

8/4/2022

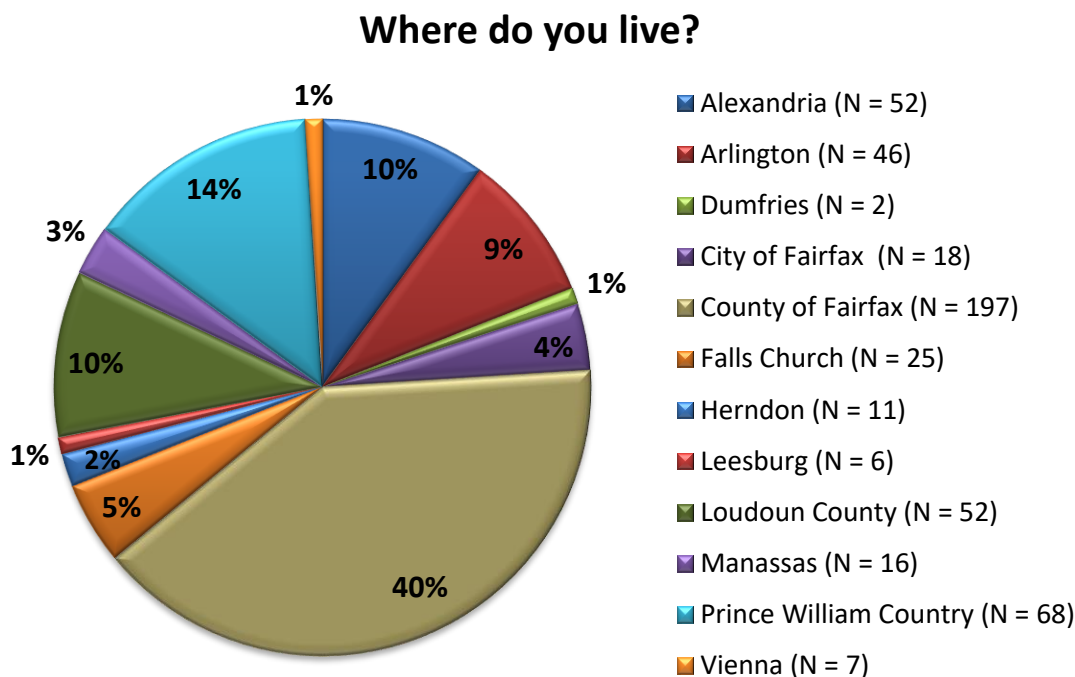
**Amplitude Research, Inc.**



## Study Methodology & Respondent Characteristics

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

Amplitude Research administered the study online in late July of 2022. In the end, 500 surveys were completed by web panelists who live in one of the areas of Virginia shown in the chart below. (In the legend, “N=” indicates the number of respondents in each city, county, or town.)



Later in this report, the results for some of the questions are “broken out” by area, in addition to presenting the results for the total sample. However, the specific areas listed above were grouped together into larger areas so that each larger area used for analysis had a reasonable number of respondents.

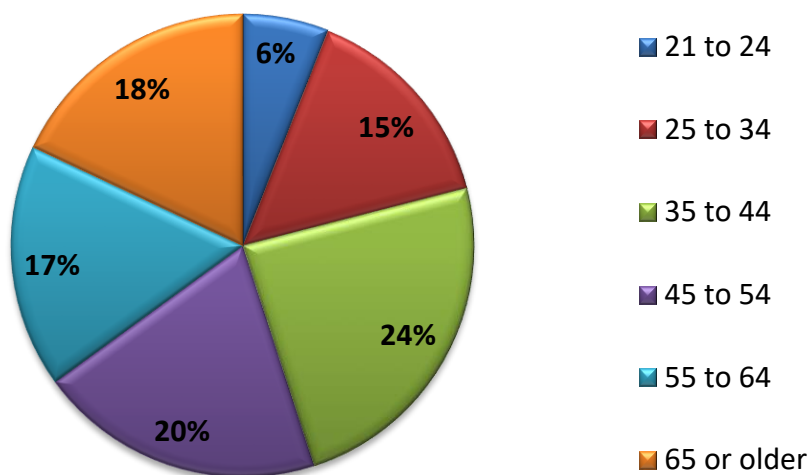
Residents from Leesburg and Loudoun County were combined into a single category labeled “**Leesburg / Loudoun**,” since the town of Leesburg lies within Loudoun County. The City of Fairfax, Falls Church, Herndon, and Vienna were combined with Fairfax County to create the category “**Fairfax Inclusive**,” since these cities and towns lie within the Fairfax County area. Although the City of Fairfax and City of Falls Church are distinct areas, their location falls within the larger area circumscribed by Fairfax County. Prince William County was added in 2021 (while Stafford County was removed). Given the proximity of Dumfries, Manassas, and Manassas Park, these were combined with Prince William County to get the category “**Prince William Inclusive**.”



**Alexandria** and **Arlington** each had a sufficient number of respondents so that each of these areas can be examined separately.

The minimum age to participate in the survey was 21. As shown in the chart below, each age group was well represented in the survey. Although a small proportion were age 21 to 24, this category has fewer years than the other categories shown. For analysis purposes later in this report, the categories “21 to 24” and “25 to 34” were combined into the broader category of “21 to 34.”

### Which category includes your age?



The survey respondents were split between males (49%) and females (51%), while slightly more than three-fourths (78%) indicated that they own their residence, and 22% reported renting.

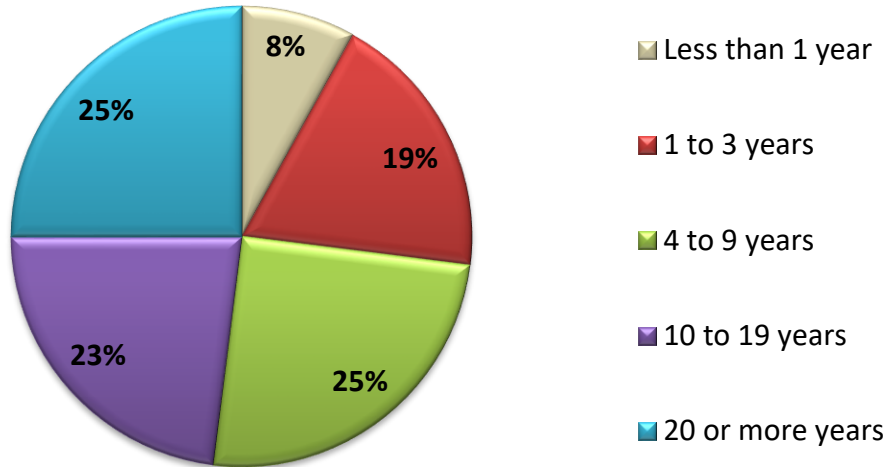
The chart on the next page shows how long respondents have lived in their current residence.

A survey was conducted in each year between 2011 and 2021 that included many of the same or similar questions, targeted a similar geographic area (except the addition of Prince William County and removal of Stafford County in 2021), and had a similar demographic mix as in this 2022 study. Later in this report, comparisons between years are shown where appropriate. Initially, the title used for the study was “NVRC Resident Survey.” Starting in 2013, the study title was changed to “Only Rain NVRC Survey,” since a new question was added about awareness of the “Only Rain” logo. A number of new questions were added to the 2018 survey and were kept in future surveys. For this reason, many parts of this report have comparisons between just 2018 through 2022.

Although some questions have been asked for 12 years (i.e., 2011 through 2022), results in this report are shown for a maximum of 10 years for better readability. Having more than ten years in a chart can get cumbersome for the reader, as the bars and number font size get too small.



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





## Sampling Variability

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

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

The margin of sampling error increases as the sample size decreases. Thus, when a question is asked of only a subset of the total sample, the associated margin of sampling error is larger than that quoted above. Also, even if a question is asked of all respondents, when examining results for a particular subgroup, the margin of sampling error depends on the number of respondents in that subgroup. For example, the “maximum” margin of sampling error would be  $\pm 9.8$  percentage points at the “95% confidence level” when based on a subgroup of 100 survey respondents. In some parts of this report, results are shown for subgroups that include a fairly small number of respondents, and caution is recommended when thinking about these findings.

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

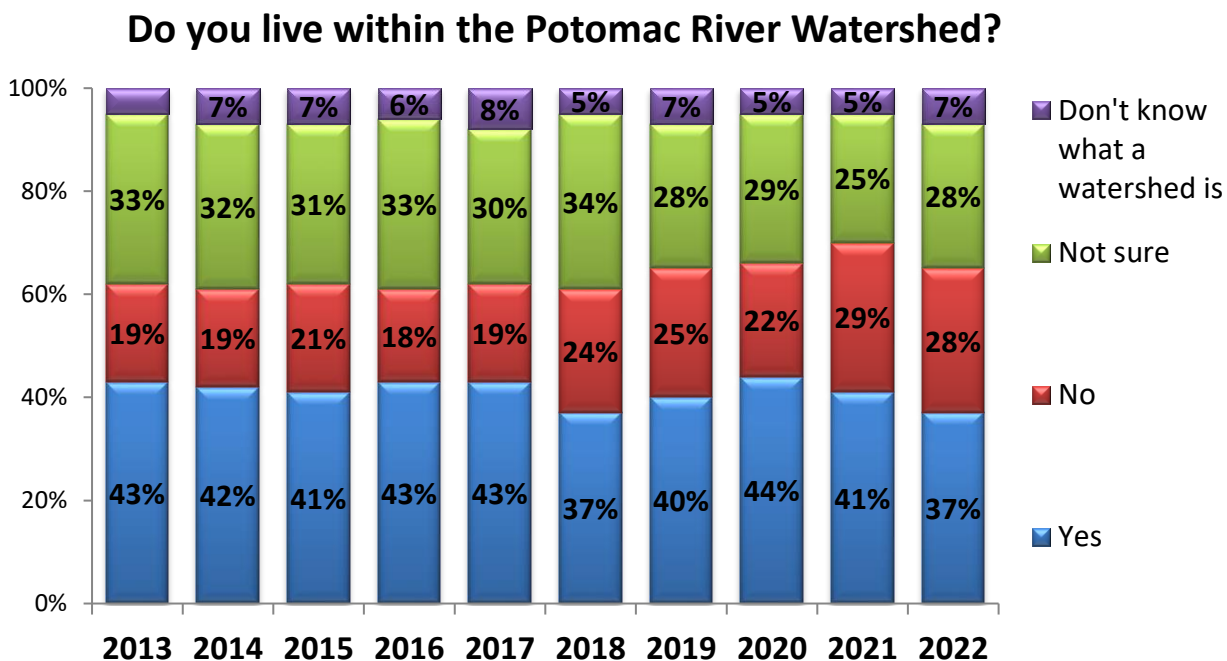
Results from different years can be considered similar when differences between the years are small. If the difference between two years is referred to as “statistically significant,” this essentially means that the difference in the survey results is large enough to be highly confident (i.e., at the “95% confidence level”) that there has been a real change. That is, a “statistically significant” difference in the survey results from one year to the next is larger than what would usually be expected from sampling error alone.

In this report, when a result from 2022 is described as “significantly” higher (or lower) than the result from a previous year, this means that the difference between these years is “statistically significant.” Also, when one subgroup is described as “more likely” (or “less likely”) than another subgroup to answer in a particular way, this is based on a statistically significant difference.



## Potomac River Watershed

- Early in the survey, respondents were asked if they lived within the “Potomac River Watershed.” As shown in the chart below, less than four-in-ten (37%) in 2022 believed that they did in fact live within the Potomac River Watershed. This 2022 result was significantly lower than in 2020 (44%), but it wasn’t significantly different from other years.



- When breaking the results out by area, as shown in the table below, the proportion answering “Yes” was significantly higher in Alexandria (48%), compared to Fairfax Inclusive (33%), but other differences in the proportion “Yes” were not statistically significant.

| <b>Live Within<br/>Potomac River<br/>Watershed</b> | <b>Alexandria</b> | <b>Arlington</b> | <b>Fairfax<br/>Inclusive</b> | <b>Leesburg /<br/>Loudoun</b> | <b>Prince<br/>William<br/>Inclusive</b> |
|--|-------------------|------------------|------------------------------|-------------------------------|---|
| Yes  | 48%               | 35%              | 33%                          | 35%                           | 42%                                     |
| No   | 29%               | 32%              | 31%                          | 22%                           | 22%                                     |
| Not sure   | 12%               | 22%              | 31%                          | 33%                           | 28%                                     |
| Don't know what a watershed is                     | 11%               | 11%              | 5%                           | 10%                           | 8%                                      |
| <i>N = number of respondents</i>                   | 52                | 46               | 258                          | 58                            | 86                                      |



- As shown in the next table, the proportion believing that they live within the Potomac River Watershed increased with the time lived in their current residence.

| <b>Live Within<br/>Potomac River<br/>Watershed</b> | <b>Have Lived<br/>in Current<br/>Residence<br/>&lt; 4 Years</b> | <b>4 to 9 Years</b> | <b>10 to 19<br/>Years</b> | <b>20 or More<br/>Years</b> |
|--|---|---------------------|---------------------------|-----------------------------|
| Yes  | 26%   | 36%                 | 38%                       | 47%                         |
| No   | 32%   | 34%                 | 23%                       | 25%                         |
| Not sure   | 33%   | 23%                 | 31%                       | 24%                         |
| Don't know what a watershed is                     | 9%  | 7%                  | 8%                        | 4%                          |
| <i>N = number of respondents</i>                   | 132   | 125                 | 117                       | 126                         |

- The proportion believing that they live within the Potomac River Watershed was significantly higher among those age 65 or older.

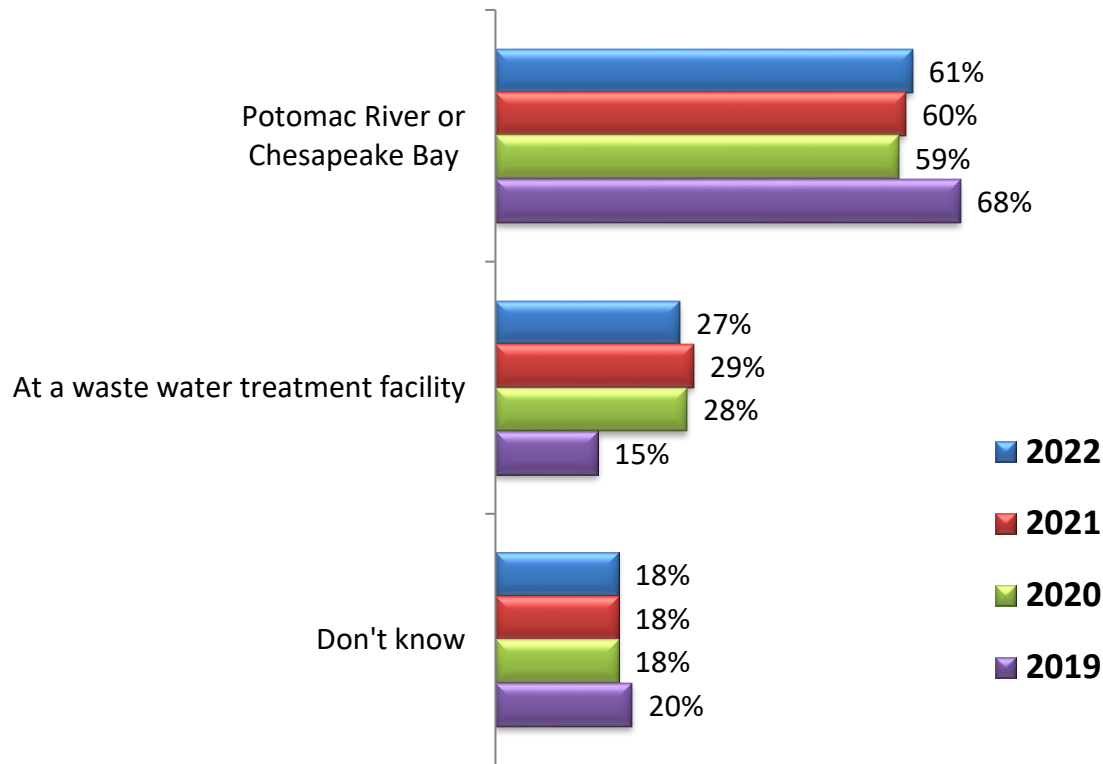
| <b>Live Within<br/>Potomac River<br/>Watershed</b> | <b>Age<br/>21 to 34</b> | <b>35 to 44</b> | <b>45 to 54</b> | <b>55 to 64</b> | <b>65 +</b> |
|--|-------------------------|-----------------|-----------------|-----------------|-------------|
| Yes  | 33%                     | 35%             | 30%             | 36%             | 50%         |
| No   | 34%                     | 35%             | 28%             | 28%             | 14%         |
| Not sure   | 24%                     | 24%             | 32%             | 32%             | 28%         |
| Don't know what a watershed is                     | 9%                      | 6%              | 10%             | 4%              | 8%          |
| <i>N = number of respondents</i>                   | 104                     | 118             | 102             | 84              | 92          |

- When examining the results by other subgroups, males were more likely than females, and homeowners were more likely than renters to believe that they live within the Potomac River Watershed.

| <b>Live Within<br/>Potomac River<br/>Watershed</b> | <b>Male</b> | <b>Female</b> | <b>Homeowners</b> | <b>Renters</b> | <b>Hispanic<br/>Respondents</b> |
|--|-------------|---------------|-------------------|----------------|---------------------------------|
| Yes  | 44%         | 29%           | 39%               | 26%            | 29%                             |
| No   | 30%         | 27%           | 26%               | 38%            | 39%                             |
| Not sure   | 22%         | 34%           | 29%               | 23%            | 25%                             |
| Don't know what a watershed is                     | 4%          | 10%           | 6%                | 13%            | 7%                              |
| <i>N = number of respondents</i>                   | 245         | 255           | 389               | 111            | 41                              |



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



- More than half (61%) in 2022, similar to 2021 (60%), felt that storm water runoff eventually ends up in the Potomac River or Chesapeake Bay. The results are shown for four years only because of a change to the questionnaire in 2019.
- Results by various subgroups are shown on the next page. For example, the proportion selecting Potomac River or Chesapeake Bay was significantly higher among respondents living in the Fairfax Inclusive area (65%), compared to Prince William Inclusive (50%).



**Believed Destination  
of Storm Water**

|  | Alexandria | Arlington | Fairfax<br>Inclusive | Leesburg /<br>Loudoun | Prince<br>William<br>Inclusive |
|--|------------|-----------|----------------------|-----------------------|--------------------------------|
| Potomac River or<br>Chesapeake Bay     | 62%        | 65%       | 65%                  | 57%                   | 50%                            |
| At a waste water treatment<br>facility | 40%        | 28%       | 22%                  | 26%                   | 31%                            |
| Don't know                             | 13%        | 13%       | 18%                  | 17%                   | 26%                            |
| <i>N = number of respondents</i>       | 52         | 46        | 258                  | 58                    | 86                             |

**Believed Destination  
of Storm Water**

|  | Have Lived<br>in Current<br>Residence<br>< 4 Years | 4 to 9 Years | 10 to 19<br>Years | 20 or More<br>Years |
|--|--|--------------|-------------------|---------------------|
| Potomac River or<br>Chesapeake Bay     | 61%  | 54%          | 71%               | 60%                 |
| At a waste water treatment<br>facility | 26%  | 34%          | 22%               | 25%                 |
| Don't know                             | 20%  | 22%          | 12%               | 19%                 |
| <i>N = number of respondents</i>       | 132  | 125          | 117               | 126                 |

**Believed Destination  
of Storm Water**

|  | Age<br>21 to 34 | 35 to 44 | 45 to 54 | 55 to 64 | 65 + |
|--|-----------------|----------|----------|----------|------|
| Potomac River or<br>Chesapeake Bay     | 63%             | 58%      | 55%      | 68%      | 63%  |
| At a waste water treatment<br>facility | 30%             | 36%      | 30%      | 18%      | 15%  |
| Don't know                             | 14%             | 18%      | 22%      | 15%      | 22%  |
| <i>N = number of respondents</i>       | 104             | 118      | 102      | 84       | 92   |

**Believed Destination  
of Storm Water**

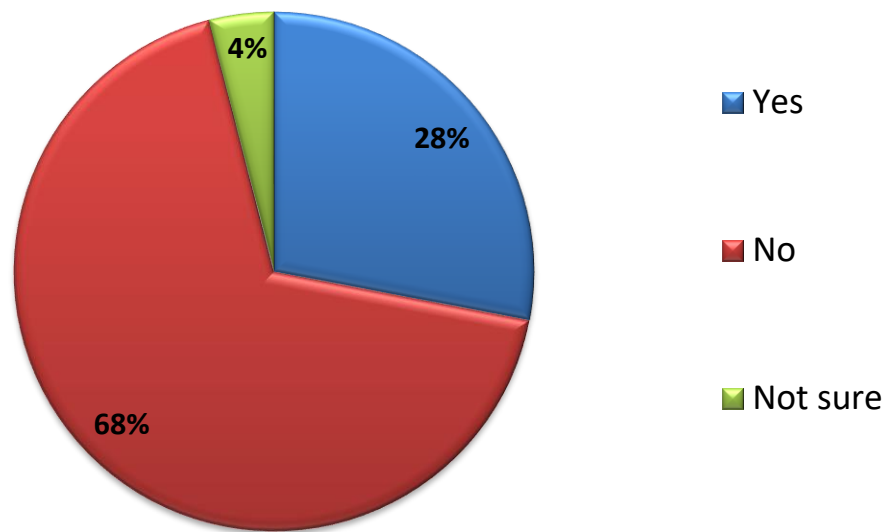
|  | Male | Female | Homeowners | Renters | Hispanic |
|--|------|--------|------------|---------|----------|
| Potomac River or<br>Chesapeake Bay     | 64%  | 58%    | 61%        | 63%     | 59%      |
| At a waste water treatment<br>facility | 32%  | 22%    | 29%        | 19%     | 32%      |
| Don't know                             | 12%  | 24%    | 17%        | 23%     | 22%      |
| <i>N = number of respondents</i>       | 245  | 255    | 389        | 111     | 41       |



## Advertising / Information About Reducing Water Pollution

- In 2020, a new video of an advertisement featuring “rubber duckies” was presented in the survey, and respondents were asked if they had seen it on TV. The same video was shown again in the 2021 and 2022 surveys. As shown below, 28% recalled the video in 2022. This can be compared to 29% in 2021 and 22% in 2020 (not shown in chart). The 2022 and 2021 results were significantly higher than in 2020.

**Please watch the video below. Before this survey, had you seen this ad, or a similar one on TV, Facebook, or Twitter about reducing water pollution?**



- The proportion recalling the ad by area ranged from 25% to 38%. As shown on the next page, males were more likely than females to recall the ad.

| <b>Saw TV Ads on<br/>Reducing Water<br/>Pollution</b> | <b>Alexandria</b> | <b>Arlington</b> | <b>Fairfax<br/>Inclusive</b> | <b>Leesburg /<br/>Loudoun</b> | <b>Prince<br/>William<br/>Inclusive</b> |
|---|-------------------|------------------|------------------------------|-------------------------------|---|
| Yes   | 38%               | 30%              | 25%                          | 29%                           | 27%                                     |
| No  | 56%               | 63%              | 71%                          | 66%                           | 70%                                     |
| Not sure  | 6%                | 7%               | 4%                           | 5%                            | 3%                                      |
| <i>N = number of respondents</i>                      | 52                | 46               | 258                          | 58                            | 86                                      |



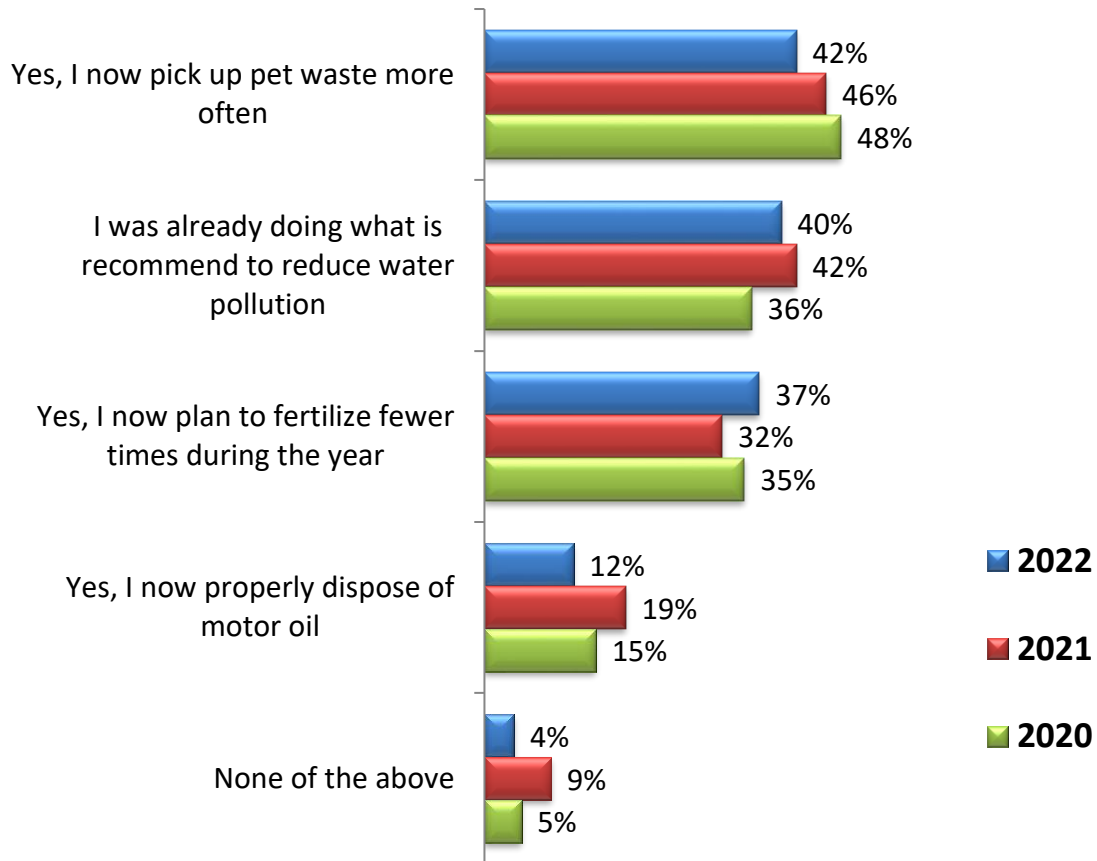
| <b>Saw TV Ads on<br/>Reducing Water<br/>Pollution</b> | <b>Have Lived<br/>in Current<br/>Residence<br/>&lt; 4 Years</b> | <b>4 to 9 Years</b> | <b>10 to 19<br/>Years</b> | <b>20 or More<br/>Years</b> |
|---|---|---------------------|---------------------------|-----------------------------|
| Yes   | 23%   | 25%                 | 34%                       | 30%                         |
| No  | 74%   | 70%                 | 62%                       | 66%                         |
| Not sure  | 3%  | 5%                  | 4%                        | 4%                          |
| <i>N = number of respondents</i>                      | 132   | 125                 | 117                       | 126                         |

| <b>Saw TV Ads on<br/>Reducing Water<br/>Pollution</b> | <b>Age<br/>21 to 34</b> | <b>35 to 44</b> | <b>45 to 54</b> | <b>55 to 64</b> | <b>65 +</b> |
|---|-------------------------|-----------------|-----------------|-----------------|-------------|
| Yes   | 37%                     | 36%             | 23%             | 19%             | 20%         |
| No  | 61%                     | 57%             | 69%             | 80%             | 78%         |
| Not sure  | 2%                      | 7%              | 8%              | 1%              | 2%          |
| <i>N = number of respondents</i>                      | 104                     | 118             | 102             | 84              | 92          |

| <b>Saw TV Ads on<br/>Reducing Water<br/>Pollution</b> | <b>Male</b> | <b>Female</b> | <b>Homeowners</b> | <b>Renters</b> | <b>Hispanic<br/>Respondents</b> |
|---|-------------|---------------|-------------------|----------------|---------------------------------|
| Yes   | 34%         | 22%           | 29%               | 22%            | 32%                             |
| No  | 61%         | 75%           | 66%               | 75%            | 63%                             |
| Not sure  | 5%          | 3%            | 5%                | 3%             | 5%                              |
| <i>N = number of respondents</i>                      | 245         | 255           | 389               | 111            | 41                              |



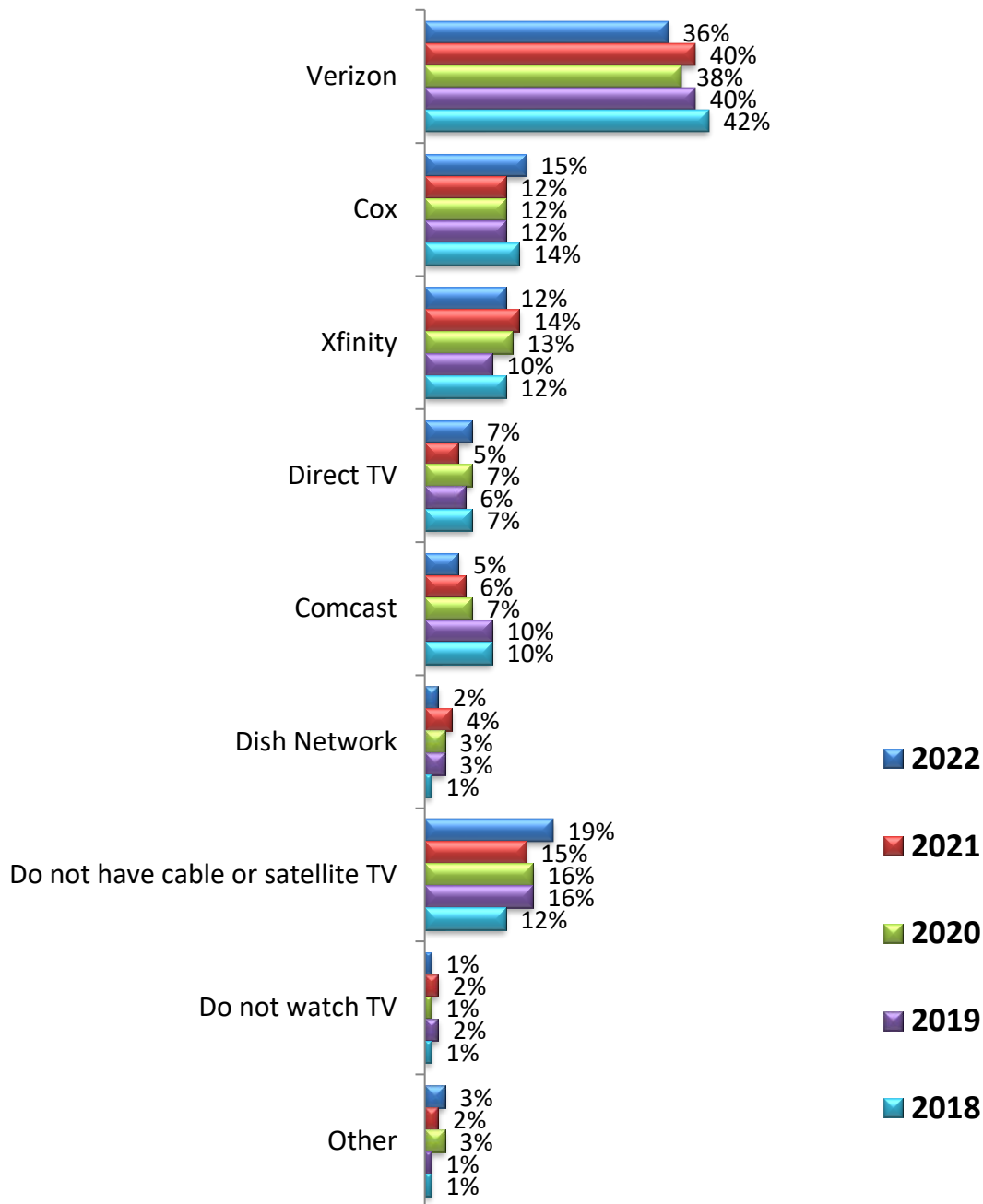
**Did seeing the ad(s) about reducing water pollution make you change any of your behaviors related to fertilizing less often and/or reducing water pollution?**



- Those who recalled the advertising where asked the question above, and noticeable proportions reported changing their behavior related to pet waste and fertilizing less often.



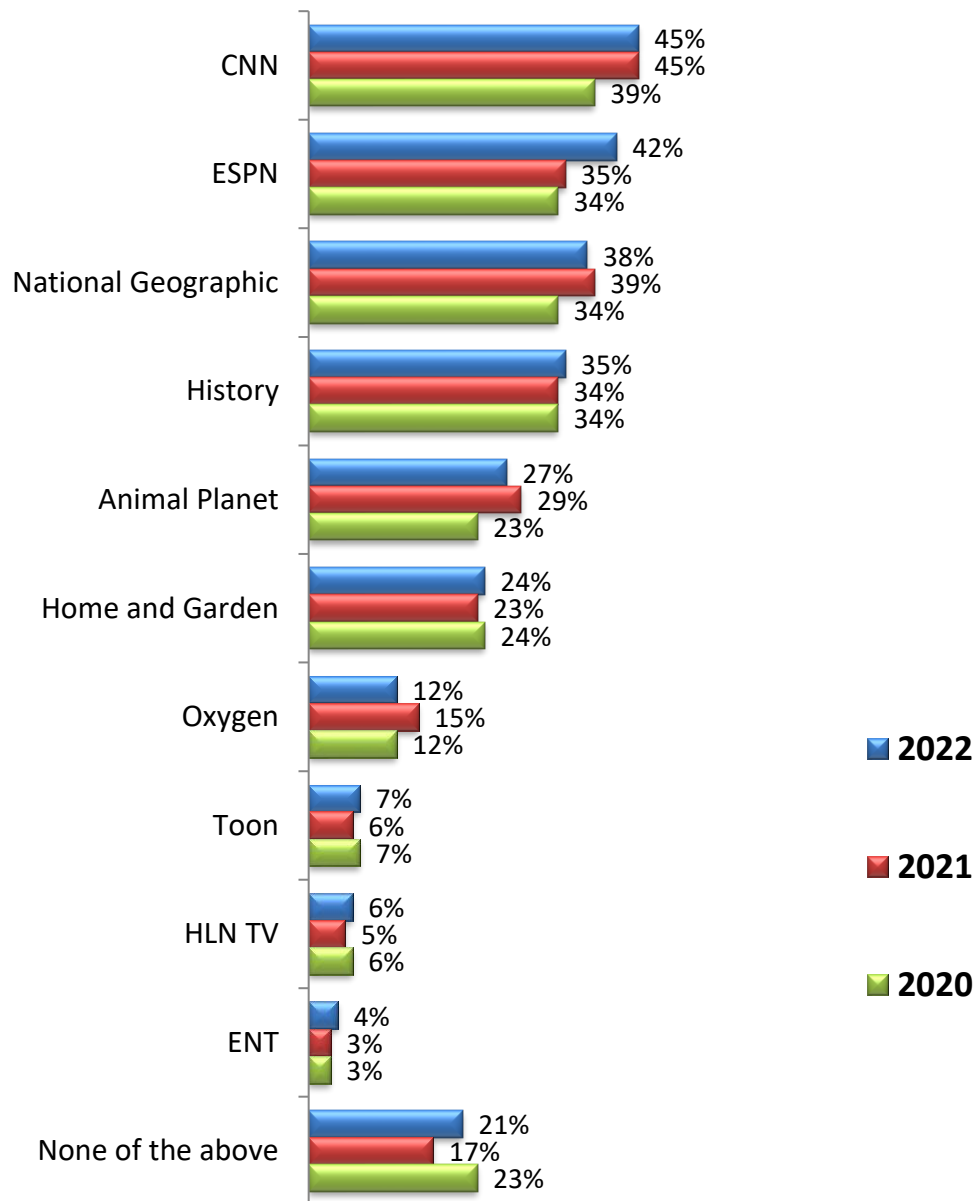
## What TV service provider do you use?



- Verizon was selected most often (by 36% in 2022) as their TV service provider.
- One reason for asking the question above was to determine if recall of the advertising differed by TV provider. Based on a separate analysis (not shown in chart), when looking at the providers with at least 30 respondents using the provider, the proportion recalling the ad was 63% among DirectTV users, 37% among Cox users, 32% among Xfinity users, and 27% among Verizon users.



## Which of the following channels, if any, do you watch?



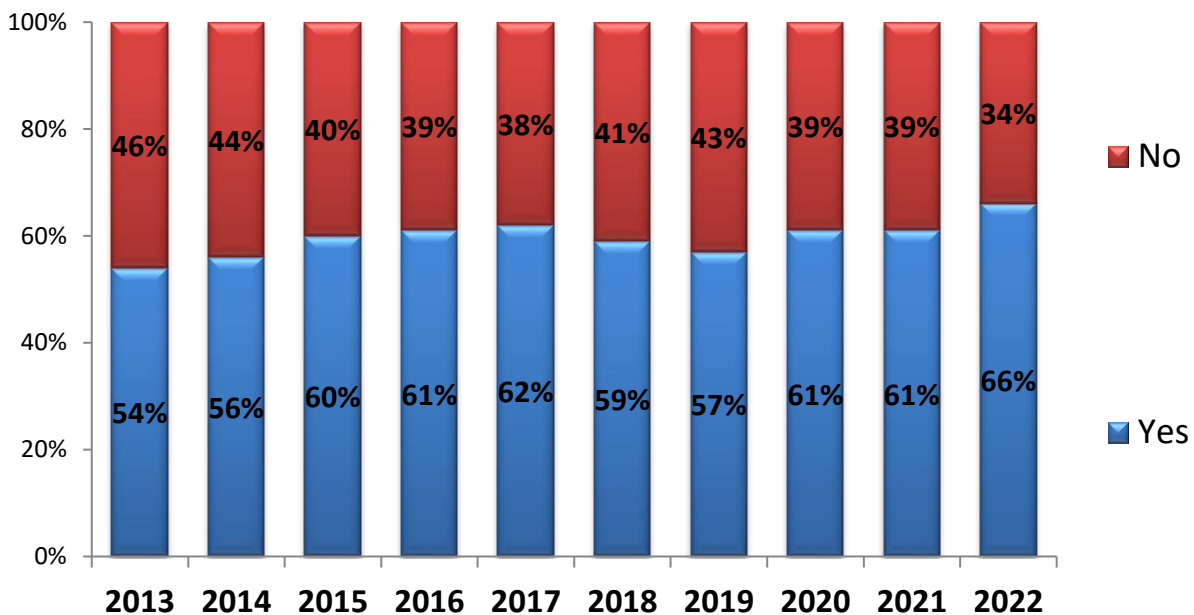
- Of the channels covered in the survey, CNN had the highest proportion reporting that they watch the channel in 2022 (45%), followed by ESPN (42%).
- One reason for including the question above was to determine if recall of the advertising differed by channels watched. Based on a separate analysis (not shown in chart), viewers of the following channels (which had at least 30 respondents watching the channel) were significantly more likely than others to recall the advertising that was shown in the survey: Oxygen (45% of viewers recalled the ad), National Geographic (38%), and Animal Planet (37%). In contrast, among those who did not watch any of the channels above, only 11% recalled the ad.



- The logo below was shown to all respondents regardless of whether they had seen advertising or not, and more than half of the total sample recognized the logo each year since 2013. The 2022 result (66%) was the highest so far and significantly higher than previous years that had 60% or less.



### Have you seen the logo above anywhere?



- Awareness was significantly lower in the Prince William Inclusive area. At the same time, males were more likely than females to recall the logo.



| <b>Have Seen Logo</b>            | <b>Alexandria</b> | <b>Arlington</b> | <b>Fairfax Inclusive</b> | <b>Leesburg / Loudoun</b> | <b>Prince William Inclusive</b> |
|----------------------------------|-------------------|------------------|--------------------------|---------------------------|---------------------------------|
| Yes                              | 73%               | 80%              | 68%                      | 62%                       | 49%                             |
| No                               | 27%               | 20%              | 32%                      | 38%                       | 51%                             |
| <i>N = number of respondents</i> | 52                | 46               | 258                      | 58                        | 86                              |

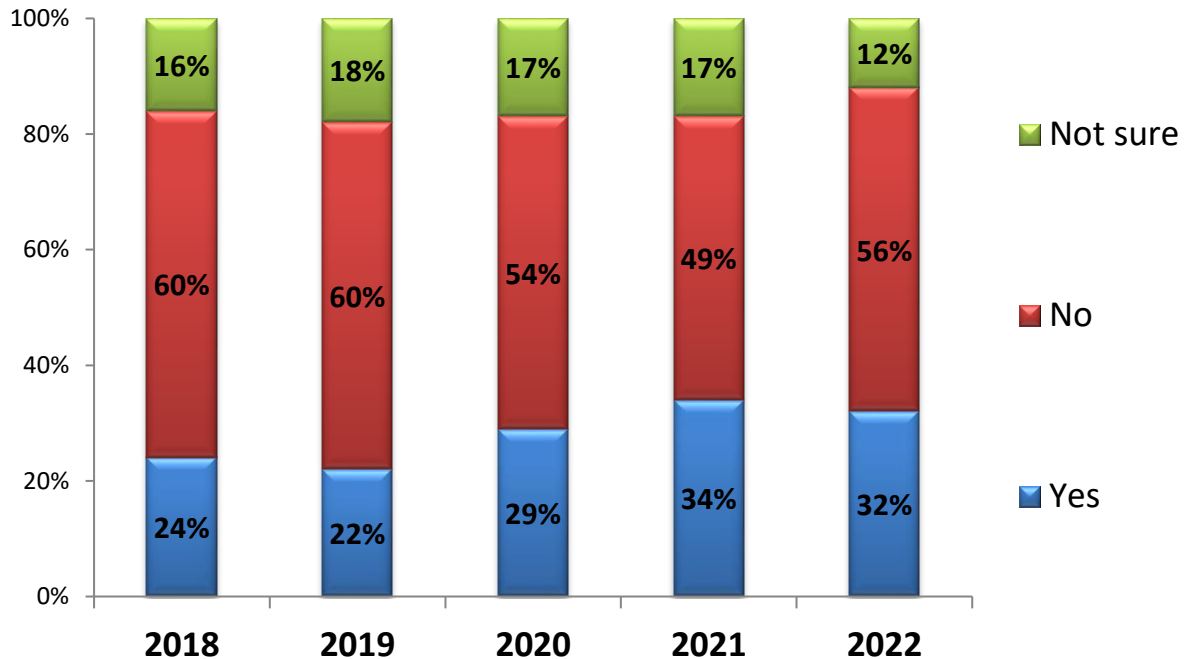
| <b>Have Seen Logo</b>            | <b>Have Lived in Current Residence &lt; 4 Years</b> | <b>4 to 9 Years</b> | <b>10 to 19 Years</b> | <b>20 or More Years</b> |
|----------------------------------|---|---------------------|-----------------------|-------------------------|
| Yes                              | 65%   | 69%                 | 74%                   | 56%                     |
| No                               | 35%   | 31%                 | 26%                   | 44%                     |
| <i>N = number of respondents</i> | 132   | 125                 | 117                   | 126                     |

| <b>Have Seen Logo</b>            | <b>Age 21 to 34</b> | <b>35 to 44</b> | <b>45 to 54</b> | <b>55 to 64</b> | <b>65 +</b> |
|----------------------------------|---------------------|-----------------|-----------------|-----------------|-------------|
| Yes                              | 68%                 | 75%             | 70%             | 57%             | 55%         |
| No                               | 32%                 | 25%             | 30%             | 43%             | 45%         |
| <i>N = number of respondents</i> | 104                 | 118             | 102             | 84              | 92          |

| <b>Have Seen Logo</b>            | <b>Male</b> | <b>Female</b> | <b>Homeowners</b> | <b>Renters</b> | <b>Hispanic Respondents</b> |
|----------------------------------|-------------|---------------|-------------------|----------------|-----------------------------|
| Yes                              | 71%         | 61%           | 67%               | 62%            | 63%                         |
| No                               | 29%         | 39%           | 33%               | 38%            | 37%                         |
| <i>N = number of respondents</i> | 245         | 255           | 389               | 111            | 41                          |



**Regardless of whether you have seen that specific ad or logo, have you seen or received information about reducing water pollution from any source in the past 12 months?**



- Slightly less than one-third (32%) in 2022 reported that they have seen or received information about reducing water pollution in the past 12 months.
- The proportion who received this information was significantly higher in Alexandria, compared to the Prince William Inclusive area.

| <b><i>Received Info.<br/>About Reducing<br/>Water Pollution</i></b> | <b>Alexandria</b> | <b>Arlington</b> | <b>Fairfax<br/>Inclusive</b> | <b>Leesburg /<br/>Loudoun</b> | <b>Prince<br/>William<br/>Inclusive</b> |
|---|-------------------|------------------|------------------------------|-------------------------------|---|
| Yes   | 44%               | 30%              | 31%                          | 31%                           | 25%                                     |
| No  | 50%               | 57%              | 55%                          | 57%                           | 63%                                     |
| Not sure  | 6%                | 13%              | 14%                          | 12%                           | 12%                                     |
| <i>N = number of respondents</i>                                    | 52                | 46               | 258                          | 58                            | 86                                      |



| <b>Received Info.<br/>About Reducing<br/>Water Pollution</b> | <b>Have Lived<br/>in Current<br/>Residence<br/>&lt; 4 Years</b> | <b>4 to 9 Years</b> | <b>10 to 19<br/>Years</b> | <b>20 or More<br/>Years</b> |
|--|---|---------------------|---------------------------|-----------------------------|
| Yes  | 26%   | 31%                 | 39%                       | 31%                         |
| No   | 65%   | 55%                 | 50%                       | 54%                         |
| Not sure   | 9%  | 14%                 | 11%                       | 15%                         |
| <i>N = number of respondents</i>                             | 132   | 125                 | 117                       | 126                         |

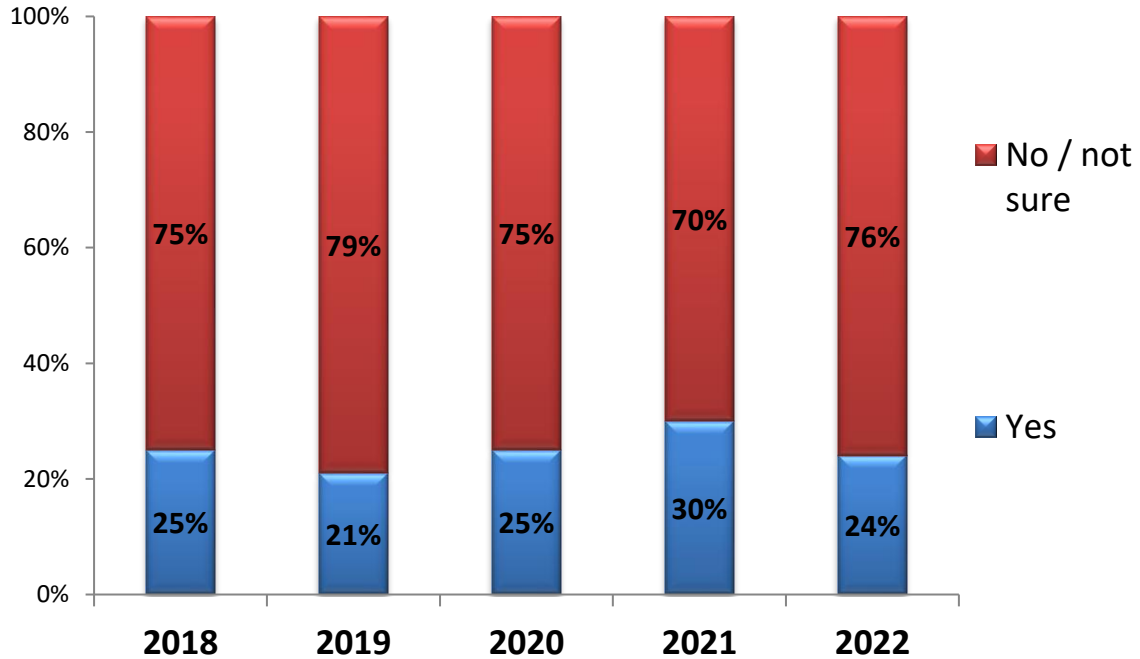
| <b>Received Info.<br/>About Reducing<br/>Water Pollution</b> | <b>Age<br/>21 to 34</b> | <b>35 to 44</b> | <b>45 to 54</b> | <b>55 to 64</b> | <b>65 +</b> |
|--|-------------------------|-----------------|-----------------|-----------------|-------------|
| Yes  | 37%                     | 45%             | 31%             | 19%             | 20%         |
| No   | 56%                     | 46%             | 55%             | 71%             | 56%         |
| Not sure   | 7%                      | 9%              | 14%             | 10%             | 24%         |
| <i>N = number of respondents</i>                             | 104                     | 118             | 102             | 84              | 92          |

| <b>Received Info.<br/>About Reducing<br/>Water Pollution</b> | <b>Male</b> | <b>Female</b> | <b>Homeowners</b> | <b>Renters</b> | <b>Hispanic<br/>Respondents</b> |
|--|-------------|---------------|-------------------|----------------|---------------------------------|
| Yes  | 35%         | 28%           | 34%               | 24%            | 37%                             |
| No   | 53%         | 59%           | 53%               | 65%            | 56%                             |
| Not sure   | 12%         | 13%           | 13%               | 11%            | 7%                              |
| <i>N = number of respondents</i>                             | 245         | 255           | 389               | 111            | 41                              |

- Those age 35 to 44 were more likely than others to report receiving this information.



**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.?**



- Approximately one-fourth (24%) in 2022 reported hearing about opportunities to participate in a water quality activity in the past 12 months.

| <b>Heard of Water Quality Activities Past 12 Months</b> | <b>Alexandria</b> | <b>Arlington</b> | <b>Fairfax Inclusive</b> | <b>Leesburg / Loudoun</b> | <b>Prince William Inclusive</b> |
|---|-------------------|------------------|--------------------------|---------------------------|---------------------------------|
| Yes   | 35%               | 24%              | 24%                      | 16%                       | 24%                             |
| No / not sure   | 65%               | 76%              | 76%                      | 84%                       | 76%                             |
| <i>N = number of respondents</i>                        | 52                | 46               | 258                      | 58                        | 86                              |



- Those age 55 or older were less likely to report hearing about opportunities to participate in a water quality activity in the past 12 months.

| <b>Heard of Water<br/>Quality Activities<br/>Past 12 Months</b> | <b>Have Lived<br/>in Current<br/>Residence<br/>&lt; 4 Years</b> | <b>4 to 9 Years</b> | <b>10 to 19<br/>Years</b> | <b>20 or More<br/>Years</b> |
|---|---|---------------------|---------------------------|-----------------------------|
| Yes   | 20%   | 22%                 | 31%                       | 25%                         |
| No / not sure   | 80%   | 78%                 | 69%                       | 75%                         |
| <i>N = number of respondents</i>                                | 132   | 125                 | 117                       | 126                         |

| <b>Heard of Water<br/>Quality Activities<br/>Past 12 Months</b> | <b>Age<br/>21 to 34</b> | <b>35 to 44</b> | <b>45 to 54</b> | <b>55 to 64</b> | <b>65 +</b> |
|---|-------------------------|-----------------|-----------------|-----------------|-------------|
| Yes   | 32%                     | 35%             | 26%             | 12%             | 12%         |
| No / not sure   | 68%                     | 65%             | 74%             | 88%             | 88%         |
| <i>N = number of respondents</i>                                | 104                     | 118             | 102             | 84              | 92          |

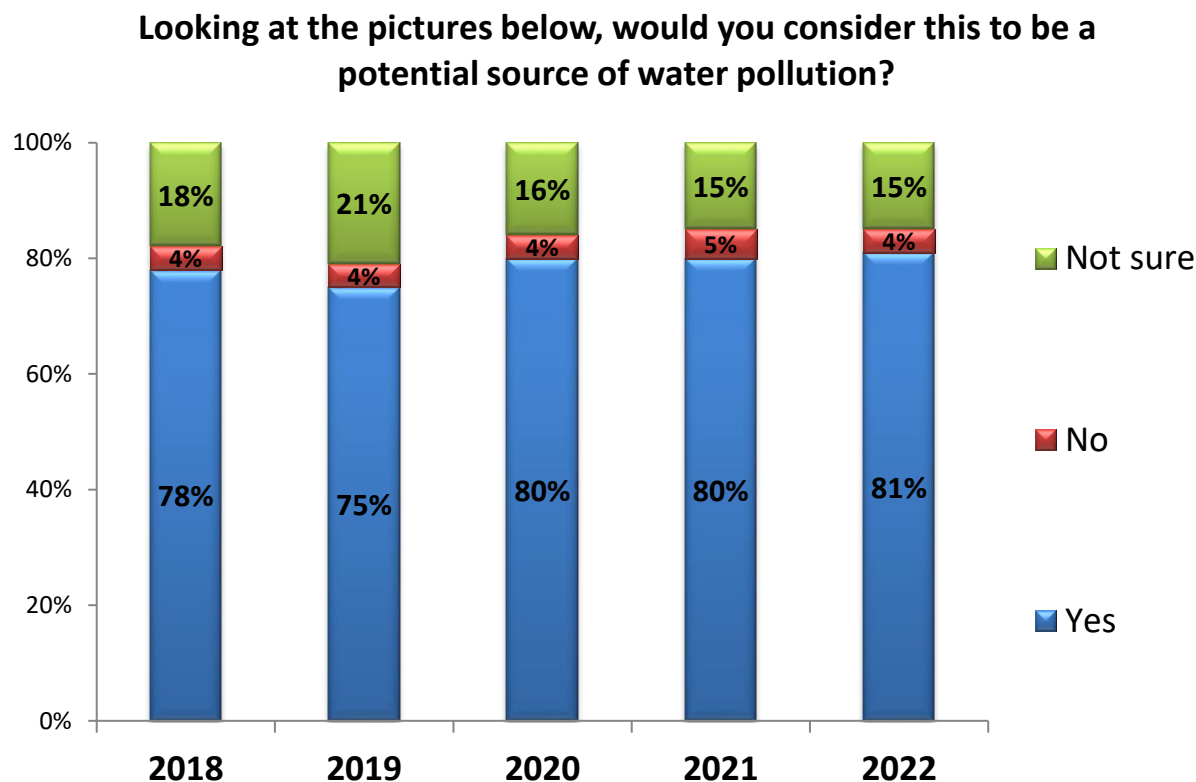
| <b>Heard of Water<br/>Quality Activities<br/>Past 12 Months</b> | <b>Male</b> | <b>Female</b> | <b>Homeowners</b> | <b>Renters</b> | <b>Hispanic<br/>Respondents</b> |
|---|-------------|---------------|-------------------|----------------|---------------------------------|
| Yes   | 27%         | 22%           | 26%               | 19%            | 17%                             |
| No / not sure   | 73%         | 78%           | 74%               | 81%            | 83%                             |
| <i>N = number of respondents</i>                                | 245         | 255           | 389               | 111            | 41                              |

- In a separate question asked only of those who answered “Yes” to the question on the previous page, 60% indicated that they *participated* in a water quality activity. Since this 60% applies to the 24% who answered “Yes” to the question on the previous page, it turns out that 15% (= 60% x 24%) of the total sample reported both hearing about *and* participating in a water quality activity in the past 12 months.



## Potential Water Pollution Source

- Two pictures were shown to the survey respondents starting in 2018, and they were asked the question below. (The images used can be found in the questionnaire in the Appendix.)



- Eight-in-ten (81%) in 2022 felt that the pictures showed a potential source of water pollution. As shown in the table below and the tables on the next page, the proportion feeling this way was high in all of the subgroups examined.

| <b>Consider it<br/>Potential Source of<br/>Water Pollution</b> | <b>Alexandria</b> | <b>Arlington</b> | <b>Fairfax<br/>Inclusive</b> | <b>Leesburg /<br/>Loudoun</b> | <b>Prince<br/>William<br/>Inclusive</b> |
|--|-------------------|------------------|------------------------------|-------------------------------|---|
| Yes  | 85%               | 69%              | 81%                          | 83%                           | 84%                                     |
| No   | 2%                | 9%               | 2%                           | 5%                            | 9%                                      |
| Not sure   | 13%               | 22%              | 17%                          | 12%                           | 7%                                      |
| <i>N = number of respondents</i>                               | 52                | 46               | 258                          | 58                            | 86                                      |



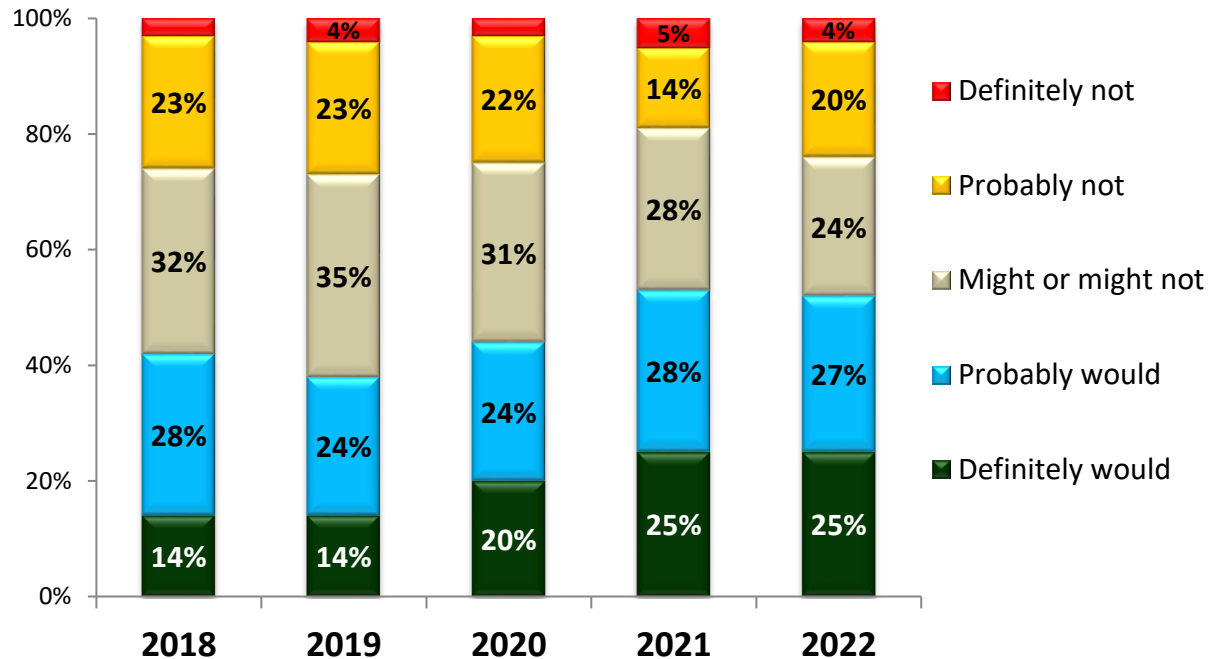
| <b>Consider it<br/>Potential Source of<br/>Water Pollution</b> | <b>Have Lived<br/>in Current<br/>Residence<br/>&lt; 4 Years</b> | <b>4 to 9 Years</b> | <b>10 to 19<br/>Years</b> | <b>20 or More<br/>Years</b> |
|--|---|---------------------|---------------------------|-----------------------------|
| Yes  | 78%   | 81%                 | 82%                       | 83%                         |
| No   | 4%  | 9%                  | 1%                        | 4%                          |
| Not sure   | 18%   | 10%                 | 17%                       | 13%                         |
| <i>N = number of respondents</i>                               | 132   | 125                 | 117                       | 126                         |

| <b>Consider it<br/>Potential Source of<br/>Water Pollution</b> | <b>Age<br/>21 to 34</b> | <b>35 to 44</b> | <b>45 to 54</b> | <b>55 to 64</b> | <b>65 +</b> |
|--|-------------------------|-----------------|-----------------|-----------------|-------------|
| Yes  | 84%                     | 83%             | 79%             | 80%             | 77%         |
| No   | 6%                      | 7%              | 3%              | 5%              | 1%          |
| Not sure   | 10%                     | 10%             | 18%             | 15%             | 22%         |
| <i>N = number of respondents</i>                               | 104                     | 118             | 102             | 84              | 92          |

| <b>Consider it<br/>Potential Source of<br/>Water Pollution</b> | <b>Male</b> | <b>Female</b> | <b>Homeowners</b> | <b>Renters</b> | <b>Hispanic<br/>Respondents</b> |
|--|-------------|---------------|-------------------|----------------|---------------------------------|
| Yes  | 79%         | 82%           | 80%               | 84%            | 76%                             |
| No   | 4%          | 5%            | 5%                | 4%             | 7%                              |
| Not sure   | 17%         | 13%           | 15%               | 12%            | 17%                             |
| <i>N = number of respondents</i>                               | 245         | 255           | 389               | 111            | 41                              |



**What is the likelihood that you would call county or town officials to report potential pollution so they could investigate the cause?**



- One-fourth (25%) felt that they “Definitely would” report potential pollution to county or town officials, and this was significantly higher than the results in 2019 and 2018.
- Those age 35 to 44 were more likely than others to rate “Definitely would.”

| <b>Likelihood Report<br/>Potential Pollution</b> | <b>Alexandria</b> | <b>Arlington</b> | <b>Fairfax<br/>Inclusive</b> | <b>Leesburg /<br/>Loudoun</b> | <b>Prince<br/>William<br/>Inclusive</b> |
|--|-------------------|------------------|------------------------------|-------------------------------|---|
| Definitely would                                 | 29%               | 30%              | 24%                          | 19%                           | 27%                                     |
| Probably would                                   | 33%               | 31%              | 30%                          | 21%                           | 19%                                     |
| Might or might not                               | 21%               | 20%              | 24%                          | 29%                           | 25%                                     |
| Probably would                                   | 13%               | 17%              | 20%                          | 21%                           | 22%                                     |
| Definitely not                                   | 4%                | 2%               | 2%                           | 10%                           | 7%                                      |
| <i>N = number of respondents</i>                 | 52                | 46               | 258                          | 58                            | 86                                      |



**Likelihood Report  
Potential Pollution**

**Have Lived  
in Current  
Residence  
< 4 Years**

**4 to 9 Years**

**10 to 19  
Years**

**20 or More  
Years**

|                    |     |     |     |     |
|--------------------|-----|-----|-----|-----|
| Definitely would   | 22% | 27% | 32% | 21% |
| Probably would     | 25% | 29% | 19% | 36% |
| Might or might not | 22% | 25% | 25% | 24% |
| Probably would     | 25% | 14% | 21% | 17% |
| Definitely not     | 6%  | 5%  | 3%  | 2%  |

*N = number of respondents*

132

125

117

126

**Likelihood Report  
Potential Pollution**

**Age  
21 to 34**

**35 to 44**

**45 to 54**

**55 to 64**

**65 +**

|                    |     |     |     |     |     |
|--------------------|-----|-----|-----|-----|-----|
| Definitely would   | 23% | 43% | 20% | 20% | 16% |
| Probably would     | 31% | 21% | 23% | 21% | 40% |
| Might or might not | 16% | 21% | 34% | 28% | 22% |
| Probably would     | 22% | 10% | 22% | 24% | 22% |
| Definitely not     | 8%  | 5%  | 1%  | 7%  | 0%  |

*N = number of respondents*

104

118

102

84

92

**Likelihood Report  
Potential Pollution**

**Male**

**Female**

**Homeowners**

**Renters**

**Hispanic  
Respondents**

|                    |     |     |     |     |     |
|--------------------|-----|-----|-----|-----|-----|
| Definitely would   | 25% | 25% | 27% | 20% | 29% |
| Probably would     | 32% | 23% | 28% | 25% | 24% |
| Might or might not | 21% | 27% | 23% | 28% | 22% |
| Probably would     | 19% | 20% | 18% | 23% | 20% |
| Definitely not     | 3%  | 5%  | 4%  | 4%  | 5%  |

*N = number of respondents*

245

255

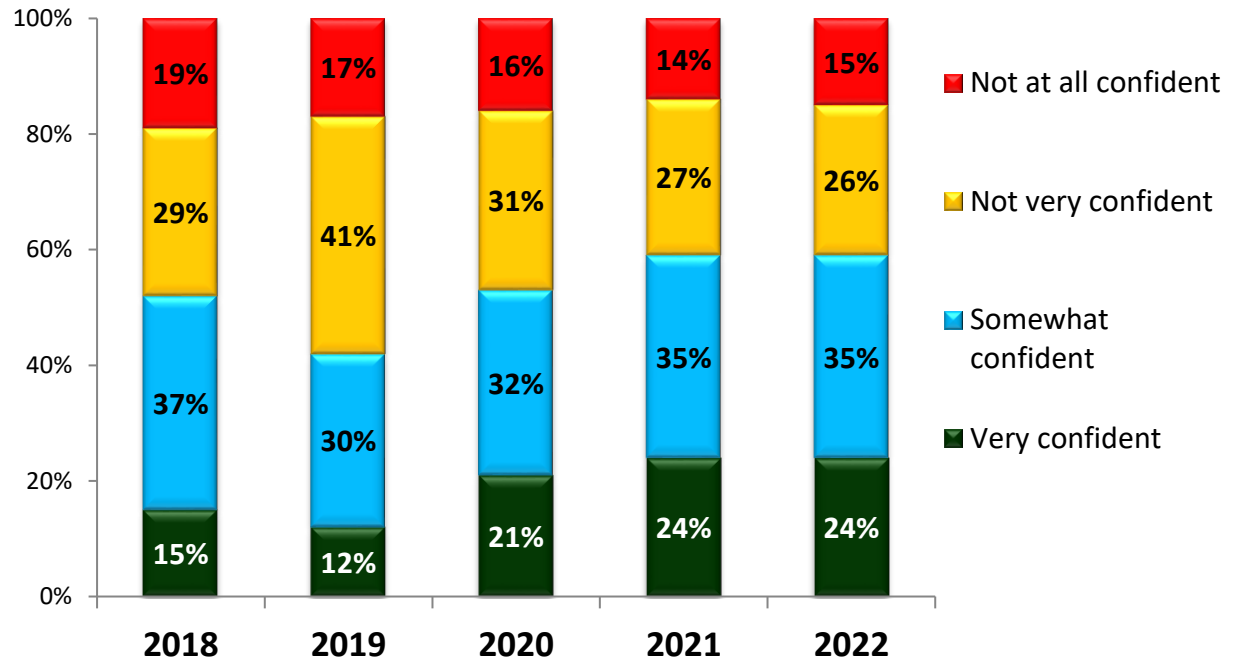
389

111

41



### How confident are you that you would know where to report potential water pollution?



- Nearly one-fourth (24%) in 2022 were “Very confident” that they would know where to report potential water pollution. This 2022 result was significantly higher than in 2018 and 2019.
- Those age 35 to 44 and homeowners were more likely than others to rate “Very confident.”

| <b>Confidence Know<br/>Where to Report</b> | <b>Alexandria</b> | <b>Arlington</b> | <b>Fairfax<br/>Inclusive</b> | <b>Leesburg /<br/>Loudoun</b> | <b>Prince<br/>William<br/>Inclusive</b> |
|--|-------------------|------------------|------------------------------|-------------------------------|---|
| Very confident                             | 38%               | 28%              | 21%                          | 17%                           | 24%                                     |
| Somewhat confident                         | 37%               | 33%              | 35%                          | 40%                           | 33%                                     |
| Not very confident                         | 12%               | 30%              | 30%                          | 21%                           | 24%                                     |
| Not at all confident                       | 13%               | 9%               | 14%                          | 22%                           | 19%                                     |
| <i>N = number of respondents</i>           | 52                | 46               | 258                          | 58                            | 86                                      |



| <b>Confidence Know<br/>Where to Report</b> | <b>Have Lived<br/>in Current<br/>Residence<br/>&lt; 4 Years</b> | <b>4 to 9 Years</b> | <b>10 to 19<br/>Years</b> | <b>20 or More<br/>Years</b> |
|--|---|---------------------|---------------------------|-----------------------------|
| Very confident                             | 22%   | 23%                 | 24%                       | 25%                         |
| Somewhat confident                         | 28%   | 42%                 | 34%                       | 37%                         |
| Not very confident                         | 29%   | 20%                 | 27%                       | 28%                         |
| Not at all confident                       | 21%   | 15%                 | 15%                       | 10%                         |
| <i>N = number of respondents</i>           | 132   | 125                 | 117                       | 126                         |

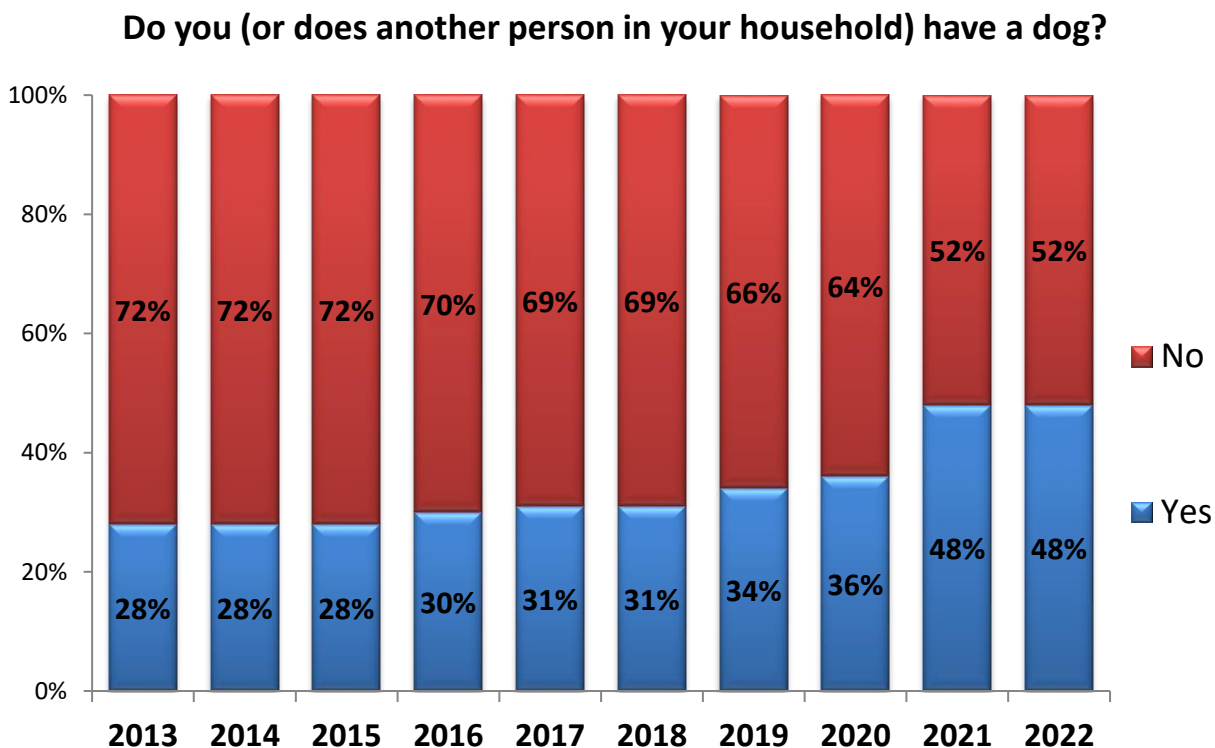
| <b>Confidence Know<br/>Where to Report</b> | <b>Age<br/>21 to 34</b> | <b>35 to 44</b> | <b>45 to 54</b> | <b>55 to 64</b> | <b>65 +</b> |
|--|-------------------------|-----------------|-----------------|-----------------|-------------|
| Very confident                             | 25%                     | 40%             | 18%             | 17%             | 14%         |
| Somewhat confident                         | 33%                     | 32%             | 34%             | 31%             | 47%         |
| Not very confident                         | 24%                     | 15%             | 29%             | 32%             | 33%         |
| Not at all confident                       | 18%                     | 13%             | 19%             | 20%             | 6%          |
| <i>N = number of respondents</i>           | 104                     | 118             | 102             | 84              | 92          |

| <b>Confidence Know<br/>Where to Report</b> | <b>Male</b> | <b>Female</b> | <b>Homeowners</b> | <b>Renters</b> | <b>Hispanic<br/>Respondents</b> |
|--|-------------|---------------|-------------------|----------------|---------------------------------|
| Very confident                             | 27%         | 20%           | 26%               | 16%            | 22%                             |
| Somewhat confident                         | 38%         | 33%           | 35%               | 37%            | 39%                             |
| Not very confident                         | 27%         | 25%           | 26%               | 26%            | 22%                             |
| Not at all confident                       | 9%          | 22%           | 13%               | 21%            | 17%                             |
| <i>N = number of respondents</i>           | 245         | 255           | 389               | 111            | 41                              |



## Behavior Among Dog Owners

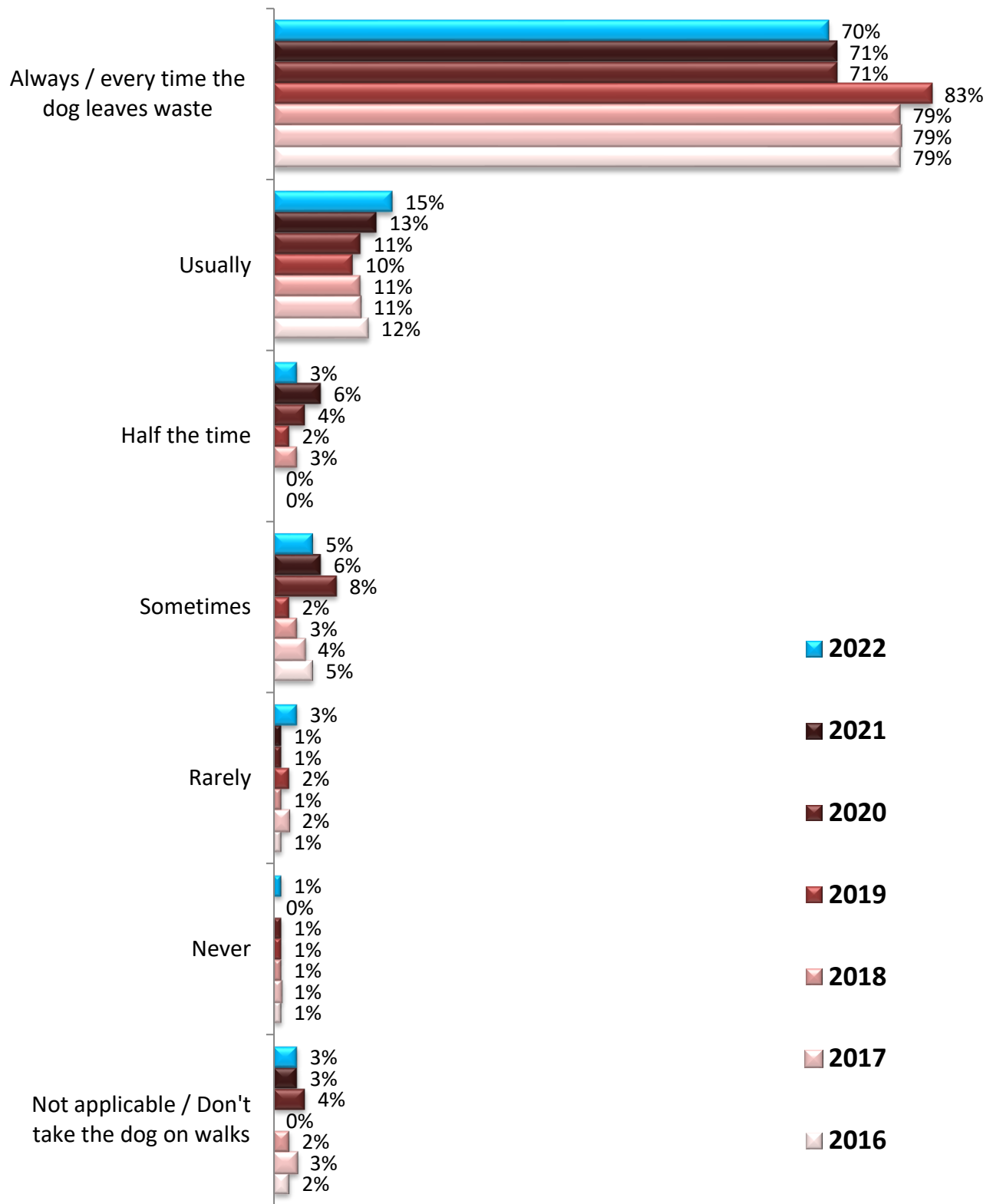
- Nearly half (48%) in 2022 indicated that they have a dog (or someone else in their household has a dog), and this result was significantly higher than in years prior to 2021.



- On the following pages, results are shown for questions about how often dog owners pick up after their dogs and what motivates them to do so. For example, more than two-thirds (70%) in 2022 indicated that they *always* pick up after their dog(s) when taking the dog(s) for a walk.

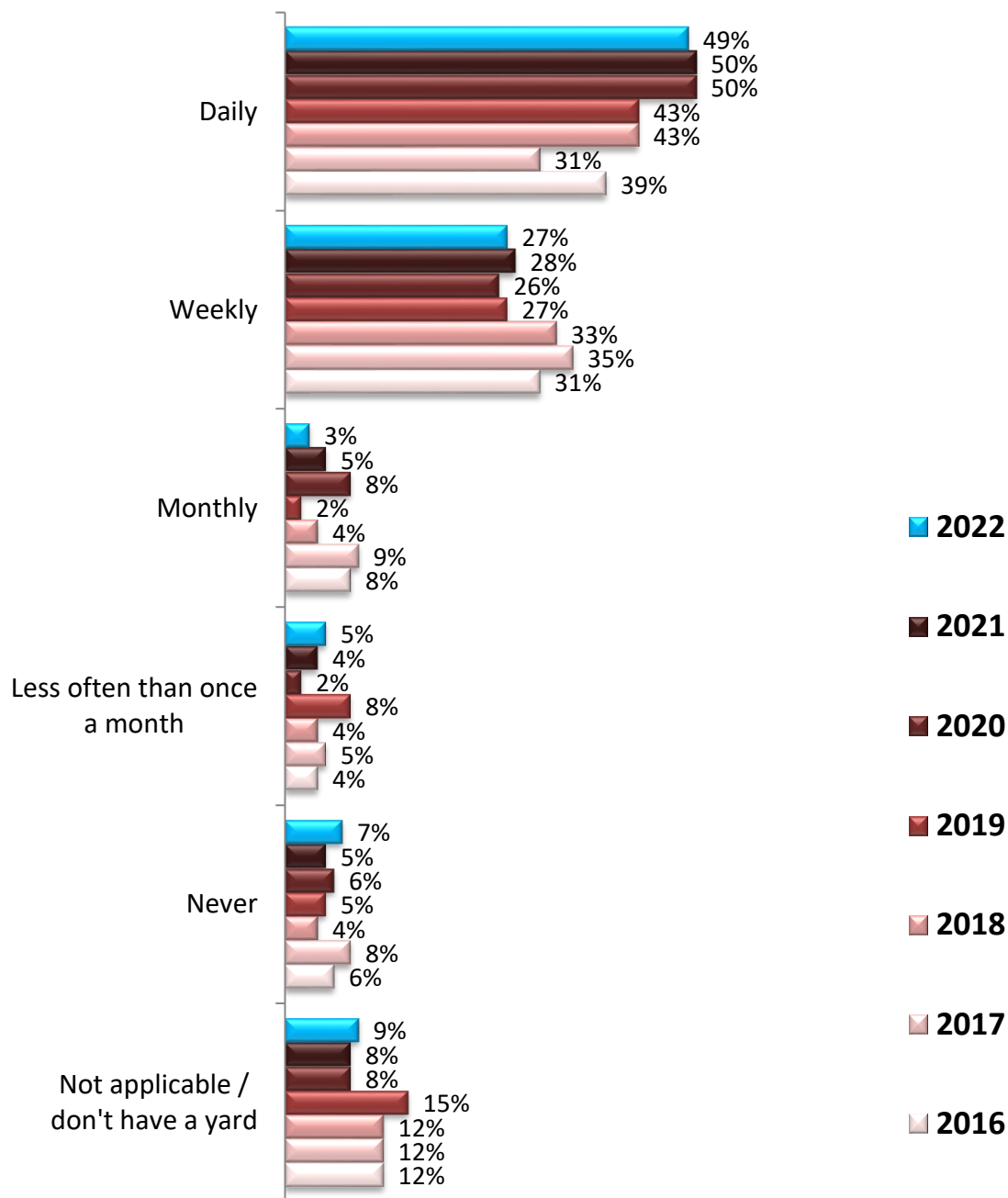


**When taking your dog(s) for a walk, how often do you pick up after your dog(s)?**





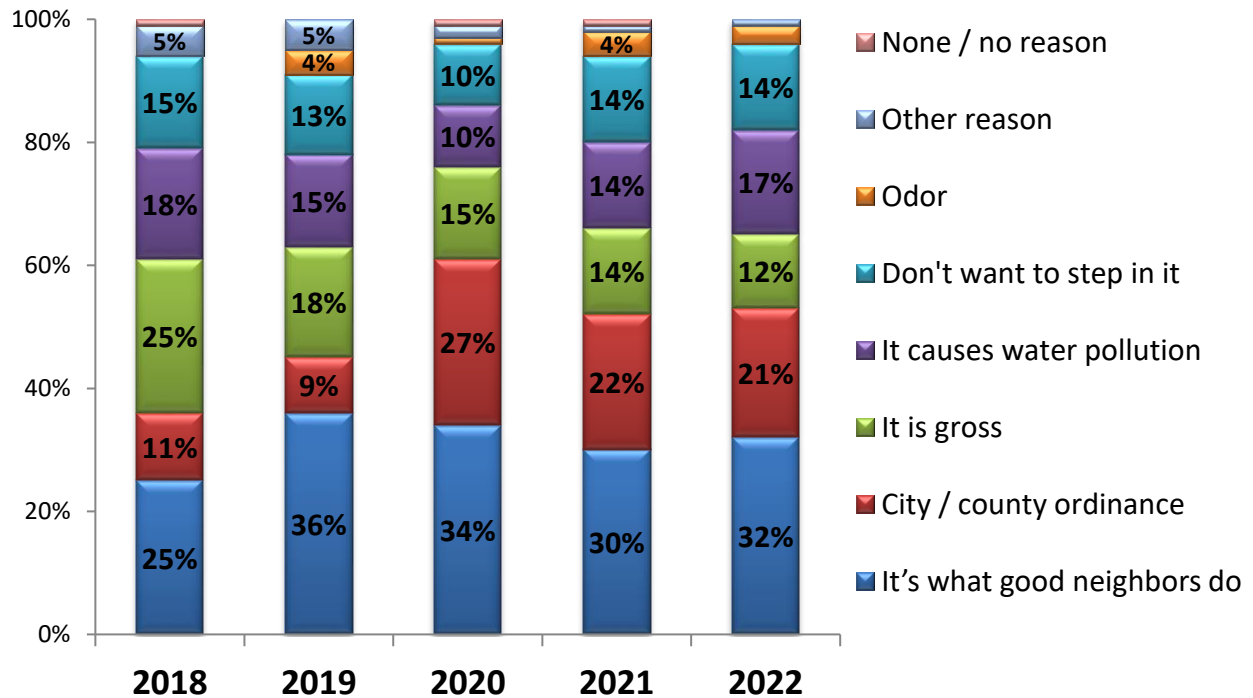
**How often do you (or does someone else from your household) remove dog waste from your yard?**



- In their own yard, the majority removed pet waste daily or weekly.
- There was some fluctuation from year to year in the proportions reporting daily and weekly removal of dog waste from their yard, but recall that this question was asked only of dog owners, and the sample size of dog owners is lower than the total sample size, while the margin of error is higher for a lower sample size.



### What is the most important reason to pick up after your dog(s)?

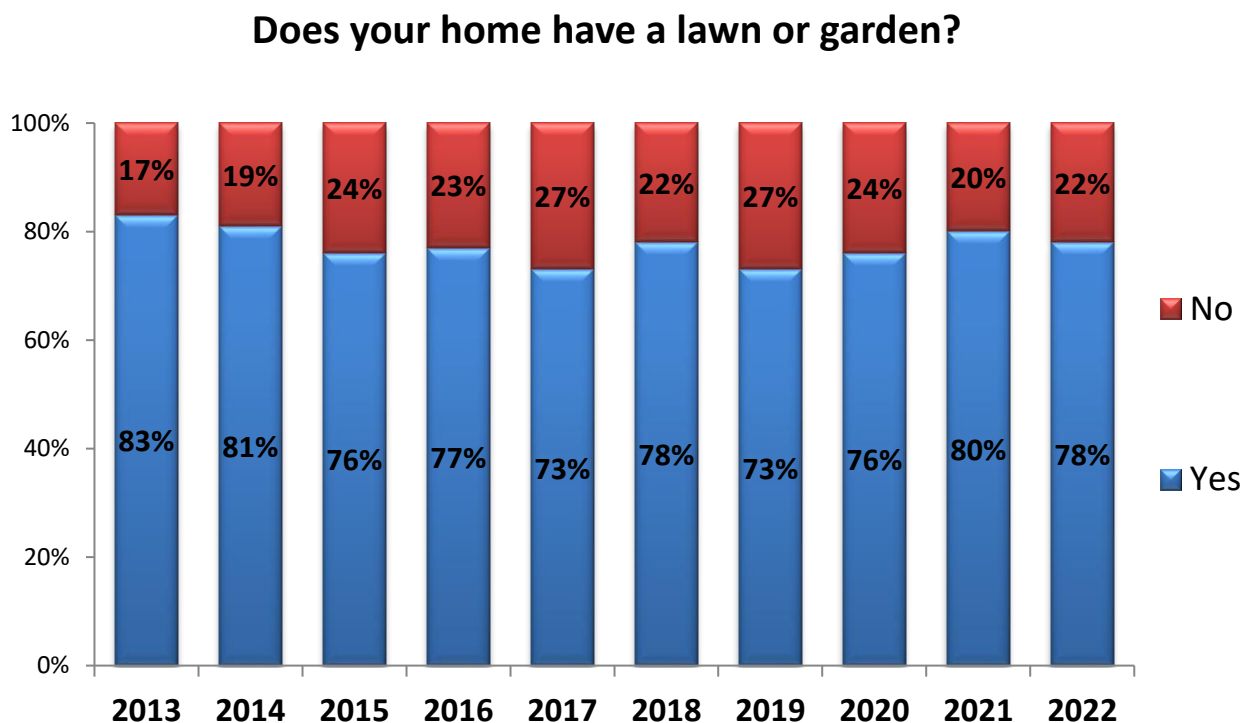


- When asked about the “Most important reason” for picking up after their dog(s), the highest proportion (32%) in 2022 selected “It's what good neighbors do.”



## Behavior Related to Lawns & Gardens

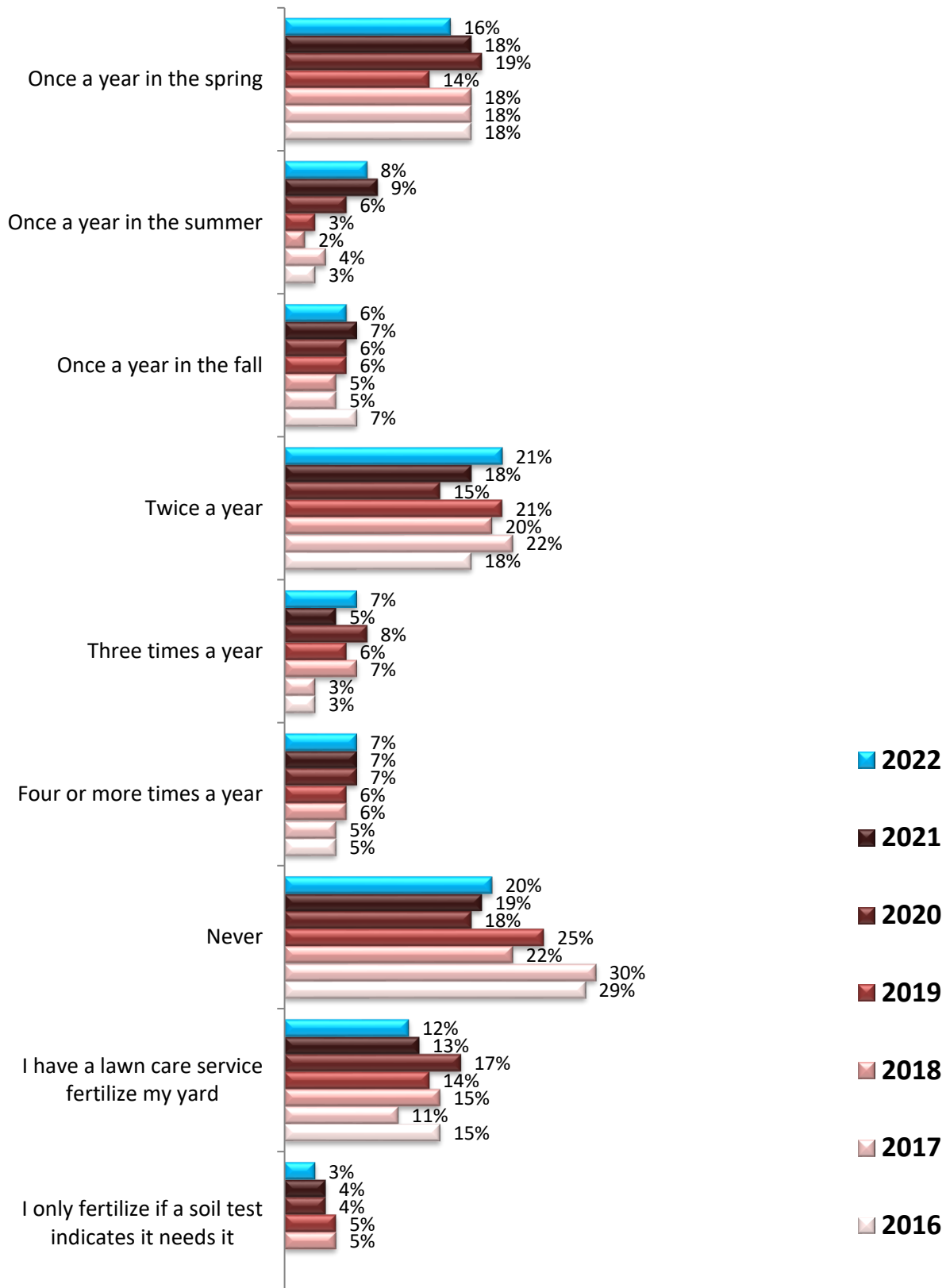
- Slightly more than three-fourths (78%) in 2022 indicated that their current home has a lawn or garden. This result was the not the highest and also not the lowest over the past ten years.



- In a separate question, of the respondents who have a lawn or garden, slightly more than eight-in-ten (83%) in 2022 identified themselves as the primary person taking care of the lawn or garden or as being familiar with the practices used for the garden or lawn. Several questions about lawns and gardens were then asked only of these respondents.
- As shown on the next page, the most common response when asked how frequently they fertilize in 2022 was twice a year (21%), followed by “Never” (20%), and “Once a year in the spring” (16%).
- The option “I only fertilize if a soil test indicates the grass needs fertilizer” was first introduced in the 2018 survey.

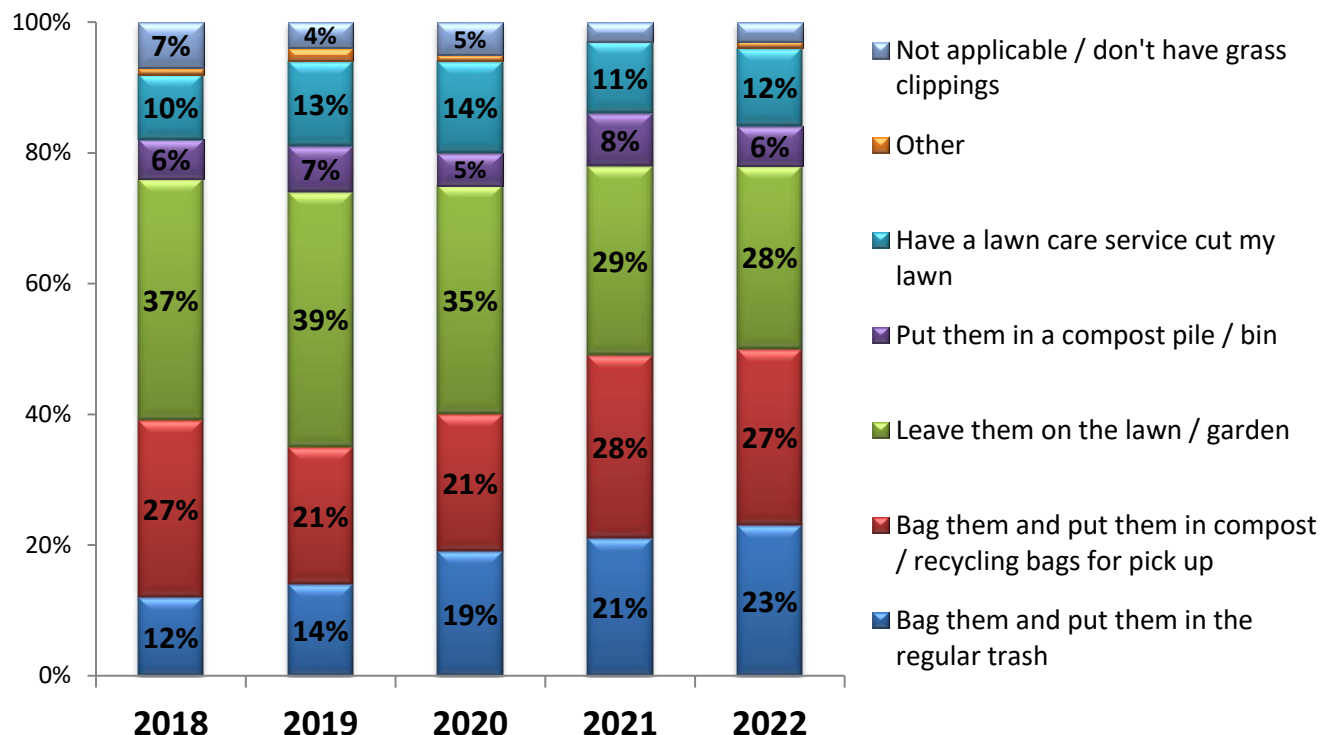


## Which of the following best describes how often you fertilize your lawn?





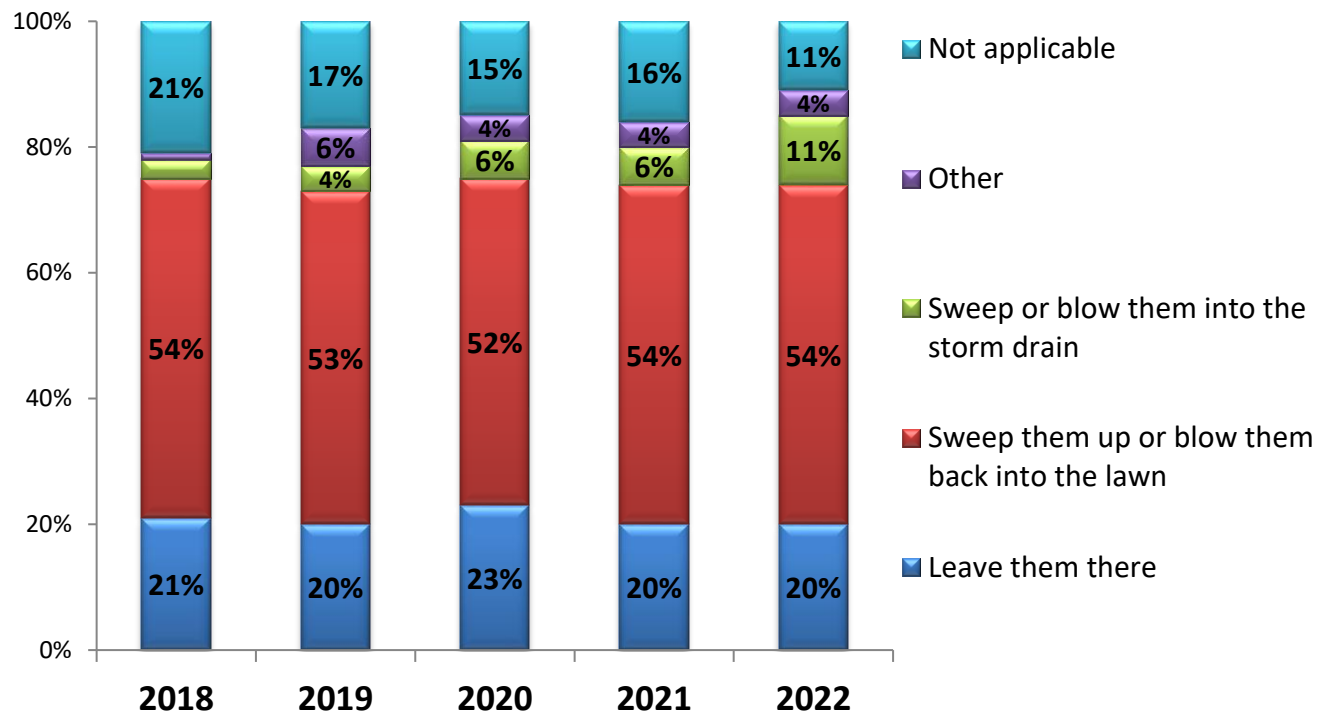
### What do you do with grass clippings from your lawn or garden?



- Slightly more than one-fourth (28%) in 2022 leave their grass clippings on their lawn / garden, while a similar proportion (27%) bag grass clippings from their lawn / garden and put them in compost / recycling bags for pick up.
- Slightly less than one-fourth (23%) bag their grass clippings and put them in the regular trash, and this result was significantly higher than in 2019 and 2018.



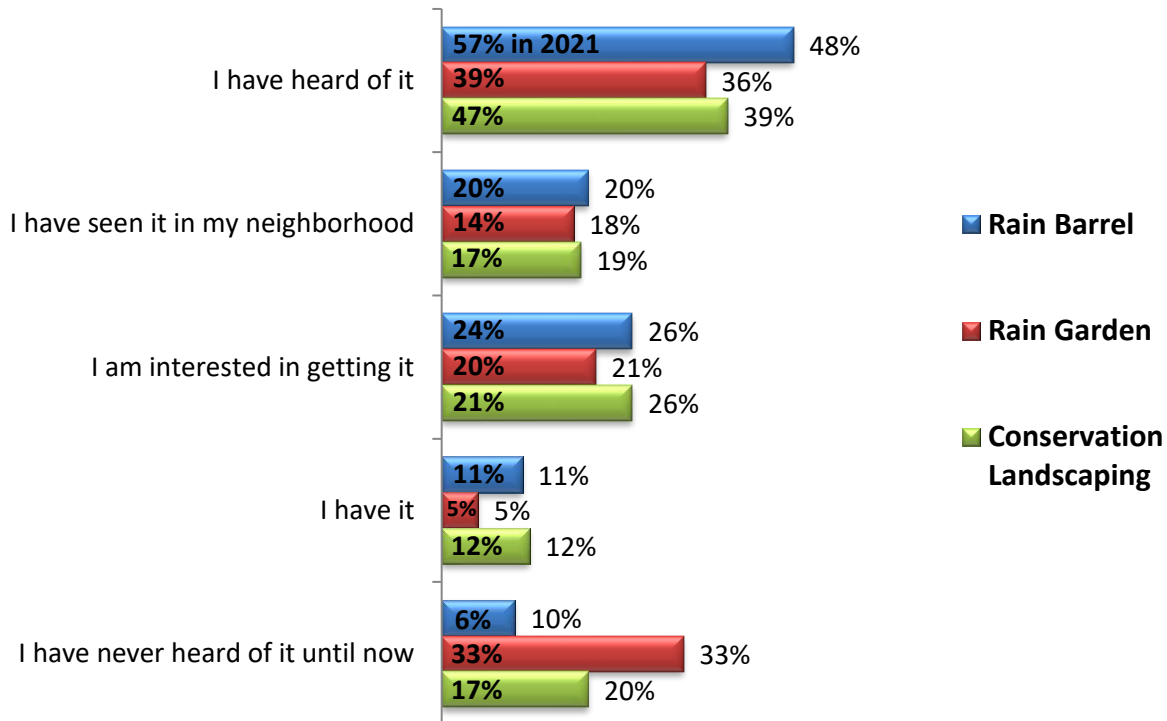
**After you cut your grass, if grass clippings end up in the street, do you:**



- More than half (54%) in 2022 sweep them up or blow them back into the lawn if they have grass clippings end up in the street, and this result was similar to the corresponding results in previous years.
- Some (11%) in 2022 felt this question was not applicable to them. This is higher than the proportion selecting “Not applicable” for the question on the previous page, but there is more than one reason that the question above may not be applicable. One reason is that they might not have grass clippings. Another reason is that they might not have grass clippings end up in the street.



### Which of the following best describe your familiarity with...



- After reading a description of a rain barrel, rain garden, and conservation landscaping, respondents were asked which of the categories in the chart above applied to them. For example, 11% in 2022 reported having a rain barrel, while 5% reported having a rain garden, and 12% reported having conservation landscapes in their yard. These 2022 results were the same as in 2021. Note that the numbers at the end of the bars show 2022 results, while 2021 results are shown to the left and inside the bar. This format was used to allow side-by-side comparisons between rain barrel, rain garden, and conservation landscaping, as well as allowing year-to-year comparisons. However, awareness was less likely in 2022 vs. 2021 for rain barrel and conservation landscaping.
- Those who indicated having the item typically did not also select “I have heard of it.” For a few cases in which a respondent selected both “I have heard of it” and “I have it,” the data was “cleaned” so that the respondent did not have “I have heard of it” selected. This means that these two response options do not overlap in the results shown above. In other words, the first response option in the chart above means that they do not have one but they have heard of it.
- As a technical note, in place of “it” that shows in the chart, the survey showed rain barrel, rain garden, or conservation landscaping (in three different questions). The reason for rewording the response options for the chart was to facilitate comparisons between the three items.



## Behavior Related to Automobiles

- When asked about changing the oil in their car or truck, a strong majority each year reported that they use an oil change service, while 10% in 2022 reported taking old motor oil to a gas station or hazmat facility for recycling. A small number of respondents selected other response options. Because the number selecting some response options was very small, the results are shown in the tables below, with the frequency (number of respondents selecting each response) and the percentage.

### 2022: When you need to change the oil in your car or truck, what do you do with the old motor oil?

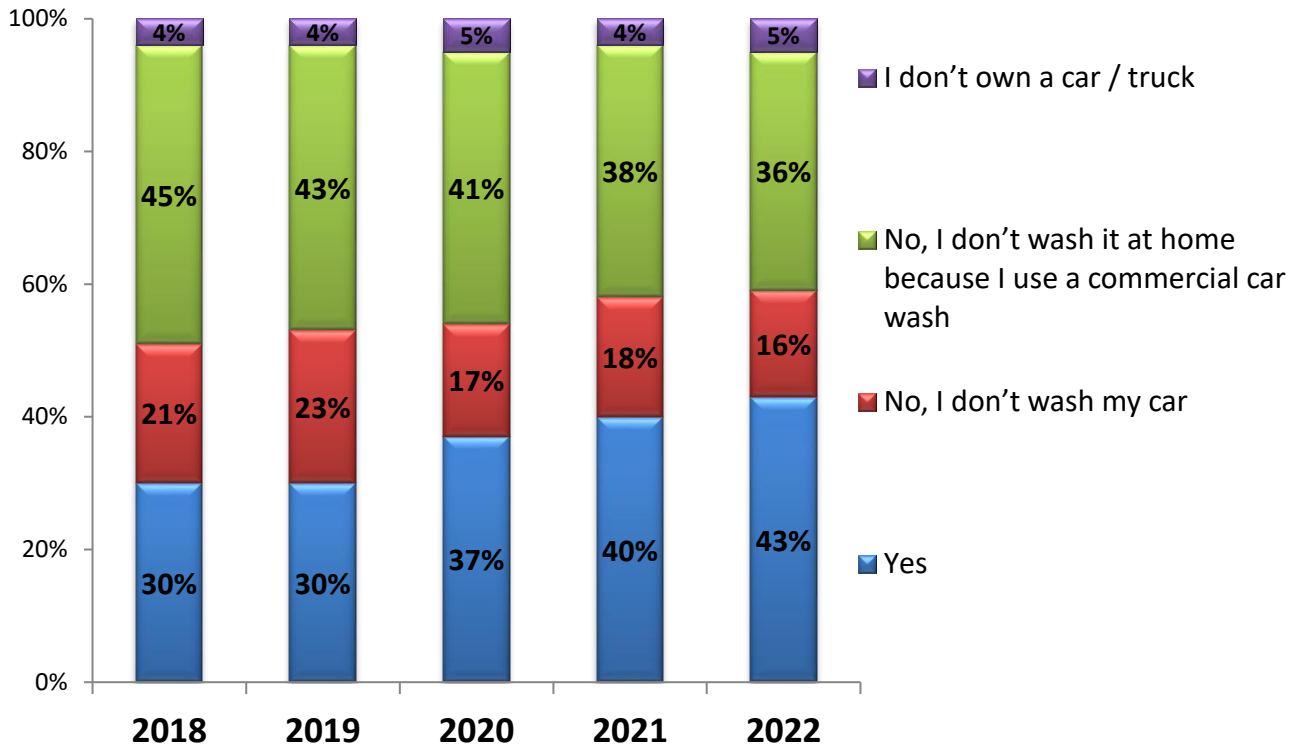
|  | <i>Frequency</i> | <i>Percent</i> |
|--|------------------|----------------|
| I don't change the oil myself / I take it to a garage / oil change service | 374              | 74.8%          |
| Take the old motor oil to a gas station or hazmat facility for recycling   | 50               | 10.0%          |
| Store it in my garage  | 19               | 3.8%           |
| Put it in the trash  | 19               | 3.8%           |
| Dump it in the gutter or down the storm sewer                              | 7                | 1.4%           |
| Dump it down the sink  | 3                | .6%            |
| I dump it on the ground  | 2                | .4%            |
| Don't own a car or truck   | 26               | 5.2%           |
| Total  | 500              | 100.0%         |

### 2021: When you need to change the oil in your car or truck, what do you do with the old motor oil?

|  | <i>Frequency</i> | <i>Percent</i> |
|--|------------------|----------------|
| I don't change the oil myself / I take it to a garage / oil change service | 355              | 71.0%          |
| Take the old motor oil to a gas station or hazmat facility for recycling   | 77               | 15.4%          |
| Store it in my garage  | 19               | 3.8%           |
| Put it in the trash  | 20               | 4.0%           |
| Dump it in the gutter or down the storm sewer                              | 6                | 1.2%           |
| Dump it down the sink  | 2                | .4%            |
| I dump it on the ground  | 1                | .2%            |
| Other  | 2                | .4%            |
| Don't own a car or truck   | 18               | 3.6%           |
| Total  | 500              | 100.0%         |



## Do you wash your car / truck at home?



- Slightly more than four-in-ten (43%) in 2022 reported washing their car / truck *at home*. This was significantly higher than in 2018 and 2019.
- When examining the results by subgroups, males and homeowners were more likely than others to report washing their vehicle at home. Also, the proportion washing their vehicle at home declined with age.

| <b>Wash Car / Truck<br/>At Home</b> | <b>Alexandria</b> | <b>Arlington</b> | <b>Fairfax<br/>Inclusive</b> | <b>Leesburg /<br/>Loudoun</b> | <b>Prince<br/>William<br/>Inclusive</b> |
|-------------------------------------|-------------------|------------------|------------------------------|-------------------------------|---|
| Yes                                 | 38%               | 41%              | 40%                          | 45%                           | 50%                                     |
| No, don't wash it                   | 12%               | 20%              | 19%                          | 15%                           | 9%                                      |
| No, use car wash                    | 37%               | 28%              | 36%                          | 40%                           | 39%                                     |
| Don't own a car / truck             | 13%               | 11%              | 5%                           | 0%                            | 2%                                      |
| <i>N = number of respondents</i>    | 52                | 46               | 258                          | 58                            | 86                                      |



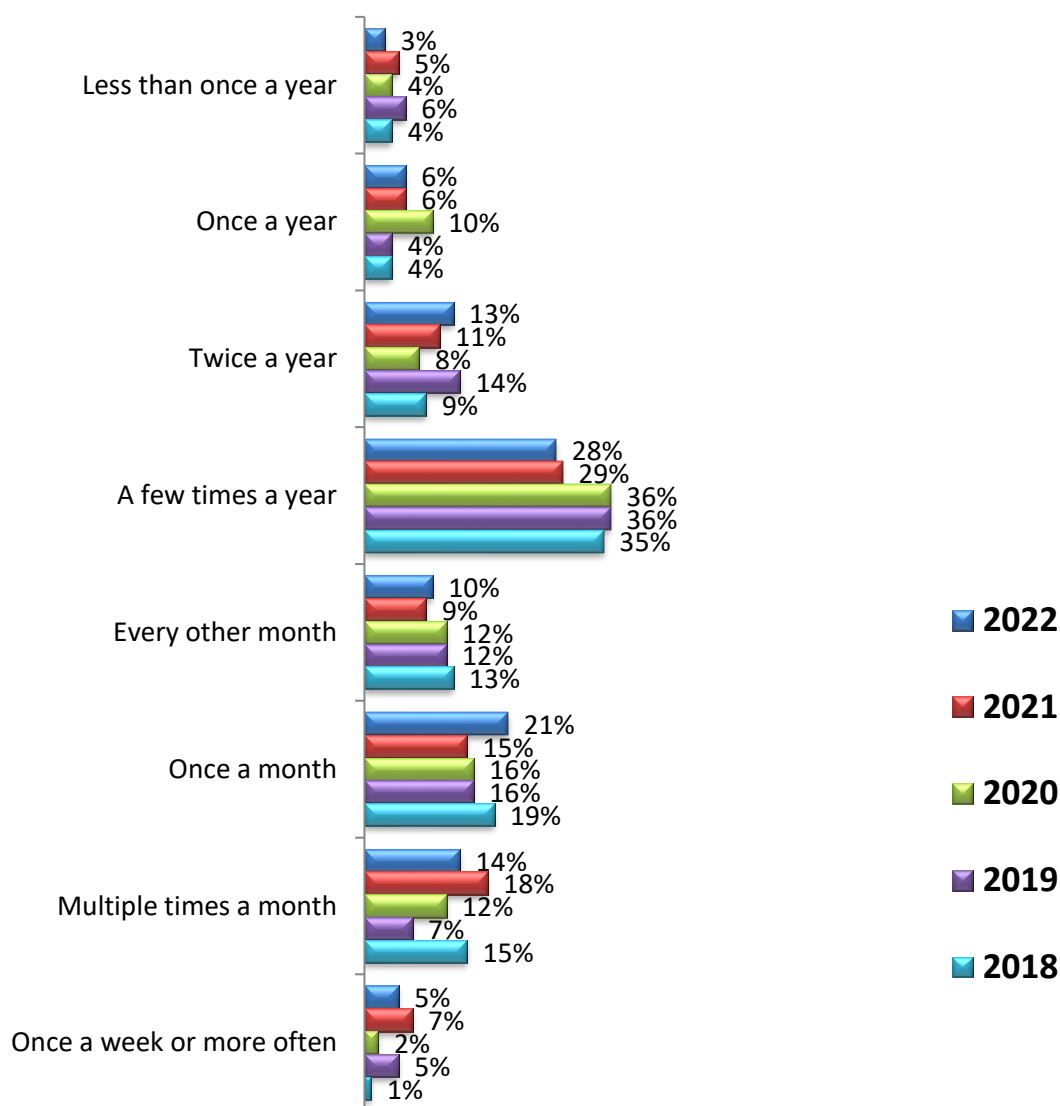
| <b>Wash Car / Truck<br/>At Home</b> | <b>Have Lived<br/>in Current<br/>Residence<br/>&lt; 4 Years</b> | <b>4 to 9 Years</b> | <b>10 to 19<br/>Years</b> | <b>20 or More<br/>Years</b> |
|-------------------------------------|---|---------------------|---------------------------|-----------------------------|
| Yes                                 | 32%   | 43%                 | 48%                       | 46%                         |
| No, don't wash it                   | 15%   | 17%                 | 13%                       | 18%                         |
| No, use car wash                    | 42%   | 34%                 | 37%                       | 33%                         |
| Don't own a car / truck             | 11%   | 6%                  | 2%                        | 3%                          |
| <i>N = number of respondents</i>    | 132   | 125                 | 117                       | 126                         |

| <b>Wash Car / Truck<br/>At Home</b> | <b>Age<br/>21 to 34</b> | <b>35 to 44</b> | <b>45 to 54</b> | <b>55 to 64</b> | <b>65 +</b> |
|-------------------------------------|-------------------------|-----------------|-----------------|-----------------|-------------|
| Yes                                 | 51%                     | 59%             | 38%             | 32%             | 25%         |
| No, don't wash it                   | 12%                     | 11%             | 16%             | 20%             | 23%         |
| No, use car wash                    | 28%                     | 26%             | 44%             | 40%             | 47%         |
| Don't own a car / truck             | 9%                      | 4%              | 2%              | 8%              | 5%          |
| <i>N = number of respondents</i>    | 104                     | 118             | 102             | 84              | 92          |

| <b>Wash Car / Truck<br/>At Home</b> | <b>Male</b> | <b>Female</b> | <b>Homeowners</b> | <b>Renters</b> | <b>Hispanic<br/>Respondents</b> |
|-------------------------------------|-------------|---------------|-------------------|----------------|---------------------------------|
| Yes                                 | 48%         | 36%           | 45%               | 33%            | 34%                             |
| No, don't wash it                   | 14%         | 18%           | 17%               | 14%            | 10%                             |
| No, use car wash                    | 35%         | 37%           | 36%               | 37%            | 51%                             |
| Don't own a car / truck             | 3%          | 9%            | 2%                | 16%            | 5%                              |
| <i>N = number of respondents</i>    | 245         | 255           | 389               | 111            | 41                              |



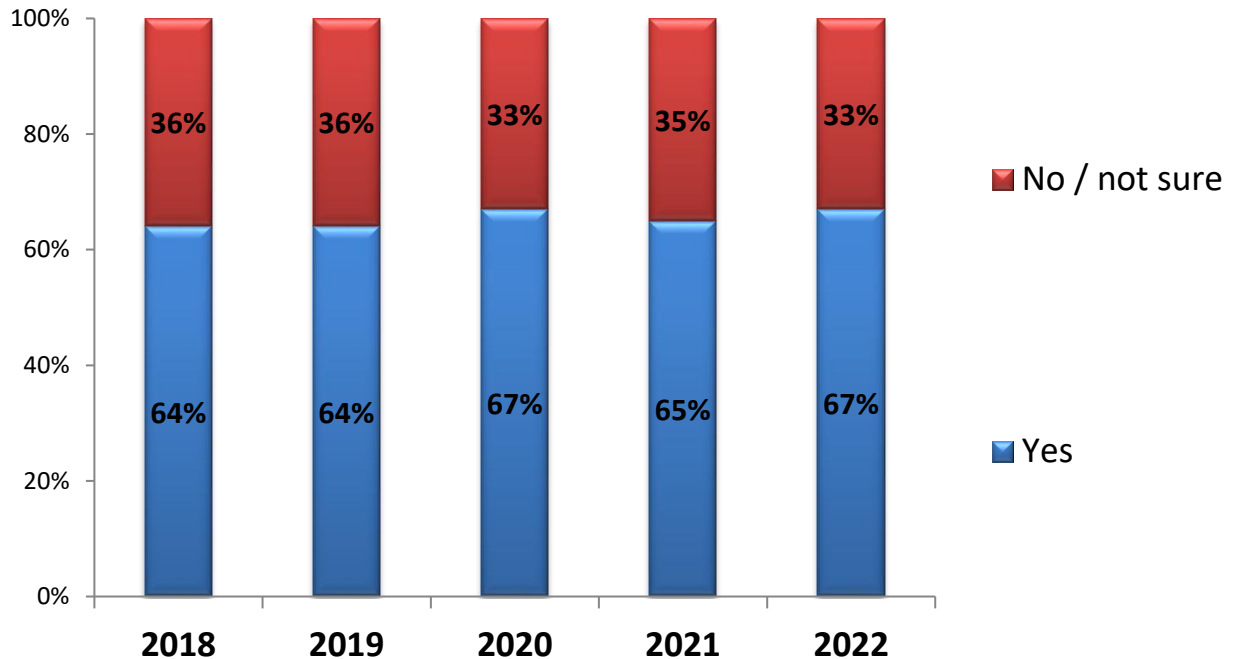
## How often do you wash your car / truck at home?



- Among those who wash their car / truck at home, the most common frequency of doing so was a few times a year (28% in 2022).
- For a separate question about what applied when washing their car / truck at home, the results are shown below.
  - 52% in 2022 selected “I used environmentally friendly detergent.” (48% in 2021)
  - 36% selected “I try to wash on the grass or other surface that absorbs water.” (41% in 2021)
  - 10% selected “I don’t use any detergent – use water only.” (8% in 2021)
  - 18% selected none of the above. (20% in 2021)



**Are you aware of whether your locality has a specific place for residents to drop off household hazardous waste (HHW)?**



- Two-thirds (67%) in 2022 indicated that they were aware of whether their locality has a specific place to drop off household hazardous waste.
- As shown in the table below, this was true for the majority in each area. However, awareness increased with length of time living at their residence and age, and it was significantly higher among males and homeowners.

| <b>HHW Awareness</b>             | <b>Alexandria</b> | <b>Arlington</b> | <b>Fairfax Inclusive</b> | <b>Leesburg / Loudoun</b> | <b>Prince William Inclusive</b> |
|----------------------------------|-------------------|------------------|--------------------------|---------------------------|---------------------------------|
| Yes                              | 67%               | 59%              | 66%                      | 66%                       | 72%                             |
| No / not sure                    | 33%               | 41%              | 34%                      | 34%                       | 28%                             |
| <i>N = number of respondents</i> | 52                | 46               | 258                      | 58                        | 86                              |



| <b>HHW Awareness</b>             | <b>Have Lived<br/>in Current<br/>Residence<br/>&lt; 4 Years</b> | <b>4 to 9 Years</b> | <b>10 to 19<br/>Years</b> | <b>20 or More<br/>Years</b> |
|----------------------------------|---|---------------------|---------------------------|-----------------------------|
| Yes                              | 58%   | 64%                 | 68%                       | 77%                         |
| No / not sure                    | 42%   | 36%                 | 32%                       | 23%                         |
| <i>N = number of respondents</i> | 132   | 125                 | 117                       | 126                         |

| <b>HHW Awareness</b>             | <b>Age<br/>21 to 34</b> | <b>35 to 44</b> | <b>45 to 54</b> | <b>55 to 64</b> | <b>65 +</b> |
|----------------------------------|-------------------------|-----------------|-----------------|-----------------|-------------|
| Yes                              | 58%                     | 65%             | 68%             | 69%             | 75%         |
| No / not sure                    | 42%                     | 35%             | 32%             | 31%             | 25%         |
| <i>N = number of respondents</i> | 104                     | 118             | 102             | 84              | 92          |

| <b>HHW Awareness</b>             | <b>Male</b> | <b>Female</b> | <b>Homeowners</b> | <b>Renters</b> | <b>Hispanic<br/>Respondents</b> |
|----------------------------------|-------------|---------------|-------------------|----------------|---------------------------------|
| Yes                              | 71%         | 62%           | 72%               | 47%            | 66%                             |
| No / not sure                    | 29%         | 38%           | 28%               | 53%            | 34%                             |
| <i>N = number of respondents</i> | 245         | 255           | 389               | 111            | 41                              |



## Appendix: Questionnaire

### 2022 Only Rain NVRC Survey

#### **INTRODUCTION:**

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

S1. Are you:

- ☐ Male
- ☐ Female

S2. Which of the following categories includes your age?

- ☐ Under 18 **[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

S3. Which of the following best describes your residence?

- ☐ I own my home
- ☐ I rent my home
- ☐ Neither **[END SURVEY]**

S4. Do you live in the state of Virginia?

- ☐ Yes
- ☐ No **[END SURVEY]**



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

- ☐ Alexandria
- ☐ Arlington
- ☐ Dumfries
- ☐ Fairfax (city of)
- ☐ Fairfax (county of)
- ☐ Falls Church
- ☐ Herndon
- ☐ Leesburg
- ☐ Loudoun County
- ☐ Manassas
- ☐ Manassas Park
- ☐ Prince William County
- ☐ Vienna
- ☐ None of the above **[END SURVEY]**

S6. Which of the following describes your ethnicity? (Please select all that apply)

- ☐ African American / Black
- ☐ American Indian / Alaska Native
- ☐ Asian
- ☐ Hispanic / Latino
- ☐ Native Hawaiian / Pacific Islander
- ☐ White / Caucasian
- ☐ Other: \_\_\_\_\_



Q1. For how many years have you lived in your current residence?

- ☐ Less than 1 year
- ☐ 1 to 3 years
- ☐ 4 to 9 years
- ☐ 10 to 19 years
- ☐ 20 or more years

Q2. Do you live within the Potomac River Watershed?

- ☐ Yes
- ☐ No
- ☐ Not Sure
- ☐ I do not know what a “watershed” is

Q3. "Storm water" is rain or other water that flows into the street, along the gutter and into the storm drain. To the best of your knowledge, where do you believe storm water eventually ends up?

- ☐ At a waste water treatment facility
- ☐ Potomac River or Chesapeake Bay
- ☐ Don't know
- ☐ Other:\_\_\_\_\_

Q4. Do you (or does another person in your household) have a dog?

- ☐ Yes **[CONTINUE WITH Q5]**
- ☐ No **[SKIP TO Q8]**

Q5. When taking your dog(s) for a walk, how often do you pick up after your dog(s)?

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



Q6. How often do you (or does someone else from your household) remove dog waste from your yard?

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

**[SKIP OVER Q7 IF NEVER OR NOT APPLICABLE IN BOTH Q5 and Q6]**

Q7. What is the most important reason to pick up after your dog(s)? (Please select only one)

- ☐ 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

Q8. Does your home have a lawn or garden?

- ☐ Yes **[CONTINUE WITH Q9]**
- ☐ No **[SKIP TO Q16]**

Q9. Are you the primary person who takes care of the lawn or garden, or are you familiar with the practices used for your garden or lawn?

- ☐ Yes **[CONTINUE WITH Q10]**
- ☐ No **[SKIP TO Q16]**



Q10. What do you do with grass clippings from your lawn or garden?

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

Q11. After you cut your grass, if grass clippings end up in the street, do you:

- ☐ Leave them there
- ☐ Sweep them up or blow them back into the lawn
- ☐ Sweep or blow them into the storm drain
- ☐ Not applicable / don't have grass clippings
- ☐ Other: \_\_\_\_\_

Q12. Which of the following best describes how often you fertilize your lawn?

- ☐ Once a year in the spring
- ☐ Once a year in the summer
- ☐ Once a year in the fall
- ☐ Twice a year
- ☐ Three times a year
- ☐ Four or more times a year
- ☐ Never
- ☐ I have a lawn care service fertilize my yard
- ☐ I only fertilize if a soil test indicates the grass needs fertilizer



Q13. 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 best describe your level of familiarity with rain barrels? [Allow multi-select]

- ☐ I have heard of rain barrels
- ☐ I have seen rain barrels in my neighborhood
- ☐ I am interested in getting a rain barrel
- ☐ I have a rain barrel
- ☐ I have never heard of a rain barrel until now.

Q14. A rain garden is a bowl shaped garden area where runoff can collect and soak into the ground. Which of the following best describe your level of familiarity with rain gardens? [Allow multi-select]

- ☐ I have heard of rain gardens
- ☐ I have seen rain gardens in my neighborhood
- ☐ I am interested in installing a rain garden in my yard
- ☐ I have a rain garden
- ☐ I have never heard of a rain garden until now.

Q15. Conservation landscaping is replacing an area of lawn or bare soil in your yard with native plants. Which of the following best describe your level of familiarity with conservation landscaping? [Allow multi-select]

- ☐ I have heard of conservation landscaping
- ☐ I have seen conservation landscaping in my neighborhood
- ☐ I am interested in installing conservation landscaping in my yard
- ☐ I have conservation landscapes in my yard
- ☐ I have never heard of conservation landscaping until now.

Q16. When you need to change the oil in your car or truck, what do you do with the old motor oil?

- ☐ I don't change the oil myself / I take it to a garage / oil change service
- ☐ Take the old motor oil to a gas station or 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
- ☐ I dump it on the ground
- ☐ I don't own a car or truck
- ☐ Other: \_\_\_\_\_



Q17. Are you aware of whether 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.

- ☐ Yes
- ☐ No / not sure

Q18. Do you wash your car / truck at home?

- ☐ Yes
- ☐ No, I don't wash my car
- ☐ No, I don't wash it at home because I use a commercial car wash
- ☐ I don't own a car

Q19. [If yes to Q18] How often do you wash your car / truck at home?

- ☐ Less than once a year
- ☐ Once a year
- ☐ Twice a year
- ☐ A few times a year
- ☐ Every other month
- ☐ Once a month
- ☐ Multiple times a month
- ☐ Once a week or more often

Q20. [If yes to Q18] When you wash your car / truck at home, which of the following apply?

- ☐ I try to wash on the grass or other surface that absorbs water
- ☐ I use environmentally friendly detergent
- ☐ I don't use any detergent – use water only
- ☐ None of the above



Q21. Looking at the pictures below, would you consider this to be a potential source of water pollution?

- ☐ Yes
- ☐ No
- ☐ Not sure



Q22. What is the likelihood that you would call county or town officials to report potential pollution so they could investigate the cause?

- ☐ Definitely would
- ☐ Probably would
- ☐ Might or might not
- ☐ Probably not
- ☐ Definitely not



Q23. How confident are you that you would know where to report potential water pollution?

- ☐ Very confident
- ☐ Somewhat confident
- ☐ Not very confident
- ☐ Not at all confident

Q24. What TV service provider do you use? [RANDOMIZE]

- ☐ Verizon
- ☐ Comcast
- ☐ Cox
- ☐ Direct TV
- ☐ Dish Network
- ☐ Xfinity
- ☐ Do not have cable TV
- ☐ Do not watch TV
- ☐ Other: \_\_\_\_\_

Q25. Which of the following channels, if any, do you watch? [RANDOMIZE]

- ☐ HLN TV
- ☐ Oxygen
- ☐ Toon
- ☐ ENT
- ☐ Animal Planet
- ☐ CNN
- ☐ ESPN
- ☐ History
- ☐ National Geographic
- ☐ Home and Garden
- ☐ None of the above



Q26. 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.?

- ☐ Yes
- ☐ No / not sure

Q27. [IF YES IN Q26] 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.?

- ☐ Yes
- ☐ No

Q28. Please watch the video below. Before this survey, had you seen this ad, or a similar one on TV, Facebook, or Twitter about reducing water pollution?

- ☐ Yes **[CONTINUE WITH Q29]**
- ☐ No **[SKIP TO Q30]**
- ☐ Not sure **[SKIP TO Q30]**

Q29. Did seeing the ad(s) about reducing water pollution make you change any of your behaviors related to fertilizing less often and/or reducing water pollution?  
(Select all that apply)

- ☐ Yes, I now pick up pet waste more often
- ☐ Yes, I now plan to fertilize fewer times during the year
- ☐ Yes, I now properly dispose of motor oil
- ☐ I was already doing what is recommend to reduce water pollution
- ☐ None of the above applies to me





Q30. Have you seen the logo above anywhere? (Show Only Rain logo)

- ☐ Yes
- ☐ No

Q31. Regardless of whether you have seen that specific ad or logo, have you seen or received information about reducing water pollution from any source in the past 12 months?

- ☐ Yes
- ☐ No
- ☐ Not sure



**General VPDES Permit for  
Small Municipal Separate Storm Sewer Systems  
Permit No. VAR040057**

Year 4 Annual Report  
July 1, 2021 – June 30, 2022  
City of Alexandria, Virginia

**Appendix B (*Hyperlinks are Provided*)  
Minimum Control Measure #2, Public Involvement and Participation**

1. [City's Webpage for Alex311](#)
2. [City's Webpage with MS4 Program Plan and Annual Report](#)
3. [City's Webpage for the One Water Partnership](#)
4. [City's Webpage for Earth Day](#)



**General VPDES Permit for  
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**Appendix C (*Hyperlinks are Provided for Some Materials*)  
Minimum Control Measure #3, Illegal Discharge Detection and Elimination**

1. MS4 Outfalls Map, September 2019
2. MS4 Outfalls Table
3. Notice of Potential Interconnections (2009) and Resent 2020
4. Illicit Discharges to the MS4
5. Illicit Discharge Complaints
6. Outfall Inspections
7. EnerGov Code Case Search
8. Alex311 Web-based Form
9. CityWorks
10. [City's Household Hazardous Waste webpage](#)
11. State Permitted Discharges Map
12. State Permitted Discharges Table
13. Conditions Regarding Cooking Residue

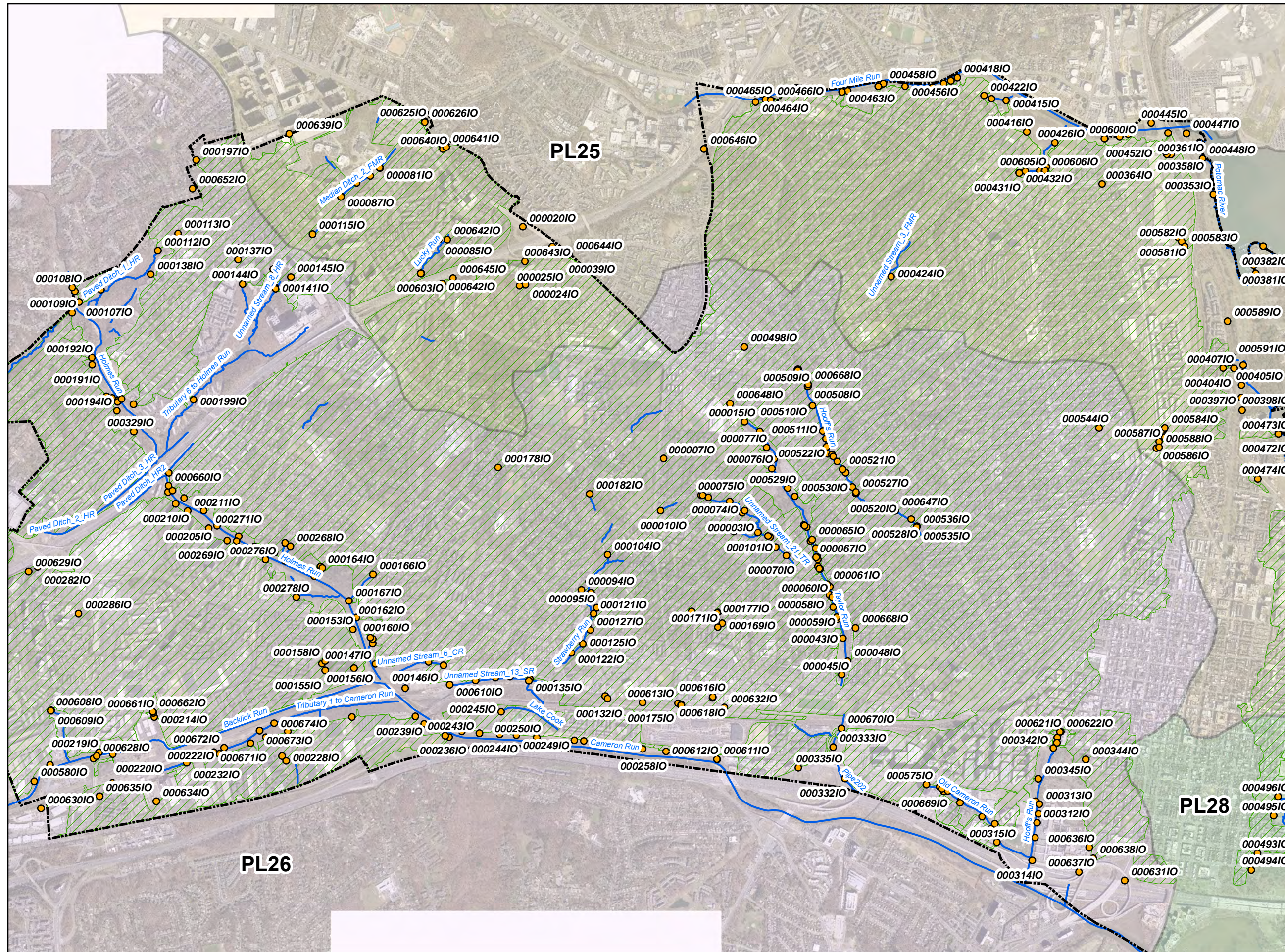




# City of Alexandria Storm Sewer System Outfall Map

## Legend

- Outfall\_Points
- City Boundary Line
- MS4\_Area
- VA\_HUC12
- HUC
  - PL25
  - PL26
  - PL28



September 2019





City of Alexandria  
Outfall and Point of Discharge Table

| Outfall ID | Estimated MS4 Acreage Served (acres) | Receiving Water | Ultimate Receiving Water             | Ultimate Receiving Water Impairment | TMDLs   | Type    | HUC  | Latitude Decimal Degrees | Longitude Decimal Degrees |
|------------|--------------------------------------|-----------------|--------------------------------------|-------------------------------------|---------|---------|------|--------------------------|---------------------------|
| 000001IO   | 7.90                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11886440.46              | 6984163.82                |
| 000002IO   | 14.09                                | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11887433.77              | 6985111.699               |
| 000003IO   | 7.70                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11886723.66              | 6983909.517               |
| 000004IO   | 6.85                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11886768.19              | 6983959.464               |
| 000005IO   | 9.26                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11886527.7               | 6983494.552               |
| 000008IO   | 5.16                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11885959.42              | 6984253.376               |
| 000010IO   | 28.90                                | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11884893.22              | 6983957.149               |
| 000015IO   | 266.25                               | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11886772.62              | 6985948.308               |
| 000016IO   | 11.07                                | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11887114.73              | 6985732.021               |
| 000017IO   | 6.37                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11887237.89              | 6985607.025               |
| 000041IO   | 31.82                                | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11888852.69              | 6981534.963               |
| 000042IO   | 0.61                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11888839.71              | 6981576.72                |
| 000043IO   | 3.33                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11888978.05              | 6981101.434               |
| 000044IO   | 22.58                                | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11889063.01              | 6981533.091               |
| 000045IO   | 6.38                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11888946.51              | 6980279.499               |
| 000048IO   | 26.41                                | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11889082.33              | 6980591.082               |
| 000050IO   | 13.73                                | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11888159.24              | 6983592.744               |
| 000051IO   | 6.29                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11888369.04              | 6983123.82                |
| 000052IO   | 2.40                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11888399.7               | 6982932.266               |
| 000053IO   | 0.81                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11888415.94              | 6982864.731               |
| 000054IO   | 0.99                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11888419.47              | 6982706.854               |
| 000055IO   | 21.06                                | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11888460.54              | 6982655.803               |
| 000056IO   | 17.95                                | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11888447.75              | 6982658.441               |
| 000057IO   | 2.42                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11888681.1               | 6982256.677               |
| 000058IO   | 2.67                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11888674.7               | 6982076.896               |
| 000059IO   | 4.63                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11888760.68              | 6981795.462               |
| 000060IO   | 4.82                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11888738.67              | 6982030.953               |
| 000061IO   | 1.12                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11888613.22              | 6982314.863               |
| 000062IO   | 3.23                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11888098.71              | 6983638.702               |
| 000063IO   | 0.22                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11888118.97              | 6983622.493               |
| 000064IO   | 4.07                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11888245.47              | 6983276.601               |
| 000065IO   | 1.34                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11888285.14              | 6983309.497               |
| 000067IO   | 1.87                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11888375.89              | 6982913.114               |
| 000068IO   | 3.29                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11887349.24              | 6983366.923               |
| 000069IO   | 0.74                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11887298.84              | 6983388.581               |
| 000070IO   | 2.71                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11887704.72              | 6982949.739               |
| 000074IO   | 83.60                                | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11885800.97              | 6984307.115               |
| 000075IO   | 0.06                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11885834.11              | 6984309.427               |
| 000076IO   | 4.20                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11887379.89              | 6984905.205               |
| 000077IO   | 4.44                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11887269.74              | 6985371.613               |
| 000100IO   | 3.27                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11887473.68              | 6983140.415               |
| 000101IO   | 2.47                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11887067.13              | 6983467.829               |
| 000105IO   | 3.80                                 | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11871772.65              | 6988871.466               |
| 000106IO   | 2.40                                 | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11872351.47              | 6988913.388               |
| 000107IO   | 0.87                                 | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11871868.81              | 6988632.407               |



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|------------|--------------------------------------|-----------------|--------------------------------------|-------------------------------------|---------|----------------|------|--------------------------|---------------------------|
| 000108IO   | 0.77                                 | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11871717.05              | 6988957.849               |
| 000109IO   | 159.57                               | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11871709.92              | 6988392.875               |
| 000111IO   | 8.37                                 | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11872121.4               | 6987563.654               |
| 000112IO   | 16.55                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11873633.7               | 6989781.374               |
| 000116IO   | 24.22                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall - Pond | PL26 | 11875459.07              | 6989850.611               |
| 000137IO   | 2.90                                 | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall - Pond | PL26 | 11875428.37              | 6989580.595               |
| 000138IO   | 55.09                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11873477.22              | 6989249.213               |
| 000139IO   | 13.28                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall - Pond | PL26 | 11876210.96              | 6989363.584               |
| 000140IO   | 37.40                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11876260.94              | 6988957.362               |
| 000141IO   | 9.10                                 | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11876271.96              | 6988924.012               |
| 000144IO   | 39.84                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11875529                 | 6989042.071               |
| 000145IO   | 23.84                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall - Pond | PL26 | 11876612.34              | 6989189.499               |
| 000148IO   | 2.94                                 | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11878443.82              | 6980994.703               |
| 000149IO   | 174.71                               | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11878439.43              | 6981085.436               |
| 000150IO   | 1.58                                 | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11878394.06              | 6981111.526               |
| 000160IO   | 11.11                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11878082.06              | 6981564.146               |
| 000167IO   | 19.58                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11877911.78              | 6981936.063               |
| 000168IO   | 6.11                                 | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11877136.98              | 6982486.439               |
| 000187IO   | 57.70                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11872480.58              | 6986519.899               |
| 000188IO   | 0.17                                 | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11872719.14              | 6986432.001               |
| 000189IO   | 69.20                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11872727.84              | 6986390.825               |
| 000190IO   | 0.33                                 | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11872609.86              | 6986480.859               |
| 000191IO   | 19.25                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11872162.41              | 6987222.227               |
| 000192IO   | 5.80                                 | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11872157.94              | 6987385.018               |
| 000193IO   | 13.47                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11872820.91              | 6986465.417               |
| 000194IO   | 5.57                                 | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11872716.75              | 6986195.981               |
| 000196IO   | 28.38                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11873082.39              | 6986343.762               |
| 000199IO   | 24.17                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11874431.35              | 6986442.873               |
| 000205IO   | 3.16                                 | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11874958.15              | 6983625.44                |
| 000206IO   | 18.32                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11874658.4               | 6983959.895               |
| 000207IO   | 40.42                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11873856.13              | 6984375.101               |
| 000208IO   | 1.68                                 | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11873960.35              | 6984405.523               |
| 000209IO   | 15.57                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11874220.58              | 6984243.16                |
| 000210IO   | 3.01                                 | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11874028.17              | 6984111.987               |
| 000211IO   | 56.33                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11874299.01              | 6983950.406               |
| 000261IO   | 26.31                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11875441.23              | 6983386.159               |
| 000262IO   | 139.89                               | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11875796.74              | 6983158.759               |
| 000263IO   | 10.13                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11876249.98              | 6983015.281               |
| 000264IO   | 119.42                               | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11876474.07              | 6982840.734               |
| 000266IO   | 31.26                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11876489.67              | 6983233.711               |
| 000267IO   | 0.29                                 | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11876482.58              | 6983243.472               |
| 000268IO   | 85.06                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11876603.31              | 6983160.824               |
| 000269IO   | 43.84                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11875185.9               | 6983294.572               |
| 000270IO   | 8.91                                 | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11875394.33              | 6983279.187               |
| 000271IO   | 7.97                                 | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11874773.85              | 6983567.035               |



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|-----------------------|--------------------------------------|-----------------|--------------------------------------|-------------------------------------|---------|---------|------|--------------------------|---------------------------|
| 000274IO              | 1.36                                 | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11875664.7               | 6983084.295               |
| 000275IO              | 1.14                                 | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11875749.91              | 6983031.874               |
| 000276IO              | 6.01                                 | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11876040.87              | 6982862.205               |
| 000277IO              | 17.27                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11876358.23              | 6982198.8                 |
| 000278IO              | 3.31                                 | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11876731.02              | 6982030.494               |
| 000299IO              | 1.62                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11892314.2               | 6976838.147               |
| 000300IO              | 3.36                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11892091.22              | 6977100.812               |
| 000301IO              | 2.82                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11892488.42              | 6976728.197               |
| 000302IO              | 10.66                                | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11892373.97              | 6976944.812               |
| 000303IO              | 0.24                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11891237.48              | 6977672.186               |
| 000305IO              | 0.36                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11891328.29              | 6977688.155               |
| 000306IO              | 26.82                                | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11891627.92              | 6977488.735               |
| 000307IO              | 3.54                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11891596.3               | 6977417.922               |
| 000308IO              | 2.87                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11893291.47              | 6977448.84                |
| 000309IO              | 2.99                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11893279.27              | 6976636.308               |
| 000311IO              | 1.62                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11893358.07              | 6977170.991               |
| 000312IO              | 0.84                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11893321.63              | 6976970.877               |
| 000313IO              | 9.38                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11893377.67              | 6977385.415               |
| 000314IO              | 3.14                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11893216.82              | 6976125.102               |
| 000315IO              | 1.01                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11892427.5               | 6976535.047               |
| 000329IO              | 14.08                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11873089.95              | 6985731.367               |
| 000330IO              | 55.21                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11873471.42              | 6985145.152               |
| 000332IO              | 4.09                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11889021.66              | 6977964.611               |
| 000333IO              | 2.90                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11888756.38              | 6978667.449               |
| 000339IO              | 37.88                                | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11893835.8               | 6979007.152               |
| 000340IO              | 1.41                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11893771.36              | 6978878.931               |
| 000341IO              | 10.25                                | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11893770.71              | 6978765.68                |
| 000342IO              | 25.08                                | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11893687.46              | 6978645.541               |
| 000343IO              | 1.26                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11891144.8               | 6977778.141               |
| 000345IO              | 4.74                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11893347.93              | 6977952.632               |
| 000477IO              | 23.84                                | Potomac River   | Potomac River                        | Yes                                 | PCBs    | Outfall | PL28 | 11899425.95              | 6980856.343               |
| 000499IO              | 119.75                               | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11887957.9               | 6987122.845               |
| 000500IO              | 13.08                                | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11887977.39              | 6987119.421               |
| 000501IO              | 0.02                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11887985.29              | 6987106.255               |
| 000503IO              | 0.16                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11887961.33              | 6987104.763               |
| 000509IO              | 0.07                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11888189.54              | 6986745.918               |
| 000510IO              | 14.54                                | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11888289.4               | 6986308.817               |
| 000511IO              | 6.78                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11888524.98              | 6985738.758               |
| 000512IO              | 1.76                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11888635.96              | 6985228.64                |
| 000513IO              | 4.14                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11888607.65              | 6985390.952               |
| 000514IO and 000516IO | 1.94                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11888733.03              | 6985216.088               |
| 000517IO              | 1.80                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11888852.75              | 6985058.527               |
| 000518IO              | 13.55                                | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11889036.06              | 6984809.284               |
| 000519IO              | 3.38                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall | PL26 | 11889194.24              | 6984492.096               |



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|-----------------------|--------------------------------------|-----------------|--------------------------------------|-------------------------------------|---------|----------------|------|--------------------------|---------------------------|
| 000520IO              | 2.29                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11889264.36              | 6984339.698               |
| 000521IO              | 10.49                                | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11888973.7               | 6984889.746               |
| 000522IO              | 3.85                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11888592.34              | 6985576.612               |
| 000527IO              | 35.68                                | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11889265.48              | 6984379.21                |
| 000528IO              | 4.07                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11890503.11              | 6983766.34                |
| 000529IO              | 4.09                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11887734.92              | 6984458.919               |
| 000530IO              | 6.09                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11887900.99              | 6984281.077               |
| 000535IO              | 2.15                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11890630.67              | 6983613.107               |
| 000536IO              | 1.78                                 | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11890625.82              | 6983589.708               |
| 000575IO              | 65.70                                | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11890841.65              | 6977825.425               |
| 000153IO              | 0.33                                 | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11878002.88              | 6981297.641               |
| 000154IO              | 2.46                                 | Backlick Run    | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall - Pond | PL26 | 11878024.15              | 6980434.469               |
| 000155IO              | 2.50                                 | Backlick Run    | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall - Pond | PL26 | 11877378.05              | 6980380.58                |
| 000156IO              | 83.46                                | Backlick Run    | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall - Pond | PL26 | 11877308.78              | 6980532.431               |
| 000158IO              | 45.60                                | Backlick Run    | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall - Pond | PL26 | 11877375.12              | 6980585.74                |
| 000162IO              | 49.51                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11877978.71              | 6981527.501               |
| 000213IO              | 13.67                                | Backlick Run    | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11873099.89              | 6978734.989               |
| 000214IO              | 1.19                                 | Backlick Run    | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11873553.67              | 6979339.892               |
| 000216IO              | 36.85                                | Backlick Run    | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11871219.53              | 6978269.913               |
| 000218IO              | 0.65                                 | Backlick Run    | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11872192.49              | 6978410.296               |
| 000219IO              | 0.42                                 | Backlick Run    | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11872310.74              | 6978543.623               |
| 000220IO              | 1.82                                 | Backlick Run    | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11872625.8               | 6978511.084               |
| 000279IO              | 21.82                                | Backlick Run    | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11873428.97              | 6979692.276               |
| 000608IO and 000609IO | 216.50                               | Backlick Run    | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11871233.5               | 6979481.27                |
| 000580IO              | 5.41                                 | Backlick Run    | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11870862.82              | 6977900.473               |
| 000146IO              | 143.67                               | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11880028.61              | 6980493.867               |
| 000147IO              | 11.38                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11878503.95              | 6980523.88                |
| 000159IO              | 24.73                                | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11879694.56              | 6980577.07                |
| 000098IO              | 77.58                                | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall - Pond | PL26 | 11886181.22              | 6981682.23                |
| 000099IO              | 4.21                                 | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall - Pond | PL26 | 11886160.13              | 6981666.553               |
| 000151IO              | 2.58                                 | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11879169.15              | 6979988.369               |
| 000171IO              | 1.13                                 | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall - Pond | PL26 | 11886177.99              | 6981349.272               |
| 000175IO              | 5.45                                 | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11885280.29              | 6979647.181               |
| 000177IO              | 9.62                                 | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall - Pond | PL26 | 11886138.29              | 6981566.832               |
| 000222IO              | 119.14                               | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11875007.37              | 6978513.511               |
| 000223IO              | 5.29                                 | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11875712.95              | 6978751.43                |
| 000225IO              | 28.59                                | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11876049.89              | 6978885.445               |
| 000230IO              | 221.93                               | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11876542.26              | 6979011.289               |
| 000232IO              | 21.18                                | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11874274.07              | 6978307.225               |
| 000233IO              | 15.75                                | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11877981.82              | 6979339.378               |
| 000234IO              | 0.42                                 | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11880444.26              | 6979011.491               |
| 000235IO              | 11.25                                | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11880161.03              | 6978883.289               |
| 000236IO              | 3.12                                 | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11880066.59              | 6978921.541               |
| 000237IO              | 7.83                                 | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11879597.06              | 6979186.565               |



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|------------------------------|--------------------------------------|-----------------|--------------------------------------|-------------------------------------|---------|----------------|------|--------------------------|---------------------------|
| 000239IO                     | 22.06                                | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11879399.17              | 6979351.053               |
| 000242IO                     | 78.63                                | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11877266.2               | 6979195.948               |
| 000243IO                     | 0.65                                 | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11880835.6               | 6978979.844               |
| 000244IO                     | 0.57                                 | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11881283.49              | 6978950.336               |
| 000245IO                     | 14.93                                | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall - Pond | PL26 | 11881322.96              | 6979451.111               |
| 000247IO                     | 1.62                                 | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11883173.19              | 6978796.949               |
| 000248IO                     | 3.92                                 | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11882964.55              | 6978815.446               |
| 000249IO                     | 1.19                                 | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11881661.07              | 6978924.296               |
| 000250IO                     | 1.70                                 | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11882117.72              | 6978880.28                |
| 000251IO                     | 6.19                                 | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11883525.38              | 6978752.362               |
| 000257IO                     | 2.59                                 | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11885199.34              | 6978557.125               |
| 000258IO                     | 22.16                                | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11885013.64              | 6978565.314               |
| 000259IO                     | 4.07                                 | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11884485.44              | 6978625.494               |
| 000260IO                     | 0.84                                 | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11885358.9               | 6978545.929               |
| 000611IO and 000612IO        | 206.89                               | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11886156.54              | 6978395.62                |
| 000614IO and 000615IO        | 22.16                                | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11885351.2               | 6979617.37                |
| 000613IO                     | 50.79                                | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11884484.87              | 6979664.457               |
| 000023IO                     | 21.09                                | Four Mile Run   | Four Mile Run Tidal                  | Yes                                 | E. Coli | Outfall - Pond | PL25 | 11881862.88              | 6989104.991               |
| 000024IO                     | 1.83                                 | Four Mile Run   | Four Mile Run Tidal                  | Yes                                 | E. Coli | Outfall - Pond | PL25 | 11881871.58              | 6989023.44                |
| 000025IO                     | 27.84                                | Four Mile Run   | Four Mile Run Tidal                  | Yes                                 | E. Coli | Outfall - Pond | PL25 | 11881734.63              | 6988996.356               |
| 000294IO                     | 39.13                                | Four Mile Run   | Four Mile Run Tidal                  | Yes                                 | E. Coli | Outfall        | PL25 | 11879517.26              | 6989272.799               |
| 000295IO and 000603IO        | 171.04                               | Four Mile Run   | Four Mile Run Tidal                  | Yes                                 | E. Coli | Outfall        | PL25 | 11879527.29              | 6989274.32                |
| 000414IO                     | 0.63                                 | Four Mile Run   | Four Mile Run Tidal                  | Yes                                 | E. Coli | Outfall        | PL25 | 11892303.12              | 6993182.401               |
| 000415IO                     | 7.10                                 | Four Mile Run   | Four Mile Run Tidal                  | Yes                                 | E. Coli | Outfall        | PL25 | 11892632.15              | 6993149.696               |
| 000416IO                     | 12.84                                | Four Mile Run   | Four Mile Run Tidal                  | Yes                                 | E. Coli | Outfall        | PL25 | 11893091.67              | 6992445.754               |
| 000417IO                     | 130.16                               | Four Mile Run   | Four Mile Run Tidal                  | Yes                                 | E. Coli | Outfall        | PL25 | 11891391.27              | 6993589.596               |
| 000418IO                     | 1.76                                 | Four Mile Run   | Four Mile Run Tidal                  | Yes                                 | E. Coli | Outfall        | PL25 | 11891536.69              | 6993657.921               |
| 000419IO                     | 1.03                                 | Four Mile Run   | Four Mile Run Tidal                  | Yes                                 | E. Coli | Outfall        | PL25 | 11891232.3               | 6993525.851               |
| 000420IO                     | 1.69                                 | Four Mile Run   | Four Mile Run Tidal                  | Yes                                 | E. Coli | Outfall        | PL25 | 11890977.69              | 6993440.809               |
| 000422IO                     | 44.28                                | Four Mile Run   | Four Mile Run Tidal                  | Yes                                 | E. Coli | Outfall        | PL25 | 11892133.87              | 6993252.545               |
| 000423IO                     | 1.32                                 | Four Mile Run   | Four Mile Run Tidal                  | Yes                                 | E. Coli | Outfall        | PL25 | 11893066.17              | 6991568.178               |
| 000424IO                     | 49.26                                | Four Mile Run   | Four Mile Run Tidal                  | Yes                                 | E. Coli | Outfall        | PL25 | 11890056.31              | 6989201.547               |
| 000426IO                     | 14.24                                | Four Mile Run   | Four Mile Run Tidal                  | Yes                                 | E. Coli | Outfall        | PL25 | 11893722.17              | 6992206.379               |
| 000427IO                     | 1.94                                 | Four Mile Run   | Four Mile Run Tidal                  | Yes                                 | E. Coli | Outfall        | PL25 | 11893389.3               | 6991573.821               |
| 000428IO                     | 4.81                                 | Four Mile Run   | Four Mile Run Tidal                  | Yes                                 | E. Coli | Outfall        | PL25 | 11893386.94              | 6991574.315               |
| 000429IO, 000605IO, 000606IO | 283.12                               | Four Mile Run   | Four Mile Run Tidal                  | Yes                                 | E. Coli | Outfall        | PL25 | 11893493.05              | 6991573.139               |
| 000430IO                     | 0.78                                 | Four Mile Run   | Four Mile Run Tidal                  | Yes                                 | E. Coli | Outfall        | PL25 | 11893527.94              | 6991655.21                |
| 000431IO and 000432IO        | 175.23                               | Four Mile Run   | Four Mile Run Tidal                  | Yes                                 | E. Coli | Outfall        | PL25 | 11892922.94              | 6991532.446               |
| 000450IO                     | 9.19                                 | Four Mile Run   | Four Mile Run Tidal                  | Yes                                 | E. Coli | Outfall        | PL25 | 11895169.35              | 6992340.963               |
| 000451IO                     | 6.05                                 | Four Mile Run   | Four Mile Run Tidal                  | Yes                                 | E. Coli | Outfall        | PL25 | 11895361.1               | 6992393.396               |



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|-----------------------|--------------------------------------|-----------------|--------------------------|-------------------------------------|---------|----------------|------|--------------------------|---------------------------|
| 000452IO and 000600IO | 19.11                                | Four Mile Run   | Four Mile Run Tidal      | Yes                                 | E. Coli | Outfall        | PL25 | 11894838.04              | 6992290.594               |
| 000454IO              | 127.67                               | Four Mile Run   | Four Mile Run Tidal      | Yes                                 | E. Coli | Outfall        | PL25 | 11887681.57              | 6993316.229               |
| 000456IO              | 55.74                                | Four Mile Run   | Four Mile Run Tidal      | Yes                                 | E. Coli | Outfall        | PL25 | 11890367.89              | 6993456.194               |
| 000457IO              | 0.13                                 | Four Mile Run   | Four Mile Run Tidal      | Yes                                 | E. Coli | Outfall        | PL25 | 11889812.16              | 6993494.613               |
| 000458IO              | 0.62                                 | Four Mile Run   | Four Mile Run Tidal      | Yes                                 | E. Coli | Outfall        | PL25 | 11889878.84              | 6993519.764               |
| 000459IO              | 1.91                                 | Four Mile Run   | Four Mile Run Tidal      | Yes                                 | E. Coli | Outfall        | PL25 | 11889767.66              | 6993458.942               |
| 000460IO              | 6.74                                 | Four Mile Run   | Four Mile Run Tidal      | Yes                                 | E. Coli | Outfall        | PL25 | 11889087.66              | 6993356.607               |
| 000461IO              | 1.74                                 | Four Mile Run   | Four Mile Run Tidal      | Yes                                 | E. Coli | Outfall        | PL25 | 11888131.58              | 6993375.136               |
| 000462IO              | 1.06                                 | Four Mile Run   | Four Mile Run Tidal      | Yes                                 | E. Coli | Outfall        | PL25 | 11888229.8               | 6993334.763               |
| 000463IO              | 19.80                                | Four Mile Run   | Four Mile Run Tidal      | Yes                                 | E. Coli | Outfall        | PL25 | 11888959.42              | 6993335.478               |
| 000464IO              | 1.25                                 | Four Mile Run   | Four Mile Run Tidal      | Yes                                 | E. Coli | Outfall        | PL25 | 11887016.52              | 6993114.02                |
| 000465IO              | 58.18                                | Four Mile Run   | Four Mile Run Tidal      | Yes                                 | E. Coli | Outfall        | PL25 | 11887236.44              | 6993171.464               |
| 000466IO              | 0.74                                 | Four Mile Run   | Four Mile Run Tidal      | Yes                                 | E. Coli | Outfall        | PL25 | 11887363.62              | 6993154.696               |
| 000079IO              | 0.23                                 | Four Mile Run   | Four Mile Run Tidal      | Yes                                 | E. Coli | Outfall        | PL25 | 11878392.77              | 6991456.818               |
| 000011IO              | 10.80                                | Four Mile Run   | Four Mile Run Tidal      | Yes                                 | E. Coli | Outfall        | PL25 | 11878084.23              | 6991300.581               |
| 000084IO              | 39.42                                | Four Mile Run   | Four Mile Run Tidal      | Yes                                 | E. Coli | Outfall        | PL25 | 11877732.58              | 6990995.936               |
| 000087IO              | 28.12                                | Four Mile Run   | Four Mile Run Tidal      | Yes                                 | E. Coli | Outfall        | PL25 | 11877733.56              | 6990992.406               |
| 000353IO              | 6.05                                 | Potomac River   | Potomac River            | Yes                                 | PCBs    | Outfall        | PL28 | 11897269.55              | 6991045.02                |
| 000361IO              | 214.12                               | Potomac River   | Potomac River            | Yes                                 | PCBs    | Outfall        | PL28 | 11896259.78              | 6992413.289               |
| 000379IO              | 1.88                                 | Potomac River   | Potomac River            | Yes                                 | PCBs    | Outfall        | PL28 | 11898226.43              | 6989274.819               |
| 000381IO              | 2.88                                 | Potomac River   | Potomac River            | Yes                                 | PCBs    | Outfall        | PL28 | 11898173.26              | 6989458.104               |
| 000382IO              | 1.76                                 | Potomac River   | Potomac River            | Yes                                 | PCBs    | Outfall        | PL28 | 11898387.87              | 6989880.871               |
| 000396IO              | 1.16                                 | Potomac River   | Potomac River            | Yes                                 | PCBs    | Outfall        | PL28 | 11897918.7               | 6986205.557               |
| 000397IO              | 2.50                                 | Potomac River   | Potomac River            | Yes                                 | PCBs    | Outfall        | PL28 | 11897899.31              | 6986492.831               |
| 000398IO              | 1.44                                 | Potomac River   | Potomac River            | Yes                                 | PCBs    | Outfall        | PL28 | 11897905                 | 6986765.268               |
| 000402IO              | 0.36                                 | Potomac River   | Potomac River            | Yes                                 | PCBs    | Outfall        | PL28 | 11897936.5               | 6987212.757               |
| 000403IO              | 0.51                                 | Potomac River   | Potomac River            | Yes                                 | PCBs    | Outfall        | PL28 | 11897929.62              | 6987038.286               |
| 000404IO              | 6.95                                 | Potomac River   | Potomac River            | Yes                                 | PCBs    | Outfall        | PL28 | 11897735.5               | 6987146.48                |
| 000405IO              | 50.89                                | Potomac River   | Potomac River            | Yes                                 | PCBs    | Outfall        | PL28 | 11897635.48              | 6987281.737               |
| 000406IO              | 7.82                                 | Potomac River   | Potomac River            | Yes                                 | PCBs    | Outfall - Pond | PL28 | 11897538.98              | 6987335.751               |
| 000407IO              | 49.56                                | Potomac River   | Potomac River            | Yes                                 | PCBs    | Outfall - Pond | PL28 | 11897493.34              | 6987153.774               |
| 000447IO              | 0.95                                 | Potomac River   | Potomac River            | Yes                                 | PCBs    | Outfall        | PL28 | 11896671.66              | 6992411.516               |
| 000448IO              | 0.11                                 | Potomac River   | Potomac River            | Yes                                 | PCBs    | Outfall        | PL28 | 11897034.41              | 6991838.966               |
| 000469IO              | 7.78                                 | Potomac River   | Potomac River            | Yes                                 | PCBs    | Outfall        | PL28 | 11899598.7               | 6982537.477               |
| 000470IO              | 8.51                                 | Potomac River   | Potomac River            | Yes                                 | PCBs    | Outfall        | PL28 | 11899274.57              | 6982030.579               |
| 000471IO              | 16.87                                | Potomac River   | Potomac River            | Yes                                 | PCBs    | Outfall        | PL28 | 11899346.02              | 6983582.765               |
| 000472IO              | 4.54                                 | Potomac River   | Potomac River            | Yes                                 | PCBs    | Outfall        | PL28 | 11898724.86              | 6985681.776               |
| 000473IO              | 0.14                                 | Potomac River   | Potomac River            | Yes                                 | PCBs    | Outfall        | PL28 | 11898729.15              | 6985674.047               |
| 000475IO              | 0.53                                 | Potomac River   | Potomac River            | Yes                                 | PCBs    | Outfall        | PL28 | 11899632.92              | 6982943.543               |
| 000476IO              | 1.29                                 | Potomac River   | Potomac River            | Yes                                 | PCBs    | Outfall        | PL28 | 11899447.45              | 6982756.021               |
| 000478IO              | 1.21                                 | Potomac River   | Potomac River            | Yes                                 | PCBs    | Outfall        | PL28 | 11899164.11              | 6981353.557               |
| 000479IO              | 9.59                                 | Potomac River   | Potomac River            | Yes                                 | PCBs    | Outfall        | PL28 | 11899211.91              | 6980033.524               |
| 000480IO              | 4.59                                 | Potomac River   | Potomac River            | Yes                                 | PCBs    | Outfall        | PL28 | 11899106.9               | 6981429.171               |
| 000481IO              | 3.76                                 | Potomac River   | Potomac River            | Yes                                 | PCBs    | Outfall        | PL28 | 11899090.24              | 6981596.498               |



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|-----------------------|--------------------------------------|-----------------|--------------------------------------|-------------------------------------|---------|----------------|------|--------------------------|---------------------------|
| 000482IO              | 1.18                                 | Potomac River   | Potomac River                        | Yes                                 | PCBs    | Outfall        | PL28 | 11899118.54              | 6977767.156               |
| 000483IO              | 6.03                                 | Potomac River   | Potomac River                        | Yes                                 | PCBs    | Outfall        | PL28 | 11899107                 | 6977958.021               |
| 000484IO              | 6.55                                 | Potomac River   | Potomac River                        | Yes                                 | PCBs    | Outfall        | PL28 | 11899161.83              | 6978365.66                |
| 000485IO              | 0.21                                 | Potomac River   | Potomac River                        | Yes                                 | PCBs    | Outfall        | PL28 | 11899176.78              | 6978428.621               |
| 000486IO              | 5.43                                 | Potomac River   | Potomac River                        | Yes                                 | PCBs    | Outfall        | PL28 | 11899253.3               | 6978787.148               |
| 000487IO              | 19.40                                | Potomac River   | Potomac River                        | Yes                                 | PCBs    | Outfall        | PL28 | 11899201.25              | 6979183.219               |
| 000489IO              | 8.91                                 | Potomac River   | Potomac River                        | Yes                                 | PCBs    | Outfall        | PL28 | 11899232.88              | 6979594.487               |
| 000491IO              | 7.57                                 | Potomac River   | Potomac River                        | Yes                                 | PCBs    | Outfall        | PL28 | 11899003.88              | 6976613.722               |
| 000493IO              | 1.49                                 | Potomac River   | Potomac River                        | Yes                                 | PCBs    | Outfall        | PL28 | 11898260.33              | 6976296.936               |
| 000494IO              | 2.18                                 | Potomac River   | Potomac River                        | Yes                                 | PCBs    | Outfall        | PL28 | 11898120.95              | 6975913.388               |
| 000495IO              | 18.56                                | Potomac River   | Potomac River                        | Yes                                 | PCBs    | Outfall        | PL28 | 11898622.46              | 6977129.506               |
| 000495IO and 000496IO | 6.00                                 | Potomac River   | Potomac River                        | Yes                                 | PCBs    | Outfall        | PL28 | 11898722.45              | 6977560.075               |
| 000092IO              | 96.39                                | Strawberry Run  | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11883287.15              | 6982366.915               |
| 000093IO              | 7.97                                 | Strawberry Run  | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11883326.8               | 6982117.109               |
| 000094IO              | 17.66                                | Strawberry Run  | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11883116.46              | 6982186.014               |
| 000095IO              | 2.77                                 | Strawberry Run  | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11883467.54              | 6981784.938               |
| 000104IO              | 39.49                                | Strawberry Run  | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11883709.61              | 6982971.088               |
| 000119IO              | 56.24                                | Strawberry Run  | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11882579.12              | 6980036.325               |
| 000120IO              | 3.64                                 | Strawberry Run  | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11882545.18              | 6980074.069               |
| 000124IO              | 2.60                                 | Strawberry Run  | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11883256.09              | 6981387.195               |
| 000127IO              | 5.10                                 | Strawberry Run  | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11883313.69              | 6981285.708               |
| 000128IO              | 1.17                                 | Strawberry Run  | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11881967.95              | 6980192.612               |
| 000130IO              | 7.41                                 | Strawberry Run  | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11881517.46              | 6980244.8                 |
| 000133IO              | 9.67                                 | Strawberry Run  | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11880744.71              | 6980158.563               |
| 000134IO              | 23.41                                | Strawberry Run  | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11881196.01              | 6980229.609               |
| 000135IO              | 8.73                                 | Strawberry Run  | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11881936.87              | 6980148.008               |
| 000610IO              | 5.28                                 | Strawberry Run  | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11880163.71              | 6980062.784               |
| 000586IO              | 1.44                                 | Potomac River   | Potomac River                        | Yes                                 | PCBs    | Outfall - Pond | PL28 | 11895991.98              | 6985357.602               |
| 000588IO              | 30.32                                | Potomac River   | Potomac River                        | Yes                                 | PCBs    | Outfall - Pond | PL28 | 11896057.16              | 6985376.432               |
| 000589IO              | 51.55                                | Potomac River   | Potomac River                        | Yes                                 | PCBs    | Outfall        | PL28 | 11897592.62              | 6988200.249               |
| 000591IO              | 19.51                                | Potomac River   | Potomac River                        | Yes                                 | PCBs    | Outfall        | PL28 | 11897701.93              | 6987397.715               |
| 000592IO              | 5.97                                 | Potomac River   | Potomac River                        | Yes                                 | PCBs    | Outfall        | PL28 | 11899348.09              | 6980443.038               |
| 000121IO              | 13.49                                | Strawberry Run  |                                      |                                     |         | Outfall        | PL26 | 11883394.31              | 6981652.8                 |
| 000621IO and 000622IO | 1291.70                              | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11893852.18              | 6979004.593               |
| 000624IO              | 11.33                                | Cameron Run     | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11883917.66              | 6978699.662               |
| 000628IO              | 94.19                                | Backlick Run    | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11872259.35              | 6978466.72                |
| 000642IO              | 61.75                                | Four Mile Run   | Four Mile Run Tidal                  | Yes                                 | E. Coli | Outfall - Pond | PL25 | 11880117.33              | 6990035.114               |
| 000647IO              | 80.76                                | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11873876.92              | 6984802.006               |
| 000647IO              | 80.76                                | Hooffs Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11890149.55              | 6983954.071               |
| 000660IO              | 2.20                                 | Holmes Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11873868.37              | 6984516.587               |
| 000661IO              | 52.89                                | Backlick Run    | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11873534                 | 6979431.994               |
| 000662IO              | 7.93                                 | Backlick Run    | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11873518.87              | 6979455.317               |
| 000668IO              | 5.46                                 | Taylor Run      | Hunting Creek/Cameron Run/Holmes Run | Yes                                 | E. Coli | Outfall        | PL26 | 11889255.88              | 6981334.995               |





## *City of Alexandria*

Department of Transportation and Environmental Services  
Office of Environmental Quality  
301 King Street  
City Hall, Room 3000  
Alexandria, VA 22314  
[www.alexandriava.gov/Environment](http://www.alexandriava.gov/Environment)

July 15, 2009

Gayle England  
Stormwater Specialist  
Department of Environmental Services  
Arlington County, Virginia

DELIVERED VIA EMAIL: [Gengland@arlingtonva.us](mailto:Gengland@arlingtonva.us)

Subject: Notice of Potentially Interconnected Municipal Separate Storm Sewer System (MS4)

Attention: MS4 Permit Manager

The City of Alexandria operates as a Phase II MS4 community with coverage under the Virginia Stormwater Management Program (VSMP) General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (No. VAR 040057).

Pursuant to Section II.B.3.g of this permit, the City must "Notify, in writing, any downstream regulated MS4 to which the small regulated MS4 is physically interconnected of the small regulated MS4's connection to that system." This letter is to notify you of the potential for interconnections between the City's MS4 and the permitted stormwater system operated by Arlington County. Currently, we have not identified any points where the City's MS4 discharges stormwater into Arlington's regulated MS4; however, it is likely that interconnections exist.

As mentioned in our previous email correspondences and pursuant to Section II.B.3.b, the City is currently working on a mapping effort that will verify the "location of all known outfalls ...including those physically interconnected to a regulated MS4..." City GIS Staff will be contacting you very soon to share information in order to identify and map any interconnections that may exist between our regulated stormwater systems. The City is scheduled to provide this map with its Annual Report due no later than October 1, 2010 to DCR.

Best Regards,

A handwritten signature in black ink, appearing to read "Jesse E. Maines", is written over a faint, large circular watermark of the City of Alexandria seal.

Jesse E. Maines  
Water Quality Compliance Specialist  
703-746-4071  
[Jesse.maines@alexandriava.gov](mailto:Jesse.maines@alexandriava.gov)

Cc: Mary Beth Fletcher, GIS Mapping Center Bureau Chief, [mfletcher@arlingtonva.us](mailto:mfletcher@arlingtonva.us)



**Jessica Lassetter**

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**From:** Jessica Lassetter  
**Sent:** Thursday, July 30, 2020 9:42 AM  
**To:** 'Jason Papacosma (Jpapacosma@arlingtonva.us)'  
**Subject:** City of Alexandria Physical Interconnection  
**Attachments:** Arlington County 071509.pdf

Hi Jason –

I hope you are doing well.

The City of provided a letter on July 15, 2009, to Ms. Gayle England, to satisfy the requirements indicated in the MS4 General Permit pertaining to physical interconnections (see attached). This letter referenced a regional stormwater flow map which was produced in September 2010 and included in the City's 2010-2011 MS4 Annual Report. This letter also satisfies the requirements outlined in the 2018-2023 MS4 General Permit, Part I. E.3.a.(5).

Please maintain this email and attached document in your MS4 program files and let me know if you have any questions.

Thank you,

Jessica

Jessica E. B. Lassetter  
Senior Environmental Specialist/CE III  
City of Alexandria, Virginia  
T&ES Stormwater Management  
Office: 703.746.4127  
Cell: 703.915.5695  
alexandriava.gov





## *City of Alexandria*

Department of Transportation and Environmental Services  
Office of Environmental Quality  
301 King Street  
City Hall, Room 3000  
Alexandria, VA 22314  
[www.alexandriava.gov/Environment](http://www.alexandriava.gov/Environment)

July 15, 2009

Kate Bennett, MS4 Permit Coordinator  
Fairfax County Stormwater Planning Division  
10255 Fairfax County Parkway  
Fairfax, Virginia 22035

DELIVERED VIA EMAIL:

Subject: Notice of Potentially Interconnected Municipal Separate Storm Sewer System (MS4)

Attention: MS4 Permit Manager

The City of Alexandria operates as a Phase II MS4 community with coverage under the Virginia Stormwater Management Program (VSMP) General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (No. VAR 040057).

Pursuant to Section II.B.3.g of this permit, the City must "Notify, in writing, any downstream regulated MS4 to which the small regulated MS4 is physically interconnected of the small regulated MS4's connection to that system." This letter is to notify you of the potential for interconnections between the City's MS4 and the permitted stormwater system operated by Arlington County. Currently, we have not identified any points where the City's MS4 discharges stormwater into Arlington's regulated MS4; however, it is likely that interconnections exist.

As mentioned in our previous email correspondences and pursuant to Section II.B.3.b, the City is currently working on a mapping effort that will verify the "location of all known outfalls ...including those physically interconnected to a regulated MS4..." City GIS Staff will be contacting you very soon to share information in order to identify and map any interconnections that may exist between our regulated stormwater systems. The City is scheduled to provide this map with its Annual Report due no later than October 1, 2010 to DCR.

Best Regards,

A handwritten signature in black ink, appearing to read "Jesse E. Maines".

Jesse E. Maines  
Water Quality Compliance Specialist  
703-746-4071  
[Jesse.maines@alexandriava.gov](mailto:Jesse.maines@alexandriava.gov)

Cc: Mary Beth Fletcher, GIS Mapping Center Bureau Chief, [mfletcher@arlingtonva.us](mailto:mfletcher@arlingtonva.us)



## Jessica Lassetter

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**From:** Jessica Lassetter  
**Sent:** Thursday, July 30, 2020 9:41 AM  
**To:** Ambrose, Heather  
**Subject:** City of Alexandria Physical Interconnection  
**Attachments:** Fairfax County 071509.pdf

Hi Heather –

I hope you are doing well.

The City of provided a letter on July 15, 2009, to Ms. Kate Bennett, MS4 Permit Coordinator, Fairfax County Stormwater Planning Division, to satisfy the requirements indicated in the MS4 General Permit pertaining to physical interconnections (see attached). This letter referenced a regional stormwater flow map which was produced in September 2010 and included in the City's 2010-2011 MS4 Annual Report. This letter also satisfies the requirements outlined in the 2018-2023 MS4 General Permit, Part I. E.3.a.(5).

Please maintain this email and attached document in your MS4 program files and let me know if you have any questions.

Thank you,

Jessica

Jessica E. B. Lassetter  
Senior Environmental Specialist/CE III  
City of Alexandria, Virginia  
T&ES Stormwater Management  
Office: 703.746.4127  
Cell: 703.915.5695  
alexandriava.gov





## *City of Alexandria*

Department of Transportation and Environmental Services  
Stormwater Management Division  
2900-B Business Center Drive  
Alexandria, VA 22314

May 24, 2018

Brenda Wasler  
Environmental Protection Specialist  
National Park Service  
George Washington Memorial Parkway  
700 George Washington Memorial Parkway  
McLean, VA 22101

DELIVERED VIA EMAIL: [brenda\\_wasler@nps.gov](mailto:brenda_wasler@nps.gov)

Subject: Notice of Interconnected Municipal Separate Storm Sewer System (MS4)

Attention: MS4 Permit Manager

The City of Alexandria operates as a Phase II MS4 community with coverage under the Virginia Stormwater Management Program (VSMP) General VPDES Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (No. VAR 040057).

Pursuant to Section II.B.3.a of this permit, the City shall "notify in writing the downstream MS4 of any known physical interconnection." This letter is to notify you of the interconnection between the City's MS4 and the permitted stormwater system operated by the National Park Service, George Washington Memorial Parkway.

Thank you for providing your MS4 boundaries in April 2018. We confirmed that the City does operate outfalls that discharge into Jones Point Park in the southeast portion of the City and into the area east of the George Washington Memorial Parkway in the northeast portion of the City. We will review and update the City's MS4 boundaries as needed to ensure consistency between the data sets. After this is completed, the City's boundaries will be sent for your reference.

Sincerely,

A handwritten signature in black ink, appearing to read "Jesse E. Maines", is written over a faint, circular watermark of the City of Alexandria seal.

Jesse E. Maines  
Division Chief  
Transportation and Environmental Services  
Stormwater Management Division  
[Jesse.maines@alexandriava.gov](mailto:Jesse.maines@alexandriava.gov)

Cc: Hannah Dean via email – [Hannah\\_Dean@nps.gov](mailto:Hannah_Dean@nps.gov)



## Jessica Lassetter

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**From:** Jessica Lassetter  
**Sent:** Thursday, July 30, 2020 9:45 AM  
**To:** robert\_mocko@nps.gov  
**Subject:** City of Alexandria Physical Interconnection  
**Attachments:** GW Parkway.pdf

Mr. Mocko,

The City of provided a letter on May 24, 2018, to Ms. Brenda Wasler, to satisfy the requirements indicated in the MS4 General Permit pertaining to physical interconnections (see attached).

Please maintain this email and attached document in your MS4 program files and let me know if you have any questions.

Thank you,

Jessica

Jessica E. B. Lassetter  
Senior Environmental Specialist/CE III  
City of Alexandria, Virginia  
T&ES Stormwater Management  
Office: 703.746.4127  
Cell: 703.915.5695  
alexandriava.gov





## *City of Alexandria*

Department of Transportation and Environmental Services  
Office of Environmental Quality  
301 King Street  
City Hall, Room 3000  
Alexandria, VA 22314  
[www.alexandriava.gov/Environment](http://www.alexandriava.gov/Environment)

July 15, 2009

Roy T. Mills  
Location and Design Division  
State Stormwater Program Administrator  
Virginia Department of Transportation

DELIVERED VIA EMAIL: [Roy.Mills@VDOT.Virginia.gov](mailto:Roy.Mills@VDOT.Virginia.gov)

Subject: Notice of Potentially Interconnected Municipal Separate Storm Sewer System (MS4)

Attention: MS4 Permit Manager

The City of Alexandria operates as a Phase II MS4 community with coverage under the Virginia Stormwater Management Program (VSMP) General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (No. VAR 040057).

Pursuant to Section II.B.3.g of this permit, the City must "Notify, in writing, any downstream regulated MS4 to which the small regulated MS4 is physically interconnected of the small regulated MS4's connection to that system." This letter is to notify you of the potential for interconnections between the City's MS4 and the permitted stormwater system operated by the Virginia Department of Transportation (VDOT). Currently, we have not identified any points where the City's MS4 discharges stormwater into VDOT's regulated MS4; however, it is likely that interconnections exist.

As mentioned in my July 15, 2010 email and pursuant to Section II.B.3.b, the City is currently working on a mapping effort that will verify the "location of all known outfalls ...including those physically interconnected to a regulated MS4..." We would like to work together and share information so that each party may have adequate information to identify any interconnections that may exist between our regulated stormwater systems. The City is scheduled to provide this map with its Annual Report due no later than October 1, 2010 to DCR.

Please contact me at your earliest convenience to work together on the mapping effort.

Best Regards,

A handwritten signature in black ink, appearing to read "Jesse E. Maines", is written over a faint, large circular watermark of the City of Alexandria seal.

Jesse E. Maines  
Water Quality Compliance Specialist  
703-746-4071  
[Jesse.maines@alexandriava.gov](mailto:Jesse.maines@alexandriava.gov)

Cc: Morris Z. Walton via email – [Morris.Walton@VDOT.Virginia.gov](mailto:Morris.Walton@VDOT.Virginia.gov)



**Jessica Lassetter**

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**From:** Jessica Lassetter  
**Sent:** Thursday, July 30, 2020 3:56 PM  
**To:** alex.foraste@vdot.virginia.gov  
**Subject:** City of Alexandria Physical Interconnection  
**Attachments:** VDOT 071509.pdf

Hi Alex,

The City of provided a letter on July 15, 2009, to Mr. Roy Mills, to satisfy the requirements indicated in the MS4 General Permit pertaining to physical interconnections (see attached). This letter referenced a regional stormwater flow map which was produced in September 2010 and included in the City's 2010-2011 MS4 Annual Report. This letter also satisfies the requirements outlined in the 2018-2023 MS4 General Permit, Part I. E.3.a.(5).

Please maintain this email and attached document in your MS4 program files and let me know if you have any questions.

Thank you,

Jessica

Jessica E. B. Lassetter  
Senior Environmental Specialist/CE III  
City of Alexandria, Virginia  
T&ES Stormwater Management  
Office: 703.746.4127  
Cell: 703.915.5695  
alexandriava.gov



## FY2022 Discharges that Reached the MS4

| Tracking ID                        | Method of Discovery | Date Initiated | Date Closed | Problem Address     | Incident                   | Narrative & Result  | Reach MS4? |
|------------------------------------|---------------------|----------------|-------------|---------------------|----------------------------|---|------------|
| 7082021                            | Reported by public  | 7/8/2021       | 7/8/2021    | 5375 Duke St        | Sediment in stream         | Contractors dewatering muddy water directly to storm inlet. SWM Staff reported incident to T&ES Permitting Inspector and Fire Marshals Office. Contractor was cited for lack of E & S controls by Fire Marshal and closed case. Estimated volume was approximately 50-75 gallons.   | Yes        |
| 311-21-00018536                    | Reported by public  | 7/28/2021      | 7/28/2021   | 225 Century Pl      | Possible Illegal Dumping   | Contractor painting "no parking" zones at apartment complex allowed approximately ~1 gallon of paint into storm inlet. SWM staff and Fire Marshal's Office provided a warning to the contractors and closed case.   | Yes        |
| 311-21-00024671                    | Reported by public  | 9/29/2021      | 10/6/2021   | 2823 King St        | Possible Illicit Discharge | Report of PVC drainage pipe connected to mop sink discharging water onto King St. SWM staff notified cemetery management to immediately cease use of sink until they connect to sanitary.   | Yes        |
| 12062021                           | Reported by public  | 12/6/2021      | 12/13/2021  | 1400 Duke St        | Possible Illicit Discharge | Report of grease line in outfall channel. T&ES staff followed to a sink connection from a restaurant. Staff directed restaurant owners to close restaurant and immediately connect sinkline to sanitary and recover remnant grease within stormlines.   | Yes        |
| 311-21-00030891<br>311-21-00030937 | Reported by public  | 12/15/2021     | 12/15/2021  | Landmark Mall       | Water Main Break           | Report of discolored water in Holmes Run due to sediment from watermain break at Landmark Mall. SWM staff directed landowners to clean remnant sediment to prevent further transport to Holmes Run. VA American Water repaired broken main.   | Yes        |
| DEQ IR#: 302939                    | Reported internally | 2/3/2022       | 2/3/2022    | 1 Cameron St        | Possible Illicit Discharge | Sheen traced back to the Oronoco St outfall area associated with DEQ's Voluntary Remediation Program (VRP00241)   | Yes        |
| 2072022<br>CGP #: VAR10P891        | Reported by public  | 2/7/2022       | 2/7/2022    | 1707 Osage St       | Possible Illicit Discharge | Report of discoloration in Timber Branch tracked to sediment laden water coming from a construction project using an inadequately sized containment tank. The estimated amount of sediment laden water discharged was approximately 500 gallons. SWM staff and FMO notified DEQ/NRO and T&ES C & I staff issued a Stop Work Order on the project. FMO issued Illicit Discharge Violation to the operators and T&ES C & I staff conducted CGP inspection prior to lifting the Stop Work Order. | Yes        |
| 2162022<br>FIR                     | Reported internally | 2/16/2022      | 2/16/2022   | 333 John Carlyle    | Grease Trap Spill          | Internal report of a restaurant grease trap spill. FMO ordered Notice of Violation to the restaurant and directed restaurant owners to recover the remnant grease. Approximately 25 gallons entered the MS4   | Yes        |
| 3252022                            | Reported internally | 3/25/2022      | 3/25/2022   | Landmark Mall       | Water Main Break           | Internal report of a water main break at Landmark Mall. VA American Water repaired broken main and SWM staff requested that the site owners recover remnant sediment.   | Yes        |
| 311-22-00015691<br>FIR             | Reported by public  | 5/28/2022      | 6/6/2022    | 4600 Eisenhower Ave | Possible Illicit Discharge | Report of a business pouring wash water into storm inlet. Approximately 5-8 gallons of soapy water entered MS4. SWM staff and FMO issued a NOV to the business and closed case.   | Yes        |



## **FY2022 Water Quality and Illicit Discharge Related Complaints or Incidents**

| Tracking ID     | Method of Discovery | Date Initiated | Date Closed | Problem Address     | Incident                   | Narrative & Result   | Reach MS4? |
|-----------------|---------------------|----------------|-------------|---------------------|----------------------------|--|------------|
| 7082021         | Reported by public  | 7/8/2021       | 7/8/2021    | 5375 Duke St        | Sediment in stream         | Contractors dewatering muddy water directly to storm inlet. SWM Staff reported incident to T&ES Permitting Inspector and Fire Marshals Office. Contractor was cited for lack of E & S controls by Fire Marshal and closed case. Estimated volume was approximately 50-75 gallons.  | Yes        |
| 7082021         | Reported by public  | 7/8/2021       | 7/13/2021   | 2801 Park Center Dr | Possible Illicit Discharge | Contractors for apartment building allowed non toxic latex paint to enter parking garage inlet leading to private connection into Lucky Run Pond. Apartment management was notified, provided warning, and closed case. Estimated amount of non toxic latex paint into Lucky Run Pond ~1 gallon  | No         |
| 311-21-00017594 | Reported by public  | 7/19/2021      | 8/9/2021    | 5321 Sanger Ave     | Possible Illegal Dumping   | Complaint concerning trash along private apartment complex and areas adjacent to I-395. Staff directed community management group to clean up areas and closed case.   | No         |
| 311-21-00017780 | Reported by public  | 7/20/2021      | 7/21/2021   | 426 E Monroe Ave    | Possible fuel spill        | Fuel leak from RCPA lawn mower. SWM staff had RCPA staff recovered material with absorbent and sweeper. No material made it to a storm sewer.  | No         |
| 7272021         | Reported internally | 7/27/2021      | 7/27/2021   | North Potomac Yard  | Possible fuel spill        | Unknown substance discovered leaching from soil at the North Potomac Yard development site. City C&I, SWM, and FMO responded to the incident and directed environmental contractor representative to furnish testing reports and "all clear to discharge/remediation plan" related to the incident.  | No         |
| 311-21-00018536 | Reported by public  | 7/28/2021      | 7/28/2021   | 225 Century Pl      | Possible Illegal Dumping   | Contractor painting "no parking" zones at apartment complex allowed approximately ~1 gallon of paint into storm inlet. SWM staff and Fire Marshal's Office provided a warning to the contractors and closed case.  | Yes        |
| 311-21-00019441 | Reported by public  | 8/9/2021       | 8/9/2021    | 1319 Powhatan St    | Possible fuel spill        | SWM Staff investigated and determined source of report to be an iron associated bacterial sheen as a result of an emergency waterline repair.  | No         |
| 311-21-00019469 | Reported by public  | 8/9/2021       | 8/10/2021   | 4001 Eisenhower Ave | Possible Illicit Discharge | Report of discolored water within Cameron Run on the morning of 8/9/2021. SWM Staff received photo locations from resident along Cameron Run and found that the origin of discolored water coming from the 195/495 corridor outside of city limits and storm sewer infrastructure. Investigated inlets within City limits along Mill Rd to ensure no potential connections exist underneath the I495 corridor and forwarded complaint to VDOT for investigation. | No         |
| 311-21-00020764 | Reported by public  | 8/20/2021      | 8/23/2021   | 4550 N Pegram St    | Possible Fuel Spill        | SWM Staff visited the location and determined "oily" substance in question to be bacterial sheen commonly associated with iron within municipal water leak. SWM staff notified Virginia American Water and closed the case.  | No         |



## FY2022 Water Quality and Illicit Discharge Related Complaints or Incidents

| Tracking ID                           | Method of Discovery | Date Initiated   | Date Closed | Problem Address       | Incident                   | Narrative & Result   | Reach MS4? |
|---------------------------------------|---------------------|--|-------------|-----------------------|----------------------------|--|------------|
| 311-21-00021310FIR<br>FIR2021-0018802 | Reported by public  | 8/25/2021<br>Follow Ups:<br>09/07/2021, 09/13/2021,<br>09/17/2021  | 9/17/2021   | 3911 Eisenhower Ave   | Fish Kill                  | Report of dead fish in Lake Cook. AFD, SWM, FMO & DGIF determined the fish to be 20 native bullhead catfish. Species specific die-off event was determined to have been caused by an unknown environmental factor. SWM staff re-investigated 3 separate times and closed case. | No         |
| 311-21-00021695                       | Reported by public  | 8/30/2021  | 8/30/2021   | 4800 Ben Brenman Park | Possible Illicit Discharge | Report of "oily substance" in Backlick Run. SWM staff visited location and determined the substance to be harmless bacterial sheen commonly associated with iron concentrated surface/groundwater.   | No         |
| 311-21-00024671                       | Reported by public  | 9/29/2021  | 10/6/2021   | 2823 King St          | Possible Illicit Discharge | Report of PVC drainage pipe connected to mop sink discharging water onto King St. SWM staff notified cemetery management to immediately cease use of sink until they connect to sanitary.  | Yes        |
| 311-21-00024977                       | Reported by public  | 10/4/2021  | 10/4/2021   | 1131 Powhatan St      | Possible Illegal Dumping   | Report of blue substance on sidewalk. Staff visited the location included in the submission, but found no evidence of material described.  | No         |
| 311-21-00025581                       | Reported by public  | 10/10/2021   | 10/10/2021  | 125 S Gordon St       | Possible Illegal Dumping   | Report of car rotor in stream. SWM staff had PWS staff remove car rotor.   | No         |
| 311-21-00026909                       | Reported by public  | 10/25/2021   | 10/26/2021  | 4704 Kenmore Ave      | Broken Water Main          | Report of broken water main. SWM staff notified VA American Water and closed case.   | No         |
| 311-21-00027511                       | Reported by public  | 11/1/2021  | 11/1/2021   | 4213 Duke St          | Possible Illicit Discharge | Report of illicit car washing activities. SWM staff contacted Enterprise Operations Division concerning car wash activities and confirmed active VPDES permit: VAG750124   | N/A        |
| 311-21-00027691                       | Reported by public  | 11/3/2021  | 11/3/2021   | 2925 Mosby St         | Possible Illicit Discharge | Report of illicit car washing activities. SWM Staff visited the location and discussed proper recovery practices for car washing. Employee/Owner was given a verbal warning to recover all material when car washing to avoid illicit discharge/illegal dumping violation.     | No         |
| DEQ IR#: 301745                       | Reported by public  | 12/5/2021  | 12/6/2021   | 3225 Colvin St        | Possible Illegal Dumping   | Report of feathers on street associated with poultry market. SWM staff and FMO determined spill to be accidental as a result of hauling. Business recovered remnant feathers and SWM staff notified VA DEQ NRO Pollution Response Coordinator.                                 | No         |
| 12062021                              | Reported by public  | 12/6/2021  | 12/13/2021  | 1400 Duke St          | Possible Illicit Discharge | Report of grease line in outfall channel. T&ES staff followed to a sink connection from a restaurant. Staff directed restaurant owners to close restaurant and immediately connect sinkline to sanitary and recover remnant grease within stormlines.                          | Yes        |
| 311-21-00030891<br>311-21-00030937    | Reported by public  | 12/15/2021   | 12/15/2021  | Landmark Mall         | Water Main Break           | Report of discolored water in Holmes Run due to sediment from watermain break at Landmark Mall. SWM staff directed landowners to clean remnant sediment to prevent further transport to Holmes Run. VA American Water repaired broken main.                                    | Yes        |
| 12212021                              | Reported internally | 12/21/2021<br>Follow Ups:<br>12/27/2021, 12/29/2021,<br>01/21/2022 | 1/21/2022   | 4001 Eisenhower Ave   | Possible Illegal Dumping   | Internal report of sediment laden water at Lake Cook. SWM staff investigated and found no obvious source of discoloration. SWM staff performed followed up investigations 3 separate times and closed case.  | No         |



## **FY2022 Water Quality and Illicit Discharge Related Complaints or Incidents**

| Tracking ID                         | Method of Discovery | Date Initiated | Date Closed | Problem Address             | Incident                   | Narrative & Result  | Reach MS4? |
|-------------------------------------|---------------------|----------------|-------------|-----------------------------|----------------------------|---|------------|
| DEQ IR#: 302939<br>FIR2022-02873    | Reported internally | 2/3/2022       | 2/3/2022    | 1 Cameron St                | Possible Illicit Discharge | Sheen traced back to the Oronoco St outfall area associated with DEQ's Voluntary Remediation Program (VRP00241)   | Yes        |
| 2072022<br>CGP #: VAR10P891         | Reported by public  | 2/7/2022       | 2/7/2022    | 1707 Osage St               | Possible Illicit Discharge | Report of discoloration in Timber Branch tracked to sediment laden water coming from a construction project using an inadequately sized containment tank. The estimated amount of sediment laden water discharged was approximately 500 gallons. SWM staff and FMO notified DEQ/NRO and T&ES C & I staff issued a Stop Work Order on the project. FMO issued Illicit Discharge Violation to the operators and T&ES C & I staff conducted CGP inspection prior to lifting the Stop Work Order. | Yes        |
| 2162022FIR<br>FIR2022-00051         | Reported internally | 2/16/2022      | 2/16/2022   | 333 John Carlyle            | Grease Trap Spill          | Internal report of a restaurant grease trap spill. FMO ordered Notice of Violation to the restaurant and directed restaurant owners to recover the remnant grease. Approximately 25 gallons entered the MS4   | Yes        |
| 3252022                             | Reported internally | 3/25/2022      | 3/25/2022   | Landmark Mall               | Water Main Break           | Internal report of a water main break at Landmark Mall. VA American Water repaired broken main and SWM staff requested that the site owners recover remnant sediment.   | Yes        |
| 311-22-00013261<br>DEQ IR#304619    | Reported by public  | 5/13/2022      | 5/17/2022   | Four Mile Run               | Fish Kill                  | Report of dead fish in Four Mile Run as a result of a malfunction at the Arlington Water Control Plant.   | No         |
| 311-22-00014151                     | Reported by public  | 5/21/2022      | 5/25/2022   | 5800 Pearson Ln             | Possible fuel spill        | Report of a fuel spill related to a trash truck hauling a dumpster. Company spread absorbant, was directed to recover remnant material, and was issued a warning for not immediately notifying the FMO. No material entered the MS4.  | No         |
| 311-22-00014320                     | Reported by public  | 5/23/2022      | 6/9/2022    | 765 John Carlyle St         | Leaking Dump Truck         | Report of dump trucks leaking oil. SWM staff contacted truck owners and directed use of oil pans when park.   | No         |
| 311-22-00015691FIR<br>FIR2022-00149 | Reported by public  | 5/28/2022      | 6/6/2022    | 4600 Eisenhower Ave         | Possible Illicit Discharge | Report of a business pouring wash water into storm inlet. Approximately 5-8 gallons of soapy water entered MS4. SWM staff and FMO issued a NOV to the business and closed case.   | Yes        |
| 311-22-00015107                     | Reported by public  | 5/31/2022      | 5/31/2022   | Mount Vernon Ave            | Possible Illicit Discharge | Report of sheen observed in Four Mile Run. SWM staff determined sheen to be iron bacteria commonly seen in local groundwater/geology and closed case.   | No         |
| 5312022                             | Reported by public  | 5/31/2022      | 5/31/2022   | Ben Brenman Pond            | Possible Illicit Discharge | Report of possible illicit discharge in Ben Brenman pond. SWM staff determined source to be naturally occurring black algae growth as a product of warm temperatures.   | No         |
| 6212022<br>FIR                      | Reported by public  | 6/21/2022      | 6/21/2022   | North Henry St & Ornoco St. | Possible fuel spill        | Report of hydraulic fluid spill related to a dump truck malfunction. AFD, APD, and SWM staff responded and oversaw recovery of hydraulic fluid. No material entered MS4.  | No         |
| 6222022                             | Reported internally | 6/22/2022      | 6/22/2022   | 4251 Eisenhower Ave         | Possible fuel spill        | Internal report of diesel spill from City trash truck at recycling center. Absorbent was spread to recover material and disposed of at permitted dump site for hazardous waste. No material entered MS4.  | No         |



**FY2022 Water Quality and Illicit Discharge Related Complaints or Incidents**

| Tracking ID   | Method of Discovery | Date Initiated | Date Closed | Problem Address | Incident   | Narrative & Result   | Reach MS4? |
|---------------|---------------------|----------------|-------------|-----------------|------------|--|------------|
| FIR2021-00422 | Reported Internally | 11/5/2021      | 11/5/2021   | 3400 Duke St    | Fuel Spill | Small fuel spill at city fuel pumps, less than 5 gallons of gasoline. Operations put absorbant down and T&ES was notified to handle cleanup. | No         |



## **FY2022 Outfall Inspection Details**


| FACILITY ID | LOCATION  | HUC  | DATE      | FLOW DESCRIPTION | WERE FIELD PARAMETERS MEASURED | PHYSICAL INDICATORS | ILLICIT DISCHARGE CHARACTERIZATION | FOLLOW-UP ACTIVITIES | OBSERVATIONS AND COMMENTS |
|-------------|---|------|-----------|------------------|--------------------------------|---------------------|------------------------------------|----------------------|---------------------------|
| 000016IO    | 3125 King St                                    | PL26 | 1/27/2022 | TRICKLE          | FALSE                          | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000017IO    | 3117 King St                                    | PL26 | 1/27/2022 | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000048IO    | 54 East Taylor Run Pkwy                         | PL26 | 4/21/2022 | NONE             | FALSE                          | FALSE               | 2. UNLIKELY                        | N/A                  | N/A                       |
| 000050IO    | 1105 East Taylor Run Pkwy                       | PL26 | 1/28/2022 | TRICKLE          | TRUE                           | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000052IO    | 2719 Bryan PL                                   | PL26 | 1/28/2022 | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000053IO    | 2726 Bryan PL                                   | PL26 | 1/28/2022 | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000054IO    | Corner of Janneys Ln and Taylor Run Pkwy        | PL26 | 1/28/2022 | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000062IO    | 1040 West Taylor Run Pkwy                       | PL26 | 1/28/2022 | TRICKLE          | FALSE                          | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000063IO    | 1040 West Taylor Run Pkwy                       | PL26 | 1/28/2022 | TRICKLE          | FALSE                          | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000064IO    | 1000 West Taylor Run Pkwy                       | PL26 | 1/28/2022 | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000065IO    | 1007 E Taylor Run Pkwy                          | PL26 | 1/28/2022 | TRICKLE          | TRUE                           | FALSE               | 1. NONE                            | N/A                  | known groundwater source  |
| 000067IO    | 818 West Taylor Run Pkwy                        | PL26 | 1/28/2022 | TRICKLE          | FALSE                          | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000076IO    | Chinquapin Park                                 | PL26 | 1/27/2022 | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000077IO    | 3210 King St                                    | PL26 | 1/27/2022 | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000093IO    | 135 Fort Williams Pkwy                          | PL26 | 4/14/2022 | TRICKLE          | FALSE                          | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000120IO    | Wheeler and Early St                            | PL26 | 4/21/2022 | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000124IO    | 3701 Taft                                       | PL26 | 4/14/2022 | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000127IO    | 26 Fort Williams Pkwy                           | PL26 | 4/14/2022 | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000140IO    | Winkler Botanical Preserve                      | PL26 | 4/15/2022 | TRICKLE          | TRUE                           | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000141IO    | Winkler Botanical Preserve                      | PL26 | 4/15/2022 | TRICKLE          | TRUE                           | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000144IO    | Winkler Botanical Preserve                      | PL26 | 4/14/2022 | TRICKLE          | TRUE                           | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000147IO    | Holmes Run PKWY/Trail                           | PL26 | 4/21/2022 | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000150IO    | Holmes Run PKWY/4600 Duke St                    | PL26 | 4/21/2022 | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000160IO    | SW Side, Duke St Bridge                         | PL26 | 4/21/2022 | TRICKLE          | FALSE                          | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000163IO    | End of N. Latham, West Outfall                  | PL26 | 4/13/2022 | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000164IO    | End of N Latham, East Outfall                   | PL26 | 4/13/2022 | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000193IO    | N Beauregard St                                 | PL26 | 4/14/2022 | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000207IO    | Corner of W. Holmes Run Pkwy / Van Dorn         | PL26 | 4/13/2022 | MODERATE         | TRUE                           | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000209IO    | Holmes Run Pkwy, End of N. Ripley               | PL26 | 4/13/2022 | TRICKLE          | TRUE                           | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000210IO    | 5500 W. Holmes Run Pkwy                         | PL26 | 4/13/2022 | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000211IO    | 5500 W. Holmes Run Pkwy                         | PL26 | 4/13/2022 | MODERATE         | TRUE                           | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000243IO    | 4001 Eisenhower Ave, South of Parking Lot       | PL26 | 4/22/2022 | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000244IO    | 4001 Eisenhower Ave, South of Parking Lot       | PL26 | 4/22/2022 | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000247IO    | Townes at Cameron Parke                         | PL26 | 4/22/2022 | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000248IO    | Eisenhower Ave South of Townes at Cameron Parke | PL26 | 4/22/2022 |                  | FALSE                          | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000249IO    | 4001 Eisenhower Ave, South of Parking Lot       | PL26 | 4/22/2022 | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000250IO    | 4001 Eisenhower Ave, South of Cameron Run Park  | PL26 | 4/22/2022 | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A                  | N/A                       |
| 000266IO    | End of N. Pickett St                            | PL26 | 4/13/2022 | TRICKLE          | TRUE                           | FALSE               | 1. NONE                            | N/A                  | N/A                       |





**FY2022 Outfall Inspection Details**


| FACILITY ID | LOCATION                                   | HUC  | DATE       | FLOW DESCRIPTION | WERE FIELD PARAMETERS MEASURED | PHYSICAL INDICATORS | ILLICIT DISCHARGE CHARACTERIZATION | FOLLOW-UP ACTIVITIES   | OBSERVATIONS AND COMMENTS                     |
|-------------|--|------|------------|------------------|--------------------------------|---------------------|------------------------------------|--|---|
| 000269IO    | 5340 Holmes Run Pkwy                       | PL26 | 4/13/2022  | MODERATE         | TRUE                           | FALSE               | 1. NONE                            | N/A  | N/A   |
| 000278IO    | Beatley Library- Duke St                   | PL26 | 4/21/2022  | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A  | N/A   |
| 000330IO    | 5425 N Morgan St/Holmes Run Trail          | PL26 | 4/13/2022  | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A  | N/A   |
| 000330IO    | 5425 N Morgan St/Holmes Run Trail          | PL26 | 4/13/2022  | MODERATE         | TRUE                           | FALSE               | 1. NONE                            | N/A  | N/A   |
| 000508IO    | EAST SIDE OF WINGWALL, PIPED TIMBER BRANCH | PL26 | 1/19/2022  | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A  | N/A   |
| 000509IO    | WEST SIDE OF WINGWALL, PIPED TIMBER BRANCH | PL26 | 1/19/2022  | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A  | N/A   |
| 000521IO    | 690 W TIMBER BRANCH PKWY                   | PL26 | 11/20/2021 | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A  | N/A   |
| 000523IO    | 1800 Nicholson Ln, SW Outfall              | PL26 | 4/25/2022  | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A  | N/A   |
| 000525IO    | 1800 Nicholson Ln, NE Outfall              | PL26 | 4/25/2022  | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A  | N/A   |
| 000526IO    | 1800 Nicholson Ln                          | PL26 | 4/25/2022  | MODERATE         | TRUE                           | FALSE               | 5. OBVIOUS                         | Municipal water detected. Contacted VA American to fix upstream waterline. | VA American repaired broken line on 5/27/2022 |
| 000529IO    | 2932 King St                               | PL26 | 1/28/2022  | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A  | N/A   |
| 000530IO    | 2932 King St                               | PL26 | 1/28/2022  | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A  | N/A   |
| 000621IO    | Buddy Ford Nature Center                   | PL26 | 4/15/2022  | NONE             | FALSE                          | FALSE               | 1. NONE                            | N/A  | N/A   |





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| <div><div></div><div></div></div> | <div><div></div><div></div></div> | Case Number   | Main Address         | Case Type               | Assigned To | Case Status       | Open Date |
|-----------------------------------|-----------------------------------|---------------|----------------------|-------------------------|-------------|-------------------|-----------|
| >                                 | <div><div></div><div></div></div> | FIR2019-00172 | 612 S PICKETT ST C   | Fire Marshal Complaints |             | Closed - Resolved | 7/2/2019  |
|                                   | <div><div></div><div></div></div> | FIR2019-00173 | 5405 DUKE ST         | Fire Marshal Complaints |             | Closed - Resolved | 7/2/2019  |
|                                   | <div><div></div><div></div></div> | FIR2019-00174 | 602 NOTABENE DR      | Fire Marshal Complaints |             | Closed - Resolved | 7/2/2019  |
|                                   | <div><div></div><div></div></div> | FIR2019-00175 | 6101 EDSALL RD 303   | Fire Marshal Complaints |             | Closed - Resolved | 7/5/2019  |
|                                   | <div><div></div><div></div></div> | FIR2019-00176 | 5219 HOLMES RUN PKWY | Fire Marshal Complaints |             | Closed - Resolved | 7/5/2019  |
|                                   | <div><div></div><div></div></div> | FIR2019-00177 | 5951 STEVENSON AVE E | Fire Marshal Complaints |             | Closed - Resolved | 7/5/2019  |
|                                   | <div><div></div><div></div></div> | FIR2019-00178 | 5453 SHEFFIELD CT    | Fire Marshal Complaints |             | Closed - Resolved | 7/5/2019  |
|                                   | <div><div></div><div></div></div> | FIR2019-00179 | 5733 LEVERETT CT     | Fire Marshal Complaints |             | Closed - Resolved | 7/5/2019  |
|                                   | <div><div></div><div></div></div> | FIR2019-00180 | 5797 RAYBURN AVE     | Fire Marshal Complaints |             | Closed - Resolved | 7/5/2019  |
|                                   | <div><div></div><div></div></div> | FIR2019-00181 | 5802 SANGER AVE      | Fire Marshal Complaints |             | Closed - Resolved | 7/5/2019  |
|                                   | <div><div></div><div></div></div> | FIR2019-00182 | 5611 DERBY CT        | Fire Marshal Complaints |             | Closed - Resolved | 7/5/2019  |

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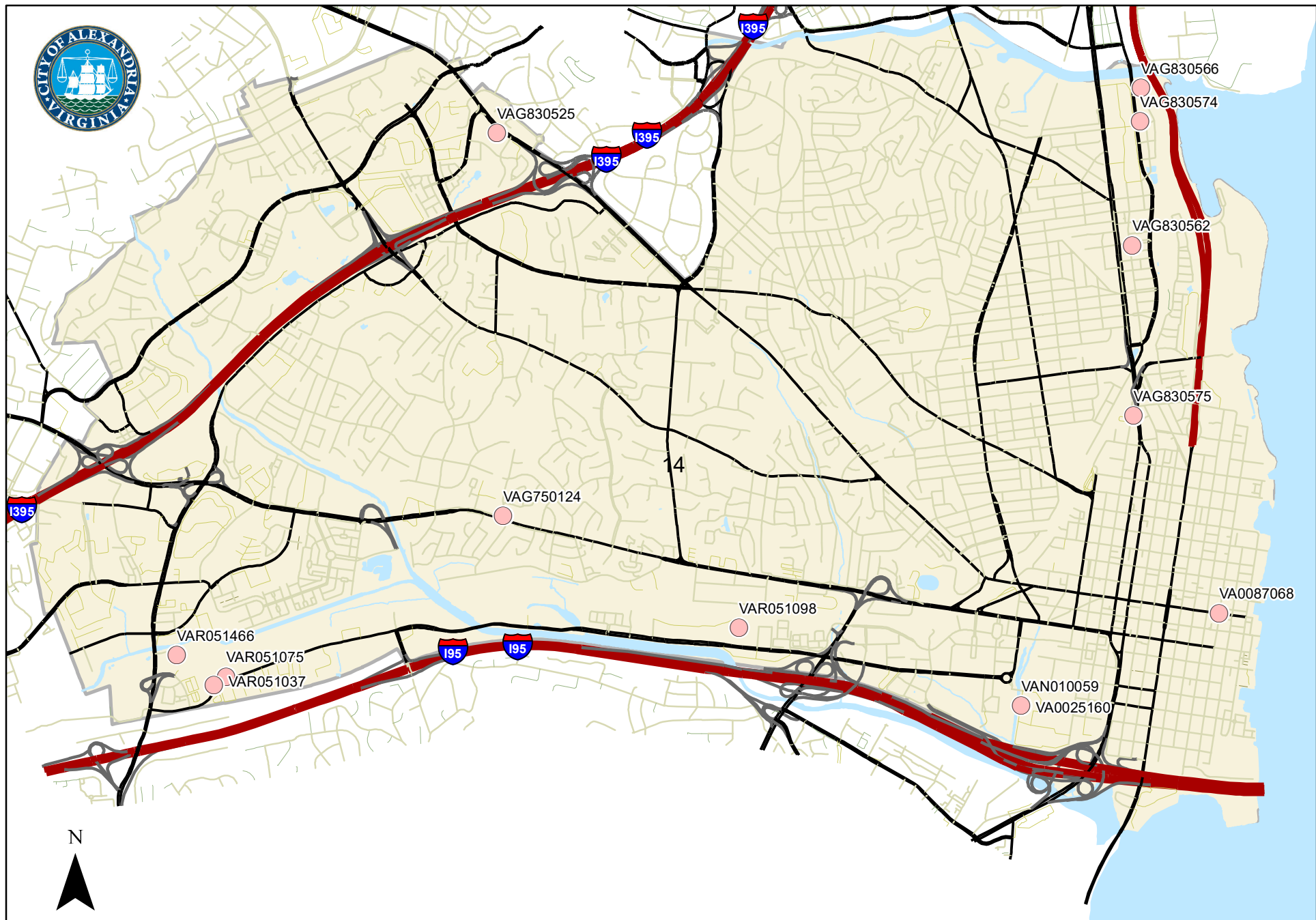
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|                          | Sr                     | Date Initiated      | Description            | Priority | Category     | Submit To           | Dispatch To      | Address            |
|--------------------------|------------------------|---------------------|------------------------|----------|--------------|---------------------|------------------|--------------------|
| <input type="checkbox"/> | <a href="#">206645</a> | 2020-09-24 11:19 AM | TRAFFIC SIGNS          | 3        | TES_SIGNS    | TRFSIGNS TOP TES,   |                  | 4550 N PEGRAM ST   |
| <input type="checkbox"/> | <a href="#">206645</a> | 2020-09-24 11:17 AM | TRAFFIC SIGNS          | 3        | TES_SIGNS    | TRFSIGNS TOP TES,   |                  | 1235 N PICKETT ST  |
| <input type="checkbox"/> | <a href="#">206642</a> | 2020-09-24 10:09 AM | SEWERS                 | 2        | TES_SEWERS   | SEWERS PWS TES,     |                  | 2 B FORREST ST     |
| <input type="checkbox"/> | <a href="#">206640</a> | 2020-09-24 9:29 AM  | LOW HANGING WIRE       | 1        | TES_ROW      | TES, GROUP LOW WIRE |                  | 326 E MASON AVE    |
| <input type="checkbox"/> | <a href="#">206639</a> | 2020-09-24 9:17 AM  | STREET CLEANING        | 3        | TES_STCLEAN  | STRTMAINT PWS TES   |                  | 1600 IVANHOE CT    |
| <input type="checkbox"/> | <a href="#">206638</a> | 2020-09-24 8:49 AM  | PARKING METERS         | 2        | TES_METERS   | METERS TOP TES,     |                  | 301 KING ST        |
| <input type="checkbox"/> | <a href="#">206637</a> | 2020-09-24 8:35 AM  | TREE REQUEST / PROBLEM | 3        | RPCA_TREES   | RPCA, TREES         |                  | 929 N LINDSAY PL   |
| <input type="checkbox"/> | <a href="#">206636</a> | 2020-09-23 10:31 PM | TREE REQUEST / PROBLEM | 3        | RPCA_TREES   | RPCA, TREES         |                  | 922 SLATERS LN     |
| <input type="checkbox"/> | <a href="#">206635</a> | 2020-09-23 8:53 PM  | TREE REQUEST / PROBLEM | 3        | RPCA_TREES   | RPCA, TREES         |                  | 109 W MASONIC VIEW |
| <input type="checkbox"/> | <a href="#">206634</a> | 2020-09-23 6:27 PM  | STREETS POTHOLES       | 2        | TES_POTHOLES | STRPOTHOLE PWS TES, |                  | 220 CENTURY PL     |
| <input type="checkbox"/> | <a href="#">206633</a> | 2020-09-23 5:33 PM  | SEWERS                 | 2        | TES_SEWERS   | SEWERS PWS TES,     | Pelitteri, Gavin | 707 E TIMBER BRANC |
| <input type="checkbox"/> | <a href="#">206629</a> | 2020-09-23 4:59 PM  | STREET MAINTENANCE     | 2        | TES_STMAINT  | STRTMAINT PWS TES   |                  | 809 CAMERON ST     |
| <input type="checkbox"/> | <a href="#">206628</a> | 2020-09-23 4:33 PM  | STREET CLEANING        | 3        | TES_STCLEAN  | STRTMAINT PWS TES   |                  | 1218 W ABINGDON DR |
| <input type="checkbox"/> | <a href="#">206627</a> | 2020-09-23 4:17 PM  | SEWERS                 | 2        | TES_SEWERS   | SEWERS PWS TES,     |                  | 24 E LINDEN ST     |
| <input type="checkbox"/> | <a href="#">206625</a> | 2020-09-23 3:17 PM  | TREE REQUEST / PROBLEM | 3        | RPCA_TREES   | RPCA, TREES         |                  | 901 SECOND ST      |
| <input type="checkbox"/> | <a href="#">206624</a> | 2020-09-23 2:57 PM  | TREE REQUEST / PROBLEM | 3        | RPCA_TREES   | RPCA, TREES         |                  | 611 S COLUMBUS ST  |
| <input type="checkbox"/> | <a href="#">206623</a> | 2020-09-23 2:53 PM  | TREE REQUEST / PROBLEM | 3        | RPCA_TREES   | RPCA, TREES         |                  | 611 S COLUMBUS ST  |



# City of Alexandria Permitted Discharges MS4 Reporting Year 2021-2022





VPDES Permits PY 2021-2022

**INDIVIDUAL PERMITS**

| Classification | Type               | Facility Name                     | Permit No | Expiration Date | Location Address 1  | Location City | Location State |
|----------------|--------------------|-----------------------------------|-----------|-----------------|---------------------|---------------|----------------|
| Active         | Individual Permits | Alexandria Renew Enterprises WWTP | VA0025160 | 6/30/2026       | 1500 Eisenhower Ave | Alexandria    | VA             |
| Active         | Individual Permits | Alexandria Combined Sewer System  | VA0087068 | 8/31/2023       | Various locations   | Alexandria    | VA             |

**GENERAL PERMITS**

| Classification | Type                              | Facility  | Permit No            | Expiration Date      | Location Address 1               | Location City         | Location State |
|----------------|-----------------------------------|---|----------------------|----------------------|----------------------------------|-----------------------|----------------|
| Active         | Vehicle Wash and Laundry GP       | Enterprise Rent A Car - Alexandria              | VAG750124            | 10/15/2022           | 4213 Duke St                     | Alexandria            | VA             |
| Active         | Stormwater Industrial GP          | United Parcel Service - Alexandria              | VAR051037            | 6/30/2024            | 5601 Eisenhower Ave              | Alexandria            | VA             |
| Active         | Stormwater Industrial GP          | Covanta Alexandria Arlington Incorporated       | VAR051075            | 6/30/2024            | 5301 Eisenhower Ave              | Alexandria            | VA             |
| Active         | Stormwater Industrial GP          | WMATA - Alexandria Metro Rail Yard              | VAR051098            | 6/30/2024            | 3101 Eisenhower Ave              | Alexandria            | VA             |
| Active         | Stormwater Industrial GP          | Virginia Paving Company - Alexandria Plant      | VAR051466            | 6/30/2024            | 5601 Courtney Ave                | Alexandria            | VA             |
| Active         | Nutrient Trading GP               | Alexandria Renew Enterprises WWTP               | VAN010059            | 12/31/2026           | 1500 Eisenhower Ave              | Alexandria            | VA             |
| Active         | <del>Petroleum Discharge GP</del> | <del>Hoffman Town Centre Blocks 4 and 5</del>   | <del>VAG830541</del> | <del>2/25/2023</del> | <del>2410 and 2460 Mill Rd</del> | <del>Alexandria</del> | <del>VA</del>  |
| Active         | Petroleum Discharge GP            | Potomac Yards Landbay H/I                       | VAG830562            | 2/25/2023            | 2551 Main Line Blvd              | Alexandria            | VA             |
| Active         | <del>Petroleum Discharge GP</del> | <del>Costco Mt Vernon 1115</del>                | <del>VAG830567</del> | <del>2/25/2023</del> | <del>7940 Richmond Hwy</del>     | <del>Alexandria</del> | <del>VA</del>  |
| Active         | Petroleum Discharge GP            | King Street Liberty                             | VAG830525            | 2/25/2023            | 4368 King St                     | Alexandria            | VA             |
| Active         | Petroleum Discharge GP            | Potomac Yards Land Bay F East Infrastructure    | VAG830566            | 2/25/2023            | 3801 Potomac Ave                 | Alexandria            | VA             |
| Active         | <del>Petroleum Discharge GP</del> | <del>1300 King Street</del>                     | <del>VAG830565</del> | <del>2/25/2023</del> | <del>1300 King St</del>          | <del>Alexandria</del> | <del>VA</del>  |
| Active         | Petroleum Discharge GP            | Virginia Tech Innovation Campus Academic Bldg 1 | VAG830574            | 2/25/2023            | 3625 Potomac Ave                 | Alexandria            | VA             |
| Active         | Petroleum Discharge GP            | 1200 North Henry Venture LLC                    | VAG830575            | 2/25/2023            | 1200 North Henry St              | Alexandria            | VA             |

*Strikethrough = No longer indicated in the permit table; Red font = New permits for 2021-2022*

Source Information: <https://www.deq.virginia.gov/permits-regulations/permits/water/surface-water-virginia-pollutant-discharge-elimination-system>





*City of Alexandria, Virginia*  
*Department of Planning & Zoning*

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## **SPECIAL USE PERMIT CERTIFICATE**

Article XI, Division A, Section 11-510 of the 1992 Zoning Ordinance of the City of Alexandria, Virginia requires that you display this Special Use Permit in a conspicuous and publicly accessible place. A copy of the list of conditions associated with the special use permit shall be kept on the premises and made available for examination by the public upon request.

|                                  |                          |
|----------------------------------|--------------------------|
| Special Use Permit               | #2020-00087              |
| Approved by Planning and Zoning: | November 20, 2020        |
| Permission is hereby granted to: | Cristian Velasco         |
| to use the premises located at:  | 2400 Mount Vernon Avenue |
| for the following purpose:       | see attached report      |

It is the responsibility of the Special Use Permit holder to adhere to the conditions approved by City Council. The Department of Planning and Zoning will periodically inspect the property to identify compliance with the approved conditions. If any condition is in violation, the permit holder will be cited and issued a ticket. The first violation carries a monetary fine. Continued violations will cause staff to docket the special use permit for review by City Council for possible revocation.

November 20, 2020

*Karl Moritz* (by T. LaColla)

Date

Karl Moritz, Director  
Department of Planning and Zoning



**DATE:** November 20, 2020

**TO:** Tony LaColla, Division Chief, Land Use Services  
Department of Planning and Zoning

**FROM:** Anna Kohlbrenner, Planner  
Department of Planning and Zoning

**SUBJECT:** Special Use Permit #2020-00087  
Administrative Review for Special Use Permit for a New Use  
Site Use: Restaurant with outdoor dining  
Applicant: Cristian Velasco  
Location: 2400 Mount Vernon Avenue  
Zone: CL/Commercial Low

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**Request**

The applicant, Cristian Velasco, proposes a restaurant with outdoor dining at 2400 Mount Vernon Avenue. The applicant proposes 20 indoor seats and eight outdoor seats for the Italian Gelato ice cream restaurant. The eight outdoor seats would be arranged at the side of the building. The fast-casual restaurant would be open Tuesday-Sunday 8 a.m. – 10 p.m. and closed Mondays. The lot also contains an eight-space parking lot to the rear of the building. Loading and unloading would occur between 9 a.m. – 1 p.m., twice a week. The applicant does not propose live entertainment.

**Parking**

Pursuant to Section 8-200(A)(17)(a) of the Zoning Ordinance, restaurants within the enhanced transit area are required to provide a minimum of one parking space per 1,000 square feet of floor area. The approximately 1,550 square foot structure would require two parking spaces. Outdoor dining up to 20 seats are exempt from providing parking spaces. Section 8-100(A)(9) of the Zoning Ordinances exempts nonresidential uses from providing parking if the requirement is two spaces or less. Therefore, the applicant does not have to satisfy a parking requirement.

**Community Outreach**

Public notice was provided through eNews, via the City's website, and by posting a placard on the site. In addition, Del Ray Citizens Association and Del Ray Land Use Committee was sent written notification of the current application. Staff did not receive any comments.

**Staff Action**

Staff supports the applicants request to operate a restaurant at 2400 Mount Vernon Avenue. The small-scale restaurant is not expected to produce neighborhood impacts, as several restaurants and businesses surround the area.

Staff hereby approves the Special Use Permit request.



**ADMINISTRATIVE ACTION - DEPARTMENT OF PLANNING AND ZONING:**

Date: November 20, 2020

Action: Approved

  
Tony LaColla, Division Chief

Attachments: 1) Special Use Permit Conditions  
2) Statement of Consent  
3) Department Comments



**CONDITIONS OF SPECIAL USE PERMIT #2020-00087**

The new owner is responsible for ensuring compliance with all applicable codes and ordinances and ensuring that the following conditions are adhered to at all times. Violation of any of the SUP conditions may result in fines and/or referral to public hearing by the Planning Commission and City Council.

1. The special use permit shall be granted to the applicant only or to any corporation in which the applicant has a controlling interest. (P&Z)
2. All patrons must leave the premises one hour after the closing hour. (P&Z)
3. The maximum number of indoor seats at the restaurant shall comply with the state building code. (P&Z)
4. The number of outdoor seats shall be eight. All outdoor dining furniture must remain on private property and may not encroach into the public right-of-way. (P&Z)
5. The applicant shall conduct employee training sessions on an ongoing basis, including as part of any employee orientation, to discuss all SUP provisions and requirements. (P&Z)
6. No food, beverages, or other material shall be stored outside, with the exception of materials specified in other conditions. (P&Z)
7. Delivery vehicles operated and managed by the applicant are permitted. Delivery vehicles must be parked off-street when not in use. (P&Z)
8. Indoor limited, live entertainment may be offered and must comply with the City's noise ordinance. No admission or cover fee shall be charged. All entertainment shall be subordinate to the principal function of the restaurant as an eating establishment. Any advertising of the entertainment shall reflect the subordinate nature of the entertainment by featuring food service as well as the entertainment. (P&Z)
9. All windows shall remain transparent. The placement or construction of items that block the visibility through windows of the interior of the commercial space from the street and sidewalk, including but not limited to walls, window film, storage cabinets, carts, shelving, boxes, coat racks, storage bins, and closets, shall be prohibited. This is not intended to prevent retailers from displaying their goods in display cases that are oriented towards the street frontage. (P&Z)
10. The applicant shall require its employees who drive to use off-street parking. (T&ES)
11. The applicant shall encourage its employees to use public transportation to travel to and from work. The business shall contact Go Alex at [goalex@alexandriava.gov](mailto:goalex@alexandriava.gov) for information on establishing an employee transportation benefits program. (T&ES)



12. The applicant shall provide information about alternative forms of transportation to access the site, including but not limited to printed and electronic business promotional material, posting on the business website, and other similar methods. Contact Go Alex at [goalex@alexandriava.gov](mailto:goalex@alexandriava.gov) for more information about available resources. (T&ES)
13. The applicant shall encourage patrons to park off-street through the provision of information about nearby garages or lots in the business' advertising and website. (T&ES)
14. Exterior power washing of the building shall not be completed using any kind of detergents. (T&ES)
15. Chemicals, detergents or cleaners stored outside the building shall be kept in an enclosure with a roof. (T&ES)
16. If used cooking oil is stored outside, the drum shall be kept securely closed with a bung (a secure stopper that seals the drum) when not receiving used oil, it shall be placed on secondary containment, and it shall be kept under cover to prevent rainwater from falling on it. (T&ES)
17. Trash and garbage shall be stored inside or in sealed containers that do not allow odors to escape, invasion by animals, or leaking. No trash or debris shall be allowed to accumulate outside of those containers. Outdoor containers shall be maintained to the satisfaction of the Directors of P&Z and T&ES, including replacing damaged lids and repairing/replacing damaged dumpsters. (P&Z) (T&ES)
18. Kitchen equipment, including floor mats, shall not be cleaned outside, nor shall any cooking residue or wash water be washed into the streets, alleys or storm sewers. (T&ES)
19. The applicant shall control cooking odors, smoke and any other air pollution from operations at the site and prevent them from leaving the property or becoming a nuisance to neighboring properties, as determined by the Department of Transportation & Environmental Services. (T&ES)
20. All waste products including but not limited to organic compounds (solvents and cleaners) shall be disposed of in accordance with all local, state and federal ordinances or regulations. (T&ES)
21. Supply deliveries, loading, and unloading activities shall not occur between the hours of 11:00pm and 7:00am. (T&ES)
22. The use must comply with the city's noise ordinance. No amplified sound shall be audible at the property line after 10:00 pm. (T&ES)
23. Litter on the site and on public rights-of-way and spaces adjacent to or within 75 feet of the premises shall be picked up at least twice a day and at the close of business, and more



often if necessary, to prevent an unsightly or unsanitary accumulation, on each day that the business is open to the public. (P&Z)

24. The Director of Planning and Zoning shall review the special use permit after it has been operational for one year, and shall docket the matter for consideration by the Planning Commission and City Council if (a) there have been documented violations of the permit conditions which were not corrected immediately, constitute repeat violations or which create a direct and immediate adverse zoning impact on the surrounding community; (b) the director has received a request from any person to docket the permit for review, as the result of a complaint that rises to the level of a violation of the permit conditions\_or (c) the director has determined that there are problems with the operation of the use and that new or revised conditions are needed. (P&Z)



## CITY DEPARTMENT COMMENTS

Legend: C - code requirement    R - recommendation    S - suggestion    F - finding

### Transportation & Environmental Services:

F-1 SWM has no comments.

R-1 The applicant shall require its employees who drive to use off-street parking. (T&ES)

R-2 The applicant shall encourage its employees to use public transportation to travel to and from work. The business shall contact Go Alex at [goalex@alexandriava.gov](mailto:goalex@alexandriava.gov) for information on establishing an employee transportation benefits program. (T&ES)

R-3 The applicant shall provide information about alternative forms of transportation to access the site, including but not limited to printed and electronic business promotional material, posting on the business website, and other similar methods. Contact Go Alex at [goalex@alexandriava.gov](mailto:goalex@alexandriava.gov) for more information about available resources. (T&ES)

R-4 The applicant shall encourage patrons to park off-street through the provision of information about nearby garages or lots in the business' advertising and website. (T&ES)

R-5 Exterior power washing of the building shall not be completed using any kind of detergents. (T&ES)

R-6 Chemicals, detergents or cleaners stored outside the building shall be kept in an enclosure with a roof. (T&ES)

R-7 If used cooking oil is stored outside, the drum shall be kept securely closed with a bung (a secure stopper that seals the drum) when not receiving used oil, it shall be placed on secondary containment, and it shall be kept under cover to prevent rainwater from falling on it. (T&ES)

R-8 Trash and garbage shall be stored inside or in sealed containers that do not allow odors to escape, invasion by animals, or leaking. No trash or debris shall be allowed to accumulate outside of those containers. Outdoor containers shall be maintained to the satisfaction of the Directors of P&Z and T&ES, including replacing damaged lids and repairing/replacing damaged dumpsters. (P&Z) (T&ES)

R-9 Kitchen equipment, including floor mats, shall not be cleaned outside, nor shall any cooking residue or wash water be washed into the streets, alleys or storm sewers. (T&ES)

R-10 The applicant shall control cooking odors, smoke and any other air pollution from operations at the site and prevent them from leaving the property or becoming a nuisance to neighboring properties, as determined by the Department of Transportation & Environmental Services. (T&ES)



R-11 All waste products including but not limited to organic compounds (solvents and cleaners) shall be disposed of in accordance with all local, state and federal ordinances or regulations. (T&ES)

R-12 Supply deliveries, loading, and unloading activities shall not occur between the hours of 11:00pm and 7:00am. (T&ES)

R-13 The use must comply with the city's noise ordinance. No amplified sound shall be audible at the property line after 10:00 pm. (T&ES)

Code Enforcement:

C-1 A building permit and plan review are required prior to the start of construction.

Health Department:

No comments received.

Parks and Recreation:

No comments received.

Police Department:

No comments received.


Fire:

No comments or concerns. Occupant load does not require a fire prevention permit.



# STATEMENT OF CONSENT

The undersigned hereby agrees and consents to the attached conditions of this Special Use Permit #2020-00087. The undersigned also hereby agrees to obtain all applicable licenses and permits required for a restaurant at 2400 Mount Vernon Ave.

  
Applicant - Signature

CRISTIAN VELASCO  
Applicant - Printed

November 20/2020  
Date

NOVEMBER 20/2020  
Date



**General VPDES Permit for  
Small Municipal Separate Storm Sewer Systems  
Permit No. VAR040057**

Year 4 Annual Report  
July 1, 2021 – June 30, 2022  
City of Alexandria, Virginia

**Appendix D (*Hyperlink*)**

**Minimum Control Measure #4, Construction Site Stormwater Runoff Control**

1. [E&SC Ordinance](#); *Alexandria, Virginia - Code of Ordinances, TITLE 5 - Transportation and Environmental Services, CHAPTER 4 - Erosion and Sediment Control*



**General VPDES Permit for  
Small Municipal Separate Storm Sewer Systems  
Permit No. VAR040057**

Year 4 Annual Report  
July 1, 2021 – June 30, 2022  
City of Alexandria, Virginia

**Appendix E (*Hyperlinks are Provided for Some Materials*)  
Minimum Control Measure #5, Post-Construction Stormwater Management for New  
Development and Development on Prior Developed Lands**

1. Local VSMP Authority Approval Letter, 2014
2. [Environmental Management Ordinance](#)
3. Public Stormwater Facility BMP Inspections
  - a. FY2022 Lake Cook Inspection Form
4. Private Stormwater Facility BMP Inspections
5. Stormwater Management Facilities Installed this Permit Year
6. City Stormwater BMP Location Map
7. Stormwater BMP Maintenance Agreement example
8. Letter to owners of Single-Family Lot BMPs
9. Sample Single-Family Educational Materials for Single-Lot BMPs
10. [Development Forms Webpage](#)
11. Oronoco Remediation Update





# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

*Street address:* 629 East Main Street, Richmond, Virginia 23219

*Mailing address:* P.O. Box 1105, Richmond, Virginia 23218

[www.deq.virginia.gov](http://www.deq.virginia.gov)

Molly Joseph Ward  
Secretary of Natural Resources

David K. Paylor  
Director

December 22, 2014

(804) 698-4000  
1-800-592-5482

Rashad M. Young, City Manager  
City of Alexandria  
301 King Street, Room 3500  
Alexandria, Virginia 22314

Dear Mr. Young:

In accordance with §62.1-44.15:27 G of the Virginia Stormwater Management Act (Act), Department of Environmental Quality (DEQ) has completed the review of the City of Alexandria's final Virginia Stormwater Management Program (VSMP) application package submitted on November 4, 2014. Based on this review, DEQ has determined that the City of Alexandria's VSMP is consistent with the Act, the VSMP regulation and the General VPDES Permit for Discharges of Stormwater from Construction Activities.

In light of this determination, DEQ approves the City of Alexandria's VSMP and the City is authorized to operate a VSMP as of July 1, 2014. Please note that this approval is based on the content of the application package. Any changes made to the documents in the package after the approval date, including changes to the adopted ordinance, may necessitate DEQ evaluation as part of its compliance review of your approved VSMP.

Thank you for your cooperation in developing a VSMP. We look forward to continuing to assist the City with the implementation of its VSMP.

Sincerely,

A handwritten signature in black ink, appearing to read "David K. Paylor".

David K. Paylor

cc: Melanie Davenport, Director, Water Division  
Frederick Cunningham, Director, Office of Water Permits  
Joan Salvati, Manager, Local Government Stormwater Programs



Alexandria Public BMP Inspections - 2021 to 2022 MS4 Reporting Period

| BMP ID           | VA SW Clearinghouse BMP Categories                      | Function     | BMP_Address  | Inspection Date | Maintenance Result    |
|------------------|---|--------------|--|-----------------|-----------------------|
| 2012-0013 01 GRD | Urban Bioretention                                      | BMP          | 2209 Ivor Lane                                     | 9.2.21          | No Maintenance Needed |
| 2006-0025 01     | Extended Detention Pond 1                               | BMP          | 3000 Business Center Dr.                           | 9.11.21         | Maintenance Needed    |
| 2016-0102 01 DPI | Bioretention 1  | BMP          | I-395 and Duke Street                              | 6.9.22          | Maintenance Needed    |
| 2008-0012 05     | CMP   | Detention    | 133 S. Quaker Ln.                                  | 6.9.22          | No Maintenance Needed |
| 2011-0033 04     | CMP   | Detention    | 5261 Eisenhower Ave.                               | 6.9.22          | No Maintenance Needed |
| 1998-0011 01     | Filtering Practice 1                                    | BMP          | 3130 Business Center Dr.                           | 6.9.22          | Maintenance Needed    |
| 2007-0037 07     | Rainwater Harvesting                                    | BMP          | 3534 Wheeler Ave.                                  | 6.9.22          | No Maintenance Needed |
| 1989-0011 SIT 01 | Underground Detention                                   | Detention    | 2900 Business Center Dr.                           | 6.9.22          | Maintenance Needed    |
| 1996-0019 01     | Wet Pond 1  | BMP          | 4800 Brenman Park Dr.                              | 6.9.22          | Maintenance Needed    |
| 2003-0027 01     | Wet Pond 1  | BMP          | 4001 Eisenhower Ave. (Lake Cook)                   | 1.21.22         | Maintenance Needed    |
| 2002-0024 01     | Filtering Practice 1                                    | BMP          | 1605 Cameron St.                                   | 6.8.22          | No Maintenance Needed |
| 2007-0101 01     | Urban Bioretention                                      | BMP          | 3554 Valley Dr.                                    | 6.7.22          | Maintenance Needed    |
| 2007-0101 02     | Urban Bioretention                                      | BMP          | 3500 Valley Dr.                                    | 6.7.22          | Maintenance Needed    |
| 2008-0101 01     | Urban Bioretention                                      | BMP          | 4550 N. Pegram St.                                 | 6.7.22          | Maintenance Needed    |
| 2008-0101 02     | Urban Bioretention                                      | BMP          | 4550 N. Pegram St.                                 | 6.7.22          | Maintenance Needed    |
| 2017-0101 01 DPI | Bioretention 1  | BMP          | 4109 Mt. Vernon Ave                                | 6.6.22          | Maintenance Needed    |
| 1995-0012 01     | Filtering Practice 1                                    | BMP          | 1108 Jefferson St.                                 | 6.6.22          | No Maintenance Needed |
| 2002-0037 01     | Grass Channel   | BMP          | 3704 Mt. Vernon Ave.                               | 6.6.22          | Maintenance Needed    |
| 2006-0101 01     | Urban Bioretention                                      | BMP          | 4801 Duke St.                                      | 6.6.22          | Maintenance Needed    |
| 2006-0101 02     | Urban Bioretention                                      | BMP          | 4801 Duke St.                                      | 6.6.22          | Maintenance Needed    |
| 2006-0101 03     | Urban Bioretention                                      | BMP          | 4801 Duke St.                                      | 6.6.22          | Maintenance Needed    |
| 2012-0383 PRJ 01 | Bioretention 1  | BMP          | 1001 Jefferson St.                                 | 6.3.22          | No Maintenance Needed |
| 2003-0016 01     | Manufactured Treatment Device - Filtering               | BMP          | 2501 Mt. Vernon Ave.                               | 6.3.22          | Maintenance Needed    |
| 2016-0101 01 DPI | Permeable Pavement                                      | BMP          | Commonwealth Avenue Sidewalk                       | 6.3.22          | No Maintenance Needed |
| 2017-0102 01 DPI | Permeable Pavement                                      | BMP          | 4109 Mt. Vernon Ave (Park Expansion I)             | 6.3.22          | Maintenance Needed    |
| 2017-0002 PRK 01 | Permeable Pavement 1                                    | BMP          | Simpson Playground + Passive Playground Renovation | 6.3.22          | No Maintenance Needed |
| 2009-0013 01     | Sheetflow to Vegetated Filter or Conserved Open Space 1 | BMP          | 1001 S. Washington St.                             | 6.3.22          | No Maintenance Needed |
| 2010-0005 GRD 01 | Sheetflow to Vegetated Filter or Conserved Open Space 1 | BMP          | 3315 Landover St.                                  | 6.3.22          | No Maintenance Needed |
| 2010-0005 GRD 02 | Sheetflow to Vegetated Filter or Conserved Open Space 1 | BMP          | 3315 Landover St.                                  | 6.3.22          | No Maintenance Needed |
| 2012-0383 PRJ 02 | Sheetflow to Vegetated Filter or Conserved Open Space 1 | BMP          | 1001 Jefferson St.                                 | 6.3.22          | No Maintenance Needed |
| 1995-0012 02     | Underground Detention                                   | Detention    | 1108 Jefferson St.                                 | 6.3.22          | Maintenance Needed    |
| 2012-0103 03     | Rainwater Harvesting                                    | BMP Retrofit | 4609 Seminary Rd.                                  | 6.3..22         | Maintenance Needed    |
| 2012-0103 04     | Rainwater Harvesting                                    | BMP Retrofit | 4609 Seminary Rd.                                  | 6.3..22         | Maintenance Needed    |
| 2012-0103 05     | Rainwater Harvesting                                    | BMP Retrofit | 4609 Seminary Rd.                                  | 6.3..22         | Maintenance Needed    |
| 2007-0037 01     | Sheetflow to Vegetated Filter or Conserved Open Space 1 | BMP          | 3534 Wheeler Ave.                                  | 6.3..22         | Maintenance Needed    |
| 2005-0810 BLD 01 | Vegetated Roof 1  | BMP          | 4480 King St.                                      | 6.15.22         | Maintenance Needed    |
| 2005-0022 04     | Vegetated Roof 1  | BMP          | 901 Wythe St.                                      | 6.14.22         | Maintenance Needed    |
| 2003-0016 02     | Vegetated Roof 1  | BMP          | 2501 Mt. Vernon Ave.                               | 6.14.22         | Maintenance Needed    |
| 2009-0101 01     | Vegetated Roof 1  | BMP          | 301 King St.                                       | 6.13.22         | Maintenance needed    |
| 2009-0101 02     | Vegetated Roof 1  | BMP          | 301 King St.                                       | 6.13.22         | Maintenance Needed    |
| 2016-0103 01 DPI | Wetland/Stream Restoration                              | BMP          | Four Mile Run Restoration                          | 6.13.22         | Maintenance Needed    |
| 2002-0007 01     | Filtering Practice 1                                    | BMP          | 4251 Eisenhower Ave.                               | 6.10.22         | Maintenance Needed    |
| 2001-0014-A 01   | Wet Pond 1  | BMP          | 2901 N. Hampton Dr.                                | 6.10.22         | Maintenance Needed    |
| 2007-0014 01     | Manufactured Treatment Device - Filtering               | BMP          | 2700 Witter Dr.                                    | 6.1.22          | Maintenance Needed    |
| 2007-0014 02     | Manufactured Treatment Device - Filtering               | BMP          | 2700 Witter Dr.                                    | 6.1.22          | Maintenance Needed    |
| 2011-0033 01     | Manufactured Treatment Device - Filtering               | BMP          | 5261 Eisenhower Ave.                               | 6.1.22          | No Maintenance Needed |
| 2011-0033 02     | Manufactured Treatment Device - Filtering               | BMP          | 5261 Eisenhower Ave.                               | 6.1.22          | No Maintenance Needed |
| 2002-0070 SUP 01 | Bioretention 1  | BMP          | 3540 Wheeler Ave.                                  | 6.03.22         | Maintenance Needed    |



Alexandria Public BMP Inspections - 2021 to 2022 MS4 Reporting Period

| BMP ID           | VA SW Clearinghouse BMP Categories           | Function     | BMP_Address                                      | Inspection Date | Maintenance Result    |
|------------------|--|--------------|--|-----------------|-----------------------|
| 2012-0121 01     | Bioretention 1                               | BMP          | 4109 Mt Vernon Ave                               | 5.30.22         | Maintenance Needed    |
| 2012-0121 02     | Bioretention 1                               | BMP          | 4109 Mt. Vernon Ave                              | 5.30.22         | Maintenance Needed    |
| 2008-0018 PLT 01 | Manufactured Treatment Device - Filtering    | BMP          | 5261 Eisenhower Ave.                             | 5.30.22         | No Maintenance Needed |
| 2008-0012 04     | Manufactured Treatment Device - Filtering    | BMP          | 3200 Business Center Dr.                         | 5.30.21         | Maintenance Needed    |
| 2002-0016 01     | Manufactured Treatment Device - Hydrodynamic | BMP          | 2001 Mill Rd.                                    | 5.2.22          | Maintenance Needed    |
| 1997-0039 01     | Manufactured Treatment Device - Hydrodynamic | BMP          | 900 Second St.                                   | 5.18.22         | No Maintenance Needed |
| 1998-0009 01     | Manufactured Treatment Device - Hydrodynamic | BMP          | 5650 Sanger Ave.                                 | 5.18.22         | No Maintenance Needed |
| 1996-0019 02     | Manufactured Treatment Device - Hydrodynamic | BMP          | 4800 Brenman Park Dr.                            | 5.13.22         | No Maintenance Needed |
| 2008-0012 01     | Manufactured Treatment Device - Hydrodynamic | BMP          | 133 S. Quaker Ln.                                | 5.13.22         | No Maintenance Needed |
| 2008-0012 02     | Manufactured Treatment Device - Hydrodynamic | BMP          | 133 S. Quaker Ln.                                | 5.13.22         | No Maintenance Needed |
| 2008-0012 03     | Manufactured Treatment Device - Hydrodynamic | BMP          | 133 S. Quaker Ln.                                | 5.13.22         | No Maintenance Needed |
| 2008-0102 01     | Manufactured Treatment Device - Hydrodynamic | BMP          | 2601 Cameron Mills Rd.                           | 5.13.22         | No Maintenance Needed |
| 2011-0033 03     | Manufactured Treatment Device - Hydrodynamic | BMP          | 5261 Eisenhower Ave.                             | 5.13.22         | Maintenance Needed    |
| 2012-0102 01     | Manufactured Treatment Device - Hydrodynamic | BMP          | Intersection of Seminary Rd. & N. Beauregard St. | 5.13.22         | Maintenance Needed    |
| 2012-0102 02     | Manufactured Treatment Device - Hydrodynamic | BMP          | Intersection of Seminary Rd. & Mark Center Ave.  | 5.13.22         | Maintenance Needed    |
| 2012-0102 03     | Manufactured Treatment Device - Hydrodynamic | BMP          | Intersection of Seminary Rd. & Mark Center Ave.  | 5.13.22         | Maintenance Needed    |
| 2007-0016 PLT 01 | Manufactured Treatment Device - Filtering    | BMP          | 4421 W. Braddock Rd.                             | 5.11.22         | No Maintenance Needed |
| 2012-0103 01     | Manufactured Treatment Device - Filtering    | BMP Retrofit | 4609 Seminary Rd.                                | 5.11.22         | No Maintenance Needed |
| 2012-0103 02     | Manufactured Treatment Device - Filtering    | BMP Retrofit | 4609 Seminary Rd.                                | 5.11.22         | No Maintenance Needed |
| 2008-0005 01     | Bioretention 1                               | BMP          | Potomac Yard Dog park                            | 4.7.22          | No Maintenance Needed |
| 2011-0008 01     | Urban Bioretention                           | BMP          | 3000 Business Center Dr.                         | 4.7.22          | Maintenance Needed    |
| 2011-0008 02     | Urban Bioretention                           | BMP          | 3000 Business Center Dr.                         | 4.7.22          | Maintenance Needed    |
| 2002-0016 02     | Urban Bioretention                           | BMP          | 2001 Mill Rd.                                    | 4.29.22         | Maintenance Needed    |
| 2002-0016 03     | Urban Bioretention                           | BMP          | 2001 Mill Rd.                                    | 4.29.22         | Maintenance Needed    |
| 2002-0016 04     | Urban Bioretention                           | BMP          | 2001 Mill Rd.                                    | 4.29.22         | Maintenance Needed    |
| 2002-0016 05     | Urban Bioretention                           | BMP          | 2001 Mill Rd.                                    | 4.29.22         | No Maintenance Needed |
| 2002-0016 06     | Urban Bioretention                           | BMP          | 2001 Mill Rd.                                    | 4.29.22         | No Maintenance Needed |
| 2002-0016 07     | Urban Bioretention                           | BMP          | 2001 Mill Rd.                                    | 4.29.22         | No Maintenance Needed |
| 2002-0016 08     | Urban Bioretention                           | BMP          | 2001 Mill Rd.                                    | 4.29.22         | No Maintenance Needed |
| 2012-0101 01     | Urban Bioretention                           | BMP          | 101 Cedar St.                                    | 4.28.22         | Maintenance Needed    |
| 2013-0101 01 DPI | Urban Bioretention                           | BMP          | 800 Block of S. Washington St                    | 4.28.22         | No Maintenance Needed |
| 2013-0101 02 DPI | Urban Bioretention                           | BMP          | 800 Block of S. Washington St                    | 4.28.22         | No Maintenance Needed |
| 2013-0101 03 DPI | Urban Bioretention                           | BMP          | 800 Block of S. Washington St                    | 4.28.22         | No Maintenance Needed |
| 2013-0101 04 DPI | Urban Bioretention                           | BMP          | 800 Block of S. Washington St                    | 4.28.22         | No Maintenance Needed |
| 2013-0101 05 DPI | Urban Bioretention                           | BMP          | 800 Block of S. Washington St                    | 4.28.22         | No Maintenance Needed |
| 2013-0101 06 DPI | Urban Bioretention                           | BMP          | 800 Block of S. Washington St                    | 4.28.22         | No Maintenance Needed |
| 2013-0101 07 DPI | Urban Bioretention                           | BMP          | 800 Block of S. Washington St                    | 4.28.22         | No Maintenance Needed |
| 2013-0101 08 DPI | Urban Bioretention                           | BMP          | 800 Block of S. Washington St                    | 4.28.22         | No Maintenance Needed |
| 2015-0011 GRD 07 | Naomi L. Brooks Elementary School            | BMP          | BMP 600 Russell Road                             | 4.27.22         | No Maintenance Needed |
| 2007-0037 02     | Bioretention 1                               | BMP          | 3534 Wheeler Ave.                                | 4.21.22         | Maintenance Needed    |
| 2007-0037 03     | Bioretention 1                               | BMP          | 3534 Wheeler Ave.                                | 4.21.22         | Maintenance Needed    |
| 2007-0037 04     | Bioretention 1                               | BMP          | 3534 Wheeler Ave.                                | 4.21.22         | Maintenance Needed    |
| 2007-0037 05     | Bioretention 1                               | BMP          | 3534 Wheeler Ave.                                | 4.21.22         | Maintenance Needed    |
| 2007-0037 06     | Bioretention 1                               | BMP          | 3534 Wheeler Ave.                                | 4.21.22         | Maintenance Needed    |
| 2014-0101 01     | Urban Bioretention                           | BMP          | Jefferson Davis Highway Rapid Bus Transit        | 3.30.22         | No Maintenance Needed |
| 2014-0101 02     | Urban Bioretention                           | BMP          | Jefferson Davis Highway Rapid Bus Transit        | 3.30.22         | No Maintenance Needed |



Alexandria Public BMP Inspections - 2021 to 2022 MS4 Reporting Period

| BMP ID           | VA SW Clearinghouse BMP Categories           | Function | BMP_Address                               | Inspection Date | Maintenance Result    |
|------------------|--|----------|---|-----------------|-----------------------|
| 2014-0101 03     | Urban Bioretention                           | BMP      | Jefferson Davis Highway Rapid Bus Transit | 3.30.22         | No Maintenance Needed |
| 2014-0101 04     | Urban Bioretention                           | BMP      | Jefferson Davis Highway Rapid Bus Transit | 3.30.22         | No Maintenance Needed |
| 2014-0101 05     | Urban Bioretention                           | BMP      | Jefferson Davis Highway Rapid Bus Transit | 3.30.22         | No Maintenance Needed |
| 2014-0101 06     | Urban Bioretention                           | BMP      | Jefferson Davis Highway Rapid Bus Transit | 3.30.22         | No Maintenance Needed |
| 2014-0101 07     | Urban Bioretention                           | BMP      | Jefferson Davis Highway Rapid Bus Transit | 3.30.22         | No Maintenance Needed |
| 2006-0025 02     | Urban Bioretention                           | BMP      | 3000 Business Center Dr.                  | 3.23.22         | Maintenance Needed    |
| 2006-0025 03     | Urban Bioretention                           | BMP      | 3000 Business Center Dr.                  | 3.23.22         | Maintenance Needed    |
| 2006-0025 04     | Urban Bioretention                           | BMP      | 3000 Business Center Dr.                  | 3.23.22         | Maintenance Needed    |
| 1998-0016 02     | Extended Detention Pond 1                    | BMP      | 2009 Braddock Ct.                         | 3.21.22         | Maintenance Needed    |
| 2019-03-02 DPI   | Two Bio-retention BMPs                       | BMP      | Windmill Hill Park                        | 3.10.22         | No Maintenance Needed |
| 1997-0025 01     | Bioretention 1                               | BMP      | 5005 Duke St.                             | 3.02.22         | Maintenance Needed    |
| 1997-0025 02     | Bioretention 1                               | BMP      | 5005 Duke St.                             | 3.02.22         | Maintenance Needed    |
| 1997-0025 03     | Bioretention 1                               | BMP      | 5005 Duke St.                             | 3.02.22         | Maintenance Needed    |
| 1997-0025 04     | Bioretention 1                               | BMP      | 5005 Duke St.                             | 3.02.22         | Maintenance Needed    |
| 1997-0025 05     | Bioretention 1                               | BMP      | 5005 Duke St.                             | 3.02.22         | Maintenance Needed    |
| 1997-0025 06     | Bioretention 1                               | BMP      | 5005 Duke St.                             | 2.23.22         | Maintenance Needed    |
| 2005-0022 03     | Urban Bioretention                           | BMP      | 901 Wythe St.                             | 12.2.21         | No Maintenance Needed |
| 2002-0005 01     | Manufactured Treatment Device - Filtering    | BMP      | 5750 Sanger Ave.                          | 12.1.21         | No Maintenance Needed |
| 2002-0005 02     | Manufactured Treatment Device - Hydrodynamic | BMP      | 5750 Sanger Ave.                          | 12.1.21         | Maintenance Needed    |
| 2005-0022 01     | Manufactured Treatment Device - Filtering    | BMP      | 901 Wythe St.                             | 12.1.21         | No Maintenance Needed |
| 2005-0022 02     | Manufactured Treatment Device - Filtering    | BMP      | 901 Wythe St.                             | 12.1.21         | No Maintenance Needed |
| 1996-0024 01     | Bioretention 1                               | BMP      | 450 Andrews Ln.                           | 10.28.21        | Maintenance Needed    |
| 2010-0018 GRD 01 | Bioretention 1                               | BMP      | 1&7 E. Del Ray Ave.                       | 10.12.21        | Maintenance Needed    |
| 2004-0038 01     | Wetland/Stream Restoration                   | BMP      | 3700-3721 Taft Ave.                       | 1.28.22         | Failure               |
| 2007-0102 01     | Vegetated Roof 1                             | BMP      | E Windsor                                 | 6.14.22         | Removed               |





**City of Alexandria, Virginia**  
**BMP Inspection-Wet Pond**

|                      |
|----------------------|
| <b>Project Name:</b> |
| <b>Location:</b>     |
| <b>Project #:</b>    |
| <b>BMP Type:</b>     |
| <b>BMP Info:</b>     |

|                             |                                       |
|-----------------------------|---------------------------------------|
| <b>Inspection Date:</b>     | <b>Inspection Time:</b>               |
| <b>Primary Inspector:</b>   | <b>Time since last precipitation:</b> |
| <b>Secondary Inspector:</b> | <b>Amount of last precipitation:</b>  |

|                              |
|------------------------------|
| <b>Flow condition:</b>       |
| <b>Structural condition:</b> |
| <b>Overall condition:</b>    |

| Parameter  | Result |
|--|--------|
| <b>Contributing Drainage Area</b>                |        |
| Adequate vegetation                              |        |
| No excessive trash or debris                     |        |
| No evidence of erosion                           |        |
| <b>Pre-treatment</b>                             |        |
| No excessive trash or debris                     |        |
| No evidence of erosion                           |        |
| Forebay less than 50% filled                     |        |
| No evidence of clogging                          |        |
| Adequate vegetation                              |        |
| <b>Inlet</b>                                     |        |
| Inlet is stable                                  |        |
| No excessive trash, debris, or sediment          |        |
| No evidence of erosion                           |        |
| No woody growth                                  |        |
| No evidence of nuisance animals                  |        |
| <b>Vegetation</b>                                |        |
| Plant composition consistent with approved plans |        |
| No invasive species                              |        |
| No overgrown grass around facility               |        |
| No dead or dying plants                          |        |
| <b>Permanent pool/Side slopes</b>                |        |
| No excessive trash or debris                     |        |
| No evidence of erosion                           |        |



|   |  |
|---|--|
| No evidence of nuisance animals             |  |
| No excessive sediment                       |  |
| Adequately maintaining permanent pool       |  |
| <b>Riser and principal spillway</b>         |  |
| No evidence of structural damage            |  |
| Valves are operational                      |  |
| No seepage into conduit                     |  |
| No evidence of clogging                     |  |
| Trash rack is clear of debris               |  |
| No obstruction of orifice                   |  |
| No excessive sediment                       |  |
| <b>Dam/Embankment</b>                       |  |
| No cracking, bulging, or sliding            |  |
| No soft spots, seepage, or sink holes       |  |
| No evidence of nuisance animals             |  |
| No woody vegetation                         |  |
| No evidence of erosion                      |  |
| <b>Emergency Spillway</b>                   |  |
| No woody growth                             |  |
| No excessive trash, debris, or sediment     |  |
| No evidence of erosion                      |  |
| No soft spots, seepage, or sink holes       |  |
| No riprap failure                           |  |
| No evidence of obstruction                  |  |
| <b>Outlet</b>                               |  |
| No woody growth                             |  |
| No excessive trash, debris, or obstructions |  |
| No excessive sediment                       |  |
| No evidence of erosion                      |  |
| No rip rap failure                          |  |
| Pipe in good condition                      |  |
| Endwall/headwall in good condition          |  |
| <b>Overall</b>                              |  |
| Adequate facility access                    |  |
| Mosquito proliferation                      |  |
| No encroachments on pond                    |  |



**Inspection Comments**



**FY2022 Private BMP Inspections and Results**

| BMP ID           | BMP Type   | Address                         | Date of Inspection | Result                  | Maintenance Completion | Corrective Action Certification | Notice to Comply Cert |
|------------------|--|---------------------------------|--------------------|-------------------------|------------------------|---------------------------------|-----------------------|
| 1992-0016 01     | Dry Detention Pond   | 301 & 303 Charles Alexander Ct. | 3/15/2022          | Maintenance Needed      | 8/16/2022              |                                 |                       |
| 1992-0019 01     | Dry Detention Pond   | 101 S. Van Dorn St.             | 2/16/2022          | Maintenance Needed      | 8/5/2022               |                                 |                       |
| 1992-0019 02     | Infiltration System  | 101 S. Van Dorn St.             | 2/16/2022          | Maintenance Needed      | 8/5/2022               |                                 |                       |
| 1992-0019 03     | Oil / Grit Separator                                       | 101 S. Van Dorn St.             | 2/16/2022          | Maintenance Needed      | 8/5/2022               |                                 |                       |
| 1992-0019 04     | Oil / Grit Separator                                       | 101 S. Van Dorn St.             | 2/16/2022          | Maintenance Needed      | 8/5/2022               |                                 |                       |
| 1993-0004 01     | Infiltration System  | 5901 Stevenson Ave.             | 2/16/2022          | Not Needed              |                        |                                 |                       |
| 1993-0004 02     | Oil / Grit Separator                                       | 5901 Stevenson Ave.             | 2/16/2022          | Maintenance Needed      |                        |                                 |                       |
| 1994-0010 01     | Bioretention Filter  | 1525 Kenwood Ave.               | 6/17/2022          | Maintenance Needed      | 8/15/2022              |                                 |                       |
| 1994-0014 01     | Stormceptor® Stormwater Treatment System                   | 309 Second St.                  | 2/16/2022          | Maintenance Needed      | 7/15/2022              |                                 |                       |
| 1994-0024 01     | Bioretention Filter  | 3825 1/2 Dominion Mill Dr.      | 7/7/2021           | Maintenance Needed      | 9/27/2021              |                                 |                       |
| 1994-0024 02     | Bioretention Filter  | 3825 1/2 Dominion Mill Dr.      | 7/7/2021           | Maintenance Needed      | 9/27/2021              |                                 |                       |
| 1994-0024 03     | Bioretention Filter  | 3825 1/2 Dominion Mill Dr.      | 7/7/2021           | Maintenance Needed      | 9/27/2021              |                                 |                       |
| 1994-0024 04     | Bioretention Filter  | 3825 1/2 Dominion Mill Dr.      | 7/7/2021           | Maintenance Needed      | 9/27/2021              |                                 |                       |
| 1994-0024 05     | Bioretention Filter  | 3825 1/2 Dominion Mill Dr.      | 7/7/2021           | Maintenance Needed      | 9/27/2021              |                                 |                       |
| 1994-0024 06     | Bioretention Filter  | 3825 1/2 Dominion Mill Dr.      | 7/7/2021           | Maintenance Needed      | 9/27/2021              |                                 |                       |
| 1994-0024 07     | Bioretention Filter  | 3825 1/2 Dominion Mill Dr.      | 7/7/2021           | Maintenance Needed      | 9/27/2021              |                                 |                       |
| 1994-0024 08     | Bioretention Filter  | 3825 1/2 Dominion Mill Dr.      | 7/7/2021           | Maintenance Needed      | 9/27/2021              |                                 |                       |
| 1994-0024 09     | Bioretention Filter  | 3825 1/2 Dominion Mill Dr.      | 7/7/2021           | Maintenance Needed      | 9/27/2021              |                                 |                       |
| 1994-0024 10     | Bioretention Filter  | 3825 1/2 Dominion Mill Dr.      | 7/7/2021           | Maintenance Needed      | 9/27/2021              |                                 |                       |
| 1994-0024 11     | Bioretention Filter  | 3825 1/2 Dominion Mill Dr.      | 7/7/2021           | Maintenance Needed      | 9/27/2021              |                                 |                       |
| 1994-0024 12     | Stormceptor® Stormwater Treatment System                   | 3825 1/2 Dominion Mill Dr.      | 7/7/2021           | Maintenance Needed      | 9/27/2021              |                                 |                       |
| 1994-0024 13     | Stormceptor® Stormwater Treatment System                   | 3825 1/2 Dominion Mill Dr.      | 7/7/2021           | Not needed              |                        |                                 |                       |
| 1994-0024 14     | Stormceptor® Stormwater Treatment System                   | 3825 1/2 Dominion Mill Dr.      | 7/7/2021           | Maintenance Needed      | 9/27/2021              |                                 |                       |
| 1996-0036 01     | Bioretention Filter  | 3750 Jefferson Davis Hwy.       | 4/28/2022          | Maintenance Needed      | 6/8/2022               |                                 |                       |
| 1996-0036 02     | Bioretention Filter  | 3750 Jefferson Davis Hwy.       | 4/28/2022          | Maintenance Needed      | 7/15/2022              |                                 |                       |
| 1996-0036 03     | Bioretention Filter  | 3750 Jefferson Davis Hwy.       | 4/28/2022          | Maintenance Needed      | 7/15/2022              |                                 |                       |
| 1996-0036 04     | Bioretention Filter  | 3750 Jefferson Davis Hwy.       | 4/28/2022          | Not Needed              |                        |                                 |                       |
| 1996-0036 05     | Delaware Sand Filter                                       | 3750 Jefferson Davis Hwy.       | 2/16/2022          | Not Needed              |                        |                                 |                       |
| 1999-0004 01     | Stormceptor® Stormwater Treatment System                   | 1200 First St.                  | 3/15/2022          | Maintenance Needed      | 7/23/2022              |                                 |                       |
| 2000-0040 01     | Alexandria Compound Sand Filter                            | 1940 Duke St.                   | 2/16/2022          | Not Needed              |                        |                                 |                       |
| 2000-0049 01     | D.C. Sand Filter   | 1000 St. Stephens Rd.           | 3/22/2022          | Maintenance Needed      | 8/19/2022              |                                 |                       |
| 2000-0049 02     | Detention  | 1000 St. Stephens Rd.           | 3/22/2022          | Not Needed              |                        |                                 |                       |
| 2001-0003 01     | Alexandria Compound Sand Filter                            | 501 Holland Ln.                 | 2/16/2022          | Not Needed              | 7/23/2022              |                                 |                       |
| 2001-0003 02     | Alexandria Compound Sand Filter                            | 501 Holland Ln.                 | 2/16/2022          | Maintenance Needed      | 7/8/2022               |                                 |                       |
| 2001-0007 01     | StormFilter™ Stormwater Treatment System                   | 1525 Kenwood Ave.               | 3/15/2022          | Not Needed              |                        |                                 |                       |
| 2001-0007 02     | Detention  | 1525 Kenwood Ave.               | 3/15/2022          | Not needed              |                        |                                 |                       |
| 2001-0008 01     | StormFilter™ Stormwater Treatment System                   | 1005 Mt. Vernon Ave.            | 3/15/2022          | Maintenance Needed      |                        |                                 |                       |
| 2001-0008 02     | Detention  | 1005 Mt. Vernon Ave.            | 3/15/2022          | Not needed              |                        |                                 |                       |
| 2001-0008 03     | Detention  | 1005 Mt. Vernon Ave.            | 3/15/2022          | Not needed              |                        |                                 |                       |
| 2001-0014 01     | StormFilter™ Stormwater Treatment System                   | 3101 N. Hampton Dr.             | 7/21/2021          | Not Needed              | 7/21/2021              |                                 |                       |
| 2001-0014 03     | StormFilter™ Stormwater Treatment System                   | 4390 King St.                   | 7/21/2021          | Not Needed              | 7/21/2021              |                                 |                       |
| 2001-0014 04     | Detention  | 3101 N. Hampton Dr.             | 7/21/2021          | Not Needed              | 7/21/2021              |                                 |                       |
| 2001-0014 05     | Detention  | 4390 King St.                   | 7/21/2021          | Not Needed              | 7/21/2021              |                                 |                       |
| 2002-0022 01     | StormFilter™ Stormwater Treatment System                   | 260 Yoakum Pkwy.                | 2/22/2022          | Maintenance Needed      | 7/25/2022              |                                 |                       |
| 2002-0022 02     | Detention  | 260 Yoakum Pkwy.                | 2/22/2022          | NA                      |                        |                                 |                       |
| 2002-0036 01     | StormGate Separator™                                       | 200 S. Pickett St.              | 2/23/2022          | Not Needed              |                        |                                 |                       |
| 2002-0044 01     | Downstream Defender® Stormwater Treatment Vortex Separator | 1340 Braddock Place             | 3/15/2022          | Maintenance Needed      |                        |                                 |                       |
| 2002-0044 02     | Downstream Defender® Stormwater Treatment Vortex Separator | 3300 King St.                   | 3/15/2022          | Maintenance Needed      |                        |                                 |                       |
| 2002-0044 03     | Downstream Defender® Stormwater Treatment Vortex Separator | 3300 King St.                   | 3/15/2022          | Maintenance Needed      |                        |                                 |                       |
| 2002-0044 04     | Downstream Defender® Stormwater Treatment Vortex Separator | 3300 King St.                   | 3/15/2022          | Maintenance Needed      |                        |                                 |                       |
| 2002-0044 05     | StormFilter™ Stormwater Treatment System                   | 3300 King St.                   | 3/15/2022          | Maintenance Needed      |                        |                                 |                       |
| 2002-0044 06     | Bioretention Filter  | 3300 King St.                   | 5/3/2022           | Maintenance Needed      |                        |                                 |                       |
| 2002-0044 07     | Cistern  | 3300 King St.                   | 3/15/2022          | Maintenance Recommended |                        |                                 |                       |
| 2002-0044 08     | Green Roof   | 3300 King St.                   | 5/3/2022           | Maintenance Needed      |                        |                                 |                       |
| 2005-0005 01     | D.C. Sand Filter   | 2251 & 2351 Eisenhower Ave.     | 2/16/2022          | Maintenance Needed      | 7/23/2022              |                                 |                       |
| 2005-0018 01     | Stormceptor® Stormwater Treatment System                   | 1125 N. Royal St.               | 2/23/2022          | Not Needed              |                        |                                 |                       |
| 2005-0020 01     | D.C. Sand Filter   | 2316 & 2318 Mill Rd.            | 2/16/2022          | Maintenance Needed      | 7/23/2022              |                                 |                       |
| 2007-0024 PLT 01 | StormFilter™ Stormwater Treatment System                   | 825 N. Washington St.           | 2/17/2022          | Maintenance Needed      | 8/12/2022              |                                 |                       |
| 2008-0017 01     | Tree Box Filter  | 4641 Seminary Rd.               | 4/29/2022          | Maintenance Needed      | 8/4/2022               |                                 |                       |
| 2008-0017 02     | Tree Box Filter  | 2219 N. Van Dorn St.            | 4/29/2022          | Maintenance Needed      | 8/4/2022               |                                 |                       |



**FY2022 Private BMP Inspections and Results**

| BMP ID           | BMP Type                                  | Address                  | Date of Inspection | Result             | Maintenance Completion | Corrective Action Certification | Notice to Comply Cert |
|------------------|---|--------------------------|--------------------|--------------------|------------------------|---------------------------------|-----------------------|
| 2008-0017 03     | Tree Box Filter                           | 2219 N. Van Dorn St.     | 4/29/2022          | Maintenance Needed | 8/4/2022               |                                 |                       |
| 2009-0014 GRD 01 | Tree Box Filter                           | 3801 W. Braddock Rd.     | 4/29/2022          | Maintenance Needed |                        |                                 |                       |
| 2009-0014 GRD 02 | Tree Box Filter                           | 3801 W. Braddock Rd.     | 4/29/2022          | Maintenance Needed |                        |                                 |                       |
| 2009-0014 GRD 03 | Tree Box Filter                           | 3801 W. Braddock Rd.     | 4/29/2022          | Maintenance Needed |                        |                                 |                       |
| 2009-0014 GRD 04 | Tree Box Filter                           | 3801 W. Braddock Rd.     | 4/29/2022          | Maintenance Needed |                        |                                 |                       |
| 2011-0014 01     | StormChamber® Stormwater Treatment System | 101-103 E. Reed Ave.     | 4/12/2022          | Not Needed         |                        |                                 |                       |
| 2011-0014 02     | Flow Thru Planter Box                     | 101-103 E. Reed Ave.     | 4/12/2022          | Not Needed         |                        |                                 |                       |
| 2011-0014 03     | Flow Thru Planter Box                     | 101-103 E. Reed Ave.     | 4/12/2022          | Not Needed         |                        |                                 |                       |
| 2011-0014 04     | Flow Thru Planter Box                     | 101-103 E. Reed Ave.     | 4/12/2022          | Not Needed         |                        |                                 |                       |
| 2011-0014 05     | Flow Thru Planter Box                     | 101-103 E. Reed Ave.     | 4/12/2022          | Not Needed         |                        |                                 |                       |
| 2011-0014 06     | Flow Thru Planter Box                     | 101-103 E. Reed Ave.     | 4/12/2022          | Not Needed         |                        |                                 |                       |
| 2011-0014 07     | Permeable Pavement                        | 101-103 E. Reed Ave.     | 4/12/2022          | Not Needed         |                        |                                 |                       |
| 2011-0014 08     | Permeable Pavement                        | 101-103 E. Reed Ave.     | 4/12/2022          | Not Needed         |                        |                                 |                       |
| 2011-0026 GRD 01 | BaySeparator™ Stormwater Treatment System | 4646 Seminary Rd.        | 3/23/2022          | Maintenance Needed |                        |                                 |                       |
| 2011-0026 GRD 02 | Tree Box Filter                           | 4646 Seminary Rd.        | 3/23/2022          | Maintenance Needed |                        |                                 |                       |
| 2011-0026 GRD 03 | D.C. Sand Filter                          | 4646 Seminary Rd.        | 3/23/2022          | Maintenance Needed |                        |                                 |                       |
| 2011-0026 GRD 04 | Permeable Pavement                        | 4646 Seminary Rd.        | 3/23/2022          | Not Needed         |                        |                                 |                       |
| 2011-0026 GRD 05 | Permeable Pavement                        | 4646 Seminary Rd.        | 3/23/2022          | Not Needed         |                        |                                 |                       |
| 2011-0028 01     | StormFilter™ Stormwater Treatment System  | 3600 Jefferson Davis Hwy | 4/12/2022          | Not Needed         |                        |                                 |                       |
| 2012-0001 01     | StormFilter™ Stormwater Treatment System  | 918 N. Columbus St.      | 2/24/2022          | Not Needed         |                        |                                 |                       |
| 2012-0005 01     | Wet Pond                                  | 1000 Main Line Blvd.     | 5/3/2022           | Not Needed         |                        |                                 |                       |
| 2012-0010 GRD 01 | CDS® Stormwater Treatment System          | 601 N. Fairfax St.       | 2/24/2022          | Not Needed         |                        |                                 |                       |
| 2012-0018 01     | Flow Thru Planter Box                     | 813 Princess St.         | 6/17/2022          | Not Needed         |                        |                                 |                       |
| 2012-0018 02     | Flow Thru Planter Box                     | 813 Princess St.         | 6/17/2022          | Not Needed         |                        |                                 |                       |
| 2012-0018 03     | Flow Thru Planter Box                     | 813 Princess St.         | 5/3/2022           | Not Needed         |                        |                                 |                       |
| 2012-0018 04     | Flow Thru Planter Box                     | 813 Princess St.         | 5/3/2022           | Not Needed         |                        |                                 |                       |
| 2012-0018 05     | Permeable Pavement                        | 813 Princess St.         | 3/15/2022          | Not Needed         |                        |                                 |                       |
| 2012-0028 01     | Regional Wet Pond                         | 2250 Mill Rd.            | 5/2/2022           | Not Needed         |                        |                                 |                       |
| 2012-0030 01     | CDS® Stormwater Treatment System          | 2700 Jefferson Davis Hwy | 2/23/2022          | Maintenance Needed | 3/31/2022              |                                 |                       |
| 2013-0002 02     | CDS® Stormwater Treatment System          | 700-710 N Washington     | 2/23/2022          | Maintenance Needed | 8/5/2022               |                                 |                       |
| 2013-0010 01     | CDS® Stormwater Treatment System          | 529 E Howell Ave         | 2/24/2022          | Maintenance Needed | 7/11/2022              |                                 |                       |
| 2013-0019 02     | StormFilter™ Stormwater Treatment System  | 1500 Eisenhower Ave      | 6/17/2022          | Maintenance Needed | 7/25/2022              |                                 |                       |
| 2013-0022 01     | StormFilter™ Stormwater Treatment System  | 1505 Powhattan St        | 2/16/2022          | Maintenance Needed | 5/20/2022              | 8/29/2022                       |                       |
| 2013-0022 02     | Bioretention Filter                       | 1505 Powhattan St        | 4/12/2022          | Maintenance Needed | 5/20/2022              | 8/29/2022                       |                       |
| 2013-0022 03     | Bioretention Filter                       | 1505 Powhattan St        | 4/12/2022          | Maintenance Needed | 5/20/2022              | 8/29/2022                       |                       |
| 2013-0022 04     | Bioretention Filter                       | 1505 Powhattan St        | 4/12/2022          | Maintenance Needed | 5/20/2022              | 8/29/2022                       |                       |
| 2015-0011 GRD 01 | Bioretention Filter                       | 600 Russell Rd           | 4/11/2022          | Maintenance Needed |                        |                                 |                       |
| 2015-0011 GRD 02 | Bioretention Filter                       | 600 Russell Rd           | 4/11/2022          | Maintenance Needed |                        |                                 |                       |
| 2015-0011 GRD 03 | BayFilter™ Stormwater Filtration System   | 600 Russell Rd           | 4/11/2022          | Maintenance Needed |                        |                                 |                       |
| 2015-0011 GRD 04 | BayFilter™ Stormwater Filtration System   | 600 Russell Rd           | 4/11/2022          | Maintenance Needed |                        |                                 |                       |
| 2015-0020 01     | StormFilter™ Stormwater Treatment System  | 100 S Reynolds Street    | 2/23/2022          | Maintenance Needed |                        |                                 |                       |
| 2015-0020 02     | Tree Box Filter                           | 100 S Reynolds Street    | 5/2/2022           | Maintenance Needed |                        |                                 |                       |

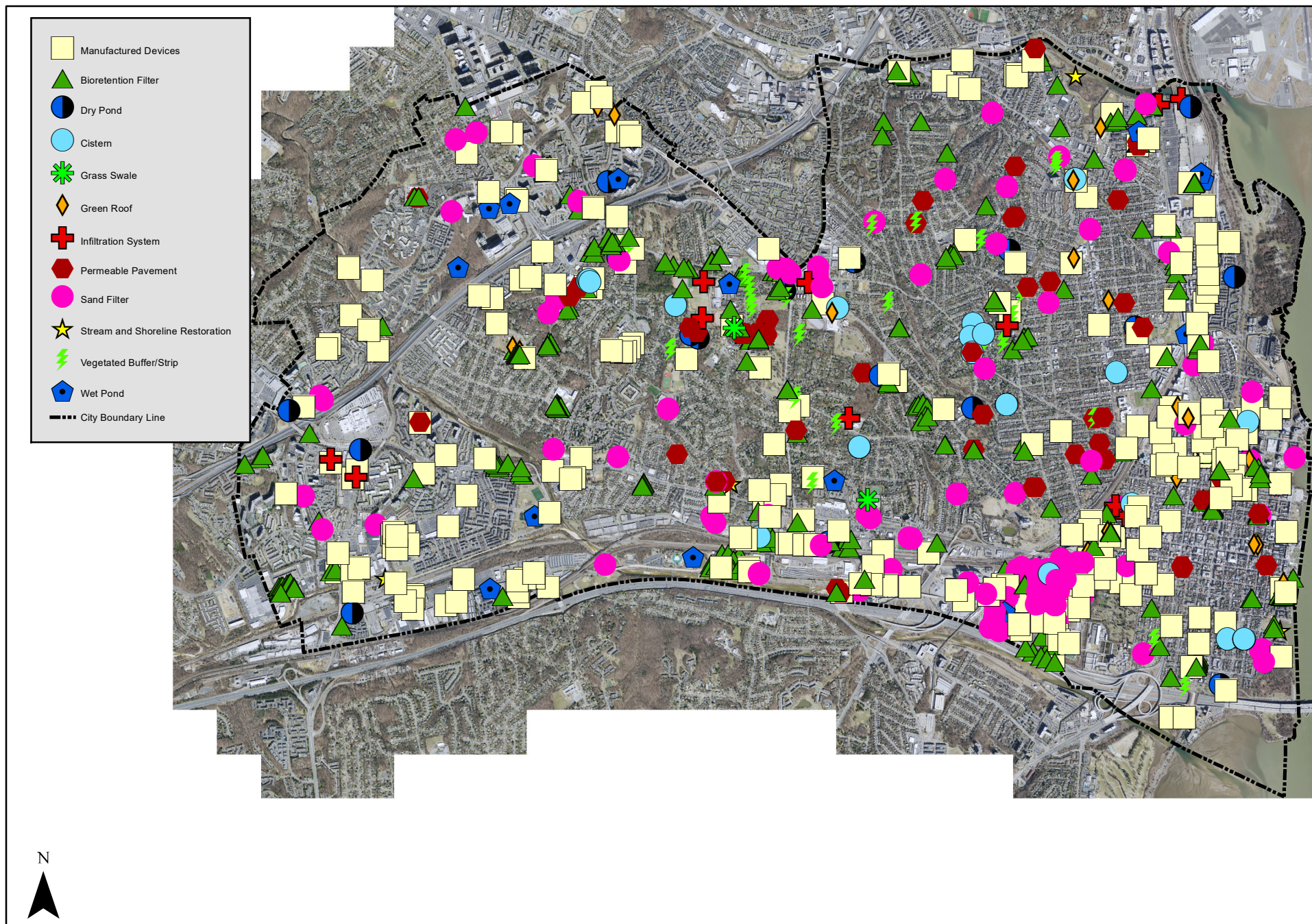


FY2022 As Builts

| BMP_ID       | VA SW Clearinghouse BMP Categories           | Plan_Name  | BMP_Address            | Total Area Treated | Impervious Area |     | Pervious Area |      | Date Installed | DischargingWaterbody | VAHUC6 | Ownership | BMP Agreement | TP Removed | TN Removed | TSS Removed |
|--------------|--|--|------------------------|--------------------|-----------------|-----|---------------|------|----------------|----------------------|--------|-----------|---------------|------------|------------|-------------|
|              |  |  |                        |                    | Treated         |     | Treated       |      |                |                      |        |           |               |            |            |             |
| 2008-0005    | Bioretention 1                               | Potomac Yard Dog Park                                | 561 E Monroe           | 0.94               |                 | 0.1 |               | 0.84 | 10/16/2018     | Four Mile Run        | PL28   | Public    | MOU           | 0.38       | 3.18       | 178.296     |
| 2012-0019 01 | Manufactured Treatment Device - Filtering    | Cummings Site - Indigo Hotel                         | 220 S. Union St.       | 0.461              | 0.461           |     | 0             | 0    | 5/15/2019      | Potomac River        | PL28   | Private   | Yes           | 0.45       | 0          | 211.14      |
| 2014-0006 01 | Bioretention 1                               | Robinson Terminal South                              | 2 Duke Street          | 0.015              | 0.014           |     | 0.01          | 0.01 | 9/2/2021       | Potomac River        | PL28   | Private   | Yes           | 0.016      | 0.129      | 7.5072      |
| 2014-0006 02 | Bioretention 1                               | Robinson Terminal South                              | 2 Duke Street          | 0.015              | 0.014           |     | 0.01          | 0.01 | 9/2/2021       | Potomac River        | PL28   | Private   | Yes           | 0.016      | 0.129      | 7.5072      |
| 2014-0006 03 | Bioretention 1                               | Robinson Terminal South                              | 2 Duke Street          | 0.015              | 0.014           |     | 0.01          | 0.01 | 9/2/2021       | Potomac River        | PL28   | Private   | Yes           | 0.016      | 0.129      | 7.5072      |
| 2014-0006 04 | Bioretention 1                               | Robinson Terminal South                              | 2 Duke Street          | 0.015              | 0.014           |     | 0.01          | 0.01 | 9/2/2021       | Potomac River        | PL28   | Private   | Yes           | 0.016      | 0.129      | 7.5072      |
| 2014-0006 05 | Bioretention 1                               | Robinson Terminal South                              | 2 Duke Street          | 0.015              | 0.014           |     | 0.01          | 0.01 | 9/2/2021       | Potomac River        | PL28   | Private   | Yes           | 0.016      | 0.129      | 7.5072      |
| 2014-0006 06 | Bioretention 1                               | Robinson Terminal South                              | 2 Duke Street          | 0.015              | 0.014           |     | 0.01          | 0.01 | 9/2/2021       | Potomac River        | PL28   | Private   | Yes           | 0.016      | 0.129      | 7.5072      |
| 2014-0006 07 | Bioretention 1                               | Robinson Terminal South                              | 2 Duke Street          | 0.015              | 0.014           |     | 0.01          | 0.01 | 9/2/2021       | Potomac River        | PL28   | Private   | Yes           | 0.016      | 0.129      | 7.5072      |
| 2014-0006 08 | Bioretention 1                               | Robinson Terminal South                              | 2 Duke Street          | 0.015              | 0.014           |     | 0.01          | 0.01 | 9/2/2021       | Potomac River        | PL28   | Private   | Yes           | 0.016      | 0.129      | 7.5072      |
| 2014-0006 09 | Bioretention 1                               | Robinson Terminal South                              | 2 Duke Street          | 0.015              | 0.014           |     | 0.01          | 0.01 | 9/2/2021       | Potomac River        | PL28   | Private   | Yes           | 0.016      | 0.129      | 7.5072      |
| 2014-0006 10 | Bioretention 1                               | Robinson Terminal South                              | 2 Duke Street          | 0.015              | 0.014           |     | 0.01          | 0.01 | 9/2/2021       | Potomac River        | PL28   | Private   | Yes           | 0.016      | 0.129      | 7.5072      |
| 2014-0006 11 | Manufactured Treatment Device - Filtering    | Robinson Terminal South                              | 2 Duke Street          | 0.53               | 0.53            |     | 0             | 0    | 9/2/2021       | Potomac River        | PL28   | Private   | Yes           | 0.6        | 0          | 281.52      |
| 2014-0006 12 | Impervious Surface Reduction                 | Robinson Terminal South                              | 2 Duke Street          | 0.45               | 0.45            |     | 0             | 0    | 9/2/2021       | Potomac River        | PL28   | Private   | Yes           | 0.67       | 4.78       | 314.364     |
| 2015-0001 01 | Manufactured Treatment Device - Filtering    | 2901 Eisenhower Avenue                               | 2901 Eisenhower Avenue | 2.12               | 1.68            |     | 0.44          | 0.44 | 12/9/2021      | Cameron Run          | PL28   | Private   | Yes           | 1.7        | 0          | 797.64      |
| 2015-0001 02 | Manufactured Treatment Device - Filtering    | 2901 Eisenhower Avenue                               | 2901 Eisenhower Avenue | 1.61               | 1.56            |     | 0.05          | 0.05 | 12/9/2021      | Cameron Run          | PL28   | Private   | Yes           | 1.85       | 0          | 868.02      |
| 2015-0001 03 | Manufactured Treatment Device - Filtering    | 2901 Eisenhower Avenue                               | 2901 Eisenhower Avenue | 2.02               | 1.6             |     | 0.42          | 0.42 | 12/9/2021      | Cameron Run          | PL28   | Private   | Yes           | 1.94       | 0          | 910.248     |
| 2015-0001 04 | Bioretention 2                               | 2901 Eisenhower Avenue                               | 2901 Eisenhower Avenue | 0.55               | 0.15            |     | 0.4           | 0.4  | 12/9/2021      | Cameron Run          | PL28   | Private   | Yes           | 0.5        | 3.64       | 234.2       |
| 2016-0021 01 | Manufactured Treatment Device - Filtering    | Craftmark - St. James Phase II Townhouse Development | 5000 Echols Ave        | 0.11               | 0.08            |     | 0.03          | 0.03 | 5/12/2021      | Four Mile Run        | PL25   | Private   | Yes           | 0.04       | 0          | 18.768      |
| 2016-0021 02 | Manufactured Treatment Device - Filtering    | Craftmark - St. James Phase II Townhouse Development | 5000 Echols Ave        | 0.11               | 0.08            |     | 0.03          | 0.03 | 5/12/2021      | Four Mile Run        | PL25   | Private   | Yes           | 0.04       | 0          | 18.768      |
| 2016-0021 03 | Manufactured Treatment Device - Filtering    | Craftmark - St. James Phase II Townhouse Development | 5000 Echols Ave        | 0.4                | 0.36            |     | 0.04          | 0.04 | 5/12/2021      | Four Mile Run        | PL25   | Private   | Yes           | 0.16       | 0          | 75.072      |
| 2016-0021 04 | Manufactured Treatment Device - Filtering    | Craftmark - St. James Phase II Townhouse Development | 5000 Echols Ave        | 0.4                | 0.36            |     | 0.04          | 0.04 | 5/12/2021      | Four Mile Run        | PL25   | Private   | Yes           | 0.16       | 0          | 75.072      |
| 2016-0021 05 | Manufactured Treatment Device - Filtering    | Craftmark - St. James Phase II Townhouse Development | 5000 Echols Ave        | 0.24               | 0.06            |     | 0.18          | 0.18 | 5/12/2021      | Four Mile Run        | PL25   | Private   | Yes           | 0.05       | 0          | 23.46       |
| 2016-0021 06 | Manufactured Treatment Device - Hydrodynamic | Craftmark - St. James Phase II Townhouse Development | 5000 Echols Ave        | 0.25               | 0.24            |     | 0.01          | 0.01 | 5/12/2021      | Four Mile Run        | PL25   | Private   | Yes           | 0.11       | 0          | 51.612      |
| 2016-0041 01 | Vegetated Roof 1                             | Sunrise Senior Living                                | 400 N Washington St    | 0.16               | 0.16            |     | 0             | 0    | 8/27/2021      | Potomac River        | PL28   | Private   | Yes           | 0.16       | 1.11       | 75.072      |
| 2016-0041 02 | Manufactured Treatment Device - Hydrodynamic | Sunrise Senior Living                                | 400 N Washington St    | 0.48               | 0.43            |     | 0.05          | 0.05 | 8/27/2021      | Potomac River        | PL28   | Private   | Yes           | 0.19       | 0          | 89.148      |
| 2016-0044 01 | Permeable Pavement 1                         | The Spire  | 2280 N Beauregard St   | 0.02               | 0.02            |     | 0             | 0    | 3/31/2021      | Four Mile Run        | PL25   | Private   | Yes           | 0.03       | 0          | 14.076      |
| 2016-0044 02 | Manufactured Treatment Device - Hydrodynamic | The Spire  | 2280 N Beauregard St   | 0.585              | 0.485           |     | 0.1           | 0.1  | 3/31/2021      | Four Mile Run        | PL25   | Private   | Yes           | 0.03       | 0          | 14.076      |
| 2016-0044 03 | Manufactured Treatment Device - Filtering    | The Spire  | 2280 N Beauregard St   | 0.585              | 0.485           |     | 0.1           | 0.1  | 3/31/2021      | Four Mile Run        | PL25   | Private   | Yes           | 0.7        | 0          | 328.44      |
| 2016-0044 04 | Permeable Pavement 1                         | The Spire  | 2280 N Beauregard St   | 0.04               | 0.04            |     | 0             | 0    | 3/31/2021      | Four Mile Run        | PL25   | Private   | Yes           | 0.05       | 0          | 23.46       |
| 2016-0044 05 | Manufactured Treatment Device - Filtering    | The Spire  | 2280 N Beauregard St   | 0.37               | 0.26            |     | 0.11          | 0.11 | 3/31/2021      | Four Mile Run        | PL25   | Private   | Yes           | 0.26       | 0          | 121.992     |



# City of Alexandria Stormwater BMP Locations MS4 Reporting Year 2021-2022







220010631

## STORMWATER MANAGEMENT / BMP FACILITIES OPERATION AND MAINTENANCE AGREEMENT

000163

**THIS AGREEMENT**, made and entered into this 20 day of June 2022, by and between, Jair Lynch Real Estate Partners hereinafter called the "Landowner", and the City of Alexandria, Virginia (the "City");

### WITNESSTH:

WHEREAS, the Landowner is the owner of certain real property described as tax map #074.03, block #05, parcel(s) #01, 02 as acquired by deed in the land records of the City of Alexandria, Virginia, Deed book 789 Page # 308 (Instrument #110014333), hereinafter called the "Property".

WHEREAS, the Landowner is proceeding to build on and develop the property; and

WHEREAS, Heritage at Old Town - Block 1, DSUP 2020-10032, hereinafter called the "Plan", which is expressly made a part hereof, as approved or to be approved by the City, provides for detention and/or on-site treatment of stormwater within the confines of the property; and

WHEREAS, the City and the Landowner, its successors and assigns agree that the health, safety and welfare of the residents of the City of Alexandria, Virginia, require that on-site stormwater management/Best Management Practices (BMP) facilities be constructed and maintained on the property; and

WHEREAS, the City requires that on-site stormwater management/BMP facilities as shown on the Plan be constructed and adequately maintained by the Landowner, its successors and assigns.

NOW, THEREFORE, in consideration of the foregoing premises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

1. The on-site stormwater management/BMP facilities shall be constructed by the Landowner, its successors and assigns, in accordance with the plans and specifications identified in the plans.
2. The Landowner, its successors and assigns, shall maintain the stormwater management/BMP facilities in good working conditions, acceptable to the City, so that they are performing their design functions.



3. The Landowner, its successors and assigns, hereby grant permission to the City, its authorized agents and employees, to enter upon the property and to inspect the stormwater management/BMP facilities whenever the City deems necessary. The purpose of the inspection is to assure safe and proper functioning of the facilities. The inspection shall cover the entire facility including, berms, inlet and outlet structures, vegetation, infiltration media, pond areas, access roads, etc. When deficiencies are noted, the City shall notify the Landowner, its successors or assigns, and provide information about the inspection findings and evaluations.

4. The Landowner shall develop and attach to this "STORMWATER MANAGEMENT / BMP FACILITIES OPERATION AND MAINTENANCE AGREEMENT" a "BMP MAINTENANCE SCHEDULE AND GUIDELINE" that has been reviewed and approved by the City or its designee. This BMP Maintenance Schedule and Guideline shall describe the maintenance practices to be performed for the facilities and include a maintenance schedule for implementation of these practices.

5. In the event the Landowner, its successors and assigns, fail to maintain the stormwater management/BMP facilities in good working condition acceptable to the City, the City may enter upon the Property and take whatever steps it deems necessary to maintain said stormwater management/BMP facilities and to charge the costs of the repairs to the Landowner, its successors and assigns. This provision shall not be construed to allow the City of Alexandria to erect any structure of a permanent nature on the land of the Landowner, outside of an easement belonging to the City. It is expressly understood and agreed that the City is under no obligation to maintain or repair said facilities, and in no event shall this Agreement be construed to impose any such obligation on the City.

6. The Landowner, its successors and assigns, will perform maintenance in accordance with the maintenance schedule and guidelines for the stormwater management/BMP facilities, including sediment removal, as outlined on the approved plans and the following specific requirements:

Maintenance of the following Best Management Practice(s):

Vegetated Green Roof, Level 1 and 2  
Urban Bioretention (10)  
Contech - Cascade Separator

shall conform to the requirements contained in the Virginia Stormwater BMP Clearinghouse, the attached maintenance schedule and guidelines, and/or specific maintenance requirements established by the BMP manufacturer as approved by the Director of Transportation and Environmental Services (T&ES) prior to the release of the Final Site Plan. Specific manufacturer maintenance requirements for proprietary BMPs will be submitted to the City of Alexandria, T&ES.



7. In the event the City, pursuant to this Agreement, performs work of any nature, or expends any funds in performance of said work for labor, use of equipment, supplies, materials and the like on account of the Landowner's or its successors' and assigns' failure to perform such work, the Landowner, its successors and assigns, shall reimburse the City, upon demand, within 30 days of receipt thereof for all costs incurred by the City hereunder. If not paid within such 30-day period, the City shall have a lien against the property in the amount of such costs, plus interest at the Judgment Rate, and may enforce it in the same manner a lien for real property taxes may be enforced.

8. The Landowner, its successors and assigns, shall indemnify and hold harmless the City and its agents and employees for any and all damages, accidents, casualties, occurrences or claims which might arise or be asserted against the City for the construction, presence, existence or maintenance of the stormwater management/BMP facilities by the Landowner, its successors and assigns.

9. In the event a claim is asserted against the City, its agents or employees, the City shall promptly notify the Landowners, their successors and assigns, and they shall defend, at their own expense, any suit based on such claim. If any judgment or claim against the City, its agents or employees shall be allowed, the Landowner, its successors and assigns shall pay all costs and expenses in connection therewith.

10. The Landowner, its successors and assigns, hereby grants permission to the city, its authorized agents, employees, guests, and consultants to enter upon the property to install, operate and maintain equipment to monitor the flow characteristics and pollutant content of the influent and effluent, and at intermediate points in the facility. The Landowner further agrees to design and construct the facility to provide access for monitoring as outlined in the Virginia Stormwater BMP Clearinghouse and/or in the manufacturer's manual for the BMP.

11. The Landowner, its successors and assigns, hereby grants permission to the City, its authorized agents, employees and guests to enter upon the property whenever the City deems necessary, with a ten day advance notice, to conduct tours of the stormwater management/BMP facilities. The purpose of such tours is to expand the base of knowledge in the stormwater management/BMP field amongst planners, engineers, scientists and other interested parties.

12. This Agreement shall be recorded among the land records of the City of Alexandria, Virginia, and shall constitute a covenant running with the land/or equitable servitude, and shall be binding on the Landowner, its administrators, executors, assigns, heirs and other successors in interest.



WITNESS the following signatures and seals:

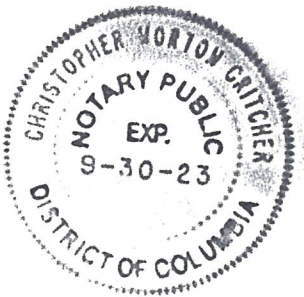
[Signature]  
Landowner Signature  
JAR LYNCH  
Print or Type Name  
AUTHORIZED REPRESENTATIVE  
Title

ATTEST:

DISTRICT  
COMMONWEALTH OF COLUMBIA  
CITY OF

I, CHRISTOPHER MORTON CRITCHER, a Notary Public in and for the DISTRICT ~~City and~~  
~~Commonwealth~~ aforesaid, whose commission expires on the 30 day of  
SEPTEMBER, 2023, do hereby certify that JAR LYNCH,  
whose name(s) is/are signed to the foregoing Agreement bearing date of the \_\_\_\_\_  
day of \_\_\_\_\_, 20\_\_, has acknowledged the same before me in my said City and State.

GIVEN UNDER MY HAND THIS 20 day of JUNE, 2022.



\_\_\_\_\_  
NOTARY PUBLIC

CHRISTOPHER MORTON CRITCHER  
NOTARY PUBLIC DISTRICT OF COLUMBIA  
My Commission Expires September 30, 2023



WITNESS the following signatures and seals.

000000

BADoffler  
Director, Department of T&ES or Designee

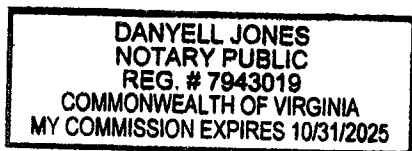
Brian Dofflemeyer  
Print or Type Name

ATTEST:

\_\_\_\_\_  
COMMONWEALTH OF Virginia  
CITY OF Alexandria

I, Danyell Jones, a Notary Public in the City of Alexandria and for the Commonwealth of Virginia, whose commission expires on the 31 day of October, 2025 do hereby certify that Brian Dofflemeyer, representative for the City of Alexandria, whose name is signed to the foregoing Agreement bearing the date of the 12 day of July, 2023 has acknowledged the same before me in the City and Commonwealth aforesaid.

GIVEN UNDER MY HAND THIS 12 day of July, 2023.



Danyell Jones  
NOTARY PUBLIC



## **Vegetated Roof Maintenance Schedule and Guidelines**

This document must be recorded as an addendum to the stormwater management/ BMP facilities operation and maintenance agreement

### **First Year Maintenance Guidelines**

Successful establishment of vegetated roofs require that the following tasks be undertaken during the first year following construction:

- Initial inspections. The roof should be inspected monthly during the vegetation establishment period, and then every six months thereafter to assess the state of vegetative cover and to look for leaks, drainage problems and other functional or structural concerns

### **Routine Maintenance Guidelines**

Vegetated roofs must be inspected to ensure that they operate in good working condition and in accordance with the approved design and specifications. Items in need of repair must be immediately addressed.

The use of herbicides, insecticides, fungicides, and fertilizers should be avoided, since their presence could hasten degradation of the waterproof membrane. Also, power-washing and other exterior maintenance operations should be avoided so that cleaning agents and other chemicals do not harm the vegetated roof plant communities.

| <b>Routine Maintenance Tasks</b>   | <b>Frequency</b> |
|--|------------------|
| Remove trash and debris  | Semi-annually    |
| Inspect waterproof membrane for leaks or cracks and repair any damage                      | Semi-annually    |
| Remove invasive plants   | Semi-annually    |
| Inspect and remove overgrowth and debris from roof drains, scuppers and gutters            | Semi-annually    |
| Inspect plant composition for consistency with approved plans and correct any deficiencies | Semi-annually    |
| Replace any dead or dying plants   | Semi-annually    |
| Remove excess debris, fallen leaves, and overgrowth  | Semi-annually    |
| Check and repair areas of erosion  | Semi-annually    |
| Water to promote plant growth and survival   | As needed        |



## Urban Bioretention Area Maintenance Schedule and Guidelines

This document must be recorded as an addendum to the stormwater management/ BMP facilities operation and maintenance agreement

### First Year Maintenance Guidelines

Successful establishment of bioretention areas requires that the following tasks be undertaken in the first year following installation:

- Initial inspections. For the first 6 months following construction, the bioretention area should be inspected at least twice after storm events that exceed 1/2 inch of rainfall.
- Spot reseeding. Inspect for bare or eroding areas in the contributing drainage area or around the bioretention area, and make sure they are immediately stabilized with grass cover.
- Watering. Watering is needed once a week during the first 2 months, and then as needed during first growing season (April-October), depending on rainfall.
- Remove and replace dead plants.

### Routine Maintenance Guidelines

Bioretention areas must be inspected to ensure that they operate in good working condition and in accordance with the approved design and specifications. Items in need of repair must be immediately addressed.

| <b>Routine Maintenance Tasks</b>   | <b>Frequency</b>                |
|--|---------------------------------|
| Remove trash and debris  | As needed                       |
| Check and repair eroded areas  | Annually                        |
| Inspect for and remove excess sediment   | Annually                        |
| Weed mulch   | Twice during the growing season |
| Inspect plant composition for consistency with approved plans and correct any deficiencies | Annually                        |
| Remulch to maintain a three inch layer   | Annually                        |
| Prune trees and shrubs   | Annually                        |
| Inspect for clogging or ponding water in the filter bed                                    | Annually                        |
| Remove invasive plants   | As needed                       |
| Replace dead or damaged plant material   | As needed                       |
| Repair broken pipes  | As needed                       |
| Replace the mulch layer  | Every 3 years                   |



## Cascade Separator<sup>®</sup> Inspection and Maintenance Guide



CASCADE  
separator<sup>®</sup>



## Maintenance

The Cascade Separator® system should be inspected at regular intervals and maintained when necessary to ensure optimum performance. The rate at which the system collects sediment and debris will depend upon on-site activities and site pollutant characteristics. For example, unstable soils or heavy winter sanding will cause the sediment storage sump to fill more quickly but regular sweeping of paved surfaces will slow accumulation.

## Inspection

Inspection is the key to effective maintenance and is easily performed. Pollutant transport and deposition may vary from year to year and regular inspections will help ensure that the system is cleaned out at the appropriate time. At a minimum, inspections should be performed twice per year (i.e. spring and fall). However, more frequent inspections may be necessary in climates where winter sanding operations may lead to rapid accumulations, or in equipment wash-down areas. Installations should also be inspected more frequently where excessive amounts of trash are expected.

A visual inspection should ascertain that the system components are in working order and that there are no blockages or obstructions in the inlet chamber, flumes or outlet channel. The inspection should also quantify the accumulation of hydrocarbons, trash and sediment in the system. Measuring pollutant accumulation can be done with a calibrated dipstick, tape measure or other measuring instrument. If absorbent material is used for enhanced removal of hydrocarbons, the level of discoloration of the sorbent material should also be identified during inspection. It is useful and often required as part of an operating permit to keep a record of each inspection. A simple form for doing so is provided in this Inspection and Maintenance Guide.

Access to the Cascade Separator unit is typically achieved through one manhole access cover. The opening allows for inspection and cleanout of the center chamber (cylinder) and sediment storage sump, as well as inspection of the inlet chamber and slanted skirt. For large units, multiple manhole covers allow access to the chambers and sump.

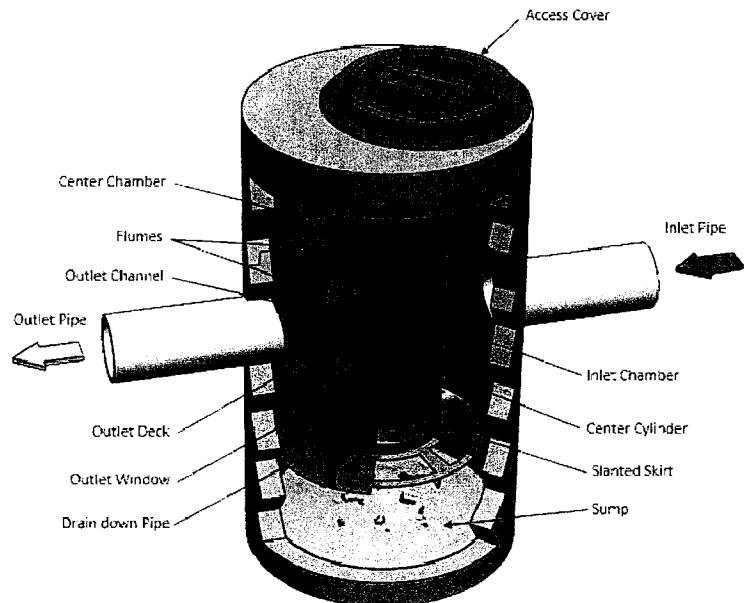
The Cascade Separator system should be cleaned before the level of sediment in the sump reaches the maximum sediment depth and/or when an appreciable level of hydrocarbons and trash has accumulated. If sorbent material is used, it must be replaced when significant discoloration has occurred. Performance may be impacted when maximum sediment storage capacity is exceeded. Contech recommends maintaining the system when sediment level reaches 50% of maximum storage volume. The level of sediment is easily determined by measuring the distance from the system outlet invert (standing water level) to the top of the sediment pile. To avoid underestimating the level of sediment in the chamber, the measuring device must be lowered to the top of the sediment pile carefully. Finer, silty particles at the top of the pile typically offer less resistance to the end of the rod than larger particles toward the bottom of the pile. Once this measurement is recorded, it should be compared to the chart in this document to determine if the height of the sediment pile off the bottom of the sump floor exceeds 50% of the maximum sediment storage.

## Cleaning

Cleaning of a Cascade Separator system should be done during dry weather conditions when no flow is entering the system. The use of a vacuum truck is generally the most effective and convenient method of removing pollutants from the system. Simply remove the manhole cover and insert the vacuum tube down through the center chamber and into the sump. The system should be completely drained down and the sump fully evacuated of sediment. The areas outside the center chamber and the slanted skirt should also be washed off if pollutant build-up exists in these areas.

In installations where the risk of petroleum spills is small, liquid contaminants may not accumulate as quickly as sediment. However, the system should be cleaned out immediately in the event of an oil or gasoline spill. Motor oil and other hydrocarbons that accumulate on a more routine basis should be removed when an appreciable layer has been captured. To remove these pollutants, it may be preferable to use absorbent pads since they are usually less expensive to dispose than the oil/water emulsion that may be created by vacuuming the oily layer. Trash and debris can be netted out to separate it from the other pollutants. Then the system should be power washed to ensure it is free of trash and debris.

Manhole covers should be securely seated following cleaning activities to prevent leakage of runoff into the system from above and to ensure proper safety precautions. Confined space entry procedures need to be followed if physical access is required. Disposal of all material removed from the Cascade Separator system must be done in accordance with local regulations. In many locations, disposal of evacuated sediments may be handled in the same manner as disposal of sediments removed from catch basins or deep sump manholes. Check your local regulations for specific requirements on disposal. If any components are damaged, replacement parts can be ordered from the manufacturer.





## Cascade Separator® Maintenance Indicators and Sediment Storage Capacities

| Model Number | Diameter |     | Distance from Water Surface to Top of Sediment Pile |     | Sediment Storage Capacity |                |
|--------------|----------|-----|---|-----|---------------------------|----------------|
|              | ft       | m   | ft  | m   | y <sup>3</sup>            | m <sup>3</sup> |
| CS-3         | 3        | 0.9 | 1.5   | 0.5 | 0.4                       | 0.3            |
| CS-4         | 4        | 1.2 | 2.5   | 0.8 | 0.7                       | 0.5            |
| CS-5         | 5        | 1.3 | 3   | 0.9 | 1.1                       | 0.8            |
| CS-6         | 6        | 1.8 | 3.5   | 1   | 1.6                       | 1.2            |
| CS-8         | 8        | 2.4 | 4.8   | 1.4 | 2.8                       | 2.1            |
| CS-10        | 10       | 3.0 | 6.2   | 1.9 | 4.4                       | 3.3            |
| CS-12        | 12       | 3.6 | 7.5   | 2.3 | 6.3                       | 4.8            |

Note: The information in the chart is for standard units. Units may have been designed with non-standard sediment storage depth.



A Cascade Separator unit can be easily cleaned in less than 30 minutes.



A vacuum truck excavates pollutants from the systems.



# Cascade Separator® Inspection & Maintenance Log

[illegible]

1. The depth to sediment is determined by taking a measurement from the manhole outlet invert (standing water level) to the top of the sediment pile. Once this measurement is recorded, it should be compared to the chart in the maintenance guide to determine if the height of the sediment pile off the bottom of the sump floor exceeds 50% of the maximum sediment storage. Note: to avoid underestimating the volume of sediment in the chamber, the measuring device must be carefully lowered to the top of the sediment pile.
2. For optimum performance, the system should be cleaned out when the floating hydrocarbon layer accumulates to an appreciable thickness. In the event of an oil spill, the system should be cleaned immediately.

## SUPPORT

- Drawings and specifications are available at [www.ContechES.com](http://www.ContechES.com).
- Site-specific design support is available from our engineers.

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Contech Engineered Solutions LLC provides site solutions for the civil engineering industry. Contech's portfolio includes bridges, drainage, sanitary sewer, stormwater, and earth stabilization products. For information, visit [www.ContechES.com](http://www.ContechES.com) or call 800.338.1122

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800-925-5240  
www.ContechES.com





*City of Alexandria, Virginia*

Department of Transportation & Environmental Services  
Stormwater and Sanitary Infrastructure Division  
2900-B Business Center Drive  
Alexandria, VA 22314  
[www.alexandriava.gov](http://www.alexandriava.gov)

12/10/2021

Dear Facility Owner:

Your property contains a stormwater Best Management Practice (BMP) that functions to treat stormwater runoff and improve the quality of the water in and around the City of Alexandria. This letter serves as an annual reminder that routine inspection and maintenance is an essential part of the ownership of any BMP. Regular maintenance ensures that BMPs do not generate additional pollutants, become nuisances, or pose safety issues, and that they function properly. When maintenance problems do exist, they are most often less costly to correct when they are caught early. BMP maintenance is not only an integral part of BMP ownership, but is also a requirement of the City's local stormwater program. City ordinance {13-109(G)} states that all stormwater BMPs must be adequately maintained by their owners to ensure that the BMPs function as designed.

Examples of stormwater BMPs include rain barrels, bioretention filters, sand filters, and permeable pavement, to name a few. These BMPs improve the quality of stormwater runoff from a developed site by reducing pollutants such as sediment, oil, litter, and excess nutrients that may enter our streams and waterways, such as Four Mile Run, Holmes Run, the Potomac River and Chesapeake Bay.

In October 2018, City Council adopted a Credit Policy that provides opportunities for all property owners to lower their fees by implementing select practices that reduce stormwater runoff or improve stormwater quality. Each year you maintain the BMP on your property in functioning condition, you are then eligible for a reduction from your annual Stormwater Utility Fee by up to 30% for a combination of practices.

Credits include:

- Rain barrels – 2% each, up to 8%
- Cisterns – 10%
- Rain gardens, flow thru planter boxes, bioretention filters, sand filters, infiltration systems – 15%
- Permeable pavement – 20%
- Green roof – 20%
- and more!

The annual credit application window opens December 1<sup>st</sup> through February 15<sup>th</sup>. Visit [www.alexandriava.gov/Stormwater](http://www.alexandriava.gov/Stormwater) to learn more about the City's credit policies and how to apply.

Please contact me at 703-746-4071 or by email at [Gavin.pellitteri@alexandriava.gov](mailto:Gavin.pellitteri@alexandriava.gov) if you have any questions regarding your BMP. Your time and cooperation are greatly appreciated and working together will help to achieve our goal of protecting our streams, the Potomac River, and the Chesapeake Bay.

Sincerely,

Gavin Pellitteri  
Water Quality Compliance Specialist



## ***City of Alexandria, VA***

### **Department of Transportation and Environmental Services**

#### **Oronoco Outfall Remediation Project Update**

**July 2021 through June 2022**

The City continues its remedial activities related to mitigate coal tar infiltration into and discharges from the stormwater pipe located at the end of Oronoco Street. A summary of these activities is discussed below:

- Five new coal tar recovery wells were installed along Oronoco Street in April 21. The installation of these wells significantly increased the amount of coal tar recovery around and beneath the stormwater pipe. Coal tar is typically recovered twice a month with the amount of coal tar recovery ranging from 2-20 gallons per visit.
- The groundwater treatment system installed in 2013 continues to perform well. Site visits are conducted twice per month with shutdowns only occurring as part of conducting routine onsite maintenance. In June 2022, the permeable reactive media were inspected and were found to be in “like new” condition.
- The City continues to operate and maintain the boom system to prevent any potential sources of coal tar from discharging from the immediate area into the Potomac River.

Starting in February to March 2022, an increase in the presence of sheens was observed in the vicinity of the stormwater pipe outfall. These sheens are the result of a small volume of coal tar being discharged. To locate the source of these discharges, a man-entry inspection of the stormwater pipe was completed in June 2022. The results of that inspection showed a crack in the pipe located in the vicinity of the transition of where the pipe has been lined using CIPP (cured in place pipe) and where the pipe was sprayed with shotcrete. There were also some small coal tar deposits observed downstream of this crack. The City is currently securing a contractor to repair this crack through grout injection and it is anticipated this work will be completed in the fall of 2022. Other measures have put in place to mitigate any discharges, including the installation of absorbents within the pipe and at the outfall. Inspections of the outfall have also been increased from every 2 weeks to weekly.



**General VPDES Permit for  
Small Municipal Separate Storm Sewer Systems  
Permit No. VAR040057**

Year 4 Annual Report  
July 1, 2021 – June 30, 2022  
City of Alexandria, Virginia

**Appendix F**

**Minimum Control Measure #6, Pollution Prevention and Good Housekeeping for Facilities  
Owned or Operated by the Permittee within the MS4 Service Area**

1. Staff Training Documentation
2. Internal T&ES Monday Mix with Information about IDDE
3. Report a Problem Internal System capture



7:00 a.m.

Trainer:

Trainer: Gavin Pellitteri / Jessica Lassetter

[illegible]



IDDE Training

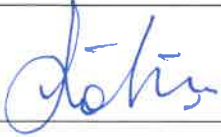


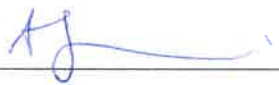




FY2022

5/25/2022

Instructors:

Gravin Pellitteri

Jessica Wassetter

| Name             | Signature   | Dept.     |
|------------------|---|-----------|
| Harveyesus Sori  |    | CHI       |
| Thomas Knighton  |   | CHI       |
| HUYNH DUNG       |    | PWS       |
| MOHAMMAD AZM     |    | TRES      |
| S. MCPHERSON     |   | TRES      |
| Joseph Dangquah  |  | TRES      |
| RANDY MERRITT    |  | TRES CHI  |
| Emilio Pandare/s |  | TRES/DROW |
|                  |   |           |
|                  |   |           |
|                  |   |           |
|                  |   |           |
|                  |   |           |



IDDE Training





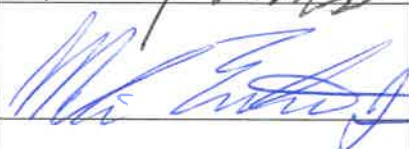



FY2022

5/25/2022

Instructors:

gavin pellitteri

Jessica Lassetter

| Name                | Signature  | Dept. |
|---------------------|--|-------|
| Danny Rivera        |     | TES   |
| Bill Benson Jr      |     | TES   |
| Guillermo Paz       | G. P   | TES   |
| Jose Olivera        |     | TES   |
| David Johnson       |     | TES   |
| Emile J Woodson     | Emile J Woodson  | TES   |
| Melvin Entwistle Jr |   | TES   |
| Terry Stanley       |  | TES   |
| Derek Clayton       |   | TES   |
| Raymond Monte       | Raymond M.   | TES   |
| Karen Giuseppe      | Karen Giuseppe   | TES   |
| Marlon Sergio       |   | TES   |
| Harold Shaw         | Harold Shaw  | TES   |
| Matthew Lowery      | Matthew Lowery   | TES   |



IDDE Training

FY2022

5/25/2022

Instructors:

Gravin Pellitteri

Jessica Lauscher

|                   |                   |      |
|-------------------|-------------------|------|
| Tim Dadsen        | Tim               | T&ES |
| Greg Dunn         | DD                | TES  |
| George R Martin   | George R Martin   |      |
| Michael Harmon    | Michael Harmon    |      |
| Steve Kowalik     | Steve Kowalik     | TES  |
| Damon Thompson    | DThompson         | TES  |
| Fred Bell         | Fred Bell         | TES  |
| Charles Carpenter | Chad Carpenter    | TES  |
| Dwayne Pugh       | Dwayne Pugh       | TES  |
| Joe Thompson      | Joe Thompson      | T&ES |
| Daron Melsow      | Daron Melsow      | TES  |
| Jose Gil          | Jose A. Gil       | T&ES |
| Carl Long         | Carl Long         | T&ES |
| Chris Allen       | Chris Allen       | T&ES |
| Ashtley Cucinello | Ashtley Cucinello | T&ES |



IDDE Training

FY2022

5/25/2022

Instructors:

Gravin Pellitteri

Jessica Lassetter

|                    |                    |       |
|--------------------|--------------------|-------|
| Arthur Byrd        | Art Byrd           | TES   |
| Bernard Banks      | Bern Banks         | TES   |
| RANSAM West        | RANSAM West        | TE-ES |
| LOUIS SIMMS        | Lain               | TES   |
| Cornelius Hawkins  |                    | TES   |
| Charles Hughes     | Charles Hughes     | TES   |
| Jerome Greene      | Jerome Greene      | TES   |
| Mary Alice Winters | Mary Alice Winters | TES   |
| Steve Waller       | Steve Waller       | TES   |
| John Taylor        | John Taylor        | TES   |
| Dale Norman        | Dale Norman        | TES   |
| ABDUL TAHIR        | Abdul Tahir        | TEES  |
|                    |                    |       |
|                    |                    |       |



Resource Recovery

MS4 Annual Training  
June 6, 2022

Instructors: Gravin Pellitteri + Jessica Lassetter

| Name               | Signature           | Dept.                 |
|--------------------|---------------------|-----------------------|
| Robert A Nicholson | Robert A. Nicholson | TES Resource Recovery |
| Bobbt Carpenter    | Bobbt Carpenter     | TES-                  |
| Michael Hawkins    | Michael Hawkins     | TES                   |
| RYAN COLES         | Ryan Coles          | TES                   |
| MAILCUS CLARK      | M. Clark            | TES                   |
| T. WILLIAMS        | T. Williams         | T&ES                  |
| P KIRBY            | Pat Kirby           | TES                   |
| ALTON R. WEAVER    | Alton R. Weaver     | TES Resource Recovery |
| Kenneth Sauer      | Kenneth Sauer       | TES                   |
| Downell Cobb       | Downell Cobb        | TES                   |
| MARK JOHNSON       | Mark Johnson        | TES                   |
| Davis McCay        | Davis McCay         | T&ES                  |
| TYRONE KYLE        | Tyrone Kyle         | TES                   |
| DAVID R. WELSON    | David R. Welson     | TES                   |
| DARYL PRICE        | Daryl Price         | TES                   |



MS4 Annual Training

June 6, 2022

Gavin Pellitteri & Jessica Lassetter

Instructors: \_\_\_\_\_

| Name             | Signature        | Dept.  |
|------------------|------------------|--------|
| Lewis B. 1995    | Lewis Briggs     | Refuse |
| Greg Talbert     | Greg Talbert     | Refuse |
| Brock Harper     | Brock Harper     | Refuse |
| Jesse Fields     | Jesse Fields     | Refuse |
| Gregory Peterson | Greg Peterson    | Test   |
| Chris Chubb      | Chris Chubb      | Refuse |
| Demetrius Brown  | Demetrius Brown  |        |
| Desire Murchison | Desire Murchison |        |
| Chantel Lane     | C. Lane          | TES    |
| Jessie Redfern   | Jessie Redfern   |        |
| MARTIN BLAKE     | Martin Blake     | TES    |
| Rodney Pitts     | Rodney Pitts     | TES    |
|                  |                  |        |
|                  |                  |        |
|                  |                  |        |



1

[illegible]





**ALEXANDRIA DEPARTMENT of CODE ADMINISTRATION**  
**301 King Street, suite 4200 Alexandria, Virginia 22314**  
**TRAINING ATTENDANCE ROSTER**  
**Conference Room**

**Course: Illegal Stormwater Discharge Detection & Elimination**

**APPROVED Training for Department of Code Administration**  
**Date: 18 April 2022**

**Instructor: Gavin Pelletteri, T&ES Stormwater Quality Compliance**

**04/18/2022 12:04:40 PM**

Location of Course: 301 King Street, Alexandria, Virginia 22314 Length of Course: \_\_\_\_\_

**1 HOUR**

Attendees are declaring by their signature that they have attended the above-described training. Illegible names will not be credited for training hours. Please **print** your name as it should appear on any certificate or legal document.

| Printed Name (legal name) | Signature | Department          |
|---------------------------|-----------|---------------------|
| Brian Paige               | Virtual   | Code Administration |
| Dave Demaree              |           |                     |
| Bernard D Bickham III     |           |                     |
| Timothy Lawmaster         |           |                     |
| Evan Bestland             |           |                     |
| Million Fiseha            |           |                     |
| Alex Martinez             |           |                     |
| Cheryl L. Williams        |           |                     |
| Keir Dickerson            |           |                     |
| Jarrold Overstreet        |           |                     |
| Tod Belt                  |           |                     |
| Paul Mitchell             |           |                     |
| Lei Fei                   |           |                     |
| Sandra Kyer               |           | Code Administration |
| Jessica Lassetter         |           | T&ES                |
| Eduardo Luna              |           | Code Administration |
| Henry R Hollander         |           |                     |
| Mike Christesen           |           |                     |
| Gavin Pellitteri          |           |                     |
| Nate Green                |           |                     |



|                 |         |                     |
|-----------------|---------|---------------------|
| Chris Evans     |         |                     |
| Adrian Mirt     |         |                     |
| Courtney Harris |         |                     |
| Bill Ertumen    |         |                     |
| Michael Mcphail |         |                     |
| Pete Mensinger  | Virtual | Code Administration |

This roster is being submitted to the Department of Housing and Community Development as a true record of training for the above listed individuals. I have monitored this class and do hereby state that all the above listed individuals were in attendance.

**Pete Mensinger, CBO**

Printed Name

Signature

Code Administration

Department



**From:** Yon Lambert  
**Sent:** Monday, June 6, 2022 7:06 AM  
**To:** Yon Lambert  
**Subject:** T&ES Monday Mix - June 6, 2022

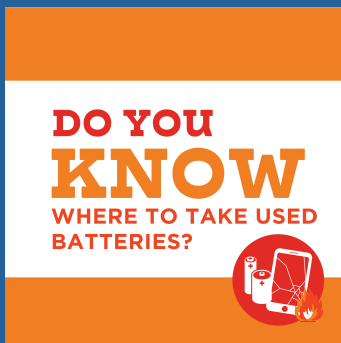
The Department of Transportation &  
Environmental Services

## MONDAY MIX

*Monday, June 6, 2022*



### Avoid the Spark – Safely Dispose of Batteries



Did you know that improper disposal of batteries is one of the leading causes of truck fires in the waste industry? Do not throw away batteries in the recycling OR trash bins. Help us keep our workers safe by dropping off and safely dispose of your rechargeable batteries, NiCd, NiMh, Lithium-Ion, Button, and batteries greater than 9 volt. Please note, alkaline batteries (e.g. AA, AAA batteries) can be safely disposed of in the trash.

The City accepts batteries at its Household Hazardous Waste (HHW) and Electronics Recycling Center. Certain hardware stores and electronics stores in the City also take back rechargeable batteries for safe disposal and recycling. You can use the City's ['What Goes Where'](#) tool to find additional drop-off locations. [Click here](#) for more information.

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### Safety First: Stairway Safety





Slips, trips and falls happen everyday on workplace stairways. The majority of stairway workplace incidents occur when an employee is not paying attention, they are rushing, and they are not watching their footing. Falls from stairs may lead to serious injuries or even death. All employees should take the following precautions when stairways are used in the workplace:

- Always use handrails when ascending or descending any stairway.
- Be cautious of environmental conditions such as ice, snow, or rain accumulation that may build up on the steps of stairways.
- Only take one step at a time when ascending or descending the stairway.
- Make sure your shoes are tied before using any stairway.
- Report or clean up spills or trash found on the stairs.
- Report any situation in which there is insufficient lighting provided on any workplace stairway, indoors or outdoors.
- Never run up or down the stairs and avoid distractions like looking at your cell phone.

### You Can Help Prevent Stormwater Pollution



The City operates under a Municipal Separate Storm Sewer System (MS4) general permit. This permit authorizes the discharge of stormwater into our local streams and waterways. However, pollution can easily enter our storm sewers through the storm drain inlets found throughout the City. The TES Stormwater Management Division uses many tools to help reduce and prevent stormwater pollution. One tool is internal staff training on ways to spot and report stormwater pollution you may come across during your workday. **We encourage all TES staff to watch this 2-minute [video](#) on illicit discharges.** We also encourage all staff to report any discharge entering the storm sewer system or irregular colors or oil sheens in our local waterways. You may report to Alex311 and/or call the Stormwater Management Division at 703.746.6499. Call 911 if you suspect the substance is potentially hazardous material. Thank you for helping to prevent stormwater pollution!

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### T&ES New Hire Orientation





The next T&ES employee orientation will be held on **Friday, June 10 from 9:30-10:30 a.m. at 2900 Business Center Drive, Training Room A/B** and via [Microsoft Teams](#). Seasonal employees are encouraged to attend the session, as well. Registration is required if you are attending via Teams or in-person. [Click here](#) or scan the QR code to fill out the registration form.

### Welcoming Haileyesus M. Sori



I am pleased to welcome Haileyesus M. Sori to the Public Works Services Division as the new Inspector III. Sori will be working with the maintenance engineer performing stormwater best management practices (BMPs) inspections, storm sewer inspections, maintenance complaint investigations and BMPs maintenance activities. Sori is certified E&SC and Stormwater inspector from the Department of Environmental Quality, State of Virginia and used to work with T&ES' Development and Right-of-Way Services Division. We wish Sori all the best in this new role!







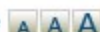
# AlexNet

Home > Report a Problem

Thu

Print

Text Size



Resource

## WELCOME, Jessica



My Department



My Mail & Calendar



My Pay, Leave & Info



My Time & Attendance



Forums



Report a Problem | AlexIT

## RESOURCES

- ▶ Administrative Regulations
- ▶ Benefits
- ▶ City Employment Opportunities (Open to All)
- ▶ Communications & Public Information
- ▶ Community
- ▶ Conference Room Reservations
- ▶ Departments & Offices
- ▶ Emergency Preparedness
- ▶ Employee Enrichment Programs
- ▶ Forms
- ▶ GIS & Maps
- ▶ How Do I?
- ▶ Learning and Development
- ▶ Meeting Dockets & Video
- ▶ Phones & Phone Numbers
- ▶ Promotional Opportunities
- ▶ Race and Social Equity

## Report a Problem

Use this page to report problems you see with your work environment, or in the community. To report suspicious activity or a police, fire, or medical emergency, always call 911.

### [AlexIT](#)

Create and check the status of information technology service requests for computers, printers, phones, applications, etc. City IT-related knowledge base articles on [AlexIT](#). You can also submit requests via email to [techsupport@alexandriava.gov](mailto:techsupport@alexandriava.gov) or by phone; DCHS staff please call 703.746.6090 and ITS-supported departments and staff please call 703.746.3060.

### [Public Works & Buildings](#)

Report problems with streets, sidewalks, signs, lights, signals, parking meters, building code issues, etc. through [AlexNet](#).

### [Public Websites](#)

For problems with City websites, web applications, etc., email [web.team@alexandriava.gov](mailto:web.team@alexandriava.gov) or call 703.746.3966.

### [Suggestion Box](#)

Share suggestions about efficiency, best practices, appropriate use of City resources, etc., through our [Suggestion Box](#).

### [FASTER: Vehicle Work Order Request](#)

The Fleet Management Division has just launched FASTER, an online portal that allows City employees to request vehicle work orders. The new system is convenient for customers, and it supports Alexandria's sustainability efforts, as well as its goal to operate as a paperless facility.



[Suggestion Box](#) | [Privacy & Legal Notices](#) | [FOIA](#) | © 1995-2022 City of Alexandria, VA



**General VPDES Permit for  
Small Municipal Separate Storm Sewer Systems  
Permit No. VAR040057**

Year 4 Annual Report  
July 1, 2021 – June 30, 2022  
City of Alexandria, Virginia

**Appendix G (*Hyperlinks*)  
TMDL Special Conditions**

1. [Phase 2 Chesapeake Bay TMDL Action Plan](#)
2. [Bacteria TMDL Action Plan, Updated April 2022](#)
3. [Tidal Potomac PCB TMDL Action Plan](#)
4. [VA DEQ Letter of Acceptance for Bacteria and PCB TMDL Action Plan Updates](#)