Fairfax County Public Schools

Municipal Separate Storm Sewer System (MS4) 2017-2018 Annual Report for Permit No. VAR040104

In Compliance with the General VPDES Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems

September 28, 2018

Fairfax County Public Schools
Department of Facilities Management
Sideburn Support Center
5025 Sideburn Road
Fairfax, Virginia 22032

General VPDES Permit for Small Municipal Separate Storm Sewer Systems Permit No. VAR040104

Year 5 Annual Report
July 1, 2017 – June 30, 2018

Fairfax County Public Schools

Submitted by:

Fairfax County Public Schools
Department of Facilities Management
Sideburn Support Center
5025 Sideburn Road
Fairfax, Virginia 22032

General VPDES Permit for Small Municipal Separate Storm Sewer Systems Permit No. VAR040104

Year 5 Annual Report
July 1, 2017 – June 30, 2018 Reporting Period
Fairfax County Public Schools

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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."

Name	Title	Date
[signature]	Superintendent of Schools	9/27/2018

1. Introduction

This 2017-2018 MS4 Permit Annual Report (annual report) has been prepared by Fairfax County Public Schools (FCPS) Office of Facilities Management (OFM) in accordance with the requirements of the General Permit for Discharges of Stormwater from Municipal Separate Storm Sewer Systems (general permit). FCPS was originally issued General Permit Number VAR040104 on July 8, 2003. The Virginia Department of Environmental Quality (DEQ) re-issued the current five-year permit effective July 1, 2013.

FCPS submitted a signed permit termination agreement form to DEQ on March 9, 2018. Upon permit termination, FCPS's MS4 is covered under Fairfax County's individual Phase I MS4 permit in accordance with the Memorandum of Understanding (MOU) executed on August 8, 2017 between the County Board of Supervisors and the Fairfax County School Board. The letter from DEQ, the termination agreement form, and the MOU with Fairfax County are included in Appendix F. FCPS is submitting this annual report to document the completion of its separate MS4 program for the reporting period July 1, 2017 to June 30, 2018. The Fairfax County MS4 report covering July 1, 2018 to June 30, 2019 will include reporting for FCPS.

Under the terms of the general permit, FCPS has developed a Municipal Separate Storm Sewer System (MS4) Program Plan (program plan) to implement six minimum control measures (MCMs) aimed at reducing the discharge of pollutants to the maximum extent practicable (MEP). Minimum control measures include:

MCM #1 Public Education and Outreach	MCM #4 Construction Site Runoff Control
MCM #2 Public Involvement / Participation	MCM #5 Post-Construction Stormwater Management
MCM #3 Illicit Discharge Detection and Elimination	MCM #6 Pollution Prevention / Good Housekeeping

This annual report is organized to address required elements as stated in Section II E of the permit. In addition, each MCM contains specific annual reporting requirements. The following is a summary of key annual reporting items that are addressed in this annual report:

- A list of the education and outreach activities conducted during the reporting period for each high-priority water quality issue, the estimated number of people reached, and an estimated percentage of the target audience or audiences reached.
- A list of the education and outreach activities that will be conducted during the next reporting period for each high-priority water quality issue, the estimated number of people that will be reached, and an estimated percentage of the target audience or audiences that will be reached.
- A web link to the program plan and annual report and documentation of compliance with public participation requirements.
- A list of any written notifications of physical interconnection given to other MS4 operators.
- The number of illicit discharges identified during the reporting period and a narrative of how they were controlled or eliminated.
- The total number of outfalls screened, the screening results, and detail of any necessary

follow up actions.

- Regulated land-disturbing activities data tracked under Section II 4, including total regulated activities, number of acres disturbed, and inspections conducted.
- A summary of enforcement actions taken, including the total number and type of enforcement actions taken during the reporting period for land-disturbing activities.
- All known permanent stormwater management facility data tracked under Section II B 5 b (6) submitted in a database format to be prescribed by DEQ.
- The total number of stormwater management facility inspections completed.
- A summary report on the development and implementation of daily operating procedures, required stormwater pollution prevention plans (SWPPPs), turf and landscape nutrient management plans (NMPs), and training plans.

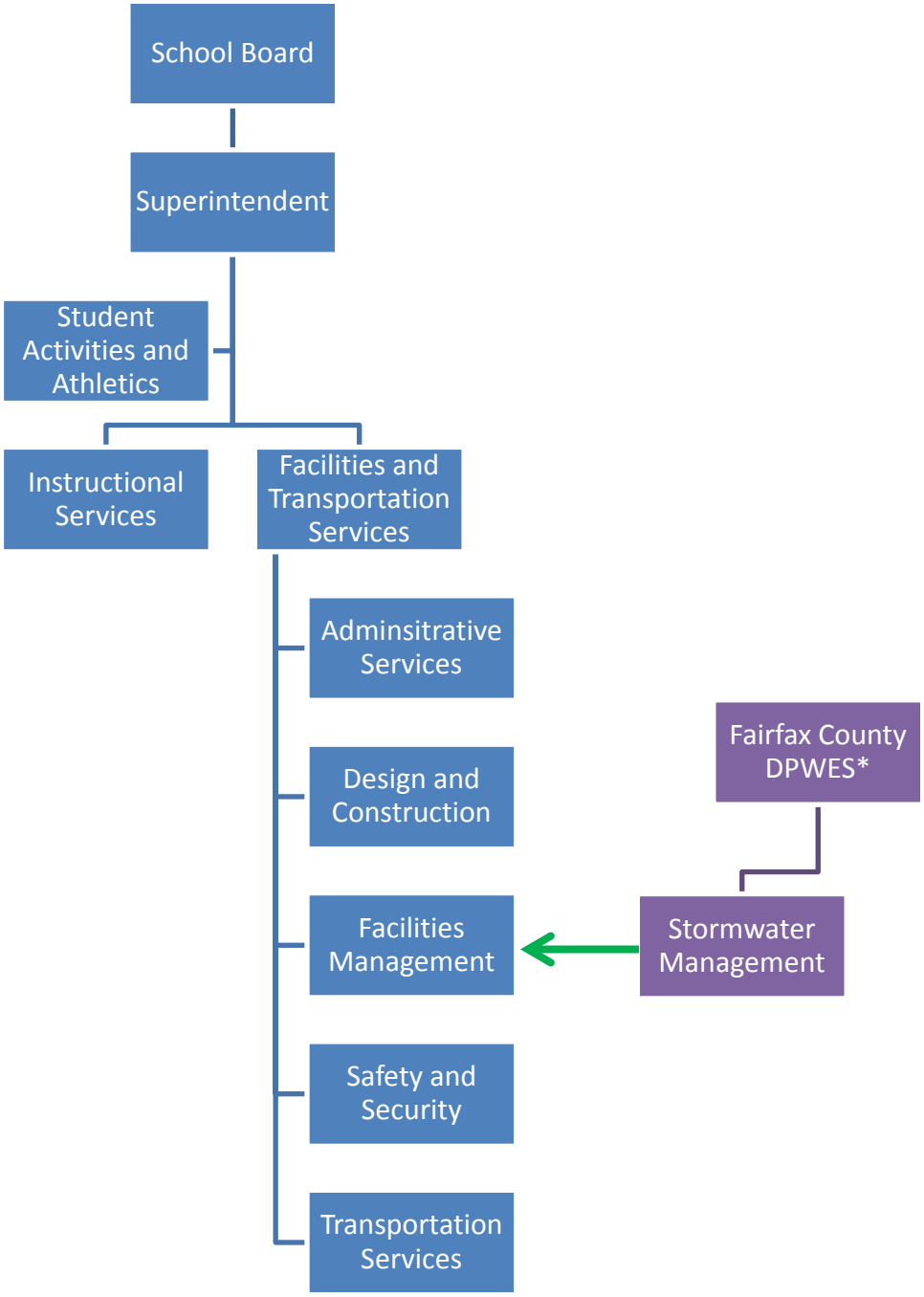
2. Background Information

This section provides background information as required by Part II E 3.a of the general permit. The signed certification is located at the front of this document.

Name of Operator:	**Reporting Period:**	**Permit Number:**
Fairfax County Public Schools	Permit Year 5 (July 1, 2017 – June 30, 2018)	VAR040104
Modifications to Roles and Responsibilities: The FCPS MS4 permit has been terminated and Fairfax County and FCPS will perform the roles and responsibilities outlined in the MOU with Fairfax County (Appendix F) moving forward.		
New MS4 Outfalls: The MS4 outfall map was updated in accordance with the requirements in MCM #3. As a result of this update there were minor adjustments in outfall responsibility and drainage areas but no new MS4 outfalls were constructed during the reporting period. The most recent outfall information table is found in Appendix C.		

The organizational chart on the following page outlines FCPS departments and agencies with major stormwater management functions or responsibilities that are referenced in this annual report. The Office of Facilities Management is the primary lead on MS4 compliance activities. Support is also provided by Fairfax County through the Department of Public Works and Environmental Services, Stormwater Management. There have been no changes to FCPS departments or agencies that affect the program plan. Additional information about each department is found in the program plan.

Stormwater Management Organizational Chart



**DPWES – Department of Public Works and Environmental Services*

3. Status of Compliance with Permit Year 5 Conditions

The following sections provide the status of best management practices (BMPs) implemented during Permit Year 5 (PY5) for each of the six MCMs as provided in the program plan. FCPS has updated the program plan according to the schedule provided in general permit Table 1.

Each MCM has its own section, which begins with a summary table describing the task, the implementation year, the measurable goal as described in the program plan, and task status. Following the summary table is a more detailed discussion of the implementation status of each task and a description of the measure of effectiveness. BMPs to be implemented in subsequent permit years are not included in this section.

3.1 Public Education and Outreach (MCM #1)

The following table is a summary of ongoing activities and new activities performed during the 2017 – 2018 reporting period for MCM #1 and their completion status.

BMP/Task	Year	Measurable Goal	Status
1.A – Watersheds: Local Water Quality and Volume Management			
Implement the "Ecosystems" unit in the curriculum for all 4th and the "Fields of Science" unit in all 5th grade classrooms.	All	The estimated number of individuals reached by all efforts will be compared to the size of the target audience of approximately 29,002 4th and 5th grade students and a percentage reached will be reported.	Complete
1.B – Chesapeake Bay Nutrients			
Implement "Investigations in Environmental Science" course for all 7th grade students.	All	The estimated number of individuals reached by all efforts will be compared to the size of the target audience of approximately 13,762 7th grade students and a percentage reached will be reported.	Complete
Participate in the NVRC Clean Water Partners program regional efforts.	2-5	FCPS will provide the summary of results of program efforts conducted by the NVRC Clean Water Partners and a summary of any survey results that measure the effectiveness of campaign.	Complete
BMP 1.C – Nonpoint Source Pollution Prevention: Impacts of Polluted Stormwater on Streams			
Implement AP and IB Geosystems and Oceanography courses for 11th and 12th grade students.	All	The estimated number of individuals reached by all efforts will be compared to the size of the target audience of approximately 30,542 11th and 12th grade students and a percentage reached will be reported.	Complete
BMP 1.D – General Education and Outreach			
Provide general education for students through participation in the NVRC Clean Water Partners program regional efforts.	2-5	FCPS will provide the summary of results of program efforts conducted by the NVRC Clean Water Partners and a summary of any survey results that measure the effectiveness of campaign.	Complete

Moving forward, FCPS will participate in the public education program under Fairfax County's MS4 permit in accordance with the MOU.

BMP 1.A – Watersheds: Local Water Quality and Volume Management

FCPS identified 4th and 5th grade students as the target audience for education and outreach efforts and provides the following science curriculum that focuses on this high-priority water quality issue:

- FCPS continues to implement the Ecosystems unit in the curriculum for all 4th grade classrooms and the Fields of Science unit for all 5th grade classrooms. In these units, students investigate the Earth's natural resources and how to protect them, research the Potomac River watershed and its water resources, and examine public policy decisions related to the environment.

Measure of Effectiveness

All of the 29,002 (approximate total) 4th and 5th grade FCPS students (100%) participated in the Ecosystems and Fields of Science units during the 2017-2018 school year. Appendix A provides a summary of the curriculum for these classes.

BMP 1.B – Chesapeake Bay Nutrients

FCPS identified middle school students as the target audience for education and outreach efforts on this high-priority water quality issue and provides the following science curriculum and regional efforts:

- Seventh grade students participated in the Investigations in Environmental Science course. This course builds upon the science curriculum introduced in upper-elementary grades. Students study basic ecological concepts and how excess nutrients from over-fertilizing can be washed into the storm sewer during a rain event and impact the ecology of local waterways and the Chesapeake Bay. Process skills related to scientific investigation, reasoning, and logic are integrated throughout the course as students carry out investigations, collect and analyze data, and formulate conclusions.
- FCPS participated in the NVRC Clean Water Partners program to provide outreach about the water quality impacts of nutrients in fertilizers. See BMP 1.D for information on FCPS participation in this program.

Measure of Effectiveness

All of the 13,762 (approximate total) 7th grade FCPS students (100%) participated in the Investigations in Environmental Science unit during the 2017-2018 school year. Appendix A provides a summary of the curriculum for these classes.

BMP 1.C – Nonpoint Source Pollution Prevention: Impacts of Polluted Stormwater on Streams

FCPS identified 11th and 12th grade students as the target audience for this BMP. At least 20 percent of all 11th and 12th graders are enrolled in Advanced Placement (AP) Environmental Science, International Baccalaureate (IB) Environmental Systems and Society, and Geosystems. Reaching students at this level continues to build on stormwater quality concepts introduced in previous grade levels. Through participation at these high school grade levels, after the majority

of students have progressed through the elementary school and middle school courses, student knowledge of stormwater quality issues will be enhanced even further.

- There were approximately 8,189 11th and 12th grade FCPS students in AP and IB environmental study course offerings and geosystems that cover topics including non-point source pollution and stormwater studies. Geosystems integrates content from geology, astronomy, oceanography, and meteorology with various forms of technology, social and environmental issues, and hands-on experiments.

Measure of Effectiveness

There were 30,542 (approximate total) 11th and 12th grade FCPS students in 2017-2018. Students were registered in the following environmental course offerings:

- Approximately 6,061 in Geosystems
- Approximately 2,128 in AP and IB Environmental Studies

An approximate total of 8,189, or 27 percent, of 11th and 12th grade students participated in the AP and IB Environmental studies and Geosystems units during the 2017-2018 school year. The Geosystems curriculum follows state standards and the AP and IB courses follow standards set forth by those organizations.

BMP 1.D – General Education and Outreach

FCPS participated in the NVRC Clean Water Partners program. This program focuses on nutrients (see BMP 1.B) as well as other pollutants, including bacteria. The bacteria component of the program is designed to reach pet owners on the proper disposal of pet waste. The program uses radio, TV, print and online media to reach pet owners across the region. FCPS will also continue to maintain the MS4 Program webpage at https://www.fcps.edu/node/27814.

Measure of Effectiveness

A summary of the Clean Water Partners survey summary results is provided in Appendix A.

3.2 Public Involvement/Participation (MCM #2)

The following table is a summary of ongoing activities and new activities performed during the – 2017 - 2018 reporting period for MCM #2 and their completion status.

BMP/Task	Year	Measurable Goal	Status
BMP 2.A – Public Notice and Participation			
Update MS4 Program Plan annually in conjunction with preparation of the annual report.	All	Updated program plan attached to annual report.	Complete
Post MS4 Program Plan within 30 days of submittal to DEQ.	All	Weblink to program plan.	Complete
Post annual report and retain copies of each annual report online for duration of the permit.	All	Weblink to annual reports.	Complete
Prior to reapplication for renewed coverage, provide for public comment on proposed program plan.	PY5		No longer applicable due to permit termination
BMP 2.B – Promote and Support Student Volunteer Activities			
Sponsor a minimum of four student activities annually.	All	Summary of at least four local activities that are promoted, supported, sponsored, and/or publicized by FCPS. The summary will include the name of the activity, the date, the number of students participating, and a measure of the activity (e.g., number of storm drains marked), if applicable.	Complete

BMP 2.A – Public Notice and Participation

No changes to the program plan were necessary during this reporting period. As required in the general permit, the program plan and the PY5 annual report will be posted on the MS4 Program webpage on the FCPS website within 30 days of submittal to DEQ at https://www.fcps.edu/node/27814.

Measure of Effectiveness

The PY5 annual report and program plan will be posted to the MS4 Program webpage within 30 days of submittal to DEQ as required.

BMP 2.B – Promote and Support Student Volunteer Activities

FCPS continues to support and promote volunteer activities to improve water quality through the Get2Green program. Get2Green was started as a FCPS project in December 2010 to further

FCPS's goal to graduate environmental stewards, with more than 60% of schools registered as Eco-Schools under the program. More information on the FCPS Get2Green program is provided in Appendix B and can be accessed on the FCPS webpage http://get2green.fcps.edu/index.html.

FCPS also participated in the NoVA Outside School Environmental Action Showcase (SEAS) held on April 10, 2018. The SEAS program is an exhibition and celebration of the environmental stewardship efforts of students, teachers, schools and non-profits. More than 400 students from 18 different schools attended, where leaders shared the various environmentally-focused initiatives being led at the different schools.

Measure of Effectiveness

During this reporting period, nearly 860 students and over 300 adults participated in Get2Green and other environmental activities, which included planting projects, water testing, and learning activities. A spreadsheet summary of the activities is provided in Appendix B.

Over 400 students, 80 parents and teachers, 40 environmental professionals, and 30 volunteers/staff attended the SEAS event this year on April 10, 2018. More information is provided in Appendix B.

Additional activities held during PY18 are detailed below, with accompanying press releases to be found in Appendix B:

1. "Fairfax City students help protect Chesapeake Bay" – June 1, 2018. FCPS faculty organized a tour of the Anacostia River for Lanier Middle School students. There was also a sustained focus on issues affecting the Bay within Fairfax HS, Daniels Run ES, and Providence Run ES.
2. "Ecologists Head to Camelot Elementary to Create Meadow Strip" – May 30, 2018. The County Watershed Education and Outreach program planted native plants along edge of school grounds on June 11. The project occurred in coordination with students who had been studying factors affecting local stream health. Students also participated in the planting. The article in Appendix B was in advance of event.
3. "Bioretention Project at Braddock Elementary" – October 23, 2017. Over 120 students in grades 3-5 participated in a planting on school grounds in support of a bioretention project installed on the property. Learning initiatives centered around this bioretention area, incorporating cross-curricular lessons that focused on subjects ranging from history, to vocabulary and language arts, to earth science.
4. Trout in the Classroom. During the 2017-18 school year, participants raised brook trout, supported by the local Trout Unlimited (TU) chapter. TU provided equipment and trout eggs, and then students raised the trout and released them into local streams. Students at several schools including Madison High, Dogwood ES, Centreville ES, Lemon Road ES, and Belvedere ES participated in the program. This involved over 250 students, and 40 parents and teachers.
5. FCPS Earth Week. Get2Green held an Earth Week event over the course of four days (April 17-20, 2018) with a theme for each day. The themes were energy, water, consumption and waste, and the great outdoors. Teachers and students participated in activities such as cleaning up trash on school grounds, reading outside, and calculating

their ecological footprints to explore their connection to Earth.

6. Native habitat and landscaping training series. From November 2017 – April 2018 Get2Green held three sessions (November 6, January 26, and April 2), in partnership with Earth Sangha and Friends of Accotink Creek to share methods with attendees for engaging students in native plant projects, resources for researching and selecting native plants, and expertise from professionals who have worked on such projects. This involved 30 teachers.
7. Get2Green Academy Course. During the spring and summer of 2018, experts taught FCPS teachers about methods for integrating the environment into the classroom. Topics included waste reduction, energy conservation, edible gardening, and wildlife habitat. There were 50 FCPS teachers enrolled in the academy.

3.3 Illicit Discharge Detection and Elimination (MCM #3)

The following table is a summary of ongoing activities and new activities performed during the 2017 - 2018 reporting period for MCM #3 and their completion status.

BMP/Task	Year	Measurable Goal	Status
3.A - Storm Sewer Infrastructure Map			
Maintain an updated storm sewer system map.	All	Summarize any changes to the database and map.	Complete
Identify any new physical interconnections and notify the connected MS4.	2-5	Summarize notifications of interconnections during the requisite annual report.	Complete
3.B - Prohibition on Illicit Discharges			
Implement prohibition on illicit discharges.	All	Document any changes to policies, notices, and directives in the appropriate annual report.	Complete
3.C – Written Procedures for Suspected Illicit Discharges and Illegal Dumping, and Complaint Response Tracking and Reporting			
Develop and implement written suspected illicit discharge procedures.	All	Document any changes to the written procedures.	Complete
Operate a public complaint system.	All	Document the 24-hour emergency response hotline operated by FCPS during the reporting period.	Complete
3.D - Dry Weather Outfall Screening and Tracking			
Develop and implement written dry weather screening procedures.	All	Document any changes to the written procedures.	Complete
Perform annual dry weather screening of 50 outfalls.	All	Summarize all dry weather screening activities and follow-up investigations.	Complete
Maintain tracking database.	All	Document the follow up activities from the tracking database.	Complete
3.E - Storm Drain Marking Program			
Implement storm drain marking program.	All	Report the number of storm drains marked and the number of volunteers participating in the marking program.	Complete
3.F - Promote Recycling to Reduce Trash			
Promote and facilitate recycling.	All	Document recycling promotion efforts and the amount of recycling collected during each school year.	Complete

BMP 3.A – Storm Sewer Infrastructure Map

Fairfax County DPWES continues to maintain and update the storm sewer and outfall map for FCPS. FCPS has access to the storm sewer and outfall map and utilizes it to better understand the system.

No new interconnections with a downstream MS4 were identified. As a result, no written notifications were required

Measure of Effectiveness

As required by the permit, FCPS updated its storm sewer system map and information table by June 30, 2018 and the map is updated annually in conjunction with Fairfax County's map update. This updated map was prepared in coordination with Fairfax County to ensure that MS4 outfall responsibility was clearly defined.

BMP 3.B – Prohibition on Illicit Discharges

FCPS continues to use policies, notices, and regulations (directives) to effectively prohibit illicit discharges to the storm sewer system and to conduct necessary enforcement in the case of an illicit discharge. FCPS is also subject to local ordinances in the respective jurisdiction regarding stormwater pollution and the prohibition on illicit discharges.

Measure of Effectiveness

No changes to FCPS policies, notices, and regulations were required during the reporting period to address illicit discharges. These prohibitions are contained in Fairfax County's Stormwater Management Ordinance, which can be found at https://www.municode.com/library/va/fairfax_county/codes/code_of_ordinances?nodeId=THCOCOFAVI1976_CH124STMAOR. Town of Herndon Code addressing illicit discharges can be found at https://www.municode.com/library/va/herndon/codes/code_of_ordinances?nodeId=PTIICOOR_CH26EN_ARTVIIISTMA and Town of Vienna Code addressing illicit discharges can be found at https://www.municode.com/library/va/vienna/codes/code_of_ordinances?nodeId=PTIICOOR_CH16STSI. The current FCPS Student Rights and Responsibilities, which can be used to enforce prohibitions on illicit discharges, can be found at https://www.fcps.edu/about-fcps/policies-regulations-and-notices/student-rights-and-responsibilities.

BMP 3.C – Written Procedures for Suspected Illicit Discharges and Illegal Dumping, and Complaint Response Tracking and Reporting

FCPS has standardized its response to suspected illicit discharges and illegal dumping so that proper data is collected and the appropriate staff is contacted for follow up if needed.

Measure of Effectiveness

- FCPS developed written standard operating procedures (SOPs) for "Suspected Illicit Discharges" and a standardized field form during PY1 as part of the update to the program plan.
- FCPS continues to operate the 24-hour emergency response telephone hotline.
- There were four reportable spills (Woodson HS grounds, Sideburn Support Center, Ravensworth ES and Fort Belvoir ES), none of which resulted in discharge to the stormwater system. The reporting form for these incidents can be found in Appendix C.

BMP 3.D – Dry Weather Outfall Screening and Tracking

FCPS has developed and implemented a dry weather outfall screening and tracking program in accordance with the general permit. FCPS conducted dry weather screening at 51 outfalls during the 2017-2018 reporting permit.

Measure of Effectiveness

Dry weather flow was observed at four outfalls; however, there was no dry weather flow at these outfalls during follow-up visits. These outfalls will be prioritized for future inspections. A summary of the dry weather screening results is provided in Appendix C.

BMP 3.E – Storm Drain Marking Program

FCPS continued to promote its storm drain marking program in an effort to reduce the incidence of direct dumping of materials down storm drains.

Measure of Effectiveness

During the reporting period, 41 storm drains were marked by three FCPS staff members.

BMP 3.F – Promote Recycling to Reduce Trash

FCPS continued to encourage recycling by students through the Get2Green program to reduce trash generation. The Get2Green website (http://get2green.fcps.edu/recycle.html) showcases FCPS efforts to encourage recycling through posters and dashboards for each school that track recycling efforts by percent of trash and pounds collected.

Measure of Effectiveness

During the 2017-2018 school year, FCPS recycled 7,336,437 pounds of material. Screen shots of the Get2Green Recycling webpage and a recycling dashboard example are included in Appendix C.

3.4 Construction Site Stormwater Runoff Control (MCM #4)

The following table is a summary of ongoing activities and new activities performed during the 2017 - 2018 reporting period for MCM #4 and their completion status.

BMP/Task	Year	Measurable Goal	Status
4.A - Legal Authorities Utilized to Ensure Compliance			
Comply with all local legal authorities.	All	Comply with all local legal authorities, as applicable.	Complete
BMP 4.B – Plan Review and Approval Procedures			
Comply with all local plan review and approval procedures.	All	Locality where project is occurring is responsible for plan review and approval.	Complete
BMP 4.C – Inspection and Enforcement Procedures			
Comply with all local inspection and enforcement procedures.	All	Locality where project is occurring is responsible for inspecting projects.	Complete
BMP 4.D – Public Complaint Reporting Mechanism			
Post permit and contact information as required by regulation and assist with reported complaints.	All	Complaints of land disturbing activities are received and tracked by the locality in which the activity takes place.	Complete
BMP 4.E – Land Disturbing Activities Tracking System			
Provide information about land disturbing activities to the appropriate local government for their annual reports.	All	Land disturbing activities are regulated and tracked by the locality where the activities occur.	Complete

BMP 4.A – Legal Authorities Utilized to Ensure Compliance

Land-disturbing activities performed by FCPS are treated the same way as a private entity by the locality in which the activity is occurring. This includes reviewing all FCPS erosion and sediment control plans, inspecting construction projects, and enforcement action against non-compliant construction and land disturbing activities. FCPS includes language in bid specifications requiring the onsite contractor to provide adequate erosion and sediment control measures and meet applicable regulatory requirements.

Measure of Effectiveness

FCPS complied with all local legal authorities, as applicable, and included language in bid specifications as a legal requirement. A sample bid specifications document is provided in the program plan.

BMP 4.B – Plan Review and Approval Procedures

Localities consider FCPS as a private entity for the purpose of reviewing and approving construction site stormwater runoff controls. FCPS plan submission and review must adhere to the same plan review and approval procedures as private developers.

Measure of Effectiveness

FCPS site development plans are reviewed and approved by the locality where the project is occurring.

BMP 4.C – Inspection and Enforcement Procedures

Localities inspect FCPS projects for compliance with local ordinance requirements. Inspection reports are provided to the onsite contractor. FCPS designates the onsite contractor as the responsible land disturber for capital projects in accordance with Title 62.1, Chapter 3.1, Article 2.4 of the Code of Virginia.

Measure of Effectiveness

FCPS staff performs random inspections of construction projects as part of contract oversight; however, they do not conduct inspections to meet construction general permit, Virginia Erosion and Sediment Control Program (VESCP), Virginia Stormwater Management Program (VSMP), or MS4 requirements. The locality where the project occurs is responsible for inspecting FCPS projects for compliance with state and local erosion and sediment control and VSMP regulations and provides reports to the onsite contractor.

BMP 4.D – Public Complaint Reporting Mechanism

FCPS complies with public notice requirements in Part II C of the construction general permit by conspicuously posting a copy of the notice of coverage letter near the main entrance of the construction activity upon commencement of land disturbance. In addition, many localities maintain a public complaint reporting mechanism that the public can use to report erosion and sediment control or pollution prevention issues originating from land-disturbing activities.

Measure of Effectiveness

Complaints for land-disturbing activities are maintained by the locality where the project is occurring.

BMP 4.E – Land Disturbing Activities Tracking System

As with private developers, information regarding land-disturbing activities associated with FCPS projects are tracked by the locality where they occur.

Measure of Effectiveness

FCPS projects are regulated and tracked by the locality in which the land-disturbing activity occurs. These land disturbing activities have not been reported in previous annual reports to avoid double-counting. DEQ requested this information be submitted in the PY2 annual report in a comment letter dated February 5, 2016.

While DEQ has requested this information from FCPS, it is important to note that FCPS is not a VESCP or VSMP authority and therefore, does not administer a VESCP or VSMP. FCPS complies with the construction requirements of the VESCP/VSMP authority in which a FCPS construction project occurs. Therefore, the VESCP/VSMP authorities (Fairfax County, towns of

Herndon and Vienna, etc.) include the data for FCPS construction projects in their VESCP, VSMP and MS4 annual reports.

The numbers reported below are based on Fairfax County records and will also be included in the numbers reported in the County's MS4 annual report. No land disturbing activities took place during the reporting period in other VESCP/VSMP authorities.

Total number of regulated land-disturbing activities (per administering authority):	Fairfax County: 35
Total number of acres disturbed (per administering authority):	Fairfax County: 356.92
Total number of inspections conducted (per administering authority):	Fairfax County: 698 total inspections, 345 E&S inspections
Number and type of enforcement actions taken (per administering authority):	Fairfax County: o 30 E&S Inspection Reports with specific items to correct o 8 E&S violations o 22 VPDES Inspection Reports with specific items to correct o 3 VPDES violations

3.5 Post-Construction Stormwater Management (MCM #5)

The following table is a summary of ongoing activities and new activities performed during the 2017 - 2018 reporting period for MCM #5 and their completion status

BMP/Task	Year	Measurable Goal	Status
5.A - Long Term Operation and Maintenance of BMP Facilities			
Implement Fairfax County SOP for long-term operation and maintenance of stormwater facilities.	2-5	Review and implement the SOP.	Complete
Inspect all stormwater facilities in accordance with Fairfax County requirements.	2-5	Report the number of stormwater facilities inspected each year and the number and type of facilities maintained, if applicable.	Complete
5.B - Stormwater Facility BMP Tracking Database			
Maintain the stormwater facility tracking database.	All	Provide a list of new stormwater facilities brought online during the reporting period.	Complete
Update the stormwater facility database to include new information required by the permit.	2-5	Report on progress of updating existing facility information.	Complete

BMP 5.A – Long Term Operation and Maintenance of BMP Facilities

Fairfax County DPWES inspects FCPS ponds every two years and non-ponds annually per the Maintenance and Stormwater Management Division (MSMD) SOP provided in the program, which captures this “Alternative Schedule”. The County performs maintenance of stormwater facilities, which includes removing trash, sediment, and debris from the trash rack, control structures, and all inflow channels leading to control structures.

Measure of Effectiveness

This table provides the number of stormwater facilities inspected and maintained. Since Fairfax County DPWES inspects and ensures that FCPS stormwater management facilities are properly maintained, no enforcement actions were taken.

Number of facilities inspected:	83
Number and type of facilities maintained (routine maintenance):	209 (34 ponds, 36 bioretention facilities, 116 Filterra/Treebox Filter facilities, 6 vegetated swales and 17 permeable pavement facilities)
Number and type of facilities maintained (non-routine maintenance):	27 (22 bioretention facilities, 4 Filterra/ Treebox Filter facilities, and 1 vegetated swale)

BMP 5.B – Stormwater Facility BMP Tracking Database

Fairfax County STW maintains the tracking database on behalf of FCPS. The County's database was developed to track all permanent stormwater facilities and collects necessary information for inspecting and reporting.

Measure of Effectiveness

A table providing the stormwater facilities that FCPS implemented during the current reporting period is provided in Appendix D. This spreadsheet will also be provided to the Department electronically as required by Section II.B.5.e of the general permit (stormwater management facility tracking and reporting requirements).

3.6 Pollution Prevention/Good Housekeeping for Municipal Operations (MCM #6)

The following table is a summary of ongoing activities and new activities performed during the 2017 - 2018 reporting period for MCM #6 and their completion status

BMP/Task	Year	Measurable Goal	Status
6.A - Sweeping Projects			
Annual parking lot sweeping.	All	Provide an estimate of total material collected during the reporting period.	Complete
6.B – Good Housekeeping Standard Operating Procedures for Daily Operations			
Develop daily operations SOPs.	2	Include written SOPs in the PY3 annual report.	Complete
6.C – Stormwater Pollution Prevention Plans for High-Priority Facilities			
Develop list of high-priority facilities requiring SWPPPs.	1	Provide list and status of SWPPP development.	Complete
6.D - Turf and Landscape Nutrient Management Plans			
Develop list of locations requiring NMPs.	1	Provide list of NMP locations.	Complete
Develop and implement NMPs.	2-5	Summary report on the development and implementation of NMPs, including the total acreage of land requiring NMPs and acreage upon which NMPs have been implemented.	Complete
6.E - Training on Recognition and Reporting Illicit Discharges			
Provide training on illicit discharges.	2 and 4	List of training events, dates, number of staff attending and objectives.	Complete
6.F - Training on Good Housekeeping and Pollution Prevention			
Provide training on pollution prevention and good housekeeping.	3 and 5	List of training events, dates, number of staff attending and objectives.	Complete
6.G - Certification for Pesticide and Herbicide Applicators			
Ensure proper training or certification for pesticides and herbicides.	All	Provide list of staff and associated certification(s), as applicable.	Complete
Contract language or written certification for contractors.	2-5	Provide revised Friends of the Field agreements	Complete

6.H - Proper State Certification for Erosion and Sediment Control			
Ensure designation of Registered Land Disturber for projects.	All	Confirm compliance with erosion and sediment control program requirements and designation of an RLD for all FCPS projects.	Complete
6.I - Spill Response Training for Emergency Personnel			
Ensure applicable spill training or certification for emergency response staff.	All	List of training events held, the training date, and the number of employees attending or certification program completed.	Complete
6.J – Contractor Oversight Procedures			
Revise contractor language for SOPs.	3-5	Following development of SOPs for Daily Operations (PY3 program plan update), document revised contractual language.	Complete

BMP 6.A – Sweeping Projects

FCPS continued to implement sweeping using a Fairfax County DPWES contract on FCPS properties as an effective way to remove trash and particulates from impervious surfaces that could enter the storm sewer system.

Measure of Effectiveness

During PY5, approximately 238.07 tons were collected through sweeping operations at FCPS facilities.

BMP 6.B – Good Housekeeping Standard Operating Procedures for Daily Operations

FCPS developed SOPs for daily operations during PY 2. These SOPs will be implemented in PY3 – PY5 and training will be incorporated into the biennial pollution prevention and good housekeeping training (BMP 6.F).

Measure of Effectiveness

During PY2, SOPs were developed for the following:

- Outdoor Storage
- Equipment Maintenance
- Landscape and Grounds

These SOPs are included in the program plan and training on the SOPs is included in the biennial pollution prevention training.

BMP 6.C – Stormwater Pollution Prevention Plans for High-Priority Facilities

FCPS identified one high-priority facility in PY 1 that requires the development and implementation of a SWPPP.

Measure of Effectiveness

A SWPPP was developed and implemented for the Woodson Complex in accordance with the schedule provided in the program plan. SWPPP training is held biennially and was held on January 25, 2017.

BMP 6.D – Turf and Landscape Nutrient Management Plans

In PY 1, FCPS developed an initial list of turf and landscape areas greater than one contiguous acre that receive nutrients and for which nutrient management plans (NMPs) were to be developed. The list was revised to remove fields where nutrient application status had changed as reported in the 2016-2017 annual report. The status of the removed fields has not changed. FCPS Directors of Student Activities have been directed that no nutrients are to be applied to fields over an acre without an NMP in place. A memorandum confirming this direction is included in Appendix E. The NMP list has been revised to remove fields where nutrients were not applied during the reporting period and is included in Appendix E.

Measure of Effectiveness

FCPS will continue to develop and implement NMPs for playing fields greater than one acre before application of nutrients. In PY5, the permit requires that NMPs must be developed for no less than 100% of identified acres. As shown in the summary table below, FCPS is currently at 100% completion. A list of the FCPS facilities where NMPs have been completed is included in Appendix E.

School Type	Total Identified Acreage by School Type	Completed NMP Acreage by School Type	Percent complete
Elementary	27.77	27.77	100%
Middle	9.05	9.05	100%
High/Secondary	21.82	21.82	100%
Other	6.84	6.84	100%
Total	**65.48**	**65.48**	**100%**

BMP 6.E – Training on Recognition and Reporting of Illicit Discharges by Field Personnel

FCPS provides information on illicit discharges to bus drivers and custodians through the distribution of posters around the workplace. Training on Recognition and Reporting of Illicit Discharges was conducted in PY2 and PY4 in accordance with the program plan.

Measure of Effectiveness

This training was not scheduled to be performed in PY5.

BMP 6.F – Training on Good Housekeeping and Pollution Prevention for Maintenance, Public Works, and Recreation Facility Staff

FCPS provides training on good housekeeping and pollution prevention through an on-line video course for maintenance, public works, and recreation facility staff. This training is biennial and provided in PY3 and PY5.

Measure of Effectiveness

FCPS trained 60 staff in good housekeeping and pollution prevention through an online course. Documentation of the staff enrollment and completion is provided in Appendix E.

BMP 6.G – Certification for Pesticide and Herbicide Applicators

FCPS ensures that staff, as well as community groups and contractors that may apply pesticides and herbicides receive the proper state certification through the Virginia Department of Agriculture and Consumer Services (VDACS).

Measure of Effectiveness

FCPS has met this requirement. As of the end of PY5, there are five FCPS staff with Pesticide Applicator Certification. Pesticide applicator certifications are provided in Appendix E.

BMP 6.H – Proper State Certification for Erosion and Sediment Control

FCPS ensures that applicable staff and site contractors hold the proper erosion and sediment control certifications from the state. A responsible land disturber must be designated for all FCPS projects in order for a site permit to be issued by the locality in which the project is located. Contractors submit paperwork with the appropriate locality to become the responsible land disturber once they are under contract.

Measure of Effectiveness

Certifications for applicable FCPS staff are maintained on file and available to DEQ for inspection.

BMP 6.I – Spill Response Training for Emergency Personnel

FCPS provides spill response training to staff with the Office of Safety and Security annually.

Measure of Effectiveness

Training was conducted on May 24, 2018 for two staff.

BMP 6.J – Contractor Oversight Procedures

FCPS will ensure that contractors performing work on behalf of FCPS use appropriate pollution prevention and good housekeeping measures.

Measure of Effectiveness

FCPS developed good housekeeping SOPs in PY2 (see BMP 6.B). FCPS provides the SOPs to contractors that perform work related to outdoor storage, equipment maintenance, and landscape and grounds maintenance. FCPS reviewed its bid documents and determined that the current wording is sufficient to ensure that contractors follow state and local regulations. The bid

document wording is as follows: ““This solicitation is subject to all state and local laws, policies, resolutions, regulations, and all accepted rules, regulations and limitations imposed by legislation of the Federal Government.”

4. Results of Information Collected and Analyzed

No information, including monitoring data, was required to be collected or analyzed under the FCPS PY5 requirements.

5. Summary of Future Activities

Since the FCPS MS4 permit has been terminated, FCPS will conduct MS4 activities in compliance with Fairfax County’s MS4 permit as documented in the MOU in Appendix F.

6. Changes in Identified BMPs or Measurable Goals

No updates to the program plan were implemented in this reporting period. Since the FCPS MS4 permit has been terminated, there are no identified changes to BMPs or measurable goals.

7. Reliance On Other Government Entities

FCPS participates with local governments and other public entities through the Northern Virginia Regional Commission (NVRC) Clean Water Partners program to conduct regional educational and outreach. This effort is discussed in Section 3 under BMP 1.A. FCPS relies on the assistance of Fairfax County DPWES to perform dry weather outfall screening discussed in Section 3 under BMP 3.C. Additionally, FCPS relies on Fairfax County STW for stormwater management facility inspections and database management, and to access a contract to conduct sweeping projects discussed in Section 3 under BMP 5.A and BMP 6.A, respectively.

The FCPS MS4 permit has been terminated, therefore, FCPS will conduct MS4 activities in compliance with Fairfax County’s MS4 permit as documented in the MOU in Appendix F.

8. Approval Status of Qualifying Local Programs

Unlike a locality, FCPS does not have state enabling authority to regulate land-disturbing activities, administer an erosion and sediment control program, or adopt ordinances and other enforcement mechanisms. FCPS is regulated in the same manner as a private developer by the locality where the land-disturbing activity is taking place and must comply with all local codes and ordinances. Therefore the locality where the project is taking place administers local erosion and sediment control and VSMP requirements for land disturbing activities through review of required plan elements, along with inspection and enforcement of a site-specific stormwater pollution prevention plan (SWPPP) for the project.

9. Special Conditions Associated with Approved TMDLs

Section I of the MS4 permit requires FCPS to develop action plans to address TMDLs where a wasteload allocation (WLA) has been assigned to the FCPS MS4. The Chesapeake Bay TMDL

Action Plan and TMDL Action Plans for sediment, bacteria and PCBs are in the FCPS MS4 program plan.

FCPS addressed comments from DEQ on their PY3 Annual Report in a letter dated April 7, 2017 and provided a status update for all local and Chesapeake Bay TMDL action plans. An update on the status of implementation of the action plans in PY5 is provided below:

Chesapeake Bay TMDL: The permeable pavement projects at Terraset Elementary School were substantially completed on December 15, 2015. With completion of this project, FCPS has completed all structural projects proposed in the action plan.

Sediment TMDLs: The permeable pavement projects at Terraset Elementary School were substantially completed on December 15, 2015. With completion of this project, FCPS has completed all structural projects proposed in the action plan. For other implementation items in section 2K of the action plan, FCPS continues to implement its MS4 program, ensures that all FCPS land disturbing projects comply with local VSMP requirements, and continues its good housekeeping/pollution prevention measures and training as documented in this annual report.

Bacteria TMDLs: FCPS continues to implement its MS4 program per the Program Plan schedule. The Safety and Security Fact Sheets on the Pooper Scooper Ordinance and Canada Geese were revised, and the most recent copies can be found in Appendix E.

PCB TMDL: Training on PCB recognition and reporting was conducted on April 30, 2018 and documentation of the training is included in Appendix E.

10. Evaluation and Assessment of BMPs

In accordance with Section II E.3.b of the MS4 permit, FCPS has reviewed and assessed the BMPs established to meet the requirements of the permit and program plan for this reporting period and have found them to be appropriate and effective.

APPENDIX A

Summary of School Curriculum

NVRC Clean Water Partners Campaign Summary & Reports

APPENDIX B

MS4 Webpage Screen Capture

Get2Green Webpage Screen Capture

Summary of FCPS Events

Braddock ES Bioretention Project Press Release

Camelot ES Watershed Education Press Release

Fairfax City Chesapeake Bay Education Press Release

School Environmental Action Showcase Press Release

APPENDIX C

MS4 Outfall Information Table

Unauthorized Discharge Reporting Form – Woodson; Fort Belvoir ES

Dry Weather Outfall Screening Results

Get2Green Recycling Webpage and Dashboard Example displaying program totals

Recycling Program Totals

APPENDIX D

Stormwater Management Facilities Brought Online

APPENDIX E

Nutrient Application Policy Memorandum

Nutrient Management Plan Locations and Planning Status

PCB Recognition and Reporting Training Tracking Sheet

MS4 Education and Good Housekeeping and Pollution Prevention Training Materials

Pesticide applicator certifications

Safety & Security Fact Sheets; Pooper Scooper Ordinance, Canada Geese

APPENDIX F

Permit Termination Documents

APPENDIX A

Summary of School Curriculum

NVRC Clean Water Partners Campaign Summary & Reports

High School Science

High school science students spend approximately 50 percent of their time in laboratory or research-based activities.

About High School Science

The high school science program is experientially based with a minimum of 50 percent of class time spent in laboratory or research-related activities. The integration of technology throughout high school science courses allows students to collect, organize, analyze, and interpret real-time data; conduct research; design science experiments; and explore science concepts through simulation and application software.

Our Programs of Study are based on the Standards of Learning for Public Schools in the Commonwealth of Virginia <http://www.doe.virginia.gov/testing/sol/standards_docs/science/index.shtml> and the National Science Education Standards <http://www.nap.edu/openbook.php?record_id=4962>.

GRADUATION REQUIREMENTS AND COURSE PLANNING

Find out what courses are needed to graduate.

View Graduation Requirements </academics/graduation-requirements-and-course-planning>

HIGH SCHOOL SCIENCE COURSE SEQUENCE

Learn more about the course sequence for high school science.

Learn More </academics/graduation-requirements-and-course-planning/high-school-course-sequencing/science>

Courses:

- Chemistry (State Standards <http://www.doe.virginia.gov/testing/sol/standards_docs/science/index.shtml>)
- Physics (State Standards <http://www.doe.virginia.gov/testing/sol/standards_docs/science/index.shtml>)
- Active Physics
- Biology (State Standards <http://www.doe.virginia.gov/testing/sol/standards_docs/science/index.shtml>)
- Concepts
- Geosystems (State Standards <http://www.doe.virginia.gov/testing/sol/standards_docs/science/index.shtml>)
- Human Anatomy and Physiology
- Astronomy
- Oceanography
- Geospatial Analysis
- Genetics and Biotechnology
- AP Environmental Science (AP Information <http://apcentral.collegeboard.com/apc/public/courses/teachers_corner/2128.html>)
- AP Biology (AP Information <http://apcentral.collegeboard.com/apc/public/courses/teachers_corner/2117.html>)
- AP Chemistry (AP Information <http://apcentral.collegeboard.com/apc/public/courses/teachers_corner/2119.html>)
- AP Physics C (AP Information <http://apcentral.collegeboard.com/apc/public/courses/teachers_corner/2263.html>)
- AP Physics B (AP Information <http://apcentral.collegeboard.com/apc/public/courses/teachers_corner/2262.html>)

- IB Chemistry (IB Information <http://www.ibo.org/diploma/curriculum/>)
- IB Physics (IB Information <http://www.ibo.org/diploma/curriculum/>)
- IB Environment Systems and Society (IB Information <http://www.ibo.org/diploma/curriculum/>)
- IB Biology (IB Information <http://www.ibo.org/diploma/curriculum/>)

Middle School Science

Middle school science requirements.

Courses:

Grade 7 (State Standards <http://www.doe.virginia.gov/testing/sol/standards_docs/science/index.shtml>)

Grade 8 (State Standards <http://www.doe.virginia.gov/testing/sol/standards_docs/science/index.shtml>)

Focus Science

Laboratory Requirements

Central to the design of the curriculum is the philosophy that the middle school science student should be engaged in laboratory work during at least fifty percent of class time. This time frame includes pre-laboratory preparation and post-laboratory analysis. Laboratory work is the vehicle by which students come to understand life science concepts, learn and apply the skills of inquiry, and acquire an enthusiasm for learning science. While important in developing student understanding, demonstrations, audiovisual presentations, reinforcement and practice activities, and supplemental reading cannot be considered a substitute for laboratory experiences. These kinds of activities should not be counted within the science laboratory time.

A science laboratory experience is characterized by the following:

- An individual student or small group of students manipulating science equipment for the purpose of conducting an investigation requiring an interpretation of observations and data.
- An individual or small group of students engaged in experimental design that involves defining a problem, formulating hypotheses, and establishing procedures for the collection of verifiable data.
- An individual or small group of students conducting an investigation which involves making observations, recording data from the observations, analyzing the data collected, formulating conclusions, and preparing a final report.

An individual or small group of students engaged in computer-based laboratory investigations. For a computer-assisted laboratory investigation to be considered as a laboratory activity, the program should include some of the following:

- The development of scientific skills, such as making observations, collecting data, organizing and analyzing data, predicting, and inferring.
- The opportunity to change the parameters of the results to observe and predict the effect upon the system being investigated.
- Experimental investigations that generate or access appropriate data, display the data, and require students to analyze the data to form valid conclusions.

Field studies in which individual students participate in observations, data collection, and analysis of samples of materials.

Technology

As stated in the Science Standards of Learning for Virginia Public Schools, the use of current and emerging technologies is essential to the K-12 science instructional program.

Computer/Technology standards to be achieved by the end of Grade 8 have been developed in the Virginia Standards of Learning and are the shared responsibility of teachers of all disciplines. Middle science school students are expected to become

adept at using the compound microscope, triple beam balance, computer, printer, digital camera, probeware, LabQuest, and other forms of hardware.

In addition, students should become competent using software designed for the following applications: word processing, graphing, manipulating databases, simulations, Geographic Information Systems (GIS), telecommunications, and multimedia presentations. The most common configuration is a networked science classroom consisting of 15 student stations and one teacher presentation station. All middle school science students use technology during each unit throughout the year.

Classroom Assessment Methods

Instruction can be effective only if classroom assessments accurately reflect student achievement. For this reason, those concerned with the quality of instruction must also be concerned with the quality of assessment. Assessment should be a systematic, multi-step process involving the collection and interpretation of educational data on student progress. Student performance guides what teachers should teach, reflects what students have learned, and indicates what students need to learn.

In the past, many instructors evaluated their students' understanding of a scientific concept with a traditional, multiple-choice, pencil and paper test. Today, teachers use a variety of classroom assessment methods to probe the extent and organization of their students' knowledge. The choice of specific assessment methods should match the kind of knowledge – conceptual or procedural – we are assessing. Conceptual knowledge refers to what we want students to understand (concepts, principles) and procedural knowledge refers to what we want students to be able to do (skills, processes, strategies.)

Classroom assessment methods in science include the following:

1. Selected Response

Student selects either the correct or best answer from among the options given. This method can assess mastery of conceptual or procedural knowledge.

Examples of selected response include multiple choice, true-false, and matching.

2. Constructed Response

Student communicates a brief response, usually written, to questions, problems, or prompts. This method can assess big concepts, generalizations, and relationships among elements of conceptual knowledge. It can provide insight into a student's reasoning ability. A performance check list or rubric can be used to "score" the response.

Examples of constructed response include asking students to graph experimental data and describe the pattern or trend that is evident, create a concept map or web of a science topic, or make a labeled diagram to illustrate and explain the role of green plants in the process of photosynthesis, asking students to "show and explain their work" on a density calculation problem, or make a labeled diagram to illustrate and explain the three ways thermal energy is transferred.

3. Performance-Based Assessments

A. Performance Task

Student creates a product or performs a demonstration that illustrates how he or she can apply conceptual knowledge and procedural skills to carry out steps in the development of the specified product or task. It can assess both conceptual and procedural knowledge. Evaluations of student products are based on judgments guided by criteria. Rubrics and performance checklists are often used as scoring tools.

Examples of a performance task include having students write a newspaper editorial defending a position on curtailing harvesting of the Chesapeake Bay blue crab; design an experiment to determine the limiting factors on the germination of a particular kind of seed; create a trade book on using the microscope to compare a plant and a animal cell for a fifth grade student; create a multimedia presentation for Earth Day on the interdependence with the biosphere, write a newspaper editorial defending a position on the use of nuclear energy for generating electricity; design an experiment to determine the effect of different kinds of insulating materials on thermal energy loss; create a trade book on "atoms and elements" for sixth grade students; conduct an experiment to identify an unknown substance based on its

properties; create a multimedia presentation for National Science and Technology Week on the interdependence of science, technology, and society in some aspect of the nanotechnology program.

B. Portfolio

Representative samples of student work are purposefully collected over time. This can be used to show student effort, progress or achievement in a given area.

Example of a portfolio includes asking students to keep a record of different investigations or lab reports over time to see progress in ability to make qualitative and quantitative observations, organize and analyze information, and communicate results of an investigation.

C. Teacher Observations, Questioning, and Conferencing

The teacher observes the student during an activity or asks questions to learn about a student's thinking process relevant to conceptual or procedural knowledge. These provide valuable feedback information to teachers and to students so that adjustments to instruction can be made.

Examples of teacher observations, questioning, and conferencing include observing students in a lab situation to determine their ability to follow a written procedure, the use of the "think aloud" technique to evaluate a student's ability to make a wet mount slide and focus the image under a microscope or to use a triple beam balance to find the mass of an object, posing oral questions to assess a student's understanding of a difficult section in the science textbook, or conferencing with a student to learn what they know about a particular concept and what questions they might still have.

D. Student Self-Assessment

The student self-assesses the quality of a performance, product, or process he or she used. This method allows students to keep track of their own progress through criteria established by the student and teacher. This also enables students to be part of the learning experience, and take ownership in understanding the goals and criteria for success related to conceptual and procedural learning goals.

Examples of student self-assessment include allowing students to use a check list for assessing the quality of a graph they produced: or after completing a series of lessons on heredity, asking students to write in a learning log the concepts which they found most understandable and those which they still do not understand completely.

Student Resources

General Science

- U.S. Metric Association <http://lamar.colostate.edu/~hillger/>

7th Grade Science

Cells

- Cells alive <http://www.cellsalive.com/>

Exploring Heredity and Diversity

- DNA and Genetics <http://www.amnh.org/ology/?channel=genetics#>

Understanding Populations and Ecosystems

- Biomes <http://mbgnet.mobot.org/sets/index.htm>
- More about biomes <http://www.blueplanetbiomes.org/world_biomes.htm>

Chesapeake Bay

- The Chesapeake Bay Foundation <http://cbf.org/>
- Chesapeake Bay Program <http://www.chesapeakebay.net/>
- The Bay Journal <http://www.bayjournal.com/>

Eighth Grade Science

Matter and Energy

- Matter, Water Cycle, Energy <http://www.nhusd.k12.ca.us/alve/media/virtual_science2.htm>

Periodic Table

- Chemicool Periodic Table <http://www.chemicool.com/chemicool/>

Atoms

- Ernest Rutherford's Gold Foil Experiment <http://micro.magnet.fsu.edu/electromag/java/rutherford/>
- Scanning Tunneling Microscopic Images of Atoms <http://physics.nist.gov/genint/stm/stm.html>

Chemical Reactions--Acids and Bases

- More about acids and bases <http://www.visionlearning.com/library/science/chemistry-2/che2.2-acid_base.htm>

Investigating Matter and Temperature

- Heat and Thermal Energy <http://www.physics4kids.com/files/thermo_intro.html>

Investigating Motion, Forces, and Energy

- Newton's Laws and airplanes <http://www.grc.nasa.gov/www/k-12/airplane/newton.html>

Grade 4 curriculum available at the following page:
https://insys.fcps.edu/PublicPOS/#/reportPanel/4/0

Grade 4

Overview

The Fairfax County Public Schools Elementary Science Program consists of inquiry based units that research has shown to be most effective for student achievement in science. The rigorous lessons include science process skills that develop students? ability to think and perform like a scientist. They are designed to encourage children to investigate the nature of the world around them through participation in scientific investigations and develop ways to be environmental stewards. Kit materials correlate with the lessons so that students can have hands-on experiences to better understand science concepts. Then students are provided opportunities to apply this knowledge to solve problems and understand the nature of science. Science trade books, Fresh Science DVDs, specific websites and other resources accompany the units. The Elementary Science Program follows the Virginia State Science Standards of Learning which include the following science strands: Scientific Investigation, Reason and Logic; Matter; Life Processes; Living Systems; Earth Patterns, Cycles, and Change; Interrelationships in Earth/Space Systems; and Earth Resources.

Program of Studies

1. PLAN AND CONDUCT INVESTIGATIONS

a. Understand Observations, Conclusions, Inferences and Predictions
b. Classify and Arrange Objects/Events According to Characteristics
c. Select Appropriate Instruments to Measure Length, Volume, Mass, Temp.
d. Select and Use Appropriate Instruments to Measure Elapsed Time
e. Make Predictions and Inferences & Draw Conclusions Based on Data
f. Identify Independent and Dependent Variables
g. Identify Constants in an Experimental Situation
h. Develop Hypotheses Based on Cause and Effect Relationships
i. Collect, Record, Analyze & Display Data Using Bar & Basic Line Graphs
j. Recognize Contradictory/Unusual Numerical Data in Experimental Results
k. Communicate Data with Graphs, Pictures, Written Statements, Numbers
l. Construct Models to Clarify, Demonstrate, and Solve
m. Use Current Applications to Reinforce Science Concepts

2. UNDERSTAND CHARACTERISTICS AND INTERACTIONS OF MOVING OBJECTS

a. Understand That Motion Is Described by an Object's Direction and Speed
b. Understand That Changes in Motion Are Related to Force and Mass
c. Understand That Friction Is a Force That Opposes Motion
d. Understand That Moving Objects Have Kinetic Energy

3. INVESTIGATE AND UNDERSTAND THE CHARACTERISTICS OF ELECTRICITY

a. Investigate and Understand Conductors and Insulators
b. Investigate and Understand Basic Circuits
c. Investigate and Understand Static Electricity
d. Understand That Electrical Energy Can Be Transformed Into Light, etc.
e. Investigate and Understand Simple Electromagnets and Magnetism
f. Investigate Historical Contributions in Understanding Electricity

4. UNDERSTAND BASIC PLANT ANATOMY AND LIFE PROCESSES

a. Understand the Structures of Typical Plants and the Function of Each
b. Understand Processes and Structures Involved with Plant Reproduction
c. Investigate and Understand Photosynthesis
d. Understand That Adaptations Allow Plants to Meet Life Needs & Respond

5. UNDERSTAND INTERACTIONS WITHIN AN ECOSYSTEM

a. Investigate and Understand Plant and Animal Adaptations
b. Understand the Organization of Populations, Communities & Ecosystems
c. Investigate and Understand the Flow of Energy Through Food Webs
d. Investigate and Understand Habitats and Niches
e. Understand Changes in an Organism's Niche at Stages in the Life Cycle
f. Understand the Influences of Human Activity on Ecosystems

6. UNDERSTAND HOW WEATHER OCCURS AND IS PREDICTED

a. Investigate and Understand Weather Phenomena
b. Understand Weather Measurements and Meteorological Tools
c. Understand Use of Weather Measurements/Phenomena to Make Predictions

7. INVESTIGATE AND UNDERSTAND THE ORGANIZATION OF THE SOLAR SYSTEM

a. Investigate and Understand the Planets in the Solar System
b. Understand the Order of the Planets in the Solar System
c. Understand the Relative Sizes of the Planets

8. UNDERSTAND THE RELATIONSHIPS AMONG EARTH, THE MOON, AND THE SUN

a. Understand the Motions of Earth, the Moon and the Sun
b. Understand the Causes for the Earth's Seasons
c. Understand the Causes for the Phases of the Moon
d. Understand Characteristics of Earth, the Moon and the Sun
e. Understand Historical Contributions to the Earth-Moon-Sun System

9. INVESTIGATE AND UNDERSTAND IMPORTANT VIRGINIA NATURAL RESOURCES

a. Understand That Virginia Has Many Watersheds and Water Resources
b. Understand That Virginia Has a Great Variety of Animals and Plants
c. Understand That Virginia Has Minerals, Rocks, Ores and Energy Sources
d. Recognize That Virginia Has a Great Variety of Forests, Soil, and Land

Grade 5 curriculum available at the following page:
https://insys.fcps.edu/PublicPOS/#/reportPanel/5/0

Grade 5

Overview

The Fairfax County Public Schools Elementary Science Program consists of inquiry based units that research has shown to be most effective for student achievement in science. The rigorous lessons include science process skills that develop students? ability to think and perform like a scientist. They are designed to encourage children to investigate the nature of the world around them through participation in scientific investigations and develop ways to be environmental stewards. Kit materials correlate with the lessons so that students can have hands-on experiences to better understand science concepts. Then students are provided opportunities to apply this knowledge to solve problems and understand the nature of science. Science trade books, Fresh Science DVDs, specific websites and other resources accompany the units. The Elementary Science Program follows the Virginia State Science Standards of Learning which include the following science strands: Scientific Investigation, Reason and Logic; Matter; Life Processes; Living Systems; Earth Patterns, Cycles, and Change; Interrelationships in Earth/Space Systems; and Earth Resources.

Program of Studies

1. PLAN AND CONDUCT INVESTIGATIONS

a. Identify Rocks, Minerals & Organisms Using Various Classification Keys
b. Estimate and Measure Length, Mass, Volume, Temperature in Metric Units
c. Make Estimates and Accurate Measurements of Elapsed Time
d. Form Hypotheses from Testable Questions
e. Identify Independent and Dependent Variables
f. Identify Constants in an Experimental Situation
g. Use Proper Graphical Representations and Metric Measurements of Data
h. Make Predictions Using Patterns from Data; Generate Graphical Data
i. Make Inferences and Draw Conclusions
j. Construct Models to Clarify, Demonstrate, and Solve
k. Use Current Applications to Reinforce Science Concepts

2. UNDERSTAND HOW SOUND IS CREATED, TRANSMITTED, AND USED

a. Investigate and Understand Compression Waves
b. Understand Vibration, Compression, Wavelength, Frequency, Amplitude
c. Understand the Ability of Different Media to Transmit Sound
d. Identify Uses and Applications of Sound Waves

3. UNDERSTAND BASIC CHARACTERISTICS OF VISIBLE LIGHT

a. Investigate and Understand Transverse Waves
b. Investigate and Understand the Visible Spectrum
c. Understand the Terms Opaque, Transparent and Translucent
d. Investigate the Reflection of Light from Reflective Surfaces
e. Investigate the Refraction of Light through Water and Prisms

4. UNDERSTAND THAT MATTER HAS MASS AND IS A SOLID, LIQUID OR GAS

a. Understand the Distinguishing Properties of Each Phase of Matter
b. Understand the Effect of Temperature on the Phases of Matter
c. Investigate and Understand Atoms and Elements
d. Investigate and Understand Molecules and Compounds
e. Investigate and Understand Mixtures Including Solutions

5. UNDERSTAND THAT ORGANISMS ARE MADE OF CELLS & HAVE CHARACTERISTICS

a. Investigate and Understand Basic Cell Structures and Functions
b. Classify Organisms Using Characteristics, Body Structures, Behavior
c. Understand the Traits of Organisms That Allow Them to Survive

6. UNDERSTAND CHARACTERISTICS OF THE OCEAN ENVIRONMENT

a. Investigate and Understand the Geological Characteristics of the Ocean
b. Investigate and Understand the Physical Characteristics of the Ocean
c. Investigate and Understand the Ecological Characteristics of the Ocean

7. UNDERSTAND HOW EARTH'S SURFACE IS CONSTANTLY CHANGING

a. Investigate and Understand the Identification of Rock Types
b. Understand the Rock Cycle and How Transformations Between Rocks Occur
c. Investigate and Understand Earth History and Fossil Evidence
d. Investigate and Understand the Basic Structure of Earth's Interior
e. Understand Changes in Earth's Crust Due to Plate Tectonics
f. Investigate and Understand Weathering, Erosion, and Deposition
g. Investigate and Understand Human Impact on the Earth's Surface

From:	Corey Miles
To:	Andrew F. Uglow; Aileen Winquist; Jason Widstrom; Lonni Marquetti; Christina.Alexander@fairfaxva.gov; "Charlie Mumaw"; Stone, Chris; Sara DeGroot (Sara.DeGroot@alexandriava.gov); "shaina@bgllc.net"; "Susan Miller"; Zhongyan Xu; "Burton, Emily"; "bclaudio@GMU.EDU"; Wisdom Gbediame; "Irene Haske"; Micah Vieux; Day, Doug; Moran, Holly; "david.donahue@viennava.gov"; "Kerry.Wharton@Fauquiercounty.gov"; "james.sawyer@fauquiercounty.gov"; Normand Goulet; Sarah Godfrey; Bulova, David L; Scott Rae; "zoran.dragacevac@herndon-va.gov"; Greg Tkac; Laura Grape (laura.grape@fairfaxcounty.gov); Robert Lazaro
Subject:	Clean Water Partners News
Date:	Tuesday, July 17, 2018 4:23:43 PM
Attachments:	image001.png image002.png NVRC_Summary071618.docx NVRC_Summary071618.pdf

Hello Clean Water Partners,

I have a few news items to share with you all before our next meeting:

1. Our website onlyrain.org has been updated! Our site had been residing with hostgator.com but it got hacked several times with some naughty language embedded in the site and various other security issues. They told me it could be fixed by subscribing to their expensive SiteLock program for "extra" security. I decided to move the site to a new host (Wix.com) to improve security and usability, save money, and do some improvements to the layout etc. The site is now live. All of the old content is there, it's just a new layout that is a more modern and user friendly. We can always add new content or improve what is there so please feel free to e-mail me any comments or suggestions. A few pages might say "still under construction" for a short period of time until we get all the text moved in.
2. Attached are the results of our annual survey. At the request of our partners in Fairfax County, a few new questions were added this year about awareness of sources of water pollution and how to identify and report it. Make sure you check out the results!

Please let me know if you have any items to add to the agenda for our August meeting.

Also, let me know if you no longer want to be on this mailing list or I should add someone.

Thanks,

Corey

Corey Lynn Miles
Senior Environmental Planner/Coastal Program Manager
Northern Virginia Regional Commission
3040 Williams Drive, Suite 200, Fairfax, VA 22031
Office: 703-642-4625
cmiles@novaregion.org

Follow us on:

Northern Virginia Clean Water Partners

2018 Summary

WORKING TOGETHER FOR HEALTHY STREAMS AND RIVERS

WWW.ONLYRAIN.ORG

Polluted stormwater runoff is the number one cause of poor water quality in streams and rivers in Northern Virginia. When it rains, the water runs off streets, driveways, yards and parking lots and picks up pesticides, grass clippings, fertilizer, bacteria, and oil. All of this pollution enters the storm drains on the street and is discharged directly to a stream. The runoff is not filtered or sent to a wastewater treatment facility.

To reduce the impacts of stormwater pollution, the Northern Virginia Clean Water Partners came together to change peoples' behavior through a public education campaign.

About the Partnership

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

To meet these goals, the Partners work together to:

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

Membership is voluntary and each member makes an annual contribution to fund the program. By working together the partners are able to leverage their funds to develop and place bilingual educational products with common messages and themes, thereby extending the campaign's reach.

Only Rain Down the Storm Drain is the motto of the partnership.

The 2018 campaign helped to satisfy MS4 (Municipal Separate Storm Sewer System) Phase I and Phase II permit requirements for stormwater education and documenting changes in behavior.

For more information visit www.onlyrain.org

2018 Campaign Overview and Accomplishments

In 2018, the Northern Virginia Clean Water Partners selected the following three high priority water quality issues to focus on for the Campaign:

- bacteria,
- nutrients, and
- illicit discharge of chemical contaminants.

The Partners identified the target audiences for these issues as pet owners, homeowners with a lawn or garden, and home mechanics and do-it-yourselfers.

The campaign used television, print, internet advertising and the Only Rain Down the Storm Drain website to distribute messages linked to specific stormwater issues, such as improper pet waste disposal, over fertilization of lawns and gardens, and improper disposal of motor oil.

In addition to the multi-channel media campaign, partners participated in local events to raise awareness and encourage positive behavior change in residents. Television and internet ads featured the well-known national symbol of non-point source pollution; the rubber ducky.

5,299,360	Total household television impressions*
966,169	Total digital impressions (internet banner ads and in-stream video ads)
17,922	Number of times the ads aired from July 2017- June 2018
18,848	Visits to the www.onlyrain.org website
500	Online Annual Survey Responses
>75%	Percent of target audience reached
1	New Outreach Strategy Piloted

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

Throughout the campaign year, the Partners made the following efforts to educate the public and promote awareness of stormwater pollution:

- From July 2017 through June 2018, aired four Public Service Announcements on 31 English language cable TV networks, and five Spanish speaking networks a total of 17,922 times. The ads featured messages on the importance of picking up pet waste and general household stormwater pollution reduction measures.
- Placed digital ads on Premium Digital Video websites that promote the same messages as the cable TV ads.
- Featured two full day, full page ads for Only Rain on the sign-in pages for Xfinity.com.

- In 2018, the Partners piloted a creative new strategy aimed at raising awareness about stormwater pollution called ***"Write as Rain".*** The effort used stencils and an eco-friendly rain resistant spray (called RainWorks) to blanket the region's sidewalks, streetscapes and

thoroughfares with fun and educational motivational messages about stormwater that appear when the surfaces are wet. The goal of the effort was to raise public awareness about the environmental impacts of storm water pollution.

- Conducted an online survey of 500 Northern Virginia residents to determine the effectiveness of the ads, aid in directing the future efforts of the campaign, and to reveal any changes in behavior.
- Continued to update and maintain the Northern Virginia Clean Water Partners website.

Findings in the 2018 survey include:

- 15% of respondents recalled seeing the ad on TV after watching the video clip in the survey.
- Of those who recalled seeing the ads, 49 percent state they already take action to protect clean water, 24 percent state they now pick up their pet waste more often, 12 percent state that they now properly dispose of motor oil, and 23 percent state they plan to fertilize fewer times per year.
- When shown the Only Rain Down the Storm Drain logo, 59 percent of the respondents recognized it compared to 54 percent in 2013. This increase indicates that awareness of the logo has increased over time.
- More than half of respondents feel at least somewhat confident that they would know where to report potential water pollution but, only 42 percent would report water pollution if they saw it. This suggests there is a need to encourage residents to speak up and report if they see something.
- One in five respondents stated they don't know they need to take action around their home to protect clean water.
- About four in ten respondents felt they were most prevented to take action to protect clean water because they don't know what to do.
- The majority of respondents (64%) indicated that email newsletters with reminders and quick tips and/or online resources would help them take action to protect clean water.

Understanding Behaviors

In addition to capturing responses to questions regarding the effectiveness of the campaign, this year's survey honed in on the current behaviors and attitudes of Northern Virginia residents as they relate to pet waste management, lawn care, and motor oil disposal. Responses to these questions support the development of future messages and targeted promotion.

The most important reason dog owners are motivated to pick up their pet's waste is because "It's what good neighbors do". The number of respondents choosing "It causes water pollution" as the most important reason to pick it up has fluctuated but was the second most common reason in 2018.

78% of lawn and garden owners fertilize their lawns at least once per year. Among those who fertilize once a year, 18 percent fertilize in the spring and only five percent fertilize in the fall. This suggests that there is room to educate residents of Northern Virginia that fertilizing in the fall is better for local waterways.

About half of the respondents reported using an herbicide to treat weeds in their lawn or garden.

Among those who fertilize their lawn, 75 percent have never had or were not sure if their soil had been tested for fertility or pH and fifty five percent reported using a slow release fertilizer.

In a new question for 2018, after reading a description of a rain barrel, rain garden, and conservation landscaping, respondents were asked if they had implemented these features at their home or had heard about them. Seven percent reported having a rain barrel, while four percent reported having a rain garden, and 11 percent reported having conservation landscapes in their yard.

Consistent with the past seven years, the majority of respondents take their vehicle to a service station for oil changes (82%) or take used oil to a gas station or hazmat facility for recycling (11%). Three percent of Northern Virginians reported storing used motor oil in their garage, placing it in the trash or dumping it down the storm drain.

Only Rain Down the Drain

www.onlyrain.org

For more information:

Corey Miles
Senior Environmental Planner
703-642-4625
3040 Williams Drive, Suite 200
Fairfax, VA 22031
cmiles@novaregion.org

2018 Northern Virginia Clean Water Partners

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

Virginia Coastal Zone MANAGEMENT PROGRAM

nvrc Northern Virginia Regional Commission

Summary prepared by NVRC on behalf of the Partners

Northern Virginia Regional Commission

2018 Only Rain NVRC Survey

Summary Report of Findings

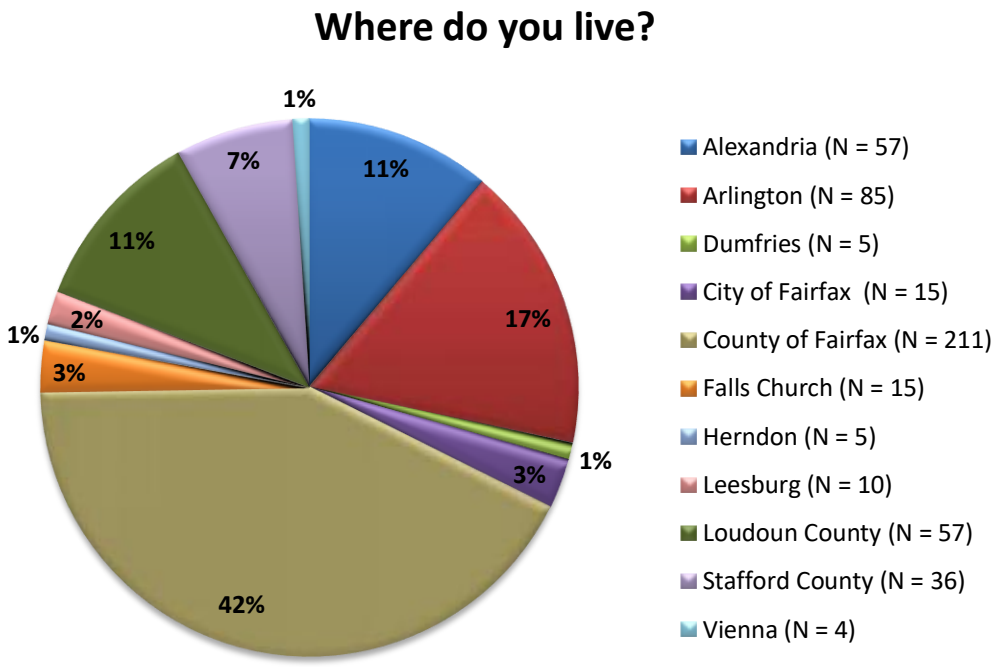
7/16/2018

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 starting in mid-June, 2018. 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. Note that the percentages in the chart add to 99% due to rounding.)



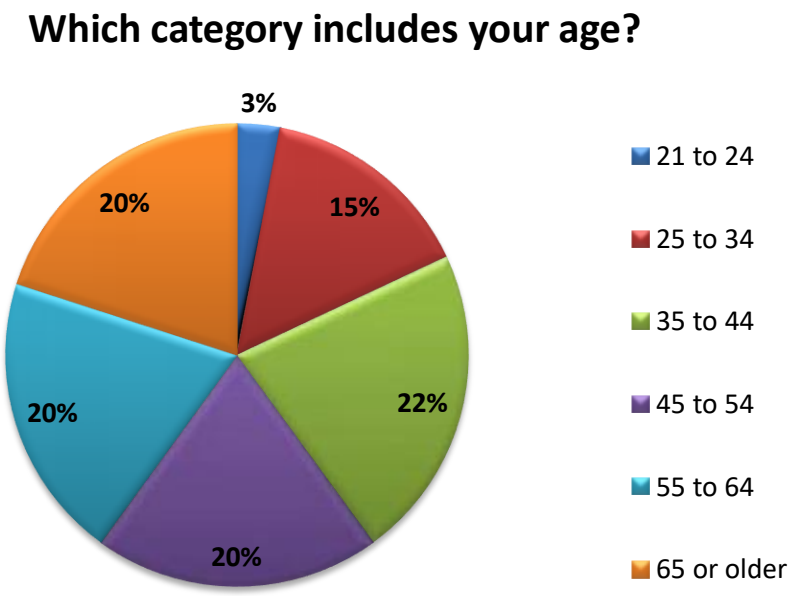
Later in this report, the results for some of the questions are "broken out" by area, in addition to presenting the results for the total sample. However, the specific areas listed above were grouped together into larger areas so that each larger area used for analysis had a reasonable number of respondents.

Residents from Leesburg and Loudoun County were combined into a single category labeled "**Leesburg / Loudoun**," since the town of Leesburg lies within Loudoun County. Another category used for analysis was "**Dumfries / Stafford**," since Dumfries lies just north of Stafford County. Although Dumfries is not located within Stafford County, it is closer to Stafford than to the other counties covered in the survey. (There were too few survey respondents living in Dumfries to examine the results for Dumfries separately.) 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.

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."



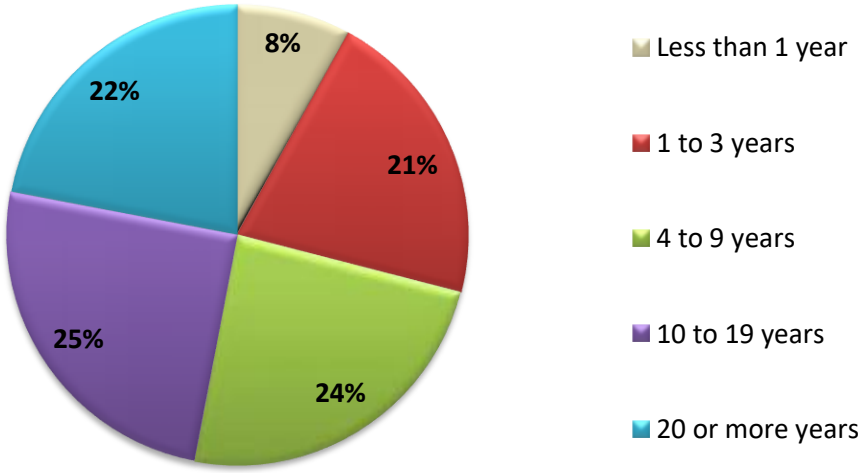
The survey respondents were split between males (49%) and females (51%), while approximately three-fourths (74%) indicated that they own their residence, and 26% reported renting.

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 2017 that included many of the same or similar questions, targeted the same geographic area, and had a similar demographic mix as in this 2018 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.

In 2018, a minimum quota of 8% of the total sample was set for those who are of Hispanic heritage to allow analysis of results specifically among Hispanic respondents.

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

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

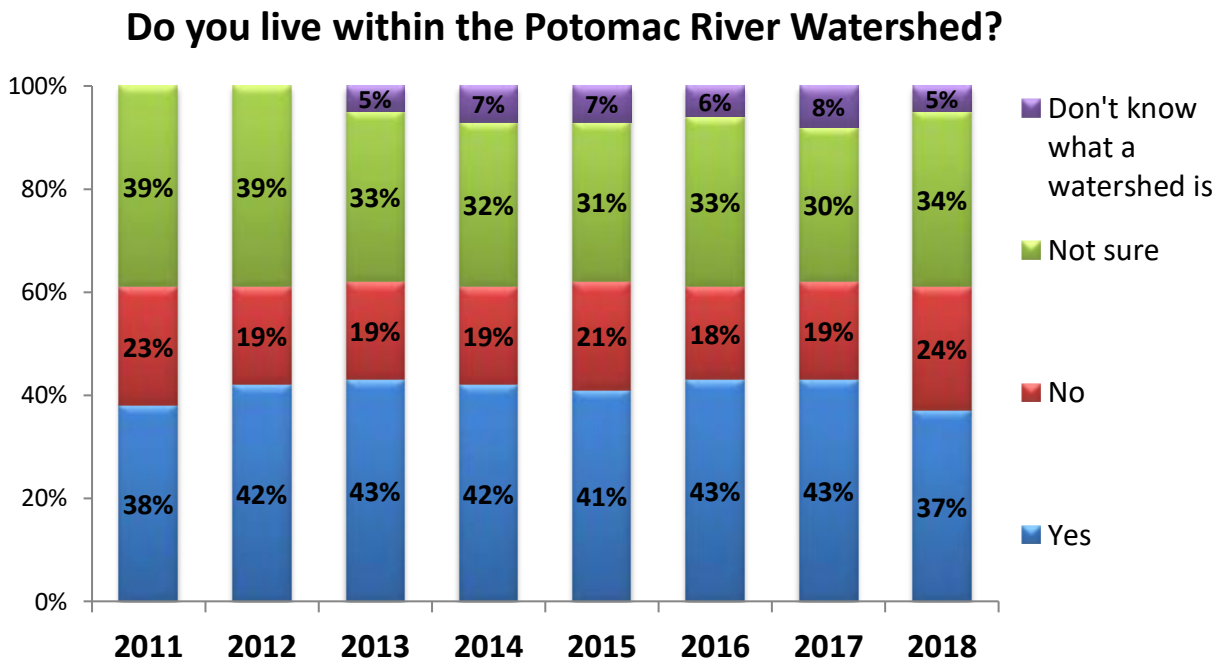
This suggests that results for different subgroups can be considered "similar" when the differences are small (i.e., small enough to be within the range of sampling error).

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 2018 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, slightly less than four-in-ten (37%) in 2018 believed that they did in fact live within the Potomac River Watershed. This was slightly lower than in previous years, but the change in 2018 was not quite large enough to be statistically significant.



- When breaking the results out by area, as shown in the table below, the proportion answering "Yes" did not differ significantly. Although the result was lower in Dumfries / Stafford, the difference between this area and the other areas was not large enough to be statistically significant. (Note that the sample size of 41 respondents for Dumfries / Stafford is fairly small.)

Live Within Potomac River Watershed	**Alexandria**	**Arlington**	**Fairfax Inclusive**	**Leesburg / Loudoun**	**Dumfries / Stafford**
Yes	42%	38%	38%	39%	24%
No	19%	14%	26%	22%	39%
Not sure	34%	43%	29%	37%	32%
Don't know what a watershed is	5%	5%	7%	2%	5%
N = number of respondents	*57*	*85*	*250*	*67*	*41*

- As shown in the next table, those who have been in their current residence for less than 4 years were less likely than those who have been in their current residence for 10 or more years to say they live within the Potomac River Watershed.

Live Within Potomac River Watershed	**Have Lived in Current Residence < 4 Years**	**4 to 9 Years**	**10 to 19 Years**	**20 or More Years**
Yes	30%	36%	42%	42%
No	27%	25%	18%	25%
Not sure	38%	32%	37%	27%
Don't know what a watershed is	5%	7%	3%	6%
N = number of respondents	*146*	*118*	*126*	*110*

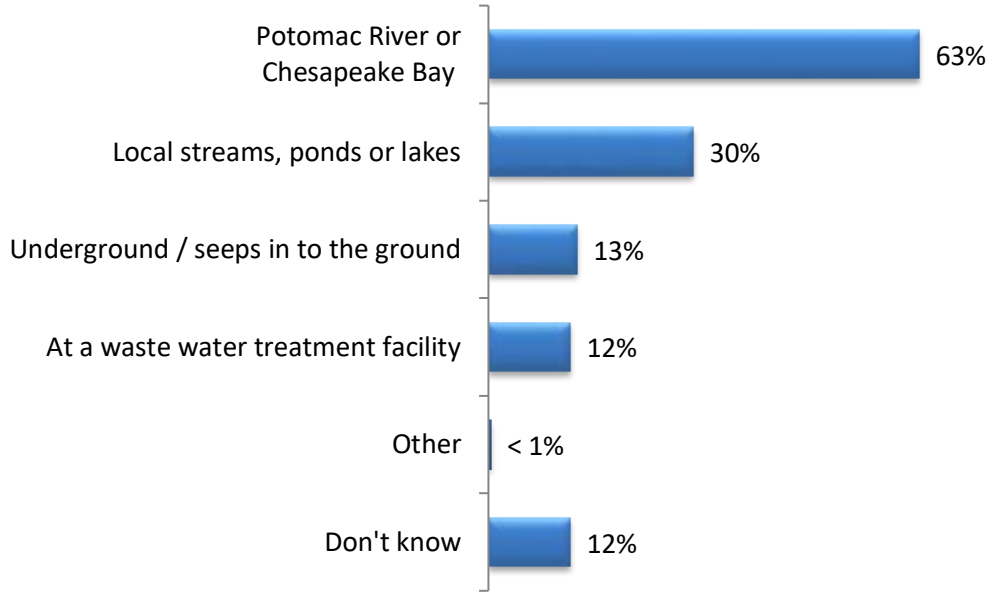
- Those age 65 or older were more likely than those under age 55 to believe that they live in the Potomac River Watershed.

Live Within Potomac River Watershed	**Age 21 to 34**	**35 to 44**	**45 to 54**	**55 to 64**	**65 +**
Yes	29%	37%	34%	37%	48%
No	28%	22%	31%	23%	16%
Not sure	38%	37%	26%	34%	32%
Don't know what a watershed is	5%	4%	9%	6%	4%
N = number of respondents	*92*	*109*	*101*	*97*	*101*

- 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.

Live Within Potomac River Watershed	**Male**	**Female**	**Homeowners**	**Renters**	**Hispanic Respondents**
Yes	46%	29%	40%	29%	38%
No	21%	26%	23%	27%	30%
Not sure	30%	37%	32%	39%	32%
Don't know what a watershed is	3%	8%	5%	5%	0%
N = number of respondents	*244*	*256*	*372*	*128*	*40*

"Stormwater" 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?



- The majority (63%) believe that storm water eventually ends up in the Potomac River or Chesapeake Bay. The results are shown only for 2018 above because the 2018 questionnaire had two separate options in place of a single option of "Local streams, Potomac River or Chesapeake Bay" last year.

- Results by various subgroups are shown on the next two pages. For example, those from Arlington and Fairfax Inclusive were more likely than those from Dumfries / Stafford to select Potomac River or Chesapeake Bay. Those age 65 or older were more likely than those under 35, and males were more likely than females to select that response.

Believed Destination of Stormwater	**Alexandria**	**Arlington**	**Fairfax Inclusive**	**Leesburg / Loudoun**	**Dumfries / Stafford**
Potomac River or Chesapeake Bay	60%	67%	66%	58%	46%
Local streams, ponds or lakes	40%	34%	27%	25%	32%
Underground / seeps in to the ground	14%	9%	13%	13%	17%
At a waste water treatment facility	16%	13%	12%	12%	7%
Other	2%	0%	0%	0%	0%
Don't know	12%	7%	12%	16%	17%
N = number of respondents	*57*	*85*	*250*	*67*	*41*

Believed Destination of Stormwater	**Have Lived in Current Residence < 4 Years**	**4 to 9 Years**	**10 to 19 Years**	**20 or More Years**
Potomac River or Chesapeake Bay	61%	61%	65%	65%
Local streams, ponds or lakes	37%	38%	25%	17%
Underground / seeps in to the ground	18%	16%	6%	11%
At a waste water treatment facility	14%	12%	11%	10%
Other	0%	0%	1%	1%
Don't know	12%	14%	12%	12%
N = number of respondents	*146*	*118*	*126*	*110*

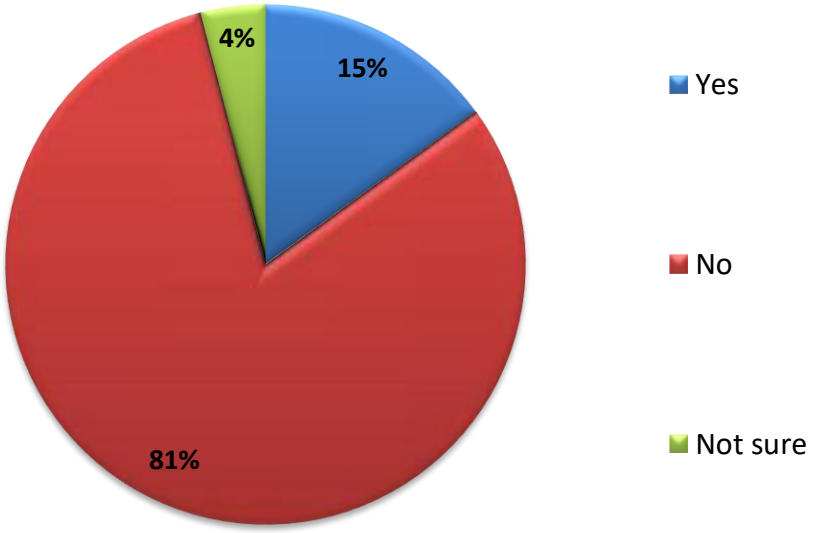
Believed Destination of Stormwater	**Age 21 to 34**	**35 to 44**	**45 to 54**	**55 to 64**	**65 +**
Potomac River or Chesapeake Bay	52%	62%	61%	65%	72%
Local streams, ponds or lakes	43%	40%	30%	22%	14%
Underground / seeps in to the ground	20%	20%	10%	8%	6%
At a waste water treatment facility	20%	18%	7%	11%	4%
Other	0%	0%	0%	0%	2%
Don't know	9%	14%	16%	10%	13%
N = number of respondents	*92*	*109*	*101*	*97*	*101*

Believed Destination of Stormwater	**Male**	**Female**	**Homeowners**	**Renters**	**Hispanic**
Potomac River or Chesapeake Bay	70%	56%	65%	57%	58%
Local streams, ponds or lakes	20%	39%	28%	35%	48%
Underground / seeps in to the ground	10%	15%	12%	16%	20%
At a waste water treatment facility	11%	13%	10%	18%	13%
Other	1%	0%	1%	0%	0%
Don't know	11%	13%	12%	15%	8%
N = number of respondents	*244*	*256*	*372*	*128*	*40*

Advertising / Information About Reducing Water Pollution

- In 2018, a video of an advertisement featuring "rubber duckies" was presented in the survey, and respondents were asked if they had seen it on TV. A similar question was asked in 2017 and 2016, but the survey wording referred to TV *or Internet*, whereas the 2018 wording referred only to TV. The proportion recalling related TV advertising was 15% in 2018, as shown in the chart below. (The proportion recalling related TV or Internet advertising was 24% in 2017 and 16% in 2016.)

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



- The proportion recalling the ad by area ranged from 12% to 24%, with Dumfries / Stafford having a significantly higher result than Fairfax Inclusive.

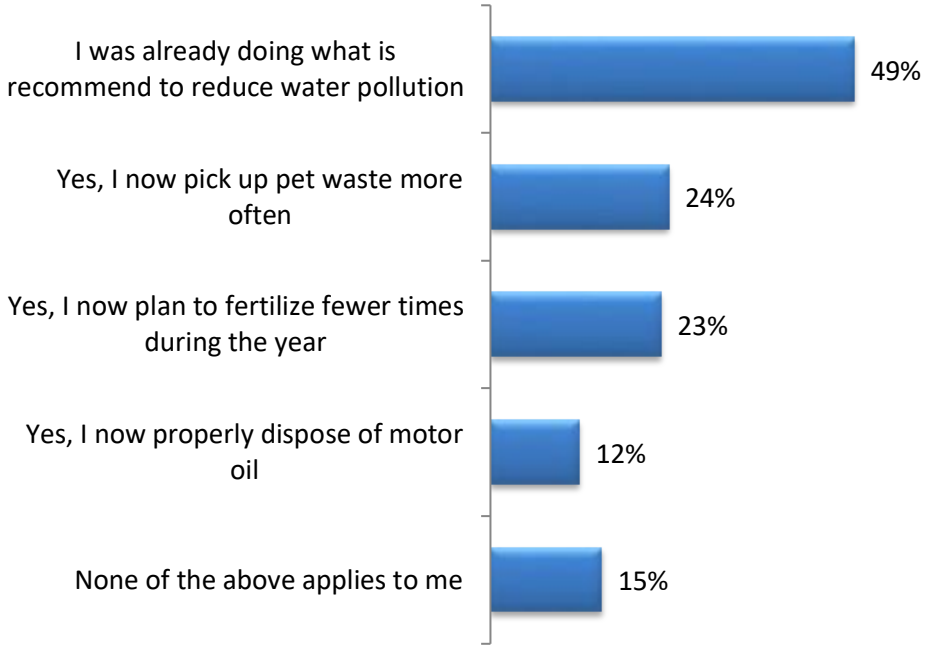
Saw TV Ads on Reducing Water Pollution	**Alexandria**	**Arlington**	**Fairfax Inclusive**	**Leesburg / Loudoun**	**Dumfries / Stafford**
Yes	18%	14%	12%	18%	24%
No	77%	85%	82%	79%	73%
Not sure	5%	1%	6%	3%	3%
N = number of respondents	*57*	*85*	*250*	*67*	*41*

Saw TV Ads on Reducing Water Pollution	Have Lived in Current Residence < 4 Years	4 to 9 Years	10 to 19 Years	20 or More Years
Yes	13%	17%	14%	15%
No	85%	78%	80%	80%
Not sure	2%	5%	6%	5%
N = number of respondents	*146*	*118*	*126*	*110*

Saw TV Ads on Reducing Water Pollution	Age 21 to 34	35 to 44	45 to 54	55 to 64	65 +
Yes	22%	12%	11%	17%	14%
No	75%	84%	85%	76%	83%
Not sure	3%	4%	4%	7%	3%
N = number of respondents	*92*	*109*	*101*	*97*	*101*

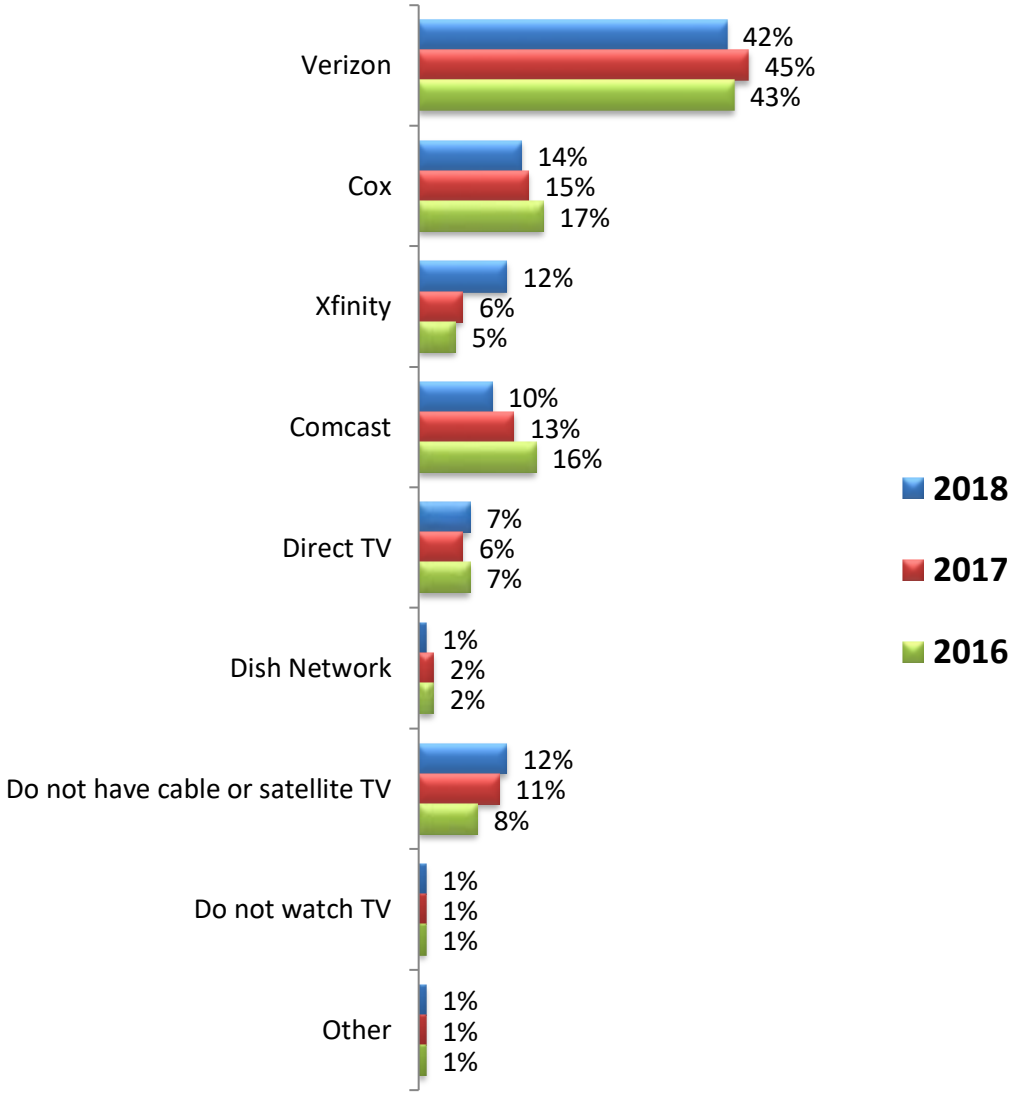
Saw TV Ads on Reducing Water Pollution	Male	Female	Homeowners	Renters	Hispanic Respondents
Yes	18%	12%	15%	14%	22%
No	78%	84%	81%	82%	70%
Not sure	4%	4%	4%	4%	8%
N = number of respondents	*244*	*256*	*372*	*128*	*40*

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 fertilizing less often and/or reducing water pollution.

What TV service provider do you use?

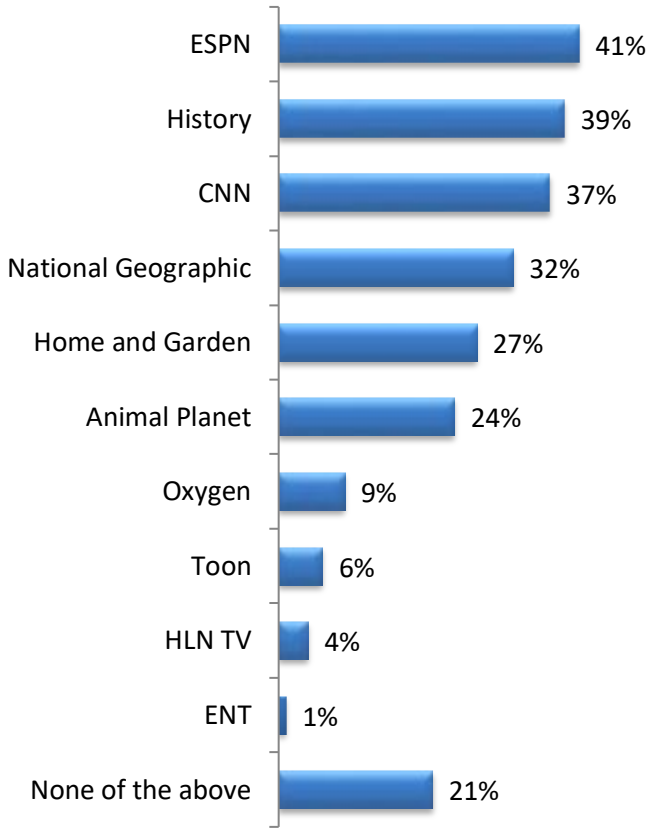


- Verizon was selected most often (by 42% in 2018) as their TV service provider.

- 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), it turns out that TV recall was similar across the larger providers. When looking at the providers with at least 50 respondents using the provider, the proportion recalling the ad was 17% among Verizon customers, 17% among Cox customers, 16% among Xfinity customers, and 19% among Comcast customers.

- In 2017 and 2016, there was a category for "I only watched streamed video content," but the proportion selecting this option was added to "Do not have cable or satellite TV" for the chart above.

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

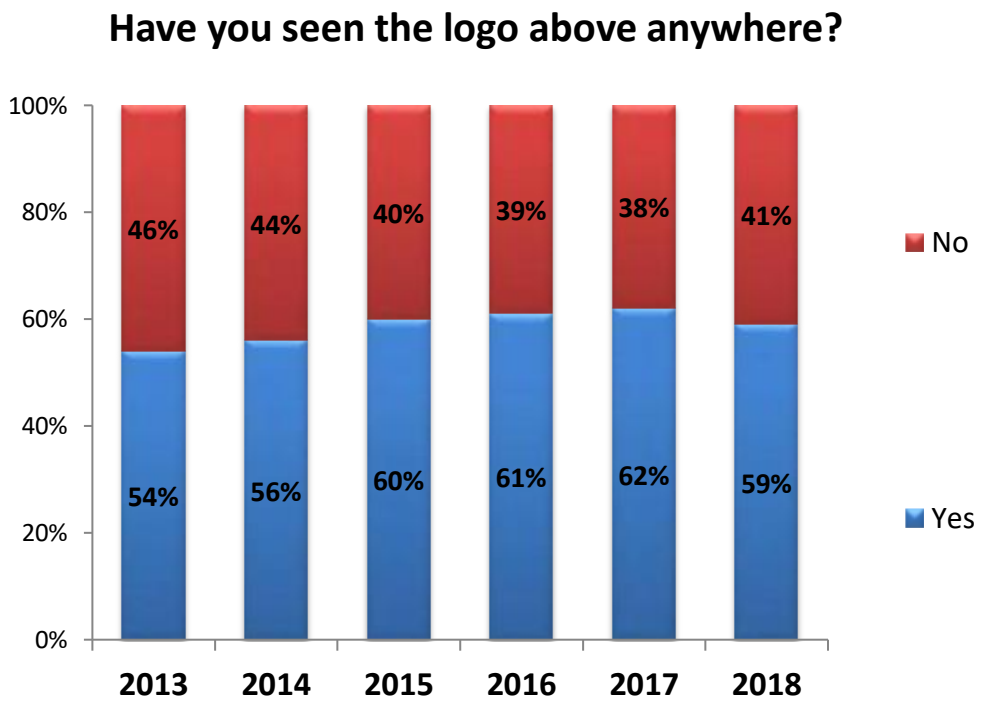


- Of the channels covered in the survey, ESPN had the highest proportion reporting that they watch the channel (41%). (In the 2017 and 2016 surveys, the wording of the question referred to channels watched in the past 30 days, whereas the 2018 wording does not specify a timeframe.)

- One reason for adding the question above was to determine if recall of the advertising differed by channels watched. Based on a separate analysis (not shown in chart), for three of the channels, their viewers were significantly more likely than others to recall the advertising that was shown in the survey: Oxygen (28% of those who watched this channel recalled the advertising), Animal Planet (23%), and History Channel (21%).

- Among those who watched *none* of the channels above, only 6% recalled the advertising.

- 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 2018 result was not the highest, but it was also not the lowest compared to previous years.



- Results for the question above in 2018 by subgroup are shown on the next page. Interestingly, awareness was significantly lower in Dumfries / Stafford. This was the case last year and the year before that as well. At the same time, males were more likely than females to recall the logo.

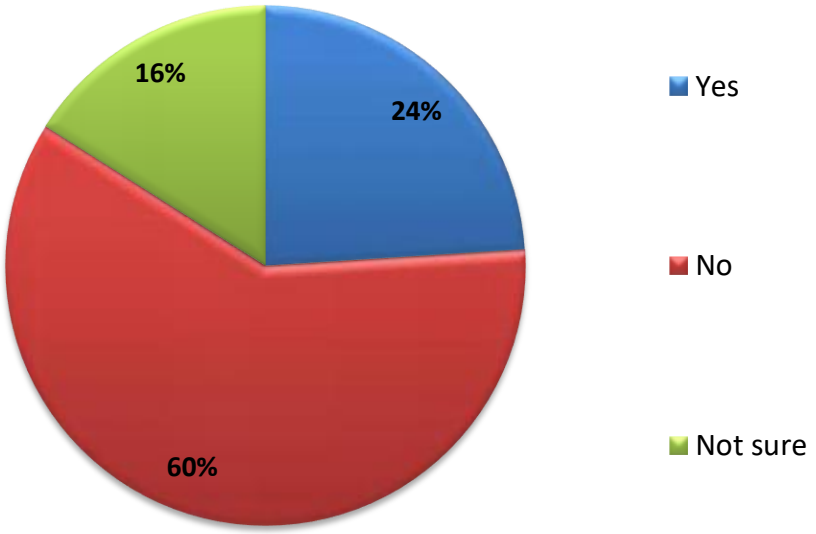
Have Seen Logo	Alexandria	Arlington	Fairfax Inclusive	Leesburg / Loudoun	Dumfries / Stafford
Yes	65%	69%	60%	58%	24%
No	35%	31%	40%	42%	76%
N = number of respondents	*57*	*85*	*250*	*67*	*41*

Have Seen Logo	Have Lived in Current Residence < 4 Years	4 to 9 Years	10 to 19 Years	20 or More Years
Yes	58%	61%	61%	55%
No	42%	39%	39%	45%
N = number of respondents	*146*	*118*	*126*	*110*

Have Seen Logo	Age 21 to 34	35 to 44	45 to 54	55 to 64	65 +
Yes	53%	67%	55%	60%	57%
No	47%	33%	45%	40%	43%
N = number of respondents	*92*	*109*	*101*	*97*	*101*

Have Seen Logo	Male	Female	Homeowners	Renters	Hispanic Respondents
Yes	65%	53%	61%	53%	63%
No	35%	47%	39%	47%	38%
N = number of respondents	*244*	*256*	*372*	*128*	*40*

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?



- Nearly one-fourth (24%) reported that they have seen or received information about reducing water pollution in the past 12 months. The results for this question were similar across the different subgroups examined in the following tables.

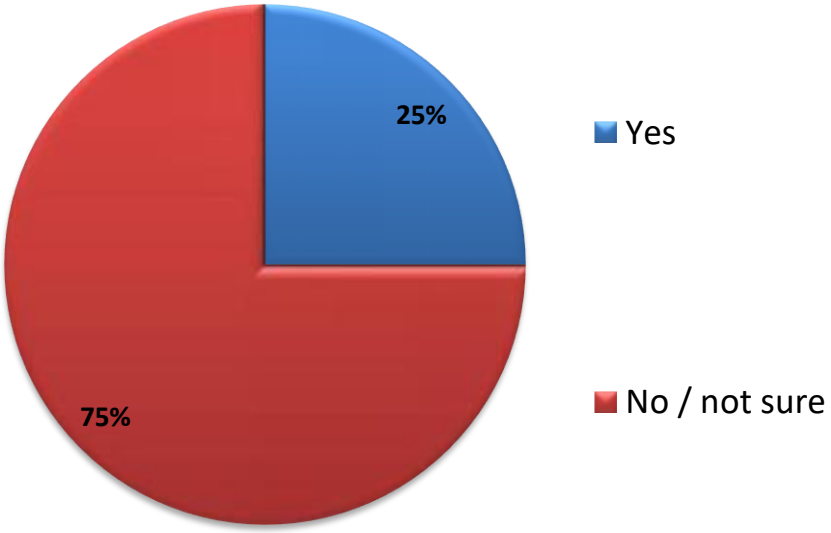
Received Info. About Reducing Water Pollution	**Alexandria**	**Arlington**	**Fairfax Inclusive**	**Leesburg / Loudoun**	**Dumfries / Stafford**
Yes	30%	22%	24%	27%	20%
No	53%	60%	61%	61%	61%
Not sure	17%	18%	15%	12%	19%
N = number of respondents	*57*	*85*	*250*	*67*	*41*

Received Info. About Reducing Water Pollution	**Have Lived in Current Residence < 4 Years**	**4 to 9 Years**	**10 to 19 Years**	**20 or More Years**
Yes	23%	27%	27%	21%
No	61%	60%	57%	60%
Not sure	16%	13%	16%	19%
N = number of respondents	*146*	*118*	*126*	*110*

Received Info. About Reducing Water Pollution	**Age 21 to 34**	**35 to 44**	**45 to 54**	**55 to 64**	**65 +**
Yes	28%	27%	21%	22%	25%
No	58%	59%	62%	61%	58%
Not sure	14%	14%	17%	17%	17%
N = number of respondents	*92*	*109*	*101*	*97*	*101*

Received Info. About Reducing Water Pollution	**Male**	**Female**	**Homeowners**	**Renters**	**Hispanic Respondents**
Yes	27%	21%	25%	24%	25%
No	57%	63%	59%	62%	62%
Not sure	16%	16%	16%	14%	13%
N = number of respondents	*244*	*256*	*372*	*128*	*40*

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.?



- One-fourth (25%) have heard about opportunities to participate in a water quality activity in the past 12 months. The result was lower in Dumfries / Stafford, but the difference between this area and others was not quite large enough to be statistically significant. However, males were significantly more likely than females to answer "Yes" to the question above.

Heard of Water Quality Activities Past 12 Months	**Alexandria**	**Arlington**	**Fairfax Inclusive**	**Leesburg / Loudoun**	**Dumfries / Stafford**
Yes	25%	29%	25%	22%	15%
No / not sure	75%	71%	75%	78%	85%
N = number of respondents	*57*	*85*	*250*	*67*	*41*

Heard of Water Quality Activities Past 12 Months	**Have Lived in Current Residence < 4 Years**	**4 to 9 Years**	**10 to 19 Years**	**20 or More Years**
Yes	20%	23%	30%	26%
No / not sure	80%	77%	70%	74%
N = number of respondents	*146*	*118*	*126*	*110*

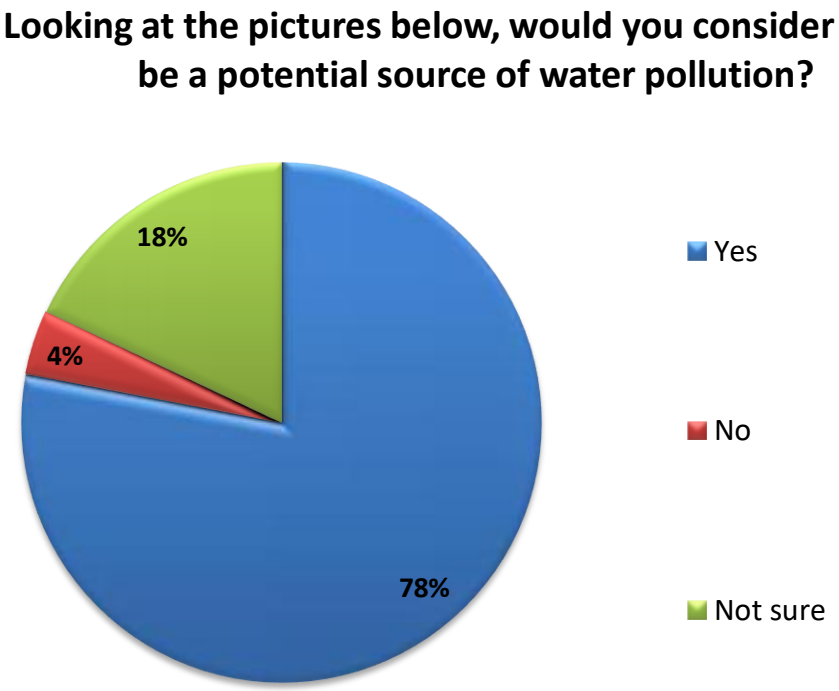
Heard of Water Quality Activities Past 12 Months	**Age 21 to 34**	**35 to 44**	**45 to 54**	**55 to 64**	**65 +**
Yes	23%	25%	27%	20%	29%
No / not sure	77%	75%	73%	80%	71%
N = number of respondents	*92*	*109*	*101*	*97*	*101*

Heard of Water Quality Activities Past 12 Months	**Male**	**Female**	**Homeowners**	**Renters**	**Hispanic Respondents**
Yes	30%	20%	25%	24%	28%
No / not sure	70%	80%	75%	76%	73%
N = number of respondents	*244*	*256*	*372*	*128*	*40*

- In a separate question asked only of those who answered "Yes" to the question on the previous page, 26% indicted that they *participated* in a water quality activity. Since this 26% applies to the 25% who answered "Yes" to the question on the previous page, it turns out that 6% (= 26% x 25%) 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 in 2018, and they were asked the question below. (The images used can be found in the questionnaire in the Appendix.)



- More than three-fourths (78%) felt that the pictures showed a potential source of water pollution. As shown in the table below, this was true for three-fourths or more in each area. As shown in tables on the next page, the proportion feeling this way was high in all of the subgroups examined.

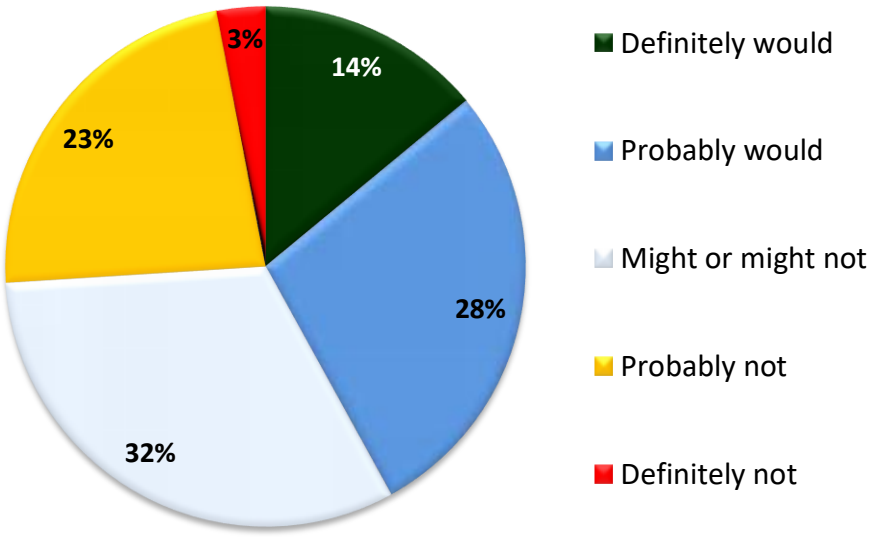
Consider it Potential Source of Water Pollution	**Alexandria**	**Arlington**	**Fairfax Inclusive**	**Leesburg / Loudoun**	**Dumfries / Stafford**
Yes	75%	77%	79%	79%	78%
No	4%	8%	4%	3%	5%
Not sure	21%	15%	17%	18%	17%
N = number of respondents	*57*	*85*	*250*	*67*	*41*

Consider it Potential Source of Water Pollution	Have Lived in Current Residence < 4 Years	4 to 9 Years	10 to 19 Years	20 or More Years
Yes	77%	78%	79%	78%
No	4%	4%	6%	4%
Not sure	19%	18%	15%	18%
N = number of respondents	*146*	*118*	*126*	*110*

Consider it Potential Source of Water Pollution	Age 21 to 34	35 to 44	45 to 54	55 to 64	65 +
Yes	75%	77%	78%	84%	76%
No	10%	4%	6%	2%	1%
Not sure	15%	19%	16%	14%	23%
N = number of respondents	*92*	*109*	*101*	*97*	*101*

Consider it Potential Source of Water Pollution	Male	Female	Homeowners	Renters	Hispanic Respondents
Yes	75%	81%	79%	74%	72%
No	5%	4%	4%	6%	5%
Not sure	20%	15%	17%	20%	23%
N = number of respondents	*244*	*256*	*372*	*128*	*40*

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



- One-in-seven (14%) felt that they "Definitely would" report potential pollution to county or town officials. As shown in the following tables, the proportion rating "Definitely would" for various subgroups ranged from 11% to 22%.

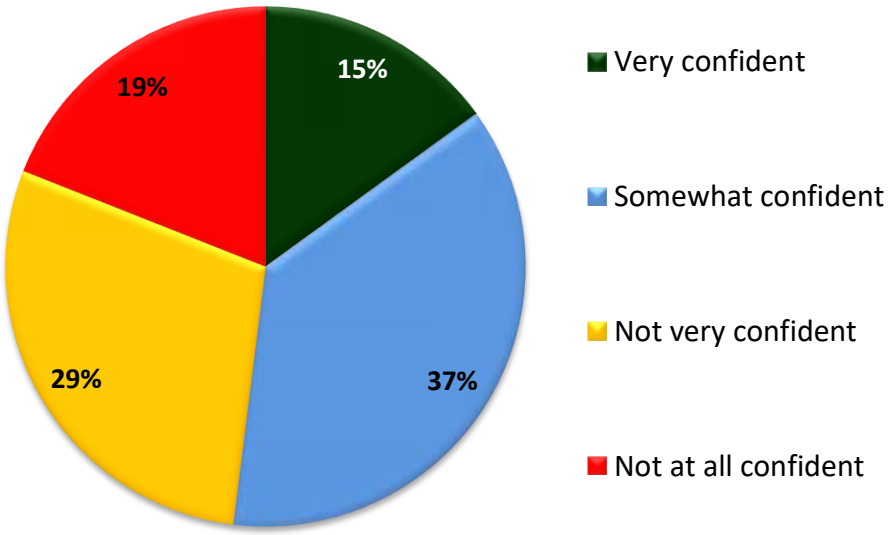
Likelihood Report Potential Pollution	**Alexandria**	**Arlington**	**Fairfax Inclusive**	**Leesburg / Loudoun**	**Dumfries / Stafford**
Definitely would	11%	12%	12%	22%	17%
Probably would	33%	27%	30%	22%	20%
Might or might not	26%	33%	32%	27%	44%
Probably would	26%	25%	23%	24%	19%
Definitely not	4%	3%	3%	5%	0%
N = number of respondents	*57*	*85*	*250*	*67*	*41*

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	12%	14%	14%	16%
Probably would	25%	31%	28%	28%
Might or might not	31%	28%	33%	36%
Probably would	29%	24%	23%	16%
Definitely not	3%	3%	2%	4%
N = number of respondents	*146*	*118*	*126*	*110*

Likelihood Report Potential Pollution	Age 21 to 34	35 to 44	45 to 54	55 to 64	65 +
Definitely would	20%	11%	16%	10%	13%
Probably would	21%	32%	24%	36%	26%
Might or might not	26%	26%	37%	35%	34%
Probably would	29%	27%	20%	15%	26%
Definitely not	4%	4%	3%	4%	1%
N = number of respondents	*92*	*109*	*101*	*97*	*101*

Likelihood Report Potential Pollution	Male	Female	Homeowners	Renters	Hispanic Respondents
Definitely would	11%	17%	13%	15%	22%
Probably would	31%	24%	30%	22%	25%
Might or might not	33%	30%	34%	25%	28%
Probably would	21%	26%	20%	33%	22%
Definitely not	4%	3%	3%	5%	3%
N = number of respondents	*244*	*256*	*372*	*128*	*40*

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



- A small proportion (15%) were "Very confident," although more than one-third (37%) were "Somewhat confident" that they would know where to report potential water pollution. The proportion "Very confident" increased with the amount of time they have lived in their current residence. At the same time, those age 55 or older, males, and homeowners were more likely than others to feel "Very confident."

Confidence Know Where to Report	**Alexandria**	**Arlington**	**Fairfax Inclusive**	**Leesburg / Loudoun**	**Dumfries / Stafford**
Very confident	14%	15%	15%	15%	15%
Somewhat confident	26%	37%	37%	40%	44%
Not very confident	35%	27%	30%	24%	27%
Not at all confident	25%	21%	18%	21%	14%
N = number of respondents	*57*	*85*	*250*	*67*	*41*

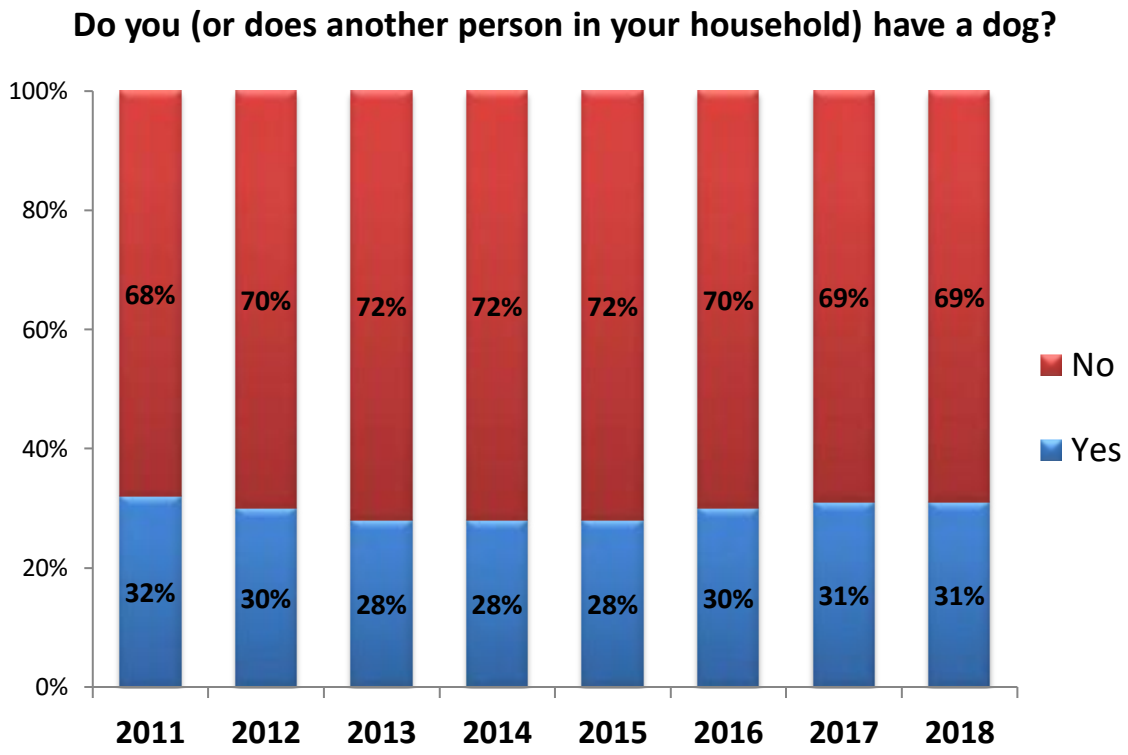
Confidence Know Where to Report	Have Lived in Current Residence < 4 Years	4 to 9 Years	10 to 19 Years	20 or More Years
Very confident	6%	14%	18%	24%
Somewhat confident	36%	39%	37%	35%
Not very confident	32%	32%	28%	24%
Not at all confident	26%	15%	17%	17%
N = number of respondents	*146*	*118*	*126*	*110*

Confidence Know Where to Report	Age 21 to 34	35 to 44	45 to 54	55 to 64	65 +
Very confident	11%	13%	11%	19%	22%
Somewhat confident	37%	30%	41%	42%	32%
Not very confident	25%	39%	26%	28%	27%
Not at all confident	27%	18%	22%	11%	19%
N = number of respondents	*92*	*109*	*101*	*97*	*101*

Confidence Know Where to Report	Male	Female	Homeowners	Renters	Hispanic Respondents
Very confident	20%	10%	17%	9%	20%
Somewhat confident	39%	34%	37%	36%	35%
Not very confident	28%	30%	30%	27%	25%
Not at all confident	13%	26%	16%	28%	20%
N = number of respondents	*244*	*256*	*372*	*128*	*40*

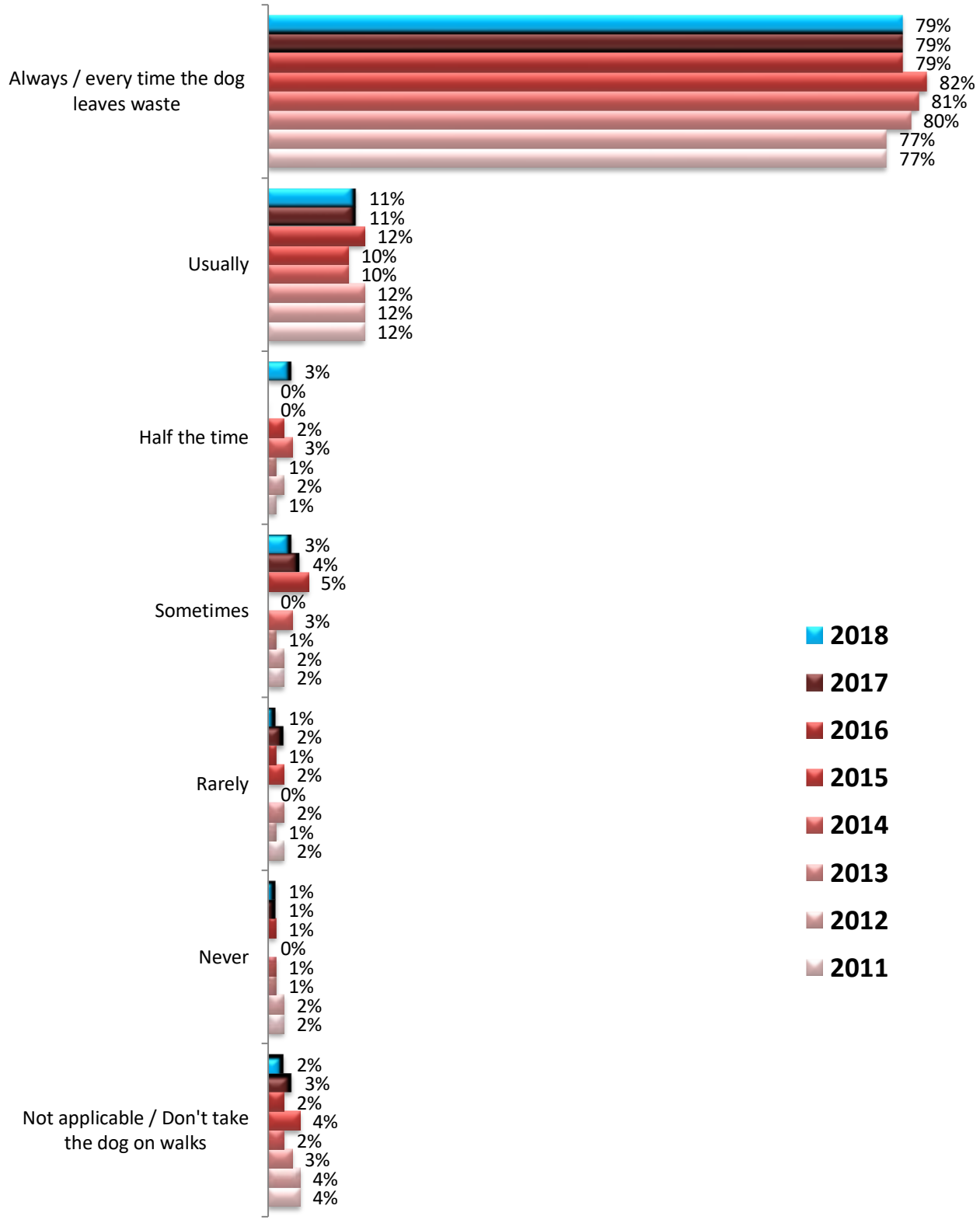
Behavior Among Dog Owners

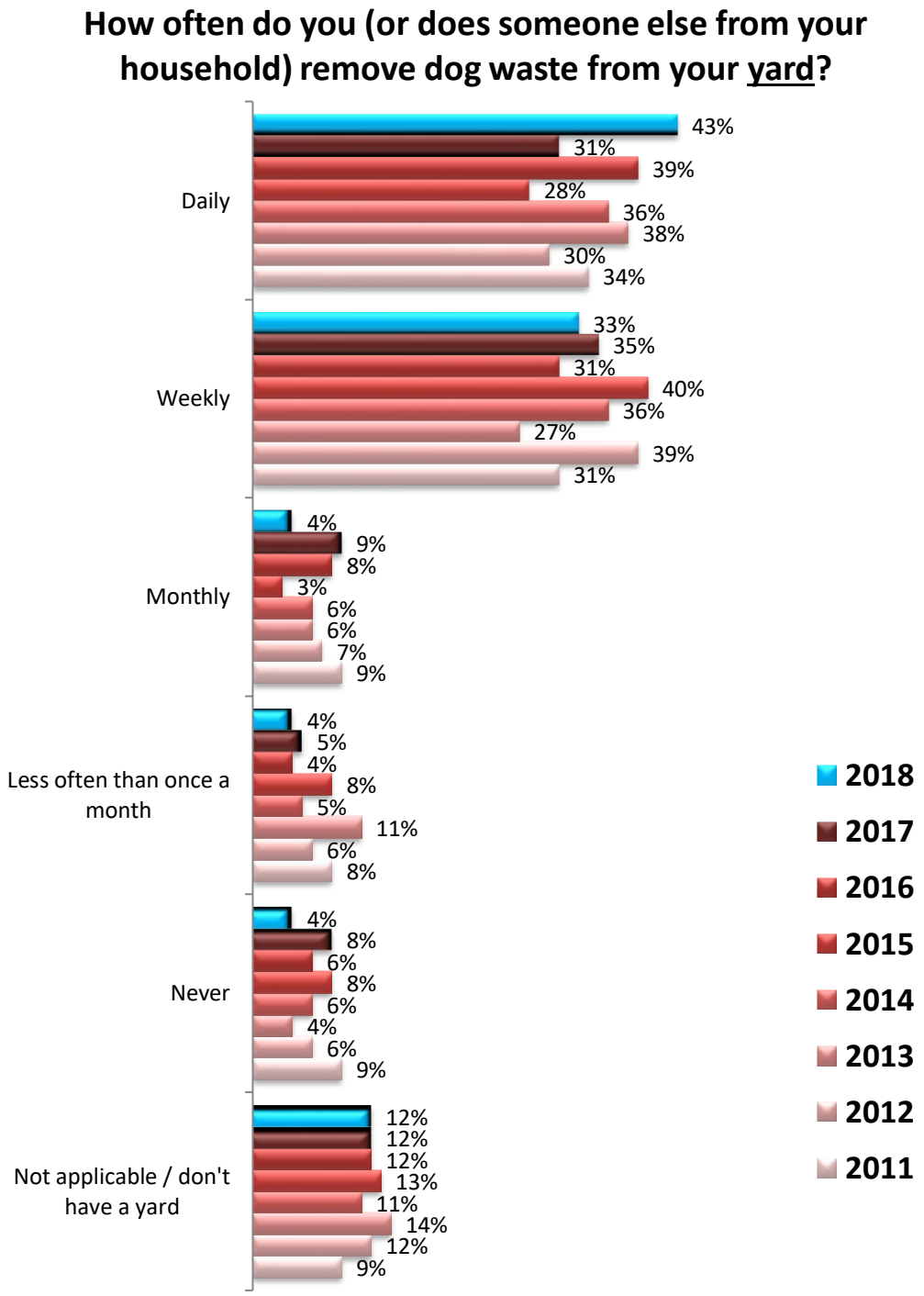
- More than one-fourth each year indicated that they have a dog (or someone else in their household has a dog).



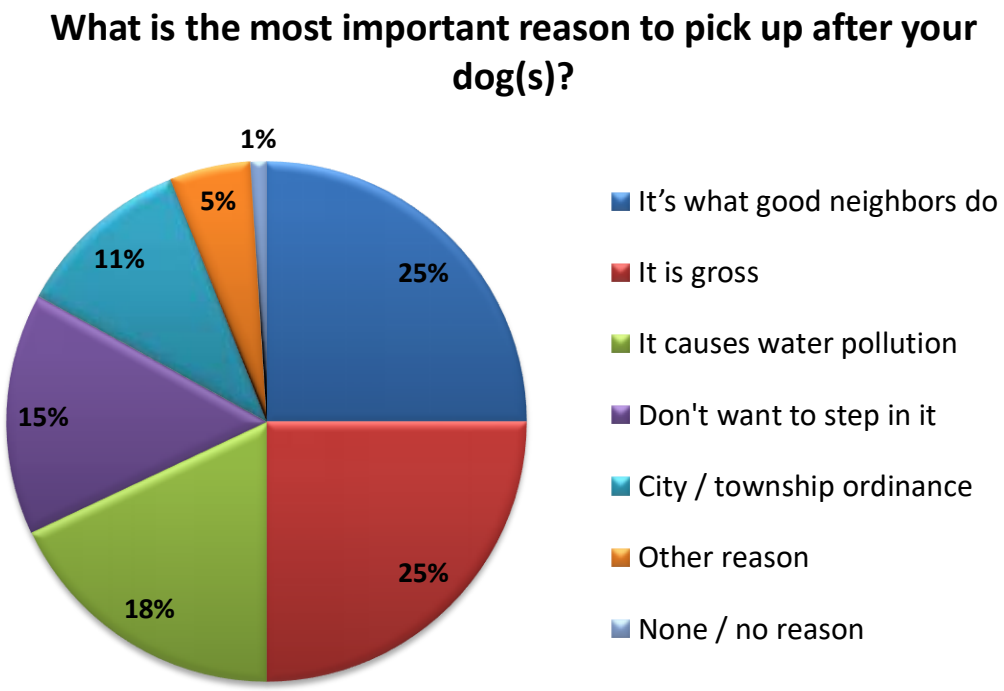
- On the following pages, results are shown for questions about how often dog owners pick up after their dogs and what motivates them to do so. For example, nearly eight-in-ten (79%) in last three years indicated that they *always* pick up after their dog(s) when taking the dog(s) for a walk.

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





- 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.

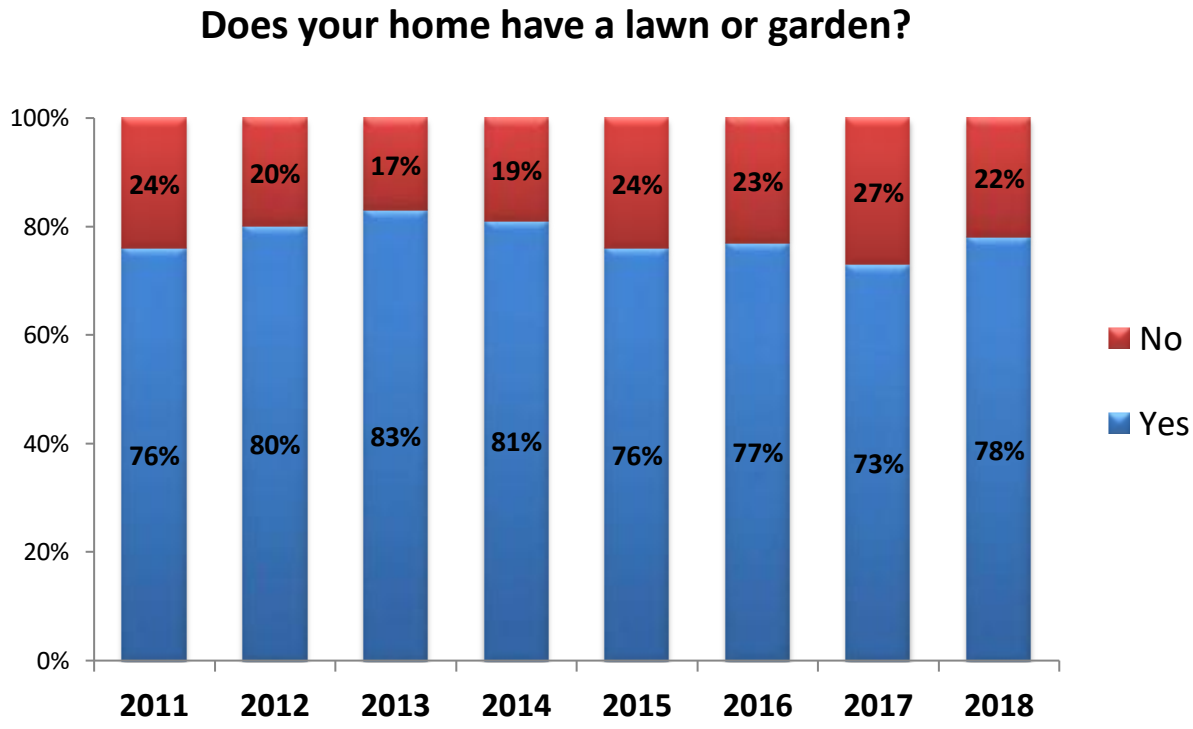


- When asked about the "Most important reason" for picking up after their dog(s), one-fourth (25%) selected "It's what good neighbors do," and another one-fourth (25%) selected "It is gross."

- The same question was asked last year but the response option "It is gross" was added in 2018. This makes the 2018 results not comparable to last year because only one answer was allowed for this question.

Behavior Related to Lawns & Gardens

- More than three-fourths (78%) of the survey respondents in 2018 indicated that their current home has a lawn or garden.

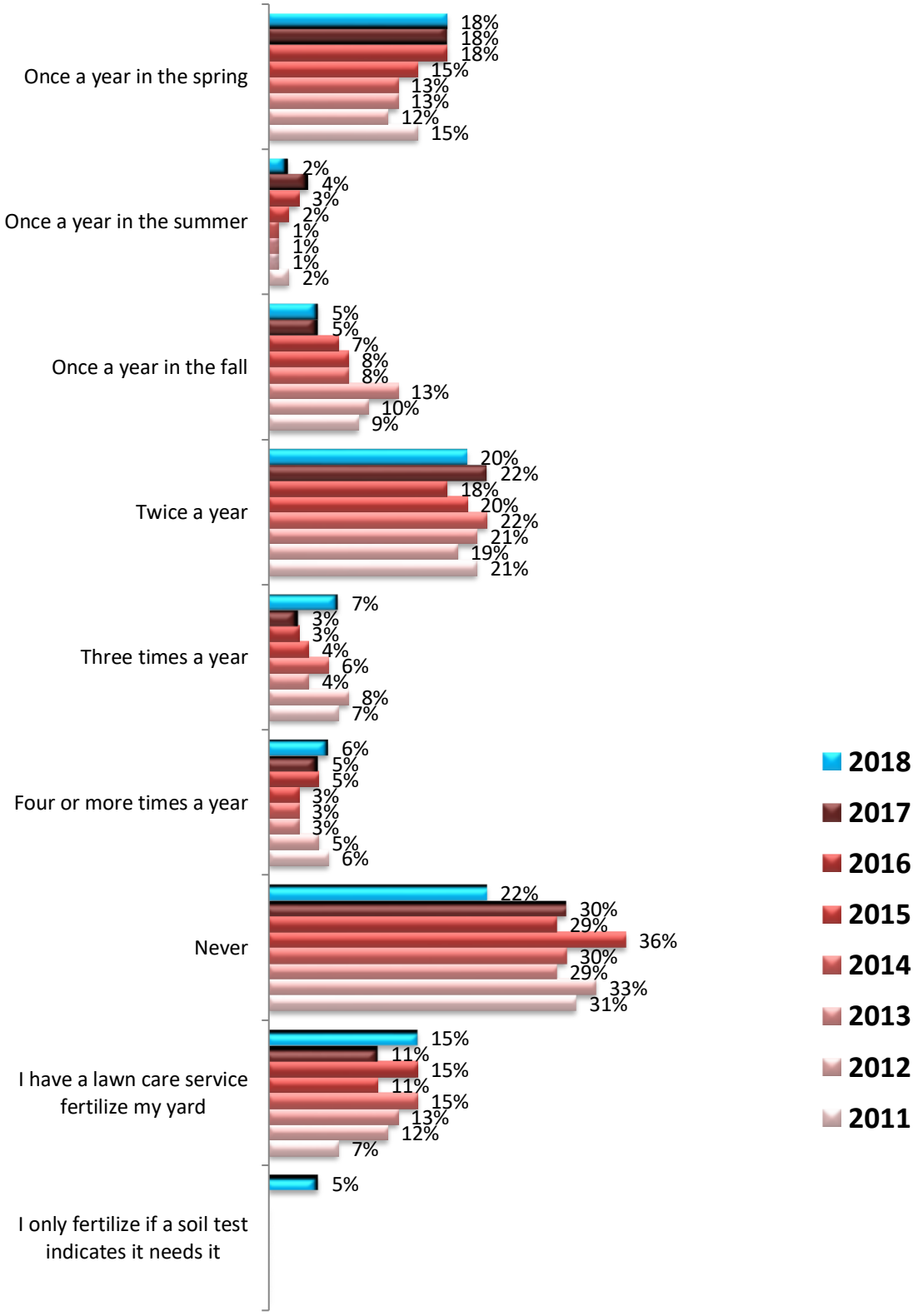


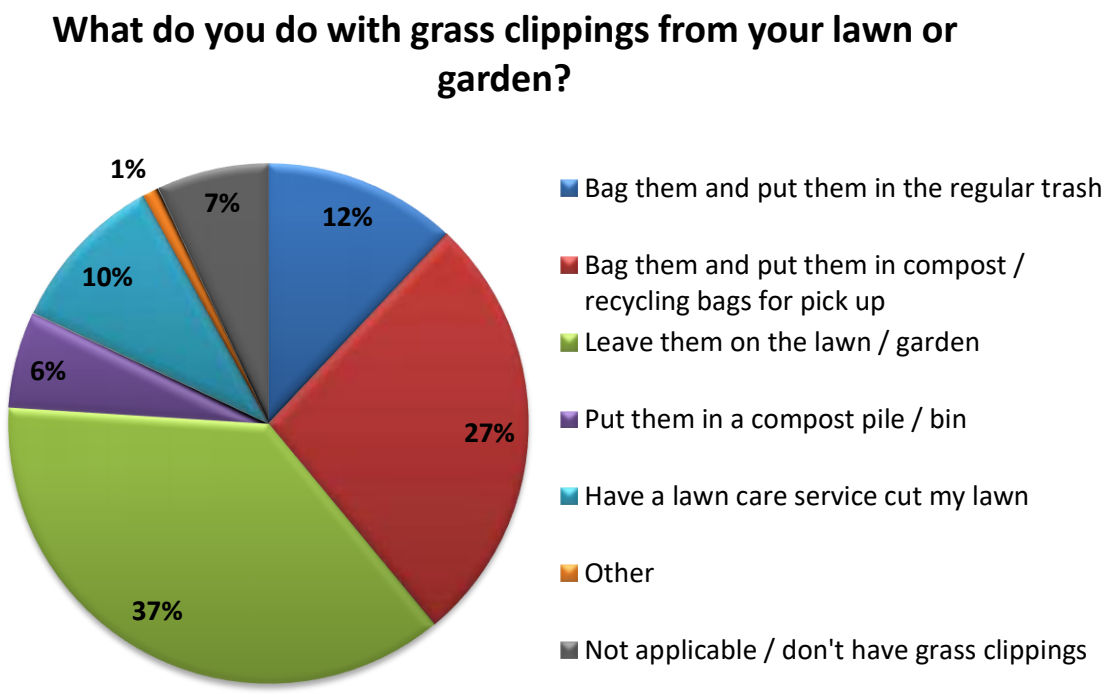
- In a separate question, of the respondents who have a lawn or garden, eight-in-ten (80%) in 2018 identified themselves as the primary person taking care of the lawn or garden or as being familiar with the practices used for the garden or lawn. Several questions about lawns and gardens were then asked only of these respondents.

- As shown on the next page, the most common response when asked how frequently they fertilize was "Never," but the proportion selecting this option was significantly lower in 2018 than in 2017.

- The option "I only fertilize if a soil test indicates the grass needs fertilizer" was first introduced in the 2018 survey.

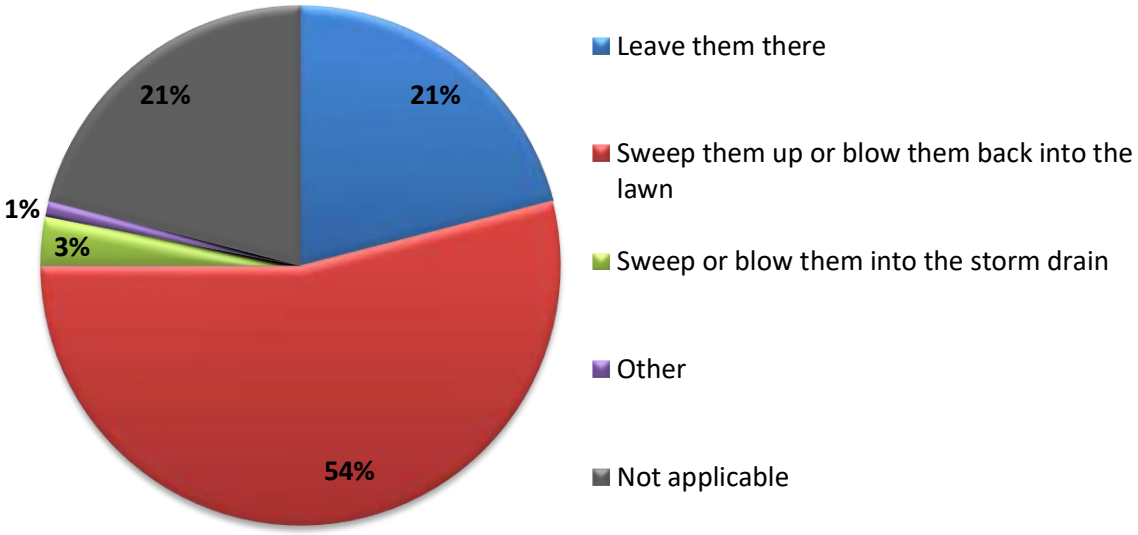
Which of the following best describes how often you fertilize your lawn?





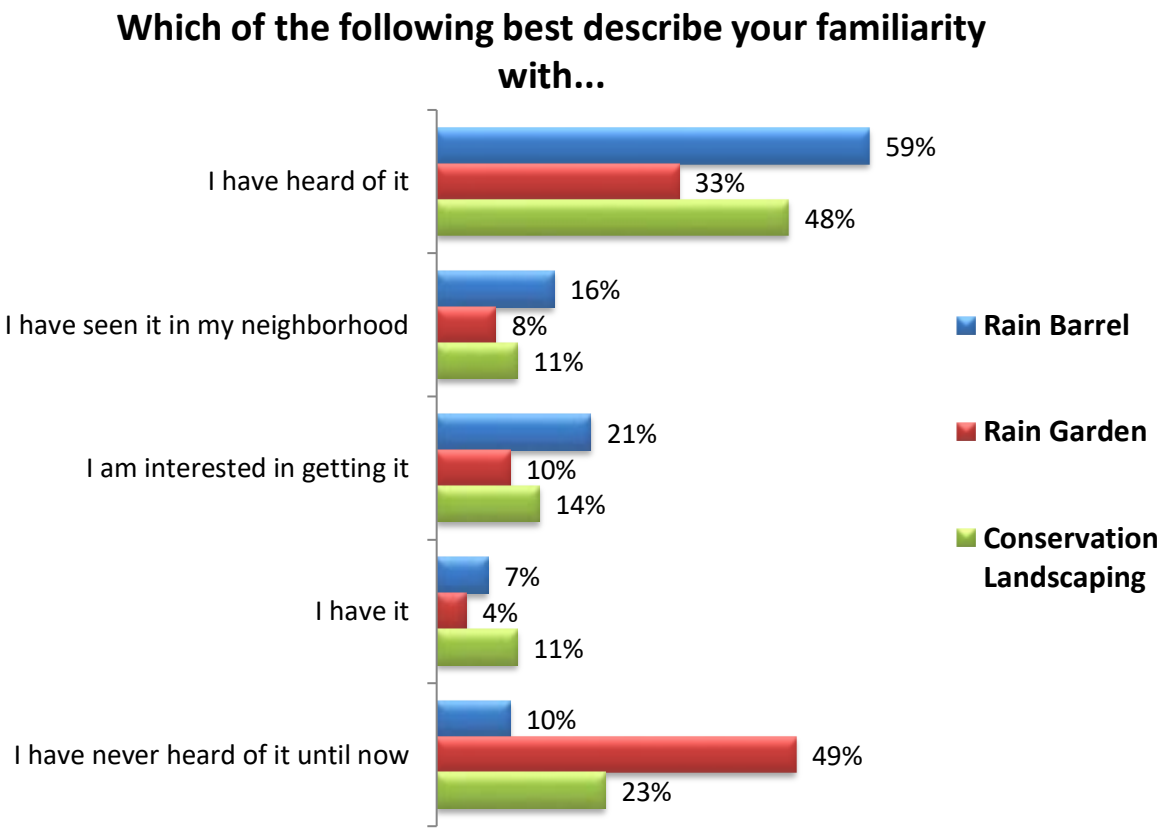
- More than one-third (37%) leave their grass clippings on their lawn / garden, while more than one-fourth (27%) bag grass clippings from their lawn / garden and put them in compost / recycling bags for pick up.

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



- More than half (54%) sweep them up or blow them back into the lawn if they have grass clippings end up in the street.

- Approximately one-in-five (21%) 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.



- 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, 7% reported having a rain barrel, while 4% reported having a rain garden, and 11% reported having conservation landscapes in their yard.

- 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, eight-in-ten or more each year reported that they use an oil change service, while 9% in 2018 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.

2018: When you need to change the oil in your car or truck, what do you do with the old motor oil?

	Frequency	*Percent*
I don't change the oil myself / I take it to a garage / oil change service	412	82.4%
Take the old motor oil to a gas station or hazmat facility for recycling	47	9.4%
Store it in my garage	12	2.4%
Put it in the trash	4	.8%
Dump it in the gutter or down the storm sewer	2	.4%
Dump it down the sink	2	.4%
Other	2	.4%
Don't own a car or truck	19	3.8%
Total	500	100.0%

2017: When you need to change the oil in your car or truck, what do you do with the old motor oil?

	Frequency	*Percent*
I don't change the oil myself / I take it to a garage / oil change service	410	82.0%
Take the old motor oil to a gas station or hazmat facility for recycling	57	11.4%
Store it in my garage	10	2.0%
Put it in the trash	6	1.2%
Dump it in the gutter or down the storm sewer	2	.4%
Other	5	1.0%
Don't own a car or truck	10	2.0%
Total	500	100.0%

2016: When you need to change the oil in your car or truck, what do you do with the old motor oil?

	Frequency	*Percent*
I don't change the oil myself / I take it to a garage / oil change service	399	79.8%
Take the old motor oil to a gas station or hazmat facility for recycling	65	13.0%
Store it in my garage	9	1.8%
Put it in the trash	8	1.6%
Other	2	0.4%
Don't own a car or truck	17	3.4%
Total	500	100.0%

2015: When you need to change the oil in your car or truck, what do you do with the old motor oil?

	Frequency	*Percent*
I don't change the oil myself / I take it to a garage / oil change service	426	85.2%
Take the old motor oil to a gas station or hazmat facility for recycling	54	10.8%
Store it in my garage	4	0.8%
Put it in the trash	3	0.6%
Don't own a car or truck	13	2.6%
Total	500	100.0%

2014: When you need to change the oil in your car or truck, what do you do with the old motor oil?

	Frequency	*Percent*
I don't change the oil myself / I take it to a garage / oil change service	426	85.2%
Take the old motor oil to a gas station or hazmat facility for recycling	50	10.0%
Put it in the trash	5	1.0%
Store it in my garage	4	0.8%
Other	1	0.2%
Don't own a car or truck	14	2.8%
Total	500	100.0%

2013: When you need to change the oil in your car or truck, what do you do with the old motor oil?

	Frequency	*Percent*
I don't change the oil myself / I take it to a garage / oil change service	427	85.4%
Take the old motor oil to a gas station or hazmat facility for recycling	57	11.4%
Put it in the trash	3	0.6%
Dump it in the gutter or down the storm sewer	2	0.4%
Store it in my garage	1	0.2%
Don't own a car or truck	10	2.0%
Total	500	100.0%

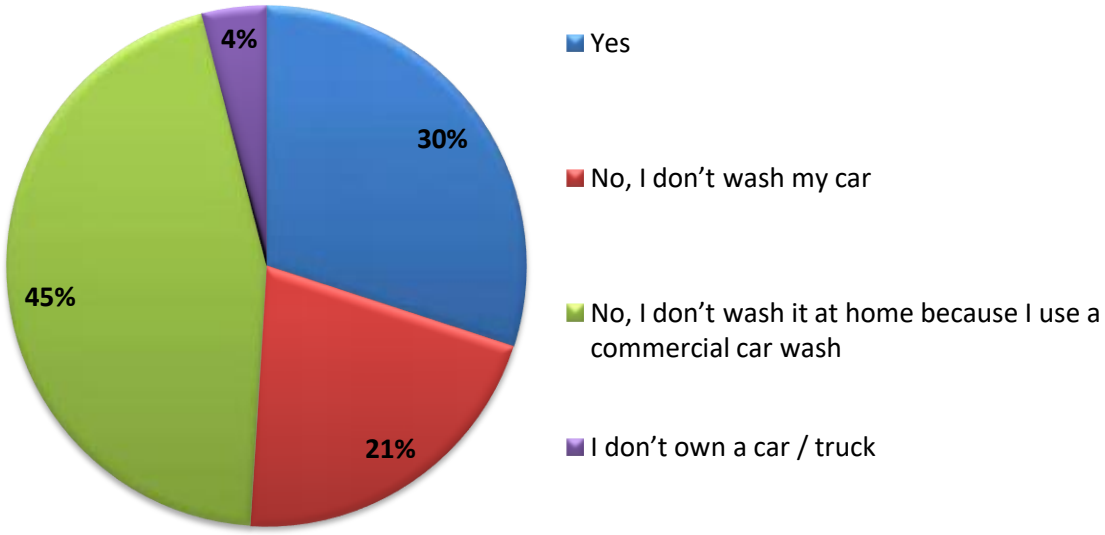
2012: When you need to change the oil in your car or truck, what do you do with the old motor oil?

	Frequency	*Percent*
I don't change the oil myself / I take it to a garage / oil change service	426	85.2%
Take the old motor oil to a gas station or hazmat facility for recycling	49	9.8%
Store it in my garage	3	0.6%
Put it in the trash	2	0.4%
Other	2	0.4%
Don't own a car or truck	18	3.6%
Total	500	100.0%

2011: When you need to change the oil in your car or truck, what do you do with the old motor oil?

	Frequency	*Percent*
I don't change the oil myself / I take it to a garage / oil change service	413	82.6%
Take the old motor oil to a gas station or hazmat facility for recycling	60	12.0%
Put it in the trash	2	0.4%
Other	2	0.4%
Don't own a car or truck	23	4.6%
Total	500	100.0%

Do you wash your car / truck at home?



- Slightly less than one-third (30%) reported washing their car / truck *at home*. It was more common to use a commercial car wash (45%). When examining the results by subgroups, those living in Dumfries / Stafford had a relatively high proportion washing their vehicle at home. Those in Alexandria and Arlington were less likely than those in Fairfax Inclusive and Dumfries / Stafford to wash their vehicle at home. At the same time, those who have lived in their residence for 20 or more years and homeowners were more likely than others to report washing their vehicle at home.

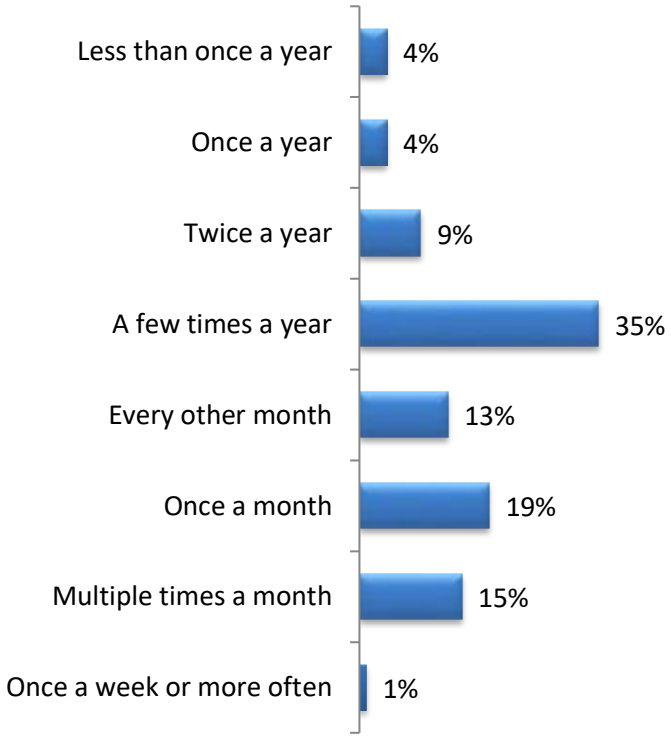
Wash Car / Truck At Home	**Alexandria**	**Arlington**	**Fairfax Inclusive**	**Leesburg / Loudoun**	**Dumfries / Stafford**
Yes	17%	19%	34%	27%	49%
No, don't wash it	30%	24%	20%	21%	17%
No, use car wash	46%	43%	45%	52%	34%
Don't own a car / truck	7%	14%	1%	0%	0%
N = number of respondents	*57*	*85*	*250*	*67*	*41*

Wash Car / Truck At Home	Have Lived in Current Residence < 4 Years	4 to 9 Years	10 to 19 Years	20 or More Years
Yes	24%	27%	29%	42%
No, don't wash it	19%	27%	23%	16%
No, use car wash	49%	43%	46%	41%
Don't own a car / truck	8%	3%	2%	1%
N = number of respondents	*146*	*118*	*126*	*110*

Wash Car / Truck At Home	Age 21 to 34	35 to 44	45 to 54	55 to 64	65 +
Yes	33%	20%	30%	36%	32%
No, don't wash it	18%	30%	22%	18%	18%
No, use car wash	40%	46%	46%	46%	45%
Don't own a car / truck	9%	4%	2%	0%	5%
N = number of respondents	*92*	*109*	*101*	*97*	*101*

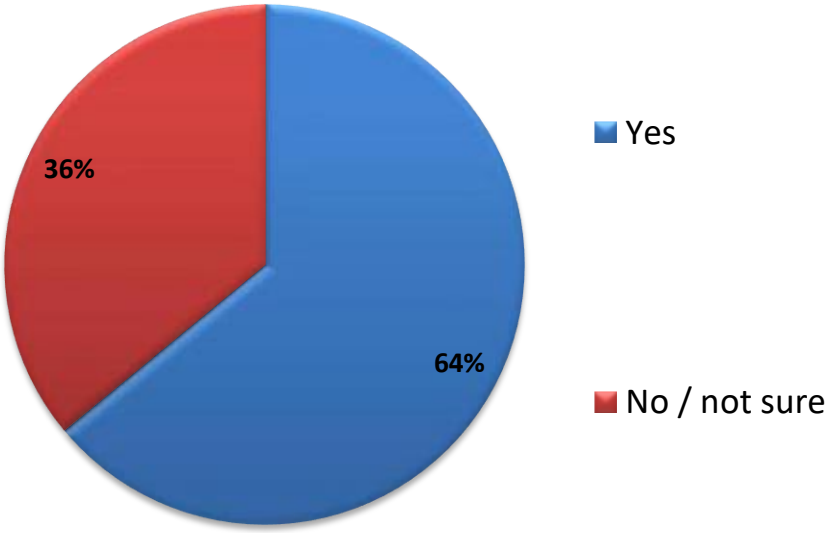
Wash Car / Truck At Home	Male	Female	Homeowners	Renters	Hispanic Respondents
Yes	33%	27%	35%	16%	32%
No, don't wash it	22%	21%	19%	27%	25%
No, use car wash	42%	48%	44%	48%	40%
Don't own a car / truck	3%	4%	2%	9%	3%
N = number of respondents	*244*	*256*	*372*	*128*	*40*

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 (35%).
- For a separate question about what applied when washing their car / truck at home, the results are shown below.
    - 46% selected "I used environmentally friendly detergent."
    - 19% selected "I try to wash on the grass or other surface that absorbs water."
    - 11% selected "I don't use any detergent – use water only."
    - 32% selected none of the above.

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



- The majority (64%) 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 significantly with age and length of time living in their current residence. Also, males and homeowners were more likely than others to be aware.

HHW Awareness	**Alexandria**	**Arlington**	**Fairfax Inclusive**	**Leesburg / Loudoun**	**Dumfries / Stafford**
Yes	60%	56%	66%	63%	76%
No / not sure	40%	44%	34%	37%	24%
N = number of respondents	*57*	*85*	*250*	*67*	*41*

HHW Awareness	**Have Lived in Current Residence < 4 Years**	**4 to 9 Years**	**10 to 19 Years**	**20 or More Years**
Yes	47%	64%	66%	85%
No / not sure	53%	36%	34%	15%
N = number of respondents	*146*	*118*	*126*	*110*

HHW Awareness	**Age 21 to 34**	**35 to 44**	**45 to 54**	**55 to 64**	**65 +**
Yes	45%	54%	64%	72%	84%
No / not sure	55%	46%	36%	28%	16%
N = number of respondents	*92*	*109*	*101*	*97*	*101*

HHW Awareness	**Male**	**Female**	**Homeowners**	**Renters**	**Hispanic Respondents**
Yes	73%	55%	71%	43%	70%
No / not sure	27%	45%	29%	57%	30%
N = number of respondents	*244*	*256*	*372*	*128*	*40*

Appendix: Questionnaire

2018 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)?

- o Alexandria
- o Arlington
- o Dumfries
- o Fairfax (city of)
- o Fairfax (county of)
- o Falls Church
- o Herndon
- o Leesburg
- o Loudoun County
- o Stafford County
- o Vienna
- o 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?

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

Q2. Do you live within the Potomac River Watershed?

- o Yes
- o No
- o Not Sure
- o I do not know what a "watershed" is

Q3. "Stormwater" 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
- □ Local streams, ponds or lakes
- □ Potomac River or Chesapeake Bay
- □ Underground / seeps in to the ground
- □ Don't know
- □ Other:_____

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

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

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

- o Always / every time the dog leaves waste
- o Usually
- o Half the time
- o Sometimes
- o Rarely
- o Never
- o 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?

- o Daily
- o Weekly
- o Monthly
- o Less often than once a month
- o Never
- o 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)

- o City / County ordinance
- o Don't want to step in it
- o It causes water pollution
- o It is gross
- o It's what good neighbors do
- o Odor
- o Other reason
- o None / no reason to

Q8. Does your home have a lawn or garden?

- o Yes **[CONTINUE WITH Q9]**
- o 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?

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

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

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

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

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

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

- o Once a year in the spring
- o Once a year in the summer
- o Once a year in the fall
- o Twice a year
- o Three times a year
- o Four or more times a year
- o Never
- o I have a lawn care service fertilize my yard
- o 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?

- o I don't change the oil myself / I take it to a garage / oil change service
- o Take the old motor oil to a gas station or hazmat facility for recycling
- o Store it in my garage
- o Put it in the trash
- o Dump it in the gutter or down the storm sewer
- o Dump it down the sink
- o I dump it on the ground
- o I don't own a car or truck
- o 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.

- o Yes
- o No / not sure

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

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

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

- o Less than once a year
- o Once a year
- o Twice a year
- o A few times a year
- o Every other month
- o Once a month
- o Multiple times a month
- o 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?

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

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

- o Verizon
- o Comcast
- o Cox
- o Direct TV
- o Dish Network
- o Xfinity
- o Do not have cable TV
- o Do not watch TV
- o 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.?

- o Yes
- o 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.?

- o Yes
- o No

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

- o Yes **[CONTINUE WITH Q29]**
- o No **[SKIP TO Q30]**
- o 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

Appendix A

APPENDIX B

MS4 Webpage Screen Capture

Get2Green Webpage Screen Capture

Summary of FCPS Events

Braddock ES Bioretention Project Press Release

Camelot ES Watershed Education Press Release

Fairfax City Chesapeake Bay Education Press Release

School Environmental Action Showcase Press Release

Municipal Separate Storm Sewer System (MS4) Program

What Our Schools are Doing to Protect Our Waterways

About the Program

The objective of the Municipal Separate Storm Sewer System (MS4) is to reduce stormwater pollutants in the runoff by implementing certain programs and procedures. An MS4 is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains). The program is part of the Virginia Pollutant Discharge Elimination System (VPDES) requirements and is regulated by the Virginia Department of Environmental Quality (DEQ).

DEQ requires FCPS to demonstrate that it is addressing the following six best management practices (BMPs) or minimum control measures (MCMs) in the implementation of the MS4 program:

1. Public education
2. Public involvement/participation
3. Illicit discharge detection and elimination
4. Construction site storm water runoff control
5. Post-construction storm water management in new development and redevelopment
6. Pollution prevention/good housekeeping for municipal operations

Rain Barrel Program

Find out how rain barrels benefit you and the environment

Fairfax County Rain Barrel Workshops <http://www.fairfaxcounty.gov/nvswcd/rainbarrels.htm> | View rain barrel artwork in the community <http://www.fairfaxcounty.gov/nvswcd/rainbarrelart.htm>

FCPS Schools and the Environment

Fairfax County students learn about the challenges facing our environment throughout their school years. In kindergarten, students observe and discuss how to protect the environment and conserve water and energy at home and at school. Elementary students investigate the earth's natural resources and how to protect them, research the major Potomac River watershed and water resources, and examine public policy decisions related to the environment.

The emphasis on the environment is broadened for high school students in the geosystems curriculum, where students examine the interrelationship between the earth's physical environment and the biosphere.

MS4 Program Plan and Report

MS4 Program Plan </sites/default/files/media/pdf/programplan2015-2016_2.pdf>
2015-2016

MS4 Annual Report </sites/default/files/media/pdf/2016-17annualreport.pdf>
2016-2017

FCPS Registration Statement </sites/default/files/media/pdf/2013registrationstatment.pdf>
2013

External Links

The following web sites may provide additional information relating to the Municipal Separate Storm Sewer System (MS4) Program.

- Clean Virginia Waterways <http://www.longwood.edu/cleanva>
- Fairfax County Municipal Separate Storm Sewer System (MS4) <http://www.fairfaxcounty.gov/dpwes/stormwater/ms4permit.htm>
- North American Association for Environmental Education <http://www.naaee.org/>
- Northern Virginia Soil and Water Conservation District <http://www.fairfaxcounty.gov/nvswcd/>

Contact Information

David Bennett
Coordinator Infrastructure &
Environmental Engineering
703-764-2477

Holly Moran, Environmental Specialist
703-624-0337

Get2Green Partnerships

Environmental efforts with the schools.

</index.php/get-involved/business-and-community-partnerships/ignite-partnerships/get2green-partnerships>

Get2Green

School District Sustainability and Engaging Students in Environmental Action

FCPS Named 2017 Certified Green School Division by VSBA

Fairfax County Public Schools (FCPS) has been recognized as a Certified Green School Division by the Virginia School Boards Association for 2017. The district also earned platinum certification for accumulating green points for environmental policies and practices.

Learn More </news/fcps-named-2017-certified-green-school-division-vsba>

Get2Green website

This website was designed to share energy and recycling data, resources for implementing projects in schools and at home, and general information about the green initiatives underway in FCPS.

Visit our Get2Green Dashboard site <http://get2green.fcps.edu/>

We have expanded our comprehensive education and sustainability program into a systemic collaboration driven by students, staff, businesses and the greater community through a variety of initiatives. We have aligned these initiatives with the Strategic Plan called 'Ignite' in both Goal 1 Student Success, Goal 3 Caring Culture

and Goal 4 Resource Stewardship. To facilitate meeting our goals, we have created a comprehensive new Get2Green website with interactive data dashboards that highlight FCPS energy, recycling and Eco-School USA data in a way that encourages student and teacher engagement and competition amongst students, faculty, and staff. The dashboards included on the website are an interactive web tool that enables the user to view resource use at all schools. You can easily choose to view information by individual location or as a district as a whole. The website also includes resources to help you be a good environmental steward at school and at home.

Access the Get2Green Dashboard site <http://get2green.fcps.edu/>.

Through creation of our Sustainability Team and our stakeholder group, we are working across departments and schools to provide new and innovative programs, expand student involvement and provide greater community outreach. As a direct result, we have created competitive programs for division-wide awareness campaigns, provided annual student internships with authentic sustainability experiences and through our Get2Green program have over 160 of our schools voluntarily engaged in student driven stewardship activities such as recycling, building wildlife habitat, conserving energy and growing their own food. We have an active group of Get2Green principals that foster the growth of environmental education and environmental literacy in their schools, assist in the development of district-wide initiatives and help other administrators understand how to be leaders in this program.

As Get2Green works to implement the Portrait of a Graduate, it is closely aligned with other initiatives such as STEAM (Science, Technology, Engineering, Art and Math), Project Based Learning and Service Learning to create tools for interdisciplinary learning. Using the environment as a context for learning, students have opportunities to use their content knowledge and Portrait of a Graduate skills to positively impact their environment.

Our Vision

FCPS will build our sustainable global future and foster a green culture by successfully engaging in best practices around environmental stewardship and teaching and learning for preK-12.

Our Mission

Our mission is to promote student learning and action using the environment as a foundation. We will be model environmental stewards by investing in green infrastructure and resources, utilizing interdisciplinary environmental curriculum, and fostering community partnerships.

Eco-Schools USA

We are partnered with the National Wildlife Federation's (NWF) Eco-Schools USA program to assist schools with a framework for student action. Many of our schools have reached award levels, 12 of them with Green Flag status and 4 with double green flags. We have more green flags than any other school district in the US. FCPS makes up more than 20% of the national total with only 52 other schools achieving green flag status. All Green Flag Eco-Schools must work on the reduction of energy use and at least 2 other topic areas. Centreville Elementary School was named one of the top 10 NWF green schools in the US in 2015. Visit the Get2Green site to learn more about Eco-Schools USA <http://get2green.fcps.edu/ecoschools.html>.

Recycling and Polystyrene-Free Cafeterias

Starting in autumn 2016, FCPS will no longer use polystyrene products in the cafeteria. The pink styrofoam trays will be replaced with new recyclable cardboard trays. This initiative is part of the FCPS goal to increase recycling as a district. At the beginning of the 2016 school year, about 20% of the waste produced in FCPS was recycled. The polystyrene-free cafeteria initiative will help direct more of our waste stream from trash to recycling. Visit the Get2Green site to learn more about the FCPS Recycling Program <http://get2green.fcps.edu/recycle.html>.

Other Results

Last year, 151 schools earned ENERGY STAR <https://www.fcps.edu/about-fcps/performance-and-accountability/energy-star> certification the most of any school district in the nation. This accomplishment played a key role in Washington D.C. achieving the EPA's #1 city

for ENERGY STAR <https://www.fcps.edu/about-fcps/performance-and-accountability/energy-star> certified buildings… ahead of San Francisco and Los Angeles.

Through Get2Green, FCPS has experienced an 11% reduction of greenhouse gases <https://www.fcps.edu/node/31156>; a value in excess of 42,000 metric tons of CO2e. This is equal to more than 1 million tree seedlings that would have to be grown for ten years or over 9,000 cars not being driven for one year. These results are primarily achieved through Get2Green's energy conservation program, Eco School work and partnering with companies such as Cenergistic.

Since 2014, FCPS has realized more than $10 million in energy savings as a result of Get2Green's partnership with energy conservation companies like Cenergistic. FCPS anticipates more than $95 million dollars in energy savings by the year 2025.

Additionally, our facilities organization is setting an example for students and the community by investing 1/3 of every project dollar into increasing energy efficiency and sustainability efforts (Geo-thermal, rain water cistern, LED lighting, variable refrigerant flow mechanical systems, water source heat pumps, bio-filtera, solar hot water heaters, highly reflective roofing, pervious pavers, etc.)

Our interactive website <http://get2green.fcps.edu/> was created in-house as an innovative way to highlight the often overlooked and hidden connections between the impacts of our daily actions to the natural world. This system will be used for learning, teaching, researching and empowering change.

Engagement

Our entire program is designed to engage students, faculty and the community to reduce FCPS' carbon footprint and to have each of us understand how our actions have an impact on our environment. FCPS is in a position to reach over 186,000 students. In many cases, Get2Green activities are designed so that students take their stewardship work and learning home and into their communities further magnifying the work FCPS is doing. Students have done home energy audits as part of our 6th grade curriculum, have learned about renewable energy and built wind turbines and competed in and won national Kid Wind competitions, and shared school grown edible food and leftover cafeteria food with local food banks. Stone

MS teamed with a local nursery and ran a native plant sale to showcase the importance of using native plants to increase the health of our watershed. In addition, Get2Green staff often presents at National, State and local meetings to share resources and information with other green school professionals. Listed below are some examples of how Get2Green engages Fairfax County's diverse population to achieve a sustainable future:

- **ENERGY STAR Battle of the Buildings –** The FCPS Battle of the Buildings is returning! Between January 1 and March 31, 2018, FCPS will be hosting the 2018 Battle of the Buildings. Your school community will work together to save energy through simple energy saving measures such as unplugging devices and shutting off lights. Click here <http://get2green.fcps.edu/challenge.html> to learn more.

- **Urban Wildlife and Habitat Development –** FCPS is partnered with the US Fish and Wildlife Service to engage students in planning, constructing, utilizing, and maintaining wildlife habitat on their school grounds to increase overall biodiversity.

- **Sustainable Food and Edible Gardening -** Get2Green is working with the Fairfax County Food Council Nutrition Literacy Group and the Community Garden Working Group to bring food access to areas of Fairfax County that have been determined as Food Deserts. The Food Council is run by the Fairfax County Department of Health and a consortium of other partners. We are working through this partnership on increasing the gardens at Bailey's Elementary School (both the lower and upper schools) and at increasing the nutrition and healthy snack education opportunities. FCPS has about 65 food gardens at our schools across the county, and Food and Nutrition <https://www.fcps.edu/resources/student-safety-and-wellness/food-and-nutrition-programs> has programs to support using school grown produce in the cafeteria and to look at sourcing our food from local farms.

- **Meaningful Watershed Educational Experience Stewardship –** FCPS was the recipient of a NOAA B-Wet grant in 2016. As a result, we are working with 7th grade life science teachers to develop new Project Based Learning materials to be used to engage students in school based or community environmental stewardship projects as they study the Chesapeake Bay ecosystem and spend time at a local watershed collecting water quality, biodiversity, land use data and more. These materials will be shared nationally.

- **School Environmental Action Showcases -** Since 2011, FCPS students have participated in the NoVA Outside School Environmental Action Showcase (SEAS) at George Mason University. At this event, students share the environmental stewardship projects at their schools with the Northern Virginia community, show off their creativity in an eco-art event, compete for the most efficient wind

turbine design, and present their ideas for how to improve local watersheds. Local, state, and national government agencies, along with nonprofit organizations and businesses, host interactive, hands-on STEAM activities for students. This unique event allows students to see how the environmental stewardship efforts at their school fit into regional and national efforts to secure a sustainable future.

- **Green Schools Alliance District Collaborative -** FCPS has been named one of the charter members of the Green Schools Alliance District Collaborative <http://www.greenschoolsalliance.org/about/districts>, a group of 21 large U.S. school districts that will combine their collective power to support greener, more efficient solutions to environmental sustainability. The new collaborative will enable its member districts to build and share best practices, leverage their combined purchasing power to increase access to sustainable alternatives, promote market transformation, and influence policy decisions.

FCPS and Community Partners

- National Wildlife Federation (NWF) Eco-Schools USA <http://www.nwf.org/eco-schools-usa.aspx>
- National Wildlife Federation (NWF) Schoolyard Habitats <https://www.nwf.org/garden-for-wildlife/create/schoolyards>
- Chesapeake Bay Foundation <http://www.cbf.org/join-us/education-program/professional-development-for-educators>
- Fairfax County Parks and Nature Centers <http://www.fairfaxcounty.gov/parks/>
- Plant Nova Natives <http://www.plantnovanatives.org/>
- Fairfax County Department of Public Works and Environmental Management <http://www.fairfaxcounty.gov/dpwes/>
- U.S. Fish and Wildlife Service Patuxent Research Refuge <http://www.fws.gov/refuge/patuxent/>

BELVEDERE ELEMENTARY SCHOOL PROJECTS

Learn about environmental projects at Belvedere Elementary School

Read the Belvedere Eco Blog <https://greenbelvedere.wordpress.com/>

LANIER MIDDLE SCHOOL PROJECTS

Learn about environmental projects at Lanier Middle School

Read the Lanier Eco Blog <https://lanierecoschool.wordpress.com/>

Why is this important?

The term “nature deficit disorder” was coined by author Richard Louv in his book Last Child in the Woods to describe what happens to young people who become disconnected from their natural world. Louv links this lack of nature to some of the most disturbing childhood trends, such as the rises in obesity, attention disorders, and depression.

In addition, recent studies have shown that using the environment as an integrating concept has increased student academic achievement and enhanced student problem solving and critical thinking skills. You can read more about this research at the Children and Nature Network <http://www.childrenandnature.org/>.

There are state and national efforts moving forward to promote environmental literacy and green schools such as the U.S. Department of Education’s Green Ribbon School program <http://www2.ed.gov/programs/green-ribbon-schools/index.html>. Get2Green is patterned along the lines of this national effort and is on the way to being a model for Virginia environmental literacy efforts.

Are you interested in learning more about being a partner with Get2Green?

Visit the partnerships site </get-involved/business-and-community-partnerships/ignite-partnerships/get2green-partnerships>.

FCPS NAMED 2017 GREEN RIBBON SCHOOL DISTRICT

Fairfax County Public Schools has been named a 2017 U.S. Department of Education Green Ribbon School District Sustainability Awardee. The district was honored for its comprehensive Get2Green program.

Learn about the award <https://www.fcps.edu/news/fcps-named-2017-green-ribbon-school-district-us-department-education-centreville-es-named>

FCPS EARNS 2018 ENERGY STAR® PARTNER OF THE YEAR AWARD

For the second consecutive year, Fairfax County Public Schools (FCPS) has been named a 2018 Energy Star® Partner of the Year-Energy Management award winner for its efforts to improve the energy efficiency of its buildings and facilities.

Learn about the award </news/fairfax-county-public-schools-earns-2018-energy-starr-partner-year-award>

BMP 2B; Summary of FCPS Events PY 5

Event	Description	Date	Number of People
School Environmental Action Showcase	Four hundred grade 4-12 students went to George Mason University to share the environmental stewardship projects at their schools and to participate in the Caring for Our Watersheds competition, recycled mascot competition, and hands-on experimentation using electronics to collect data and find solutions to environmental problems. Students also joined environmental professionals from 20 non-profit organizations, businesses, and all levels of government in conducting hands-on activities relating to the environment.	April 10, 2018	~400 students, 80 parents/teachers, 40 environmental professionals, 30 volunteers and staff
Trout in the Classroom	Trout in the Classroom - raising brook trout, supported by the local Trout Unlimited chapter. TU provides the equipment & eggs, students raise the trout then release them into local streams. Students at several schools including Madison High, Dogwood ES, Centreville ES, Lemon Road ES, and Belvedere ES participated in the program.	ongoing during 2017-18 school year	250+ students, 40+ parents/teachers
Native habitat/landscaping training series	Get2Green conducted a series of native plant landscaping trainings on engaging students in habitat installation. The trainings were run in partnership with Earth Sangha and Friends of Accotink Creek. Attendees learned methods for engaging students in native plant projects, resources for researching and selecting native plants, and expertise from professionals who have worked on such projects.	November 6, 2017; January 26 and April 2, 2018	30 teachers
Get2Green Academy Course	Educators and other experts focused on bringing environmental stewardship into the classroom taught FCPS teachers about methods for integrating the environment into the classroom. Topics included waste reduction, energy conservation, edible gardening, and wildlife habitat.	Spring and Summer 2018	50 teachers

BMP 2B; Summary of FCPS Events PY 5

Event	Description	Date	Number of People
FCPS Earth Week	Get2Green held an Earth Week event over the course of four days with a theme for each day. The themes were energy, water, consumption and waste, and the great outdoors. Teachers and students participated in activities such as cleaning up trash on school grounds, reading outside, and calculating their ecological footprints to explore their connection to Earth.	April 17-20, 2018	info sent to all FCPS newsletter recipients and all Get2Green newsletter recipients (more than 2,000)
Fairfax City Chesapeake Bay Educati	FCPS faculty organized a tour of the Anacostia River for Lanier Middle School students. There was also a sustained focus on issues affecting the Bay within Fairfax HS, Daniels Run ES, and Providence Run ES.		
Camelot ES Watershed Education	County Watershed Education and Outreach program planted native plants along edge of school grounds on June 11. Project occurred in coordination with students who had been studying factors affecting local stream health. Students also participated in the planting. Article was in advance of event.	11-Jun-18	20 adults; 70 students
Bioretention Project	Over 120 students in grades 3-5 participated in a planting on school grounds in support of a bioretention project installed on the property. Learning initiatives centered around this bioretention area, incorporating cross-curricular lessons that focused on subjects ranging from history, to vocabulary and language arts, to earth science.	Approx October 23, 2018	120 students

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Students from Six Schools Honored for Environmental Activism at School Environmental Action Showcase

News Release | **APRIL 16, 2018**

Students from six Fairfax County public schools were honored for their innovative environmental solutions and creative use of recycled materials at the seventh annual School Environmental Action Showcase (SEAS) at George Mason University (GMU). More than 200 FCPS students from 18 schools attended the 2018 SEAS.

The team from Lanier Middle School finished third in the Caring for Our Watersheds competition.

Students from Carson Middle School took first place in the Caring for Our Watersheds competition for an expansion of their food sharing program to their feeder elementary schools. The program captures uneaten food from school cafeterias and sends it to community shelters. Team members are Sarah Ali, Gitika Gorthi, Nadia Malik, and Ashwini Ramkumar. Teams from Lanier Middle won third place for their Enhancing Our Outdoor Living Classroom project, and fourth place for their It's Green, It's Grass, and It Grows project. A second team from Carson captured sixth place for Bee Keeping Bonanza: Planting Native Perennials. Teams from Dogwood Elementary won fifth and tenth place.

In the elementary division of the Recycled Mascot Challenge, the team of Alexandra Burn, Olympia Alao, Nicole Biddy, and Parker Oakes from Lake Anne Elementary won first place. Oak View Elementary took second place, and Providence Elementary won third place. In the secondary division, Carson Middle won second place.

Attendees shared the environmental stewardship initiatives they are leading at their schools; exhibited sculptures of their school mascots made of recycled materials in the Recycled Mascot Challenge; presented their ideas for watershed improvement in the Caring for Our Watersheds competition; experimented with computer engineering to collect environmental data; and engaged in hands-on STEAM (science, technology, engineering, art, and math) activities hosted by nonprofits, government agencies, and businesses. A team of students from Lanier Middle took part in a question and answer session on reducing plastic use with collaborated with local elected officials with a goal of developing ideas for sustainable policies.

SEAS is hosted by NoVA Outside in partnership with GMU's Potomac Environmental Research and Education Center. Students had the unique opportunity to network and learn from students at other schools, to innovate new ways to enhance their green efforts, and to understand how their dedication and hard work contributes to regional and global efforts to ensure a sustainable future.
###
For more information, contact Donna Volkman, program manager, environmental stewardship, at dmvolkman@fcps.edu.

A student from Lanier Middle is ready to explain a project to judges.

Providence Elementary students won third place in the elementary division of the Recycled Mascot Challenge.

Franklin Sherman Elementary, an Eco-School, entered a project about recycling in the cafeteria.

Students were able to do hands-on experiments at the 2018 Student Environmental Action Showcase.

Bioretention Project at Braddock Elementary

School News | **OCTOBER 23, 2017**

One warm October day, 120 Braddock Elementary students in grades 3-5 made a difference in the ecosystem around their school. In conjunction with the Fairfax County Stormwater Team, the students planted 600 ferns and coneflower plants on school grounds as part of a bioretention project, using native Virginia plants provided by Merrifield Gardens.

While participating in the Chesapeake Bay Classroom program over the summer, XSTREAM programs coordinator Joyce Matthews and third grade Spanish immersion teacher Wanda Negron designed a project that involved planting native plants around the school. While discussing watersheds and clean water projects in their summer program, the teachers learned that the Fairfax County Stormwater Team had an interest in improving the bioretention areas near the school. Matthews and Negron coordinated with the county and the project was underway.

The bioretention project dovetailed perfectly with the fifth grade landforms curriculum, fourth grade ecosystems unit, and third grade unit on soil. In all grades, elementary students learn about watersheds and conservation of the Chesapeake Bay. Cross-curricular connections for math, social studies, Virginia history, language arts and vocabulary, and writing are woven into the science units.

Annandale High's Green Atoms environmental science club helped finish the project later that day, planting an additional 100 plants and ensuring that the 600 plants were set properly into the ground. Third through fifth graders will help monitor and water the newly planted plants until they go dormant for the winter.

Braddock students worked together to plant 500 plants in the school's bioretention area.

Braddock students walk in a line from the plant pickup area to the planting area.

A Braddock student with one of the five plants he planted.

Students worked together to remove the plants from their pots.

A Braddock student with one of the ferns she planted.

To ready the plants for planting, students separated the roots once they were removed from the pots.

Braddock students worked in a specific area behind the school to plant.

Ecologists Head to Camelot Elementary to Create Meadow Strip

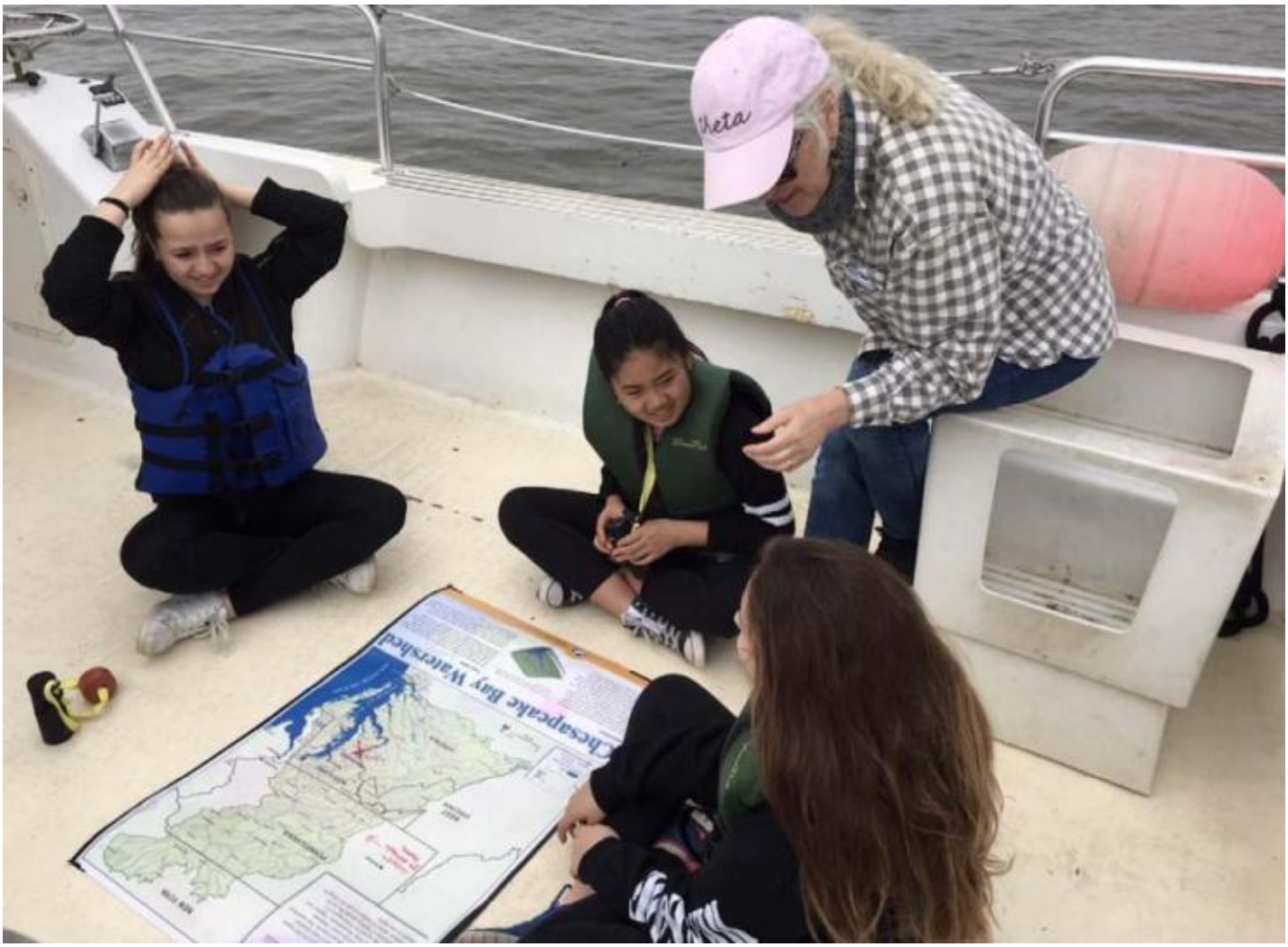
School News | **MAY 30, 2018**

Ecologists from Fairfax County's Watershed Education and Outreach program will be at Camelot Elementary on Monday, June 11, to plant native milkweed plants along the edge of the school grounds to create a meadow strip. Students have been analyzing data (indicators) to determine the relative health of a local stream. They have also investigated human impact throughout the Chesapeake Watershed via a local stream. The meadow strip of native plants will help improve the quality of water runoff from Camelot Elementary to the local stream, and ultimately to the Chesapeake Bay. The "Revitalize, Restore, Replant!" program will also provide a habitat for monarch caterpillar breeding for second graders to utilize in years to come. A visiting delegation from Korea plans to participate and observe this community outreach program. The project is part of collaboration organized by Caitlin Byington, fifth grade teacher. Contact Byington at cabyington@fcps.edu.

http://www.fairfaxtimes.com/articles/fairfax-city-students-help-protect-chesapeake-bay/article_2805edb4-65b3-11e8-81bd-eb61e136b841.html

Fairfax City students help protect Chesapeake Bay

By Angela Woolsey/Fairfax County Times Jun 1, 2018



Lanier Middle School students conduct water testing during a boat trip on the Anacostia River led by the Chesapeake Bay Foundation.

PHOTO BY FAIZA ALAM

The City of Fairfax celebrated Chesapeake Bay Awareness Week with a city council proclamation issued on May 22, but for students in the city's public schools, work on restoring the estuary is not confined to seven days per year.

Designated with legislation enacted in Virginia, Maryland, and Pennsylvania, Chesapeake Bay Awareness Week takes place annually on the second week of June to encourage "citizens and groups to hold events that educate, inspire, and increase enthusiasm and support among residents

of the watershed for restoring the Bay," according to the Chesapeake Bay Commission's 2016 legislative summary.

While this year's Chesapeake Bay Awareness Week occurs from June 2 to 9, Fairfax City's Fairfax High School, Lanier Middle School, Daniels Run Elementary School, and Providence Run Elementary School all offer education, activities, and programs related to the bay for students throughout the academic year.

"We all as global citizens have a responsibility to our community, and the Bay is part of our community," City of Fairfax Schools Superintendent Phyllis Pajardo said. "The work with the Chesapeake Bay furthers us to be more conscious about our water supply as well as our plant and life supply."

The Chesapeake Bay itself encompasses 200 miles from Havre de Grace, Md., to Norfolk, but the larger watershed stretches about 64,000 square miles across six states and Washington, D.C., as it connects more than 100,000 rivers and streams to the Atlantic Ocean, according to the Chesapeake Bay Foundation, an independent conservation organization dedicated to the bay's protection and restoration.

The Chesapeake Bay watershed is the U.S.'s largest estuary, a body of water formed where freshwater meets salt water, and the third largest in the world. It helps filter and protect drinking water for 75 percent of the 10 million people who live along or near the bay.

In addition to supporting surrounding communities of people, the Chesapeake Bay contains more than 3,600 different plant and animal species, including 348 species of fin fish and 173 species of shellfish, according to the Chesapeake Bay Foundation.

The Chesapeake Bay Foundation indicated in its 2016 State of the Bay report that the Chesapeake has made notable progress in recent years with improvements in pollution, habitat health, and its four fisheries, where blue crabs saw a particularly dramatic increase in their population from 2014.

However, the bay and its surrounding watershed continue to face numerous challenges, including pollutants like nitrogen and phosphorus, habitat destruction due to human development, and climate change, which has already produced warmer temperatures and rising sea levels.

Fixing these problems will take a lot of work from all communities in the Chesapeake Bay watershed, but students, faculty, and staff in the City of Fairfax Schools have been contributing for at least the past 10 years.

With a 2017 enrollment of 4,851 students, Fairfax City schools conducted a year-long study of the health of Daniels Run, a stream that originates at the center of Fairfax City and flows northeast into Accotink Creek. The study was incorporated in the school system's regular science curriculum.

Lanier Middle School earth science teacher Faiza Alam ties a required unit about understanding the environment directly into the Chesapeake Bay, educating students about watersheds, runoff, and how conductivity, acidity, temperature, and other factors determine the quality of water.

In addition to having students build small fish tanks to replicate an aquatic ecosystem, Alam takes students to the Cub Run creek in Chantilly so that they can conduct real-world water quality testing and study the area's topography and biodiversity.

"I can deliver the content as much as I want, but if I don't make that connection outside, kids at this age, if you don't answer the why, it's irrelevant to them," Alam, who runs Lanier's eco club, said. "The best way to answer the why is to make them do that and to see it."

For students that show a particular passion for environmental science, Alam organizes yearly boat trips on the Anacostia River where students work with the Chesapeake Bay Foundation to collect and analyze water samples and to see how urban activity affects the river's aquatic life.

Students at Lanier Middle School have also participated in the Caring for Our Watersheds competitions hosted annually at George Mason University since 2013.

Launched in Alberta, Canada, in 2007, the Caring for Our Watersheds program challenges students to develop proposals that could help solve an environmental concern in their local watershed.

Past Caring for Our Watersheds projects designed by Lanier students include a study of the harmfulness of plastic bottles that led the school to install 10 water bottle filling stations and the construction of a bio-retention cell on school grounds that collects rain water before it erodes the soil and carries sediment down storm drains.

As mandated by the federal Chesapeake Bay Restoration Act, Fairfax City maintains a Chesapeake Bay Preservation Appendix as part of its comprehensive plan. The appendix guides the city's programs, regulations, and resources for protecting the bay.

The city is also preparing to undertake a $1.3 million restoration project to remove watershed disturbances and install stabilizing structures and vegetation along approximately 1,900 linear feet along a tributary of Accotink Creek.

According to the project description on Fairfax City's website, stream restoration minimizes flooding, protects natural floodplains, prevents erosion of personal property, reduces water pollutants, and improves ecological functions, including by creating a healthy habitat for plants and animals.

The City of Fairfax sweeps streets from March to November in order to remove harmful pollutants like litter and sand that results from snow removal activities before they can find their way into the watershed.

Like Fairfax County, Fairfax City partners with the Northern Virginia Soil and Water Conservation District to host annual rain barrel workshops for residents. Rain barrels are placed under building downspouts to capture runoff, which can then be saved to water plants.

"By decreasing the volume of storm runoff, rain barrels…help moderate stream erosion and the resulting pollution that is impairing the Chesapeake Bay," the NVSWCD page on Fairfax County's website says.

For community members interested in assisting efforts to protect Chesapeake Bay, Kupka recommends that they pick up waste left behind by their pets since it contains harmful nutrients and bacteria that can pollute waterways.

They should avoid releasing toxic substances or hazardous materials like paints and preservatives down storm drains, which lead directly into streams and waterways rather than going through a treatment plant like sewers.

Planting native trees and shrubs helps prevent soil erosion that goes into the bay while also filtering water as it runs on the ground surface. Residents can also make their lawns more environmentally friendly by reducing or eliminating the use of fertilizer, chemical herbicides, and pesticides.

In addition, the City of Fairfax's partnership with the NVSWCD has also resulted in a Virginia Conservation Assistance Program that provides financial and educational assistance to property owners who install rain gardens, constructed wetlands, green roofs, and other conservation practices in their yards.

The program reimburses up to 75 percent of the entire project cost depending on the project and applicant type.

"These projects would help reduce storm water runoff and intensity, therefore helping protect our streams," Kupka said. "This is a really great program, because it gives up to a 75 percent rebate for these projects, so it's a really nice incentive for folks to install those storm water projects on their property."

APPENDIX C

MS4 Outfall Information Table

Unauthorized Discharge Reporting Form – Woodson; Fort Belvoir ES

Dry Weather Outfall Screening Results

Get2Green Recycling Webpage and Dashboard Example displaying program totals

Recycling Program Totals

FCPS MS4 Outfall Information Table

STORMNET_I	VAHUC	Watershed	Drainage Area (ac)	305B ID	305B Category	Receiving WB	Impairment Cause
STMN0481035072	PL30	Accotink Creek	33.223819	VAN-A15R_XKY01A06	3C	Unnamed tributary to Accotink	
STMN0481035304	PL30	Accotink Creek	5.314641	VAN-A15R_XKY01A06	3C	Unnamed tributary to Accotink Creek	
STMN0481035403	PL30	Accotink Creek	1.205794	VAN-A15R_XKY01A06	3C	Unnamed tributary to Accotink Creek	
STMN0481035606	PL30	Accotink Creek	0.792403	VAN-A15R_XKY01A06	3C	Unnamed tributary to Accotink Creek	
STMN0584504757	PL30	Accotink Creek	8.484896	VAN-A15R_CRK01A02	3A	Crook Branch	
STMN0691441887	PL30	Accotink Creek	2.217114	VAN-A15R_ZZZ01A00	3A	Accotink Creek	
STMN0692441831	PL30	Accotink Creek	19.498179	VAN-A15R_ZZZ01A00	3A	Accotink Creek	
STMN0833460478	PL26	Belle Haven	27.43265	VAN-A13R_ZZZ01A00	3A	Cameron Run	
STMN0932470298	PL28	Belle Haven	3.479429	VAN-A14R_ZZZ01A00	3A	Potomac River/Dogue	
STMN0932470360	PL28	Belle Haven	5.621456	VAN-A14R_ZZZ01A00	3A	Potomac River/Dogue	
STMN0603432679	PL26	Cameron Run	68.373037	VAN-A13R_HOR01B00	5A	Holmes Run	Benthic-Macroinvertebrate Bioassessments
STMN0614072479	PL26	Cameron Run	3.239263	VAN-A13R_HOR01A00	5A	Holmes Run	Escherichia coli
STMN0614072481	PL26	Cameron Run	26.976878	VAN-A13R_HOR01A00	5A	Holmes Run	Escherichia coli
STMN0342024596	PL45	Cub Run	4.29395	VAN-A22R_ZZZ01A00	3A	Cub Run	
STMN0353030208	PL45	Cub Run	1.083188	VAN-A22R_ZZZ01A00	3A	Cub Run	
STMN0353030249	PL45	Cub Run	1.169088	VAN-A22R_ZZZ01A00	3A	Cub Run	
STMN0353030399	PL45	Cub Run	3.269509	VAN-A22R_ZZZ01A00	3A	Cub Run	
STMN0432076044	PL45	Cub Run	31.822999	VAN-A22R_CUB02A02	2B	Cub Run	
STMN0432505985	PL45	Cub Run	48.697278	VAN-A22R_CUB02A02	2B	Cub Run	
STMN0453040240	PL45	Cub Run	0.444608	VAN-A22R_BIR02A02	3C	Big Rocky Run	
STMN0453040632	PL45	Cub Run	2.441328	VAN-A22R_BIR02A02	3C	Big Rocky Run	
STMN0453040866	PL45	Cub Run	2.295341	VAN-A22R_BIR02A02	3C	Big Rocky Run	
STMN0541042653	PL45	Cub Run	1.165388	VAN-A22R_ZZZ01A00	3A	Cub Run	
STMN0213406306	PL23	Dead Run	4.789842	VAN-A11R_SCO01A02	3C	Scott Run	
STMN0181053504	PL22	Difficult Run	2.399724	VAN-A11R_XJJ01A02	3C	Unnamed tributary to Colvin Run	
STMN0181057031	PL22	Difficult Run	0.188208	VAN-A11R_XJJ01A02	3C	Unnamed tributary to Colvin Run	

FCPS MS4 Outfall Information Table

STORMNET_I	VAHUC	Watershed	Drainage Area (ac)	305B ID	305B Category	Receiving WB	Impairment Cause
STMN0181057865	PL22	Difficult Run	0.180173	VAN-A11R_XJJ01A02	3C	Unnamed tributary to Colvin Run	
STMN0181058356	PL22	Difficult Run	1.896242	VAN-A11R_XJJ01A02	3C	Unnamed tributary to Colvin Run	
STMN0181058487	PL22	Difficult Run	2.132045	VAN-A11R_XJJ01A02	3C	Unnamed tributary to Colvin Run	
STMN0262012538	PL22	Difficult Run	0.734157	VAN-A11R_ZZZ01A00	3A	Potomac River/Difficult Run/Nichols Run	
STMN0262012668	PL22	Difficult Run	2.17699	VAN-A11R_ZZZ01A00	3A	Potomac River/Difficult	
STMN0262012807	PL22	Difficult Run	1.034929	VAN-A11R_ZZZ01A00	3A	Potomac River/Difficult	
STMN0262013273	PL22	Difficult Run	7.015483	VAN-A11R_ZZZ01A00	3A	Potomac River/Difficult	
STMN0262013589	PL22	Difficult Run	6.826388	VAN-A11R_ZZZ01A00	3A	Potomac River/Difficult Run/Nichols Run	
STMN0262013685	PL22	Difficult Run	22.312493	VAN-A11R_ZZZ01A00	3A	Potomac River/Difficult Run/Nichols Run	
STMN0262013802	PL22	Difficult Run	6.646615	VAN-A11R_ZZZ01A00	3A	Potomac River/Difficult Run/Nichols Run	
STMN0262014404	PL22	Difficult Run	1.459095	VAN-A11R_ZZZ01A00	3A	Potomac River/Difficult Run/Nichols Run	
STMN0262508427	PL22	Difficult Run	1.165433	VAN-A11R_SNA03A02	3C	Snakeden Branch	
STMN0361021264	PL22	Difficult Run	1.386695	VAN-A11R_ZZZ01A00	3A	Potomac River/Difficult	
STMN0361021324	PL22	Difficult Run	0.797045	VAN-A11R_ZZZ01A00	3A	Potomac River/Difficult	
STMN0464036816	PL22	Difficult Run	12.722165	VAN-A11R_ZZZ01A00	3A	Potomac River/Difficult	
STMN0154063580	PL18	Horsepen Creek	3.041768	VAN-A09R_ZZZ01A00	3A	Potomac River/Broad Run	
STMN0244515329	PL18	Horsepen Creek	24.868159	VAN-A09R_HPR01A00	2A	Horsepen Run	
STMN0351022101	PL18	Horsepen Creek	0.158868	VAN-A22R_ZZZ01A00	3A	Cub Run	
STMN0351022111	PL18	Horsepen Creek	1.273969	VAN-A22R_ZZZ01A00	3A	Cub Run	
STMN0351022188	PL18	Horsepen Creek	2.424177	VAN-A22R_ZZZ01A00	3A	Cub Run	
STMN0351022254	PL18	Horsepen Creek	2.182085	VAN-A22R_ZZZ01A00	3A	Cub Run	
STMN0351510298	PL18	Horsepen Creek	17.284912	VAN-A22R_ZZZ01A00	3A	Cub Run	
STMN0924479404	PL28	Little Hunting Creek	2.980991	VAN-A14R_ZZZ01A00	3A	Potomac River/Dogue Creek/Little Hunting Creek	
STMN0924479476	PL28	Little Hunting Creek	3.773026	VAN-A14R_ZZZ01A00	3A	Potomac River/Dogue Creek/Little Hunting Creek	
STMN1111498142	PL28	Little Hunting	2.887745	VAN-A14R_ZZZ28A00	NA	Potomac River/Little Hunting	
STMN1111498151	PL28	Little Hunting	3.702561	VAN-A14R_ZZZ28A00	NA	Potomac River/Little Hunting	
STMN0652050341	PL46	Little Rocky Run	2.560923	VAN-A23R_LIP01A06	5D	Little Rocky Run	Benthic-Macroinvertebrate Bioassessments, Escherichia coli
STMN0654050472	PL46	Little Rocky Run	4.519763	VAN-A23R_LIP01A06	5D	Little Rocky Run	Benthic-Macroinvertebrate
STMN0654450877	PL46	Little Rocky Run	0.017708	VAN-A23R_ZZZ01A00	3A	Lower Bull Run/Popes Head	

FCPS MS4 Outfall Information Table

STORMNET_I	VAHUC	Watershed	Drainage Area (ac)	305B ID	305B Category	Receiving WB	Impairment Cause
STMN0661050406	PL46	Little Rocky Run	1.661791	VAN-A23R_ZZZ01A00	3A	Lower Bull Run/Popes Head Creek	
STMN1062500289	PL48	Mill Branch	9.481217	VAN-A25R_GIL01A04	4A	Giles Run	PCB in Water Column
STMN1071500205	PL48	Mill Branch	8.829142	VAN-A16R_ZZZ01A00	3A	Pohick Creek	
STMN0304412543	PL24	Pimmit Run	22.136269	VAN-A12R_ZZZ01A00	3A	Potomac River/Fourmile Run/Pimmit Run	
STMN0304412905	PL24	Pimmit Run	105.783942	VAN-A12R_PIM02B06	5A	Pimmit Run	Escherichia coli
STMN0304413034	PL24	Pimmit Run	2.519308	VAN-A12R_ZZZ01A00	3A	Potomac River/Fourmile	
STMN0392024788	PL24	Pimmit Run	12.270815	VAN-A13R_HOR01B00	5A	Holmes Run	Benthic-Macroinvertebrate Bioassessments
STMN0392025018	PL24	Pimmit Run	1.677798	VAN-A13R_HOR01B00	5A	Holmes Run	Benthic-Macroinvertebrate
STMN0394025198	PL24	Pimmit Run	14.421945	VAN-A13R_HOR01B00	5A	Holmes Run	Benthic-Macroinvertebrate
STMN0401415533	PL24	Pimmit Run	4.069595	VAN-A12R_PIM02B06	5A	Pimmit Run	Escherichia coli
STMN0411058225	PL24	Pimmit Run	6.026257	VAN-A12R_LIO01A10	3C	Little Pimmit Run	
STMN0771459104	PL29	Pohick Creek	4.582499	VAN-A16R_ZZZ01A00	3A	Pohick Creek	
STMN0771459331	PL29	Pohick Creek	0.640402	VAN-A16R_ZZZ01A00	3A	Pohick Creek	
STMN0783468094	PL29	Pohick Creek	2.357204	VAN-A16R_POH03A04	5A	Pohick Creek	Escherichia coli
STMN0783468468	PL29	Pohick Creek	2.294171	VAN-A16R_POH03A04	5A	Pohick Creek	Escherichia coli
STMN0783468470	PL29	Pohick Creek	0.564896	VAN-A16R_POH03A04	5A	Pohick Creek	Escherichia coli
STMN0872477750	PL29	Pohick Creek	1.5411	VAN-A16R_ZZZ01A00	3A	Pohick Creek	
STMN1071081778	PL29	Pohick Creek	6.842694	VAN-A16R_ZZZ01A00	3A	Pohick Creek	
STMN1071081800	PL29	Pohick Creek	6.992629	VAN-A16R_ZZZ01A00	3A	Pohick Creek	
STMN1074052345	PL29	Pohick Creek	5.129914	VAN-A16R_POH01A00	5A	Pohick Creek	Escherichia coli
STMN0754470099	PL46	Popes Head Creek	0.6628	VAN-A23R_POE01A00	4A	Popes Head Creek	Benthic-Macroinvertebrate
STMN0104403861	PL21	Sugarland Run	15.773446	VAN-A10R_ZZZ01A00	3A	Sugarland Run	
STMN0261515789	PL21	Sugarland Run	6.301273	VAN-A10R_ZZZ01A00	3A	Sugarland Run	
STMN0223405549	PL23	Turkey Run	11.485363	VAN-A11R_TUY01A06	3C	Turkey Run	
STMN0223405550	PL23	Turkey Run	14.388804	VAN-A11R_TUY01A06	3C	Turkey Run	

School/Property	Date	Type Spill	Responder	Suspected Discharge (SD) or Illicit Discharge to Storm Water (IDSW)
Sideburn Support Center	8/4/2017	Diesel Fuel Spill (0.25 gallon)	OFM	SD, mitigated with no storm water discharge
Ravensworth ES	8/16/2017	Custodial Floor Stripper	OSS/OFM/FM	SD, mitigated with no storm water discharge. OSS/OFM removed 8-55 gallon drums of contaminated soil. FM issued a NOV to school for the discharge to the 8 grass areas.
Woodson Grounds	2/20/2018	Hydraulic line from Trash Company truck (~0.5 gallons)	OFM/Trash Company	SD, mitigated with no storm water discharge
Fort Belvoir ES	6/26/2018	Custodial Floor Stripper	OSS/OFM/FM	SD, mitigated with no storm water discharge. OSS/OFM removed 7-55 gallon drums of contaminated soil. FM from Fort Belvoir was called but no response.

FCPS Dry Weather Screening, 2018

Outfall ID	School Name	Watershed	Sub Shed	Date	LAT	LONG	Flow Present?	Flow Description	Follow Up Date	Follow Up Comment
STMN0932470298	BELLE VIEW	Belle Haven	BE-BH-0015	03/15/2018	38.772534	-77.060247	Yes	Moderate	N/A	Flow tested for temperature, pH, conductance, detergents, and fluoride. No exceedances detected. Outfall closed out.
STMN0932470360	BELLE VIEW	Belle Haven	BE-BH-0015	03/15/2018	38.773505	-77.061367	No			
STMN0213406306	COOPER	Dead Run	DE-UN-0002	03/15/2018	38.949595	-77.192904	No			
STMN0261515789	DOGWOOD	Sugarland Run	SU-SU-0049	03/16/2018	38.943387	-77.369834	No			
STMN0771459104	FAIRVIEW	Pohick Creek	PC-SI-0009	03/13/2018	38.798079	-77.322587	No			
STMN0771459331	FAIRVIEW	Pohick Creek	PC-SI-0009	03/13/2018	38.798081	-77.322571	No			
STMN0614072481	GLASGOW	Cameron Run	CA-HR-0016	03/13/2018	38.836047	-77.140627	No			
STMN1062500289	HALLEY	Mill Branch	MB-GR-0016	03/13/2018	38.718497	-77.258191	No			
STMN0262013663	HUGHES	Difficult Run	DF-SB-0004	03/16/2018	38.933541	-77.338161	No			
STMN0262013685	HUGHES	Difficult Run	DF-SB-0004	03/16/2018	38.93354	-77.3382	No			
STMN0924479404	HYBLA VALLEY	Little Hunting Creek	LH-LH-0006	03/13/2018	38.758909	-77.090995	No			
STMN0924479476	HYBLA VALLEY	Little Hunting Creek	LH-LH-0006	03/13/2018	38.757879	-77.091199	No			
STMN0223405549	LANGLEY	Turkey Run	TU-UN-0001	03/15/2018	38.952839	-77.164546	No			
STMN0223405550	LANGLEY	Turkey Run	TU-UN-0001	03/15/2018	38.949734	-77.164476	No			
STMN0353030208	LEES CORNER	Cub Run	CU-OX-0001	03/16/2018	38.891206	-77.412184	No			
STMN0353030249	LEES CORNER	Cub Run	CU-OX-0001	03/16/2018	38.891208	-77.410539	No			
STMN0353030399	LEES CORNER	Cub Run	CU-FL-0024	03/16/2018	38.890954	-77.413737	No			
STMN0692441831	LITTLE RUN	Accotink Creek	AC-LB-0055	03/13/2018	38.825008	-77.265633	No			
STMN0584504757	MANTUA	Accotink Creek	AC-CR-0015	03/15/2018	38.846482	-77.258313	No			
STMN0392025018	MARSHALL	Pimmit Run	PM-PM-0017	03/15/2018	38.903015	-77.214852	No			
STMN0392024788	MARSHALL	Pimmit Run	PM-PM-0017	03/15/2018	38.903318	-77.215234	Yes	Moderate	N/A	Flow tested for temperature, pH, conductance, detergents, copper, phenols, and fluoride. No exceedances detected. Outfall closed out.
STMN0394025198	MARSHALL	Pimmit Run	PM-PM-0017	03/15/2018	38.902454	-77.214066	Yes	Moderate	N/A	Flow tested for temperature, pH, conductance, detergents, copper, phenols, and fluoride. No exceedances detected. Outfall closed out.
STMN0603432679	MASON CREST	Cameron Run	CA-HR-0029	03/13/2018	38.842822	-77.194568	No			
STMN0351022111	OAK HILL	Horsepen Creek	HC-HC-0033	03/16/2018	38.912521	-77.409609	No			
STMN0351022188	OAK HILL	Horsepen Creek	HC-HC-0033	03/16/2018	38.912114	-77.40904	No			
STMN0351022254	OAK HILL	Horsepen Creek	HC-HC-0033	03/16/2018	38.912091	-77.407888	No			
STMN0351510298	OAK HILL	Horsepen Creek	HC-HC-0033	03/16/2018	38.911577	-77.408553	No			
STMN0481035072	OAKTON	Accotink Creek	AC-AC-0415	03/15/2018	38.877488	-77.280582	Yes	Moderate	03/16/2018	Initial exceedance detected for Fluoride (0.6 mg/L). Followup testing indicated flow below threshold levels (0.4 mg/L). Outfall closed out.
STMN0481035304	OAKTON	Accotink Creek	AC-AC-0415	03/15/2018	38.877319	-77.280034	No			
STMN0481035403	OAKTON	Accotink Creek	AC-AC-0415	03/15/2018	38.877076	-77.279927	No			
STMN0481035606	OAKTON	Accotink Creek	AC-AC-0415	03/15/2018	38.876514	-77.281106	No			
STMN0691441887	OLDE CREEK	Accotink Creek	AC-LB-0070	03/13/2018	38.831172	-77.277611	No			

FCPS Dry Weather Screening, 2018

Outfall ID	School Name	Watershed	Sub Shed	Date	LAT	LONG	Flow Present?	Flow Description	Follow Up Date	Follow Up Comment
STMN0494423246	PINE SPRING	Cameron Run	CA-HR-0041	03/15/2018	38.869785	-77.208686	No			
STMN0453040240	POPLAR TREE	Cub Run	CU-BR-0020	03/16/2018	38.862985	-77.415622	No			
STMN0453040632	POPLAR TREE	Cub Run	CU-BR-0019	03/16/2018	38.863013	-77.415645	No			
STMN0453040866	POPLAR TREE	Cub Run	CU-BR-0019	03/16/2018	38.86232	-77.415938	No			
STMN0833460478	QUANDER ROAD	Belle Haven	BE-HC-0015	03/13/2018	38.779183	-77.072035	No			
STMN1071081778	SOUTH COUNTY	Pohick Creek	PC-SL-0002	03/13/2018	38.718726	-77.243264	No			
STMN1071081800	SOUTH COUNTY	Pohick Creek	PC-SL-0002	03/13/2018	38.722155	-77.241110	No			
STMN1071500205	SOUTH COUNTY	Mill Branch	MB-GR-0012	03/13/2018	38.718699	-77.243322	No			
STMN0262013589	SOUTH LAKES	Difficult Run	DF-SB-0004	03/16/2018	38.933857	-77.342129	No			
STMN0262013802	SOUTH LAKES	Difficult Run	DF-SB-0004	03/16/2018	38.932298	-77.342453	No			
STMN0262014404	SOUTH LAKES	Difficult Run	DF-SB-0004	03/16/2018	38.932122	-77.342136	No			
STMN0262508427	SOUTH LAKES	Difficult Run	DF-SB-0004	03/16/2018	38.93255	-77.33724	No			
STMN0541042653	STONE	Cub Run	CU-RL-0003	03/16/2018	38.857793	-77.453347	No			
STMN0262013273	TERRASET	Difficult Run	DF-SB-9901	03/16/2018	38.935147	-77.342445	No			
STMN0654050472	UNION MILL	Little Rocky Run	LR-LR-0011	03/16/2018	38.819368	-77.417326	No			
STMN0654450877	UNION MILL	Little Rocky Run	LR-LR-0011	03/16/2018	38.819552	-77.416705	No			
STMN0783468094	WHITE OAKS	Pohick Creek	PC-PC-0044	03/13/2018	38.782218	-77.271639	No			
STMN0783468468	WHITE OAKS	Pohick Creek	PC-PC-0044	03/13/2018	38.782254	-77.271773	No			
STMN0783468470	WHITE OAKS	Pohick Creek	PC-PC-0044	03/13/2018	38.781852	-77.27102	No			

Fairfax County Public Schools

FCPSGet2Green

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Welcome

FCPS Get2Green is the environmental stewardship program for Fairfax County Public Schools. Use this website as a resource to engage in environmental stewardship projects at your school, incorporate sustainability in the classroom, find your school's energy and recycling data, and learn more about green initiatives in FCPS.

[District Overview Data](#) | [Energy Data](#) | [Recycling & Trash Data](#) | [Greenhouse Gas Data](#)

Our interactive data dashboards enable users to view resource use at all FCPS schools and centers.
View Utilities, Recycling & Trash, Greenhouse Gas or Eco-Schools information by location or the District as a whole.
Click here for more information on our data dashboards!

Get2Green - In the News

U.S. Department of Education Green Ribbon Schools, Districts, and Postsecondary Institutions Recognized; 2017 Green Strides Tour Announced (July 19, 2017)
Better Buildings Summit Showcase Tours: Marshall High School (June 29, 2017)
Washington D.C. named nation's top ENERGY STAR city for 3rd year in a row! (June 26, 2017)
FCPS Energy Competition Concludes with Big Savings (June 21, 2017)
FCPS Students Honored for Innovative Solutions at 2017 Environmental Action Showcase (Apr. 28, 2017)
FCPS Earns 2017 Energy Star® Partner of the Year Award (Apr. 6, 2017)
FCPS Recognized with Inaugural Virginia Energy Efficiency Awards (Nov. 29, 2016)
Congrats to FCPS on its Leadership Award - Fairfax Times (Nov. 22, 2016)
FCPS Recognized by VSBA for Environmental Initiatives (Nov. 18, 2016)
(MWCOG) Council of Governments honors region's climate and energy leaders (Nov. 10, 2016)
Fairfax joins other large school systems in environmental alliance - **Washington Post** (Feb. 17, 2016)

Curator: Liz Hatcher get2green@fcps.edu

Fairfax County Public Schools

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Recycling & Trash

View By Facility | Top Recyclers | Yearly Comparisons

Elementary
- Bailey's ES
- Bailey's Upper ES
- Beech Tree ES
- Belle View ES
- Belvedere ES
- Bonnie Brae ES
- Braddock ES
- Bren Mar Park ES
- Brookfield ES
- Bucknell ES
- Bull Run ES
- Bush Hill ES
- Camelot ES
- Cameron ES
- Canterbury Woods ES
- Cardinal Forest ES
- Cedar Lane ES
- Centre Ridge ES
- Centreville ES
- Cherry Run ES
- Chesterbrook ES

Middle

Secondary

High

Center

Aldrin ES

(Weight in Lbs. | Jan. 2017 - Dec. 2017)

12 MONTH TOTAL

(Jan. 2017 - Dec. 2017)

IF YOU WERE TO RECYCLE
27,910 lbs. = 14 Tons
OF PAPER EACH YEAR, YOU COULD HELP SAVE:

FCPS District Wide Totals (Jan. 2017 - Dec. 2017)	FCPS TOTAL RECYCLED	FCPS TOTAL TRASH
	6,160,470 lbs.	26,895,081 lbs.

Download Data

If you require data in the source Excel format, please email Get2Green@fcps.edu and request a copy for download.

Curator: Liz Hatcher get2green@fcps.edu

	FY 18	FCPS Totals	Pounds		
FCPS	**Recycling**		**Trash**		**Total (rec/trash)**
July	326,120	20.10%	1,296,170	79.90%	1,622,290
August	675,300	27.11%	1,815,910	72.89%	2,491,210
September	481,170	17.32%	2,296,610	82.68%	2,777,780
October	506,810	16.95%	2,483,720	83.05%	2,990,530
November	492,260	17.56%	2,311,100	82.44%	2,803,360
December	391,320	17.05%	1,904,290	82.95%	2,295,610
January	2,445,338	20.90%	9,255,983	79.10%	11,701,321
February	483,806	17.05%	2,353,876	82.95%	2,837,681
March	301,741	13.78%	1,888,222	86.22%	2,189,963
April	348,124	16.90%	1,711,706	83.10%	2,059,830
May	409,860	15.15%	2,295,415	84.85%	2,705,274
June	474,589	20.10%	1,886,698	79.90%	2,361,287
FT 14 Totals	**7,336,437**	**18.89%**	**31,499,700**	**81.11%**	**38,836,137**

Pounds

FY 18 **Elementary School Totals**

ES	Recycle (lbs)		Waste (lbs)		Total (lbs)
July	140,560	16.04%	735,630	83.96%	876,190
August	357,780	25.16%	1,064,220	74.84%	1,422,000
September	273,130	17.86%	1,256,520	82.14%	1,529,650
October	297,490	18.12%	1,344,460	81.88%	1,641,950
November	283,020	18.28%	1,264,950	81.72%	1,547,970
December	226,990	17.25%	1,088,860	82.75%	1,315,850
January	1,444,834	17.48%	6,820,523	82.52%	8,265,357
February	278,727	17.10%	1,351,696	82.90%	1,630,423
March	173,659	15.09%	977,352	84.91%	1,151,011
April	215,623	18.06%	978,408	81.94%	1,194,032
May	258,032	16.34%	1,321,321	83.66%	1,579,353
June	277,118	20.86%	1,051,295	79.14%	1,328,413
FT 14 Totals	**4,226,965**	**18.00%**	**19,255,235**	**82.00%**	**23,482,200**

FY 18 **High School Totals**

HS	Recycle (lbs)		Waste (lbs)		Total (lbs)
July	124,870	31.25%	274,730	68.75%	399,600
August	193,680	33.49%	384,690	66.51%	578,370
September	120,440	15.80%	641,620	84.20%	762,060
October	121,630	14.66%	708,170	85.34%	829,800
November	119,060	15.71%	638,810	84.29%	757,870
December	94,500	16.80%	468,110	83.20%	562,610
January	440,737	43.92%	562,744	56.08%	1,003,480
February	95,155	15.02%	538,184	84.98%	633,340
March	61,227	11.17%	487,092	88.83%	548,319
April	50,581	10.58%	427,451	89.42%	478,032
May	62,055	10.14%	549,910	89.86%	611,965
June	86,676	15.14%	485,925	84.86%	572,601
FT 14 Totals	**1,570,611**	**20.30%**	**6,167,436**	**79.70%**	**7,738,047**

FY 18 **Middle School Totals**

MS	Recycle (lbs)		Waste (lbs)		Total (lbs)
July	23,480	11.74%	176,570	88.26%	200,050
August	66,740	21.64%	241,690	78.36%	308,430
September	49,940	14.99%	283,290	85.01%	333,230
October	49,190	13.75%	308,600	86.25%	357,790
November	50,570	14.77%	291,700	85.23%	342,270
December	38,330	13.27%	250,460	86.73%	288,790
January	375,719	20.53%	1,454,495	79.47%	1,830,214
February	75,257	17.50%	354,728	82.50%	429,985
March	41,459	11.54%	317,762	88.46%	359,221
April	55,406	18.25%	248,255	81.75%	303,661
May	60,821	14.77%	350,923	85.23%	411,744
June	74,156	19.91%	298,236	80.09%	372,392
FT 14 Totals	**961,068**	**17.35%**	**4,576,708**	**82.65%**	**5,537,776**

FY 18 **Center Totals**

CTR	Recycle (lbs)		Waste (lbs)		Total (lbs)
July	37,210	25.41%	109,240	74.59%	146,450
August	57,100	31.30%	125,310	68.70%	182,410
September	37,660	24.64%	115,180	24.64%	152,840
October	38,500	23.91%	122,490	76.09%	160,990
November	39,610	25.51%	115,640	74.49%	155,250
December	31,500	24.54%	96,860	75.46%	128,360
January	184,048	30.56%	418,222	69.44%	602,270
February	34,667	24.09%	109,267	75.91%	143,934
March	25,397	19.33%	106,016	80.67%	131,413
April	26,513	31.52%	57,592	68.48%	84,105
May	28,951	28.32%	73,260	71.68%	102,211
June	36,638	41.69%	51,243	58.31%	87,881
FT 14 Totals	**577,794**	**27.80%**	**1,500,321**	**72.20%**	**2,078,115**

Appendix C

APPENDIX D

Stormwater Management Facilities Brought Online

FCPS Stormwater Facilities Brought Online PY5

Facility ID	Function	Maintained By	Date Installed	BMP Name	Practice Description	Hydrologic Soil Group	Drainage Area (ac)	Total Acres Treated (ac)	Impervious Acres Treated (ac)	Pervious Acres Treated (ac)	Managed Turf Acres Treated (ac)	Runoff Captured (ac-ft)	Amount Applied	Measurement Unit	Latitude	Longitude	HUC12	Inspection Date/Year	Routine Maintenance Date/Year	Watershed	VAHUC6
BR0672	BMP	Public	1/17/2018	BIORETENTION		D	0.66	0.66	0.30	0.36	0.00	0.02	0.66	ACRE	38.7951135154004	-77.1103208048767	020700100302	FY19	FY19	Cameron Run	PL26
PP0028	BMP	Public	9/19/2017	PERMEABLE PAVEMENT		D	0.20	0.2	0.06	0.14	0.00	0.01	0.2	ACRE	38.8552301416199	-77.127810532962	020700100301	FY19	FY19	Four Mile Run	PL25
PP0030	BMP	Public	11/15/2017	PERMEABLE PAVEMENT		D	0.29	0.292	0.20	0.09	0.00	0.01	0.292	ACRE	38.7836261801933	-77.2699729468341	020700100401	FY19	FY19	Pohick Creek	PL29
RF0025	BMP	Public	9/20/2017	REFORESTATION		D	0.54	0.54	0.00	0.54	0.00	0.00	0.54	ACRE	38.7771232985192	-77.1917273083024	020700100402	FY19	-	Accotink Creek	PL30
RF0026	BMP	Public	9/25/2017	REFORESTATION		C	0.20	0.2	0.00	0.20	0.00	0.00	0.2	ACRE	38.8722999618299	-77.3953340037224	020700100704	FY19	-	Cub Run	PL45
RF0027	BMP	Public	9/25/2017	REFORESTATION		C	0.17	0.17	0.00	0.17	0.00	0.00	0.17	ACRE	38.8727697058345	-77.394840195372	020700100704	FY19	-	Cub Run	PL45
RF0028	BMP	Public	9/25/2017	REFORESTATION		D	0.08	0.08	0.00	0.08	0.00	0.00	0.08	ACRE	38.8718370326782	-77.3932649465753	020700100704	FY19	-	Cub Run	PL45
RF0030	BMP	Public	1/17/2018	REFORESTATION		D	0.58	0.58	0.00	0.58	0.00	0.00	0.58	ACRE	38.794821503839	-77.1126485328553	020700100302	FY19	-	Cameron Run	PL26
RF0033	BMP	Public	6/18/2018	REFORESTATION		B	0.19	0.19	0.00	0.19	0.00	0.02	0.19	ACRE	38.9048766053282	-77.1731493133136	020700100103	FY20	-	Pimmit Run	PL24
TF0347	BMP	Public	9/25/2017	MANUFACTURED BMP (PROPRIETARY)	Filterra	D	0.32	0.32	0.30	0.02	0.00	0.00	0.32	ACRE	38.8715807631152	-77.3934038408325	020700100704	FY19	FY19	Cub Run	PL45
TF0348	BMP	Public	9/25/2017	MANUFACTURED BMP (PROPRIETARY)	Filterra	D	0.18	0.18	0.18	0.00	0.00	0.00	0.18	ACRE	38.8711523174926	-77.3936560621277	020700100704	FY19	FY19	Cub Run	PL45
TF0349	BMP	Public	9/25/2017	MANUFACTURED BMP (PROPRIETARY)	Filterra	D	0.29	0.29	0.24	0.05	0.00	0.00	0.29	ACRE	38.8707658531308	-77.3940669624744	020700100704	FY19	FY19	Cub Run	PL45
TF0354	BMP	Public	11/16/2017	MANUFACTURED BMP (PROPRIETARY)	Filterra	B	0.44	0.44	0.37	0.07	0.00	0.00	0.44	ACRE	38.7830338430274	-77.2690051882432	020700100401	FY19	FY19	Pohick Creek	PL29
TF0362	BMP	Public	1/17/2018	MANUFACTURED BMP (PROPRIETARY)	Filterra	D	0.30	0.3	0.29	0.01	0.00	0.01	0.3	ACRE	38.7942456868462	-77.1107812190465	020700100302	FY19	FY19	Cameron Run	PL26
TF0363	BMP	Public	1/17/2018	MANUFACTURED BMP (PROPRIETARY)	Filterra	D	0.40	0.4	0.39	0.01	0.00	0.02	0.4	ACRE	38.7945394769983	-77.1100746517772	020700100302	FY19	FY19	Cameron Run	PL26
TF0364	BMP	Public	1/17/2018	MANUFACTURED BMP (PROPRIETARY)	Filterra	D	0.16	0.16	0.07	0.09	0.00	0.003	0.16	ACRE	38.7948409297515	-77.1103199855179	020700100302	FY19	FY19	Cameron Run	PL26
TF0365	BMP	Public	1/17/2018	MANUFACTURED BMP (PROPRIETARY)	Filterra	D	0.44	0.44	0.18	0.26	0.00	0.01	0.44	ACRE	38.794510233563	-77.110914354064	020700100302	FY19	FY19	Cameron Run	PL26
TF0413	BMP	Public	6/18/2018	MANUFACTURED BMP (PROPRIETARY)	Filterra	D	0.34	0.34	0.34	0.00	0.00	0.00	0.34	ACRE	38.9037278492744	-77.1744921671287	020700100103	FY20	FY19	Pimmit Run	PL24
TF0414	BMP	Public	6/18/2018	MANUFACTURED BMP (PROPRIETARY)	Filterra	D	0.23	0.23	0.19	0.04	0.00	0.01	0.23	ACRE	38.9039239426753	-77.1745309918628	020700100103	FY20	FY19	Pimmit Run	PL24
TF0415	BMP	Public	6/18/2018	MANUFACTURED BMP (PROPRIETARY)	Filterra	B	0.21	0.21	0.21	0.00	0.00	0.01	0.21	ACRE	38.9048000813569	-77.1736550761892	020700100103	FY20	FY19	Pimmit Run	PL24
TR1372	BMP	Public	9/20/2017	INFILTRATION PRACTICE		D	2.91	2.91	1.28	1.63	0.00	0.10	2.91	ACRE	38.7778506181325	-77.1908817127442	020700100402	FY19	-	Accotink Creek	PL30
TR1375	BMP	Public	9/25/2017	INFILTRATION PRACTICE		D	2.70	0.43	0.43	0.00	0.00	0.07	0.43	ACRE	38.8562106061902	-77.1480841767358	020700100302	FY19	-	Cameron Run	PL26
TR1376	BMP	Public	9/25/2017	INFILTRATION PRACTICE		D	1.97	1.97	0.02	0.00	1.95	0.03	1.97	ACRE	38.855391937197	-77.1488808423019	020700100302	FY19	-	Cameron Run	PL26
TR1377	BMP	Public	9/28/2017	INFILTRATION PRACTICE		D	2.88	2.88	2.88	0.00	0.00	0.41	2.88	ACRE	38.8678076521275	-77.2314066026748	020700100402	FY19	-	Accotink Creek	PL30
UG0664	SWM	Public	6/1/2018	UNDERGROUND DETENTION		D	1.19	1.19	0.77	0.42	0.00	0.00	1.19	ACRE	38.7588125705071	-77.0887019821302	020700100307	FY20	-	Little Hunting Creek	PL28
UG0696	SWM	Public	1/17/2018	UNDERGROUND DETENTION		D	1.80	1.80	1.11	0.69	0.00	0.00	1.8	ACRE	38.7950260393718	-77.1104952025202	020700100302	FY19	-	Cameron Run	PL26
UG0701	SWM	Public	6/18/2018	UNDERGROUND DETENTION		D	2.28	2.28	1.25	1.03	0.00	0.00	2.28	ACRE	38.9043482032923	-77.1745156354246	020700100103	FY20	-	Pimmit Run	PL24

APPENDIX E

Nutrient Application Policy Memorandum

Nutrient Management Plan Locations and Planning Status

PCB Recognition and Reporting Training Tracking Sheet

MS4 Education and Good Housekeeping and Pollution Prevention Training Materials

Pesticide applicator certifications

Safety & Security Fact Sheets; Pooper Scooper Ordinance, Canada Geese

Fairfax County PUBLIC SCHOOLS
ENGAGE • INSPIRE • THRIVE

Frances W. Ivey, Deputy Superintendent
8115 Gatehouse Road
Falls Church, Virginia 22042

August 21, 2018

MEMORANDUM

TO: FCPS Office of Facilities Management

FROM: Frances W. Ivey, Deputy Superintendent
FCPS Student Activities and Athletics Programs

SUBJECT: MS4 reporting for permit year five July 1, 2017 through June 30, 2018

During the reporting period of July 1, 2017 to June 30, 2018, all FCPS Directors of Student Activities have been informed through the regularly scheduled DSAA meetings that FCPS schools may no longer apply any nutrients to natural grass fields that total more than one acre without a documented nutrient management plan.

FCPS Elementary School Fields Requiring NMPs

School Name	Acres	Field Type	Latitude	Longitude	NMP Complete
Bull Run ES	1.17	RF	38.827679	-77.474513	Y
Canterbury Woods ES	1.80	BB	38.819565	-77.249664	Y
Centre Ridge ES	1.21	RF	38.825763	-77.447276	Y
Clearview ES	1.78	RF	38.982483	-77.391609	Y
Coates ES	2.03	MP	38.952459	-77.420248	Y
Colin Powell ES	1.14	RF	38.846786	-77.407891	Y
Colvin Run ES	1.10	RF	38.947623	-77.266035	Y
Colvin Run ES	1.13	RF	38.947274	-77.265526	Y
Crossfield ES	1.50	RF	38.915095	-77.361018	Y
Flint Hill ES	1.38	MP	38.896628	-77.286057	Y
Fort Hunt ES	1.37	RF	38.717809	-77.066141	Y
Freedom Hill ES	1.19	RF	38.910971	-77.228785	Y
Herndon ES	1.25	RF	38.975525	-77.374875	Y
Marshall Road ES	1.94	MP	38.881881	-77.265136	Y
McNair ES	1.18	RF	38.947828	-77.403395	Y
McNair ES	1.18	RF	38.947325	-77.402799	Y
North Springfield ES	1.48	RF	38.802468	-77.207267	Y
Waples Mill ES	1.57	RF	38.875706	-77.343981	Y
Willow Springs ES	1.30	RF	38.832159	-77.37866	Y
Wolftrap ES	1.07	MP	38.917777	-77.265196	Y
Total Acres	**27.77**				**27.77**

FCPS Middle School Fields Requiring NMPs

School Name	Acres	Field Type	Latitude	Longitude	NMPs Completed
Carl Sandburg	1.72	RF	38.729818	-77.064032	Y
Carl Sandburg	1.78	BB	38.729061	-77.064298	Y
Franklin MS	1.60	RF	38.906398	-77.422018	Y
Kilmer MS	1.01	RF	38.905942	-77.224872	Y
Kilmer MS	1.67	RF	38.905639	-77.223932	Y
Stone MS	1.27	RF	38.856186	-77.456688	Y
Total Acres	**9.05**				**9.05**

NMP completed - need for nutrient application is being assessed for NMP update

FCPS High School and Secondary School Fields Requiring NMPs

School Name	Acres	Field Name	Field Type	Size	Latitude	Longitude	NMPs Completed
Annandale HS	~~2.41~~	~~1~~	~~BB~~	~~90~~	~~38.822653~~	~~-77.211097~~	
~~Centreville HS~~	~~2.39~~	~~1~~	~~BB~~	~~90~~	~~38.825262~~	~~-77.40886~~	
~~Chantilly HS~~	~~2.48~~	~~1~~	~~BB~~	~~90~~	~~38.878644~~	~~-77.407824~~	
~~Edison HS~~	~~2.22~~	~~1~~	~~BB~~	~~90~~	~~38.780876~~	~~-77.13158~~	
Falls Church HS	1.62	1	BB	90	38.862399	-77.209376	Y
~~Hayfield SS~~	~~2.53~~	~~1~~	~~BB~~	~~90~~	~~38.751867~~	~~-77.141143~~	
Herndon HS	1.97	1	BB	90	38.988213	-77.37533	Y
Jefferson HS	2.25	1	BB	90	38.820276	-77.169125	Y
~~Lake Braddock SS~~	~~2.53~~	~~1~~	~~BB~~	~~90~~	~~38.803775~~	~~-77.262891~~	
~~Langley HS~~	~~2.05~~	~~1~~	~~BB~~	~~90~~	~~38.951303~~	~~-77.16446~~	
~~Lee HS~~	~~2.32~~	~~1~~	~~BB~~	~~90~~	~~38.778687~~	~~-77.170356~~	
~~Madison HS~~	~~2.29~~	~~1~~	~~BB~~	~~90~~	~~38.897537~~	~~-77.279657~~	
Marshall HS	2.45	1	BB	90	38.904245	-77.21228	Y
McLean HS	1.93	0	BB	60	38.921557	-77.185808	Y
McLean HS	2.27	1	BB	90	38.92221	-77.184599	Y
Mt Vernon HS	2.46	1	BB	90	38.724756	-77.092659	Y
~~Oakton HS~~	~~2.22~~	~~1~~	~~BB~~	~~90~~	~~38.881068~~	~~-77.281933~~	
Robinson SS	2.70	1	BB	90	38.817933	-77.306542	Y
~~South County HS~~	~~2.51~~	~~1~~	~~BB~~	~~90~~	~~38.720014~~	~~-77.239823~~	
~~South Lakes HS~~	~~2.49~~	~~1~~	~~BB~~	~~90~~	~~38.934321~~	~~-77.341299~~	
West Potomac HS	1.99	1	BB	90	38.774367	77.074601	Y
West Springfield HS	2.17	1	BB	90	38.78388	-77.240444	Y
~~Westfield HS~~	~~2.07~~	~~1~~	~~BB~~	~~90~~	~~38.886739~~	~~-77.46687~~	
~~Woodson HS~~	~~2.43~~	~~1~~	~~BB~~	~~90~~	~~38.836297~~	~~-77.277409~~	
Total Acres	**21.82**						**21.82**

Removed from list - no nutrients applied July 1, 2017 to June 30, 2018 per August 21, 2018 FCPS memorandum. No nutrients will be applied in the future without an NMP in conformance with the MOU with Fairfax County.

FCPS Other Fields Requiring NMPs

Fields	Acres	Field Type	Latitude	Longitude	NMPs Completed
Burke Center	1.36	RF	38.783122	-77.277634	Y
Dunn Loring Center	1.49	RF	38.896384	-77.227642	Y
Leis Center	1.59	MP	38.85668	-77.202873	Y
Virginia Hills Center	1.15	RF	38.773706	-77.102007	Y
Wilton Woods Center	1.25	MP	38.789885	-77.095956	Y
Total Acres	**6.84**				**6.84**

Section Attendance

#: FT-44445 A

Title: FCPS - MS4 Good Housekeeping and Pollution Prevention Training

Course Value: 1.0 Hours

Section Title: MS4 Training on Good Housekeeping & Pollution Prevention for Facilities Satff

Instructor: Moran, Holly

Facility:

Start Time: 7:00 AM

Start Date: 04/30/2018

End Date: 06/30/2018

Current Date: Monday April 30, 2018

#	Name	Employee Id	Position	District / School	7:00 AM - 9:30 PM
1.	Acharya, Samrudhi	197730	Instructional	Region 1, Herndon High Region 1, Herndon High	
2.	Arnado, John	108949	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Sideburn Support Center	
3.	Bennett, David	170268	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Sideburn Support Center	
4.	Berryman, Grayling	103798	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	

5.	Bowler, Edward	104066	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Sideburn Support Center	
6.	Boyd, James	135206	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Sideburn Support Center	
7.	Brammer, Timothy	137234	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	
8.	Brown, Eschelle	219625	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	
9.	Brown, Michael	181433	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	
10.	Brown, Ronald	146891	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	
11.	Burney, Kyle	178286	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	
12.	Burns, Robert	187269	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	
13.	Bushrod, Micah	146812	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	

14.	Carney, Craig	147660	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	
15.	Castillo, Oscar	221573	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Sideburn Support Center	
16.	Chavez, Remberto	203532	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	
17.	Clark, Michael	154094	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Sideburn Support Center	
18.	Crafton, Andy	146353	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Sideburn Support Center	
19.	Croson, Nathan	207844	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	
20.	Cunningham, William	220976	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	
21.	Daub, Wilbur	225697	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	
22.	Dawson, Sean	216646	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	

23.	Dove, Brian	110430	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Sideburn Support Center	
24.	Dowling, Paul	209331	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Sideburn Support Center	
25.	Ellis, David	121765	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	
26.	Ellis, Robert	174977	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	
27.	Fisher, Eugene	161105	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Sideburn Support Center	
28.	Garrett, David	101372	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Sideburn Support Center	
29.	Gutierrez, Pedro	217159	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	
30.	Hannold, John	222545	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Sideburn Support Center	

31.	Harsh, Timothy	124742	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	
32.	Hudson, Coleman	158072	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	
33.	Hutchison, Christopher	184057	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	
34.	Jones, James	140936	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	
35.	Kerns, Daniel	195195	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Sideburn Support Center	
36.	Kohlmiller, Rachel	227356	Instructional	Region 3, Mount Vernon Woods Elem Region 3, Mount Vernon Woods Elem	
37.	Lanham, Donald	109485	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Sideburn Support Center	
38.	Larson, Scott	182570	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Sideburn Support Center	
39.	Le, Tien	188871	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Sideburn Support Center	

40.	Marchante, Jonathan	217060	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	
41.	Martinez, Jose	225710	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	
42.	McCracken, Andrew	178575	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Sideburn Support Center	
43.	Mercer, Christopher	203520	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	
44.	Moran, Holly	209901	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Sideburn Support Center	
45.	Newcomb, Mark	120857	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Sideburn Support Center	
46.	Nguyen, Brancen	227419	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	
47.	Odebunmi, Jonathan	199940	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Sideburn Support Center	

48.	Olinger, Thomas	230712	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Sideburn Support Center	
49.	Payne, Larry	141477	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	
50.	Perez, Edgar	164881	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Sideburn Support Center	
51.	Perry, Jeremy	223625	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	
52.	Perry, Kenneth	220337	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	
53.	Reinoso, Andres	174489	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	
54.	Riley, Ted	217875	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Sideburn Support Center	
55.	Russell, George	100191	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Sideburn Support Center	

56.	Semper, Nokia	208614	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	
57.	Simmons, Benjamin	110600	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Sideburn Support Center	
58.	Tippett, Cody	204643	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Sideburn Support Center	
59.	Yanes, Fidel	211794	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Woodson Complex	
60.	Zorrilla, Diego	230686	Support	Facilities & Transprtatn Srvcs, Facilities Mgmt Non-Region, Sideburn Support Center	

FCPS PY5 Training Class – FCPS MS4 Good Housekeeping and Pollution Prevention Training and PCB Training

The training can be viewed on youtube at the following link:
https://www.youtube.com/watch?v=PuB9TdemGc0

EMPLOYEE TRAINING

Date of Session: 1/25/17 Time: 8:00 AM

Topic(s) Covered (Circle Applicable):

All Components and Goals of the HP-SWPPP

Illicit Discharge Recognition and Reporting

Spill Prevention and Response

Fleet and Facility Maintenance

Other: _____

Other: _____

Attendees (Names, Printed):	Signature:
Craig Carney	
Holly Moran	
Bruce Boyd	
David Bennett	
George Caridakis	
Grayling Berryman	
Gary Langhorne	
Alan Hensberger	
Jeff Gourley	
Mary T. Williams	
Tom Heller	
Steve Royston	
William Morris	

Trainer: John Burke
(Name, Printed)

(Signature)

VIRGINIA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

P O BOX 1163, RICHMOND VA 23218-1163

PESTICIDE APPLICATOR CERTIFICATE

Issued		Fee Paid	Certificate
07/27/2017	GOVT EMPLOYEE FOR BL# 2634	EXEMPT	32596-G
Expires 06/30/2018			

Issued in accordance with application duly executed by the person shown below who has agreed to comply with all applicable laws, rules and regulations

TYRONE N TURNER
FAIRFAX CO PUBLIC SCHOOLS
5025 SIDEBURN RD
FAIRFAX,VA 22032

Sandra J. Adams
Commissioner

Liza Fleeson Trossbach
Authorized Representative

VIRGINIA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

P O BOX 1163, RICHMOND VA 23218-1163

PESTICIDE APPLICATOR CERTIFICATE

Issued		Fee Paid	Certificate
08/01/2016	GOVT EMPLOYEE FOR BL# 2632	EXEMPT	109951-G
Expires 06/30/2018			

Issued in accordance with application duly executed by the person shown below who has agreed to comply with all applicable laws, rules and regulations

JACK T STARRY
FAIRFAX COUNTY PUB SCHOOLS

Sandra J. Adams
Commissioner

Liza Fleeson Trossbach
Authorized Representative

VIRGINIA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

P O BOX 1163, RICHMOND VA 23219-1163

PESTICIDE APPLICATOR CERTIFICATE

Issued
06/06/2016

Expires
06/30/2018

GOVT EMPLOYEE
FOR BL# 7725

Fee Paid
EXEMPT

Certificate
80292-G

Issued in accordance with application duly executed by the person shown below who has agreed to comply with all applicable laws, rules and regulations

WALTER L RILEY
PRINCE WILLIAM CO PUBLIC SCHOOLS

Sandra J. Adams
Commissioner

Liza Fleeson Trossbach
Authorized Representative

VIRGINIA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

P-O BOX 1163, RICHMOND VA 23218-1163

PESTICIDE APPLICATOR CERTIFICATE

Issued		Fee Paid	Certificate
05/09/2017	GOVT EMPLOYEE FOR BL# 2632	EXEMPT	78459-G
Expires 06/30/2019			

Issued in accordance with application duly executed by the person shown below who has agreed to comply with all applicable laws, rules and regulations

COREY A ALLEN
FAIRFAX COUNTY PUB SCHOOLS

Sandra J. Adams
Commissioner

Liza J. Fleeson
Authorized Representative

VIRGINIA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

P O BOX 1163, RICHMOND VA 23218-1163

PESTICIDE APPLICATOR CERTIFICATE

Issued		Fee Paid	Certificate
05/07/2018	GOVT EMPLOYEE FOR BL# 2632	EXEMPT	72674-G

Expires
06/30/2019

Issued in accordance with application duly executed by the person shown below who has agreed to comply with all applicable laws, rules and regulations

MICHAEL B MURPHY
FAIRFAX COUNTY PUB SCHOOLS
P O BOX 1178
HERNDON,VA 20172

Sandra J. Adams
Commissioner

Liza Fleeson Trossbach
Authorized Representative

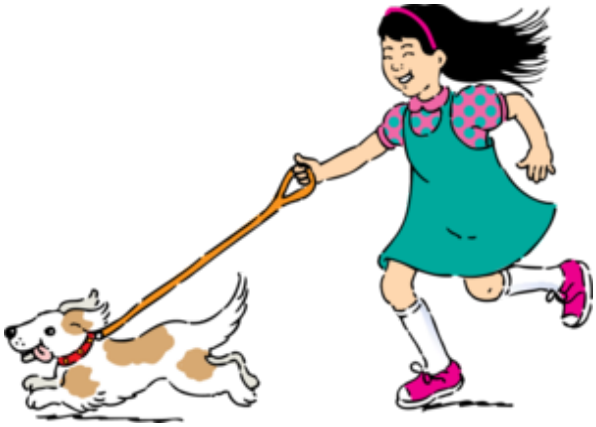
POOPER SCOOPER ORDINANCE ENFORCING HEALTH NOTICE SIGNS

FACT SHEET: SAF-8

WHAT YOU NEED TO KNOW AND WHAT YOU SHOULD DO ABOUT ENFORCING THE POOPER SCOOPER ORDINANCE

Can citizens really be prohibited from bringing their dogs onto school property since these are public grounds?

The answer is **YES**. There are three county ordinances that can help you "curb" the problem of unwanted animals on school grounds. They are:



1. **Section 41.1-2-15 - Permitting animals to trespass**

   This section prohibits trespassing by animals. It states that no pet owner shall permit their animal to trespass on another' premises after being requested by the owner or tenant of the property not to let the animal come on the premises. Our health notice signs ask pet owners not to bring their animals onto school property.

2. **Section 41.1-2-4 - Unrestricted dogs prohibited: leash law**

   No dog is allowed to run unrestricted in the County. If there is an unleashed dog on your school grounds, call the Animal Warden to remove the dog. Exceptions to this would be animals that are under direct supervision while hunting (but not on school property), engaged in a formal obedience training class, or during formally sanctioned field trials.

3. **Section 41.1-2-6 - Animals causing unsanitary conditions**

   Requires the owner of a dog to remove their dogs excreted deposits from the property of another, including school grounds. If an owner and their dog come onto school property, ask them to take their dogs "deposits" with them as they leave.

Staff that encounter citizens with animals on school property should politely remind the citizen that animals are not allowed on school property. If needed staff members should call FCPS School Security at 571-423-2000 to ask for assistance.

The Office of Safety and Security posts signs at school property entrances to remind citizens that their animals are prohibited on school property. If your school needs any of these signs please call the Office of Safety and Security at 571-423-2010.

For more information, please contact the Office of Safety and Security at 571.423.2010.

Fairfax County PUBLIC SCHOOLS
ENGAGE • INSPIRE • THRIVE

CANADA GEESE

FACT SHEET: SEH-21

- **WHAT ARE CANADA GEESE?**
  Historically, Canada geese (*Branta canadensis*) migrated through the eastern United States from breeding grounds in Canada to wintering habitats in the southern states. These migratory waterfowl are protected from harm by the Migratory Bird Treaty Act of 1918. The Canada geese that do not migrate, but instead remain in Virginia year-round, are referred to as "local breeding" or "resident" Canada geese. Since these are no longer migratory birds, and have become a nuisance on playgrounds and golf courses, some would argue that they no longer deserve regulatory protection. Nevertheless, they remain on the protected species list, and harming them continues to be a punishable offense except under the conditions of a permit issued by the regulatory authority. Harmless harassment, however, is not prohibited.
- **WHAT CAN BE DONE TO CHASE AWAY RESIDENT CANADA GEESE OR TO DISCOURAGE THEIR GRAZING OR NESTING?**
  The Canada geese have so completely adapted to their new sedentary existence that they have learned to ignore the various means employed to chase them away. Not even boisterous children playing will move them. Barriers and other exclusion methods such as fencing, hedgerows, or wire grids are effective in preventing their landing and grazing, but these methods are not consistent with school property use.
- **WHAT IF GEESE ARE NESTING AND CAUSING SAFETY CONCERNS FOR FCPS STUDENTS AND STAFF?**
  Because they are very protective of their nesting sites, nesting geese can be very aggressive to anyone in the vicinity of their nest, even if unprovoked. If you witness geese nesting in an area where students or staff commonly pass by or occupy, call the Safety Office at 571-423-2010.
- **WHAT ABOUT TRAPPING AND REMOVING THE GEESE TO ANOTHER LOCATION?**
  Trapping and transporting is not cost-effective. A cooperative cost-share capture and removal program is provided by federal and state agencies. However, captured Canada geese are not relocated to alleviate damage or conflicts with humans because Canada geese cause damage or conflicts statewide. Federal and state agencies understandably do not wish to transfer the nuisance from one locality to another. *Instead, captured Canada geese are processed by a meat processor and donated to food banks to feed people in need*. Public opinion would not likely tolerate this method of control.
- **WHY CAN'T DOGS BE USED TO CHASE THE GEESE AWAY?**
  Allowing dogs to run loose on school property would be in violation of the Fairfax County leash law, though the use of free-ranging dogs trained to chase birds soon after landing has been demonstrated to be an effective control measure. The use of slip wires to control the dogs will restrict their movement, allowing the geese to simply move beyond their reach.
- **OK! SO, WE'RE NOT GOING TO GET RID OF THEM. WHAT CAN BE DONE TO MINIMIZE THE ADVERSE EFFECT OF GEESE ON SCHOOL PLAYGROUNDS?**

  ✓ Discourage the feeding of geese on school property by posting signs saying Keep "wild" in wildlife. Feeding ducks and geese is prohibited. Posting reminders in school publications may also be helpful.
  ✓ Inspect the playground for fresh droppings immediately before use to determine where the geese have been most recently grazing. Fresh droppings are green and squishy; day-old or older droppings are brown, dried, and not as messy. Instruct the children to avoid the playground areas where fresh droppings may be present.
  ✓ Use a garden hose to rinse droppings from walkways near building exits before children are allowed to go outdoors. Staff should ensure that droppings and rinse water not flow into a storm drain or gutter system.
  ✓ Place walk-off mats inside the doors to be entered from the playground. Instruct children to wipe the bottoms of their shoes carefully and have teachers check the bottoms of the children's shoes as they step from the walk-off mat.
  ✓ Instruct children to wash their hands carefully after playing on the playground.

For more information, please contact the Office of Safety and Security at 571.423.2010.

APPENDIX F

Permit Termination Documents

MEMORANDUM OF UNDERSTANDING
between the
FAIRFAX COUNTY BOARD OF SUPERVISORS, VIRGINIA
and the
FAIRFAX COUNTY SCHOOL BOARD

This Memorandum of Understanding ("MOU") is entered into this 8th day of August, 2017 by and between the Board of Supervisors of Fairfax County, Virginia (the "County") and the Fairfax County School Board (the "School Board").

WHEREAS, the County and the School Board share the common objective of achieving compliance with stormwater regulatory requirements and permitting obligations, as well as protecting water resources for the benefit of the residents of Fairfax County; and

WHEREAS, the County and the School Board are subject to the Virginia Stormwater Management Act (§62.1-44.15:24 et seq, Code of Virginia), the Erosion and Sediment Control Act (§62.1-44.15:51 et seq, Code of Virginia), and the Chesapeake Bay Preservation Act (§62.1-44.15:67 et seq, Code of Virginia), and their attendant regulations; and

WHEREAS, the County and the School Board each operate a municipal separate storm sewer system ("MS4") as defined in the Virginia Stormwater Management Program ("VSMP") Regulation (9VAC25-870); and

WHEREAS, the discharge of stormwater from the MS4 owned and operated by the County is subject to an individual state permit (Permit No. VA0088587), which became effective April 1, 2015 and will expire March 31, 2020; and

WHEREAS, the discharge of stormwater from the MS4 owned and operated by the School Board is subject to a general state permit (Permit No. VAR040104), which became effective July 1, 2013 and will expire June 30, 2018; and

WHEREAS, in accordance with the County's individual state permit, upon formal request for permit termination by the School Board and submittal of an executed agreement between the County and the School Board, the Virginia Department of Environmental Quality ("Virginia DEQ") will begin termination procedures for the School Board's general permit and once terminated, the discharge of stormwater from the MS4 owned and operated by the School Board will be covered under the County's individual state permit; and

WHEREAS, it is the intention of the School Board to request termination of the School Board general permit and to implement a joint MS4 program with the County;

NOW THEREFORE, the County and the School Board enter into this MOU to define the roles and responsibilities of each entity for implementation of a joint MS4 program both immediately upon execution of this MOU and upon termination of the School Board general permit.

The following acronyms are used in this document:

FCPS .....Fairfax County Public Schools
ISD .....FCPS Instructional Services Department
ODC .....FCPS Office of Design and Construction
OFM.....FCPS Office of Facilities Management
OSS .....FCPS Office of Safety and Security
DPWES.....Fairfax County Department of Public Works and Environmental Services
FRD.....Fairfax County Fire and Rescue Department
LDS .....Land Development Services, Fairfax County DPWES
STW .....Stormwater Management, Fairfax County DPWES
VESCP .....Virginia Erosion and Sediment Control Program
VPDES.....Virginia Pollutant Discharge Elimination System
VSMP.....Virginia Stormwater Management Program

RESPONSIBILITIES THAT WILL TAKE EFFECT IMMEDIATELY UPON EXECUTION OF THIS MOU:

FCPS General Permit Element (VAR040104)	School Board		County	
	Lead	**Activity**	**Lead**	**Activity**
General	OFM	Provide County staff points of contact through which to coordinate roles, address issues, and make approvals as needed. Allow County staff reasonable access to FCPS facilities to conduct all activities required by the applicable MS4 permit. Follow established County standard operating procedures (SOPs) applicable to FCPS MS4 activities. Implement the FCPS MS4 Program Plan submitted to Virginia DEQ. This includes providing adequate program funding, staffing and equipment maintenance to support program implementation.	STW	Provide the FCPS staff points of contact through which to coordinate roles, address issues, and make approvals as needed. Coordinate all FCPS facility visits with the authorized FCPS office or management staff. Reasonable notice will be provided for routine (e.g., planned) operations, however this may not be possible in emergency (e.g. unplanned) situations. All County activities on FCPS property shall be conducted consistent with FCPS rules and policies and its educational purpose. Provide FCPS with electronic copies of all established County SOPs applicable to FCPS MS4 activities. Prior to June 30 of each year, develop, with review and approval by FCPS, updates as necessary to the FCPS MS4 Program Plan.
Special conditions for approved total maximum daily loads (TMDLs) other than the Chesapeake Bay (Section I.B)	OFM	Implement FCPS TMDL action plans submitted to Virginia DEQ.	STW	Fund and construct stormwater retrofit projects on FCPS property, at locations approved by FCPS, in accordance with the TMDL action plans, including securing all required permits.
	ODC	Coordinate the schematic design of all new FCPS capital improvement projects with County staff to consider opportunities to provide stormwater management controls beyond what is required to comply with the technical criteria for regulated land	STW	Participate in the design of FCPS capital improvement projects by reviewing schematic site plans to identify opportunities to enhance stormwater controls. Comments and suggested enhancements will be provided in a timely fashion in

FCPS General Permit Element (VAR040104)	School Board		County	
	Lead	Activity	Lead	Activity
		disturbing activities and with any proffered conditions.		accordance with the Partnership Project Process document. At the discretion of the County, fund and provide engineering support to FCPS to enhance stormwater management facilities constructed to meet MS4 Permit requirements that exceed County development standards.
Special condition for the Chesapeake Bay TMDL (Section I.C)	OFM	Implement the FCPS Chesapeake Bay TMDL Action Plan submitted to Virginia DEQ.	STW	Fund and construct stormwater retrofit projects on FCPS property, at locations approved by FCPS, in accordance with the FCPS Chesapeake Bay TMDL Action Plan, including securing all required permits.
	ODC	Coordinate the schematic design of all new FCPS capital improvement projects with County staff to consider opportunities to provide stormwater management controls beyond what is required to comply with the technical criteria for regulated land disturbing activities and with any proffered conditions.	STW	Participate in the design of FCPS capital improvement projects by reviewing schematic site plans to identify opportunities to enhance stormwater controls. Comments and suggested enhancements will be provided in a timely fashion in accordance with the Partnership Project Process document. At the discretion of the County, fund and provide engineering support to FCPS to enhance stormwater management facilities constructed to meet regulatory requirements.
Public education and outreach on stormwater impacts (Section II.B.1)	ISD, OFM	Implement actions identified in Section II.B.1 of the permit, including the adopted FCPS Public Education and Outreach Plan.	STW	Review and provide comments on draft updates to the FCPS Public Education and Outreach Plan.
Public involvement/ participation (Section II.B.2)	ISD, OFM	Implement actions identified in Section II.B.2 of the permit.		
	OFM	Implement actions identified in Section II.B.3 of the permit, with the exception of actions	STW	Conduct dry weather screening to detect potential illicit discharges to the MS4 in accordance with

FCPS General Permit Element (VAR040104)	School Board		County	
	Lead	Activity	Lead	Activity
Illicit discharge detection and elimination (Section II.B.3)		that will be implemented by the County as set forth in this agreement.		Section II.B.3.c of the general permit. Any suspected illicit discharge will be reported to FCPS for source identification and elimination.
	ODC	Provide as-built plans for all new stormwater management infrastructure to the County.	STW	Maintain an accurate storm sewer system map and information tables for FCPS in accordance with Section II.B.3.a of the general permit.
Construction site stormwater runoff control (Section II.B.4)	ODC	Implement actions identified in Section II.B.4 of the permit. Ensure that all land disturbing activities subject to the jurisdiction of Fairfax County comply with the Fairfax County Stormwater Management Ordinance and the Erosion and Sediment Control Ordinance (Chapters 124 and 104 of the Code of Fairfax County). Compliance with the requirements laid out in the General VPDES Permit for Discharges of Stormwater from Construction Activities is the responsibility of the construction permit holder.	LDS	Review and inspect all FCPS land disturbing activities subject to the jurisdiction of Fairfax County for compliance with the Fairfax County Stormwater Management Ordinance and the Erosion and Sediment Control Ordinance (Chapters 124 and 104 of the Code of Fairfax County).
Post-construction stormwater management in new development and development on prior developed lands (Section II.B.5)	ODC	Implement actions identified in Section II.B.5 of the permit, with the exception of actions that will be implemented by the County as set forth in this agreement. Ensure that all land disturbing activities subject to the jurisdiction of Fairfax County comply with the Fairfax County Stormwater Management Ordinance (Chapter 124 of the Code of Fairfax County).	LDS	Review and inspect all FCPS land disturbing activities subject to the jurisdiction of Fairfax County for compliance with the Fairfax County Stormwater Management Ordinance (Chapter 124 of the Code of Fairfax County)..

FCPS General Permit Element (VAR040104)	School Board		County	
	Lead	**Activity**	**Lead**	**Activity**
	OFM	Implement actions identified in Section II.B.5 of the permit, with the exception of actions that will be implemented by the County as set forth in this agreement. Perform aesthetic maintenance of stormwater management facilities, including but not limited to: additional mowing beyond stormwater inspection requirements, maintenance of turf and vegetation, maintenance of fences, and litter collection.	STW	Prepare and maintain an inventory of stormwater management facilities on FCPS properties, including information required in Section II.B.5.c of the general permit. Perform and track required stormwater management facility inspections in accordance with the schedule established in the FCPS MS4 Program Plan. Perform and track minor and major rehabilitation and repair as defined in County policies and procedures that is required to ensure proper operation of all FCPS stormwater management facilities.
Pollution prevention/ good housekeeping for municipal operations (Section II.B.6)	OFM	Implement actions identified in Section II.B.6 of the permit, with the exception of actions that will be implemented by the County as set forth in this agreement. Implement approved stormwater pollution prevention plans (SWPPPs) for each high priority facility identified in the FCPS MS4 Program Plan. Develop and ensure implementation, either by FCPS or a third party, of approved nutrient management plans (NMPs) for each property where FCPS is responsible for nutrient applications.	STW	Develop SWPPPs, with review and approval by FCPS, for each high priority facility in accordance with the schedule identified in the FCPS MS4 Program Plan. Provide access to County training programs or materials that will meet the training requirements of the SWPPPs. Identify the total acreage that must come under NMPs in accordance with permit requirements.
Annual reports (Section II.E.3)	OFM	Provide information required by the County to prepare FCPS annual reports.	STW	Provide OFM with a list of information required by the County to prepare annual reports, including when the information is needed to facilitate timely review. Prepare annual reports for review and submittal by FCPS to Virginia DEQ.

RESPONSIBILITIES THAT WILL TAKE EFFECT UPON TERMINATION OF THE FCPS GENERAL PERMIT:

County Permit Element (VA0088587)	School Board		County	
	Lead	Activity	Lead	Activity
General	OFM	Provide County staff points of contact through which to coordinate roles, address issues, and make approvals as needed. Allow County staff reasonable access to FCPS facilities to conduct all activities required by the applicable MS4 permit. Follow established County SOPs applicable to MS4 activities. Implement the Fairfax County MS4 Program Plan submitted to Virginia DEQ. This includes providing adequate program funding, staffing and equipment maintenance to support program implementation.	STW	Provide FCPS staff points of contact through which to coordinate roles, address issues, and make approvals as needed. Coordinate all FCPS facility visits with the authorized FCPS office or management staff. Reasonable notice will be provided for routine (e.g. planned) operations, however this may not be possible in emergency (e.g. unplanned) situations. All County activities on FCPS property shall be conducted consistent with FCPS rules and policies and its educational purpose. Provide FCPS with electronic copies of all established County SOPs applicable to MS4 activities. Establish a process to obtain FCPS input into the development and update of the Fairfax County MS4 Program Plan.
Planning (Section I.B.1)	ODC, OFM		STW	Implement actions identified in Section I.B.1 of the permit.
Construction Site Runoff and Post Construction Runoff from Areas of New Development and Development on Prior Developed Lands	ODC	Ensure that all land disturbing activities subject to the jurisdiction of Fairfax County comply with the Fairfax County Stormwater Management Ordinance and the Erosion and Sediment Control Ordinance (Chapters 124 and 104 of the Code of Fairfax County). Fund stormwater management facilities required to meet	LDS	Implement actions identified in Section I.B.2.a of the permit. Review and inspect all FCPS land disturbing activities subject to the jurisdiction of Fairfax County for compliance with the Fairfax County Stormwater Management Ordinance and the Erosion and Sediment Control Ordinance (Chapters 124 and

County Permit Element (VA0088587)	School Board		County	
	Lead	Activity	Lead	Activity
(Section I.B.2.a)		regulatory requirements and any proffered conditions. Compliance with the requirements laid out in the General VPDES Permit for Discharges of Stormwater from Construction Activities is the responsibility of the construction permit holder.		104 of the Code of Fairfax County).
Retrofitting on Prior Developed Lands (Section I.B.2.b)	ODC, OFM	Designate individuals to participate in the County's project selection and implementation process for any projects located on FCPS property.	STW	Implement actions identified in Section I.B.2.b of the permit.
Roadways (Section I.B.2.c)	OFM	Provide, and update annually as needed, a list of FCPS maintained roads, streets, and parking lots with the information required in Section I.B.2.c of the permit. Implement on FCPS property the written SOP developed by the County for roads, streets, and parking lots. Implement on FCPS property the written SOP developed by the County for snow and de-icing operations. Implement on FCPS property the County prohibition of the application of any deicing agent containing urea or other forms of nitrogen or phosphorus to FCPS parking lots, roads, and sidewalks or other paved surfaces.	STW	Implement actions identified in Section I.B.2.c of the permit.
Pesticide, Herbicide, and Fertilizer Application	OFM	Develop and ensure implementation, either by FCPS or a third party, of approved nutrient management plans (NMPs) for each property	STW	Implement actions identified in Section I.B.2.d of the permit.

County Permit Element (VA0088587)	School Board		County	
	Lead	Activity	Lead	Activity
(Section I.B.2.d)		where FCPS is responsible for nutrient applications. Implement on FCPS property SOPs or guidelines developed by the County for the application, storage, transport and disposal of pesticides, herbicides, and fertilizers. Track and annually report to the County the total number of acres of FCPS land upon which nutrients are applied, the acreage where NMPs are required, and the acreage where NMPs have been implemented. Track and annually report to the County the total number of acres managed under Integrated Pest Management (IPM) plans.		
Illicit Discharges and Improper Disposal (Section I.B.2.e)	OFM, OSS	Implement on FCPS property all plans, SOPs, policies, and other measures developed by the County to meet the requirements of Section I.B.2.e of the permit. Identify, and eliminate within 30 days, the source of any suspected illicit discharge or improper disposal reported by STW on FCPS property. Where elimination of an illicit discharge within 30 days is not possible, FCPS will propose an expeditious schedule for removal of the discharge. In the interim, FCPS shall take all reasonable and prudent measures to minimize the discharge of pollutants to the MS4.	STW	Implement actions identified in Section I.B.2.e of the permit. Any suspected illicit discharge from FCPS property will be reported to FCPS for source identification and elimination.
Spill Prevention and Response (Section I.B.2.f)	OFM, OSS	Implement on FCPS property a program to prevent, contain, and respond to spills that may discharge into the MS4 that is	FRD	Implement actions identified in Section I.B.2.f of the permit.

County Permit Element (VA0088587)	School Board		County	
	Lead	Activity	Lead	Activity
		consistent with the County's program. Track and report to the County a list of spills, the sources, and a description of follow-up activities taken.		
Industrial and High Risk Runoff (Section I.B.2.g)			STW	Implement actions identified in Section I.B.2.g of the permit.
Stormwater Infrastructure Management (Section I.B.2.h)	OFM	Provide full site plans and as-built drawings for all new stormwater management infrastructure to the County. Provide additional information on new and existing stormwater management infrastructure to the County upon request and in a timely manner, or within one month of the initial request. Maintain all on-site storm sewer infrastructure, including catch basins and pipes, that collects and conveys stormwater runoff originating from FCPS property. Perform reasonable aesthetic maintenance of stormwater management facilities, including but not limited to: additional mowing beyond stormwater inspection requirements, maintenance of turf and vegetation, maintenance of fences, and litter collection.	STW	Implement actions identified in Section I.B.2.h of the permit. Maintain an accurate storm sewer system map and information tables for FCPS properties in accordance with the permit. Inspect and maintain all storm sewers that serve through-drainage located on FCPS property. Prepare and maintain an inventory of stormwater management facilities located on FCPS property. Perform and track required stormwater management facility inspections in accordance with the schedule established in the Fairfax County MS4 Program Plan. Perform and track minor and major rehabilitation and repair needs as defined in County policies and procedures that are required to ensure proper operation of all FCPS stormwater management facilities.
County Facilities (Section I.B.2.i)	OFM	Implement on FCPS property the County prohibition of the discharge of wastewater or FCPS vehicle wash water into	STW	Implement actions identified in Section I.B.2.i of the permit. Provide FCPS with a SOP that can be used to meet the

County Permit Element (VA0088587)	School Board		County	
	Lead	Activity	Lead	Activity
		the MS4 without authorization from a separate VPDES permit and of the dumping of collected yard waste and grass clippings into the MS4. Implement procedures to prevent fluids leaked from FCPS vehicles from entering the storm drain system and to ensure that they are cleaned up and disposed of properly in accordance with the permit. Allow the County to install markings on all stormwater inlets located on high priority FCPS facilities and FCPS facilities with greater than two acres of impervious surface. Apply for all necessary VPDES permits determined to be required by Virginia DEQ for FCPS facilities. Implement approved SWPPPs for each high priority FCPS facility identified in the Fairfax County MS4 Program Plan.		requirement to implement procedures regarding FCPS vehicle leaks. Develop SWPPPs, with review and approval by FCPS, for each high priority FCPS facility in accordance with the schedule identified in the Fairfax County MS4 Program Plan.
Public Education (Section I.B.2.j)	ISD, OFM	Designate individuals to participate in the development of the County's public education and outreach plan. Implement items in the County's public education and outreach plan where FCPS is identified as a responsible party. Track and report to the County annually a list of all public education and outreach efforts completed in accordance with the County plan, including an estimate of the population reached for each effort.	STW	Implement actions identified in Section I.B.2.j of the permit. Integrate FCPS educational programs in the public education and outreach plan developed by the County.
Training (Section I.B.2.k)	OFM	Provide training to FCPS employees or participate in	STW	Implement actions identified in Section I.B.2.k of the permit.

County Permit Element (VA0088587)	School Board		County	
	Lead	**Activity**	**Lead**	**Activity**
		County training on all relevant topics in the permit. Annually provide documentation that FCPS employees and contractors applying pesticides and herbicides are properly certified per the Virginia Pesticide Control Act (§3.2-3900 et seq, Code of Virginia). Annually provide documentation that FCPS plan reviewers, inspectors, program administrators, and construction site operators have obtained the appropriate certifications required under the Virginia Erosion and Sediment Control Law. Track and report to the County annually the list of training events, the dates, and the estimated number of individuals attending each training event.		Provide FCPS access to County training programs or materials that will meet the training requirements.
Water Quality Screening Programs (Section I.B.2.l)	OFM, OSS	Identify, and eliminate within 30 days, the source of any suspected illicit discharge or improper disposal reported by STW on FCPS property. Where elimination of an illicit discharge within 30 days is not possible, FCPS will propose an expeditious schedule for removal of the discharge. In the interim, FCPS shall take all reasonable and prudent measures to minimize the discharge of pollutants to the MS4.	STW	Implement actions identified in Section I.B.2.l of the permit. Any suspected illicit discharge from FCPS property will be reported to FCPS for source identification and elimination.
Infrastructure Coordination (Section I.B.2.m)			STW	Implement actions identified in Section I.B.2.m of the permit.

County Permit Element (VA0088587)	School Board		County	
	Lead	**Activity**	**Lead**	**Activity**
Monitoring Requirements (Section I.C)			STW	Implement actions identified in Section I.C of the permit.
TMDL Action Plan and Implementation (Section I.D)	OFM	Designate individuals to participate in the development of County TMDL action plans. Implement County TMDL action plans in accordance with the actions specified in the individual plans.	STW	Implement actions identified in Section I.B.D of the permit. Incorporate developed FCPS TMDL action plans into Fairfax County's TMDL action plans. Fund and construct stormwater retrofit projects on School Board property in accordance with the TMDL action plans, including securing all required permits.
	ODC	Designate individuals to participate in the development of County TMDL action plans. Coordinate the schematic design of all new FCPS capital improvement projects with County staff to consider opportunities to provide stormwater management controls beyond what is required to comply with the technical criteria for regulated land disturbing activities and with any proffered conditions.	STW	Participate in the design of FCPS capital improvement projects by reviewing schematic site plans to identify opportunities to enhance stormwater controls. Comments and suggested enhancements will be provided in a timely fashion in accordance with the Partnership Project Process document. At the discretion of the County, fund and provide engineering support to FCPS to enhance stormwater management facilities constructed to meet regulatory requirements.
Annual Reporting (Section I.E)	OFM	Provide information required by the County to prepare annual reports in accordance with a schedule developed by the County.	STW	Implement actions identified in Section I.B.E of the permit. Provide OFM with a list of information required by the County to prepare annual reports, including when the information is needed to facilitate timely review.

DURATION, MODIFICATION, TERMINATION, AND ANNUAL REVIEW:
This MOU shall remain in effect unless modified or terminated, as set forth below. Any modifications shall be in writing and signed by both parties. Either party may terminate this MOU with 180 days advance written notice to the other party and with advance written notice to Virginia DEQ in accordance with the permit conditions in force at that time; provided, however, that no such termination by the County shall be effective against the School Board unless/until the School Board obtains any required state permit coverage and that the School Board pursues such coverage with due diligence. To conform to local government charter and Code of Virginia requirements, the funding provisions of the MOU will be subject to annual review and appropriation as appropriate. The parties shall meet once per year on or about the anniversary of the date of this MOU, but no more than ten (10) business days after such anniversary date, for the purpose of reviewing the extent to which the terms of this MOU are being implemented successfully by the parties.

OPERATIONAL AGREEMENTS:

Operational agreements, such as the Partnership Project Process document, designed to facilitate the efficient and orderly implementation of this MOU, provided that they are not in conflict with the provisions contained herein, may be entered into between the Director of the Fairfax County Department of Public Works and Environmental Services and the Fairfax County Public Schools Assistant Superintendent of the Department of Facilities and Transportation Services.

CONFLICT RESOLUTION:
The terms, conditions, and covenants herein constitute the entire agreement and supersede all prior discussions, understandings, agreements, and negotiations between the parties hereto with respect to MS4 permit compliance activities. This MOU shall be governed by and construed and interpreted in accordance with the laws of the Commonwealth of Virginia, without regard to principles of conflicts of laws. Both parties participated in the preparation of the MOU, and no terms or interpretation of the MOU shall be construed against either party. Any dispute arising from the MOU, including but not limited to the scope of responsibilities assigned to the parties, and the discharge of same, shall be resolved at the appropriate staff level whenever possible. Any dispute that cannot be resolved at the staff level will be brought before the Director of the Fairfax County Department of Public Works and Environmental Services for resolution. All requests, proposals, notices and other communication hereunder shall be in writing unless otherwise specified herein.

IN WITNESS THEREOF, the County Executive of Fairfax County and the Superintendent of Fairfax County Public Schools hereby execute this agreement:

Edward L. Long Jr. — 8/15/2017 (Date)
County Executive
County of Fairfax

Scott S. Brabrand, Ed. D. — 8/10/2017 (Date)
Division Superintendent
Fairfax County Public Schools

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Street address: 1111 E. Main Street, Suite 1400, Richmond, Virginia 23219
Mailing address: P.O. Box 1105, Richmond, Virginia 23218
www.deq.virginia.gov

Matthew J. Strickler
Secretary of Natural Resources

David K. Paylor
Director

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

February 26, 2018

Scott S. Brabrand, Ed. D.
Superintendent
Fairfax County Public Schools
8115 Gatehouse Road
Falls Church, VA 22042

RE: Termination of Permit No. VAR040104

Dear Mr. Brabrand:

The Department of Environmental Quality (DEQ) intends to terminate the referenced permit or, if required, recommend that the State Water Control Board terminate the referenced permit for the following reason:

> The Fairfax County School Board has requested termination on the permit in accordance with a Memorandum of Understanding between the Board of Supervisors and the County School Board. The MOU documents the roles and responsibilities for each entity in extending Fairfax County's MS4 Program to cover the School Board's MS4 system.

If you agree with the proposed termination and wish to dispense with the prescribed hearing, please sign, and date the attached agreement form in the spaces provided and return it to this office within 14 days.

If you do not agree with to the termination of this permit and wish a hearing under §62.1-44.15(5) of the Code of Virginia, please contact me as soon as possible.

If you have any comments or questions, please call me at (804) 698-4265.

Sincerely,

Jeffrey Selengut
Office of VPDES Permits

cc: Ms. Anna Tuthill, DEQ-NRO
Enclosure: Termination Agreement Form

Termination Agreement Form

SUBJECT: TERMINATION OF VPDES PERMIT NO. VAR040104

TO: Department of Environmental Quality
Office of VPDES Permits
PO Box 1105
Richmond, VA 23218
Attn: Mr. Jeffrey Selengut

OWNER: Fairfax County Public Schools
8115 Gatehouse Road
Falls Church, VA 22042

I hereby agree to the termination of VPDES Permit No. VAR040104 and waive my right to a hearing in accordance with Section §62.1-44.15(5) of the State Water Control Law for the following reasons:

The Fairfax County School Board has requested termination on the permit in accordance with a Memorandum of Understanding between the Board of Supervisors and the County School Board. The MOU documents the roles and responsibilities for each entity in extending Fairfax County's MS4 Program to cover the School Board's MS4 system.

The Department of Environmental Quality (DEQ) may deliver permits and certifications (this includes permit issuances, reissuances, modifications, revocation and reissuances, terminations and denials) to recipients, including applicants or permittees, by electronically certified mail where the recipients notify DEQ of their consent to receive mail electronically (§ 10.1-1183). Check *only one* of the following to consent to or decline receipt of electronic mail from DEQ as follows:

☒ Applicant or permittee agrees to receive by electronic mail the permit that may be issued for the proposed pollutant management activity, and to certify receipt of such electronic mail when requested by the DEQ.

If yes, provide email: MJCoughlan@FCPS.EDU

☐ Applicant or permittee declines to receive by electronic mail the permit associated with the permit that may be issued for the proposed pollutant management activity.

I certify that the permit is___ or is not X subject to a pending state or federal enforcement action, including citizen suits, brought under state or federal law.

SIGNED: _____

PRINTED NAME: Scott S. Brabrand, Ed. D.

TITLE: Division Superintendent

DATE: 3-8-2018