

ARLINGTON PUBLIC SCHOOLS 2017 PHASE II (SMALL) MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) ANNUAL REPORT



Fiscal Year 2017 Annual Report
Virginia Stormwater Management Program (VSMP)
Permit Number VAR040127
2014 - 2018 Permit Cycle
Submitted September 30, 2017



Table of Contents

Introduction and Background Information.....	2
1. Public Education and Outreach on Stormwater Impacts (MCM 1) & Public Involvement and Participation (MCM 2).....	5
NOAA Chesapeake Bay B WET Program: Sustainable Solutions for Urban Stormwater Management through Project Base Learning (MCMs 1 and 2).....	7
Wetlands Learning Lab (MCMs 1 and 2).....	7
Outdoor Lab (MCMs 1 and 2).....	8
Meaningful Watershed Education Experience (MCMs 1 and 2).....	11
APS Green Scene (MCM 1).....	11
Native Habitats and Outdoor Learning Environments (MCMs 1 and 2).....	12
Sustainability Liaisons (MCMs 1 and 2).....	12
Stormwater Pollution Prevention Plan (SWPPP) Training for Staff (MCMs 1 and 2).....	13
The 2017-2018 School Year Education and Outreach Programs and Public Involvement and Participation (MCM 1 and MCM2).....	13
Publication of Annual Reports and Phase II MS4 Program Plan.....	14
2. Illicit Discharge Detection and Elimination, IDDE (MCM 3).....	14
Notification of Physical Interconnections.....	14
IDDE Program.....	15
Outfall Map.....	15
3. Construction Site Stormwater Runoff Control (MCM 4).....	15
4. Post-Construction Stormwater Management (MCM 5).....	16
Inspection, operation, and maintenance verification of stormwater management facilities.....	16
5. Pollution Prevention / Good Housekeeping for Municipal Operations (MCM6).....	16
Nutrient Management Plan Locations.....	16
Training.....	17
SWPPP Training.....	17
Spill Response Training.....	17
Pesticide Application Certification.....	17
Erosion and Sediment Control Certification.....	17
Appendix A: Outdoor Lab Schedule by School.....	19
Appendix B: Dry Weather Screening Results.....	21

Introduction and Background Information

Arlington Public Schools (APS) Department of Facilities and Operations prepared this annual report for our Phase II (small) Municipal Separate Storm Sewer System (MS4) permit number VAR040127, issued on April 18, 2014. This report covers the period of July 1, 2016, through June 30, 2017. For this reporting period, there are no modifications to any operator's department's roles and responsibilities. In this reporting period, the acreages for Abingdon Elementary School and Discovery Elementary School have been corrected based on real estate property deeds. Several other school properties are under review with Arlington County Government and APS regarding boundaries and right of way. When these dedications are updated they will be reflected in our annual report. There are no new MS4 outfalls or associated acreage by HUC added, and there were no changes to measurable goals for any minimal control measures. Table 1 lists all APS properties, their size, and the watershed in which they lie.

#	FACILITY	ADDRESS	WATER BODY	HYDROLOGIC UNIT CODE	ACRES
1	Abingdon Elementary School	3035 South Abingdon Street Arlington, VA 22206	Potomac River - Four Mile Run	PL25	9.02
2	Arlington Career Center	816 South Walter Reed Drive Arlington, VA 22204	Potomac River - Four Mile Run	PL25	7.87
3	Arlington Science Focus Elementary School	1501 North Lincoln Street Arlington, VA 22201	Potomac River - Pimmit Run	PL24	6.71
4	Arlington Traditional Elementary School	855 North Edison Street Arlington, VA 22205	Potomac River - Four Mile Run	PL25	7.83
5	Ashlawn Elementary School	5950 North 8th Road Arlington, VA 22205	Potomac River - Four Mile Run	PL25	7.13
6	Barcroft Elementary School	625 South Wakefield Street Arlington, VA 22204	Potomac River - Four Mile Run	PL25	5.13
7	Barrett Elementary School	4401 North Henderson Road Arlington, VA 22203	Potomac River - Four Mile Run	PL25	4.92
8	Campbell Elementary School	737 South Carlin Springs Road Arlington, VA 22204	Potomac River - Four Mile Run	PL25	8.48
9	Carlin Springs Elementary School	5995 South 5th Road Arlington, VA 22204	Potomac River - Four Mile Run	PL25	4.2
10	Claremont Elementary School	4700 South Chesterfield Road Arlington, VA 22206	Potomac River - Four Mile Run	PL25	14.8
11	Discovery Elementary School	5241 North 36 th Street Arlington, VA 22207	Potomac River - Pimmit Run	PL24	15.2
12	Drew Elementary School	3500 South 23rd Street Arlington, VA 22206	Potomac River - Four Mile Run	PL25	8.86
13	Glebe Elementary School	1770 North Glebe Road Arlington, VA 22207	Potomac River - Four Mile Run	PL25	7
14	Gunston Middle School	2700 South Lang Street Arlington, VA 22206	Potomac River - Four Mile Run	PL25	19.66

Arlington Public Schools Phase II (small) MS4 2017 Annual Report

#	FACILITY	ADDRESS	WATER BODY	HYDROLOGIC UNIT CODE	ACRES
15	H-B Woodlawn Secondary Program	4100 North Vacation Lane Arlington, VA 22207	Potomac River - Pimmit Run	PL24	9.07
16	Patrick Henry Elementary School	701 South Highland Street Arlington, VA 22204	Four Mile Run - Pimmit Run	PL25	4.18
17	Hoffman-Boston Elementary School	1415 South Queen Street Arlington, VA 22204	Potomac River - Four Mile Run	PL25	8.6
18	Jamestown Elementary School	3700 North Delaware Street Arlington, VA 22207	Potomac River - Pimmit Run	PL24	10.16
19	Jefferson Middle School	125 South Old Glebe Road Arlington, VA 22204	Potomac River - Four Mile Run	PL25	8.63
20	Kenmore Middle School	200 South Carlin Springs Road Arlington, VA 22204	Potomac River - Four Mile Run	PL25	26.68
21	Key Elementary School	2300 Key Boulevard Arlington, VA 22201	Potomac River - Pimmit Run	PL24	4.77
22	Langston High School Continuation Program	2121 North Culpepper Street Arlington, VA 22207	Potomac River - Four Mile Run	PL25	2.53
23	Long Branch Elementary School	33 North Filmore Street Arlington, VA 22201	Potomac River - Pimmit Run	PL24	2.51
24	McKinley Elementary School	1030 North McKinley Road Arlington, VA 22205	Potomac River - Four Mile Run	PL25	7.52
25	Nottingham Elementary School	5900 North Little Falls Road Arlington, VA 22207	Potomac River - Pimmit Run	PL24	8.94
26	Oakridge Elementary School	1414 South 24th Street Arlington, VA 22202	Potomac River - Four Mile Run	PL25	8.08
27	Randolph Elementary School	1306 South Quincy Street Arlington, VA 22204	Potomac River - Four Mile Run	PL25	6.91
28	Reed-Westover	1644 North McKinley Road Arlington, VA 22205	Potomac River - Four Mile Run	PL25	8.52
29	Swanson Middle School	5800 North Washington Blvd Arlington, VA 22205	Potomac River - Four Mile Run	PL25	6.72
30	Taylor Elementary School	2600 North Stuart Street Arlington, VA 22207	Potomac River - Pimmit Run	PL24	14.47
31	The Trade Center	2770 South Taylor Street Arlington, VA 22206	Potomac River - Four Mile Run	PL25	5.96
32	Tuckahoe Elementary School	6550 North 26th Street Arlington, VA 22213	Potomac River - Four Mile Run	PL25	4.69
33	Vacant Residential Lot	5721 South 4th Street, Arlington VA 22204	Potomac River - Four Mile Run	PL25	0.13

Arlington Public Schools Phase II (small) MS4 2017 Annual Report

#	FACILITY	ADDRESS	WATER BODY	HYDROLOGIC UNIT CODE	ACRES
34	Wakefield High School	1325 South Dinwiddie Street Arlington, VA 22206	Potomac River - Four Mile Run	PL25	34.79
35	Washington-Lee High School	1301 North Stafford Street Arlington, VA 22201	Potomac River - Pimmit Run	PL24	22.61
36	Williamsburg Middle School	3600 North Harrison Street Arlington, VA 22207	Potomac River - Pimmit Run	PL24	9.57
37	Wilson School	1601 Wilson Boulevard Arlington, VA 22201	Potomac River - Pimmit Run	PL24	2.67
38	Yorktown High School	5200 Yorktown Boulevard Arlington, VA 22207	Potomac River - Pimmit Run	PL24	10.84
TOTAL APS PROPERTY ACREAGE:					355.99

Table 1. Arlington Public School Properties and Respective Receiving Watershed.

The reporting elements in this annual report follow the information provided in APS' initial MS4 Program Plan submitted with the permit registration statement and with the Program Plan updated in 2017. Background and detailed information about APS' stormwater and watershed management program are found on the APS Stormwater Management website¹. APS has paid the Phase II MS4 annual permit maintenance fee for permit number VAR040127 by check number 8025530 dated 9/01/17. Table 2 identifies a list of agency acronyms used throughout this report.

Agency	Acronym
Arlington County Fire Department	ACFD
Arlington County Government	ACG
Arlington County Police Department	ACPD
Arlington Public Schools	APS
Arlington County Department of Parks and Recreation	DPR
Arlington County Department of Environmental Services	DES
Virginia Department of Environmental Quality	DEQ

Table 2. Agency Acronyms.

There were no changes to measurable goals for any minimal control measures. Progress toward goals is documented in the following sections of this Annual Report. As explained in Section 4 (MCM 5) of this report, a separate spreadsheet listing the BMPs installed during the associated reporting period (July 1, 2016 - June 30, 2017) has been submitted along with this Annual Report.

¹ <https://www.apsva.us/aps-goes-green/stormwater-management-program/>

1. Public Education and Outreach on Stormwater Impacts (MCM 1) & Public Involvement and Participation (MCM 2)

For this reporting period, APS has a student population of 26,152 and a full-time equivalent (FTE) staff population of approximately 4,700.

APS' three priority issues for outreach and education are: using techniques that keep water onsite and or reduce imperviousness; litter prevention; and the importance of native plants for preventing soil erosion. In this reporting period, APS educated and involved more than 20% of their target audience which include students, teachers, and other non-teaching staff on issues and or in events related to the reduction of stormwater pollution and the three priority issues.

High priority APS staff have been identified to include our maintenance, custodial, and transportation staff. These staff members participate annually in our stormwater training.

Table 3 summarizes by priority issue, the corresponding educational program, the corresponding standards of learning for students, its target audience, the estimated number of students and staff educated or that participated in an education initiative, and the estimated percentage of engagement. Following the table is a summary of each APS education and participation initiative.

Issue	Corresponding Program	Corresponding SOLs	Target Audience	Estimated Number of Students and Staff Reached	Estimated Percentage of Student and Staff Engagement
Reduce Imperviousness / Keep Water on Site	NOAA Chesapeake B-WET Program	K.5b; K.11c; 1.8a-b; 3.6d; 3.9a-e; 4.5f; 4.9a; 6.1, 6.5e-f; 6.7a; 6.7f; 6.9a; 6.9c-d; LS.1, LS.6a-c; LS.9, LS.10, LS.11, ES.1, ES.2, ES.6, ES8c-e; BIO.1, BIO.2, BIO.6, BIO.7, BIO.8	Teachers – Year 1	23	> 20%
	Wetlands Learning Lab		Students, Teachers	494	
	Outdoor Lab		Students, Teachers	6,900	
	Meaningful Watershed Education Experience (MWEE) – Middle School		Students, Teachers	1,800	
	Green Scene		Students, Staff, Community	1,250	
	Sustainability Liaisons		Students, Staff	500	
	Stormwater Pollution Prevention Plan (SWPPP) Training	NA	Staff	246	

Arlington Public Schools Phase II (small) MS4 2017 Annual Report

Issue	Corresponding Program	Corresponding SOLs	Target Audience	Estimated Number of Students and Staff Reached	Estimated Percentage of Student and Staff Engagement
Litter Prevention	Meaningful Watershed Education Experience (MWEE) – Middle School	1.8b-c; 3.10a-b; 3.10d; 4.5f; 5.7g; 6.7a; 6.9b-c; LS.6a-c; LS11d-e; ES8d; BIO8d	Students, Teachers	1,800	> 20%
	Green Scene		Students, Staff, Community	1,250	
	Outdoor Lab		Students, Teachers	6,900	
	Sustainability Liaisons		Students, Staff	500	
	SWPPP Training	N/A	APS Staff	246	
Native Plants for Erosion Control	NOAA Chesapeake B-WET Program	K.5b; K.11c; 1.8a-b; 3.6d; 3.9a-e; 4.5f; 4.9a; 6.1, 6.5e-f; 6.7a; 6.7f; 6.9a; 6.9c-d; LS.1, LS.6a-c; LS.9, LS.10, LS.11, ES.1, ES.2, ES.6, ES8c-e; BIO.1, BIO.2, BIO.6, BIO.7, BIO.8	Teachers – Year 1	23	> 20%
	Outdoor Lab		Students, Teachers	6,900	
	Meaningful Watershed Education Experience (MWEE) – Middle School			1,800	
	Native Habitats and Outdoor Learning Environments		Students, Teachers	700	
	Wetlands Learning Lab		Students, Teachers	494	
	Sustainability Liaisons		Students, Staff	500	
	Green Scene		Students, Staff, Community	1,250	

Table 3. Summary of Outreach and Education (MCM 1) and Public Participation and Involvement (MCM 2) Progress

NOAA Chesapeake Bay B WET Program: Sustainable Solutions for Urban Stormwater Management through Project Base Learning (MCMs 1 and 2)

The National Oceanic and Atmospheric Administration (NOAA) Bay Watershed Education and Training (B-Wet) program provides local grants to K-12 districts in the Bay Watershed to focus on project based learning through Meaningful Watershed Educational Experiences (MWEE). This year, APS received a three-year grant for its proposal on Sustainable Solutions for Urban Stormwater Management through Project Based Learning. The goal for this program is to provide all high school biology students with a comprehensive understanding of how stormwater runoff affects the local watersheds and to assist students in developing solutions through project based learning.

The project seeks to accomplish the following objectives:

- By July 2019, 5,400 students and 50 teachers will engage in MWEE;
- By July 2019, pollutants discharged in local streams will be significantly reduced;
- 1,800 students per grant year will gain a comprehensive understanding of stormwater management, watershed stewardship, and human impacts to the environment; and
- Six APS high schools and secondary schools will participate in the NWF Eco-Schools USA program and address the Watersheds, Oceans, and Wetlands Pathways, making them eligible for the Eco-Schools USA Silver award level.



Figure 1 - B-Wet Probeware Use in Classroom

Wetlands Learning Lab (MCMs 1 and 2)

Campbell Elementary School takes advantage of a unique opportunity to expand its hands-on, inquiry-based approach to education by converting a wet and swampy area of their schoolyard into a Wetlands Learning Lab². Overflow from a wetlands spring goes into a dry stream leading to a rain garden and then into a 60x20 foot vegetated bioswale. The bioswale collects ground water from the natural seeps that occur



Figure 2. Campbell ES Wetlands Learning Lab

² <http://campbellschool.org/campbell-outdoor-classroom/>

throughout the area. All the students and staff at Campbell are engaged in the wetlands learning lab.



Figure 3. Student at Campbell Elementary School's Wetlands Learning Lab

Outdoor Lab (MCMs 1 and 2)

The Phoebe Hall Knipling Outdoor Laboratory, located in Fauquier County, is a 210-acre property, owned by the Arlington Outdoor Education Association (AOEA) and leased by APS. The Outdoor Lab is made available to APS as an outdoor science laboratory during the academic year and as an environmental education camp for three weeks each summer. APS provides instruction, financial, and staff support to maintain the Outdoor Lab. Appendix A lists the Outdoor Lab schedule for this reporting period and for next year.

The 2016 - 2017 school year included 6,639 students and 272 staff scheduled for day or overnight visits for specific learning activities. Programs conducted at the laboratory are aligned to grade level science curriculum³ from grade 3 through grade 12. Students learn how their decisions and behavior affect

³ <http://www.outdoorlab.org/education>

other living things. As they acquire knowledge and understanding from and about the environment, students develop competence in evaluating alternatives for using and managing resources.



Figure 4. Campbell Elementary Students Visit the Outdoor Lab

Relevant curriculum for 5th grade⁴ overnight trips includes a stream study in which students catch aquatic animals and assess water quality. High school curriculum⁵ includes field comparison of biotic and abiotic components in aquatic habitats (pond vs. stream) and terrestrial habitats (forest vs. meadow).

Tables 4 - 6 summarize the elementary, middle, and high school students and staff that received watershed education at the Outdoor Lab.

⁴ <http://outdoorlab.org/education/fifth>

⁵ <http://outdoorlab.org/education/hs>

Arlington Public Schools Phase II (small) MS4 2017 Annual Report

Elementary School	Grade 3	Grade 5	Totals	Staff
	Students	Students	Students	
Abingdon	109	71	180	7
Arlington Science Focus	118	92	210	8
Arlington Traditional	70	93	163	7
Ashlawn	104	94	198	8
Barcroft	66	75	141	6
Barrett	75	76	151	6
Campbell	64	48	112	4
Carlin Springs	93	80	173	7
Claremont	134	108	242	10
Discovery	112	85	197	8
Drew Model	86	77	163	7
Glebe	92	83	175	7
Henry	92	81	173	7
Hoffman-Boston	63	48	111	4
Jamestown	82	90	172	7
Key	119	91	210	8
Long Branch	103	77	180	7
McKinley	118	77	195	8
Nottingham	92	59	151	6
Oakridge	139	132	271	11
Randolph	58	63	121	5
Taylor	111	105	216	9
Tuckahoe	97	102	199	8
Grand Total	2,197	1,907	4104	164

Table 4. APS Elementary School Students and Staff 2016-2017 participation at the Outdoor Lab.

Middle School	Grade	Students	Staff
Gunston	7	327	13
H-B Woodlawn	7	83	3
Jefferson	7	319	13
Kenmore	7	279	11
Swanson	7	441	18
Williamsburg	7	389	16
Grand Total		1,838	74

Table 5. APS Middle School Students and Staff 2016-2017 participation at the Outdoor Lab.

School	Grades	Students	staff
H-B Woodlawn	various	75	3
Wakefield	various	100	3
Washington-Lee	various	100	3
Yorktown	various	100	3
Arlington Mill	various	113	4
Career Center	various	75	3
Langston	various	61	2
New Directions	various	25	1
Stratford Program	various	48	12
Grand Total		697	34

Table 6. APS High School Students and Staff 2016-2017 participation at the Outdoor Lab.

Meaningful Watershed Education Experience (MCMs 1 and 2)

A Meaningful Watershed Education Experience (MWEE) integrates field work in the Chesapeake Bay watershed with multidisciplinary classroom activities and instruction. Students then share their discoveries within their schools and communities, both orally and in writing. MWEEs have an intentional connection to the watershed. Experiences focus not only on the Chesapeake Bay, rivers, and streams, but also on terrestrial issues such as native plant species, erosion control, buffer creation, groundwater protection, and pollution prevention.

APS partners with several local and outside organizations to provide support and educational materials to support our MWEE in our middle school curriculum. Our partners include Arlingtonians for a Clean Environment, Bay Backpack, the Chesapeake Bay Program, and Earth Force. Our partners support our teachers as they create projects and curriculum for our students to put them in the driver's seat towards creating sustainable solutions.

APS Green Scene (MCM 1)

Green Scene⁶ is an APS produced outreach program that highlights sustainability efforts throughout our school district. Many of the videos produced every year focus on projects our students and staff are working on or participating in that emphasize the importance of our watershed, litter reduction, and native plant species. Green Scene highlights our students' Meaningful Watershed Education Experience, native outdoor learning environments and gardens, and the Chesapeake Bay. Green Scene is produced by the Arlington Educational Television Department (AETV) in cooperation with APS' Department of School and Community Relations.

⁶ <https://www.apsva.us/aps-green-scene/>

Native Habitats and Outdoor Learning Environments (MCMs 1 and 2)

Most of our elementary schools have outdoor gardens or outdoor learning environments that include native plant species as part of their elementary curriculum. One example is Tuckahoe Elementary's Discovery School Yard⁷. Another elementary school, Arlington Traditional, uses curriculum⁸ from the Virginia Master Gardener program to teach students about native species and environmental conservation.

Many of our schools have rain gardens and other stormwater detention facilities that have been incorporated into a school's instruction. Figure 5 shows Tuckahoe's students learning in their outdoor courtyard.



Figure 5 Tuckahoe Elementary Discovery Schoolyard

Sustainability Liaisons (MCMs 1 and 2)

APS launched a sustainability liaison pilot program this year on the recommendation of its Superintendent's Advisory Committee on Sustainability. The sustainability liaisons are school-based stipend positions that support and coordinate sustainability efforts at their school. The goals for these liaisons are to facilitate communication for APS' sustainability efforts, support stormwater initiatives especially in outreach and education, and support all learners with sustainability activities that address the well-being of the "whole child", a school board top priority.

In our first year, we had eleven (11) liaisons supporting ten (10) schools. Sustainability projects and outreach efforts include:

- growing plants from seedlings,
- reducing single use plastic bottles,
- starting a 4H Junior Masters After School Club,
- teaching the importance of honeybees and our students impact on their community,
- teaching students the importance of reducing trash and promoting recycling,
- learning about composting, and
- promoting alternative modes of transportation to reduce our air pollution and showing our students how air pollution negatively impacts people, plants, and animals in our watershed.



Figure 6 Drew Elementary 4H Junior Masters After School Club

⁷ <https://tuckahoe.apsva.us/discovery-schoolyard/>

⁸ <http://www.ext.vt.edu/topics/lawn-garden/master-gardener/index.html>

Stormwater Pollution Prevention Plan (SWPPP) Training for Staff (MCMs 1 and 2)

For this reporting period, APS has trained the staff on the following procedures:

- August 2016: “Stormwater Pollution Prevention.” 190 bus drivers and attendants were trained on the connection between stormwater pollution and stream water quality and health both for local streams and the Chesapeake Bay. This included regulatory requirements and context, authorized discharges, IDDE, good housekeeping practices, spill reporting, and other requirements of the Phase II MS4 permit, and included excellent visual representations of stormwater pollution.
- September 2016: “Stormwater Pollution Prevention.” 56 Facilities and Operations Personnel were trained on the connection between stormwater pollution and stream water quality and health both for local streams and the Chesapeake Bay. This included regulatory requirements and context, authorized discharges, IDDE, good housekeeping practices, spill reporting, and other requirements of the Phase II MS4 permit, and included excellent visual representations of stormwater pollution.

The 2017-2018 School Year Education and Outreach Programs and Public Involvement and Participation (MCM 1 and MCM2)

For our next 12-month reporting period, APS intends to continue its current programs. We will work with our partners on expanding curriculum to meet our three priority areas with the goal of reaching over 20% of our population in each priority area. We will continue to implement the Sustainable Solutions for Urban Stormwater Management through Project-Based Learning for grade 9 students, participating middle school grades 6-7, and some earth science and environmental science classes.

Issue	Corresponding Program	Target Audience	Estimated Number of Students and Staff Reached	Estimated Percentage of Student and Staff Engagement
Reduce Imperviousness / Keep Water on Site	NOAA Chesapeake B-WET Program	Students, Teachers	1861 students and staff	> 20%
	Wetlands Learning Lab	Students, Teachers	560 students and staff	
	Meaningful Watershed Education Experience (MWEE)	Students, Teachers	1875 students and staff	
	Outdoor Lab	Students, Teachers	6300 students, 275 teachers	
	Outdoor Learning Environments	Students, Teachers	600 students and staff	
	Sustainability Liaisons	Students, Teachers	750 students and staff	
	Green Scene	Students, Staff, Community	1200 students, staff, and community	

Arlington Public Schools Phase II (small) MS4 2017 Annual Report

	SWPPP Training	APS Staff	300 staff	
Litter Prevention	Sustainability Liaisons	Students, Teachers	750 students and staff	> 20%
	Meaningful Watershed Education Experience (MWEE)	Students, Teachers	1875 students and staff	
	Green Scene	Students, Staff, Community	1200 students, staff, and community	
	Outdoor Lab	Students, Teachers	6300 students, 275 teachers	
	SWPPP Training	APS Staff	300 staff	
Native Plants for Erosion Control	Meaningful Watershed Education Experience (MWEE)	Students, Teachers	1875 students and staff	> 20%
	NOAA Chesapeake B-WET Program	Students, Teachers	1861 students and staff	
	Outdoor Lab	Students, Teachers	6575 students and staff	
	Green Scene	Students, Staff, Community	1200 students, staff and community	
	Outdoor Learning Environments	Students, Teachers	600 students and staff	
	Sustainability Liaisons	Students, Teachers	750 students and staff	
	Wetlands Learning Lab	Students, Teachers	560 students and staff	

Table 7. Proposed 2016-2017 School Year Education and Outreach Programs and Estimated Targets.

Publication of Annual Reports and Phase II MS4 Program Plan

APS publishes its Phase II MS4 Permit, annual reports, and program objectives on its dedicated Stormwater Management Program webpage⁹.

2. Illicit Discharge Detection and Elimination, IDDE (MCM 3)

Notification of Physical Interconnections

No interconnections were identified in 2016-2017; consequently, no written notifications of physical interconnection were provided to other MS4s. APS provided ACG with written notification of MS4 interconnection in 2015, as identified in the APS 2015 MS4 Annual Report.

⁹ <https://www.apsva.us/aps-goes-green/stormwater-management-program/>

IDDE Program

In this permit cycle for dry weather screening, APS with its consultant, AECOM, screened nine (9) outfalls. Flowing water was observed at only one of the 9 screened MS4 outfalls. The flowing outfall (ID #16733) at Campbell Elementary School was field screened for chlorine, fluoride, ammonia, surfactants/detergents, and all parameters fell within acceptable ranges as identified in the APS IDDE Program Plan. The source of the flow from the outfall appears to be the Campbell Elementary Wetlands Learning Lab. This outdoor educational area and wildlife study zone has been designed to maintain continually wet conditions due to a naturally occurring springhead and stormwater retention. No illicit connections are present. Appendix B presents a summary of the testing results for all 9 outfalls.

Our IDDE Program Plan may be found on our Stormwater Management Program webpage¹⁰.

Outfall Map

APS' outfall map has been updated in Arlington County Government's (ACG) stormwater GIS this permit year. APS continues to work with ACG on updating and revising stormwater maps as new facilities come online.

3. Construction Site Stormwater Runoff Control (MCM 4)

APS had two (2) regulated land-disturbing activities in this reporting period – construction activities at Abingdon Elementary and McKinley Elementary as highlighted in Table 8. ACG is APS' permitting authority, and ACG performed plan reviews, formal inspections, and enforcement actions on these construction projects. Table 9 summarizes the total number of inspections and enforcement actions performed by ACG.

School	Address	Acres Disturbed
Abingdon Elementary	3035. S. Abingdon Street, 22206	5.2
McKinley Elementary	1030 N. McKinley Road, 22205	3.2
Total		8.4

Table 8. Total Land Disturbing Activities in this Permit Year

Inspections and Enforcement Actions	
Inspections	60
Notice to Comply	40
Written Notice of Violation	8
Stop Work Order	0

Table 9. Inspections and Enforcement Actions

¹⁰ <https://www.apsva.us/aps-goes-green/stormwater-management-program/>

4. Post-Construction Stormwater Management (MCM 5)

APS owns 73 stormwater management BMPs (or “facilities”). A master database containing all of APS’ BMPs is managed by ACG. APS and ACG collaborate closely to make sure this database is up to date. APS inspects all its identified BMPs on an annual basis and conducts maintenance for these facilities at least annually based on our standard operating procedures (SOPs). A separate spreadsheet that lists the BMPs installed during this reporting period shall be submitted to the Department of Environmental Quality (DEQ) along with this annual report.

Inspection, operation, and maintenance verification of stormwater management facilities.

Arlington Public Schools (APS) conducts annual inspections and maintenance on all its stormwater facilities using a third party stormwater contractor. A list of sites and facilities are reviewed and evaluated at the start of each fiscal year. The contractor is required to schedule inspections and maintenance in a timely fashion and provide a detailed report for each site, including photos of the facilities during inspection and after maintenance has been completed. Any repair work needed is identified in the inspection report so that APS may evaluate and schedule required work. APS follows the guidelines established by ACG for the inspection and maintenance of stormwater facilities¹¹. APS’ standard operating procedures (SOPs) for inspection and maintenance closely follows ACG’s inspection checklist. All inspection and maintenance reports are kept at APS’ Department of Facilities and Operations.

5. Pollution Prevention / Good Housekeeping for Municipal Operations (MCM6)

APS engages in good housekeeping at all its properties. APS trains custodial staff on proper disposal of wastewater. A Memorandum on “Use of Custodial Sinks” to all Custodial Building Supervisors reiterating the requirement to pour all wastewater into sinks and not into the MS4 was issued on October 18, 2013. This memo was included in our original registration package.

APS’ Trades Center is located within Arlington County Government’s (ACG) Trades Facility. ACG is the lead agency for managing the SWPPP under their VSMP Permit VA0088579. No new facilities requiring permit coverage were added during this reporting year.

Nutrient Management Plan Locations

ACG applies nutrients for APS’ fields greater than one acre using nutrient management plans (NMPs). A certified turf and landscape nutrient management planner develops these plans. NMPs for school property are located at DPR and a copy is held at APS’ Department of Facilities and Operations. Table 10 identifies all APS fields requiring NMPs. NMPs have been developed and implemented for all locations.

¹¹ <http://environment.arlingtonva.us/stormwater-watersheds/stormwater-at-home/stormwater-management-facility-inspections/>

Arlington Public Schools Phase II (small) MS4 2017 Annual Report

APS lands where nutrients are applied to more than one contiguous acre						
Field Name	Address	Zip Code	Acres	Proposed Year of Plan Developed	Year Plan Developed	Year Plan Implemented
Carver	1415 S. Queen St.	22204	1.46	2015	2015	2015
Drew School / Center	3500 24th Street South	22206	1.69	2016	2016	2016
Gunston Park #1	1401 28th St. S.	22202	1.41	2015	2015	2015
Gunston Park #3	1401 28th St. S	22202	1.29	2015	2015	2015
H-B Woodlawn Secondary School	4100 Vacation Lane	22207	1.37	2015	2015	2015
Jamestown Back	N. 36th St. & N. Delaware St.	22207	1.32	2015	2015	2015
Jamestown Front	N. 36th St. & N. Delaware St.	22207	1.08	2015	2015	2015
Kenmore Middle School #2	200 S. Carlin Springs Dr.	22204	2.01	2015	2015	2015
Nottingham #1	5900 Little Falls Rd.	22207	1.39	2016	2016	2016
Swanson Middle School	5800 N. Washington Boulevard	22205	1.02	2015	2015	2015
Wakefield High School	1325 S. Dinwidde St.	22206	1.79	2016	2016	2016
Washington-Lee HS (SB) and Practice Field	1301 N. Stratford St.	22201	5.72	2015	2015	2015
Total acreage of lands where NMP required.			21.54			
Total acreage of lands where NMP implemented.			21.54			

Table 10. APS sites with Nutrient Management Plans and date of plan development and implementation.

Training

SWPPP Training

As covered under Section 2 of this document, 246 APS staff were given annual training on stormwater pollution prevention this permit year, which includes spill prevention and good housekeeping components. Descriptions of this training may be found on page 13.

Spill Response Training

Spill Response Training is handled by ACG with their safety personnel. Training is required for Arlington County Police Department and Arlington County Fire Department emergency response personnel. Please refer to ACG’s annual report on spill response training.

Pesticide Application Certification

DPR hires a certified contractor who applies nutrients and pesticides on all County and School lands. ACG tracks the status of certifications as part of their MS4 permit obligation. Please refer to their program plan for details. Nutrient Management Plans for school properties are located at DPR and a copy is held at APS’ Department of Facilities and Operations.

Erosion and Sediment Control Certification

APS relies on ACG, as the local government regulatory authority, for permitting, inspection, and enforcement services related to erosion and sediment control. Table 11 lists APS in-house staff and construction management staff certified as stormwater inspectors, ESC inspectors, and one combined stormwater and ESC program administrator.

Arlington Public Schools Phase II (small) MS4 2017 Annual Report

Small MS4 Training And Certifications				
Name	Certification	Certificate Number	Expiration Date	Organization
Cathy Lin	Combined Stormwater and ESC Program Administrator	DPA0102	12/18/2020	APS
Robin Hodges	Stormwater Inspector	SWIN0266	5/22/2018	APS
Robin Hodges	ESC Inspector	ESIN0216	5/22/2018	APS
Renee Adams	Stormwater Inspector	SWIN0147	9/29/2017	Heery
Renee Adams	ESC Inspector	ESIN0148	12/1/2017	Heery

Table 11. Summary of Training and Certifications for Plan Reviewers, Inspectors, Program Administrators and Construction Site Operators at Arlington Public Schools, Virginia.

Appendix A: Outdoor Lab Schedule by School

2016-17 Outdoor Lab Schedule

Elementary

Abingdon	Oct 3, 4; Jun 15-16
Arlington Science Focus	Nov 17-18, Nov 21-22 ; February 9, 10
Arlington Traditional	Sep 14; Mar 13-14, Mar 16-17
Ashlawn	Apr 18, 19; Apr 24-25, Apr 27-28
Barcroft	Sep 7; Sep 8-9
Barrett	Nov 3-4, Nov 9-10 ; Jan 30, 31
Campbell	Nov 14-15 ; Feb 21
Carlin Springs	Mar 20-21, Mar 23-24 ; May 3, 10
Claremont	Oct 13-14, Oct 17-18 ; Nov 28, 29
Discovery	Sep 26-27, Sep 29-30 ; Feb 1, 2
Drew Model	Oct 27-28, Oct 31- Nov 1 ; Mar 15, 22;
Glebe	Oct 20-21, Oct 24-25 ; Dec 14, 15
Patrick Henry	Mar 29, Apr 5; Jun 8-9, Jun 12-13
Hoffman-Boston	Jan 19; Apr 20-21
Jamestown	Nov 2, 7; Mar 6-7, Mar 9-10
Key	Nov 30, Dec 1; May 1-2, May 4-5
Long Branch	Dec 16, 19; Mar 27-28, Mar 30-31
McKinley	Sep 15, 16; May 15-16, May 18-19
Nottingham	May 17, 24; Apr 6-7
Oakridge	Sep 21, 28; Jun 1-2, Jun 5-6
Randolph	Dec 2; Apr 3-4
Taylor	Sep 19-20, Sep 22-23 ; Dec 12, 13
Tuckahoe	Oct 12, 19; May 8-9, May 11-12

Middle

Gunston	Jan 17, 18, 23, 24, 25, 26, 27
HB Woodlawn	Dec 20, 21
Jefferson	Feb 22, 23, 24, 27, 28, Mar 1, 2
Kenmore	Dec 5, 6, 7, 8, 9
Swanson	Jan 3, 4, 5, 6, 9, 10, 11, 12, 13
Williamsburg	Feb 6, 7, 8, 13, 14, 15, 16, 17

High and Other Programs

HB Woodlawn	Oct 26
Wakefield	Apr 26
Washington-Lee	Oct 5
Yorktown	Oct 11
Arlington Mill	Nov 16, Mar 8
Career Center	May 22
Langston	Mar 3
New Directions	Jun 7
Stratford Program	Oct 6, 7

All **bolded** dates are designated as 5th grade overnights

2017-2018 Outdoor Lab Schedule

Elementary

Abingdon	Oct 12-13, Oct 16-17; Apr 18, Apr 25
Arlington Science Focus	Jan 16,17; Apr 2-3, Apr 5-6
Arlington Traditional	Oct 30-31, Nov 2-3 ; Nov 15
Ashlawn	Oct 19-20, Oct 23-24 ; Feb 5,6
Barcroft	Sep 5,6; Sep 7-8
Barrett	Oct 11, Oct 18; Apr 12-13, Apr 16-17
Campbell	Sep 14; May 24-25
Carlin Springs	Oct 2-3, Oct 5-6 ; Apr 4, Apr 10
Claremont	Mar 19-20, Mar 22-23 ; May 2, May 9
Discovery	Oct 4, 10; Mar 5-6, Mar 8-9
Drew Model	Feb 15,16; Jun 11-12, Jun 14-15
Glebe	Apr 26-27, Apr 30-May 1 ; May 29,30
Patrick Henry	Feb 26,27; Apr 19-20, Apr 23-24
Hoffman-Boston	Sep 18-19 ; Feb 23
Jamestown	Sep 20, Sep 27; Nov 20-21, Nov 27-28
Key	Nov 29, 30; Mar 12-13, Mar 15-16
Long Branch	Nov 1, 6; May 17-18, May 21-22
McKinley	Nov 8-9, Nov 13-14, Nov 16-17 ; Dec 13,14
Nottingham	Sep 21, 22; May 31-Jun 1
Oakridge	Jan 18,19; May 10-11, May 14-15
Randolph	Sep 15; Jun 4-5, Jun 7-8
Taylor	Mar 7, Mar 21; May 3-4, May 7-8
Tuckahoe	Sep 25-26, Sep 28-29 ; May 16, May 23

Middle

Gunston	Dec 8, 11,12, Dec 18,19,20,21
HB Woodlawn	Feb 28, Mar 1
Jefferson	Feb 7,8,9, Feb 12,13, Feb 20,21,22
Kenmore	Oct 25, Dec 1, Dec 4,5,6,7,15
Swanson	Jan 22,23,24,25, Jan 29,30,31, Feb 1,2
Williamsburg	Jan 2,3,4,5, Jan 8,9,10,11,12

High and Other Programs

Wakefield	Apr 11
Washington-Lee	Sep 13
Yorktown	Mar 2
Arlington Mill	Sep 11, Jun 13
Arlington Tech	Jun 6
Langston	Sep 12
New Directions	Mar 14
Stratford Program	Oct 26, 27

All **bolded** dates are designated as 5th grade overnights

Appendix B: Dry Weather Screening Results

Site	Structure ID ¹	2016 Structure ID	Date Flow Observed	Flow	Total Chlorine (mg/L)	Fluoride (mg/L)	Ammonia (mg/L)	Surfactants (mg/L)	pH	Visual Indicators of ID	Follow-up	Source Found?
Campbell Elementary	16733	16733	5/9/2017	Yes	0.00	0.08	0.00	0.25	7.88	no	Parameters within acceptable range. No follow-up required.	Yes ²
Campbell Elementary	16825	16825	5/9/2017	No	NA	NA	NA	NA	NA	no	NA	NA
Claremont Elementary	25675	25675	5/9/2017	No	NA	NA	NA	NA	NA	no	NA	NA
Claremont Elementary	35320	230730A	5/9/2017	No	NA	NA	NA	NA	NA	no	NA	NA
Claremont Elementary	30945	230730B	5/9/2017	No	NA	NA	NA	NA	NA	no	NA	NA
Claremont Elementary	25671	25671A	5/9/2017	No	NA	NA	NA	NA	NA	no	NA	NA
Claremont Elementary	35330	25671B	5/9/2017	No	NA	NA	NA	NA	NA	no	NA	NA
Randolph Elementary	24977	24977	5/9/2017	No	NA	NA	NA	NA	NA	no	NA	NA
Randolph Elementary	35815	New Outfall ³	5/9/2017	No	NA	NA	NA	NA	NA	no	NA	NA

Notes:

1. Structure IDs were revised following the 2016 Dry Weather Outfall Screening event. This column reflects the current structure IDs.
2. The source of the flow from outfall 16733 appears to be the Campbell Elementary Wetlands Learning Lab. This outdoor educational area and wildlife study zone has been designed to maintain continually wet conditions due to a naturally occurring springhead and stormwater retention.
3. Outfall 35815 was first identified by APS personnel after dry weather screening was conducted in 2016. This outfall was first screened during Permit Year 3 2017 dry weather screening.
4. NA: Not Applicable