

# ARLINGTON PUBLIC SCHOOLS 2016 PHASE II (SMALL) MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) ANNUAL REPORT



**Fiscal Year 2016 Annual Report**  
**Virginia Stormwater Management Program (VSMP)**  
**Permit Number VAR040127**  
**2014 - 2018 Permit Cycle**  
**Submitted September 30, 2016**



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## 1. Introduction and Background Information

Arlington Public Schools (APS) Department of Facilities and Operation 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, 2015, through June 30, 2016. For this reporting period there are no modifications to any operator's department's roles and responsibilities. In this reporting period, the acreage for Williamsburg Middle School has been subdivided to include our newest elementary school, Discovery Elementary. There are no new MS4 outfalls or associated acreage by HUC added. 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	10.69
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 <sup>th</sup> Street Arlington, VA 22207	Potomac River - Pimmit Run	PL24	15.5
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

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#	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

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#	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
<b>TOTAL APS PROPERTY ACREAGE:</b>					<b>358.33</b>

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 2016. Background and detailed information about APS' stormwater and watershed management program are found on the [APS Stormwater Management website](#). APS has paid the Phase II MS4 annual permit maintenance fee for permit number VAR040127 by check number 8023102 dated 9/16/16. 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.

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

For this reporting period, APS had a student population of 25,238 and a full time equivalent (FTE) staff population of approximately 4,400. The MS4 permit requires reaching a minimum of 20% of the target audience, which would be at least 5,048 students and 880 FTE staff.

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 included 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	Operation Rain Barrel	K.5b; K.11c; 1.8a-b; 3.6d; 3.9a-e; 4.5f; 4.9a; 6.5e-f; 6.7a; 6.7f; 6.9a; 6.9c-d; LS.6a-c; ES8c-e	Students, Staff, Community	6,000	> 20%
	Wetlands Learning Lab		Students, Teachers	494	
	Meaningful Watershed Education Experience (MWEE)		Students, Teachers	1,800	
	Green Scene		Students, Staff, Community	1,250	
	Stormwater Pollution Prevention Plan (SWPPP) Training	NA	Staff	242	

Issue	Corresponding Program	Corresponding SOLs	Target Audience	Estimated Number of Students and Staff Reached	Estimated Percentage of Student and Staff Engagement
Litter Prevention	Adopt a Street/Spot	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	1,000	> 20%
	Meaningful Watershed Education Experience (MWEE)		Students, Teachers	1,800	
	Green Scene		Students, Staff, Community	1,250	
	Outdoor Lab		Students, Teachers	6,400	
	SWPPP Training		APS Staff	242	
Native Plants for Erosion Control	Meaningful Watershed Education Experience (MWEE)	K10.a-b; 1.8a-b; 2.7b; 2.8d; 3.7d; 3.10c; 4.5f; 5.7f-g; 6.5c; 6.7a; 6.9a-d; LS.6a-c; ES7a; BIO8d-e	Students, Teachers	1,800	> 20%
	Outdoor Lab		Students, Teachers	6,400	
	Outdoor Learning Environments		Students, Teachers	700	
	Wetlands Learning Lab		Students, Teachers	494	
	Green Scene		Students, Staff, Community	1,250	

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

### APS Staff Education through Training (MCM 1)

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

- September 2015: “Stormwater Pollution Prevention.” 191 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 2015: “Stormwater Pollution Prevention.” 51 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.

## Student and Teacher Education (MCMs 1 and 2)

### Operation Rain Barrel (MCMs 1 and 2)

In partnership with George Mason University's Office of Community and Local Government Relations, all of our schools participated in Operation Rain Barrel<sup>1</sup>: a fun, creative project that engages our students, staff, and community, and teaches them about keeping water onsite and reusing rainwater for gardening purposes. Operation Rain Barrel begins each January and culminates at a community-wide event celebrating environmental sustainability in April at the Arlington Campus of George Mason University.

George Mason University partners with Water Management Inc., to purchase plain rain barrels for each of APS' 38 schools to be painted artistically. Additionally, George Mason provides the schools with educational information about rain barrels for teachers to incorporate into lessons emphasizing the importance of our watershed, water management and environmental sustainability.



Figure 1 Patrick Henry Students Working On Their Rain Barrel

An advertisement for the Operation Rain Barrel People's Choice Fundraiser. It features a green header with the text "Operation Rain Barrel People's Choice Fundraiser" in white. Below the header are five circular images: three showing students painting rain barrels with various designs, and two showing the "OPERATION RAIN BARREL" logo which includes a plant, a water tap, and a rainbow. At the bottom, a blue banner contains the text "Vote for your favorite! See all the barrels at Go Gaga for Green on April 30, 2016, at Mason's Arlington Campus."

Figure 2. Operation Rain Barrel People's Choice Advertisement

<sup>1</sup> <http://www.gogophotocontest.com/gogagaforgreenrainbarrels/pages/1691>



### 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 Lab<sup>2</sup>. Overflow from the wetlands spring goes into a dry stream leading to a rain garden and then into a 60x20 foot vegetated bio-swale. The bio-swale collects ground water from the natural seeps that occur throughout the area. All the students and staff at Campbell are engaged in the wetlands learning lab.



Figure 3. Campbell ES Wetlands Learning Lab



Figure 4. Student at Campbell Elementary School's Wetlands Learning 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 as a whole. 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.

Earth Force is an organization that many of our schools collaborate with to engage young people as active citizens who improve the environment and their communities now and in the future. Through Earth Force's "Centers of Excellence<sup>3</sup>", they work with communities to support young people in finding their voice while assuming leadership roles in solving local environmental problems. A curriculum

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<sup>2</sup> <https://campbell.apsva.us/post/green-scene-campbells-wetlands/>

<sup>3</sup> <http://earthforce.org/>

entitled "Caring for Our Watersheds" is available for grade 6. The six-step instructional model, the Earth Force Process, puts youths in the driver's seat towards creating sustainable solutions.

### 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. The Outdoor Lab schedule for this reporting period and for next year may be found in Appendix A.

The 2015-2016 school year included 6,248 students and 256 staff scheduled for day or overnight visits for specific learning activities. Programs conducted at the laboratory are aligned to grade level science curriculum<sup>4</sup> from grade 3 through grade 12. Students learn how their decisions and behavior affect 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 5. Patrick Henry Elementary Students Visit the Outdoor Lab*

Relevant curriculum for 5<sup>th</sup> grade<sup>5</sup> overnight trips includes a stream study in which students catch aquatic animals and assess water quality. High school curriculum<sup>6</sup> 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.

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<sup>4</sup> <http://www.outdoorlab.org/education>

<sup>5</sup> <http://outdoorlab.org/education/fifth>

<sup>6</sup> <http://outdoorlab.org/education/hs>

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Elementary School	Grade 4 Students	Grade 5 Students	Totals Students	Staff
Abingdon	73	82	155	6
Arlington Science Focus	91	102	193	8
Arlington Traditional	96	72	168	7
Ashlawn	91	89	180	7
Barcroft	75	65	140	6
Barrett	74	74	148	6
Campbell	51	56	107	4
Carlin Springs	82	89	171	7
Claremont	105	86	191	8
Discovery	81	70	151	6
Drew Model	75	86	161	6
Glebe	80	98	178	7
Henry	80	66	146	6
Hoffman-Boston	48	34	82	3
Jamestown	88	93	181	7
Key	93	100	193	8
Long Branch	74	86	160	6
McKinley	77	108	185	7
Nottingham	62	73	135	5
Oakridge	120	120	240	10
Randolph	58	68	126	5
Taylor	111	145	256	10
Tuckahoe	101	118	219	9
<b>Grand Total</b>	<b>1,886</b>	<b>1,980</b>	<b>3866</b>	<b>155</b>

Table 4. APS Elementary School Students and Staff participating in Outdoor Lab in 2015-2016 school year.

Middle School	Grade	Students	Staff
Gunston	7	301	12
H-B Woodlawn	7	81	3
Jefferson	7	287	11
Kenmore	7	316	13
Swanson	7	310	12
Williamsburg	7	390	16
<b>Grand Total</b>		<b>1,685</b>	<b>67</b>

Table 5. APS Middle School Students and Staff participating in Outdoor Lab in 2015-2016 school year

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
<b>Grand Total</b>		<b>697</b>	<b>34</b>

Table 6. APS High School Students and Staff participating in Outdoor Lab in 2015-2016 school year

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

The majority 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 Yard<sup>7</sup>. Another elementary school, Arlington Traditional, uses curriculum<sup>8</sup> 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 6 demonstrates Tuckahoe’s students working to improve their courtyard.



Figure 6 Tuckahoe Elementary Discovery Schoolyard

### APS Green Scene (MCM 1)

Green Scene<sup>9</sup> is an APS produced outreach program that highlights sustainability efforts throughout our school district. Many of the videos produced throughout the 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 highlighted Operation Rain Barrel, our students’ Meaningful Watershed Education Experience, and the Chesapeake Bay. Green Scene is produced by the Arlington


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

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

<sup>9</sup> <https://www.apsva.us/aps-green-scene/>


Educational Television Department (AETV) in cooperation with APS' Department of School and Community Relations.

**APS Green Scene**



**Washington-Lee High School's Chesapeake Bay Trip Featured on Green Scene**

This week's episode of Green Scene highlights Washington-Lee High School's recent field trip to learn about the Chesapeake Bay watershed. The trip, sponsored by a partnership with the Chesapeake Bay foundation, provides students an opportunity learn about the importance of the watershed and how to help protect the resource. While on the trip students sampled the water, learned about the wildlife and fish that are found in the rivers that make up the watershed and how pollution from run-off affects the habitat.



*Figure 7 APS Green Scene – Chesapeake Bay Field Trip*

### The 2016-2017 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 continue to 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 also implement a new high school program for all grade 9 students based on a recent grant we received. The program, Sustainable Solutions for Urban Stormwater Management through Project-Based Learning, will 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.

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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	Operation Rain Barrel	Students, Teachers	6000 students and staff	> 20%
	Wetlands Learning Lab	Students, Teachers	560 students and staff	
	Meaningful Watershed Education Experience (MWEE)	Students, Teachers	1875 students and staff	
	Sustainable Solutions for Urban Stormwater Management through Project-Based Learning	Grade 9 Students, Teachers	1861 students and staff	
	Green Scene	Students, Staff, Community	1200 students, staff and community	
	SWPPP Training	APS Staff	300 staff	
Litter Prevention	Adopt a Street/Spot	Students, Teachers	1000 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%
	Sustainable Solutions for Urban Stormwater Management through Project-Based Learning	Grade 9 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	
	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 webpage](#).

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

#### Notification of Physical Interconnections

During the previous reporting period, APS and Versar conducted field surveys of all APS properties, including verification of the stormwater infrastructure mapping. APS noted and reported to ACG any MS4 interconnections in a memo documented in last year's annual report. Any new interconnections are noted in as-builts when they are submitted to ACG and updated in ACG's GIS database.

#### IDDE Program

In the previous reporting period, APS together with its consultant, Versar, identified all IDDE sampling locations via field walks, simultaneously mapped all undocumented APS MS4 infrastructure, mapped and inspected all undocumented stormwater BMPs at all APS-owned facilities, and developed an IDDE Program Plan. Most IDDE sampling points consisted of MS4 nodes/manholes. All facilities were also audited for hotspot status using an HSI form and evaluated for the need for an industrial permit. Hotspot scores, or "status", are summarized in the IDDE Program Plan. APS' Trades Center is located within Arlington County Government's (ACG) Trades Facility and falls under ACG's SWPPP, VSMP Permit VA0088579. Our IDDE Program Plan may be found on our [Stormwater Management Program webpage](#).

In this permit cycle for dry weather screening, APS and Versar screened eleven outfalls. Out of the 65 outfalls and interconnections surveyed by Versar and APS last year, eight (8) outfalls discharge to surface. In addition to the 8 outfalls, we included 3 other interconnections to screen due to hot spot potential. Two of the eleven outfalls had flowing water and were tested. None of these two outfalls tested above an action level for any potential illicit discharges. Appendix B presents a summary of the testing results for all eleven outfalls.

### 4. Construction Site Stormwater Runoff Control (MCM 4)

APS had three (3) regulated land-disturbing activities in this reporting period – construction activities at Ashlawn Elementary, Discovery 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. A total number of inspections and enforcement actions performed by ACG may be found in their annual report.

School	Address	Acres Disturbed
Ashlawn Elementary	5950 N. 8 <sup>th</sup> Road, 22205	5.1
Discovery Elementary	5241 N. 36 <sup>th</sup> Street, 22207	15.5
McKinley Elementary	1030 N. McKinley Road, 22205	3.2
<b>Total</b>		<b>23.8</b>

Table 8. Total Land Disturbing Activities in this Permit Year

## 5. 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 of 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 facilities<sup>10</sup>. 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.

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

APS engages in good housekeeping at all of its properties. APS trains custodial staff on proper disposal of wastewater into the sanitary sewer and not the storm sewer. 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.

<sup>10</sup> <http://environment.arlingtonva.us/stormwater-watersheds/stormwater-at-home/stormwater-management-facility-inspections/>



In this permit year, APS and Versar modified existing policy implementation procedures (PIPs) on general housekeeping practices and solid waste and recycling to include preventing pollutants from entering the stormwater system. These amended PIPs may be found on our School Board Policy Webpage under [Operations, Facilities and Equipment](#).

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 the 2015-2016 reporting year.

### Nutrient Management Plan Locations

ACG applies nutrients for APS' fields greater than one (1) acre using nutrient management plans (NMPs). These plans are developed by a certified turf and landscape nutrient management planner. NMPs for school property are located at DPR and a copy is held at APS' Department of Facilities and Operations. Table 9 identifies all APS fields requiring NMPs. Williamsburg Middle School which we previously identified as needing an NMP no longer requires one as the acreage requiring an NMP has decreased below the one (1) acre threshold. NMPs have been developed and implemented for 10 of the 11 locations. The remaining NMP is under development.

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	Sep-16	Sep-16
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		
Swanson Middle School	5800 N. Washington Boulevard	22205	1.02	2015	2015	2015
Washington-Lee HS (SB) and Practice Field	1301 N. Stratford St.	22201	1.79	2015	2015	2015
<b>Total acreage of lands where NMP required.</b>			15.81			
<b>Total acreage of lands where NMP implemented.</b>			14.12			

Table 9. APS sites with Nutrient Management Plans and date of plan development and implementation.

## Training

### SWPPP Training

As covered under Section 2 of this document, 242 APS staff were given annual training on stormwater pollution prevention between 9-1-2015 and 12-16-2015, which included spill prevention and good housekeeping components. Descriptions of this training may be found on page 6.

### Pesticide Application Certification

## Arlington Public Schools Phase II (small) MS4 2016 Annual Report

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 10 lists APS in-house staff and construction management staff certified as stormwater inspectors, ESC inspectors and one combined stormwater and ESC program administrator.

Small MS4 Training And Certifications				
Name	Certification	Certificate Number	Expiration Date	Organization
Cathy Lin	Combined Stormwater and ESC Program Administrator	DPA0102	12/18/2017	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 10. Summary of Training and Certifications for Plan Reviewers, Inspectors, Program Administrators and Construction Site Operators at Arlington Public Schools, Virginia.*

Additionally, seven APS staff in our design and construction and maintenance departments were trained on Stormwater Pollution Prevention and Compliance for Construction and Maintenance Projects by ACG on March 8, 2015.

### 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.

## Appendix A: Outdoor Lab 2015-2016 Schedule by School

### 2015-16 Outdoor Lab Schedule

#### Elementary

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

#### Middle

Gunston	Feb 26, Feb 29, Mar 1, 2, 3, Mar 9, Mar 16
HB Woodlawn	Jan 11, 12
Jefferson	Nov 30, Dec 1, 2, 3, Dec 7, 8
Kenmore	Jan 28, 29, Feb 2, 3, Feb 8, 9, 10
Swanson	Jan 6, 7, 8, Jan 13, 14, 15
Williamsburg	Dec 9, 10, 11, Dec 14, 15, 16, 17, 18

#### High and Other Programs

HB Woodlawn	Sep 30
Wakefield	Apr 20
Washington-Lee	Oct 7
Yorktown	Oct 21
Arlington Mill	Oct 28, Mar 30
Career Center	May 31
Langston	Mar 4
New Directions	Jun 1
Stratford Program	Oct 8, 9

**Boldface:** GR 5 Overnights

**2016-17 Outdoor Lab Schedule**

**Elementary**

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

**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 5<sup>th</sup> grade overnights

## Appendix B: Dry Weather Screening Results

Site	Structure ID	Date	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	4/21/2016	Yes	0.039	0.0	0.0	0.22	7.56	No	NA	NA
Campbell Elementary	16825	4/21/2016	No	NA	NA	NA	NA	NA	No	NA	NA
Campbell Elementary	17018	4/21/2016	No	NA	NA	NA	NA	NA	No	NA	NA
Claremont Elementary	25675	4/18/2016	No	NA	NA	NA	NA	NA	No	NA	NA
Claremont Elementary	230730 A	4/18/2016	No	NA	NA	NA	NA	NA	No	NA	NA
Claremont Elementary	230730 B	4/18/2016	No	NA	NA	NA	NA	NA	No	NA	NA
Claremont Elementary	25671 A	4/18/2016	No	NA	NA	NA	NA	NA	No	NA	NA
Claremont Elementary	25671 B	4/18/2016	No	NA	NA	NA	NA	NA	No	NA	NA
Key Elementary	5961	4/21/2016	No	NA	NA	NA	NA	NA	No	NA	NA
Key Elementary	29891	4/21/2016	No	NA	NA	NA	NA	NA	No	NA	NA
Randolph Elementary	24977	6/28/2016	Yes	0.237	0.0	0.055	0.0	NM	No	NA	NA
<b>NA – Not Applicable</b>											
<b>ND – Not Detected</b>											
<b>NM - Not Measured</b>											