

ARLINGTON PUBLIC SCHOOLS 2022 PHASE II (SMALL) MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) ANNUAL REPORT



**Fiscal Year 2022 Annual Report
Virginia Stormwater Management Program (VSMP)
Permit No. VAR040127
2018 - 2023 Permit Cycle**



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1 Signed Certification - Part I.D.2.c

As required by 9VAC25-870-370 B, all reports required by state permits, and other information requested by the board shall, be signed by a responsible official or by a duly authorized representative of that person. A responsible official is:

1. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy-making or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions that govern the operation of the regulated facility, including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for state permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
2. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
3. For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described above;
2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. A duly authorized representative may thus be either a named individual or any individual occupying a named position; and
3. The written authorization is submitted to the department.

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.


Responsible Official Signature

9/19/22
Date

VAR 040127

Permit Number

ARLINGTON PUBLIC SCHOOLS

Small MS4 Name

2 General Annual Reporting Requirements

2.1 Part I.D.2.a – General Information

Arlington Public Schools’ (APS) holds a Phase II (small) Municipal Separate Storm Sewer System (MS4) permit, number VAR040127, issued on November 1, 2018.

2.2 Part I.D.2.b – Reporting Period

This report covers the period of July 1, 2021, through June 30, 2022.

2.3 Part I.D.2.d – Reporting for MCM No. 1-6

For this reporting period, there are no modifications to any operator’s department’s roles and responsibilities. In this reporting period, the acreages for various schools have been corrected based on property exchanges with Arlington County regarding right of ways and boundaries. 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. Details for each MCM are provided below.

2.4 Part I.D.2.e – Evaluation of the MS4 Program Implementation

The reporting elements in this annual report follow the information provided in APS’ MS4 Program Plan. Each MCM was reviewed for its effectiveness during this reporting period, and no changes are required to the Program Plan at this time. Table 1 identifies a list of agency acronyms used in this report.

Table 1 – Agency Acronyms

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

3 Public Education and Outreach (MCM 1)

3.1 Part I.E.1.g (1) - High Priority Stormwater Issues

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. Schools opened in person for fiscal year 2022, with a few students electing for a virtual model. Using both methods, APS educated and involved students, teachers, and non-teaching staff on issues related to the reduction of stormwater pollution and the three high priority issues.

3.2 Part I.E.1.g (2) Strategies Used for Public Education and Outreach

Stormwater issues designated high priority by APS were communicated to the public using no fewer than three of the following education and outreach strategies:

- Signage
- Media materials
- Speaking engagements
- Curriculum materials
- Training materials

4 Public Involvement and Participation (MCM 2)

4.1 Part I.E.2.f (1) - Public Input

During various public education and outreach efforts that included staff training and student presentations and discussions on litter prevention, reducing imperviousness, and the importance of native plant species, students and staff proposed strategies to improve stormwater management at their facilities. APS stressed the importance of litter prevention at all APS sites and the importance of erosion control to protect local waterways.

The APS Stormwater Management Program webpage invites the public to pose questions or comments on APS' Stormwater Program to stormwater@apsva.us. No input was received during this reporting period.

4.2 Part I.E.2.f (2) - Webpage

[APS Stormwater Management Program Online Portal](#)¹

4.3 Part I.E.2.f (3) - Public Involvement Activities

4.3.1 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). The goal of 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. An additional 16 teachers were trained and participated in the B-Wet cohort during this reporting period, during which they gained a comprehensive understanding of stormwater management, watershed stewardship, and human impacts to the environment.



Figure 1 – High School Stream Study

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

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



Figure 2 – Campbell Elementary Wetlands Lab Signage

4.3.3 Outdoor Lab

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.

Throughout the 2021 - 22 school year, the Outdoor Lab performed lessons, which included watershed studies, to approximately 7,300 students. 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 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.

Relevant curriculum for 5th grade⁴ 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).

During watershed lessons with 4th and 6th grade classes, staff led students through a discussion of watersheds, the water cycle, and water pollution. Then, students and staff conducted a stream study and used a high-powered microscope to examine macroinvertebrates. Staff led students through a discussion on identification of invertebrates and wrapped up with a conclusion on the health of the stream based on the data collected from the stream study.

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

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

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

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



Figure 3 – Students Visit the Outdoor Lab and Check Out the Snake Pit

4.3.4 Native Habitats and Outdoor Learning Environments

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 Yard⁶. Another elementary school, Arlington Traditional, uses curriculum⁷ from the Virginia Master Gardener program to teach students about native species and environmental conservation.

Many APS schools have rain gardens and other stormwater facilities that have been incorporated into a school’s instruction. Figure 4 shows Tuckahoe Elementary’s students working in their garden.



Figure 4 – Tuckahoe Elementary Students

⁶ <https://tuckahoe.apsva.us/discovery-schoolyard/>

⁷ <http://www.ext.vt.edu/topics/lawn-garden/master-gardener/index.html>

4.3.5 Sustainability Liaisons

APS launched a sustainability liaison pilot program in 2016-17 on the recommendation of its Superintendent's Advisory Committee on Sustainability (SACS). The sustainability liaisons are school-based stipend positions that support and coordinate sustainability efforts at their respective schools. Liaisons facilitate communication of APS' sustainability efforts, support stormwater initiatives - especially in outreach and education, and coordinate sustainability activities that engage students and the APS community.



The program is in its sixth year and had thirty (30) liaisons supporting twenty-six (26) schools. This program was conducted in after-school clubs. Sustainability projects and outreach efforts this reporting period included:

- Removing invasive species and planting gardens
- Supporting ongoing outdoor classrooms and sustainability curriculum
- Organizing, coordinating, and participating in park clean-up events
- Educating and organizing waste reduction, recycling, and composting programs
- Selling reusable water bottles
- Coordinating guest speakers
- Setting up sustainability challenges

4.3.6 Meaningful Watershed Education Experience

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 uses inhouse resources and 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 EcoAction Arlington, Bay Backpack, the Chesapeake Bay Program, and Earth Force. They support our teachers to create projects and curriculum for our students to put them in the driver's seat towards creating sustainable solutions.

4.3.7 APS Green Scene

Green Scene⁸ is an APS produced media outreach program that highlights sustainability efforts throughout our school division. Many of the videos produced every year focus on projects our students

⁸ <https://www.apsva.us/aps-green-scene/>

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.

4.4 Part I.E.2.f (4) - Report of the Metric for each Activity

APS uses the estimated number of students and staff reached during a reporting period as its metric. Table 2 summarizes by priority issue, the corresponding public involvement activities, 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.

Table 2 – Programs and Engagement

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	Students, Teachers – Year 4	1,665	> 20%
	Wetlands Learning Lab		Students, Teachers	400	
	Outdoor Lab		Students, Teachers	7,304	
	Meaningful Watershed Education Experience (MWEE) – Middle School		Students, Teachers	1,800	
	Green Scene		Students, Staff, Community	1,300	
	Sustainability Liaisons		Students, Staff	2,300	
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	1,300	
	Outdoor Lab		Students, Teachers	7,304	
	Sustainability Liaisons		Students, Staff	2,300	

Table 3 – Programs and Engagement, continued

Issue	Corresponding Program	Corresponding SOLs	Target Audience	Estimated Number of Students and Staff Reached	Estimated Percentage of Student and Staff Engagement
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	Students, Teachers – Year 2	1,665	> 20%
	Outdoor Lab		Students, Teachers	7,304	
	Meaningful Watershed Education Experience (MWEE) – Middle School			1,800	
	Native Habitats and Outdoor Learning Environments		Students, Teachers	700	
	Wetlands Learning Lab		Students, Teachers	400	
	Sustainability Liaisons		Students, Staff	2,300	
	Green Scene		Students, Staff, Community	1,300	

4.5 Part I.E.2.f (5) - Collaboration with Other MS4 Permit Holders

APS did not collaborate with other MS4 permit holders for public involvement opportunities during this reporting period.

5 Illicit Discharge Detection and Elimination, IDDE (MCM 3)

5.1 Part I.E.3.e (1) - Map and Information Table

APS collaborated with Arlington County Government (ACG) to update its MS4 map and information table to reflect any changes to its MS4 during this reporting period.

5.2 Part I.E.3.e (2) - Outfall Screening

During this reporting period, APS with its consultant, AECOM, conducted dry weather screening of nine (9) outfalls. Flowing water was observed at one of the 9 screened MS4 outfalls. The flowing outfall (location ID 16816) is located at Campbell Elementary School. This outfall was field screened for chlorine, fluoride, ammonia, and surfactants/detergents. All parameters fell within acceptable ranges as identified in the APS IDDE Program Plan. Dry weather flow is typical at Outfall 16816 location and has been observed for the past several years. The source of the flow from the outfall appears to be groundwater intrusion from 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. Table 3 presents a summary of the testing results for all 9 outfalls in 2022.

Table 3 – 2022 Dry Weather Screening Results

#	Site	Structure ID	Date Observed	Flow	Total Cl (mg/L)	Fl (mg/L)	NH ₃ (mg/L)	Surfactants (mg/L)	pH	Visual Indicators of Illicit Connection ²	Follow-up	Source Found?
1	Campbell Elementary	16816	3/28/2022	Yes ³	0.0	0.00	0.0	0.0	5.0	No	First pH exceedance. Confirm pH falls within acceptance range in 2023.	Yes ³
2	Campbell Elementary	16825	3/28/2022	No	NA	NA	NA	NA	NA	No	NA	NA
3	Claremont Elementary	25675	3/28/2022	No	NA	NA	NA	NA	NA	No	NA	NA
4	Claremont Elementary	35320	3/28/2022	No	NA	NA	NA	NA	NA	No	NA	NA
5	Claremont Elementary	30945	3/28/2022	No	NA	NA	NA	NA	NA	No	NA	NA
6	Claremont Elementary	25671	3/28/2022	No	NA	NA	NA	NA	NA	No	NA	NA
7	Claremont Elementary	35330	3/28/2022	No	NA	NA	NA	NA	NA	No	NA	NA
8	Randolph Elementary	24977	3/28/2022	No	NA	NA	NA	NA	NA	No	NA	NA
9	Randolph Elementary	35815	3/28/2022	No	NA	NA	NA	NA	NA	No	NA	NA

Notes:

1. Acceptable ranges of parameters are identified in the APS IDDE Program Plan.
2. Examples of visual indicators of illicit connection include but are not limited to the presence of trash, oily sheen, suds, or staining.
3. The source of the flow from outfall 16816 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.
4. NA: Not Applicable.

5.3 Part I.E.3.e (3) - Illicit Discharge Summary

During this reporting period, there were no illicit discharges to report.

6 Construction Site Stormwater Runoff Control (MCM 4)

6.1 Part I.E.4.a (5) - Construction Stormwater Implementation Local School Board

APS falls under Part I.E.4.a (5) as a local school board in Arlington County. APS had four (4) regulated land disturbing activities in this reporting period – construction activities at Cardinal Elementary School, Dorothy Hamm Middle School, the Education Center Reuse Project, and The Heights (formerly called the Wilson School) as highlighted in Table 4.

Table 4 – Total Land Disturbing Activities in this Permit Year

School	Address	Acres Disturbed
Cardinal Elementary School	1644 N McKinley Rd, 22205	5.47
Dorothy Hamm Middle School (formerly H-B Woodlawn/Stratford)	4100 Vacation Lane, 22207	6.25
Education Center Reuse Project	1426 N Quincy St, 22207	0.21
The Heights (formerly Wilson School)	1601 Wilson Blvd, 22201	2.82

6.2 Part I.E.4.d (2) – Total Number of Inspections Conducted and Part I.E.4.d (3) – Number and Type of Enforcement Actions Implemented

ACG is APS’ permitting authority and performs inspections and enforcement actions related to MCM 4. For this reporting period, ACG performed plan reviews, formal inspections, and enforcement actions on the construction projects identified in Table 4. Table 5 summarizes the total number of inspections and enforcement actions conducted by ACG in this permit year.

Table 5 – Inspections and Enforcement Actions

Inspections and Enforcement Actions	
Inspections	62
Notice to Comply	0
Written Notice of Violation	0
Stop Work Order	0

7 Post-Construction Stormwater Management (MCM 5)

7.1 Part I.E.5.i (2) - Public SMF Inspections

APS conducted 120 stormwater management facility (SMF) inspections during this reporting period.

7.2 Part I.E.5.i (3) - Public SMF Significant Maintenance, Repair, Retrofit

During this reporting period, there were no significant maintenance, repair, or retrofit activities on APS owned SMFs.

7.3 Part I.E.5.i (4) - Construction Database Submittal Confirmation

SMF information for all APS construction projects requiring coverage under the Construction General Permit (CGP) is submitted through the local VSMP authority, ACG. ACG reports SMF information on the Notices of Termination (NOTs) for each project so that the SMF can be entered into the CGP database for land disturbing activities.

7.4 Part I.E.5.i (5) - BMP Warehouse Submittal Confirmation

During this reporting period, APS did not install any BMPs for which credit will be applied toward TMDL reduction requirements. Consequently, APS did not report any BMPs into the DEQ BMP Warehouse and does not intend to report BMPs installed during this reporting period in the future.

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

8.1 Part I.E.6.q (1) - Operation Procedures Summary

During this reporting period, APS retained existing operation procedures. No procedures were modified or developed.

8.2 Part I.E.6.q (2) - New SWPPP Summary

During this reporting period, no new SWPPPs were developed.

8.3 Part I.E.6.q (3) - SWPPP Modifications/Removal of High-Priority Facilities

APS' Trades Center is located within ACG's Trades Facility. The SWPPP for this facility was developed by ACG and revised in May 2022. ACG is the lead agency for managing the SWPPP under their VSMP Permit VA0088579. No modifications or removal of high priority facilities occurred during this reporting year.

8.4 Part I.E.6.q (4) - NMP Summary

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, which are then submitted and approved by the Virginia Department of Conservation and Recreation (DCR). All NMPs are monitored and updated by ACG. NMPs for school property are located at DPR, and a copy is held at APS' Department of Facilities and Operations. Figure 5 identifies all APS fields requiring NMPs. NMPs have been developed and implemented for all locations.

APS lands where nutrients are applied to more than one contiguous acre								
Field Name	Address	Zip Code	Acres	Year Plan Developed	Year Plan Developed	Plan Reviewed /Revised Date	Plan End Date	Prepared By
Carver	1415 S. Queen St.	22204	1.46	2018	2018	7/2021	6/2024	Robert Benyo - 688
Drew School / Center	3500 24th Street South	22206	1.69	2019	2019	10/2019	10/2022	Robert Benyo - 688
Gunston Park #1	1401 28th St. S.	22202	1.41	2018	2018	7/2021	6/2024	Robert Benyo - 688
Gunston Park #3	1401 28th St. S	22202	1.29	2018	2018	7/2021	6/2024	Robert Benyo - 688
H-B Woodlawn Secondary School	4100 Vacation Lane	22207	1.37	2018	2018	7/2021	6/2024	Robert Benyo - 688
Jamestown Back	N. 36th St. & N. Delaware St.	22207	1.32	2018	2018	7/2021	6/2024	Robert Benyo - 688
Jamestown Front	N. 36th St. & N. Delaware St.	22207	1.08	2018	2018	7/2021	6/2024	Robert Benyo - 688
Kenmore Middle School #2	200 S. Carlin Springs Dr.	22204	2.01	2018	2018	7/2021	6/2024	Robert Benyo - 688
Nottingham #1	5900 Little Falls Rd.	22207	1.39	2016	2016	7/2021	6/2024	Robert Benyo - 688
Swanson Middle School	5800 N. Washington Boulevard	22205	1.02	2018	2018	7/2021	6/2024	Robert Benyo - 688
Washington-Lee HS (SB) and Practice Field	1301 N. Stratford St.	22201	5.72	2018	2018	7/2021	6/2024	Robert Benyo - 688
Total acreage of lands where NMP required.			19.75					
Total acreage of lands where NMP implemented.			19.75					

Figure 5 – APS Sites with Nutrient Management Plans and Date of Plan Development and Implementation

8.5 Part I.E.6.q (5) - Training Events

APS conducts biennial Stormwater Pollution Prevention training. In collaboration with ACG DES, APS staff are trained on the connection between stormwater pollution and water quality and health of local streams and the Chesapeake Bay. This training includes 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. During this reporting period approximately 143 staff members received SWPPP training shown in Table 6.

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Table 6 – APS SWPPP Training during 2020-2021 Reporting Period

Training Date	Employees Attended	Training Objective
8/25/2021	143	SWPPP Training for Transportation Staff
Total	143	

9 Chesapeake Bay TMDL Information

9.1 Part II.A.13.a - BMPs not Reported to the BMP Warehouse

Not applicable to APS during this reporting period. APS did not install any BMPs for which credit will be applied toward TMDL reduction requirements during this reporting period. Consequently, APS did not report any BMPs into the DEQ BMP Warehouse and does not intend to report BMPs installed during this reporting period in the future.

Table 7 – APS Progress Toward Required Reductions

APS Progress Toward Required Reductions This Permit Cycle
(Table 4-1 of Chesapeake Bay TMDL Action Plan)

Means and Methods Implemented	Total TN Reduction (lbs/yr)	Total TP Reduction (lbs/yr)	Total TSS Reduction (lbs/yr)
40% POC Reduction Requirement by June 30, 2023	126.56	16.00	13,588.34
Increased Loads from Construction 2009-2021	88.13	15.70	12,920.88
Subtotal of Reduction Required	214.69	31.70	26,509.22
BMP Credit from Construction and Retrofits (2009-2021)	-272.03	-24.28	-17,910.43
Credit from Historic BMPs (2006-2009)	-11.58	-0.92	-955.15
Subtotal of BMP Credits	-283.61	-25.20	-18,865.58
Percent of Total POC Load Reduction (100%)	68.9%	23.7%	17.5%
Required Percent of Total POC Load Reduction for Second Permit Cycle	40%	40%	40%
Additional POC Load Reduction Required to Meet Second Permit Cycle Reductions (40%)	0	6.52	7,643.64

9.2 Part II.A.13.b - Credits

During this reporting period, APS paused its five-year memorandum of agreement (MOA) with Arlington County's Wastewater Treatment Plant to purchase temporary nutrient credits on an annual basis to be applied to APS MS4 Chesapeake Bay TMDL reduction requirements. APS updated its Chesapeake Bay TMDL Action Plan, dated August 2021, and APS intends to purchase phosphorus, nitrogen, and sediment credits from the Arlington County Wastewater Treatment Plant to meet the required load reduction for the permit cycle that expires on June 30, 2023.

9.3 Part II.A.13.c - Progress Toward Meeting Required Reductions

APS is exploring avenues to obtain permanent credits for nitrogen, phosphorus, and sediment to meet its Chesapeake Bay TMDL load reduction requirements for the permit cycle that expires on June 30, 2023.

9.4 Part II.A.13.d - BMPs Planned for the Next Reporting Period

There are no BMPs planned for the next reporting period. Currently, APS intends to explore opportunities to purchase nitrogen, phosphorus, and sediment credits to meet 100% of its Chesapeake Bay TMDL reduction requirements.

10 Local TMDL Information

10.1 Part II.B.9 - Summary of Actions

For this reporting period, no local TMDL waste load allocations (WLAs) have been assigned to APS. APS shall continue to monitor updates to Local TMDLs for WLAs.

11 Plans to Meet MCM Requirements Next Reporting Period

For our next 12-month reporting period, APS intends to continue its current programs and activities in all six (6) minimum control measure (MCM) areas. For MCM 1 and MCM2, we will work with our partners on expanding curriculum to engage the public and meet our three priority areas. We will continue to update our IDDE program based on any new developments or changes and perform annual dry weather screening on our nine identified outfalls (MCM 3). APS will continue working closely with Arlington County in ensuring that construction site stormwater runoff control is managed properly for all construction projects in the next reporting period (MCM 4). BMP inspection and maintenance will continue in the next reporting period as outlined in our program plan. Any new BMPs brought online during this period shall follow the same procedures (MCM 5). APS will continue implementing its good housekeeping policies and practices as well as its training program for all staff in the next permit cycle (MCM 6). APS may need to adjust its approach given the unpredictable nature of the pandemic and its implications for public schools.