

**VPDES MUNICIPAL SEPARATE STORM SEWER
SYSTEM (MS4) PERMIT
VAR040039**

**ANNUAL REPORT
PERIOD JULY 1, 2020 TO JUNE 30, 2021**

THE COLLEGE OF WILLIAM & MARY



WILLIAM & MARY

CHARTERED 1693

September 29, 2021

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1.0 SIGNED CERTIFICATION AS PER PART III K:

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.

 9/30/21
Responsible Official Signature Date
Mr. Samuel Hayes III, P.E.
Chief Facilities Officer

VAR040039 College of William and Mary
Permit Number MS4 Name

2.0 INTRODUCTION

The College of William and Mary (university) was originally issued an MS4 permit in 2003 by the Commonwealth of Virginia. This permit sets forth minimum requirements for the operation of the university’s storm sewer system, including storm water treatment systems (BMPs), and is reissued every five years. Oversight of the permit has changed from DCR to DEQ. The permit requires an annual report to be submitted to Virginia DEQ by October 1, 2021 describing progress on meeting permit requirements during the period July 1, 2020 to June 30, 2021.

3.0 ANNUAL REPORTING REQUIREMENTS - COMPLIANCE SUMMARY

In Part I section D of the MS4 permit, the permit lists specific items to be addressed in the Annual Report. The following are the items listed in the permit in italic typeface followed by responses in bold typeface:

Part I Section D2

2. *The annual report shall include the following general information:*

a) *The permittee, system name, and permit number;*

Response: Permittee & System name: College of William and Mary

Permit number: VAR040039

b) *The reporting period for which the annual report is being submitted;*

Response: July 1, 2020 to June 30, 2021

c) *A signed certification as per Part III K;*

Response: See Section 1 for signed certification.

d) *Each annual reporting item as specified in an MCM in Part I E; and*

Response: See Section 4 for specified annual reporting items for each MCM.

e) *An evaluation of the MS4 program implementation, including a review of each MCM, to determine the MS4 program's effectiveness and whether or not changes to the MS4 program plan are necessary.*

Response: The current MS4 program implementation has been effective in providing compliance with the permit requirements. No changes to the MS4 program plan are required, however the university continues to improve internal procedures. See evaluation of each MCM at the end of each MCM section.

4.0 MINIMUM CONTROL MEASURES REPORTING

4.1 Public education and outreach

In Part I section E-1-g of the MS4 permit, the permit lists specific items to be addressed in the Annual Report. The following are the items listed in the permit in italic typeface followed by responses in bold typeface:

Part I section E-1-g

g. The annual report shall include the following information:

- 1. A list of the high-priority stormwater issues the permittee addressed in the public education and outreach program; and*

Response: The high priority water quality issues identified by the university are: Nutrient Management, Erosion Control, and Plastics Diversion.

2. *A list of the strategies used to communicate each high-priority stormwater issue.*

Response: The permit requires two or more of the following strategies per year to communicate to the public the high-priority stormwater issues identified above: traditional written materials, alternative materials, signage, media materials, speaking engagements, curriculum materials, and training materials. Below is a summary of activities with required information:

High-Priority Water Quality Issue	Education and Outreach Activities	Target Audience	Percentage of Target Audience Reached	Documentation
Nutrients Management (includes water chemistry)	Staff Training	Grounds supervisors and Turf Mgmt. Staff -15 personnel	100% of staff trained	Training records available upon request
Erosion Control	ESC Briefings prior to start of Construction	Contractors	100% of Contractor representatives for construction projects over 2,500 sf disturbance	Approved Erosion & Sediment Control Plans available upon request. ESC inspection reports available upon request.
Plastics Diversion	Seminars	Students – 8,500 Faculty & staff – 3,900	100% of students, faculty and staff	Campus-wide recycling containers and events (1)

(1) <https://www.wm.edu/sites/sustainability/initiatives/recycling/index.php>

MCM Evaluation: The MCM is effective in ensuring regulatory compliance. No changes are planned at this time.

4.2 Public involvement and participation

In Part I section E-2-f of the MS4 permit, the permit lists specific items to be addressed in the Annual Report. The following are the items listed in the permit in italic typeface followed by responses in bold typeface:

Part I section E-2-f

f. The annual report shall include the following information:

- 1. A summary of any public input on the MS4 program received (including stormwater complaints) and how the permittee responded;*

Response: No public input was received during the reporting cycle.

- 2. A webpage address to the permittee's MS4 program and stormwater website;*

Response: This Annual Report, including the current MS4 Program Plan will be posted to the following link within 30 days of submittal of this Annual Report to DEQ:

<https://www.wm.edu/offices/facilities/departments-directors/OpMaint/stormwater/index.php>

- 3. A description of the public involvement activities implemented by the permittee;*

Response: The permit requires the College to implement no less than four activities per year from two or more of the following categories: monitoring, restoration, educational events, disposal or collection events, and pollution prevention. The university implemented the following local activities:

Monitoring

- **Keck Environmental Lab provided quarterly sampling of water quality from 24 streams, ponds, and tidal creeks in College Creek, Tinkling Rill, and Lake Matoaka**

Educational

- **Earth Week Activities (virtual), April 18 - 24, 2021**

- **Spring 2021 approximately 33 students conducted field lab exercises in the three stormwater ponds as part of Watershed Dynamics Course**

Disposal or Collection Events

- **Campus Race to Zero Waste Annual Tournament, March 2021, includes electronics recycling.**
 - **Hazardous Waste Pickup, for waste generated by College facilities, ongoing program, picks up daily.**
 - **Recycling Program, manages collection from recycling and compost containers throughout campus, includes paper, cardboard, plastics #1-7, aluminum, steel, glass, milk & juice cartons. Dedicated locations are established for small electronics, ink cartridges, plastic bags, batteries, and light bulbs.**
4. *A report of the metric as defined for each activity and an evaluation as to whether or not the activity is beneficial to improving water quality; and*

Response: The metric for all of the activities is the number of participants compared to the total numbers of students, staff, and faculty. It is estimated that these activities have reached more than 90% of the College community. While the activities cannot be linked to a measurable improvement in water quality on campus, the College community is more aware of stormwater issues than in the past.

5. *The name of other MS4 permittees with whom the permittee collaborated in the public involvement opportunities.*

Response: No other MS4 permittees were involved in the listed public involvement opportunities.

MCM Evaluation: The MCM is effective in ensuring regulatory compliance. No changes are planned at this time.

4.3 Illicit discharge detection and elimination

In Part I section E-3-e of the MS4 permit, the permit lists specific items to be addressed in the Annual Report. The following are the items listed in the permit in italic typeface followed by responses in bold typeface:

Part I section E-3-e

e. The annual report shall include:

1. *A confirmation statement that the MS4 map and information table have been updated to reflect any changes to the MS4 occurring on or before June 30 of the reporting year;*

Response: There have been no work or changes to the campus in the reporting year that effected the MS4 Map.

2. *The total number of outfalls screened during the reporting period as part of the dry weather screening program; and*

Response: During the reporting period, the university screened all of its 55 outfalls. There were no signs of illicit discharges and no follow-up actions were required.

3. *A list of illicit discharges to the MS4 including spills reaching the MS4 with information as follows:*
 - a. *The source of illicit discharge;*
 - b. *The dates that the discharge was observed, reported, or both;*
 - c. *Whether the discharge was discovered by the permittee during dry weather screening, reported by the public, or other method (describe);*
 - d. *How the investigation was resolved;*
 - e. *A description of any follow-up activities; and*
 - f. *The date the investigation was closed.*

Response: During the reporting period, there were three illicit discharge events where prohibited discharges reached the storm sewer system:

Alumni House Sewage Spill – DEQ Pollution Report Number 298328

On February 10, 2021, sewage overflowed from a manhole on the west side of the Alumni House and also from a manhole in the parking lot across Bright Street between St. Bedes Catholic Church and Williamsburg House of Mercy, where the line extends from the W&M property.

Water flowed in a southeast direction and entered two stormwater drains along Bright Street. Visible evidence was found in a pooled area past a culvert beneath College Terrace. The amount entering the storm drain was estimated at no more than 10 gallons of sewage.

The visibly contaminated water was reclaimed with a vacuum truck and all manholes were pumped out. The cause of the spill was a root obstruction in the drain. The root obstruction was cleared.

Swem Cooling Tower Overflow – DEQ Pollution Report Number 298586

On February 25, 2021, cooling towers 1 and 2, located on the rooftop of Swem Library, overflowed due to the float for the water-fill shut off failing. The cooling towers are plumbed to the sanitary system, but the drain was overwhelmed and water flowed onto the rooftop. It was captured by a roof drain which leads to a stormwater discharge point at the Wild Flower Refuge/Swem BMP.

It is estimated that approximately 200,000 gallons of water from the cooling tower was discharged to the university's storm sewer through the roof drains. Only the initial flush of the cooling tower sump contained illicit discharges. After this flush, the cooling tower water discharge was potable water. The float for the water-fill shut off was replaced.

King Health Center Trail – DEQ Pollution Report Number 298726

On March 10, 2021, a sewage release of approximately 100 gallons of sewage was released out of a manhole located along the pedestrian pathway behind the King Health Center located at 230 Gooch Drive in Williamsburg, Virginia. It overflowed out of a manhole and flowed down the pedestrian path into a storm drain.

The blockage of the line was caused by congealed grease in the line. The university cleared the blockage by jetting the line until flow resumed. The college continues to monitor the line and implement routine maintenance as required.

MCM Evaluation: The MCM is effective in ensuring regulatory compliance. No changes are planned at this time.

4.4 Construction site stormwater runoff control

In Part I section E-4-e of the MS4 permit, the permit lists specific items to be addressed in the Annual Report. The following are the items listed in the permit in italic typeface followed by responses in bold typeface:

Part I section E-4-e

d. The annual report shall include the following:

1. *If the permittee implements a construction site stormwater runoff program in accordance with Part I E 4 a (3):*

- a. *A confirmation statement that land disturbing projects that occurred during the reporting period have been conducted in accordance with the current department approved standards and specifications for erosion and sediment control; and*

Response: All projects were conducted in accordance with the current Annual Standards and Specifications.

- b. *If one or more of the land disturbing projects were not conducted with the department approved standards and specifications, an explanation as to why the projects did not conform to the approved standards and specifications.*

Response: Not applicable, see above.

2. *Total number of inspections conducted; and*

Response: During construction, inspections were conducted by the university's ESC Inspector after every significant rain event and at least every two weeks. Construction activity has decreased when compared to earlier reporting periods.

3. *The total number and type of enforcement actions implemented and the type of enforcement actions.*

Response: As the university is the contract holder for all of the land disturbance activities on campus and the ESC inspector represents the university, any deficiencies in ESC measures or practices are resolved immediately. There were no enforcement actions taken during the reporting period.

MCM Evaluation: The MCM has been effective in providing compliance with the regulatory requirements. The Annual Standards and Specifications are currently being revised to provide additional clarity concerning procedures within the university for obtaining VSMP permits in a timely manner.

4.5 Post-construction stormwater management for new development and development on prior developed lands

In Part I section E-5-i of the MS4 permit, the permit lists specific items to be addressed in the Annual Report. The following are the items listed in the permit in italic typeface followed by responses in bold typeface:

Part I section E-5-i

i. The annual report shall include the following information:

1. *If the permittee implements a Virginia Stormwater Management Program in accordance with Part I E 5 a (1) and (2):*

- a. *The number of privately owned stormwater management facility inspections conducted; and*

Response: N/A, all stormwater management facilities are owned by the university.

- b. *The number of enforcement actions initiated by the permittee to ensure long-term maintenance of privately owned stormwater management facilities including the type of enforcement action;*

Response: N/A, all stormwater management facilities are owned by the university.

- 2. Total number of inspections conducted on stormwater management facilities owned or operated by the permittee;*

Response: All stormwater management facilities owned and operated by the university were inspected during the reporting period.

- 3. A description of the significant maintenance, repair, or retrofit activities performed on the stormwater management facilities owned or operated by the permittee to ensure it continues to perform as designed. This does not include routine activities such as grass mowing or trash collection;*

Response: Pipe outfalls were cleared from BMPs at the Recreation Center, Tennis Complex, and Law School. A Check dam was armored at the Law School. Small trees were removed on banks at the Tennis Complex. At Small Hall a contractor is currently repairing pipes causing a sink hole.

- 4. A confirmation statement that the permittee submitted stormwater management facility information through the Virginia Construction Stormwater General Permit database for those land disturbing activities for which the permittee was required to obtain coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities in accordance with Part I E 5 f or a statement that the permittee did not complete any projects requiring coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities; and*

Response: Confirmed

- 5. A confirmation statement that the permittee electronically reported BMPs using the DEQ BMP Warehouse in accordance with Part I E 5 g and the date on which the information was submitted.*

Response: Confirmed. The required information was sent to Matt Fanghella of DEQ on 6/28/19 (prior to this reporting period).

MCM Evaluation: The MCM is effective in ensuring regulatory compliance. No changes are planned at this time.

4.6 Pollution prevention and good housekeeping for facilities owned or operated by the permittee within the MS4 service area.

In Part I section E-6-q of the MS4 permit, the permit lists specific items to be addressed in the Annual Report. The following are the items listed in the permit in italic typeface followed by responses in bold typeface:

Part I section E-6-q

q. The annual report shall include the following:

1. *A summary of any operational procedures developed or modified in accordance with Part I E 6 a during the reporting period;*

Response: No changes or modification were done to operational procedures during the reporting period.

2. *A summary of any new SWPPPs developed in accordance Part I E 6 c during the reporting period;*

Response: N/A. The university does not have any facilities that meet the permit criteria for high-priority facilities.

3. *A summary of any SWPPPs modified in accordance with Part I E 6 f or the rationale of any high priority facilities delisted in accordance with Part I E 6 h during the reporting period;*

Response: N/A. The university does not have any facilities that meet the permit criteria for high-priority facilities.

4. *A summary of any new turf and landscape nutrient management plans developed that includes:*

- a. Location and the total acreage of each land area; and*

- b. The date of the approved nutrient management plan; and*

Response: There were no new turf and landscape nutrient management plans required to be developed during the reporting period.

5. A list of the training events conducted in accordance with Part I E 6 m, including the following information:

- a. The date of the training event;
- b. The number of employees who attended the training event; and
- c. The objective of the training event.

Response: Below is a summary of training activities with required information:

Training Event	Date	Number of Employees	Training Event Objective
Mid-Atlantic Horticulture Short Course	1/15/21 – 1/17/21	1	Nutrient Management License Update
Mid-Atlantic Horticulture Short Course	1/15/21 – 1/17/21	10	Pesticide Recertification
Monthly Crew Meetings	monthly	All grounds crew	good housekeeping and illicit discharge prevention and response training

MCM Evaluation: The MCM is effective in ensuring regulatory compliance. No changes are planned at this time.

5.0 CHESAPEAKE BAY TMDL STATUS REPORT

In Part II section A-13 of the MS4 permit, the permit lists specific items to be addressed in the Annual Report. The following are the items listed in the permit in italic typeface followed by responses in bold typeface:

Part II section A-13

13. *For each reporting period, the corresponding annual report shall include the following information:*

- a) *A list of BMPs implemented during the reporting period but not reported to the DEQ BMP Warehouse in accordance with Part I E 5 g and the estimated reduction of pollutants of concern achieved by each and reported in pounds per year;*

Response: There was no BMP's implemented during the reporting period and not reported to DEQ BMP Warehouse.

- b) *If the permittee acquired credits during the reporting period to meet all or a portion of the required reductions in Part II A 3, A 4, or A 5, a statement that credits were acquired;*

Response: Credits were not acquired during the reporting period

- c) *The progress, using the final design efficiency of the BMPs, toward meeting the required cumulative reductions for total nitrogen, total phosphorus, and total suspended solids; and*

Response: All required cumulative reductions for total nitrogen, total phosphorus, and total suspended solids have been met.

- d) *A list of BMPs that are planned to be implemented during the next reporting period.*

Response: There are no planned BMP's planned to be implemented during the next reporting period for compliance with the Chesapeake Bay TMDL.

6.0 LOCAL TMDL STATUS REPORT

In Part II section B-9 of the MS4 permit, the permit lists specific items to be addressed in the Annual Report. The following are the items listed in the permit in italic typeface followed by responses in bold typeface:

Part II section B-9

9. For each reporting period, each annual report shall include a summary of actions conducted to implement each local TMDL action plan.

Powhatan/Mill Creek TMDL

The university is continuing existing efforts documented in the TMDL Action Plan. Ongoing observations of the Dillard Complex indicate that measures have been successful in preventing the deposition of pet waste.

Monitoring is not required, and no monitoring is currently being conducted as part of TMDL compliance.

7.0 CONDITIONS APPLICABLE TO ALL STATE AND VPDES PERMITS

7.1 Reporting Monitoring Results

In Part III section C-1 of the MS4 permit, the permit lists specific items to be addressed in the Annual Report. The following are the items listed in the permit in italic typeface followed by responses in bold typeface:

Part III section C-1

1. The operator shall submit the results of the monitoring as may be performed in accordance with this state permit with the annual report unless another reporting schedule is specified elsewhere in this state permit.

Response: N/A, no monitoring took place during the reporting period.

7.2 Reporting of noncompliance

In Part III section I-3 of the MS4 permit, the permit lists specific items to be addressed in the Annual Report. The following are the items listed in the permit in italic typeface followed by responses in bold typeface:

Part III section I-3

3. The operator shall report all instances of noncompliance not reported under Part III I 1 or 2, in writing, as part of the annual reports that are submitted. The reports shall contain the information listed in Part III I 2.

NOTE: The reports required in Part III G, H, and I shall be made to the department. Reports may be made by telephone, email, or fax. For reports outside normal working hours, leaving a recorded message shall fulfill the immediate reporting requirement. For emergencies, the Virginia Department of Emergency Management maintains a 24-hour telephone service at 1-800-468-8892.

Response: There are no instances of noncompliance to report.

7.3 Signatory requirements

In Part III section K-2 of the MS4 permit, the permit lists specific items to be addressed in the Annual Report. The following are the items listed in the permit in italic typeface followed by responses in bold typeface:

Part III section K-2

2. Reports and other information. All reports required by state permits, including annual reports, and other information requested by the board or department shall be signed by a person described in Part III K 1, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

- a) The authorization is made in writing by a person described in Part III K 1;*
- b) 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 operator. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and*
- c) The signed and dated written authorization is submitted to the department.*

Response: See Section 1 of this report.