



Municipal Separate Storm Sewer System (MS4) Fiscal Year 2022 Annual Report

**General VPDES Permit for
Small Municipal Separate Storm Sewer Systems**

No. VAR040222

George Washington Memorial Parkway

**Fiscal Year 2022 Annual Report
July 1, 2021 – June 30, 2022**

*Submittal to DEQ
September 30, 2022*

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CERTIFICATION

Report: Municipal Separate Storm Sewer System (MS4) Fiscal Year 2022 Annual Report

**Permit No.: General VPDES Permit for Small Municipal Separate Storm Sewer Systems
No. VAR040222**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name

___10/12/2022_____

Date

___Superintendent_____

Title



1.0 Introduction

This Fiscal Year 2022 (FY22) MS4 General Permit Annual Report has been prepared by the George Washington Memorial Parkway (GWMP) in accordance with General VPDES (Virginia Pollutant Discharge Elimination System) Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (9VAC25-890-40 et seq.). The Virginia Department of Environmental Quality (DEQ) issued the most recent five-year permit (VAR040111) effective November 1, 2018.

Under the terms of the General Permit, the GWMP has developed a Municipal Separate Storm Sewer System (MS4) Program Plan to implement six minimum control measures (MCMs) aimed at reducing the discharge of pollutants to the “maximum extent practicable.” Minimum control measures are presented below.

Six Minimum Control Measures

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

The MS4 Program Plan has been updated in accordance with the requirements of Part I C of the 2018 General Permit. The MS4 Program Plan is available on the GWMP web site at <https://www.nps.gov/gwmp/learn/scienceresearch.htm> . On that page, there should be a link to the MS4 park home page (<https://parkplanning.nps.gov/ms4va>), which has all the park MS4 documentation.

The General Permit requires that the GWMP submit annual reports no later than October 1 covering the preceding July 1 through June 30 reporting period. This annual report covers the period of July 1, 2021, through June 30, 2022. Part I D of the General Permit outlines the requirements for the annual report. The following is a summary of the requirements and where the information is located in this annual report.



Table 1 MS4 Permit Annual Reporting Requirements

Permit	Requirement	Location
Part I D 2 a-b	2. The annual report shall include the following general information: a. The permittee, system name, and permit number; b. The reporting period for which the annual report is being submitted;	Section 2
Part I D 2 c	c. A signed certification as per Part III K;	Certification page
Part I D 2 d	d. Each annual reporting item as specified in an MCM in Part I E; and,	Section 3
Part I D 2 e	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.	Section 4
Part I D 3	3. For permittees receiving initial coverage under this general VPDES permit for the discharge of stormwater, the annual report shall include a status update on each component of the MS4 program plan being developed. Once the MS4 program plan has been updated to include implementation of a specific MCM in Part I E, the permittee shall follow the reporting requirements established in Part I D 2.	Not applicable
Part I D 4	4. For those permittees with requirements established under Part II A, the annual report shall include a status report on the implementation of the Chesapeake Bay TMDL action plan in accordance with Part II A of this permit including any revisions to the plan.	Section 5
Part I D 5	5. For those permittees with requirements established under Part II B, the annual report shall include a status report on the implementation of the local TMDL action plans in accordance with Part II B including any revisions to the plan.	Section 5

2.0 Background Information

This section provides background information as required by Part I D 2 a-b of the General Permit.

Permittee: George Washington Memorial Parkway
System Name: George Washington Memorial Parkway MS4
Permit Number: VAR040111
Reporting Period: July 1, 2021 – June 30, 2022



3.0 Status of Compliance with Fiscal Year 2022 Conditions

This section provides an overview of progress made toward meeting each MCM. Each MCM includes the specific annual reporting items as specified in Part I E of the General Permit followed by a more detailed description of each best management practice (BMP) contained in the MS4 Program Plan. Supporting materials are located in the appendices as referenced.

3.1 Public Education and Outreach (MCM #1)

In accordance with Part I E 1 g of the General Permit, the following information must be reported in the annual report:

	Annual Report Requirement	Documentation
✓	(1) A list of the high-priority stormwater issues the permittee addressed in the public education and outreach program.	<ul style="list-style-type: none"> ▪ Chesapeake Bay Nutrients ▪ Pet Wastes ▪ Illicit Discharges
✓	(2) A list of strategies used to communicate each high priority stormwater issue.	See BMPs 3.1.A-3.1.C.

3.1. A Signage

The MS4 Program Plan establishes the following measurable goals and evaluation criteria:

- **BMP Goal:** The Park aims to make at least one signage focused on at least one of the high-priority topics identified above available to the public per each year of coverage under this MS4 permit.
- **Intended Audience:** The public audience is park visitors that utilize park facilities and grounds.
- **Metric:** The key metric will be the number of signs produced and posted.

BMPs from MS4 Program Plan	FY22 Activities
Temporary or permanent signage in public places or facilities, or storm drain stenciling.	<p>There was no new signage added to the GWMP in FY 2022.</p> <p>Note: NPS tries to minimize signage on National Historic property as required per National Historic Preservation requirements.</p>



3.1. B Media Materials

The MS4 Program Plan establishes the following measurable goals and evaluation criteria:

- **BMP Goal:** The Park aims to post at least one social media message focused on stormwater and the high-priority issues per quarter (4 messages per year) on either Twitter and/or Facebook.
- **Intended Audience:** The public audience is park visitors that “follow” GWMP on the social media sites of Twitter and Facebook. This audience includes both local and non-local members of the public.
- **Metric:** The metric will be based on the number of “Likes” and/or reposting’s of the park’s media messages.

BMPs from MS4 Program Plan	FY22 Activities
Social media messages	One social media post was made during FY 2022. The post about the stormwater management plan was liked 7 times and shared once.

3.2 Public Involvement/Participation (MCM #2)

In accordance with Part I E 2 f of the General Permit, the following information must be reported in the annual report:

	Annual Report Requirement	Documentation
✓	(1) A summary of any public input on the MS4 program received (including stormwater complaints) and how the permittee responded.	No public input on the MS4 program was received during this reporting period.
✓	(2) A webpage address to the permittee’s MS4 program and stormwater website.	The webpage address is https://parkplanning.nps.gov/ms4va See BMP 3.2. A.
✓	(3) A description of the public involvement activities implemented by the permittee.	See BMP 3.2. B.
✓	(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.	See BMP 3.2. B.
✓	(5) The names of other MS4 permittees with whom the permittee collaborated in the public involvement opportunities.	The GWMP participated in joint training with the city of Arlington in May 2022. The training was regarding general MS4 responsibilities and housekeeping. Approximately 5 personnel from NPS were in attendance during the training.



3.2. A Stormwater Webpage

The objective of the stormwater webpage is to ensure that the public has readily available access to all MS4 program documents and reporting mechanisms.

The MS4 Program Plan establishes the following measurable goals and evaluation criteria: “The GWMP website on which the park posts MS4 information will be the primary mechanism by which the public can review pertinent stormwater/MS4 program information as well as locate contact information for GWMP employees who will be identified as the point-of-contact(s) for stormwater issues.”

BMPs from MS4 Program Plan	FY22 Activities
Host the stormwater webpage with the required permit information.	<p>The GWMP’s stormwater webpage includes the following information:</p> <ul style="list-style-type: none"> ▪ Effective MS4 permit and coverage letter ▪ Most current MS4 Program Plan ▪ Annual report within 30 days of submittal to DEQ ▪ List of GWMP staff and phone numbers for the public to contact <p>See Appendix B for a snapshot of the webpage.</p>

3.2. B Public Involvement Opportunities

The objective of this BMP is to increase the public’s awareness and participation in the GWMP’s water quality and pollution prevention efforts.

The MS4 Program Plan establishes the following measurable goals and evaluation criteria: “GWMP commits to four activities per year in accordance with the park’s MS4 permit.” The four activities are summarized below:

BMPs from MS4 Program Plan	FY22 Activities
Volunteer Cleanups: Conduct one to two cleanups each permit year and report the number of full trash bags collected.	For trash cleanup, GWMP had 1,287 volunteers contribute 3,973 hours of service. 1,719 bags of trash (11,869 lbs. of trash) were cleaned up. For weed warriors, GWMP had 717 volunteers contribute 2,687 hours.
Public presentation of the visitor interpretation video called “Leave No Trace”: Conduct one to two viewings and report estimated number of visitors who viewed the video.	Due to COVID, the “Leave No Trace” video was not shown at the Great Falls Visitor Center due to the center being closed. The following specials programs occurred during FY 2022. Formal School Programs for scheduled groups: # of programs: 21 # of visitors total: 837



	<p>Formal Falls Walks for scheduled groups: # of programs: 3 # of visitors total: 82</p> <p>National Junior Ranger Day formal public program: # of total visitors: 1281 # for Binocular Activity visitors total: 275 # of new Junior Rangers total: 181</p> <p>Juneteenth Special Program # of total visitors: 62</p>
<p>Representation of GWMP and Regional personnel on local agency stormwater management panels: Participate in at least two meetings each permit year and report the number of meetings attended.</p>	<p>GWMP participated in two panels for the United States Regional Response Team (RRT III) committee in FY 2022. This is the national response spill team for the region.</p>
<p>Work with park partners to present watershed and stormwater management information to public audiences: Update partner work plans to incorporate information about stormwater management and report the number of people receiving the information.</p>	<p>GWMP partners include the Alice Ferguson Foundation and the Friends of Dyke Marsh. There were no updates to partner plans during the reporting period.</p>



3.3 Illicit Discharge Detection and Elimination (MCM #3)

In accordance with Part I E 3 e of the General Permit, the following information must be reported in the annual report:

	Annual Report Requirement	Documentation
✓	(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.	GWMP confirms that the MS4 map and information table have been developed based on best available data for the system and that no changes to the system were implemented in the reporting year. The map is included in the MS4 Program Plan and is on the webpage.
✓	(2) The total number of outfalls screened during the reporting period as part of the dry weather screening program.	See BMP 3.3. B.
✓	(3) A list of illicit discharges to the MS4 including spills reaching the MS4 with information as follows: <ul style="list-style-type: none"> ▪ The source of illicit discharge ▪ The dates that the discharge was observed, reported, or both ▪ Whether the discharge was discovered by the permittee during dry weather screening, reported by the public, or other method ▪ How the investigation was resolved ▪ A description of any follow-up activities ▪ The date the investigation was closed 	See BMP 3.3.C.



3.3. A Procedures and Forms Review

The objective of this BMP is to ensure that written procedures are in place to detect, identify, and address unauthorized non-stormwater discharges and illegal dumping to the storm sewer system. These procedures provide an added level of consistency to effectively prohibit illicit discharges and illegal dumping to the storm sewer system, and to conduct enforcement actions as necessary.

The MS4 Program Plan establishes the following measurable goals and evaluation criteria: “Park staff will review pertinent (illicit discharge detection and elimination) IDDE written procedures and forms once to ensure they are comprehensive and reflect any new information based on any previous year’s IDDE investigations.”

BMPs from MS4 Program Plan	FY22 Activities
Review and update (as needed) every two years the IDDE written procedures and “Storm Water Outfall Dry Weather Screening Inspection Form.”	The IDDE written procedures and Stormwater Outfall Dry Weather Screening Inspection form were reviewed. No updates and/or changes were made to the procedures and the form in FY 2022.

3.3. B Dry Weather Outfall Screening

The objective of this BMP is to identify and eliminate illicit discharges as soon as possible to minimize impacts to water quality. The GWMP’s IDDE Procedures are documented in the MS4 Program Plan.

The MS4 Program Plan establishes the following measurable goals and evaluation criteria: “Park staff will strive to screen 50 outfalls a year such that no more than 50% are screened in the previous 12-month period”.

BMPs from MS4 Program Plan	FY22 Activities
Perform annual dry weather screening of 50 outfalls.	During FY 2022, 59 outfalls were screened. A copy of the screening forms is located in Appendix C.



3.3.C Illicit Discharge Tracking

The General Permit requires that the GWMP track and process complaints about potential illicit discharges and to coordinate an appropriate response. Potential illicit discharges are identified through public reporting in MCM #1, the dry weather outfall screening program in BMP 3.3.B, and staff reporting in MCM #6.

The MS4 Program Plan establishes the following measurable goals and evaluation criteria: “Investigation information will be maintained in an electronic log.” At a minimum the log tracks the data in Table 4.

BMPs from MS4 Program Plan	FY22 Activities
Maintain illicit discharge tracking log.	There were no illicit discharges reported in FY 2022.



3.4 Construction Site Stormwater Runoff Control (MCM #4)

In accordance with Part I E 4 d of the General Permit, the following information must be reported in the annual report:

	Annual Report Requirement	Documentation
✓	<p>(1) If the permittee implements a construction site stormwater runoff program in accordance with Part I E 4 a (3):</p> <ul style="list-style-type: none"> ▪ A confirmation 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. ▪ 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. 	<p>The GWMP is a federal entity that has not developed standards and specifications as described in Part I E 4 a (4) of the permit and thus is not required to provide the annual reporting information specified for this MCM. The GWMP MCM #4 activities are described in the MS4 Program Plan – see BMP 3.4. A.</p>

3.4. A Procedures and Forms Review

The objective of this BMP is to ensure that the GWMP has in place processes and procedures necessary to address discharges from regulated construction site stormwater runoff.

The MS4 Program Plan establishes the following measurable goals and evaluation criteria: “Park staff will review stormwater management practices at construction sites affecting more than 2,500 square feet to ensure contractors are meeting contract obligations.”

BMPs from MS4 Program Plan	FY22 Activities
<p>Conduct at least two site visits per permit year at construction sites that disturb 2,500 square feet or more of soil. Identify non-compliance and require the contractor to rectify the issue(s).</p>	<p>There was one project that was over 2500 square feet of disturbance. The Project was the building the US Marine Corps War Memorial comfort station, located in Arlington Ridge Park, Rosslyn, Virginia. Multiple site visits and inspections were conducted during the construction period. The project was completed in June 2022. There were no non-compliance issues identified.</p>



3.5 Post Construction Stormwater Management (MCM #5)

In accordance with Part I E 5 i of the General Permit, the following information must be reported in the annual report:

	Annual Report Requirement	Documentation
✓	<p>(1) If the permittee implements a Virginia Stormwater Management Program in accordance with Part I E 5 a (1) and (2):</p> <ul style="list-style-type: none"> ▪ The number of privately owned stormwater facility inspections conducted. ▪ 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. 	<p>The GWMP is a federal entity that has not developed standards and specifications as described in Part I E 5 a (4) of the permit and thus is not required to provide the annual reporting information specified.</p>
✓	<p>(2) The total number of inspections conducted on stormwater management facilities owned or operated by the permittee.</p>	<p>Currently GWMP does not own or operate any stormwater management facilities in the MS4.</p>
✓	<p>(3) A description of the significant maintenance, repair, or retrofit activities performed on the stormwater management facilities owned and 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.</p>	<p>NPS operates one BMP in the park, which was constructed in January 2020 (Dyke Marsh Phase I). No maintenance has been performed on this BMP.</p>
✓	<p>(4) A confirmation statement that the permittee submitted stormwater management facility information through the Virginia Construction 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.</p>	<p>For the one project that was subject to the Virginia Construction General Permit for land disturbing activities the required permitting was obtained through the Virginia Department of Environmental Quality.</p>
	<p>(5) A confirmation statement that the permittee electronically reported BMPs using the DEQ BMP Warehouse in accordance with</p>	<p>There were no additional BMPs added to GWMP in FY 2022. Therefore, no report</p>



	Part I E 5 g and the date on which the information was submitted.	was submitted to the DEQ BMP Warehouse.
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3.6 Pollution Prevention/Good Housekeeping for Municipal Operation (MCM #6)

In accordance with Part I E 6 q of the General Permit, the following information must be reported in the annual report:

	Annual Report Requirement	Documentation
✓	(1) A summary of any operational procedures developed or modified in accordance with Part I E 6 a during the reporting period.	See BMP 3.6. A.
✓	(2) A summary of any new stormwater pollution prevention plans (SWPPPs) developed in accordance with Part I E 6 c during the reporting period.	No new SWPPPs were developed during the reporting period.
✓	(3) A summary of any SWPPPs modified in accordance with Part I E 6 f or the rationale of any high priority facilities de-listed in accordance with Part 1 E 6 h during the reporting period.	No SWPPP was modified in accordance with Part I E 6 f or delisted during the reporting period.
✓	(4) A summary of any new turf and landscape nutrient management plans developed that includes: <ul style="list-style-type: none"> ▪ Location and total acreage of each land area. ▪ The date of the approved nutrient management plan. 	An updated copy of the turf management plan was certified for GWMP. See the updated turf management plan in the Appendix D.
✓	(5) A list of training events conducted in accordance with Part I E 6 m, including the following information: <ul style="list-style-type: none"> ▪ The date of the training event. ▪ The number of employees who attended the training event. ▪ The objective of the training event. 	See BMP 3.6. C.



3.6.A Procedures Review

The objective of this BMP is to implement pollution prevention procedures for operation and maintenance activities as required in Part I E 6 a of the General Permit.

The MS4 Program Plan establishes the following measurable goals and evaluation criteria: “Park staff will review stormwater good housekeeping and pollution prevention practices and make updates as appropriate.”

BMPs from MS4 Program Plan	FY22 Activities
Review and update (as needed) every two years the written procedures and associated training content for employees.	The procedures were reviewed, and no updates were made.

3.6. B Stormwater Pollution Prevention Plans for High-Risk Facilities

The objective of this BMP is to reduce and prevent the discharge of pollutants from high-priority facilities through SWPPPs and other pollution prevention measures.

The MS4 Program Plan establishes the following measurable goals and evaluation criteria: “Two locations are considered high-priority facilities that have the potential to discharge pollutants in accordance with the MS4 permit. Both locations have a written SWPPP in place (GWMP Maintenance Complex and Daingerfield Island).”

BMPs from MS4 Program Plan	FY21 Activities
Implement SWPPPs.	The GWMP continued to implement SWPPPs for the Maintenance Complex and Daingerfield Island. The Annual Inspection at the Maintenance complex and Daingerfield Island occurred in June 2022. The annual inspections are included in Appendix D.
Review high-priority sites after incidents and update SWPPPs, if necessary.	No incidents occurred at the sites during the reporting period.

3.6.C Training

The purpose of this BMP is to implement a training plan in accordance with Part I E 6 m-o of the General Permit.

The MS4 Program Plan establishes the following measurable goals and evaluation criteria: “GWMP will maintain documentation of each training event for a minimum of 3 years, including date, number of attendees, and objective.”

BMPs from MS4 Program Plan	FY21 Activities
Recognition and reporting of illicit discharges.	See Appendix D for presentation.
Pollution prevention and good	See Appendix D for presentation.



housekeeping training.	
Virginia Pesticide Control Act, Virginia Erosion and Sediment Control Law, and Virginia Stormwater Management Act.	GWMP has one licensed applicator who applies herbicide along the parkway. GWMP also requires contractors performing these services to be trained as required. A copy of licensure for the GWMP licensed applicator is located in Appendix D.
Spill response	See Appendix D for presentation.

4.0 MS4 Program Plan Assessment

In accordance with the General Permit, the GWMP has evaluated the MS4 Program Plan in FY 2021, including a review of each MCM. The GWMP finds that the BMPs established to implement the MCMs are effective and that no changes are required at this time.

5.0 Special Conditions Associated with TMDLs

The General Permit requires the GWMP to develop action plans to address TMDLs where a wasteload allocation (WLA) has been assigned to the MS4.

The following provides an update on the status of the GWMP’s Chesapeake Bay TMDL compliance activities. The Chesapeake Bay TMDL Action Plan was certified on January 2021 after public comment and submitted to the DEQ. Approval of the plan was received on July 13, 2021. Implementation status of that plan is as follows:

- The Dyke Marsh Restoration Phase I was completed in January 2020. Phase II started in July 2022 and will be documented in the FY 2023 annual report.
- The Roaches Run Water Sanctuary was a wetland enhancement involving planting native vegetation in the Roaches Run Waterfowl Sanctuary to enhance the function of freshwater wetlands. The wetland enhancement is still ongoing. In Year 2, larger specimens and plants were replanted to have a better success rate. In FY 2023, the success of Year 2 plantings will be documented.

A Comprehensive Local TMDL Action Plan has been prepared to address bacteria and PCB TMDLs assigned to the GWMP. This document was certified in January 2021 after public comment and submitted to the DEQ. Approval of the plan was received on July 13, 2021. Implementation status of that plan is as follows:

- The park continues to enforce the cleaning up of pet excrements in the parkway.
- All necessary training was conducted in accordance to the TMDL Action Plan.
- The public outreach conducted is listed above in the Annual Report.
- There were no illicit discharges reported during this period. There were 59 illicit discharges inspections conducted during this period.