



**MARYLAND DEPARTMENT OF THE ENVIRONMENT  
WATER AND SCIENCE ADMINISTRATION**

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM  
GENERAL PERMIT FOR DISCHARGES FROM  
SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS**

**GENERAL DISCHARGE PERMIT NO. 13-IM-5500  
GENERAL NPDES NO. MDR055500**

Final Determination: April 27, 2018  
Effective Date: October 31, 2018  
Expiration Date: October 30, 2023

This National Pollutant Discharge Elimination System (NPDES) general permit covers small municipal separate storm sewer systems (MS4s) in certain portions of the State of Maryland. MS4 owners and operators to be regulated under this general permit must submit a Notice of Intent (NOI) to MDE by October 31, 2018. An NOI serves as notification that the MS4 owner or operator intends to comply with the terms and conditions of this general permit.

**APPENDIX D**

**Municipal Small MS4 Progress Report**

**Maryland Department of the Environment (MDE)**

**National Pollutant Discharge Elimination System (NPDES)  
Small Municipal Separate Storm Sewer Systems (MS4) General Permit**

This Progress Report is required for those jurisdictions covered under General Discharge Permit No. 13-IM-5500. Progress Reports must be submitted to:

Maryland Department of the Environment, Water and Science Administration  
Sediment, Stormwater, and Dam Safety Program  
1800 Washington Boulevard, Suite 440, Baltimore, MD 21230-1708  
Phone: 410-537-3543 FAX: 410-537-3553  
Web Site: [www.mde.maryland.gov](http://www.mde.maryland.gov)

**Contact Information**

Permittee Name:	City of Brunswick, Maryland
Responsible Personnel:	Abigail Ingram
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**Signature of Responsible Personnel**

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.

Abigail Ingram		10/31/2023
Printed Name	Signature	Date

**Reporting Period (State Fiscal Year):**

2023

**Due Date:**

10/31/2023

**Date of Submission:**

10/31/2023

**Type of Report Submitted:**

Impervious Area Restoration Progress Report (Annual):

Six Minimum Control Measures Progress (Years 2 and 4):

Both:

**Permittee Information:**

Renewal Permittee:

New Permittee:

**Compliance with Reporting Requirements**

Part VI of the Small MS4 General Discharge Permit (No. 13-IM-5500) specifies the reporting information that must be submitted to MDE to demonstrate compliance with permit conditions. The specific information required in this MS4 Progress Report includes:

1. Annual: Progress toward compliance with impervious area restoration requirements in accordance with Part V of the general permit. All requested information and supporting documentation must be submitted as specified in Section I of the Progress Report.
2. Years 2 and 4: Progress toward compliance with the six minimum control measures in accordance with Part IV of the general permit. All requested information and supporting documentation shall be reported as specified in Section II of the Progress Report. MDE may request more frequent reporting and/or a final report in year 5 if additional information is needed to demonstrate compliance with the permit.

**Instructions for Completing Appendix D Reporting Forms**

The reporting forms provided in Appendix D allow the user to electronically fill in answers to questions. Users may enter quantifiable information (e.g., number of outfalls inspected) in text boxes. When a more descriptive explanation is requested, the reporting forms will expand as the user types to allow as much information needed to fully answer the question. The permittee must indicate in the forms when attachments are included to provide sufficient information required in the MS4 Progress Report.

**Section I: Impervious Area Restoration Reporting Form**

**Section I: Impervious Area Restoration Reporting**

1. a. Was the impervious area baseline assessment submitted in year 1?

Yes  No

b. If No, describe the status of completing the required information and provide a date at which all information required by MDE will be submitted:

c. Has the baseline been adjusted since the previous reporting year?

Yes  No

2. Complete the information below based on the most recent data:

Total impervious acres of jurisdiction covered under this permit:

Total impervious acres treated by stormwater water quality best management practices (BMPs):

Total impervious acres treated by BMPs providing partial water quality treatment (multiply acres treated by percent of water quality provided):

Total impervious acres treated by nonstructural practices (i.e., rooftop disconnections, non-rooftop disconnections, or vegetated swales):

Total impervious acres untreated in the jurisdiction:

Twenty percent of this total area (this is the restoration requirement):

Verify that all impervious area draining to BMPs with missing inspection records is not considered treated. Describe how this information was incorporated into the overall analysis:

All validated BMPs have been inspected and maintained or are currently undergoing maintenance (FR15BMP000802 Hunter's Knoll Pond, exterior embankment tree removal) at this time. BMPs listed as PENDING FINAL will be monitored and assigned credit once they receive final inspection from Frederick County.

2. Has an Impervious Area Restoration Work Plan been developed and submitted to MDE in accordance with Part V.B, Table 1 of the permit or other format?

Yes  No

Has MDE approved the work plan?

Yes  No

## Section I: Impervious Area Restoration Reporting

If the answer to either question is No, describe the status of submitting (or resubmitting) the work plan to MDE and provide a date at which all outstanding information will be available:

Describe progress made toward restoration planning, design, and construction efforts and describe adaptive management strategies necessary to meet restoration requirements by the end of the permit term:

### RAS Project Updates

- USDA Community Facility Grant (AWARDED!)** The City was awarded \$97,926.50 through the USDA Community Facility Grant to help support the purchase of a **RAVO 5 iSeries Vacuum Street Sweeper**. Full program and schedule development is still underway. After procuring the street sweeper in 2023, our focus turned to infrastructure to support proper disposal of swept material. The Department of Public works designed a debris bay that would allow saturated swept matter to set and allow liquids to drain to the municipal sanitary sewer. All solids will be under cover and regularly hauled away for disposal at the Frederick County Landfill. Construction of the street sweeper facility was on hold while the new DPW Headquarters was completed. Once DPW moved central activity to the new building, space was available for the street sweeper bay. Next reporting year will show EIA credit for our new Ravo.

The actual amount of credit the City will claim for this BMP is yet to be determined; however, our goal is to sweep all City roadways on a monthly basis (yielding an estimated 6 AC of EIA Credit). This vehicle will be the flagship for our MS4 Program and utilized to fulfil our lofty outreach goals in the future. Our initial plans include applying a standout vehicle wrap as well as a contest to name the sweeper on Social Media. Once the schedule is set, the contest will be announced.

### **Contracted Street Sweeping Credit to Date (2019-2023) (See also Attachment A).**

Year	Sum of Cost	Average of Total Lane Miles Swept
2019	\$3,675	1.0
2020	\$3,900	1.0
2021	\$3,525	1.0
2022	\$3,225	1.0
2023	\$3,600	1.0
<b>Total</b>	<b>\$17,925</b>	<b>1.0</b>
EIA Factor per Lane Mile Swept (VSS @ 1 pass/week)		0.235
<b>Annual EIA (Term to Date)</b>		<b>0.235</b>

## Section I: Impervious Area Restoration Reporting

### City General Fund/ARPA Projects

- **Stream Restoration (Site S-1) – Design/Engineering (Underway)** A nutrient credit assessment was conducted for Site-1 with results received in September (See Attachment D). The City of Brunswick gave the engineer approval to proceed with stream restoration design engineering. We expect to have 30 percent plans ready for review in early 2024. This stream restoration is a leading RAS project which will provide 50.6 EIA in restoration as well as load reductions in Total Phosphorus (179.3 lb/yr), Total Nitrogen (282.9 lb/yr), and Total Suspended Solids (449K lb/yr).

### Grant Progress

In the last year, the City of Brunswick has successfully been awarded grant and loan support for **MULTIPLE** projects in support of our MS4 Program.

- **MDEM HMGP – Comprehensive SWM & Flooding Plan – Awarded/Underway** The City applied to the MD Hazard Mitigation Grant Program (HMGP) to fund a *Comprehensive Stormwater Management Plan and Flood Study by Drainage Area*. This plan will assess the entire City by drainage area to identify flood-prone areas (flash and nuisance flooding). It will work hand-in-hand with the *Watershed Implementation Plan (WIP)* to prioritize areas where mitigation is needed. We are currently working on procuring a consultant to conduct the study and develop the document.
- **MWIFA (Loan) Stream Restoration (Site S-6) – Received/Pending Award** The City applied for grant assistance for a 1,500 LF stream restoration project yielding an estimated 45 AC of EIA credit. The total amount request is half of the complete project cost of \$525,000. Shared costs will cover planning to construction. Specific stream restoration methodologies will follow the MDE *Maryland Waterway Construction Guidelines* to ensure compliance with Chesapeake Bay Program Expert Panel Protocols.
- **MWIFA (Loan) Septic Connections - Received/Pending Award** The City applied for grant/loan assistance to connect 13 existing septic systems to the wastewater treatment plant (WWTP). Project implementation costs will include design and construction costs for sanitary sewer extension, connection, as well as any roadway trenching. This will yield 3.0 EIA towards our restoration goals.
- **FEMA Building Resilient Infrastructure and Communities (BRIC) – Round 2 Review** The City submitted two separate applications under this grant for 1.) the Pond Retrofit (Brunswick Shopping Center), and 2.) installation of a SmartSWM device at Brunswick Crossing Pond 3. We are still in the second round of review. The last update we received was State Clearinghouse Review and Recommendation letter on 1/25/2023.



**Section I: Impervious Area Restoration Reporting**

3. Has a Restoration Schedule been completed and submitted to MDE in accordance with Part V.B, Table 2 of the permit?

Yes  No

In year 5, has a complete restoration schedule been submitted including a complete list of projects and implementation dates for all BMPs needed to meet the twenty percent restoration requirement?

Yes  No

Are the projected implementation years for completion of all BMPs no later than 2025?

Yes  No

Describe actions planned to provide a complete list of projects in order to achieve compliance by the end of the permit term:

The City is on track and making progress on meeting our restoration targets. We have great traction on working towards implementing the projects identified in our WIP using grant and City budgeting. The projects identified in our RAS are generally set at this point and represent a variety of methodologies and scales.

Describe the progress of restoration efforts (attach examples and photos of proposed or completed projects when available):

See #2 for a full description of projects and progress on restoration efforts.

4. Has the BMP database been submitted to MDE in Microsoft Excel format in accordance with Appendix B, Tables B.1.a, b, and c?

Yes  No

Is the database complete?

Yes  No

If either answer is No, describe efforts underway to complete all data fields, and a date that MDE will receive the required information:

n/a

## Section I: Impervious Area Restoration Reporting

5. Provide a summary of impervious area restoration activities planned for the next reporting cycle (attach additional information if necessary):

The Restoration Activities planned for 2024 includes the launch of our City Street Sweeping program and design of our first Stream Restoration project (Site S-1).

**Street Sweeper:** Our strategy in the near term is to use one of the local neighborhoods, Galyn Manor, as a test zone to assess what our actual progress and potential conflicts may be. This area was selected as it is fully-curbed and set apart from other areas of the City. We will expand the program once our personnel are confident in the equipment (and process). We have considered other local entities' schedules and routes for guidance, such as the program operated by the City of Frederick, MD; Bowie, MD; and Montgomery County.

**Stream Restoration (Site S-1):** We expect to have 30% design drawings available for review in early 2024. The design will follow the approved strategy (using Protocol 1) identified in the 2023 Nutrient Credit Assessment for the study area.

## Section I: Impervious Area Restoration Reporting

6. Describe coordination efforts with other agencies regarding the implementation of impervious area restoration activities:

1. **MD State Highway Administration (MDSHA):** State Roads MD-17, MD-180, MD-464, and MD-478 bound and/or pass through the City of Brunswick thereby creating opportunities to coordinate in impervious area restoration measures. While we have not had specific negotiations to date, credit trading is something the City is interested in investigating, particularly along MD-17 (Petersville Road)
2. **CSX:** The City has coordinated with CSX to maintain SD outfalls on/near CSX property. CSX coordination must be carefully coordinated to ensure safety of personnel performing outfall inspections and maintenance (including removing sediment and debris obstructions). Coordination between CSX, Planning & Zoning, and Public Works is ongoing.
3. **Frederick County Public Schools:** The Draft Stormwater Report identified potential opportunities to implement or enhance BMP facilities at Brunswick High School and Brunswick Elementary School. These two locations have adequate open space to increase or add new BMP facilities and expand treatment.
4. **Frederick County Office of Environmental Compliance:** The County maintains SWM facility inspection records. City personnel have coordinated with the County to obtain BMP inspection forms to be consistent with data collection when possible. This office would like to explore the opportunity to have a roundtable for all Frederick municipality MS4s to discuss information and idea sharing.
5. **Frederick County Department of Stormwater:** The City of Brunswick recently held a meeting with Fred Co. Department of Stormwater on 9/27/2023 to discuss ways we can amplify our Public Outreach strategy. They gave us some great ideas and leads, as well as ways we can partner with the County. Another topic discussed was holding a County-wide MS4 Round Table where all Frederick County MS4s can meet to share ideas and strategies, as well as identify unique and maybe not-so-unique challenges and of course brainstorm solutions!

7. List total cost of developing and implementing the impervious area restoration program during the permit term:

We estimate the total cost of the impervious area restoration program to 2025 at \$2,737,000. The projects we have identified exceed the restoration target by over 12 AC even when considering the 10% increase in treatment goals recommended for this reporting period.

The estimated cost through 2030 is \$4,452,000. The most costly projects are two proposed stream restoration projects. (Let's hear it for grant funding!)