Montgomery Parks' Progress Towards Eliminating Pollution and Improving Water Quality

The National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) FY25 Annual Progress Report

The Maryland-National Capital Park and Planning Commission (M-NCPPC), and specifically the Montgomery County Department of Parks (Montgomery Parks), operates under the National Pollutant Discharge Elimination System (NPDES) Phase II general permit No. 13-SF-5501. This permit regulates stormwater discharges from small municipal separate storm sewer systems (MS4s) (hereafter referred to as the "MS4 permit"). An MS4 consists of publicly owned conveyances such as curbs, gutters, ditches, and storm drains that collect or transport stormwater runoff. Unlike sanitary sewers, MS4s discharge directly to local streams and waterways without treatment, which then carry pollutants downstream.

Figure 1. *Montgomery Parks staff and volunteers conduct biological monitoring to assess the water quality of streams like the Hoyles Mill Tributary*

Montgomery Parks' MS4 permit is issued by the Maryland Department of the Environment (MDE) under the Federal Clean Water Act. The permit's goal is to reduce nutrient and sediment pollution within the Chesapeake Bay watershed through the implementation of Best Management Practices (BMPs). These BMPs include stormwater treatment facilities that manage runoff from impervious surfaces, reforestation projects, outfall stabilizations, and public education and engagement programs.

As stewards of key tributaries to the Chesapeake Bay, Montgomery Parks' mission aligns closely with the objectives of the MS4 permit – to reduce stormwater pollution, foster public awareness and involvement, and collaborate with other MS4 permittees to achieve shared water quality goals.

Each year, Montgomery Parks submits an annual report to MDE summarizing progress towards meeting the 20% impervious area restoration requirement and other water quality improvement milestones by 2025. This FY25 annual report presents accomplishments from July 1, 2024 through June 30, 2025 that fulfill MS4 permit requirements. The current permit term remains administratively extended while MDE develops a new permit, under which Montgomery Parks will plan for additional restoration activities to be completed by 2030.

Section I: Impervious Area Restoration

The impervious area restoration requirement under the MS4 permit aims to reduce stormwater pollution and support progress toward achieving 2025 water quality goals, including those established by the Chesapeake Bay Total Maximum Daily Load (TMDL). This provision requires MS4 permittees to treat 20% of the impervious surfaces within their jurisdiction that lack formal stormwater management.

During the first year of the permit term, Montgomery Parks conducted a comprehensive assessment of untreated impervious surfaces across parkland to establish the 20% restoration target. Although impervious surfaces account for a small portion of total parkland, Montgomery Parks is committed to mitigating stormwater runoff through a range of effective treatment strategies.

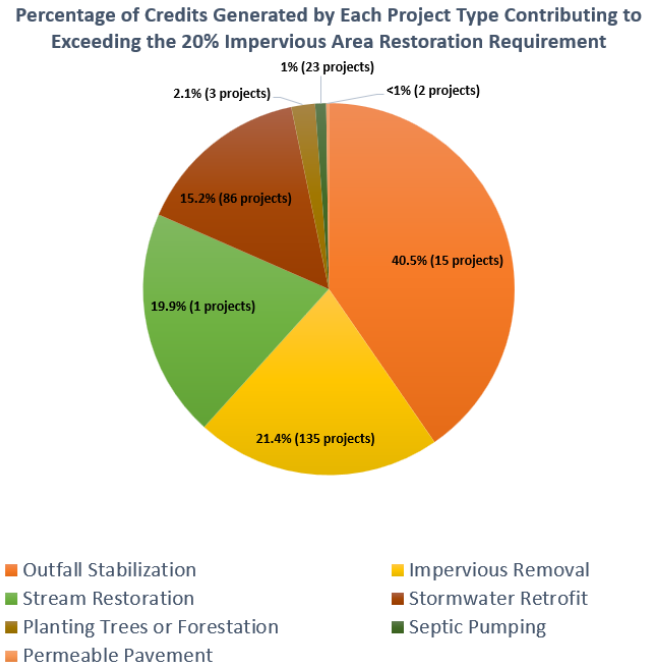


Figure 2. *Percentage of Credits Generated by Each Project Type Contributing to Exceeding the 20% Impervious Area Restoration Requirement*

Best Management Practices (BMPs) implemented to reduce pollutants and improve water quality include stormwater retrofits such as micro-bioretentions and infiltration trenches, as well as alternative approaches such as stream restoration, outfall stabilization, and impervious removal. Credits generated through these practices are calculated using MDE's approved methodologies and applied toward fulfilling the 20% impervious area treatment requirement.

As of FY25, Montgomery Parks has met and exceeded the 20% impervious area restoration goal by 5.39 acres, demonstrating continued progress and a strong commitment to improving water quality within the Chesapeake Bay. To achieve this milestone, Montgomery Parks implemented a diverse mix of project types rather than relying on just one approach. Figure 2 illustrates how each project type contributed to exceeding the impervious area restoration requirement.

Impervious Area Restoration Summary:

- Total untreated impervious area on parkland: **332.4 acres** (<0.1% of total parkland)
    - 20% impervious area restoration requirement: **66.5 acres**
- Total impervious area treated to date: **71.9 acres**
- Exceedance: **5.4 acres above the requirement**

Stormwater Retrofits, Outfall Stabilization, and Stream Restoration

Montgomery Parks met the goals of the MS4 permit in part by implementing stormwater retrofits, outfall stabilization, and stream restoration projects that contribute toward meeting the 20% impervious area restoration requirement. These efforts are carried out through two complementary programs: the Stormwater Retrofits and Environmental Enhancements Program and the Stream Restoration and Sustainable Outfall Stabilization Program.

The Stormwater Retrofits and Environmental Enhancements Program focuses on installing stormwater management facilities that treat previously untreated runoff while enhancing natural resources on parkland. Recent examples include a new micro-bioretention facility at Colesville Local Park, designed to capture and treat runoff from an existing parking lot, and similar projects currently under construction at Kemp Mill Estates Local Park and Black Hill Regional Park.

Figure 3. *Installation of a micro-bioretention at Colesville Local Park to treat previously untreated stormwater runoff from the parking lot*

The Stream Restoration and Sustainable Outfall Stabilization Program addresses degraded stream channels and failing stormwater outfall infrastructure. These projects convert concrete-lined or eroded channels into stable, naturalized systems that slow water flow, enhance infiltration, and improve habitat and water quality. Recent accomplishments include two outfall stabilization projects completed at Flower Avenue and Parker Avenue, which replaced concrete-lined channels with naturalized features and native vegetation.

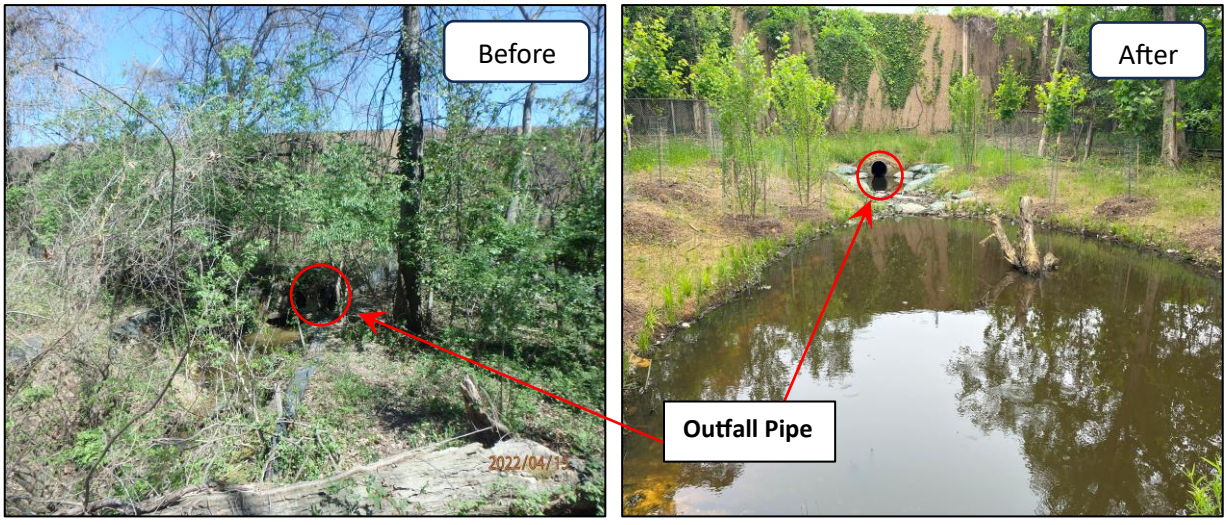


Figure 4. *Flower Avenue Outfall Stabilization at Indian Springs Terrace Local Park*

In addition to improving conditions on parkland, Montgomery Parks' collaborates with Montgomery County, implementing stream restoration and stormwater retrofit projects on parkland in support of the County's Phase I MS4 permit to meet their impervious area restoration goals. For example, Montgomery Parks recently completed the restoration of the Glenallan Tributary at Wheaton Regional Park, which was credited to the County. Stream restoration helps reduce erosion, restore floodplain connectivity, and enhance aquatic habitat, resulting in water quality and ecological benefits. Several new stream restoration projects are currently being studied for the next permit cycle, continuing Montgomery Parks' commitment to collaborative partnerships, advancing watershed health, and NPDES compliance.

Section II: Minimum Control Measures (MCM)

MCM 1: Public and Personnel Education and Outreach

As part of the MS4 permit, Montgomery Parks is required to implement and maintain an education and outreach program to help reduce pollutants discharged through stormwater runoff. Educational materials are developed for both staff and the community, tailored to specific audiences, and shared through various channels such as email, presentations, hands-on trainings, and informational pamphlets.

This year's mandatory Stormwater Pollution Prevention Training for operations and maintenance staff was delivered in person, reaching over 400 employees across four sessions. The program featured a live spill response demonstration and emphasized best practices for salt management to reduce environmental impacts.

Figure 5. *Montgomery Parks staff members attend the annual Stormwater Pollution Prevention Training hosted in the training room at Brookside Gardens*

In addition to the training, a new document was developed explaining what constitutes hazardous waste, the different types of hazardous materials, and why proper disposal is critical to protecting both individual health and the park system. The document introduced a waste disposal process that may be used by Parks staff and addressed frequently asked questions. This information was distributed through email to all staff, shared at various staff events, and will be incorporated into future pollution prevention training courses.

Montgomery Parks also updated the department-wide Spill Response Procedures and developed a wallet-sized reference card containing key contact numbers and a list of steps to follow in the event of a spill. The revised procedures were formalized to include clear reporting requirements, documentation and tracking protocols, and proper clean-up and disposal methods. These updates were introduced during the Stormwater Pollution Prevention Training and shared at division forums and during maintenance yard inspections. Laminated copies were added to the Stormwater Pollution Prevention (SWPPP) binders

and spill kits, and educational television prompts at maintenance yards now highlight how to access the updated procedures and properly respond to spills.

MCM 2: Public and Personnel Involvement and Participation

Figure 6. *Volunteers clean and bag 941 pounds of trash during a clean-up event at Winding Creek Local Park*

The Public and Personnel Involvement and Participation Program is designed to engage the community and staff in hands-on environmental stewardship and learning experiences. This program includes initiatives such as park and stream cleanups, non-native invasive plant removals, nature center programs, storm drain mural projects, and engagement events for all ages. Adult volunteers are also encouraged to take on leadership roles by becoming Cleanup Leaders, Weed Warrior Supervisors, Master Naturalists, or Volunteer Community Scientists. By training volunteers to become educators and leaders, Montgomery Parks expands the reach and impact of environmental education and water quality improvement efforts. Staff also work closely with community members and local watershed organizations to advance the objectives of the MS4 permit.

In FY25, Montgomery Parks volunteers removed and properly disposed of more than 134,000 pounds of trash from parks and streams. The Weed Warrior Volunteer Program also removed invasive vines from over 17,500 trees, helping improve tree health and longevity. Healthy trees play a critical role in stormwater management by capturing rainfall, promoting infiltration, stabilizing streambanks, and reducing erosion and sedimentation downstream.

Montgomery Parks continued to lead the Montgomery FrogWatch community science program, which empowers volunteers to monitor amphibians as indicators of water quality and ecosystem health. Volunteers are trained to identify frog and toad calls at local wetlands and report their observations online. The data collected supports regional conservation and management strategies for amphibians. In FY25, Montgomery Parks provided training resources and held 14 monitoring meetups hosted by naturalists at Locust Grove Nature Center, Meadowside Nature Center, and in partnership with Nature Forward. 12 volunteers reported data on 9 frog and toad species at 15 wetland locations, dedicating 76.5 hours of service and supplementing aquatic habitat monitoring data collected by staff.

Over the past fiscal year, the Nature Centers offered nearly 200 water-related programs, reaching more than 3,500 participants across the County. Programs such as Morning at the Stream, Creek Week, and

Figure 7. *Campers gather around to view an upcycled minnow trap during summer camp at Locust Grove Nature Center*

Maryland Day introduced participants of all ages to water quality concepts, sources of pollution, and the importance of protecting healthy waterways.

To further promote sustainability, a Zero Waste Kit equipped with reusable plates, cups, cutlery, and a compost bin is available at Meadowside Nature Center. In FY25, it was used at nine events, composting 10 pounds of food and diverting 948 items from the landfill.

MCM 3: Illicit Discharge Detection and Elimination

Figure 8. *Water polluted with sediment from a water main break flows from Brashear's Run into Sligo Creek*

As part of the Illicit Discharge Detection and Elimination (IDDE) Program, Montgomery Parks works to identify and eliminate illicit discharges by routinely inspecting stormwater outfalls located on parkland. With more than 2,900 outfalls across the park system, inspections are prioritized for locations with a higher risk of discharge, such as urbanized areas and park maintenance yards. Montgomery Parks also responds to reports of suspected pollution, including water or sewer line breaks and illegal dumping. Over the past fiscal year, Montgomery Parks exceeded the required 100 outfall screenings.

Per Chapter IV, Section 8 (Prohibited Activities and Conduct; Littering, Dumping, and Storage) of the M-NCPPC Rules and Regulations, the discharge of illicit materials is strictly prohibited. Enforcement of these regulations is carried out by M-NCPPC Park Police. Maintaining parks that are free of trash, hazardous materials, and other pollutants is essential to Montgomery Parks' mission to reduce stormwater pollution and protect the environment.

MCM 4: Construction Site Stormwater Runoff Control

Stormwater runoff from construction sites is regulated by the Montgomery County Department of Permitting Services (MC DPS). Construction projects on parkland must implement and maintain appropriate erosion and sediment (E&S) control measures in accordance with the approved E&S Control Permit. These measures are routinely inspected and monitored to ensure they remain effective for the duration of the project.

More than 50 Montgomery Parks employees currently hold the Maryland Department of the Environment (MDE) Responsible Personnel Certification for Erosion and Sediment Control. This certification ensures staff are properly trained to install, maintain, and oversee effective erosion and sediment control practices on-site.

MCM 5: Post-Construction Stormwater Management

Figure 9. *Stormwater maintenance crews plant a stormwater facility*

Stormwater management facilities are designed to treat runoff, remove pollutants, slow the flow of water, and promote groundwater recharge. Examples include micro-bioretentions, rain gardens, sand filters, and grass swales. Once constructed, these facilities require regular maintenance activities such as mowing, trash removal, erosion repair, weeding, and mulching. Proper maintenance is essential to ensure these facilities continue to function effectively.

There are more than 900 stormwater facilities on parkland, of which, Montgomery Parks staff perform year-round non-structural maintenance on most of these facilities, while the remaining facilities are maintained through partnerships with Montgomery County and other organizations.

In addition to routine maintenance, all stormwater facilities are inspected every three years to verify performance. Montgomery Parks conducts inspections for a portion of the facilities on parkland, while others are inspected through a collaborative program with Montgomery County. A formal inspection program was established in FY21, featuring a standardized inspection form, set inspection schedule, and photo documentation protocol. The program was enhanced in FY23 with the adoption of Survey123 for digital inspections and automated reporting. In FY25, inspections focused on outfall stabilization projects, with stream restoration sites and infiltration facilities scheduled for inspection in FY26.

MCM 6: Pollution Prevention and Good Housekeeping

Montgomery Parks has developed and implemented a program focused on pollution prevention and good housekeeping to minimize pollutant runoff outside of our 12 Maintenance Yards, which are covered under discreet Industrial Permits. The program includes annual staff training, recycling and waste management initiatives, integrated pest management, nuisance wildlife control, non-native invasive vegetation management, and other practices.

Figure 10. *Areas are swept and sediment is stored under a cover after a Good Housekeeping Plan was completed for Meadowbrook Stables*

Good housekeeping plans are developed for park facilities with a higher potential for pollution. These plans outline best practices for the safe storage, use, and cleanup of potentially harmful materials such as pesticides, fertilizers, cleaning

products, and automotive fluids. The plans also emphasize measures such as storing materials under cover, properly recycling or disposing of fluids, and promptly removing debris to reduce environmental impacts.

Montgomery Parks also conducts stream biological assessments to monitor fish and benthic macroinvertebrate (bottom-dwelling aquatic insect) communities. Data from these assessments provide valuable insights into stream health and water quality conditions. This information helps guide decisions related to stormwater mitigation projects, stream restorations, and other best management practices (BMPs), as well as evaluate biological improvements resulting from these efforts.

Conclusion

As stewards of Montgomery County's most significant stream valleys, Montgomery Parks is committed to protecting natural resources through stewardship, education, and collaboration—while balancing recreation and conservation needs. This mission aligns closely with the goals of the MS4 permit to reduce pollution and manage stormwater runoff.

Montgomery Parks has met and exceeded the MS4 requirement to treat 20% of previously untreated impervious surfaces through a variety of best management practices (BMPs). The department remains well-positioned to meet any future requirements established by the Maryland Department of the Environment (MDE) and will continue to collaborate with other MS4 permittees to implement BMPs and coordinate public outreach initiatives.

Figure 11. *Parks staff welcome attendees of Meadowside Nature Center's annual Maryland Day celebration, which featured a stormwater educational program*

MARYLAND DEPARTMENT OF THE ENVIRONMENT
WATER AND SCIENCE ADMINISTRATION

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

GENERAL DISCHARGE PERMIT NO. 13-SF-5501
GENERAL NPDES NO. MDR055501

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 State and federal 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

State and Federal 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 State and federal agencies covered under General Discharge Permit No. 13-SF-5501. 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

Contact Information

Permittee Name:	M-NCPPC Department of Parks, Montgomery County
Responsible Personnel:	Miti Figueredo, Director
Mailing Address:	2425 Reedie Drive, 12th Floor
	Wheaton, MD 20902
Phone Number(s):	(301) 495-2554
Email address:	Miti.Figueredo@montgomeryparks.org
Additional Contact(s):	Kyndal Gehlbach, NPDES Program Coordinator
Mailing Address:	2425 Reedie Drive, 11th Floor
	Wheaton, MD 20902
Phone Number(s):	(301) 495-2538
Email address:	Kyndal.Gehlbach@montgomeryparks.org

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.

Miti Figueredo		10/13/25
Printed Name	Signature	Date

Reporting Period (State Fiscal Year): 2025

Due Date: 10-31-2025 **Date of Submission:** 10-20-2025

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-SF-5501) 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 area covered under this permit: 412.6

   Total impervious acres treated by stormwater water quality best management practices (BMPs): 80.17

   Total impervious acres treated by BMPs providing partial water quality treatment (multiply acres treated by percent of water quality provided):
   0

   Total impervious acres treated by nonstructural practices (i.e., rooftop disconnections, non-rooftop disconnections, or vegetated swales):
   0

   Total impervious acres untreated: 332.43

   Twenty percent of this total area (this is the restoration requirement):
   66.49

   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:

   In accordance with the NPDES General Permit (13-SF-5501) Part V. Section D, only functioning BMPs that are inspected on a triennial basis are included in the impervious acre credit calculations and in the Restoration Activity Schedule (Appendix C: Restoration Activity Schedule). M-NCPPC Department of Parks (Parks) continues to utilize Survey123 to document and manage inspection results.

   Several BMPs owned by Montgomery County Department of Environmental Protection (MC DEP) receive and treat stormwater from impervious areas located on both MC DEP and Parks properties. Maintenance responsibilities for BMPs located on parkland are shared between Parks and MC DEP. MC DEP conducts the triennial

Section I: Impervious Area Restoration Reporting

inspections for these facilities, and inspection data from MC DEP are incorporated into the Urban BMP Database.

To prevent double counting of impervious acre credits between Parks and MC DEP, the impervious areas treated by these BMPs are spatially clipped to Parks' property boundaries using ArcGIS. Only the impervious area within Parks' property boundaries is included in Parks' baseline impervious acre total. Montgomery Parks coordinates directly with MC DEP to confirm that impervious acre credits are not duplicated. The methodology used to calculate impervious areas is provided in Appendix A: Baseline Impervious Area Assessment Methodology.

3. 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
   Note: *Included herein as Table 1. Impervious Area Restoration Work Plan.*

   Has MDE approved the work plan?
   ☑ Yes ☐ No

   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:
   Not applicable.

   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:
   Montgomery Parks has achieved and exceeded the required 20 percent impervious area restoration goal. In addition, Parks has developed a program for continued restoration implementation beyond 2025. The Restoration Activity Schedule includes an estimate of impervious area restoration sufficient to achieve an additional restoration equivalent to 10 percent of the current baseline by 2030. Montgomery Parks is well positioned to deliver additional restoration projects and will continue to plan, design, construct, and implement BMPs to meet permit targets.

4. 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

Section I: Impervious Area Restoration Reporting

Are the projected implementation years for completion of all BMPs no later than 2025?
☑ Yes ☐ No

Note: *Projects planned through 2030 are included in the Restoration Activity Schedule (Appendix C), which demonstrates capacity to achieve additional restoration equivalent to 10 percent of the current baseline by 2030.*

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

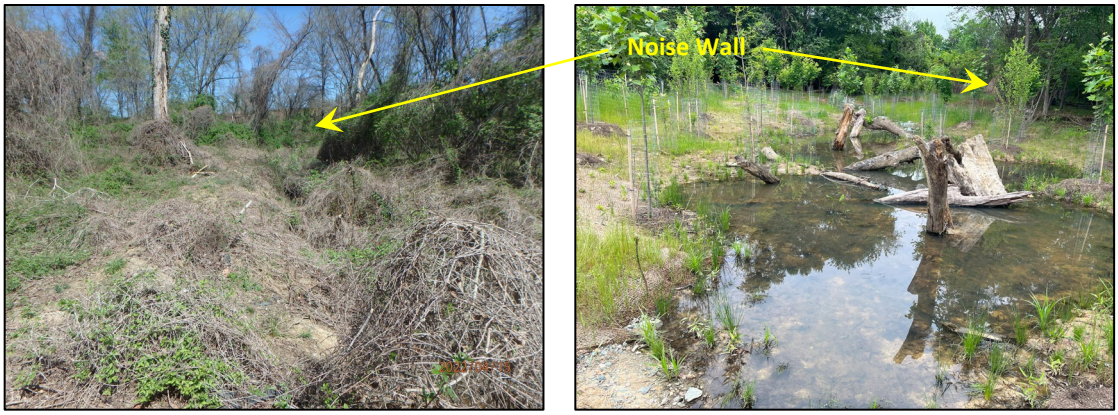
A comprehensive list of constructed and planned projects is provided in Appendix C: Restoration Activity Schedule. Montgomery Parks has achieved and exceeded the required 20 percent impervious area restoration. Consistent with Maryland Department of the Environment (MDE) recommendations, the Restoration Activity Schedule also includes an estimate of impervious area restoration planned to achieve an additional restoration equivalent to 10 percent of the current baseline by 2030.

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

During this crediting cycle, Montgomery Parks completed construction of two sustainable outfall stabilization projects: the Flower Avenue Outfall and the Parker Avenue Outfall. These projects are designed to reduce erosion and enhance both the quality and quantity of instream and riparian habitat. Each project includes extensive plantings of native plugs, shrubs, and trees to strengthen and diversify the local riparian vegetative community. Photographs of the completed sites are provided below.

Above: Flower Avenue outfall restoration (left is prior to construction and right is after construction; the same outfall pipe is visible in both photos).

Section I: Impervious Area Restoration Reporting



Above: Flower Avenue outfall restoration (left is prior to construction and right is immediately following construction; the noise wall in the distance is visible in both photos).

Above: Parker Avenue outfall restoration (left is prior to construction and right is immediately following construction; the sewer manhole on the left bank is visible in both photos).

Section I: Impervious Area Restoration Reporting

Above: Parker Avenue outfall restoration facing upstream (left is prior to construction and right is immediately following construction; the sewer manhole is visible in both photos).

In Fall 2024, Montgomery Parks completed a retrofit at Colesville Local Park, installing a micro-bioretention facility to provide stormwater treatment for an existing parking lot that previously lacked any treatment. Photographs of the site are provided below.

Above: Colesville LP Micro-bioretention before, during and after construction.

In Fall 2025, similar stormwater management facilities are under construction at Kemp Mill Estates Local Park and Black Hill Regional Park.

In addition, multiple new water quality improvement projects—including reforestation, outfall stabilization, stream restoration, impervious area removal,

Section I: Impervious Area Restoration Reporting

and stormwater retrofits—are currently in planning, design, and permitting phases and are listed in the Restoration Activity Schedule.

5. 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:
   Not applicable.

6. Provide a summary of impervious area restoration activities planned for the next reporting cycle (attach additional information if necessary):
   Montgomery Parks will continue advancing impervious area restoration. Planned projects are identified in the Restoration Activity Schedule to estimate impervious area restoration sufficient to achieve an additional restoration equivalent to 10 percent of the current baseline by 2030.

Section I: Impervious Area Restoration Reporting

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

As the steward of more than 37,000 acres of land across Montgomery County, Montgomery Parks' MS4 jurisdiction is adjacent to multiple other small and large MS4s, including Montgomery County, the Maryland Department of Transportation State Highway Administration (MDOT SHA), the City of Gaithersburg, the City of Takoma Park, the City of Rockville, and the U.S. General Services Administration. Communication and coordination on implementation strategies and activities are conducted with these jurisdictions whenever projects have the potential to affect multiple jurisdictions.

Montgomery Parks collaborates most frequently with Montgomery County, implementing stream restoration and stormwater retrofit projects on parkland in support of the County's Phase I MS4 Permit. Parks and Montgomery County also coordinate on the maintenance and inspection of stormwater management facilities located on parkland.

In 2024, Montgomery Parks joined the Maryland Municipal Stormwater Association (MAMSA), a statewide organization that brings together more than 20 local governments and consulting entities to facilitate collaboration, discussion, and knowledge sharing. Montgomery Parks remains an active participant in this association.

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

A portion of funding for the Montgomery Parks MS4 Program is provided through the Montgomery County Water Quality Protection Fund (WQPF). This fund is generated in part by a fee on impervious acreage within the County and is intended to improve the quality of County streams and reduce the impacts of stormwater runoff.

Projected funding for implementation of the impervious area restoration program during the five-year permit term plus the two-year administrative extension (seven years total) is as follows:

- ***Capital Improvement Program (CIP):** \$15,910,000 over the seven-year permit term through two funded projects:*
  - *Pollution Prevention and Repairs to Ponds and Lakes: \$7,020,000*
  - *Stream Protection: \$8,890,000*
- ***Operating Budget:** \$5,921,580 (\$845,940 annually)*

As the steward of Montgomery County's most significant stream valleys, Montgomery Parks' mission—to protect natural resources through stewardship, education, and collaboration while balancing the need for

recreation and conservation—aligns directly with the goals of the NPDES General Permit. In addition to the WQPF, Parks' general funds also support impervious area restoration and minimum control measure efforts, as these activities complement and advance Parks' core mission.

Table 1. Impervious Area Restoration Work Plan

	Management Strategies and Goals
Year 1 | FY19	1. Develop an impervious area baseline assessment and begin to develop the Urban BMP Database. 2. Develop an impervious area restoration work plan for Maryland Department of Environment (MDE) review and approval (this Table). 3. Initiate development of a list of specific projects to be implemented for restoration and identify these on the Restoration Activity Schedule (Appendix C). 4. Assess opportunities and timelines for implementing water quality Best Management Practices (BMPs). 5. Assess opportunities to develop partnerships with other National Pollutant Discharge Elimination System (NPDES) permittees.
Year 2 | FY20	1. Analyze and update the database to capture all BMPs, including maintenance and inspection schedules to verify impervious baseline area and restoration data. 2. Submit Urban BMP Database with maintenance and inspection status of past and newly implemented BMPs. 3. Analyze existing data (e.g., biological, watershed assessments, etc.) to identify water quality priorities and opportunities for restoration. 4. Develop Stream Restoration Inspection program. 5. Update and submit a Restoration Activity Schedule (Appendix C). 6. Report on minimum control measures (MCMs) utilizing Section II Reporting Forms.
Year 3 | FY21	1. Refine strategies for watershed assessments and identifying potential restoration projects. 2. Update Urban BMP Database with maintenance and inspection status of past and newly implemented BMPs. 3. Begin more robust inspection paradigm for Environmental Site Design (ESD) and Structural BMPs. 4. Continue to identify opportunities for water quality improvement projects and collaborative partnerships to meet restoration requirements. 5. Update the Restoration Activity Schedule (Appendix C).
Year 4 | FY22	1. Update the Urban BMP Database with maintenance and inspection status of past and newly implemented BMPs. 2. Update the Restoration Activity Schedule (Appendix C). 3. Report on minimum control measures (MCMs) utilizing Section II Reporting Forms. 4. Complete a preliminary gap analysis, establish monitoring priorities and frequencies, and develop strategies for implementing watershed assessments and identifying potential restoration projects. 5. Understand and coordinate biological monitoring implementation with local and state efforts at randomly selected locations to avoid duplicative efforts and maintain data comparability and consistency for larger scale assessments. 6. Check existing database to confirm that all assets include proper close-out documentation and improve the process for collecting construction completion data and as-built plans.

Year 5| FY23	1. Update Urban BMP Database with maintenance and inspection status of past and newly implemented BMPs. 2. Update the Restoration Activity Schedule (Appendix C). 3. Work towards developing and piloting a provisional parkland screening process to be used in conjunction with countywide watershed and suitability assessments to identify impaired or recovering stream reaches for water quality improvement project prioritization. 4. Identify and recommend opportunities for water quality improvement projects while working towards collaborative partnerships to meet and monitor restoration requirements with neighboring permit holders. 5. Continue long-term efforts towards collecting and documenting construction completion data and as-built plans to verify water quality treatment. 6. Plan for restoration implementation beyond 2025 equivalent to 10% of the current baseline by 2030 to inform future permit requirements.
Year 6 | FY24	1. Update Urban BMP Database with maintenance and inspection status of past and newly implemented BMPs. 2. Update the Restoration Activity Schedule (Appendix C). 3. Develop a georeferenced relational database to validate a 30-year dataset to map stream conditions across the county and interjurisdictional permit areas. 4. Partner and exchange data with Montgomery County Department of Environmental Protection for countywide watershed assessments and trend analyses. 5. Begin a provisional parkland screening process to be used in conjunction with countywide watershed and suitability assessments to identify impaired or recovering stream reaches for water quality improvement project prioritization. 6. Continue long-term efforts towards collecting and documenting construction completion data and as-built plans to verify water quality treatment. 7. Continue to work with the Department on recommendations for continued restoration through 2030.
Year 7+ | FY25 - 2030	1. Achieve 20% restoration target. 2. Monitor for and review new NPDES Phase II General Permit when released; assess changes to permit requirements and begin developing implementation strategies to ensure continued compliance. 3. Update the Urban BMP Database to reflect current maintenance and inspection status for both existing and newly implemented BMPs. 4. Revise and maintain the Restoration Activity Schedule (Appendix C) to reflect progress, newly initiated projects, and schedule adjustments. 5. Develop and maintain a georeferenced relational database to validate a 30-year dataset to map stream conditions across the county and interjurisdictional permit areas. 6. Continue partnership and data exchanges with Montgomery County Department of Environmental Protection for countywide watershed assessments and trend analyses. 7. Implement parkland screening processes to be used in conjunction with countywide watershed and suitability assessments to identify impaired or recovering stream reaches for water quality improvement project prioritization. 8. Complete restoration project monitoring in accordance with MS4 and Whole Watershed Act requirements. 9. Continue long-term efforts to collect and document construction completion data and as-built plans to verify water quality treatment performance. 10. Collaborate with the Department to develop recommendations and secure funding for continued restoration activities through 2030.