September 2023 REVISED April 2024

MS4 Annual Report

MUNICIPAL SEPARATE STORMWATER SEWER SYSTEM

MONTGOMERY COUNTY VIRGINIA EST. 1776

Engineering and Environmental Services Department
VPDES Permit #VAR040134

General Information

Montgomery County, Virginia has MS4 coverage under General Permit No. VAR040134, effective November 1, 2018 – October 31, 2023. This document serves as the Montgomery County Municipal Separate Storm Sewer System (MS4) annual report for the reporting period of July 1, 2022 through June 30, 2023.

This report contains the following revisions to the original September 18, 2023 report:
- Detail were added to evaluations of 3 MCM1 Public Education and Outreach strategies.
- Metrics for a Public Participation planting event were added.
- The number of Illicit Discharge detection and Elimination (IDDE) investigations was clarified.
- The evaluation of postconstruction inspections of private stormwater facilities is revised.
- The details of a training event are added.

The permit conditions require that all annual reports submitted under the current permit are to be maintained as separate documents from the Program Plan. In this permit cycle the Program Plan serves as a planning and implementation tool to demonstrate compliance with the permit. The Program Plan includes specific items as set out in the general permit but is not an extension or enforceable part of the permit. The evaluation sections of this report reference components of the Program Plan as a part of the overall evaluation of the MS4 program implementation.

No stormwater discharge monitoring was performed in this permit year.

No Waste Load Allowances (WLAs) are currently assigned to Montgomery County in any TMDL approved by the Environmental Protection Agency prior to June 30, 2018, therefore no action plan status updates are included in this report.

No new MS4 outfalls were added during the permit year. 66 of the 67 identified outfalls were inspected. No monitoring data was collected during the permit year.

CERTIFICATION

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

Angela M Hill	_4/29/2024_
County Administrator	Date
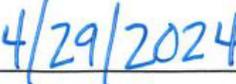
VAR040134	Montgomery County, VA
Permit Number	*MS4 Name*

PROGRAM PLAN REVISIONS

The 2018-2023 general permit requires that each annual report shall summarize revisions to the Plan.
- The County MS4 Program Plan effective September 2023 contains an updated Appendix A organizational chart reflecting staffing changes and a new position.
- Appendix B is attached and contains the agreement between Montgomery County and the County School Board.
- Measurable Goals for MCM1 and MCM2 were clarified.

MINIMUM CONTROL MEASURE ANNUAL REPORTING

MCM 1: PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS

The program's three high priority issues were addressed in the public outreach and education program for the 2022-2023 permit year, water quality issue #1, pet waste, water quality issue #2, sediment, nutrients and trash/refuse, and water quality issue #3, Stream and Watershed Education.
The following strategies were employed:

Category	Strategy	Details and Evaluation
Media materials	Social media messaging	Facebook and Twitter social media posts were generated. The messaging and outreach summary are provided in the appendix under BMP 1-1, 1-2, 1-3. (WQ Issue #1, #2, and #3) **Evaluation:** Summary tables of outreaches categorized by water quality issue number are provided below. 15 Facebook and 8 Twitter social media postings were made in the permit year, an increase over the previous permit year. 10,694 reaches/impressions and 1760 engagements were registered, representing an increase in both categories as compared to the previous year. The number of postings exceeded the measurable goal of a minimum two posting for each water quality issue postings. Images of the postings and an engagement summary are contained in an Appendix.
Media materials	County webpage posting for recycling and hazardous waste collection	(WQ Issue #2)The County website provides a list of recyclable materials allowed at the County Consolidated Sites as displayed in appendix 1-2. In this permit year a total of three social media postings for the New River Resource Authority (NRRA) and Montgomery County Regional Solid Waste Authority (MRSWA) were posted in lieu of providing the information on the County website. **Evaluation:** The MRSWA reported participation of 61 vehicles in November 2022 and 59 vehicles in April 2023. The NRRA reported 174 vehicles in August 2023. The NRRA and MCSWA hazardous waste days provide an opportunity to dispose of hazardous waste and these notifications are considered to provide a positive impact on watershed health.

Category	Strategy	Details and Evaluation
Traditional Written Materials	Water Quality & Watershed Health Flyer	(WQ Issue #1, #2, and #3) A flyer that encouraged citizens to Dispose of Pet Waste, Plant Pollinators, engage in Litter Prevention and Collection, and Advertising the ReNew the New and Broomin' and Bloomin' collection events was handed out at the Homebuilders show in April. The flyer also contained the QR code for the grass roots public participation survey application. Approximately 1,000 copies were distributed. **Evaluation:** The number of flyers distributed is considered successful in informing citizens about upcoming participation events and promoting public participation by providing access to the grass roots participation application. The participation survey was completed 14 times with the total number of participants totaling 60 persons. However, the application was mostly used on the days of two of the county's MCM2 events. For this reason, the QR code use was evaluated as "not effective". County staff will evaluate strategies to make the survey easier to use to encourage participation.
Traditional written materials	Montgomery County Road Atlas message	Water quality issues #1 and #2 continue to be addressed through two inserts into the road atlas printed for sale to interested parties. A "Scoop the Poop" message addressing issues with pet waste and actions that the public can take was placed on the back page of the county atlas. A county map illustrating the impaired waters in the county and its unique position on the eastern continental divide was included, along with messaging that citizens play a role in keeping watersheds clean. **Evaluation:** A total of 50 atlases were sold over a three-year period and no atlases are currently available. Additional printings of the atlas may occur and annual sales within each permit year will be tracked and reported as an evaluation metric. The atlases are available for purchase through the planning and GIS Department.
Media Materials	"Watersheds of Montgomery County" ESRI StoryMap	413 views of the "Watersheds of Montgomery County" ESRI StoryMap were captured in viewing statistics and presented in Appendix BMP 1-3. **Evaluation:** Continuing views demonstrate that the messaging remains effective. This StoryMap was created during the COVID pandemic to engage the public in outreach and participation. The storymap provides an educational platform for residents to learn about the region's watersheds, impairments, and promotes citizen actions to improve watershed health.

Category	Strategy	Details and Evaluation
Media Materials	"Scoop the Poop" ESRI StoryMap	458 views of the ESRI StoryMap were captured in viewing statistics and presented in Appendix BMP 2-2. (WQ Issue #1 and #3) **Evaluation:** Continuing views demonstrate that the messaging remains effective. This StoryMap was created during the COVID pandemic to engage the public in outreach and participation. The StoryMap explains the issue of Pet Waste and encourages readers to pick up and dispose of waste properly.
Traditional Written Materials	Real estate tax bill insert	The insert contained messaging explaining the MS4 permit, the three water quality issues and their importance, and promotes specific participation events. Approximately 28,000 inserts were printed and a copy is provided in the appendix. (WQ Issue #1, #2, & #3) **Evaluation:** The mailing is numerically the biggest MCM1 outreach effort.
Traditional Written Materials	Public Participation Application QR Code Flyers	Flyers were created to promote the logging of grass roots efforts including collecting pet waste, planting efforts, and trash collection. Flyers were distributed to citizens along with pet waste bags during the Renew the New Cleanup and the NRV Home Expo events, and occasionally when staff encountered citizens walking their dogs in public. A copy is provided in the appendix, page 15. (WQ Issue #1, #2, and #3) **Evaluation:** This GIS application and the QR Code Flyers were created during the COVID pandemic to engage the public in outreach and participation. The MCM 2 Public Participation Application allows citizens to log grass roots efforts to improve watershed health. The flyer promotes participation by providing access to the application. The QR code flyers were almost exclusively handed out during the two events noted above. Therefore, the materials were evaluated as not effective as used during the permit year.

MCM1 Evaluation:

Each item in the outreach is individually evaluated in the information table above. The County employed two types of the strategies listed and seven total effective outreach elements, with the 23 total social media messaging items grouped as a single element. Overall outreach increased as compared to the previous permit year.

The outreach to promote public participation through the MS4 Public Participation Survey Application will be reviewed in the 2023-2024 permit year to determine if the messaging should continue with modifications to produce an effective BMP. Additional County staffing should allow more 'on the street' interaction with the public to promote increased participation to be documented as grass roots MCM2 participation. A particular feedback from participants has been that documenting the location of the activity has been problematic. A review of the application mechanics to determine if a more user friendly location method can be developed will be made.

Changes to the Program Plan are not deemed necessary.

MCM 2: PUBLIC INVOLVEMENT/PARTICIPATION

Montgomery County collaborates with the following MS4 permittees without formal agreement:

Town of Blacksburg VAR040019
Town of Christiansburg VAR040025
Virginia Tech VAR040049
Virginia Department of Transportation VA0092975

A total of 27 occurrences of public input related to stormwater were received during the permit year.

Public input resulted in 3 IDDE investigations that are reported in the MCM3 section of this report.

Three webpage generated emails were received and are detailed in the BMP 2-2 Public Participation section, pages 35-41 of the report appendix.

The county stormwater and MS4 webpage can be accessed at:
https://montva.com/departments/stormwater

Website viewing statistics for the County stormwater pages presented in Appendix BMP 2-2. 1,035 unique page views, defined as page views that do not include repeated visits during a session, are documented. The stormwater webpage meets permit requirements.

Evaluation: Phone and email contact directly to county Planning, Building, and Environmental Services departments remain the primary form of contact, with only three contacts in the permit year through the website. The county will continue to maintain the website and will promote viewing of the site link through social media outreach.

The public involvement activities were implemented in the permit year are summarized in a table below.

Category	Activity	Event Metrics and Evaluation
Educational event	Steppin' Out Street Festival Booth 2022/08/05 and 2022/08/06	Attendance estimates by the Town of Blacksburg is 30,000 to 40,000. 30 medication disposal pouches and approximately 120 pet waste bag rolls or dispensers with rolls were distributed. Approximately 70 Water Quality & Watershed Health Flyers were distributed. **Evaluation:** The event is beneficial for our four regional MS4s in hosting a booth at this event to provide information, answer questions, and invite input from area residents about the area MS4 programs.
Restoration	'ReNew the New' river cleanup 2022/08/27	Metrics: 167 volunteers, 69 tires, and 12,000 total pounds of trash were collected. See the MCM 2 appendix page 44 for related documentation. **Evaluation:** The event is beneficial to water quality through direct removal of gross pollutants, through the stormwater messaging conveyed to the public as a part of the event promotion. WQ flyer handouts were distributed to promote public participation through the GIS application.
Educational Event	New River Valley Homebuilders Show Booth 2023/04/01 and 2023/04/02	The attendance was approximately 1,200. **Evaluation:** The event is beneficial for our four regional MS4s in hosting a booth at this event to provide information, answer questions, and invite input from area residents about the area MS4 programs. Page 49 of the appendix summarizes the distribution of the 110 persons that had significant interactions with staff at the booth. Over 20% of those persons stated residence in the unincorporated parts of Montgomery County.
Restoration	Broomin' and Bloomin' cleanup 2023/04/24	Metrics: 167 volunteers participated in an annual cleanup event. The County celebrated the 40th anniversary of this annual event. **Evaluation:** The event is beneficial to water quality through direct removal of gross pollutants and through the stormwater messaging conveyed to the public as a part of the event promotion.
Educational Event	Junior Hokie Showcase 2023/03/06 and 2023/03/07	Metrics approximately 715 fourth grade Montgomery County School System students attended the event. The county presented the Wards Flood Model and demonstrated the water quantity and quality impacts of development, including the mitigating effect of detention ponds and water quality best management practices. **Evaluation:** The event is beneficial in providing a hands on model to convey the concepts of the impacts of development on hydrology and water quality.

Category	Activity	Event Metrics and Evaluation
Educational Event	MCPS Stormwater Days 2022/04/11 and 2022/04/12	777 7th grade students from the Montgomery County Public School (MCPS) system attended the two-day event along with 46 chaperones. The Stormwater Days provides students an opportunity to participate in a series of interactive watershed education stations in coordination with the middle school curriculum goals for watershed education. The event summary on page 51 of the appendix describes the stations **Evaluation:** The event improves awareness of aspects of watershed health. The station descriptions provided in the appendix document the broad range of topics covered. The educational experience is expected to result in increased awareness and promote actions to improve watershed health.
Pollution Prevention	Pollinator Garden Planting 2023/04/11	The members of the Montgomery County Board of Supervisors planted a native plant pollinator garden along the Huckleberry Trail. **Evaluation:** The environmental services department staff recruited the supervisors for this event in order to both plant the pollinator garden and to promote the event through social media, therefore the event provided a physical improvement to the environment while also providing messaging captured in MCM1. 28 perennials were planted, 7 each of Gaylussacia Brachycera, commom name 'Berried Treasure' Huckleberry Bush, Fothergilla gardenii., common name Fothergilla, Liex Veticillata, "Red Sprite", common name Red Sprite Winterberry. Physocarpus opulifolius, common name Tiny wine ninebark.
Pollution Prevention	Pollinator Garden Planting 2023/06/29	8 volunteers planted a 650 SF pollinator garden off of Reading Road. **Evaluation:** The event provided a physical improvement to the environment while also providing messaging captured in MCM1.

MCM2 Overall Evaluation:

The permit requirements were met and exceeded with eight events in three categories. No Modifications to public participation events in the 2023-2024 permit year are anticipated, with the note that weather events may impact outdoor events in the future.

The two cleanup restoration events provide the physical parameters of trash collected as an evaluation metric as well as communicating messaging that is expected to result in benefits to water quality through increased awareness and modified behaviors. Booth participation and the student stormwater days are beneficial in providing information, answering questions, and inviting input from area residents and students about the area MS4 programs. These activities rely on communicating messages that will increase awareness and participation and are expected to lead to benefits to water quality through modified behaviors. Pollinator and native planting provide physical improvements to the environment as well as opportunities for MCM1 messaging.

MCM 3: ILLICIT DISCHARGE DETECTION AND ELIMINATION

The online MS4 Outfall Map and information table contained in the map attribute table have been maintained and reflect no changes to the MS4 outfalls during the permit year.

No new outfalls were added in the permit year. 66 of 67 identified MS4 outfalls were inspected during the permit year. Inspection results may be viewed in the online outfall map.

Three illicit discharge investigations were conducted during the permit year. All investigations provide the six required information items prescribed by the permit and are contained in the BMP 3-3 Public Participation section, page 55 of the report appendix.

Investigation	Blair Street	641 Craigs Mountain Road	North and South Fork Roanoke River
Dates Observed, Reported	Reported 2022/10/25 Staff observed 2022/10/26	Reported 2023/03/08 Observed by staff 2023/03/09	Reported 2023/04/05 Not directly observed by staff.
Results of the Investigation	A citizen reported materials washed onto a MHP lot from street runoff.	A citizen reported well drilling mud leaving the site onto adjacent parcel. A call was made to the parcel's church pastor.	A citizen concern about plastic mesh continuously found on riverbanks was relayed to county staff.
Follow Up	Met with VDOT staff 2022/10/26	Met with Church Pastor on 2023/03/09.	Discussed sod operations during a site visit to Lavery's Sod Farm. Precautions are taken but large flood events do result in damage and material wash.
Resolution	VDOT preformed maintenance on a clogged culvert	A containment pit was constructed and observed on 2023/03/09 to hold material.	Contacted Allen Linkenholder, DEQ PREP coordinator. He indicated he would reach out to the citizen and the sod farm for further discussion.
Date Closed	2022/10/31	2023/03/09	2023/09/20

MCM3 Overall Evaluation:

The following items demonstrate permit compliance:

- No new interconnection notices were required.
- The inspection of 66 of 67 known MS4 outfalls.
- The IDDE ordinance as available online and linked in the Program Plan.
- The written IDDE procedures and dry weather screening protocols as available online and linked in the Program Plan.
- Completion or continuing investigation of IDDE investigations as detailed in the annual report appendix.

The evaluation concludes that no changes to the MCM3 procedures and protocols are required.

MCM 4: CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

County staff conducted 1,501 inspections during the permit year. Inspections are documented in a permitting software application and included on pages 56-59 of the appendix..

5 enforcement actions were taken in the permit year and are summarized in the BMP 4-2 section of the appendix on page 55; 2 Notices of Corrective Action and 3 Stop Work Orders.

The following ESC Variances were approved:

Project Name	Permit Number	Date of Submittal	Description	Date of Approval
Brush Mountain Trails #3	ES-2022-21914	2022/08/26	Variance for stabilization practices for unpaved trails in a forest land cover. Existing leaf litter is to be used as a mulch.	2022/08/26
Apogee Townhomes	ES-2021-19724	2023/0519	Variance to requirement for a required drainage swale from a sediment trap outfall, ST is oversized to minimize discharge potential to an offsite property with a karst feature.	2023/06/05

The following VSMP Exception was approved:

Project Name	Permit Number	Date of Submittal	Description	Date of Approval
Apogee Townhomes	ES-2021-19724	2023/05/19	Water quantity exception due to the minimal sizing of the detention system orifice sizing (1-inch)	2023/06/05

MCM4 Overall Evaluation:
The following items demonstrate permit compliance:

- The County has an adopted Virginia Erosion and Sediment Control Program (VESCP) as documented in the County Program Plan available online. Projects granted variances are listed in a table below.
- The County maintains an Illicit Discharge Ordinance as available online and linked in the Program Plan that provides an enforceable mechanism to meet the permit requirements to prevent nonstormwater discharges on permitted projects not covered under the Construction general permit.
- Written erosion and sediment control (ESC) inspection procedures are established as documented in the County Program Plan available online.
- Written enforcement action procedures to require compliance with ESC regulations are established as documented in the County Program Plan available online.
- The roles and responsibilities of staff for MCM4 compliance are outlined in the county organizational chart and specific Best Management Practices (BMPs) within the plan may also identify responsible parties in additional detail.

The evaluation concludes that no changes to the MCM4 procedures and protocols are required.

MCM 5: POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND DEVELOPMENT ON PRIOR DEVELOPED LANDS

The County implements an approved Virginia Stormwater Management Program (VSMP) consistent with the Virginia Stormwater Management Act and VSMP regulations.

No privately owned stormwater facilities were inspected in the permit year.

The County has identified 20 publicly owned stormwater facilities that lie within the MS4 regulated area. All 20 facilities were inspected in the permit year. No significant, non-routine repair or retrofit activities were performed in the permit year.

Montgomery County submitted stormwater management facility information through the Virginia Construction Stormwater General Permit database for those land disturbing activities for which the County was required to obtain coverage under the General VPDES CGP.

Montgomery County had no stormwater management facility or practice completed that required reporting using the DEQ BMP Warehouse between July 1, 2022 and June 30, 2023.

MCM5 Overall Evaluation:
The following items demonstrate permit compliance:

- The County maintains a stormwater management facility inspection and maintenance program for facilities owned and operated by the permittee in accordance with the permit, and conducts inspections and maintenance in accordance with written procedures and as outlined in the Program Plan and available online at the County stormwater webpage.
- The County implements an established stormwater management facility inspection and enforcement program for facilities not owned and operated by the permittee in accordance with the permit, and has legal authority for enforcement of maintenance responsibilities if maintenance is neglected as outlined in the program Plan and available online at the County stormwater webpage.
- The county maintains spreadsheets online for Public Stormwater Facilities and Private Stormwater Facilities in conformance with the permit requirement to maintain information on these facilities. The County will notify private stormwater facilities to provide inspection reports at the frequency required by the approved plans and by County ordinance.

The evaluation concludes that the County will notify private stormwater facilities to provide inspection reports at the frequency required by the approved plans and by County ordinance and review and retain these records.

MCM 6: POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

BMP 6-1: Household Hazardous Waste Event Notice
Encourage citizen participation in events to dispose of household materials that could be hazardous to dispose of in bulk landfills.

       Measureable Goals Achieved in Reporting Year
           Three social media postings promoting hazardous waste collection days are documented on page 4 of the appendix.

           The County website posts Consolidated Site Recycling Information. See the BMP 1-2 Appendix on page 21.

       Annual Reporting Requirements
           Document the social media or other advertisement of the New River Resource Authority (NRRA) and Montgomery Regional Solid Waste Authority (MRSWA) hazardous waste collection events. Seek documentation for the participation in the NRRA and MRSWA events and report the information provided.

No new operational procedures were developed and no existing operational procedures were modified in the permit year.

All county owned facilities were inspected and evaluated for high priority/ high potential status in the permit year. No new Good Housekeeping Stormwater Pollution Prevention Plans (SWPPPs) were developed in the permit year.

No Nutrient Management Plans were developed during the permit year. The existing plans are posted and available at the County website.

Training events were conducted in the previous permit year for the applicable staff in accordance with the required frequency. The school system included MS4 training for custodial staff in this permit year. Sign in sheets for the performed training are contained in the Appendix section 6-5.

The custodial staff training objectives were as follows:
- Explain the goals of the training
    i. Meet Regulatory Goals of the MS4 Permit
    ii. Inventory and Organize Work Areas
    iii. Create a Safer Work Environment
- Explain the relevant program areas to the staff
    i. Good Housekeeping & Pollution Prevention
    ii. Spill Prevention & Response
    iii. Identification and Reporting of Illicit Discharges

MCM6 Overall Evaluation:

The following items demonstrate permit compliance:

- The County completed a review of all County owned facilities to re-evaluate each facility as high-priority or low-priority and subsequently evaluate any high-priority site for any high potential to discharge pollutants.
- The County maintains a Good Housekeeping SWPPP where appropriate, and has developed Good Housekeeping procedures for use.
- The County engaged a certified planner has developed all required turf and landscape Nutrient Management Plans and provided the plans to appropriate personnel.
- No deicing agents containing urea or other forms of nitrogen are employed for deicing application.
- The County maintains a training program and training documentation in accordance with the permit.
- Employees or contractors hired by the County to apply pesticides and herbicides are trained or certified in accordance with appropriate regulations.
- Employees serving as plan reviewers, inspectors, program administrators for ESC or SWM program implementation are appropriately certified.
- Emergency response personnel are trained in spill response.

The evaluation concludes that no changes to the MCM6 procedures and protocols are required.

APPENDIX INDEX

BMP 1-1, 1-2, 1-3 Public Education and Outreach Program Documentation

BMP 1-1, 1-2, 1-3 Social Media Posts and Viewing Documentation

BMP 1-1, 1-2, 1-3 MCM1 Water Quality & Watershed Health Flyer

BMP 1-2: County Website Consolidated Site Recycling Information

BMP 1-1, 1-2, 1-3 Montgomery County Atlas Impaired Waters Map and Scoop the Poop Inserts

BMP 1-3 "Watersheds of Montgomery County" ESRI StoryMap Viewing Statistics

BMP 1-1 "Scoop the Poop" ESRI StoryMap Viewing Statistics

BMP 1-1, 1-2, 1-3 Public Participation QR Code Flyer

BMP 1-1, 1-2, 1-3 Real Estate Billing Insert

BMP 2-1: MS4 Webpage Statistics Report

BMP 2-1: Public Input, Concern, and Complaint Summary (includes BMP 3-3 IDDE Documentation)

BMP 2-2 Public Participation Documentation

BMP 2-2 ReNew the New Trash and Litter Collection Event Statistics

BMP 2-2 New River Valley Homebuilders Show Statistics

BMP 2-2 Broomin' and Bloomin' Cleanup Statistics

BMP 2-2 MCPS Stormwater Days Statistics

BMP 2-2 Junior Hokie Showcase Event

BMP 3-3 Illicit Discharge Investigations

BMP 4-2 Enforcement Action Summary

BMP 4-2 VESCP Inspection Tracking

BMP 5-2 CGP Comprehensive Inspection Tracking

BMP 6-5 Biennial Training Documentation