

July 1, 2021 - June 30, 2022

# MS4 Annual Report

MUNICIPAL SEPARATE STORM 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, 2021 through June 30, 2022.

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.

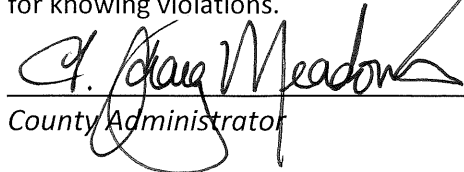
No stormwater discharge monitoring was performed in this permit year.

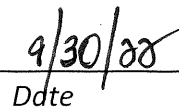
No Waste Load Allowances (WLAs) are currently assigned to Montgomery County in any TMDL approved by the Environmental Protection Agency prior to June 30, 2018, therefore no action plan status updates are included in this report.

One new MS4 outfall was added during the permit year. All of the 66 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.

  
County Administrator

  
Date

VAR040134  
Permit Number

Montgomery County, VA  
MS4 Name

**PROGRAM PLAN REVISIONS**

The 2018-2023 general permit requires that each annual report shall summarize revisions to the Plan. No revisions are being implemented in the County MS4 Program Plan effective September 2021.

**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 2021-2022 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) <b>Evaluation:</b> Summary tables of outreaches categorized by water quality issue number are provided below. 5 Facebook and 13 Twitter social media postings were made in the permit year. 6,129 reaches/impressions and 178 engagements were registered. The number of postings exceeded the measurable goal of four 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 five social media postings for the New River Resource Authority and Montgomery County Regional Solid Waste Authority were posted in lieu of providing the information on the County website. <b>Evaluation:</b> The NRRRA 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.
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 125 copies were distributed. <b>Evaluation:</b> 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.

Continued on the following page

Category	Strategy	Details and Evaluation
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. <b>Evaluation:</b> Additional printings of the atlas occur as needed. The atlases are available for purchase through the planning and GIS Department.
Media Materials	“Watersheds of Montgomery County” ESRI StoryMap	646 views of the “Watersheds of Montgomery County” ESRI StoryMap were captured in viewing statistics and presented in Appendix BMP 1-3. (WQ Issue #3). 60 students from two 7 <sup>th</sup> grade classes engaged the post assessment quiz. <b>Evaluation:</b> The storymap provides an educational platform for residents to learn about the region’s watersheds, impairments, and promotes citizen actions to improve watershed health.
Media Materials	“Scoop the Poop” ESRI StoryMap	369 views of the ESRI StoryMap were captured in viewing statistics and presented in Appendix BMP 2-2. (WQ Issue #1 and #3) <b>Evaluation:</b> The storymap provides an educational platform for residents to learn about the value in collecting pet waste and improve water quality in the region’s watersheds. The StoryMap also includes the MCM 2 Public Participation Application that allows citizens to log grass roots efforts to improve watershed health.
Traditional written materials	MCM 2 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 at the annual Steppin’ Out street festival and when staff encountered citizens walking their dogs in public. A copy is provided in the appendix. (WQ Issue #1, #2, and #3) <b>Evaluation:</b> 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.

**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 outreach elements, with the 18 total social media messaging items grouped as a single element.

The outreach for public participation through the MS4 Public Participation Survey Application will be reviewed in the 2022-2023 permit year to determine if the messaging to use the application is not adequate, if the QR code methodology is not user friendly, or if the application itself is not user friendly. County staff will seek to obtain increase grass roots participation by improving the messaging or application used to log activities to be documented as grass roots MCM2 participation.

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 30 occurrences of public input related to stormwater were received during the permit year.

Public input resulted in 9 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 34-40 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. 1193 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 2021/08/06 and 2021/08/07	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. <b>Evaluation:</b> 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 2021/08/29	Metrics: 76 volunteers, 47 tires, and 2,640 pounds of trash were collected. See the MCM 2 appendix for related documentation. Approximately 25 Water Quality & Watershed Health Flyers were distributed. <b>Evaluation:</b> 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.
Educational Event	New River Valley Homebuilders Show Booth 2022/04/09 and 2022/04/10	The attendance was approximately 1,200. Approximately 60 pet waste bag rolls, 24 pet waste bag dispensers with bags, 30 Water Quality & Watershed Health Flyers, 15 DCR lawn care brochures, and Scoop the Poop 20 magnets were distributed. <b>Evaluation:</b> 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	Broomin' and Bloomin' cleanup 2022/04/24	Metrics: 162 volunteers participated. 1.15 tons of trash were collected. <b>Evaluation:</b> 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.
Pollution Prevention	Grass Roots Pet Waste Collection Efforts	3 persons logged pet waste collection efforts through the MS4 MCM 2 Public Participation Application. See the MCM 2 appendix for a summary table of the data entered by participants (Any contact information is redacted in the appendix table). <b>Evaluation:</b> This public participation effort was promoted through the Scoop the Poop StoryMap, through the Water Quality & Watershed Health Flyer and in QR code flyers. The effort was minimally successful in encouraging and documenting citizen efforts within the areas of the four MS4 permittees. The survey will be evaluated to determine if changes are needed to make the survey more user friendly.



Category	Activity	Event Metrics and Evaluation
Pollution Prevention	Grass Roots Trash/Litter Collection Efforts	<p>5 persons logged pet waste collection efforts through the MS4 MCM 2 Public Participation Application. See the MCM 2 appendix for a summary table of the data entered by participants (Any contact information is redacted in the appendix table).</p> <p><b>Evaluation:</b> This public participation effort was promoted through the Scoop the Poop StoryMap, through the Water Quality &amp; Watershed Health Flyer and in QR code flyers. The effort was minimally successful in encouraging and documenting citizen efforts within the areas of the four MS4 permittees. The survey will be evaluated to determine if changes are needed to make the survey more user friendly.</p>
Pollution Prevention	Grass Roots Planting Efforts	<p>20 persons participated in 3 planting events that were logged through the MS4 MCM 2 Public Participation Application. See the MCM 2 appendix for a summary table of the data entered by participants (Any contact information is redacted in the appendix table).</p> <p><b>Evaluation:</b> This public participation effort was promoted through the Scoop the Poop StoryMap, through the Water Quality &amp; Watershed Health Flyer and in QR code flyers. The effort was somewhat successful in encouraging and documenting citizen efforts within the areas of the four MS4 permittees. The survey will be evaluated to determine if changes are needed to make the survey more user friendly.</p>
Educational Event	MCPS Stormwater Days 2022/04/11 and 2022/04/12	<p>661 7<sup>th</sup> grade students from the Montgomery County Public School (MCPS) system attended the two day event. 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.</p>

**MCM2 Overall Evaluation:**

The permit requirements were met and exceeded with five traditional events in two categories and limited participation in three non-traditional grass roots participation categories. Modifications to public participation events in the 2021-2022 permit year included the addition of a booth at Blacksburg's Steppin' Out street festival, the resumption of the MCPS stormwater days, and the resumption of a booth at the New River Valley Homebuilder's Expo.

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. The documented grass roots efforts provide for a physical improvement of watersheds: The planting efforts improve flora, are expected to benefit fauna, and are expected to reduce stormwater runoff and associated pollutants. Pollutant removal will be accomplished through pet waste collection and through litter pickup. Booth participation is beneficial in providing information, answering questions, and inviting input from area residents 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.

### **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 occurring on or before June 30, 2020.

One new outfall was added in the permit year. All 66 identified MS4 outfalls were inspected during the permit year. Inspection results may be viewed in the online outfall map.

Nine 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 2-2 Public Participation section, pages 34-40 of the report appendix.

#### **MCM3 Overall Evaluation:**

The following items demonstrate permit compliance:

- No new interconnection notices were required.
- The inspection of 66 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 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 1,690 inspections during the permit year. Inspections are documented in a permitting software application.

7 enforcement actions were taken in the permit year and are summarized in the BMP 4-2 section of the appendix; 2 Notices of Corrective Action, 1 Notice to Comply/Notice of Violation, and 4 Stop Work Orders.

The following ESC Variances were approved:

Project Name	Permit Number	Date of Submittal	Description	Date of Approval
Flat Hat Farms	ES-2017-15814	2021/07/07	Variance for use of sit fence in lieu of sediment traps in an area that has shown minimal runoff during last 2 years of inspection.	2021/07/12
New River Recycling Inert Debris Fill Site 2	ES-2021-20538	2021/09/13	Variance for one 3.0 acre sediment trap and one 3.2 acre sediment trap due to the potential for the project to exceed a sediment basin lifespan and subsequent required siting of a permanent SWM basin as a first step in construction.	2021/09/13
Westhill Subdivision	ES-2020-18355	2022/05/18	Variance for two additional sediment traps sized greater than the minimum sizing requirements to be installed in the phase 1 area to lessen the drainage area to sediment basin 3.	2022/05/19

The following VSMP Exceptions were approved:

Project Name	Permit Number	Date of Submittal	Description	Date of Approval
New River Recycling Inert Debris Fill Site 2	ES-2021-20538	2021/09/13	Exception for two detention facilities not meeting the “energy balance” target flow rates due to the amount of forested land cover in both pre- and post-development. Meeting the target rates would result in 100+ hour detention times and orifice sizes that would be a maintenance concern.	2021/09/13

**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, 2021 and June 30, 2022.

### **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 evaluation concludes that no changes to the MCM5 procedures and protocols are required.

## **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**

An August 18, 2021 social media post shared information on the September 13, 2021 hazardous waste collection events held at the New River Resource Authority. The Twitter post had 326 Impressions and 9 total engagements as documented in the social media statistics in the report Appendix.

A September 13, 2021 social media post shared information on the November 13, 2021 hazardous waste collection events held at the Montgomery Regional Solid Waste Authority. The Twitter post had 710 Impressions and 25 total engagements as documented in the social media statistics in the report Appendix.

An October 13, 2021 social media post shared information on the November 13, 2021 hazardous waste collection events held at the Montgomery Regional Solid Waste Authority. The Twitter post had 174 Impressions and 7 total engagements as documented in the social media statistics in the report Appendix.

An October 14, 2021 social media post shared information on the November 13, 2021 hazardous waste collection events held at the Montgomery Regional Solid Waste Authority. The Twitter post had 281 Impressions and 7 total engagements as documented in the social media statistics in the report Appendix.

A March 17, 2022 social media post shared information on the May 14, 2022 hazardous waste collection events held at the New River Resource Authority. The Twitter post had 310 Impressions and 14 total engagements as documented in the social media statistics in the report Appendix.

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

#### **Annual Reporting Requirements**

Advertise the New River Resource Authority hazardous waste collection events. These events are open to residents of the Town of Blacksburg, Town of Christiansburg, and Montgomery County by appointment only.

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 permit year for the applicable staff in accordance with the required frequency. Sign in sheets and summaries of the materials covered are provided in an Appendix.

**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.



**ATTACHMENT 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 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 Pet Waste Collection - Grass Roots Watershed Improvement Effort Statistics  
BMP 2-2 Litter/Trash Collection - Grass Roots Watershed Improvement Effort Statistics  
BMP 2-2 Pollinators, Native Species, Tree Planting - Grass Roots Watershed Improvement Efforts  
    Statistics and Photographs  
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