

MUNICIPAL SEPARATE STORM SEWER SYSTEM

# MS4 Annual Report

July 1, 2019 - June 30, 2020



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 October 1, 2019 through June 30, 2020.

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.

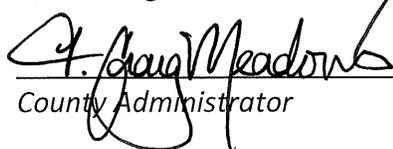
No stormwater discharge monitoring was performed in this permit year.

No Waste Load Allowances (WLAs) are currently assigned to Montgomery County in any TMDL, therefore no action plan status updates are included in this report.

No new MS4 outfalls were added during the permit year. 100% of the 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

9/30/20  
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. The following revisions are being implemented in the County MS4 Program Plan to be posted and made effective in October 2020.

Water quality issue #3 is revised to reflect a broader target audience and curriculum changes within the Montgomery County Public School (MCPS) system. Due to uncertainties with school operations and social distancing guidelines a decision was made to broaden the audience for this issue.

The Public Education and Outreach (MCM 1) strategies for all three water quality issues are revised and expanded.

- The messaging category for Montgomery County Parks and Recreation Department course catalogs is revised to “Media Materials” as the catalogs transition from printed to an online format.
- A strategy of seeking media coverage to convey information on the selected water quality issues and to highlight the additional public education and participation strategies was added to the menu of available strategies.
- A strategy of signage/posters to convey information on the selected water quality issues and to highlight the additional public education and participation strategies was added to the menu of available strategies.
- The strategies for each of the water quality issues listed in the Program Plan are reordered to reflect a move towards media messaging as opposed to traditional written materials that have typically been handed out at public events.

The Public Involvement Opportunities (MCM 2) are revised and expanded.

- A restoration opportunity is added based on the development of a ESRI StoryMap that will explain the impacts of trash and litter and promote individual and small group clean-up efforts that can be reported to the County through an online survey application and mapped within the StoryMap.
- A pollution prevention opportunity is added based on the development of a ESRI StoryMap that will explain the impacts of pet waste and promote individual and small group clean-up efforts that can be reported to the County through an online survey application and mapped within the StoryMap.
- A pollution prevention opportunity is added based on the development of a ESRI StoryMap that will explain the beneficial impacts of planting pollinator gardens and native plants and will promote individual and small group clean-up efforts that can be reported to the County through an online survey application and mapped within the StoryMap.

**MINIMUM CONTROL MEASURE ANNUAL REPORTING**

**MCM 1: PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS**

The high priority issues addressed in the public outreach and education program for the 2018-2019 permit year were water quality issue #1, pet waste, and water quality issue #2, sediment, nutrients and trash/refuse.

The following strategies were employed:

Category	Strategy	Details and Evaluation
Traditional written materials	Montgomery County Parks and Recreation Department fall "Go Play" course catalog message	Water quality issues #2 and #3 were addressed through messaging that provided information on the availability of soil testing through the Cooperative Extension Offices at the County Government Center and the value of healthy lawns and native species planting in reducing sediment, nutrient, and bacterial contamination of stormwater through soil, pesticide, and fertilizer runoff. The messaging and an invoice documenting the quantity of catalogs printed are provided in the appendix under BMP 1-1, 1-2, 1-3. <b>Evaluation:</b> 5,000 catalogs were printed for distribution, meeting the measurable goal of documenting the number of catalogs printed. A revision to this outreach in the current permit year will be to document online viewing statistics as the catalogs move to an online format.
Traditional written materials	Montgomery County Road Atlas message	Water quality issues #1 and #2 were 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. The messaging and an invoice documenting the quantity of atlases printed are provided in the appendix under BMP 1-1, 1-2, 1-3. <b>Evaluation:</b> Additional printings of the atlas occur as needed.
Traditional written materials	Montgomery County Parks and Recreation Department winter catalog message	Water quality issues #2 and #3 were addressed through messaging that provided information on the impacts of trash and the message that human health and watershed health are linked. The messaging and an invoice documenting the quantity of catalogs printed are provided in the appendix under BMP 1-1, 1-2, 1-3. <b>Evaluation:</b> 5,000 catalogs were printed for distribution, meeting the measurable goal of documenting the number of catalogs printed. A revision to this outreach in the current permit year will be to document online viewing statistics as the catalogs move to an online format.

Media materials	Social media messaging	<p>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</p> <p><b>Evaluation:</b> 14 Facebook and Twitter social media postings were made in the permit year. Two retweets of County Parks and Recreation Department postings were made and one retweet of an NOAA Earth day tweet was posted. 13,632 reaches/impressions and 458 engagements were registered. The number of postings exceeded the measurable goal of four postings. Reported viewing statistics exceeded the 2018-2019 permit year numbers. Summary tables of outreaches categorized by water quality issue number are provided in the appendix and indicate that postings should be balanced among the three issues in future efforts.</p>
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**MCM1 Evaluation:**

Each item in the outreach is individually evaluated in the information table above. Overall, the number of printed materials exceeds 10,000 and is considered as a substantial outreach effort. The County employed two types of the strategies listed and four total outreach elements, with the 14 total social media messaging items grouped as a single element. Changes to the Program Plan are not necessary. A summary of outreaches by water quality issue is contained in the appendix. A review of the data indicates that the outreach efforts should be more balanced across the three issues. Subsequent permit year education and outreach will continue a focus on increasing social media outreach, including additional posting of educational information and links to other resources and continuing the promotion of MCM2 events.

## **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 15 occurrences of public input related to stormwater were received during the permit year.

County staff received 2 phoned stormwater complaints that led to a voluntary halt in activities until appropriate permitting was obtained without Stop Work Orders being generated.

Phone calls resulted in 6 IDDE investigations that are reported in MCM3

A single webpage generated report led to a VDOT referral for a maintenance evaluation

The county stormwater and MS4 webpage can be accessed at:

<https://montva.com/departments/stormwater>

247 views of the “Watersheds of Montgomery County” ESRI StoryMap were captured in viewing statistics and presented in Appendix BMP 2-2. Website viewing statistics for the remainder of the County stormwater pages were unavailable due to the loss of analytics when the county Internet Technology staff migrated the County’s website during the permit year.

**Evaluation:** Phone contact remains the primary form of contact, with only one contact in 15 total contacts in the permit year through the website. The county will continue to maintain the website and will continue to promote viewing of the site through social media outreach where interested parties can access the website via an active hyperlink.

The ESRI StoryMap was published as a replacement public participation activity after Covid-19 related cancellations of planned MCM 2 activities. Outreach to the public on the availability of the StoryMap was limited. The level of participation demonstrated that public participation through StoryMaps can be a valid means of achieving permit compliance.

Webpage viewing analytics were reestablished on July 20, 2020 and are expected to be available for the 2020-2021 permit year.

The public involvement activities were implemented in the permit year are summarized in a table below. Two watershed cleanup events from the restoration

Category	Activity	Event Metrics and Evaluation
Restoration	'ReNew the New' river cleanup 2019/08/25	Metrics: 154 volunteers, 4.0 miles of the New River and adjacent access road cleaned, and 2.0 tons of trash and 57 tires were collected. See the MCM 2 appendix for related documentation. <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, and through the educational outreach and distribution of giveaways at the event sign up and post collection lunch event.
Educational events	MCPS Stormwater Days 2019/10/18	Metrics: 300 students, 14 chaperones/teachers, and 31 presenters attended. See the MCM 2 appendix for related documentation. <b>Evaluation:</b> The event is beneficial to water quality through the direct educational outreach to the sixth grade class of the county school system at 12 distinct stations and through the participation of the students in pre- and post- event survey activities that increase the students' knowledge of watersheds and the value of healthy watersheds.
Restoration	Broomin' and Bloomin' cleanup 2020/04/27	Metrics: 12 volunteers participated. Trash was collected along a length of approximately 2.5 miles. An estimated 7 bags of trash were collected. <b>Evaluation:</b> A Government Center closure related to Covid-19 prevented the distribution of trash bags, gloves, and giveaways for the planned formal event. Volunteers were asked to report any efforts via email to County staff and 12 persons responded. 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 outreach and distribution of giveaways at the post collection lunch event did not occur.
Education Events	New River Watershed Roundtable 2019/07/29 2019/09/30 2020/01/29 2019/04/29	Metrics: One or more County staff attended all four quarterly meeting events listed. Meetings are open to the public. <b>Evaluation:</b> The event is beneficial to water quality through the opportunity to coordinate public participation events with other localities. The hosting organization, New River Planning District Commission, again secured a grant and distributed pet waste dispensers and extra bags to participating localities, and the meetings provide a forum for engaging in dialogue on stormwater issues with 15-20 groups including area MS4 permittees, other localities, and independent organizations with an interest in healthy watersheds.
Education Event	"Watersheds of Montgomery	A <a href="#">Watersheds of Montgomery County</a> ESRI StoryMap was published as an alternate public participant event. A County

	County" ESRI StoryMap 2020/05/23- 2020/06/30	social media post was sent out advertising the availability of the application. County staff also contacted parents and a child care center concerning the StoryMap availability during the school closure period. <b>Evaluation:</b> The storymap was accessed 247 times during the permit year. This level of participation was considered successful based on the school closure and social distancing conditions during that time period.
Restoration	Pollinator Garden Planting 2020/06/27	11 persons participated in the planting of a pollinator garden in an HOA common area. <b>Evaluation:</b> This public participation event was a trial effort to evaluate citizen response, which was positive.

**MCM2 Overall Evaluation:**

Public participation was the permit compliance area most impacted by Covid-19 closures and social distancing guidelines. The permit requirements were met and exceeded by the addition of the StoryMap and Pollinator Garden Outreach events. Modifications to public participation events in the 2020-2021 permit year include the development of StoryMaps to encourage and allow for documentation of grassroots participation events by individuals, families, and social organizations. Cancelled or impacted events that were planned in the current permit year are listed below.

- 3/14/2020 & 3/15/2020: The New River Valley Home Builders Show was cancelled by the Homebuilder Association. Four regional MS4s annually host a booth at this event to provide information, answer questions, and invite input from area residents about the area MS4 programs.
- 4/6/2020 & 4/7/2020: Two days of the annual 6th Grade Stormwater Days were cancelled by the Montgomery County School System. The Stormwater Days provides students an opportunity to participate in a series of interactive watershed education stations in coordination with the 6th grade curriculum goals for watershed education.
- 4/25/20: The 37th annual Broomin' and Bloomin' annual trash cleanup event had reduced participation as compared to previous years. The following factors were apparent in the change in the participation level:
  - On April 3, 2020 the County Government Center was closed as advised by local health officials due to positive testing results of County staff members. The closure did not allow for collection and weighing of collected refuse or the distribution of gloves and bags to participants in the collection effort. County staff encouraged individuals to continue to participate in the cleanup effort via March 25th and April 22nd email messaging.
  - The Governor's March 12, 2020 EO-51 State of Emergency Declaration and March 30, 2020 EO-55 Stay at Home Order are believed to have reduced participation.

The stormwater webpage meets permit requirements.

The report documents six public involvement activities from two categories in the permit year. 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 planting event provides for a physical improvement for flora and fauna and an expected reduction in stormwater runoff and associated pollutants. The three types of education events employed are specifically named in the examples of allowable activities. These activities rely on communicating messaging that will increase awareness and is expected to lead to benefits to water quality through modified behaviors. Changes to the Program Plan consists of efforts to allow for grassroots cleanup and planting events.

### **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.

All 65 identified MS4 outfalls were inspected during the permit year. Inspection results may be viewed in the outfall map.

Six illicit discharge investigations were conducted during the permit year. IDDE report 4 remains open pending actions by property owners and VDOT. All investigations provide the six required information items prescribed by the permit and are contained in the BMP 3-3 section of the report appendix.

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

The following items demonstrate permit compliance:

- No new interconnection notices were required.
- The inspection of all 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 1,553 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; 6 Notices of Corrective Action, 0 Notices to Comply/Notice of Violation, and 1 Stop Work Order.

#### **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.

Project Name	Permit Number	Date of Submittal	Description	Date of Approval
Smart Road Rural Expansion Phase 2	ES-2018-16043	2019/02/26	Specify VDOT standards EC-4 for check dams, EC-1 culvert outfall protection, and VDOT EC-2/EC-3 ditch lining details.	
Castle Farm Single Family Detached	ES-2019-17170	2019/08/02	Specify Wire-backed silt fence for area where allowable drainage area/flow length limits are exceeded for silt fence, standard and specification 3.05	2019/08/02
Creed Field	ES-2019-17955	2020/02/28	Specify Wire-backed silt fence for area where allowable drainage area/flow length limits are exceeded for silt fence, standard and specification 3.05	2020/05/15
Indigo Road	ES-2020-18109	2020/04/15	Specify a stone filter for area where allowable drainage area/flow length limits are exceeded for silt fence, standard and specification 3.05	2020/05/14

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.

One privately owned stormwater facilities were inspected in the permit year. No enforcement actions were initiated in regard to these facilities.

The County has identified 15 publicly owned stormwater facilities that lie within the MS4 regulated area. All 15 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, 2019 and June 30, 2020.

#### **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**

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

No new Good Housekeeping Stormwater Pollution Prevention Plans (SWPPPs) were developed in the permit year.

No new Nutrient Management Plans were developed during the permit year. Existing plans are available at the County website.

The following training events were conducted in the permit year. Complete training attendance sheets are provided in the appendix section BMP 6-5.

Date	Number of Attendees	The objective of the Training Event and materials provided
2019/07/17	123 MCPS Custodial and Facilities staff, County Stormwater Specialist	General Introduction to the MS4 Permit. The six MCMs. MCM 6 housekeeping responsibilities. Maximum Extent Practicable (MEP) approach to minimization. SWPPP coverage. Identification of Illicit Discharges. Spill Reporting. Materials provided: IDDE Field Guide and County Good Housekeeping Procedures.
2020/06/01	6 Parks and Recreation Staff	A Material Storage Presentation that reviews storage, handling, cleanup, and reporting of materials to minimize the potential for illicit discharge of materials.
2020/06/25	13 Montgomery County Fire and Rescue Commission members, County Stormwater Specialist	The separate MS4 permitting and service areas of the County and two towns. The distinction between fire and rescue response, hazardous material spill response, and daily good housekeeping procedures and spill reporting. No materials provided.
2020/06/01	6 County ESC and SWM Inspectors	The six MCMs. Maximum Extent Practicable (MEP) approach to minimization. IDDE reporting. Good housekeeping procedures. Inspection and enforcement, and MCM6 materials contained in the inspection guide. Materials provided: Stormwater Inspection guide. IDDE Field Guide and County Good Housekeeping Procedures. IDDE reporting forms.

**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 2-1: MS4 Webpage Statistics Report

BMP 2-2 Public Participation Documentation

BMP 3-3: IDDE Investigations

BMP 4-2: Enforcement Action Summary

BMP 6-5: Annual Training Documentation