

MUNICIPAL SEPARATE STORM SEWER SYSTEM  
**MS4 Annual Report**

July 1, 2020 - June 30, 2021



Engineering and Environmental Services Department • VPDES Permit #VAR040134



## **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 September 2021.

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

- The messaging category for Montgomery County Parks and Recreation Department course catalogs is eliminated as the catalog publications have ceased at present.
- Promotion of a pet waste StoryMap titled “Scoop the Poop” is added as a strategy. The number of views will be reported as a metric. This StoryMap includes the MS4 MCM 2 Public Participation Application to allow residents to log grass roots watershed improvement efforts promoted by the regional MS4 permittees, Montgomery County, Virginia Tech, Town of Blacksburg, and Town of Christiansburg.
- The “Watersheds of Montgomery County” ESRI StoryMap is moved to the MCM 1 category after its inclusion as an MCM 2 strategy in the previous permit year as an interim response to Covid 19 impacts to the MCM 2 participation event schedule.
- Distribution of flyers that contain a QR code link to the MCM 2 Public Participation Application were added as a printed material outreach element.

The Public Involvement Opportunities (MCM 2) are revised.

- An educational event was added to the menu. The Town of Blacksburg’s downtown Steppin’ Out festival was added and the County participated in manning a booth in collaboration with Town and Virginia Tech MS4 staff and student volunteers.

**MINIMUM CONTROL MEASURE ANNUAL REPORTING**

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

The programs three high priority issues were addressed in the public outreach and education program for the 2020-2021 permit year, water quality issue #1, pet waste, and 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. 4 Facebook and 10 Twitter social media postings were made in the permit year. 11,103 reaches/impressions and 189 engagements were registered. The number of postings exceeded the measurable goal of four postings.
Traditional written materials	Real estate tax bill inserts (semi-annual in Fall and Spring)	Watershed health messaging along with a QR code link to the Public Participation Application to register community involvement MCM2 participation. 27,884 inserts were printed and a copy is provided in the appendix. (WQ Issue #1 and #2) <b>Evaluation:</b> This outreach continues to be the largest numerical outreach effort, reaching all persons billed for real estate taxes.
Media materials	County webpage posting for hazardous waste collection	Posted information for county residents to participate in the May 15, 2012 New River Resource Authority (NRRRA) Household Hazardous Waste Day and information on county consolidated waste collection sites. (WQ Issue #2) <b>Evaluation:</b> The NRRRA hazardous waste day provides an opportunity to dispose of hazardous waste and this notification is considered to provide a positive impact on watershed health.
Media materials	Press Release for hazardous waste collection	Posted information for county residents to participate in the May 15, 2012 New River Resource Authority (NRRRA) Household Hazardous Waste Day and information on county consolidated waste collection sites. (WQ Issue #2) <b>Evaluation:</b> The NRRRA hazardous waste day provides an opportunity to dispose of hazardous waste and this notification is considered to provide a positive impact on watershed health.

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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	1,168 views of the “Watersheds of Montgomery County” ESRI StoryMap were captured in viewing statistics and presented in Appendix BMP 2-2. (WQ Issue #3) <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	169 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 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.

Social Media Messaging Summary

Social Media	Reaches/ Impressions	Engagements	WQ Issue #	Topic
Facebook	757	21	1	Pet waste, Scoop the Poop
Facebook	876	23	2	Trash/refuse, ReNew the New Cleanup
Facebook	433	8	2	ReNew the New Cleanup
Twitter	678	19	3	Watershed health, watershed StoryMap
Twitter	609	10	3	Watershed health, pollinators
Twitter	3,073	63	3	Watershed health, World Water Day
Twitter	401	4	1	Pet waste, Scoop the Poop
Twitter	460	5	2	Trash/refuse, Broomin' and Bloomin event
Twitter	742	9	2	New River Resource Authority, hazardous waste
Twitter	370	1	2	Trash/refuse, Broomin' and Bloomin event
Twitter	372		2	Trash/refuse, Broomin' and Bloomin event
Twitter	476	3	2	Trash/refuse, Broomin' and Bloomin event
Twitter	361	3	3	Watershed health, watershed StoryMap
Twitter	452	13	3	Watershed health, watershed StoryMap
Twitter	389	2	3	Watershed health, pollinators
Twitter	654	5	3	Watershed health, pollinators
Totals	11,103	189		

**MCM1 Evaluation:**

Each item in the outreach is individually evaluated in the information table above. Overall, the number of printed materials is over 27,000 and is considered as a substantial outreach effort. The County employed two types of the strategies listed and eight total outreach elements, with the 16 total social media messaging items grouped as a single element. Changes to the Program Plan other than those noted above for September 2021 are not 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 8 IDDE investigations that are reported in MCM3

One webpage generated email was received requesting information about an MS4 planting event.

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. 1,333 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 one contact 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 public involvement activities were implemented in the permit year are summarized in a table below.

Category	Activity	Event Metrics and Evaluation
Restoration	'ReNew the New' river cleanup 2020/08/29 to 2020/09/06	<p>Metrics: 42 volunteers, 35 bags of trash were collected. See the MCM 2 appendix for related documentation.</p> <p><b>Evaluation:</b> This event was modified from a one day event with attendees gathering as a group to a weeklong event where individuals or small groups could participate. A sign up sheet, bags, gloves, and T-shirts available at a county waste collection site for participants to pick up supplies and drop collected trash off. 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. A return to the traditional single day event and post collection lunch event are planned for the 2021-2022 permit year.</p>
Restoration	Broomin' and Bloomin' cleanup 2021/04/24	<p>Metrics: 125 volunteers participated. 1.25 tons of trash were collected.</p> <p><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. Educational outreach and distribution of giveaways at the post collection lunch event did not occur.</p>
Pollution Prevention	Grass Roots Pet Waste Collection Efforts	<p>9 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 in the county real estate billing, through the Town of Christiansburg outreach, through the Scoop the Poop StoryMap, and in a 2021/09/6/23 tweet. The effort was successful in encouraging and documenting citizen planting efforts within the areas of the four MS4 permittees.</p>

Continued –



Category	Activity	Event Metrics and Evaluation
Restoration	Grass Roots Trash/Litter Collection Efforts	4 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 in the county real estate billing, through the Town of Christiansburg outreach, through the Scoop the Poop StoryMap, and in a 2021/09/6/23 tweet. The effort was successful in encouraging and documenting citizen planting efforts within the areas of the four MS4 permittees.
Restoration	Grass Roots Planting Efforts	37 persons participated in 7 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). <b>Evaluation:</b> This public participation effort was promoted in the county real estate billing, through the Town of Christiansburg outreach, through the Scoop the Poop StoryMap, and in a 2021/09/6/23 tweet. The effort was successful in encouraging and documenting citizen planting efforts within the areas of the four MS4 permittees.

**MCM2 Overall Evaluation:**

Public participation was once again 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 Grass Roots planting, trash pickup, and pet waste collection Outreach events. Modifications to public participation events in the 2021-2022 permit year include the continued development of pollinator/planting and trash pickup 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.

- 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.
- 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.

The report documents five public involvement activities from three categories in the permit year. The two County organized 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. 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.

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

Eight 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 64 of 65 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 1,440 inspections during the permit year. Inspections are documented in a permitting software application.

4 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 1 Stop Work Order.

The following ESC Variances were approved:

Project Name	Permit Number	Date of Submittal	Description	Date of Approval
Westhill Roundabout	ES-2020-18355	2020/07/08	Specify Wire-backed silt fence for area where allowable drainage area/flow length limits are exceeded for silt fence, standard and specification 3.05	2020/07/27
Rail Spur Conversion	ES- 2020-19412	2021/01/20	Use of VDOT standard sediment tubes	2021/02/19
Walnut Creek Phase 5B	ES-2016-14639	2021/06/04	Use of wire reinforced silt fence on steep slopes where sediment trap grading would result in excessive grading.	2021/06/04
Westhill Subdivision	ES-2020-19391	2021/06/01	Design of sediment traps #1 and #2 to be oversized to minimize discharge to a downstream discharge path with a gap in the presence of a channel.	2021/60/04

The following VSMP Exceptions were approved:

Project Name	Permit Number	Date of Submittal	Description	Date of Approval
Westhill Roundabout	ES-2020-18355	2020/06/28	Water quantity exception due to linear project component and intent to address during larger site plan that was approved.	2020/07/27
Belview	ES-2020-18439	2020/07/08	Water quantity exception for Route 114 project component due to no net increase impervious as existing impervious areas are removed and new area added.	2020/07/08

**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 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**

### **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 April 16, 2021 social media post shared information on the May 15, 2021 hazardous waste collection events held at the New River Resource Authority. The Twitter post had 942 Impressions and 9 total engagements as documented in the social media statistics in the report 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.

Updated Nutrient Management Plans were developed during the permit year. The updated plans will be posted and available at the County website.

No training events were conducted in the permit year for the applicable staff. Training was accomplished in the previous year and will be performed in the 2021-2022 permit year in accordance with the required frequency.

**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