



**Albemarle County  
MS4 Program Plan  
2018 – 2023**

**Coverage Under General Permit for Discharges of Stormwater from Small  
Municipal Separate Storm Sewer Systems (General Permit Number VAR040074)**

**Albemarle County  
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## Commonly Used Abbreviations

ACAP – Albemarle Conservation Assistance Program  
CD – Community Development Department  
CBPA – Chesapeake Bay Preservation Act  
E&S – Erosion and Sediment Control  
EMS – Environmental Management System  
GH/PP – Good Housekeeping / Pollution Prevention  
GIS – Geographic Information System  
IDDE – Illicit Discharge Detection and Elimination  
MCM – Minimum Control Measure  
MWE – Meaningful Watershed Experience  
MS4 – Municipal Separate Storm Sewer System  
NMP – Nutrient Management Plan  
PVCC – Piedmont Virginia Community College  
RCA – Rivanna Conservation Alliance  
RSEP – Rivanna Stormwater Education Partnership  
SMF – Stormwater Management Facility  
SOP – Standard Operating Procedure  
SWPPP – Stormwater Pollution Prevention Plan  
TJSWCD – Thomas Jefferson Soil and Water Conservation District  
TMDL – Total Maximum Daily Load  
UVA – University of Virginia  
VDOT – Virginia Department of Transportation  
VESCP – Virginia Erosion and Sediment Control Program  
VSMP – Virginia Stormwater Management Program  
WPO – Albemarle County Water Protection Ordinance

## General Information

### Permit Coverage

Both Albemarle County Local Government and Albemarle County Public Schools are covered by this permit. Albemarle County exists and operates under the county executive form of government. By statute, the County Schools Division is a department of the County.

### MS4 Regulated Area

In 2013 the County developed its map of the regulated area based on the following rules:

- included County land lying within the Charlottesville Urban Area as defined by the 2010 U.S. Census
- removed lands owned by other MS4s (Charlottesville, UVA, PVCC, VDOT)
- included County-owned properties within the City of Charlottesville

A map of Albemarle County's MS4 area is shown below in Figure 2 on page 15 of this document.

## Roles and Responsibilities

The following table shows the Albemarle County departments and divisions generally responsible for the coordination and implementation of the MS4 Program, including each of the six Minimum Control Measures required by the General Permit. The Watershed Stewardship Manager, a position residing in the Environmental Services Division of the Department of Facilities and Environmental Services, serves as the overall coordinator of the Program.

Minimum Control Measure	Departments and Divisions	Responsibilities
MCM #1) Education and Public Outreach	Facilities and Environmental Services, Environmental Services Division; Albemarle County Schools, Department of Building Services; Thomas Jefferson Soil and Water Conservation District (contractee)	<ul style="list-style-type: none"> <li>collaborate with RSEP to implement regional public education plan</li> <li>develop and implement County-specific education initiatives, independent of RSEP</li> <li>periodic program evaluation and adjustment</li> </ul>
MCM #2) Public Involvement and Participation	Facilities and Environmental Services, Environmental Services Division	<ul style="list-style-type: none"> <li>posting new programs and plans</li> <li>ensuring proper public notifications</li> <li>ensuring public comments are responded to and recorded</li> <li>ensuring County participation in local activities</li> </ul>
MCM #3) Illicit Discharge Detection and Elimination	Facilities and Environmental Services, Environmental Services Division; Thomas Jefferson Soil and Water Conservation District (contractee)	<ul style="list-style-type: none"> <li>dry-weather outfall inspection</li> <li>investigations of minor discharges</li> <li>enforcement</li> <li>IDDE data tracking</li> <li>IDDE-related training</li> </ul>
	Albemarle County Fire and Rescue	<ul style="list-style-type: none"> <li>response to emergency discharges and major reported discharges</li> <li>investigations of major discharges</li> <li>enforcement</li> </ul>
MCM #4) Construction Site Runoff Control	Community Development, Engineering Division	<ul style="list-style-type: none"> <li>land-disturbing permit issuance</li> <li>erosion and sediment control plan review and approval</li> <li>construction site erosion and sediment control inspection and enforcement</li> </ul>
MCM #5) Post-construction Stormwater Management in New Development and Development on Prior-Developed Lands	Community Development, Engineering Division	<ul style="list-style-type: none"> <li>permit issuance</li> <li>BMP design review and approval</li> <li>BMP construction inspection</li> </ul>
	Facilities and Environmental Services, Environmental Services Division	<ul style="list-style-type: none"> <li>private BMP inspection and guidance</li> <li>operator-owned BMP inspection and maintenance</li> <li>BMP data tracking</li> </ul>
MCM #6) Pollution Prevention and Good Housekeeping	Facilities and Environmental Services, Environmental Services Division; Albemarle County Schools, Department of Building Services	<ul style="list-style-type: none"> <li>pollution prevention programs</li> <li>nutrient management plans</li> <li>GH/PP-related training</li> </ul>

### Legal Authorities

Albemarle County's MS4 Program is implemented under the authority of the following:

- Virginia Stormwater Management Act
- Virginia Erosion and Sediment Control Law
- Chesapeake Bay Preservation Act (CBPA)
- Albemarle County Code, including
  - Subdivision Ordinance (Chapter 14)
  - Water Protection Ordinance (Chapter 17)
  - Zoning Ordinance (Chapter 18)
- Albemarle County Design Standards Manual (outlines administrative policies and procedures related to land development regulations)

Chapter 17 of the Albemarle County Code – known as the Water Protection Ordinance (WPO) – is the primary legal mechanism through which the County regulates land disturbing activities, land development, illicit discharges, and impacts to riparian areas and other natural resources. The WPO codifies the County's stream buffer protection program.

## MCM #1 – Public Education and Outreach

### List of Requirements

The General Permit's list of requirements for MCM #1 are given in Appendix 1.

### Regional Coordination

Public education and outreach on stormwater issues is accomplished largely through participation in the Rivanna Stormwater Education Partnership (RSEP). The RSEP is a collaborative effort among local public entities within the Charlottesville urban area that hold small MS4 permits under the National Pollutant Discharge Elimination System program. The RSEP is dedicated to helping its members achieve the MS4 permit requirements related to education, outreach, and public participation. The MS4 operators comprising RSEP are Albemarle County, the City of Charlottesville, and the University of Virginia. The Thomas Jefferson Soil and Water Conservation District (TJSWCD) provides support to the RSEP and serves as its coordinating body.

Founded in March 2003, the RSEP meets a minimum of six times a year to plan and implement stormwater education initiatives and share information about each partner's stormwater programs. The development of education initiatives through the RSEP has resulted in a wide variety of projects and has avoided the over-exposure, redundancy, and conflicting messages that might result if each partner were carrying out projects on their own. Campaign materials – including print ads, movie theater ads, and posters on public transit buses, magnets, radio spots, and utility bill inserts – are written in simple, easy to understand language. Many education and outreach materials can be viewed at [www.rivanna-stormwater.org](http://www.rivanna-stormwater.org). The RSEP website serves as a central portal and point of contact for members of the public wishing to learn about local government stormwater management efforts.

### High-Priority Water Quality Issues, Size of Target Audiences, and Relevant Messages

For the 2018-2023 permit cycle, RSEP members have chosen three key stormwater issues: runoff volume reduction, potential runoff pollutants, and TMDL pollutants. By grouping regional water quality impairments as one high priority issue, RSEP can address this highly important topic while also addressing other important issues that impact water quality in the region.

#### 1. Runoff Volume Reductions

One of the biggest challenges facing urban waterways is the sheer volume of runoff being transported from impervious surfaces to streams. In developed areas, rainwater falls on impervious surfaces, such as buildings, parking lots, and driveways. Instead of infiltrating into the ground and recharging local aquifers, stormwater flows rapidly across impervious surfaces and into storm sewers, and then into streams. As a result, stream flow volumes and velocities are significantly higher than under natural conditions. These high, rapid flows cause stream bank erosion and damage to stream ecosystems. Best management practices (BMPs) can be installed to mitigate the impacts of development by slowing down the transport of water from impervious surfaces to local streams.

While localities and developers are required to install BMPs for certain construction projects, maintenance of these BMPs is not always taken into account during their installation. In addition, there are many BMPs homeowners can implement or install to reduce the runoff from their properties and contribute to healthier streams. RSEP intends to provide education and outreach to both homeowners as well as new and existing BMP owners during the permit period. The goal of this program will be to educate homeowners and the general public about the value of runoff control, and also to provide ideas for ways they can address the problem.

#### 2. Potential Runoff Pollutants

As stormwater flows across roadways, parking lots, and driveways, it picks up pollutants such as sediment, oil, nutrients, bacteria, and trash that are lying on the surface. Sources of these pollutants can be as varied as the pollutants themselves, ranging from pet waste left by a local resident to a diesel fuel spill on a local industrial site to cigarette butts tossed on the ground by passing smokers.

There are two primary ways to handle runoff pollutants. The first is prevention. Educational messages for this approach will range from reminding restaurants how to properly handle their used cooking oil to reminding residents to obtain a soil test before applying fertilizer on their lawns. The second way to handle runoff pollutants is to capture them after they are out in the environment. In addition to reducing runoff as previously discussed, certain BMPs can also help trap or absorb these pollutants in the environment and prevent them from reaching local waterways. In addition, the illicit discharge and elimination (IDDE) programs run by the various MS4 permit holders will help to identify and eliminate possible illicit discharges resulting from human activity in the watershed. IDDE outreach and education efforts provided by RSEP have warned against storm drain dumping and encouraged use of the RSEP Water Pollution Hot Line to report suspected illegal discharges.

### 3. TMDL Impairments – Bacteria, Sediment, Nitrogen, Phosphorus

The Chesapeake Bay TMDL requires pollution reductions in sources of phosphorus, nitrogen, and sediment loads across the Bay watershed and sets pollution limits needed to achieve desired water quality standards. These TMDL impairments have significant impacts in the local area. In addition to sediment reductions required in the Chesapeake Bay TMDL, sediment source reductions are also required by the Rivanna River Benthic TMDL. Local TMDLs for streams such as Meadow and Lodge Creek also touch on sediment as a pollutant source, with bacteria as an added pollutant of concern in many local streams.

TMDL impairments are logical topics for MS4 outreach and education programs, as most of the streams with TMDLs are urban streams and MS4s are concentrated in the urban areas. According to the *Final 2012 305(b)/303(d) Water Quality Assessment Integrated Report* (VA DEQ, 2014), of the stream miles assessed within the targeted urban areas, almost 30% have impaired benthic macro-invertebrate communities as a result of excess sediment<sup>1</sup>. The *Final Report of the Benthic TMDL Development for the Rivanna River Watershed* submitted to VA DEQ (2008) identifies an existing sediment load from land-based and in-stream erosion from the Charlottesville/Albemarle urban area. Over one quarter (26%) of streams assessed within the targeted urban areas are considered impaired by excessive amounts of bacteria. Bacteria impairments in these streams can be caused by a variety of sources, including pet waste, leaking sewer pipes, and wildlife excrement. In addition, the MS4 general permit requires permittees to utilize turf and landscape management plans to minimize nutrient pollution, and also prohibits the use of deicers containing urea, nitrogen, or phosphorus. Similar messaging is also relevant to home and business owners.

Outreach and education campaigns focusing on TMDL impairments will include a variety of approaches, strategies, and target audiences. Licensed dog owners in the City and County can be targeted to pick up pet waste to reduce bacteria. Strategies utilized to address reductions in runoff volume can be used to target sediment. Homeowners, gardeners, and landscape maintenance professionals can be targeted to address fertilizer usage.

Table 1 below outlines the target audiences, specific messages and anticipated timeline of RSEPs education campaign for the 2018-2023 permit cycle. As necessary, RSEP will adjust target audiences and messages to address any observed weaknesses or shortcomings in the public education and outreach program.



**Table 1. Outreach and Education Strategies and Timeline**

Strategy Examples	Public Audience	Time Frame Anticipated Frequency	Anticipated Relevant Message (s)	High Priority Issues Addressed		
				Runoff Volume Reductions	Potential Runoff Pollutants	TMDL Pollutants
Written Materials <i>Utility Bill Inserts</i>	Homeowners and residents	Spring <i>Two or Three times during permit cycle</i>	Pick up After Your Pets: Animal waste that is washed off of lawns and sidewalks sends harmful bacteria into the storm drain system and into streams and rivers, creating problems for swimmers and fish.		✓	✓
			Use moderation when applying lawn products such as fertilizers, pesticides or herbicides. Better yet, get your soil tested, fertilize only in the fall, and look into non-chemical products to protect your lawn. Call the Cooperative Extension Service in Albemarle County at 872-4580 to find out how to get your soil tested.		✓	✓
Media Materials <i>Charlottesville Public Access Station PSAs</i>	Homeowners and residents	Winter <i>Once during permit cycle</i>	We all prefer healthy streams and lakes...but most of our local waters are somewhat polluted. When it rains, pollution is carried directly into streams by runoff from parking lots, streets, and lawns. Here's what YOU can do to reduce pollution: (one) pick up after your pet, (two) don't over-fertilize your lawn, and (three) capture the water from your rooftop in a rain barrel...or in a rain garden. Do your part to keep our streams clean and healthy. Visit Rivanna-stormwater.org.	✓	✓	✓
Media Materials <i>Cville Weekly Ads</i>	Homeowners and residents	Fall or Spring <i>Annually</i>	While being good to your pet, don't be bad to the river. Every time it rains, runoff from your lawn carries bacteria and other organisms from your pet's waste into local streams. Dispose of your pet's waste properly by bagging it and throwing it away.		✓	✓
			Don't over-fertilize your lawn. Excess nutrients from fertilizer are a major source of water pollution when they are carried by rain		✓	✓

			<p>runoff into stormdrains and local waterways. Apply fertilizer based on a soil test. Don't rake leaves down storm drains or into streams.</p> <p>When leaves are washed into streams they decompose there and degrade water quality. Compost them or bag for proper disposal.</p> <p>When you mow your lawn, don't dispose of grass clippings down a storm drain. Like decomposing leaves, grass clippings degrade water quality. Leave them on your lawn.</p>			
<p>Written Materials <i>Charlottesville Area Transit Bus Ad</i></p>	<p>Homeowners and residents</p>	<p>Fall <i>Once during permit cycle</i></p>	<p>Don't over fertilize your lawn. Excess nutrients from fertilizer are a major source of water pollution when they are carried by rain runoff into stormdrains and local waterways. Apply fertilizer based on a soil test. Don't rake leaves down storm drains or into streams.</p> <p>When leaves are washed into streams they decompose there and degrade water quality. Compost them or bag for proper disposal.</p> <p>When you mow your lawn, don't dispose of grass clippings down a storm drain. Like decomposing leaves, grass clippings degrade water quality. Leave them on your lawn.</p>		✓	✓
<p>Media Materials <i>Radio Ads</i></p>	<p>Homeowners and residents</p>	<p>Summer <i>Once during permit cycle</i></p>	<p>Did you know 1 quart of motor oil can contaminate 250,000 gallons of water? Every year in the U.S., millions of gallons of used motor oil, chemicals, and other wastes are disposed of illegally – down a storm drain or in the trash. Unlike sewage, stormwater is not treated. Storm drains empty directly into local streams and eventually reach the Chesapeake Bay. Please do your part to keep our waterways healthy. Recycle used motor oil at the Rivanna Solid Waste Authority's Ivy location or return it to where you bought it.</p>		✓	
			<p>Planning to wash your car this weekend? Ever wonder where all that water goes after it runs off your driveway? This water does</p>		✓	✓

			not get treated and carries oil, soaps, and cleaners into storm drains; it flows directly into local streams and eventually reaches the Chesapeake Bay. To help prevent this, consider using biodegradable cleaning products, and wash your car on the lawn, instead of the driveway. Even better, take your car to a carwash facility that recycles its wash water.			
			Pet waste commonly contains bacteria and parasites harmful to humans and other pets. Waste left on trails, sidewalks and grassy areas can wash into creeks and lakes, harming aquatic life and making the water unsafe for swimming and wading. Our own Moores Creek has been found to contain harmful levels of E. coli. By picking up after dogs and cats, you can improve local water quality and keep your community safer! Remember: Always scoop pet waste and dispose of it properly by throwing it in the trash, flushing it down the toilet or composting it with a pet waste composter.		✓	✓
Alternative Materials Magnets	Homeowners and residents	Spring <i>Once during permit cycle</i>	Hand out magnets regarding cigarette butt litter, picking up pet waste, and proper car washing at Earth Week or other tabling events		✓	✓
Alternative Materials Stickers	Homeowners and residents	Spring <i>Once during permit cycle</i>	Hand out stickers with stormwater focused messaging at Earth Week or other tabling events		✓	✓
Media Materials Social Media Promotion	Homeowners and residents	Twice Yearly <i>Annually</i>	Provide stormwater focused social media content to existing local Facebook pages or other social media outlets. Share stormwater video online.	✓	✓	✓

**MCM #2 – Public Involvement and Participation**

**List of Requirements**

The General Permit’s list of requirements for MCM #2 are given in Appendix 1.

## Public Reporting of Illicit Discharges, Complaints Regarding Land Disturbing Activities, and Other Stormwater Pollution Concerns

Public reporting of illicit discharges and other stormwater pollution is facilitated through a hotline maintained by RSEP (434-202-4179), the RSEP website <http://rivanna-stormwater.org/>, and the Albemarle County Water Resource Protection webpage: <https://www.albemarle.org/government/facilities-environmental-services/environmental-services/water-resource-protection>. Reporting of erosion and sediment control concerns is facilitated through the County's "Report a Concern" webpage (<https://www.albemarle.org/government/community-development/report-a-concern>) or through the County's Complaint Hotline (434) 296-5834.

## Public Input on MS4 Program

Albemarle County invites public input on the MS4 Program and related plans via its Water Resource Protection webpage: [Water Resource Protection | Albemarle County, VA](#)

## Public Involvement Activities

Albemarle County facilitates numerous avenues for public involvement in watershed stewardship and pollution reduction. These include but are not limited to:

- Funding for Rivanna Conservation Alliance's StreamWatch water quality monitoring program. The program engages trained volunteers to collect Level III data. Data are submitted to DEQ annually and are used by DEQ to list and de-list streams on the 303(d) list of Impaired Waters.
  - Time period: Benthic macroinvertebrate samples are collected at 50 sites throughout the Rivanna basin twice yearly. Bacterial samples are collected at over a dozen sites in the Charlottesville-Albemarle urban area on a monthly basis during the swimming season.
  - Metrics: Number of volunteers involved; number of samples collected, number of public reports and announcements issued.
- Guidance for Rivanna Conservation Alliance's StreamWatch water quality monitoring program. Albemarle County staff serves on Rivanna Conservation Alliance's Science Advisory Committee. Through this association, Albemarle helps guide RCA's water quality monitoring and reporting efforts.
  - Time period: RCA SAC meetings are held quarterly.
  - Metric: Number of meetings attended.
- The Albemarle Conservation Assistance Program (ACAP). ACAP, a program to assist property owners in the financing and installation of thirteen different water quality best management practices, commences on July 1, 2019. The program will be administered by Thomas Jefferson Soil and Water Conservation District.
  - Time period: Ongoing.
  - Metrics: Number of BMPs installed.
- Meaningful Watershed Experience (MWE). Albemarle funds outdoor, streamside Meaningful Watershed Experiences for hundreds of school students annually. Students are taught fundamentals of watershed processes and stream ecology.
  - Time period: Repeats annually.
  - Metrics: Number students.
- Climate Action Planning. Albemarle's Climate Action planning process includes a robust community involvement component, including citizen involvement in multiple planning groups and public workshops. Many components of climate action planning overlap with watershed stewardship and water pollution reduction (e.g. tree planting, sprawl reduction).

- Time period: Planning began in 2018 and will continue through 2020. The implementation phase, from 2020 onward, is also likely to involve citizens.
  - Metrics: Number of citizens attending workshops and participating in planning groups.
- Household Hazardous Waste Collection. Albemarle funds Rivanna Solid Waste Authority’s Household Hazardous Waste Collection Program. This program includes amnesty days for receiving certain waste items as well as ongoing waste collection for other items. The waste materials are received at the Ivy Material Utilization Center.
  - Time period: Amnesty days for each of several categories of hazardous waste are offered annually.
  - Metrics: Amount of waste collected.
- Volunteer involvement in trail maintenance, tree planting, conservation landscaping. Albemarle County employs volunteers to assist with streamside trail maintenance, tree installations, conservation landscaping, and other projects that benefit water quality
  - Time period: Periodic.
  - Metrics: Volunteer hours.

#### Posting of Documents to Website

Albemarle County maintains MS4 Program information at the Water Resource Protection webpage. Copies of the current MS4 Program Plan, Annual Report, and TMDL Action Plans are available for download from the webpage, and past plans and reports are made available upon request. New plans and reports are posted immediately following submittal to DEQ. New posting announcements will include an explicit invitation for public comment. The appropriate County staff will provide a response to any comments received within two business days. The public comment and County response will be saved in the digital folder of the latest or most applicable program plan or annual report.

### MCM #3 – Illicit Discharge Detection and Elimination

#### List of Requirements

The General Permit’s list of requirements for MCM #3 are given in Appendix 1.

#### MS4 Map and Information Table

A map of Albemarle County’s MS4 area is given in Figure 2, below. The information table and other mapping details required by this permit are maintained by the County’s Facilities and Environmental Services Department and are available by request. Albemarle submitted a GIS-compatible shapefile of the MS4 area to Virginia DEQ prior to July 1, 2019.

#### Physical Interconnections

Most drainage infrastructure within Albemarle’s MS4 boundary is not owned or maintained by the County. Though there are interconnections between adjoining MS4s and stormwater conveyances in the County, these do not meet the definition of “physical interconnections” between MS4 systems as defined by the General Permit. Nevertheless, the County does receive and give notice of interconnections. These notices are kept on file in Department of Facilities and Environmental Services. No new notices were issued between the last amendment to the 2013-2018 Program Plan and the inception of the current permit cycle and completion of the 2018-2023 Program Plan.

### **IDDE Ordinance**

On February 14, 2007, the Albemarle County Board of Supervisors passed an amendment to the Water Protection Ordinance that codified the County's prohibition on the discharging or dumping of non-stormwater pollutants into the storm drainage system or natural streams. The WPO was later revised to incorporate the administration of a local VSMP program; all of the IDDE-related rules were retained.

### **Illicit Discharge Detection and Elimination Program**

Albemarle County's illicit discharge detection and elimination (IDDE) program is generally comprised of the following:

- maintaining ordinance prohibiting non-stormwater discharges into the storm sewer system and natural waters
- mapping and maintaining data on storm sewer system
- periodic dry-weather screening of outfalls
- facilitating reporting of suspected illicit discharges by the public and County personnel
- investigating reports of illicit discharges and suspected discharges discovered during dry-weather screening

### **Storm Sewer Map**

The County has developed a map of the storm sewer system within the regulated area. Most of the system is not County-owned or maintained. The map consists of a GIS shapefile depicting the location of manholes, pipes, culverts, and channels. The map includes approximately ninety percent of drainage infrastructure located on both County-owned and private properties.

### **Dry Weather Screening**

The County-operated portion of the storm sewer system within the regulated area is not a traditional, interconnected network of pipes and manholes typically found in cities. VDOT infrastructure is interspersed throughout the regulated area and much of the storm infrastructure located on private properties cannot be considered part of the County MS4 because the County has no ownership stake or a responsibility to maintain through easements or other legal agreements. As such, the County's outfall inspection program consists of periodic dry-weather screenings at outfalls along streams and channels within the County's MS4 area. These outfalls are mapped and visually observed for signs of illicit discharges. The survey record includes information such as outfall ID, the date, a photo, a description of the outfall infrastructure, and physical indicators of possible illicit discharges. At least 50 outfalls are screened each year. Since beginning the outfall screening program in 2006, and after having visited at least 600 outfalls, the County has not discovered any actual illicit discharges through dry-weather screening. The annual number of outfalls screened constitutes the metric by which this program is measured.

In the 2013-2018 Program Plan, the County stated that we had identified 926 drainage outfalls. A number of the outfalls within this set of were outside our MS4 area. Further, in 2017 the County recognized that most outfalls with diameters of four inches were roof drains, and we therefore modified the dry-weather screening program to focus on larger outfalls. Though we retain a database of all outfalls, per the modified plan we are focusing on outfalls greater than 4 inches in diameter. The set of outfalls exceeding four inches in the MS4 area numbers 515, and is pictured below.

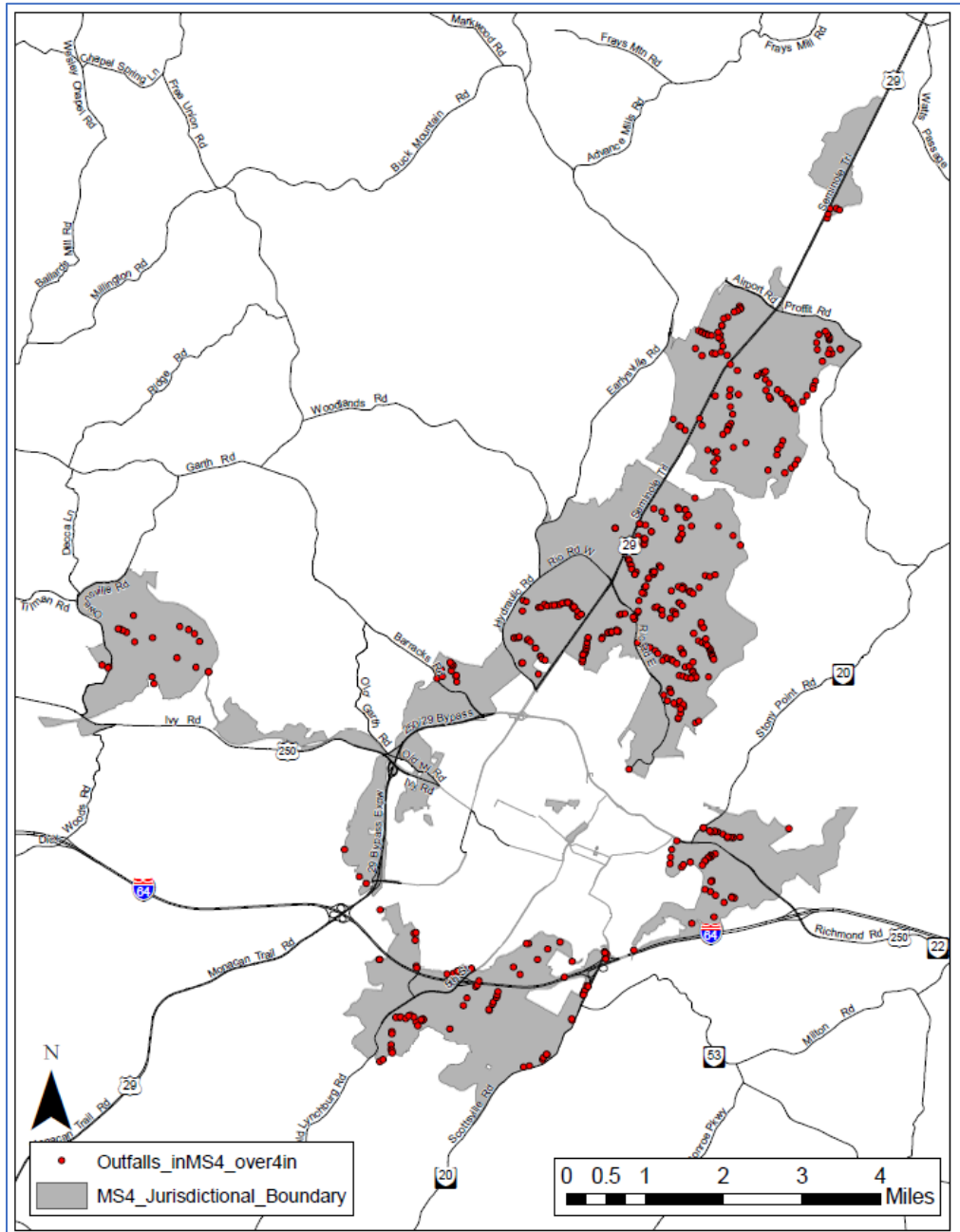


Figure 2: Outfalls over four inches in diameter in MS4 area (515 outfalls).

**Reports of Illicit Discharges**

The County annually responds to reports of suspected illicit discharges from County staff, local professional colleagues, and the general public. We receive reports through two principal means:

1. IDDE Hot Line – serving the Charlottesville area, reports received at this TJSWCD telephone ([434-202-4179](tel:434-202-4179)) are forwarded to the appropriate MS4 operator.
2. Telephone or emails, including those forwarded by staff or colleagues

Depending on the type of report, the Fire Department or other personnel may take action immediately or within several business days. For instance, reports of someone actively discharging waste – such as paint – into the storm drain will be immediately pursued. On the other hand, it may be several days before staff can respond to a report of construction debris left along a stream bank. The metric by which we measure the success of this program are 1) the ratio of suspected discharges observed/reported to suspected discharges investigated, and 2) the ratio of investigated to resolved reports.

Protocols for dry-weather screening and illicit discharge investigation are kept on file in Albemarle’s Department of Facilities and Environmental Services and are available by request.

## **MCM #4 – Construction Site Runoff Control**

### **List of Requirements**

The General Permit’s list of requirements for MCM #4 are given in Appendix 1.

### **Legal Authorities and Ordinance References**

Albemarle County is recognized by DEQ as a local authority of the Virginia Erosion and Sediment Control Program (VESCP) and the Virginia Stormwater Management Program. The County Engineer is the designated Program Authority for both programs. The VSMP authorization letter issued by DEQ is available by request.

References to the VESCP and demonstration of Albemarle’s alignment with the intent and requirements of the VESCP are contained throughout Albemarle’s Water Protection Ordinance (Chapter 17 of Albemarle County Code). Specific legal authorities to ensure compliance are established by (but not limited to) the following Sections of the Albemarle County Code:

- Sec. 17-200 Designation of program authority.
- Sec. 17-201 Designation of program administrator; powers and duties; express designations.
- Sec. 17-202 Administrator, plan reviewers and inspectors; certificates of competence.
- Sec. 17-207 Fees for land disturbing activity subject solely to the VESCP.
- Sec. 17-300 Land disturbing activities and site conditions subject to the VESCP.
- Sec. 17-402 Erosion and sediment control plans, and agreements in lieu of a plan; form and content.
- Sec. 17-417 Prerequisites to land disturbing activity.
- Sec. 17-424 Effect of failure to obtain grading, building or other permit; void for inactivity.
- Sec. 17-800 Duty to comply.
- Sec. 17-810 Inspections by the administrator under the VESCP.
- Sec. 17-903 Remedies under the VESCP.

### **Procedures for Implementation of E&S Controls, Inspections, Compliance and Enforcement**

Property owners preparing to engage in land disturbing activities must obtain a permit from the Community Development Department prior to the commencement of land disturbance. The standards and specifications for erosion and sediment control are no different than State regulations except the County has more stringent standards, as follows:

- denuded areas must be stabilized with permanent vegetation within nine months after commencing land disturbing activity (with caveats and opportunities for extensions)
- the zoning ordinance limits the use of fill or waste areas to one year

Plan review, inspection, compliance and enforcement procedures related to construction site runoff control are maintained by Albemarle’s Community Development Department and are available by request.



### Measures of Effectiveness

The effectiveness of Albemarle’s erosion and sediment control program can be gauged by reviewing the following data:

- number of new land disturbing activities
- number of inspections conducted
- number of verbal warnings
- number of notices to comply
- number of stop work orders
- number of E&S complaints from neighbors and general public
- number enforcement notices (notice to comply; stop work orders)
- number of E&S complaints

## **MCM #5 – Post-construction Stormwater Management in New Development and Development on Prior-developed Lands**

### List of Requirements

The General Permit’s list of requirements for MCM #5 are given in Appendix 1.

### Legal Authorities and Ordinance References

Albemarle County has been authorized by DEQ as a local authority of the Virginia Stormwater Management Program. The VSMP authorization letter is available by request.

References to the VSMP and demonstration of Albemarle’s alignment with the intent and requirements of the VSMP are contained throughout Albemarle’s Water Protection Ordinance (Chapter 17 of Albemarle County Code). Specific legal authorities to ensure compliance are established by (but not limited to) the following Sections of the Albemarle County Code:

- Sec. 17-208 Fees for land disturbing activity under VSMP.
- Sec. 17-302 Land disturbing activities subject to the VSMP.
- Sec. 17-403 Stormwater management plans; form and content.
- Sec. 17-404 Pollution prevention plans; form and content.
- Sec. 17-801 Duty to maintain structures, systems, facilities, and techniques.
- Sec. 17-811 Inspections by the administrator under the VSMP.
- Sec. 17-904 Remedies under the VSMP.

### Procedures for Implementation, Inspection, Compliance, and Enforcement of Post-construction Stormwater Management

Once the construction of permanent stormwater management facilities is complete and the facility moves from the construction to the operation stage, Environmental Services personnel assume the responsibility to ensure long-term maintenance compliance. Procedures to inspect, and to promote and enforce compliance by owners of both private and County owned/maintained permanent stormwater facilities are available by request.

### County-maintained Stormwater Management Facilities

Albemarle County –including the Department of Facilities and Environmental Services, the Department of Parks and Recreation, and County Schools – maintains approximately 70 stormwater management facilities. About a

third of the facilities lie outside the MS4 regulated area. However, the County provides the same level of service for maintenance and inspections to all facilities, regardless of location. All County-maintained facilities are inspected annually.

#### **Courtesy Support for Owners of Private Stormwater Facilities**

In addition to periodic inspection Albemarle County occasionally employs additional strategies such as homeowner outreach and education and individual consultations to promote the long-term maintenance of measures designed to treat stormwater runoff from private property.

#### **Measures of Effectiveness**

The effectiveness of Albemarle’s post-construction stormwater management program can be gauged by reviewing the following data:

- Number of stormwater management facilities (SMFs)
- Number of SMF inspections
- Number of inspections with outcome = “compliant”
- Number of inspections with outcome = “repairs needed”
- Number of notices = “notice to comply”
- Number of notices = “failure to comply”

#### **Stormwater Management Facility Database**

Albemarle’s Department of Facilities and Environmental Services maintains a complex database to record inspections and track conditions of the approximately 1,000 SMFs in the County. This database is not accessible to the public. However, the location, facility type, and owners of all SMFs are viewable in the County’s public GISWeb ([https://gisweb.albemarle.org/gpv\\_51/Viewer.aspx](https://gisweb.albemarle.org/gpv_51/Viewer.aspx)).

### **MCM #6 – Pollution Prevention and Good Housekeeping**

#### **List of Requirements**

The General Permit’s list of requirements for MCM #6 are given in Appendix 1.

#### **Daily Operations and Maintenance**

Since 2004, the County has been implementing an ISO 14001-based Environmental Management System (EMS), including both local government and school division operations. The EMS is based on our Environmental Management Policy (Attachment 7), which commits the County to environmental compliance, pollution prevention, and continual environmental improvement. An EMS manual – dated April 2008 – serves as the framework for the EMS and is included as Attachment 8. As appropriate, initiatives specifically related to water resource protection have been and will continue to be identified and pursued as part of the EMS.

As part of the EMS, pollution prevention opportunities are identified, employees are trained in both the EMS and good housekeeping practices, and goals are set and tracked to pursue those opportunities.

#### **SOPs**

Several Standard Operating Procedures (SOPs) have been developed related to good housekeeping, including:

- Safer Chemical Procedure
- Integrated Pest Management
- Underground Storage Tank Management

- Spill Prevention and Response
- Hazardous Conditions

These SOPs are available by request.

### High-priority Facilities

In 2017 we amended our 2013-2018 MS4 Program Plan to exclude all facilities originally identified as “high-priority facilities”. Most of the facilities lie outside our MS4 area, and though we apply high environmental standards for County operations at these facilities, they are not subject to MS4 rules and reporting. One facility—the equipment shed at 401 McIntire Road—lies within our MS4 area, but all maintenance activities and storage occurs under roof and the facility presents no risk of stormwater pollution. Per the 2017 amendment, Albemarle County determined it possesses no municipal high-priority facilities with a high potential for chemicals or other materials to be inadvertently discharged to stormwater.

### Nutrient Management Plans

Albemarle County owns and operates recreational facilities totaling about 10 acres within its MS4 regulated area where nutrients are applied to an area greater than one contiguous acre (see table below). These properties have been managed beginning in 2005 under a Nutrient Management Plan (NMP) prepared by Robert Barksdale, a Certified Nutrient Management Planner. This plan is available on the County’s MS4 information hub. Nutrient management plans have been developed and are being implemented for all subject facilities except Lane Field. The Lane Baseball Field is operated by a private organization. At the time of this writing, the County is uncertain as to whether nutrients are applied at Lane Field. The County is actively working to determine the status and will collaborate with the party managing the field to emplace a nutrient management plan if appropriate.

Albemarle’s 2013-2018 Program Plan erroneously stated that facilities outside our MS4 area were subject to review/regulation under the MS4 General Permit. We have since recognized this error and amended our Program Plan in 2017. The table below outlines our corrected plan.

Albemarle County facilities subject to nutrient management plan requirements under MS4 permit		
Facility	Acres	Longitude/ Latitude
Agnor-Hurt Elementary	~1.0	-78.48/38.09
Baker-Butler Elementary	~1.0	-78.42/38.12
Cale Elementary	~1.0	-78.50/38.00
Hollymead Middle School (little league baseball field)	0.7	-78.43/38.11
Hollymead Middle School (soccer field)	1.5	-78.43/38.11
Lane Baseball Field (little league baseball field)		-78.48/38.036
Monticello High School (baseball field)	2.4	-78.49/37.99
Monticello High School softball field	0.9	-78.49/38.00
Woodbrook Elementary	~1.0	-78.46/38.09

### Training Plan

Applicable County employees undergo periodic training – either internally or externally – related to good housekeeping practices, pollution prevention, detecting and eliminating illicit discharges, and other BMPs. The following table summarizes the County’s annual training plan in accordance with the MS4 General Permit. While specific training dates are not determined in advance, training is conducted at least biennially and some staff may

be subject to more frequent training as needed based on job duties. This training plan may be occasionally updated.

**Staff Training Program**

Department Receiving Training	Targeted Staff	Good Housekeeping / Pollution Prevention	Enhanced Training (for applicable staff)		
			Spill Response	VA ESC Law	VA Pesticide Control Act
(frequency)		biennial	(to maintain certification)	(to maintain certification)	(to maintain certification)
Building Services	<ul style="list-style-type: none"> <li>• building maintenance</li> <li>• grounds management</li> <li>• custodians</li> <li>• mechanics</li> <li>• bus drivers</li> <li>• other field staff</li> </ul>	X	X		
Community Development	<ul style="list-style-type: none"> <li>• E&amp;S control inspectors</li> <li>• building inspectors</li> <li>• zoning inspectors</li> </ul>	X		X	
Community Emergency Response Team	<ul style="list-style-type: none"> <li>• all staff</li> </ul>	X	X		
Emergency Communications Center	<ul style="list-style-type: none"> <li>• all staff</li> </ul>	X			
Fire & Rescue	<ul style="list-style-type: none"> <li>• all staff</li> </ul>	X	X		
Facilities and Environmental Services	<ul style="list-style-type: none"> <li>• building maintenance</li> <li>• grounds management</li> <li>• custodians</li> </ul>	X	X		X
Project Management	<ul style="list-style-type: none"> <li>• project managers</li> </ul>	X			
Parks and Recreation	<ul style="list-style-type: none"> <li>• all staff</li> </ul>	X	X		X
Police	<ul style="list-style-type: none"> <li>• all staff</li> </ul>	X			
Purchasing	<ul style="list-style-type: none"> <li>• all staff</li> </ul>	X			
Social Services	<ul style="list-style-type: none"> <li>• field staff</li> </ul>	X			

**Measures of Effectiveness**

The effectiveness of Albemarle’s good housekeeping/pollution prevention stormwater program can be gauged by reviewing the following data:

- Number training attendees
- Status of adoption and implementation of nutrient management plans

- Status of compliance with requirement to contain vehicle wash water
- Status of compliance with requirement to contain vehicle fluids
- Number of illicit discharges stemming from County operations
- Status of waste and landscape waste handling

### Chesapeake Bay TMDL & Local TMDL Special Conditions

Part II of the General Permit includes special requirements/conditions for the MS4 to reduce pollutants associated with the Chesapeake Bay TMDL and local TMDLs. For each special condition, Albemarle County has developed a TMDL Action Plan that addresses how to reduce pollutants associated with the MS4's relevant wasteload allocation (WLA). The latest versions of the following TMDL Action Plans can be found on the County's Water Resource Protection webpage at <https://www.albemarle.org/government/facilities-environmental-services/environmental-services/water-resource-protection>.

- Chesapeake Bay TMDL Action Plan – *last updated in October 2019*
- Combined Local TMDL Action Plan: Benthic TMDL for the Rivanna River and Bacteria TMDL for the Rivanna River Mainstem, North Fork Rivanna River, Preddy Creek and Tributaries, Meadow Creek, Mechums River, and Beaver Creek Watersheds – *last updated April 30, 2020*
- Local TMDL Action Plan: Sediment TMDLs for Moores Creek, Lodge Creek, Meadow Creek, and Schenks Branch – *last updated April 30, 2021*

### Appendix 1 - Each Specific Requirement as Listed in Part I E for each MCM

Instructions in the General Permit (permit number VAR040074) state that this Program Plan must include, as "written items", "each specific requirement as listed in Part I E [of the Permit] for each MCM." The italicized passages below are excerpted from the General Permit and constitute the list of specific Permit requirements. Though this Program Plan meets all Permit requirements, this Appendix 1 and the below language copied from the General Permit does not describe or constitute Albemarle County's Program Plan. Albemarle's Program Plan is described in the body of this document.

#### Specific requirements of MS4 General Permit for MCM #1

##### 1. Public education and outreach.

##### a. The permittee shall implement a public education and outreach program designed to:

- (1) Increase the public's knowledge of how to reduce stormwater pollution, placing priority on reducing impacts to impaired waters and other local water pollution concerns;
- (2) Increase the public's knowledge of hazards associated with illegal discharges and improper disposal of waste, including pertinent legal implications; and
- (3) Implement a diverse program with strategies that are targeted toward individuals or groups most likely to have significant stormwater impacts.

##### b. The permittee shall identify no less than three high-priority stormwater issues to meet the goal of educating the public in accordance with Part I E 1 a. High-priority issues may include the following examples: Chesapeake Bay nutrients, pet wastes, local receiving water impairments, TMDLs, high-quality receiving waters, and illicit discharges from commercial sites.

##### c. The high-priority public education and outreach program, as a whole, shall:

- (1) Clearly identify the high-priority stormwater issues;
- (2) Explain the importance of the high-priority stormwater issues;

(3) Include measures or actions the public can take to minimize the impact of the high priority stormwater issues; and

(4) Provide a contact and telephone number, website, or location where the public can find out more information.  
d. The permittee shall use two or more of the strategies listed in Table 1 below per year to communicate to the public the high-priority stormwater issues identified in accordance with Part I E 1 b including how to reduce stormwater pollution.

Table 1 - Strategies for Public Education and Outreach

- Traditional written materials: Informational brochures, newsletters, fact sheets, utility bill inserts, or recreational guides for targeted groups of citizens
- Alternative materials: Bumper stickers, refrigerator magnets, t-shirts, or drink koozies
- Signage: Temporary or permanent signage in public places

e. The permittee may coordinate its public education and outreach efforts with other MS4 permittees; however, each permittee shall be individually responsible for meeting all of its state permit requirements.

f. The MS4 program plan shall include:

- (1) A list of the high-priority stormwater issues the permittee will communicate to the public as part of the public education and outreach program;
- (2) The rationale for selection of each high-priority stormwater issue and an explanation of how each education or outreach strategy is intended to have a positive impact on stormwater discharges;
- (3) Identification of the public audience to receive each high-priority stormwater message;
- (4) The strategies from Table 1 of Part I E 1 d to be used to communicate each high priority stormwater message; and
- (5) The anticipated time periods the messages will be communicated or made available to the public.

## **Specific requirements of MS4 General Permit for MCM #2**

### **2. Public involvement and participation.**

a. The permittee shall develop and implement procedures for the following:

- (1) The public to report potential illicit discharges, improper disposal, or spills to the MS4, complaints regarding land disturbing activities, or other potential stormwater pollution concerns;
- (2) The public to provide input on the permittee's MS4 program plan;
- (3) Receiving public input or complaints;
- (4) Responding to public input received on the MS4 program plan or complaints; and
- (5) Maintaining documentation of public input received on the MS4 program and associated MS4 program plan and the permittee's response.

b. No later than three months after this permit's effective date, the permittee shall develop and maintain a webpage dedicated to the MS4 program and stormwater pollution prevention. The following information shall be posted on this webpage:

- (1) The effective MS4 permit and coverage letter;
- (2) The most current MS4 program plan or location where the MS4 program plan can be obtained;
- (3) The annual report for each year of the term covered by this permit no later than 30 days after submittal to the department;
- (4) A mechanism for the public to report potential illicit discharges, improper disposal, or spills to the MS4, complaints regarding land disturbing activities, or other potential stormwater pollution concerns in accordance with Part I E 2 a (1); and
- (5) Methods for how the public can provide input on the permittee's MS4 program plan in accordance with Part I E 2 a (2).

c. The permittee shall implement no less than four activities per year from two or more of the categories listed in Table 2 below to provide an opportunity for public involvement to improve water quality and support local restoration and clean-up projects.

Table 2 - Public Involvement Opportunities

- *Monitoring - Establish or support citizen monitoring group*
- *Restoration - Stream or watershed clean-up day, adopt-a-water way program,*
- *Educational events - Booth at community fair, demonstration of stormwater control projects, presentation of stormwater materials to schools to meet applicable education Standards of Learning or curriculum requirements, watershed walks, participation on environmental advisory committees*
- *Disposal or collection events - Household hazardous chemicals collection, vehicle fluids collection*
- *Pollution prevention - Adopt-a-storm drain program, implement a storm drain marking program, promote use of residential stormwater BMPs, implement pet waste stations in public areas, adopt-a-street program.*

d. The permittee may coordinate the public involvement opportunities listed in Table 2 with other MS4 permittees; however, each permittee shall be individually responsible for meeting all of the permit requirements.

### **Specific requirements of MS4 General Permit for MCM #3**

#### **3. Illicit discharge detection and elimination.**

a. The permittee shall develop and maintain an accurate MS4 map and information table as follows:

(1) A map of the storm sewer system owned or operated by the permittee within the census urbanized area identified by the 2010 decennial census that includes, at a minimum:

(a) MS4 outfalls discharging to surface waters, except as follows:

(i) In cases where the outfall is located outside of the MS4 permittee's legal responsibility, the permittee may elect to map the known point of discharge location closest to the actual outfall; and

(ii) In cases where the MS4 outfall discharges to receiving water channelized underground, the permittee may elect to map the point downstream at which the receiving water emerges above ground as an outfall discharge location. If there are multiple outfalls discharging to an underground channelized receiving water, the map shall identify that an outfall discharge location represents more than one outfall. This is an option a permittee may choose to use and recognizes the difficulties in accessing outfalls to underground channelized stream conveyances for purposes of mapping, screening, or monitoring.

(b) A unique identifier for each mapped item required in Part I E 3;

(c) The name and location of receiving waters to which the MS4 outfall or point of discharge discharges;

(d) MS4 regulated service area; and (e) stormwater management facilities owned or operated by the permittee.

(2) The permittee shall maintain an information table associated with the storm sewer system map that includes the following information for each outfall or point of discharge for those cases in which the permittee elects to map the known point of discharge in accordance with Part I E 3 a (1) (a):

(a) A unique identifier as specified on the storm sewer system map;

(b) The latitude and longitude of the outfall or point of discharge;

(c) The estimated regulated acreage draining to the outfall or point of discharge;

(d) The name of the receiving water;

(e) The 6th Order Hydrologic Unit Code of the receiving water;

(f) An indication as to whether the receiving water is listed as impaired in the Virginia 2016 305(b)/303(d) Water Quality Assessment Integrated Report;

(g) The predominant land use for each outfall discharging to an impaired water; and

(h) The name of any EPA approved TMDLs for which the permittee is assigned a wasteload allocation.

(3) No later than July 1, 2019, the permittee shall submit to DEQ a GIS-compatible shapefile of the permittee's MS4 map as described in Part I E 3 a. If the permittee does not have an MS4 map in a GIS format, the permittee shall provide the map as a PDF document.

(4) No later than October 1 of each year, the permittee shall update the storm sewer system map and outfall information table to include any new outfalls constructed or TMDLs approved or both during the immediate preceding reporting period.

(5) The permittee shall provide written notification to any downstream adjacent MS4 of any known physical interconnection established or discovered after the effective date of this permit.

b. The permittee shall prohibit, through ordinance, policy, standard operating procedures, or other legal mechanism, to the extent allowable under federal, state, or local law, regulations, or ordinances, unauthorized non stormwater discharges into the storm sewer system. Non stormwater discharges or flows identified in 9VAC25-890-20 D 3 shall only be addressed if they are identified by the permittee as a significant contributor of pollutants discharging to the MS4. Flows that have been identified by the department as de minimis discharges are not significant sources of pollutants to surface water.

c. The permittee shall maintain, implement, and enforce illicit discharge detection and elimination (IDDE) written procedures designed to detect, identify, and address unauthorized non stormwater discharges, including illegal dumping, to the small MS4 to effectively eliminate the unauthorized discharge. Written procedures shall include:

(1) A description of the legal authorities, policies, standard operating procedures or other legal mechanisms available to the permittee to eliminate identified sources of ongoing illicit discharges including procedures for using legal enforcement authorities.

(2) Dry weather field screening protocols to detect, identify, and eliminate illicit discharges to the MS4. The protocol shall include:

(a) A prioritized schedule of field screening activities and rationale for prioritization determined by the permittee based on such criteria as age of the infrastructure, land use, historical illegal discharges, dumping or cross connections;

(b) If the total number of MS4 outfalls is equal to or less than 50, a schedule to screen all outfalls annually;

(c) If the total number of MS4 outfalls is greater than 50, a schedule to screen a minimum of 50 outfalls annually such that no more than 50% are screened in the previous 12-month period. The 50% criteria is not applicable if all outfalls have been screened in the previous three years; and

(d) A mechanism to track the following information:

(i) The unique outfall identifier;

(ii) Time since the last precipitation event;

(iii) The estimated quantity of the last precipitation event;

(iv) Site descriptions (e.g., conveyance type and dominant watershed land uses);

(v) Whether or not a discharge was observed; and

(vi) If a discharge was observed, the estimated discharge rate (e.g., width and depth of discharge flow rate) and visual characteristics of the discharge (e.g., odor, color, clarity, floatables, deposits or stains, vegetation condition, structural condition, and biology).

(3) A timeframe upon which to conduct an investigation to identify and locate the source of any observed unauthorized non stormwater discharge. Priority of investigations shall be given to discharges of sanitary sewage and those believed to be a risk to human health and public safety. Discharges authorized under a separate VPDES or state permit require no further action under this permit.

(4) Methodologies to determine the source of all illicit discharges. If the permittee is unable to identify the source of an illicit discharge within six months of beginning the investigation then the permittee shall document that the source remains unidentified. If the observed discharge is intermittent, the permittee shall document that attempts to observe the discharge flowing were unsuccessful.

(5) Methodologies for conducting a follow-up investigation for illicit discharges that are continuous or that permittees expect to occur more frequently than a one-time discharge to verify that the discharge has been eliminated except as provided for in Part I E 3 c (4);



- (6) A mechanism to track all illicit discharge investigations to document the following:
- (a) The dates that the illicit discharge was initially observed, reported, or both;
  - (b) The results of the investigation, including the source, if identified;
  - (c) Any follow-up to the investigation;
  - (d) Resolution of the investigation; and
  - (e) The date that the investigation was closed.
- d. The MS4 program plan shall include:
- (1) The MS4 map and information table required by Part I E 3 a. The map and information table may be incorporated into the MS4 program plan by reference. The map shall be made available to the department within 14 days upon request;
  - (2) Copies of written notifications of new physical interconnections given by the permittee to other MS4s; and
  - (3) The IDDE procedures described in Part I E 3 c.

#### Specific requirements of MS4 General Permit for MCM #4

##### 4. Construction site stormwater runoff control.

a. The permittee shall utilize its legal authority, such as ordinances, permits, orders, specific contract language, and interjurisdictional agreements, to address discharges entering the MS4 from regulated construction site stormwater runoff. The permittee shall control construction site stormwater runoff as follows:

- (1) If the permittee is a city, county, or town that has adopted a Virginia Erosion and Sediment Control Program (VESCP), the permittee shall implement the VESCP consistent with the Virginia Erosion and Sediment Control Law (§ 62.1-44.15:51 et seq. of the Code of Virginia) and Virginia Erosion and Sediment Control Regulations (9VAC25-840);
- (2) If the permittee is a town that has not adopted a VESCP, implementation of a VESCP consistent with the Virginia Erosion and Sediment Control Law (§ 62.1-44.15:51 et seq. of the Code of Virginia) and Virginia Erosion and Sediment Control Regulations (9VAC25-840) by the surrounding county shall constitute compliance with Part I E 4 a; such town shall notify the surrounding county of erosion, sedimentation or other construction stormwater runoff problems;
- (3) If the permittee is a state agency; public institution of higher education including community colleges, colleges, and universities; or federal entity and has developed standards and specifications in accordance with the Virginia Erosion and Sediment Control Law (§ 62.1-44.15:51 et seq. of the Code of Virginia) and Virginia Erosion and Sediment Control Regulations (9VAC25-840), the permittee shall implement the most recent department approved standards and specifications; or
- (4) If the permittee is a state agency; public institution of higher education including community colleges, colleges, and universities; or federal entity and has not developed standards and specifications in accordance with the Virginia Erosion and Sediment Control Law (§ 62.1-44.15:51 et seq. of the Code of Virginia) and Virginia Erosion and Sediment Control Regulations (9VAC25-840), the permittee shall inspect all land disturbing activities as defined in § 62.1-44.15:51 of the Code of Virginia that result in the disturbance activities of 10,000 square feet or greater, or 2,500 square feet or greater in accordance with areas designated under the Chesapeake Bay Preservation Act, as follows:
  - (a) During or immediately following initial installation of erosion and sediment controls;
  - (b) At least once per every two-week period;
  - (c) Within 48 hours following any runoff producing storm event; and
  - (d) At the completion of the project prior to the release of any performance bond.
- (5) If the permittee is a subdivision of a local government such as a school board or other local government body, the permittee shall inspect those projects resulting in a land disturbance as defined in § 62.1-44.15.51 of the Code of Virginia occurring on lands owned or operated by the permittee that result in the disturbance of 10,000 square feet or greater, 2,500 square feet or greater in accordance with areas designated under the Chesapeake Bay Preservation Act, or in accordance with more stringent thresholds established by the local government, as follows:
  - (a) During or immediately following initial installation of erosion and sediment controls;
  - (b) At least once per every two-week period;
  - (c) Within 48 hours following any runoff producing storm event; and

- (d) At the completion of the project prior to the release of any performance bond.*
- b. The permittee shall require implementation of appropriate controls to prevent non stormwater discharges to the MS4, such as wastewater, concrete washout, fuels and oils, and other illicit discharges identified during land disturbing activity inspections of the MS4. The discharge of non stormwater discharges other than those identified in 9VAC25-890-20 D through the MS4 is not authorized by this state permit.*
- c. The permittee's MS4 program plan shall include:*
  - (1) If the permittee implements a construction site stormwater runoff control program in accordance with Part I E 4 a (1), the local ordinance citations for the VESCP program;*
  - (2) If the permittee implements a construction site stormwater runoff control program in accordance with Part I E 4 a (3):*
    - (a) The most recently approved standards and specifications or if incorporated by reference, the location where the standards and specifications can be viewed; and*
    - (b) A copy of the most recent standards and specifications approval letter from the department;*
    - (3) A description of the legal authorities utilized to ensure compliance with Part I E 4 a to control construction site stormwater runoff control such as ordinances, permits, orders, specific contract language, policies, and interjurisdictional agreements;*
    - (4) Written inspection procedures to ensure the erosion and sediment controls are properly implemented and all associated documents utilized during inspection including the inspection schedule;*
    - (5) Written procedures for requiring compliance through corrective action or enforcement action to the extent allowable under federal, state, or local law, regulation, ordinance, or other legal mechanisms; and*
    - (6) The roles and responsibilities of each of the permittee's departments, divisions, or subdivisions in implementing the construction site stormwater runoff control requirements in Part I E 4.*

**Specific requirements of MS4 General Permit for MCM #5**

- 5. Post-construction stormwater management for new development and development on prior developed lands.*
  - a. The permittee shall address post-construction stormwater runoff that enters the MS4 from the following land disturbing activities by implementing a post-construction stormwater runoff management program as follows:*
    - (1) If the permittee is a city, county, or town, with an approved Virginia Stormwater Management Program (VSMP), the permittee shall implement the VSMP consistent with the Virginia Stormwater Management Act (§ 62.1-44.15:24 et seq. of the Code of Virginia) and VSMP Regulations (9VAC25-870) as well as develop an inspection and maintenance program in accordance with Parts I E 5 b and c;*
    - (2) If the permittee is a town that has not adopted a VSMP, implementation of a VSMP consistent with the Virginia Stormwater Management Act (§ 62.1-44.15:24 et seq. of the Code of Virginia) and VSMP Regulations (9VAC25-870) by the surrounding county shall constitute compliance with Part I E 5 a; such town shall notify the surrounding county of erosion, sedimentation, or other post-construction stormwater runoff problems and develop an inspection and maintenance program in accordance with Part I E 5 b and c;*
    - (3) If the permittee is a state agency; public institution of higher education including community colleges, colleges, and universities; or federal entity and has developed standards and specifications in accordance with the Virginia Stormwater Management Act (§ 62.1-44.15:24 et seq. of the Code of Virginia) and VSMP Regulations (9VAC25-870), the permittee shall implement the most recent department approved standards and specifications and develop an inspection and maintenance program in accordance with Part I E 5 b;*
    - (4) If the permittee is a state agency; public institution of higher education including community colleges, colleges, and universities; or federal entity and has not developed standards and specifications in accordance with the Virginia Stormwater Management Act (§ 62.1-44.15:24 et seq. of the Code of Virginia) and Virginia Stormwater Management Regulations (9VAC25-870) the permittee shall implement a postconstruction stormwater runoff control program through compliance with 9VAC25-870 and with the implementation of a maintenance and inspection program consistent with Part I E 5 b; or*
    - (5) If the permittee is a subdivision of a local government such as a school board or other local government body, the permittee shall implement a post-construction stormwater runoff control program through compliance with*

9VAC25-870 or in accordance with more stringent local requirements, if applicable, and with the implementation of a maintenance and inspection program consistent with Part I E 5 b.

b. The permittee shall implement an inspection and maintenance program for those stormwater management facilities owned or operated by the permittee that discharges to the MS4 as follows:

(1) The permittee shall develop and maintain written inspection and maintenance procedures in order to ensure adequate long-term operation and maintenance of its stormwater management facilities;

(2) The permittee shall inspect stormwater management facilities owned or operated by the permittee no less than once per year. The permittee may choose to implement an alternative schedule to inspect these stormwater management facilities based on facility type and expected maintenance needs provided that the alternative schedule and rationale is included in the MS4 program plan. The alternative inspection frequency shall be no less than once per five years; and

(3) If during the inspection of the stormwater management facility conducted in accordance with Part I E 5 b (2), it is determined that maintenance is required, the permittee shall conduct the maintenance in accordance with the written procedures developed under Part I E 5 b (1).

c. For those permittees described in Part I E 5 a (1) or (2), the permittee shall:

(1) Implement an inspection and enforcement program for stormwater management facilities not owned by the permittee (i.e., privately owned) that includes:

(a) An inspection frequency of no less than once per five years for all privately owned stormwater management facilities that discharge into the MS4; and

(b) Adequate long-term operation and maintenance by the owner of the stormwater management facility by requiring the owner to develop and record a maintenance agreement, including an inspection schedule to the extent allowable under state or local law or other legal mechanism;

(2) Utilize its legal authority for enforcement of the maintenance responsibilities if maintenance is neglected by the owner; and

(3) The permittee may develop and implement a progressive compliance and enforcement strategy provided that the strategy is included in the MS4 program plan.

d. The permittee shall maintain an electronic database or spreadsheet of all known permittee-owned or permittee-operated and privately owned stormwater management facilities that discharge into the MS4. The database shall also include all BMPs implemented by the permittee to meet the Chesapeake Bay TMDL load reduction as required in Part II A. A database shall include the following information as applicable:

(1) The stormwater management facility or BMP type;

(2) The stormwater management facility or BMPs location as latitude and longitude;

(3) The acres treated by the stormwater management facility or BMP, including total acres, pervious acres, and impervious acres;

(4) The date the facility was brought online (MM/YYYY). If the date brought online is not known, the permittee shall use June 30, 2005;

(5) The 6th Order Hydrologic Unit Code in which the stormwater management facility is located;

(6) Whether the stormwater management facility or BMP is owned or operated by the permittee or privately owned;

(7) Whether or not the stormwater management facility or BMP is part of the permittee's Chesapeake Bay TMDL action plan required in Part II A or local TMDL action plan required in Part II B, or both;

(8) If the stormwater management facility or BMP is privately owned, whether a maintenance agreement exists; and

(9) The date of the permittee's most recent inspection of the stormwater management facility or BMP.

e. The electronic database or spreadsheet shall be updated no later than 30 days after a new stormwater management facility is brought online, a new BMP is implemented to meet a TMDL load reduction as required in Part II, or discovered if it is an existing stormwater management facility.

f. The permittee shall use the DEQ Construction Stormwater Database or other application as specified by the department to report each stormwater management facility installed after July 1, 2014, to address the control of

post-construction runoff from land disturbing activities for which the permittee is required to obtain a General VPDES Permit for Discharges of Stormwater from Construction Activities.

g. No later than October 1 of each year, the permittee shall electronically report the stormwater management facilities and BMPs implemented between July 1 and June 30 of each year using the DEQ BMP Warehouse and associated reporting template for any practices not reported in accordance with Part I E 5 f including stormwater management facilities installed to control post-development stormwater runoff from land disturbing activities less than one acre in accordance with the Chesapeake Bay Preservation Act regulations (9VAC25-830) and for which a General VPDES Permit for Discharges of Stormwater from Construction Activities was not required.

#### **Specific requirements of MS4 General Permit for MCM #6**

6. Pollution prevention and good housekeeping for facilities owned or operated by the permittee within the MS4 service area.

a. The permittee shall maintain and implement written procedures for those activities at facilities owned or operated by the permittee, such as road, street, and parking lot maintenance; equipment maintenance; and the application, storage, transport, and disposal of pesticides, herbicides, and fertilizers designed to:

- (1) Prevent illicit discharges;
- (2) Ensure the proper disposal of waste materials, including landscape wastes;
- (3) Prevent the discharge of wastewater or permittee vehicle wash water or both into the MS4 without authorization under a separate VPDES permit;
- (4) Require implementation of best management practices when discharging water pumped from utility construction and maintenance activities;
- (5) Minimize the pollutants in stormwater runoff from bulk storage areas (e.g., salt storage, topsoil stockpiles) through the use of best management practices;
- (6) Prevent pollutant discharge into the MS4 from leaking municipal automobiles and equipment; and
- (7) Ensure that the application of materials, including fertilizers and pesticides, is conducted in accordance with the manufacturer's recommendations.

b. The written procedures established in accordance with Part I E 6 a shall be utilized as part of the employee training program at Part I E 6 m.

c. Within 12 months of state permit coverage, the permittee shall identify which of the high-priority facilities have a high potential of discharging pollutants. The permittee shall maintain and implement a site specific stormwater pollution prevention plan (SWPPP) for each facility identified. High priority facilities that have a high potential for discharging pollutants are those facilities that are not covered under a separate VPDES permit and which any of the following materials or activities occur and are expected to have exposure to stormwater resulting from rain, snow, snowmelt or runoff:

- (1) Areas where residuals from using, storing or cleaning machinery or equipment remain and are exposed to stormwater;
- (2) Materials or residuals on the ground or in stormwater inlets from spills or leaks;
- (3) Material handling equipment;
- (4) Materials or products that would be expected to be mobilized in stormwater runoff during loading or unloading or transporting activities (e.g., rock, salt, fill dirt);
- (5) Materials or products stored outdoors (except final products intended for outside use where exposure to stormwater does not result in the discharge of pollutants);
- (6) Materials or products that would be expected to be mobilized in stormwater runoff contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers;
- (7) Waste material except waste in covered, nonleaking containers (e.g., dumpsters);
- (8) Application or disposal of process wastewater (unless otherwise permitted); or
- (9) Particulate matter or visible deposits of residuals from roof stacks, vents or both not otherwise regulated (i.e., under an air quality control permit) and evident in the stormwater runoff.

d. Each SWPPP as required in Part I E 6 c shall include the following:

- (1) A site description that includes a site map identifying all outfalls, direction of stormwater flows, existing source controls, and receiving water bodies;
  - (2) A description and checklist of the potential pollutants and pollutant sources;
  - (3) A description of all potential nonstormwater discharges; (4) Written procedures designed to reduce and prevent pollutant discharge;
  - (5) A description of the applicable training as required in Part I E 6 m;
  - (6) Procedures to conduct an annual comprehensive site compliance evaluation;
  - (7) An inspection frequency of no less than once per year and maintenance requirements for site specific source controls. The date of each inspection and associated findings and follow-up shall be logged in each SWPPP; and
  - (8) A log of each unauthorized discharge, release, or spill incident reported in accordance with Part III G including the following information:
    - (a) Date of incident;
    - (b) Material discharged, released, or spilled; and
    - (c) Estimated quantity discharged, released or spilled.
- e. No later than June 30 of each year, the permittee shall annually review any high priority facility owned or operated by the permittee for which a SWPPP has not been developed to determine if the facility has a high potential to discharge pollutants as described in Part I E 6 c. If the facility is determined to be a high-priority facility with a high potential to discharge pollutants, the permittee shall develop a SWPPP meeting the requirements of Part I E 6 d no later than December 31 of that same year.
- f. The permittee shall review the contents of any site specific SWPPP no later than 30 days after any unauthorized discharge, release, or spill reported in accordance with Part III G to determine if additional measures are necessary to prevent future unauthorized discharges, releases, or spills. If necessary, the SWPPP shall be updated no later than 90 days after the unauthorized discharge.
- g. The SWPPP shall be kept at the high-priority facility with a high potential to discharge and utilized as part of staff training required in Part I E 6 m. The SWPPP and associated documents may be maintained as a hard copy or electronically as long as the documents are available to employees at the applicable site.
- h. If activities change at a facility such that the facility no longer meets the criteria of a high-priority facility with a high potential to discharge pollutants as described in Part I E 6 c, the permittee may remove the facility from the list of high-priority facilities with a high potential to discharge pollutants.
- i. The permittee shall maintain and implement turf and landscape nutrient management plans that have been developed by a certified turf and landscape nutrient management planner in accordance with § 10.1-104.2 of the Code of Virginia on all lands owned or operated by the permittee where nutrients are applied to a contiguous area greater than one acre. If nutrients are being applied to achieve final stabilization of a land disturbance project, application shall follow the manufacturer's recommendations.
- j. Permittees with lands regulated under § 10.1-104.4 of the Code of Virginia, including state agencies, state colleges and universities, and other state government entities, shall continue to implement turf and landscape nutrient management plans in accordance with this statutory requirement.
- k. The permittee shall not apply any deicing agent containing urea or other forms of nitrogen or phosphorus to parking lots, roadways, and sidewalks, or other paved surfaces.
- l. The permittee shall require through the use of contract language, training, standard operating procedures, or other measures within the permittee's legal authority that contractors employed by the permittee and engaging in activities with the potential to discharge pollutants use appropriate control measures to minimize the discharge of pollutants to the MS4.
- m. The permittee shall develop a training plan in writing for applicable staff that ensures the following:
  - (1) Field personnel receive training in the recognition and reporting of illicit discharges no less than once per 24 months;
  - (2) Employees performing road, street, and parking lot maintenance receive training in pollution prevention and good housekeeping associated with those activities no less than once per 24 months;

- (3) Employees working in and around maintenance, public works, or recreational facilities receive training in good housekeeping and pollution prevention practices associated with those facilities no less than once per 24 months;
- (4) Employees and contractors hired by the permittee who apply pesticides and herbicides are trained or certified in accordance with the Virginia Pesticide Control Act (§ 3.2-3900 et seq. of the Code of Virginia). Certification by the Virginia Department of Agriculture and Consumer Services (VCACS) Pesticide and Herbicide Applicator program shall constitute compliance with this requirement;
- (5) Employees and contractors serving as plan reviewers, inspectors, program administrators, and construction site operators obtain the appropriate certifications as required under the Virginia Erosion and Sediment Control Law and its attendant regulations;
- (6) Employees and contractors implementing the stormwater program obtain the appropriate certifications as required under the Virginia Stormwater Management Act and its attendant regulations; and
- (7) Employees whose duties include emergency response have been trained in spill response. Training of emergency responders such as firefighters and law-enforcement officers on the handling of spill releases as part of a larger emergency response training shall satisfy this training requirement and be documented in the training plan.
- n. The permittee shall maintain documentation of each training event conducted by the permittee to fulfill the requirements of Part I E 6 m for a minimum of three years after the training event. The documentation shall include the following information:
- (1) The date of the training event;
- (2) The number of employees attending the training event; and
- (3) The objective of the training event. o. The permittee may fulfill the training requirements in Part I E 6 m, in total or in part, through regional training programs involving two or more MS4 permittees; however, the permittee shall remain responsible for ensuring compliance with the training requirements.

## **Appendix 2 – List of Documents Incorporated by Reference/Available by Request**

- Chesapeake Bay TMDL Action Plan
- Contract with Thomas Jefferson Soil and Water Conservation District
- Environmental Management Policy
- Environmental Management System Manual
- Local TMDL Action Plans
- Nutrient management plans
- Plan review, inspection, compliance and enforcement procedures related to construction site runoff control
- Procedures to inspect, and to promote and enforce compliance by owners of permanent stormwater facilities
- Protocols for dry-weather screening and illicit discharge investigation
- SOP – Hazardous Conditions
- SOP – Integrated Pest Management
- SOP – Safer Chemical Procedure
- SOP – Spill Prevention and Response
- SOP – Underground Storage Tank Management
- VSMP authorization letter