

**Augusta County**  
**Municipal Separate Storm Sewer System**  
**Program Plan**

**For the**  
**Annual Report 2020 - 2021**



Prepared for  
**Augusta County Department of Community Development**  
18 Government Center Lane  
Verona, Virginia 24482

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## Acronyms and Abbreviations

POC – Pollutant of Concern

MCM – Minimum Control Measure

MS4 – Municipal Separate Storm Sewer System

NMP – Nutrient Management Plan

SOP – Standard Operating Procedures

SWPPP – Stormwater Pollution Prevention Plan

VSMP – Virginia Stormwater Management Program



## Introduction

The County of Augusta is located in the Shenandoah Valley of the Commonwealth of Virginia and surrounds the independent cities of Staunton and Waynesboro. The County received the VSMP General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4) in 2013 based off the 2010 Census data.

This stormwater management Program Plan was developed for Augusta County in accordance with the VSMP General Permit VAR04 (MS4 Permit). The permit term is November 1, 2018 through October 31, 2023. General permit for discharge of stormwater from the small municipal separate storm sewer systems permit number for Augusta County is VAR040131.

The MS4 Permit requires the County to develop an MS4 Program Plan and to submit Annual Reports (this document), for each period between July 1 through June 30. Modifications to the MS4 Program Plan are expected throughout the life of the permit as part of the iterative process to reduce pollutant loadings and to protect water quality. The County's MS4 Program Plan and Annual Reports available on the County's MS4 webpages: <https://www.co.augusta.va.us/government/community-development/engineering/ms4-program>.

Additional information on the laws and regulations affecting the City and its operation of an MS4 can be found in:

- Virginia Stormwater Management Act, Article 2.3 (§62.1-44.15-24 et seq.) of Chapter 3.1 of Title 62.1 of the Code of Virginia
- Virginia Administrative Code, 9VAC25-870, Virginia Stormwater Management Program (VSMP) Regulations
- Virginia Administrative Code, 9VAC25-890-40, General VPDES Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems
- Virginia Department of Environmental Quality, Municipal Separate Storm Sewer Systems, <http://www.deq.virginia.gov/Programs/Water/StormwaterManagement/VSMPPermits/MS4Permits.aspx>



## Watershed

The County of Augusta is 971 square miles and consists of a mixture of agricultural, forested, and small towns. Urbanized area emerge around and in-between the two enclaved cities with Fishersville being the largest urbanized area.

## Roles and Responsibilities

The County of Augusta Community Development Department coordinates the County's municipal separate storm sewer system (MS4) program. Community Development MS4 Coordinator is responsible for developing and updating the MS4 Program Plan and submitting Annual Reports. Although it is recognized that this is a citywide and community-wide program, the County has selected to appoint Community Development as a representative of all departments that contribute to the MS4 Program. Following is a list of primary contact persons for coordinating and implementing the program. These names will be updated as necessary and included as part of the annual report.

## Contact Information

### *Principal Executive Officer*

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## **MS4 Annual Report**

The MS4 Annual Report details the County of Augusta's stormwater program to manage the quality of stormwater runoff discharged from the MS4 permit, number VAR040131. Evaluations gathered while developing the 2020-2021 MS4 Annual Report will be considered during the minimum control measure evaluations throughout the document as well as in the MS4 Program Plan. This report and subsequent annual reports from the five-year permit cycle will remain on file in the Public Works Department and on the County stormwater webpage.



## 1. Public Education and Outreach

### Permit Requirements

Implement a public education and outreach program designed to meet the following permit requirements:

Identify no less than three high-priority stormwater issues to meet the goal of educating the public.

Two or more strategies (9VAC25-890-40 Table 1) will be used each year to fulfill the requirement of MCM 1. Each program will, as a whole, have:

- (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.

### Annual Reporting

The following shall be included in the annual reports:

- (1) A list of the high-priority stormwater issues the permittee addressed in the public education and outreach program; and
- (2) A list of the strategies used to communicate each high-priority stormwater issue.

### Evaluations

Prior to the end of the permit term, the following shall be evaluated:

1. Appropriateness of the high-priority stormwater issues;
2. Appropriateness of the selected target audiences for each high-priority stormwater issue;
3. Effectiveness of the message or messages being delivered; and
4. Effectiveness of the mechanism or mechanisms of delivery employed in reaching the target audiences.

### Responsible Parties

Engineering staff, Department of Community Development

### Goals

- Increase the public's knowledge of how to reduce stormwater pollution, priority on impaired waters and other local water pollution concerns.
- Increase the public's knowledge of hazards associated with illegal discharges and improper disposal of waste.
- To have a diverse program with strategies that are targeted toward individuals or groups most likely to have significant stormwater impacts.



## MCM 1 - Program Description

### 1.1 BMP: Local Water Quality Issues

- **General Information:** The County will identify three high-priority water quality issues, that contribute to the discharge of stormwater (e.g., Chesapeake Bay nutrients, pet wastes and local bacteria TMDLs, high-quality receiving waters, and illicit discharges from commercial sites) and a rationale for the selection of the three high-priority water quality issues.
- The County has identified priority water quality issues and rationale.

Local Water Quality Issue	Rationale
<b>Trash</b>	Trash including litter, food wrappers and cigarette butts can have a negative effect on the water ways. The County hopes through education the community can reduce the trash that enters our waterways via storm water systems. As the community grows, the issue of trash will also grow and by bringing attention to the issues now will permit solutions and prevention measures to be developed.
<b>NPS</b>	Non-Point Source contributes a variety of pollutants such as nitrates, phosphorous, and suspended sediments into waterways. These pollutants are in many of the TMDLs established for local impaired waters. While the County is not a “Bay Act” locality, the County does see the importance of giving these pollutants special notice.
<b>Illegal Dumping</b>	Closely tied to Trash, illegal dumping as a water quality issue focuses on contamination from chemicals, such as household pollutants, identification of dumping, and the IDDE. While some of these are addressed in other sections, public education and involvement on this issue will allow for a more efficient program and compliance in the community.





## 1.2 BMP: Illicit Discharge and Pollution Prevention

- **General Information:** The County will provide education materials to residents and businesses in concurrence with the illicit discharge detection and elimination program.
- **Objective and Expected Results:** Educate the public on 'what is an illicit discharge', how to recognize and report a suspected discharge. This new public awareness may increase illicit discharge detection and allow for early elimination.
- **Implementation Schedule:** A brochure is currently distributed at annual outreach events and available at the Government Center. The brochure references the adopted Illicit Discharge Ordinance and the information for reporting.
- **Method to Determine Effectiveness:** Effectiveness will be determined on the total of brochures distributed.

### *BMP Effectiveness*

- **Review of BMP:** A wide variety of audiences was reached through this BMP and educated about the high-priority stormwater issues of Illicit Discharge. Education for staff both in office and in the field were reached through both presentations and educational flyers/pamphlets. Information on what IDDE and how to report IDDEs were shared at events.
- **Program Plan Revisions:** Program Plan revisions were not necessary at this time. Extra meetings on how to report and handle were had due to employees working from home.

## 1.2 BMP: MS4 Webpage

- **General Information:** The County currently operates a MS4 webpage with the webpage residents have the opportunity to review and learn about the MS4 on a County run webpage. The website contain not only the plan but educational information to help with understanding and compliance. Links are posted on the County website about key aspects of the MS4 and ways the community can do their part. The website will be updated with current information.
- **Objective and Expected Results:** The objective of the dedicated webpage is to provide accessible detail about the federal, state, and local program to a large number of citizens. The expected result is to easily be able to search and find detailed information on stormwater in general, as well as the MS4 program.
- **Implementation Schedule:** Continuation of the webpage maintenance along with updating and adding pertinent information.
- **Method to Determine Effectiveness:** Effectiveness will be determined by the total number of hits the page receives.

### *BMP Effectiveness*

- **Review of BMP:** The website was updated through out the year to help keep the residents up to date on changes. New documents were added along with links to group educational information with the local Planning District Committee. Staff is working on a new reporting tool for the website.
- **Program Plan Revisions:** Program Plan revisions were not necessary at this time, website was updated. Easy to find IDDE submittal added.



### 1.3 BMP: Partnering Sessions

- **General Information:** Local community developers including engineers and designers gather together for an information session with at least one presentation and a question and answering session. Individuals and companies are invited to discuss issues concerning development in the County, and the regulation that relate (local, state, and national).
- **Objective and Expected Results** The session should include topics on Economic Development, ACSA, Design and Construction Standards, Comprehensive Plan, VDOT, VSMP/VESCP program, Stormwater Management, IDDE, and MS4. These topics will help local developers and contractors better meet the regulations along with promoting BMPs in the watershed.
- **Implementation Schedule:** The County will continue to host these educational sessions yearly or more often depending on the changes and updates to these areas of interest.
- **Method to Determine Effectiveness:** Effectiveness will be determined by the total number of participants at the event.

#### *BMP Effectiveness*

- **Review of BMP:** The Partnering Session became an informational newsletter due to the lack of topics for Spring and COVID for fall. Updates from VDOT and ACSA and information on MS4 and E&S were shared through email.
- **Program Plan Revisions:** Program Plan revisions were not necessary at this time.

### 1.4 BMP: Watershed Education: Erosion and Pollution

- **General Information:** This event involves elementary school children in Augusta County learning about erosion and how rain water can carry pollutants like fertilizers and pesticides to the Chesapeake Bay. The County teams up with the Augusta County Service Authority to teach kids with videos, interactive games, and a watershed model.
- **Objective and Expected Results:** To expand upon watershed concepts presented at schools. Educational games and activates will help students better understand the water cycle and our local watershed. Simple daily behaviors and practices will be discussed and their impact on the local watershed and how our local watershed impacts the Chesapeake Bay. By educating the students not only will they be better prepared to be good stewards of the watershed they can help educate their parents as well.
- **Implementation Schedule:** The County will continue to host these educational at the schools with the goal of reaching every third grade student.
- **Method to Determine Effectiveness:** Effectiveness will be determined by the total number of students reached.

#### *BMP Effectiveness*

- **Review of BMP:** A wide variety of audiences was reached through this BMP and educated about the high-priority stormwater issues. Education for staff, schools, and community were reached through both presentations (two schools and one nursing home) and mostly educational



flyers/pamphlets due to restrictions on public gatherings. The watershed model is still used for school presentations along with educational puzzle take home books.

- **Program Plan Revisions:** Program Plan revisions were not necessary at this time. ACSA contact has changed.



## 2. Public Involvement and Participation

### Permit Requirements

- Promote valuable input and assistance from the community. Providing the public opportunities to play an active role in the program to insure a successful program. By promoting the availability of the program to the community, public participation will increase leading to a reduction in stormwater pollutants and improved water quality.
- Procedures for public reporting, receiving and maintaining public input and comments.
- A webpage dedicated to the MS4 program and BMPs  
<https://www.co.augusta.va.us/government/community-development/engineering/ms4-program>
- Offer public involvement opportunities.

### Annual Reporting

The following shall be included in the annual reports:

1. *A summary of any public input on the MS4 program received (including complaints) and how the permittee responded;*
2. *A webpage address to the permittee's MS4 program and stormwater website;*
3. *A description of the public involvement activities implemented by the permittee;*
4. *A report of the metric as defined for each activity and an evaluation as to whether or not the activity is beneficial to improving water quality; and*
5. *The name of other MS4 permittees with whom the permittee collaborated in the public involvement opportunities.*

### Responsible Parties

Engineering staff, Department of Community Development

### Goals

The County will seek public involvement and participation in the MS4 Program Plan and will continue to participate in public events aimed at protecting water quality and environmental education.

### Public Input or Comments

The County received comments on recycling and the need to increase recycling efforts, records found in the Environmental Program Managers office.

Comments on the Litter Prevention program success of keeping roads clean and roads that need to be cleaned were made. Records found in the Environmental Program Managers office.

### MCM 2 - Program Description

- A. Augusta County will continue to participate in the following local events/activities annually to address public involvement with stormwater and environmental activities:

#### 2.1 BMP: Spring Clean-up

- **General Information:** Augusta County hosts an event in the spring to collect tires, brush, and other garbage free of charge for County residents.
- **Objective and Expected Results** The Spring Clean-Up event provides residence an opportunity to dispose of bulky or large items at the connivance centers located throughout the County.



Through this event local Ruritan Clubs host localized clean-up events over the two weekends. The County promote these events will giving resources such as open top containers and covering the haul cost and tipping fees. Residents are encouraged to not only clean up their own properties but to also to look at the streams and natural spaces around them. The County hopes to minimis the difficulties of residents and local groups experience while taking care of community and environment.

- **Implementation Schedule:** The County will continue to host this event every year while continually improving by reaching more residence and local clean up groups.
- **Method to Determine Effectiveness:** Effectiveness will be determined by the total number flyers for this event.

### ***BMP Effectiveness***

- **Review of BMP:** The event was scheduled for April 2021 but was canceled due to Covid-19 and concerns for social distancing. Educational material went out to all community groups and helpful guides on how to dispose of materials were sent out on the Recycling and Solid Waste website. The County did wave tipping fees for two clean up group of Earth Day events.
- **Program Plan Revisions:** Program Plan revisions were not necessary at this time.

## **2.2 BMP: Fall Household Hazardous Waste Collection**

- **General Information:** Augusta County hosts an event in the fall to collect used oil, antifreeze, gas solvents, oil based paints, acids, pesticides and herbicides from residents for proper disposal or recycling. The County hosts this event in collaboration with Staunton and Waynesboro. Events are posted on the website and contain locations and items collected prior to the events. The County allows participation from neighboring Staunton and Waynesboro city residents, as well as, County residents. The County records vehicle origin and documents the type and tonnage of hazardous waste collected.
- **Objective and Expected Results** the Household Hazardous Waste Collection event provides residence an opportunity to dispose of hazardous or hard to dispose of items. Through this event the community members can safely dispose of potentially harmful and environmentally damaging items along with learning what those items are and why they are dangerous.
- **Implementation Schedule:** The County will continue to host this event every year while continually improving by reaching more residence.
- **Method to Determine Effectiveness:** Effectiveness will be determined by the total number flyers for this event.

### ***BMP Effectiveness***

- **Review of BMP:** The event was held on September 19, 2020. The County along with the Regional Landfill worked together to collected hazardous material from citizens of Augusta County, and Cities of Waynesboro and Staunton. Total vehicles that came to event: 280, 134 were from Augusta County. Citizens of Augusta County were notified by the local newspapers, County, School Library and Service Authority websites and distribution of more than 9,000 flyers at the County Government Center, Elementary Schools and Augusta Regional landfill.
- **Program Plan Revisions:** Program Plan revisions were not necessary at this time.



## 2.3 BMP: Community Events

- **General Information:** Augusta County participates in a number of community activities that include environmental components each year including:
  - Earth Day Activities (week of April 23 2021, Flyers and coloring work books to schools)
  - Sweet Dreams Festival (COVID Canceled)
  - Augusta County Fair (July 27 – July 31 2021)
  - All participation in events above will be summarized in the annual reports.
- **Objective and Expected Results:** The County wishes to be a good steward of the watershed inside our community and the Bay while encouraging our community to do the same. Through these events staff will setup displays, stormwater education materials and provide opportunities for community efforts toward the reduction of stormwater pollutant loads and water quality improvements at public events.
- **Implementation Schedule:** The County will participate in the community events on an annual basis.
- **Method to Determine Effectiveness:** Effectiveness will be determined by evaluating metrics such as waste tonnage, number of participants, and role of Augusta County, where applicable.

### *BMP Effectiveness*

- **Review of BMP:** The Recycling Committee and staff participated in all events that were not canceled by Covid-19. The public can provide comments about the MS4 program and associated programs as needed through the website. Along with receiving extra information about each program. Flyers and brochures were also provided when applicable.
- **Program Plan Revisions:** Program Plan revisions were not necessary at this time.

## 2.4 BMP: MS4 Webpage

- **General Information:** (The same as 1.2 BMP) The County currently operates a MS4 webpage with the webpage residents have the opportunity to review and learn about the MS4 on a County run webpage. The website contain not only the plan but educational information to help with understanding and compliance. Links are posted on the County website about key aspects of the MS4 and ways the community can do their part. The website will be updated with current information.
- **Objective and Expected Results:** The objective of the dedicated webpage is to provide accessible detail about the federal, state, and local program to a large number of citizens. The expected result is to easily be able to search and find detailed information on stormwater in general, as well as the MS4 program.
- **Implementation Schedule:** Continuation of the webpage maintenance along with updating and adding pertinent information.
- **Method to Determine Effectiveness:** Effectiveness will be determined by the total number of hits the page receives.



### ***BMP Effectiveness***

- **Review of BMP:** The metric for determining if the BMP is effective is if the websites are maintained and available for use. All of the websites are available for citizens to use and the County promotes the use of the websites periodically throughout the year.
- **Program Plan Revisions:** Program Plan revisions were not necessary at this time. Updates were made to the website.

## **2.5 BMP: Partnering Sessions**

- **General Information:** Local community developers including engineers and designers gather together for an information session with at least one presentation and a question and answering session. Individuals and companies are invited to discuss issues concerning development in the County, and the regulation that relate (local, state, and national).
- **Objective and Expected Results** The session should include topics on Economic Development, ACSA, Design and Construction Standards, Comprehensive Plan, VDOT, VSMP/VESCP program, Stormwater Management, IDDE, and MS4. These topics will help local developers and contractors better meet the regulations along with promoting BMPs in the watershed.
- **Implementation Schedule:** The County will continue to host these educational sessions yearly or more often depending on the changes and updates to these areas of interest.
- **Method to Determine Effectiveness:** Effectiveness will be determined by the total number of participants at the event.

### ***BMP Effectiveness***

- **Review of BMP:** The fall Partnering Session became an informational newsletter due to the lack of topics. Updates from VDOT and ACSA were minimal. Information on MS4 and E&S were shared via email.
- **Program Plan Revisions:** Program Plan revisions were not necessary at this time.

## **2.6 BMP: Collaboration with Other MS4 Permit Holders**

- **General Information:** Local MS4 Permit Holders include VDOT, City of Staunton, City of Waynesboro. These three connected MS4 permit holders have received formal letters of interconnections. Broader reaching members include Town of Bridgewater, City of Harrisonburg, and James Madison University. Augusta County is part of the Central Shenandoah Stormwater Network and attend a quarterly meeting to discuss the Ms4 programs, VSMP, and share ideas and possible project cooperation or funding opportunities.
- **Objective and Expected Results** These connections and communications will help strengthen the program along with assist with planning and implementation of projects and ideas to better the MS4 and our environment.
- **Implementation Schedule:** The County will continue to participate in meetings and projects. The County continues to play an active role in meetings hosted for Stormwater issues by the CSPDC.



### 3. Illicit Discharge Detection and Elimination

#### Permit Requirements

1. Update and maintain the IDDE Program to detect, identify and address unauthorized discharges
2. Storm sewer map (outfalls, drainage areas, receiving streams)
3. Illicit discharge ordinance
4. Illicit discharge procedures (dry weather screening, prioritization, follow-up, enforcement, and tracking)
5. Public reporting methods for illicit discharges

#### Annual Reporting

Each annual report shall include:

1. A confirmation statement that the MS4 map and information table have been updated to reflect any changes to the MS4 occurring
2. A copy of any written notifications of physical interconnection given by the County to other MS4s;
3. The total number of outfalls screened during the reporting period, the screening results, and detail of any follow-up actions necessitated by the screening results; and
4. A summary of each investigation conducted by the County of any suspected illicit discharge. The summary must include: (i) the date that the suspected discharge was observed, reported, or both; (ii) how the investigation was resolved, including any follow-up, and (iii) resolution of the investigation and the date the investigation was closed.

#### Responsible Parties

Engineering staff, Department of Community Development

#### Goals

The County will seek to eliminate non-stormwater discharges to and from the regulated small municipal storm sewer system by conducting an inventory of the system, actively monitoring the system's outfalls, and prohibiting non-stormwater discharges to the system and enforcing its legal authority.

#### MCM 3 - Program Description

##### 3.1 BMP: MS4 Mapping of Stormwater Network

- **General Information:** The County will continue to maintain a GIS map with a corresponding database that contains the locations and attributes of the storm sewer system and MS4 outfalls that the County is responsible. The GIS map will have unique ID's assigned for outfalls with the corresponding HUC and receiving waters, natural streams, structural stormwater BMPs type and location, and storm sewer type and size.
- **Objective and Expected Results:** The storm sewer mapping will be a critical element of the IDDE and stormwater facility maintenance programs. Accurate and up to date mapping will be necessary for these programs to succeed.
- **Implementation Schedule:** The County will continue to maintain the storm sewer mapping throughout the duration of the permit cycle.
- **Method to Determine Effectiveness:** The County will track the number of storm structures mapped. The annual report will include these numbers.





### ***BMP Effectiveness***

- **Review of BMP:** The MS4 map and information table are up-to-date and were submitted to the Department of Environmental Quality.
- **Program Plan Revisions:** No Program Plan changes are needed at this time.

## **3.2 BMP: IDDE Detection Program**

- **General Information:** Augusta County will continue to develop and refine the Illicit Discharge Detection and Elimination Program. The mapping of storm sewer systems and outfall screening will continue. Dry weather screening will include: Developing a screening schedule, performing a minimum 50 dry-weather screenings per year, methodologies for sampling and last rain, quantity of rain, visual observations, etc., methodologies to determine the source of illicit discharges, mechanisms to eliminate illicit discharges, including procedures for legal action, methods for follow up, methods for application to track all investigations and schedule follow-up inspections. The County will prohibit non-stormwater discharges into the storm sewer system through the adopted ordinance.
- **Objective and Expected Results:** To successfully implement an illicit discharge detection and elimination program that focuses on detect, identify, and addressing illicit discharges into the regulated MS4.
- **Implementation Schedule:** The County will continue the IDDE program in accordance with the adopted ordinance for the full permit cycle.
- **Method to Determine Effectiveness:** Effectiveness will be determined by track the number of illicit discharges detected and enforcement actions. The annual report will include these numbers.

### ***BMP Effectiveness***

- **Review of BMP:**
- **Inspections:** Outfalls were screened and no Illicit Discharges were reported or found during the 2020 -2021 FY. 66 Outfalls were inspected in this cycle. The County continues to operate and maintain an illicit discharge program that detect, identify, and address illicit discharges into the regulated MS4 area.
- **Illicit Discharges:** No illicit discharge occurred, some small potential discharges occurred but none made it to the storm sewer system. These issues were reported via phone calls to the Fire Station and records for each can be found in the Fire-Rescue department. DEQ was call in on at least one event.
- **Program Plan Revisions:** Program Plan changes include updates to the ordinance to stay consistent with the regulation changes.

## **3.3 BMP: Written Notifications of Physical Interconnection**

- **General Information:** Augusta County's MS4 system interconnects with the City of Staunton, City of Waynesboro, and the Virginia Department of Transportation (VDOT). These interconnections have already been addressed and the owners of the systems have been



notified. The County will continue to notify adjacent MS4's of any new interconnections established or discovered.

- **Objective and Expected Results:** Knowledge of interconnections will assist with future IDDE investigations.
- **Implementation Schedule:** The County will continue the open communication with other MS4s.
- **Method to Determine Effectiveness:** A list of new interconnections communicated to adjacent MS4's or received will be provided in annual reports.

### ***BMP Effectiveness***

- **Review of BMP:** The County continues to stay in communication the known interconnected stormwater system operators.
- **Program Plan Revisions:** No change to the Program Plan.



## 4. Construction Site Stormwater Runoff Control

### Permit Requirements

1. E&S ordinance
2. Land disturbance plan approval required
3. Compliance and enforcement
4. Regulatory coordination (construction permit for stormwater discharges)

### Annual Reporting

Any Program Plan modifications as a result of VESCP/VSMP implementation will be summarized in annual reports. Further, the County will track regulated land-disturbing activities and submit the following information in all annual reports:

1. Total number of regulated land-disturbing activities;
2. Total number of acres disturbed;
3. Total number of inspections conducted; and
4. A summary of the enforcement actions taken, including the total number and type of enforcement actions taken during the reporting period.

### Responsible Parties

Engineering staff, Department of Community Development

### Goals

The County will continue to monitor construction activities to control stormwater runoff and prevent the discharge of pollutants to receiving streams.

### MCM – 4 Program Description

#### 4.1 BMP: Erosion and Sediment Control Program (VESCP)

- **General Information:** Augusta County's Erosion and Sediment Control Program deals with erosion resulting from (water) raindrop impact on un-stabilized soil, primarily during the development process. The County's erosion and sediment control program focuses primarily on construction activities. Erosion resulting from these activities can be 200 times greater than the amount of erosion generated from cropland and 2,000 times greater than that naturally occurring in woodlands. Land-disturbing activity in Augusta County is defined as any clearing (including removal of trees), grading, excavating, transporting or filling of land or any other activity that removes vegetation, root mat or topsoil that may result in soil erosion from water or wind and the movement of sediments. In Augusta County, land-disturbing activities equal to or exceeding 10,000 square feet in area require an approved erosion and sediment control plan.
- **Objective and Expected Results:** The VESCP is in place to prevent adverse impacts from erosion and sedimentation from all construction sites.
- **Implementation Schedule:** The County will continue to implement the program throughout the permit cycle.
- **Method to Determine Effectiveness:** A number of parameters will be tracked pertaining to the VESCP including; number of land disturbing activities, acres of land disturbed, number of inspections, and enforcement actions.



**BMP Effectiveness**

- **Review of BMP:** To meet State Code, information regarding the VESCP inspections has been summarized in 4.2 BMP VSMP.

**4.2 BMP: Virginia Stormwater Management Program (VSMP)**

- **General Information:** Augusta County has established a local Virginia Stormwater Management Program (VSMP) for land-disturbing activities and has adopted the applicable Regulations that specify standards and specifications for VSMPs promulgated by the state board, pursuant to §62.1-44.15:27 of the Code of Virginia, unless otherwise authorized by the State. The implementation of its local VSMP will further establish plan review, inspection, compliance, and enforcement procedures for construction site stormwater runoff control. The County’s environmental ordinance was approved by the County’s Board of Supervisors on May 28, 2014 and the Department of Environmental Quality on June 19, 2014 (Attachment 4.2).
- **Objective and Expected Results:** The VSMP is in place to prevent adverse impacts of urban stormwater runoff.
- **Implementation Schedule:** The County will continue to implement the program throughout the permit cycle.
- **Method to Determine Effectiveness:** The County will continue to improve the stormwater program and evaluate existing documents to assist the development community.

**BMP Effectiveness**

- **Review of BMP:** All land disturbing projects that occurred during the 2020-2021 reporting period were conducted in accordance with the current department approved standards and specification for erosion and sediment control. During the 2020-2021 reporting period 183 land disturbing activity inspections were conducted inside the MS4 area. Of the 183 inspections, 23 of them were notice to comply. The findings and corrective measures were noted in the inspection files and either discussed on site, or emails and a written letters were sent to the property owners or RLDs. All potential violations were resolved in a timely manner without the need for further enforcement actions.

	# Inspections	Acres Disturbed	N. to C.	Stop work
New 2020 - 2021	37	18.12	0	0
Year Total	298	249.98	9	0

- **Program Plan Revisions:** The program plan has changed due to VESCP/VSMP regulations changing.



## 5. Post-construction Stormwater Management

### Permit Requirements

1. Oversight of post-construction stormwater management from land disturbing activities;
2. Required design criteria;
3. Inspection, operation, and maintenance of stormwater management facilities (public-inspect annually, and private-inspect once per permit term); and
4. Stormwater facility electronic database.

### Annual Reporting

Any Program Plan modifications as a result of VSMP implementation will be summarized in annual reports. Further, Augusta County will maintain an updated electronic database of all known County-owned and privately-owned stormwater management facilities that discharge into the MS4. The Annual Report shall include the following:

1. Number of privately owned stormwater management facility inspections conducted; and number of enforcement actions initiated by the permittee, including the type of enforcement action;
2. Number of inspections conducted on stormwater management facilities owned or operated by the permittee;
3. A description of the significant maintenance, repair, or retrofit activities performed on the stormwater management facilities owned or operated by the permittee
4. A confirmation statement that the permittee submitted stormwater management facility information through the Virginia Construction Stormwater General Permit database for land disturbing permits or a statement that the permittee did not complete any projects requiring coverage.
5. A confirmation statement that the permittee electronically reported BMPs using the DEQ BMP Warehouse in accordance with Part I E 5 g and the date on which the information was submitted.

### Responsible Parties

Engineering staff, Department of Community Development

### Goals

The County will continue to ensure that post-construction stormwater management facilities are constructed and maintained to address the runoff of stormwater and pollutants as a result of land disturbing activities.

### MCM 5 - Program Description

#### 5.1 BMP: Require VSMP Permits

- **General Information:** Augusta County will implement a local Virginia Stormwater Management Program to address post-construction stormwater management in new development and development on prior developed lands pursuant to §62.1-44.15:27 of the Code of Virginia, unless otherwise authorized by the State. The Department of Community Development will be designated as the Administrator of the Virginia Stormwater Management Program and be responsible for review and approval of stormwater pollution prevention plans (SWPPP).



- **Objective and Expected Results:** The County will adhere to current Commonwealth of Virginia regulations with regard to the VSMP permitting to prevent adverse impacts of urban stormwater runoff.
- **Implementation Schedule:** The County will continue to implement the program throughout the permit cycle.
- **Method to Determine Effectiveness:** A number of parameters will be tracked pertaining to the VSMP including; number of land disturbing activities, acres of land disturbed, number of inspections, and enforcement actions.

### ***BMP Effectiveness***

- **Review of BMP:** All land disturbing projects that occurred during the 2020-2021 reporting period were conducted in accordance with the current department approved standards and specification for erosion and sediment control. During the 2020-2021 reporting period 239 land disturbing activity inspections were conducted inside the MS4 area. Of the 298 inspections, 9 of them were notice to comply, no stop work orders were given.
- **Program Plan Revisions:** The program plan has changed due to VESCP/VSMP regulations changing.

## **5.2 BMP: Track Permanent Stormwater Management Facilities**

- **General Information:** Augusta County will track all known permanent SWM facilities that discharge within the regulated MS4 boundaries. The BMP database includes the type of BMP, ownership, location, date brought online, HUC code, receiving waters, if receiving waterway is impaired, if maintenance agreement exists, number of acres treated and most recent inspection.
- **Objective and Expected Results:** The database will be used to track BMP inspections and maintenance to ensure that all BMPs are functioning properly and as designed.
- **Implementation Schedule:** The BMP database will be maintained throughout the permit cycle.
- **Method to Determine Effectiveness:** The County will include any updates or changes to the BMP database in the annual report.

### ***BMP Effectiveness***

- **Review of BMP:** One new facility has been added to the list. VAR10L664, Valley CDJR Dealership with a Part B: Bioretention 1. This BMP is in the SWCGP database, along with in-house records. 8.08 acres
- **Program Plan Revisions:** Program Plan changes are not needed at this time

## **5.3 BMP: Structural BMP Inspection**

- **General Information:** Augusta County will inspect all known permanent SWM facilities that discharge within the regulated MS4 boundaries. The BMP database includes the type of BMP, ownership, location, date brought online, HUC code, receiving waters, if receiving waterway is impaired, if maintenance agreement exists, number of acres treated and most recent inspection.



- **Objective and Expected Results:** By continuing the BMP inspection program the County will ensure BMPs are performing optimally and achieving design pollutant reduction.
- **Implementation Schedule:** The BMP inspection program will be ongoing throughout the permit cycle.
- **Method to Determine Effectiveness:** The County will track the total number of BMP inspections performed both privately and publicly owned.

**Confirmation of BMP Project Reporting**

- The permittee submitted updates to the DEQ BMP Warehouse in accordance with the permit.

**BMP Effectiveness**

- **Review of BMP** Program is continuing with inspection.

2020-2021	Locations	MS4	# BMPs Inspections	Enforcement Actions
Privately	9	1	16	4
Publically	1	1	3 (Mill Place #1, #3, #4)	0

- **Enforcements:** The enforcement included Private: Structure riser clean out, gravel removal, replanting to match original planting plan and replace soil from erosion. For Public: stone replacement (had been dug out by groundhogs)
- **Program Plan Revisions:** Program Plan changes not needed at this time

**5.4 BMP: Structural BMP Maintenance**

- **General Information:** Augusta County will continue maintenance on all County owned BMPs and the requirement of maintenance agreements for new privately owned BMPs.
- **Objective and Expected Results:** By continuing the BMP maintenance program the County will ensure BMPs are performing optimally and are minimizing adverse impacts to state waters.
- **Implementation Schedule:** The BMP maintenance will be ongoing throughout the permit cycle.
- **Method to Determine Effectiveness:** The County will track to the number of new BMP agreements

**BMP Effectiveness**

- **Review of BMP:** All privately owned facilities are on track. Covid-19 affected the mowing schedule.
- **Program Plan Revisions:** Program Plan changes are not needed at this time



## 6. Pollution Prevention/Good Housekeeping for Municipal Operations

### Permit Requirements

1. Written procedures for operations and maintenance activities to minimize discharge of pollutants;
2. SWPPPs for maintenance facilities categories as high priority facilities with high potential of discharge of pollutants and a review of all sites for changes in high priority facilities statuses
3. Nutrient management plans for municipal sites applying nutrients in excess of one (1) contiguous acre;
4. Training plan and schedule for municipal employees

### Annual Reporting

The following shall be included in the annual reports:

1. The written procedures for the operations and maintenance activities as required by Part I E 6 a
2. A summary report on new or changes to high priority facilities and their SWPPPs
3. A summary report on the development and implementation of the turf and landscape nutrient management plans
4. A summary report on the required training, including a list of training events, the training date, the number of employees attending training and the objective of the training.

### Responsible Parties

Engineering staff, Department of Community Development

### Goals

The County will seek to practice stormwater stewardship principles on all municipally owned lands within the regulated MS4 boundary. Additionally, the County will seek to ensure all municipal employees are trained in pollution prevention to ensure that the discharge of pollutants minimized during the course of daily municipal activities.

### MCM 6 - Program Description

#### 6.1 BMP: County Owned Land Identified Needing SWPPPs

- **General Information:** The County will determine which municipal properties fall within the County's regulated MS4 boundary, and identify which of those properties may require Stormwater Pollution Prevention Plans (SWPPPs) based on their high priority or high potential to discharge pollutants.
- **Objective and Expected Results:** These documents provide written guidance for daily operations at each facility to prevent and reduce pollutant runoff from the identified municipal operations.
- **Implementation Schedule:** The high priority facilities have active SWPPPs, with all facilities inside the MS4 reviewed yearly. These are active SWPPPs to allow changes made as needed.
- **Method to Determine Effectiveness:** The number of events recorded during a SWPPP inspection and corrective actions taken reported annually.

### *BMP Effectiveness*





- **Review of BMP:**
  - **New SWPPP Development:** No new facilities added. Existing high-priority facilities reviewed to determine if updates would be necessary. No changes to the facilities that have SWPPP.
  - **SWPPP Modifications:** SWPPP modifications made as necessary. VEEP E3 certification still active at the Government Center and High Schools. The Government Center had addition to the Pollutant Prevention Plan but no significant updates to SOPs.
- **Program Plan Revisions:** Program Plan changes not needed at this time.

## 6.2 BMP: County Owned Land Identified Needing NMP

- **General Information:** The County will determine which municipal properties fall within the County's regulated MS4 boundary, and identify which of those properties may require Nutrient Management Plans (NMP).
- **Objective and Expected Results:** The NMPs define the amount, source, placement, form, and, timing of the application of nutrients and soil amendments to ensure optimal management.
- **Implementation Schedule:** The NMP be implemented at each applicable location.
- **Method to Determine Effectiveness:** The NMP are tailored to each location, effectiveness will be determined by the number of active plans.

### *BMP Effectiveness*

- **New NMP:** No new facilities were added.
- **Review of NMP:** Nutrient Management plans are updated every 3 years. Locations that required facilities.
  - Berry Farm and Mill Place; 38.205126, -79.038869 :38.191615, -79.000883; 107 acres: 193 acres
  - Augusta County Library Fishersville; 38.099037, -78.970156; 3.8 acres
  - Government Center; 38.193512, -79.014031; 7.5 acres
- **Program Plan Revisions:** Program Plan updates were made as needed but no significant changes.

## 6.3 BMP: Pollution Prevention Training

- **General Information:** The County will help provide training to all appropriate municipal employees to meet the illicit discharge requirements set forth by the MS4. This training can be met by use of regional training programs along with the Counties existing program. Training may cover recognition and reporting of illicit discharges, good housekeeping and pollution prevention practices applicable to road, street, parking lot maintenance, working in public works facilities, recreational facilities.



- **Objective and Expected Results:** The pollution prevention training empowers employees with the knowledge and operating procedures to minimize accidental pollutant release that could contaminate storm water runoff. This serves as MS4 and VEEP training.
- **Implementation Schedule:** The VEEP and the MS4 training happens twice a year and when needed by events or incidences. Outside training opportunities will be utilized when available.
- **Method to Determine Effectiveness:** The County will track the number of personnel trainings and participants annually.

### ***BMP Effectiveness***

- **Review of BMP:** County staff conducted in-person training for staff. Virtual training development is needed to meet the changes from Covid-19

Date	Attendees	Objective
September 2020	6 300	Hazardous Waste Day Training All staff IDDE and proper disposal.
December 2020	300	All staff on recycling
January 2021	25 MS4 IDDE	Staff VEEP Program Updates Maintenance staff
April 2020	6 300	Maintenance Staff Training, Spring Clean-Up

- **Program Plan Revisions:** Program Plan changes are not needed at this time.



## 7. Special Conditions

### 7.1 BMP: Chesapeake Bay TMDL

- **General Information:** In 2010, the United States Environmental Protection Agency established a total maximum daily load (TMDL), or “Pollution Diet”, to limit the amount of phosphorus, nitrogen, and sediments that can be released into the Chesapeake Bay. These measures were established as an effort to improve the water quality of the Bay. The County was affirmed a MS4 municipality in 2013, therefore exempt from meeting the 5% pollutant of concern (POC) reduction goal as localities designated as a MS4 prior to 2013. New MS4 programs are required to develop a Chesapeake Bay TMDL Action Plan during the first MS4 Permit Cycle and submit the Action Plan with the registration statement for the second permit cycle.
- **Annual Reporting:** Once the Chesapeake Bay TMDL Action Plan is developed, each subsequent annual report shall include:
  - A list of BMPs implemented during the reporting period but not reported to the DEQ Warehouse and the estimated reduction of pollutants of concern achieved by each and reported in pounds per year;
  - If the permittee acquired credits during the reporting period to meet all or a portion of the required reductions, a statement that credits were acquired,
  - The progress, using the final design efficiency of the BMPs, toward meeting the required cumulative reductions for total nitrogen, total phosphorus, and total suspended solids; and,
  - A list of BMPs that are planned to be implemented during the next reporting period.
- **Objective and Expected Results:** The County will develop a Chesapeake Bay TMDL Action Plan that will provide guidelines and program of management practice that will facilitate compliance with the
- **Implementation Schedule:** The County will develop a Chesapeake Bay TMDL Action Plan during the first MS4 Permit Cycle and submit the Action Plan with the registration statement for the second permit cycle.

#### *Progress towards Chesapeake Bay TMDL*

- **TMDL Action Plan:** The County has developed a Chesapeake Bay TMDL Action Plan and it is available at the website. The 2018-2023 TMDL Action Plan will be available following permit guidance.
- **List of Control Measures Implemented During the Reporting Period:** Septic to Sanitary Sewer Connections.
- **Estimate Reduction Achieved by Each Control:**



Type of BMP	Project Name	Location	Reductions (lbs/yr)		
			TP	TN	TSS
Septic to Sanitary Sewer Connections	Septic to Sanitary Sewer Connections (since 2009)	County of Augusta MS4	0	2507.95	0
Total			0	2507.95	0
Amount Needed by 2023			104	843	87,750

***BMPS to be implemented during next reporting period***

The anticipated BMPs to be implemented during the next reporting period include (but are not limited to) Stream restoration, nutrient credit purchases.

**7.2 BMP: Other TMDL**

- Augusta County does not have waste load allocations associated with local TMDL's.



## 8. Signed Certification

Certification Statement for Augusta County's MS4 Program Plan and MS4 Annual Report for July 1, 2020 through June 30, 2021.

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

Signature: \_\_\_\_\_

Printed Name: Timothy Fitzgerald, County Administrator

Date: \_\_\_\_\_



## **Appendices**

A1.1 Augusta County Schools Recycling Teaching Guide

A1.2 National Drinking Water Week

A1.3 Recycling Information Brochure

A2.1 Recycling Committee

A2.2 Spring Clean Up

A2.3 HHWD

A3.1 Dry Screening and Outfall Inspection Management and Methodologies

A3.2 MS4 Stormwater Outfall Checklist

A3.3 MS4 Outfall Map

A3.3 Augusta County Illicit Discharge Detection and Elimination

A3.4 IDDE Investigation Process

A4.1 Augusta County E&S Ordinance

A4.2 Tabular Rating System for Inspections

A5.1 Stormwater BMP Maintenance Form

A5.2 Stormwater Easement Checklist

A6.1 County Owned Lands SWPPP and NMP

A6.2 Good Housekeeping VEEP

A6.3 County Training Plan for Good Housekeeping

A7.1 Chesapeake Bay TMDL Action Plan