

Augusta County
Municipal Separate Storm Sewer System
Program Plan

For the
Annual Report 2019 - 2020



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.

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

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Duly Authorized Representatives

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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.

Evaluations gathered while developing the 2018-2019 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
Trash	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.
NPS	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.
Illegal Dumping	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 employs 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 looking into adding education for where to donate and provide contactless recycling and donations.
- **Program Plan Revisions:** Program Plan revisions were not necessary at this time, website was updated.



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 fall Partnering Session became an informational newsletter due to the lack of topics. Updates from VDOT and ACSA were scheduled for winter and were not ready. Information on MS4 and E&S were shared. For Spring Partnering Session three topics from County Staff along with VDOT and ACSA. VDH gave a presentation on the new guidance for acquiring septic systems permits for low-income houses.
- **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 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.

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 2020 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.
- **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. 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 October 13, 2018. The County along with the Regional Landfill worked together to collect hazardous material from citizens of Augusta County, and Cities of Waynesboro and Staunton. Due to delays from hurricane the date was pushed back to October instead of September. Total vehicles that came to event: 265, 140 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
 - Sweet Dreams Festival
 - Augusta County Fair
 - 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.



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:** Outfalls were screened and no Illicit Discharges were reported or found during the 2019 -2020 FY. The County continues to operate and maintain an illicit discharge program that detect, identify, and address illicit discharges into the regulated MS4 area.
- **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 2018-2019 reporting period were conducted in accordance with the current department approved standards and specification for erosion and sediment control. During the 2018-2019 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 2019 - 2020	19	13.73	1	0
Year Total	239	249.98	5	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 2019-2020 reporting period were conducted in accordance with the current department approved standards and specification for erosion and sediment control. During the 2019-2020 reporting period 239 land disturbing activity inspections were conducted inside the MS4 area. Of the 239 inspections, 5 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.
- **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.
- **Program Plan Revisions:** Program Plan changes are 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 original date of inspections.
- **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 is 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 to be made as needed.
- **Method to Determine Effectiveness:** The number of events recorded during a SWPPP inspection and corrective actions taken will be reported annually.



BMP Effectiveness

- **Review of BMP:**
 - **New SWPPP Development:** High-priority facilities were reviewed to determine if new SWPPP development would be necessary. No changes to the facilities that do or do not need a SWPPP.
 - **SWPPP Modifications:** SWPPP modifications were made as necessary. VEEP E3 certification still active at the Government Center and High Schools.
- **Program Plan Revisions:** Program Plan changes are 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

- **Review of BMP:** Nutrient Management plans are in place at the 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 changes are not needed at this time.

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 2019	6 300	Hazardous Waste Day Training All staff IDDE and proper disposal.
December 2019	300	All staff on recycling
January 2020	25	Staff VEEP Program Updates
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 phosphorous, 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	422.5	0
Total			0	422.5	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, Bioretention retrofit.

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, 2019 through June 30, 2020.

"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

9/29/2020



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



Appendix A1.1 Augusta County Schools Recycling Teaching Guide

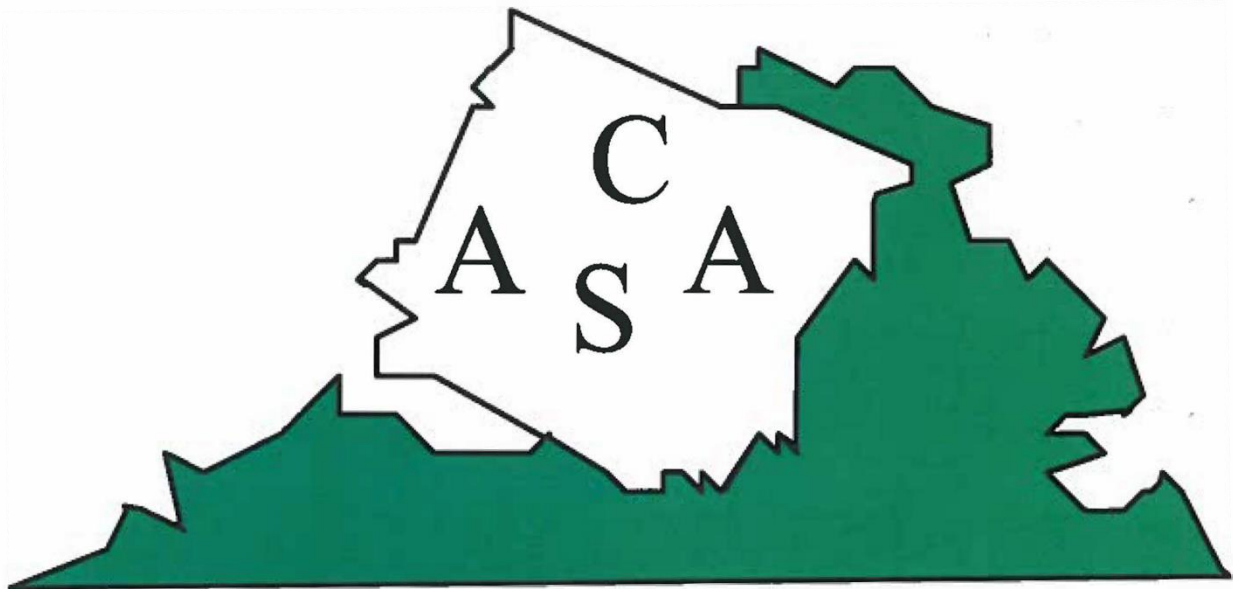
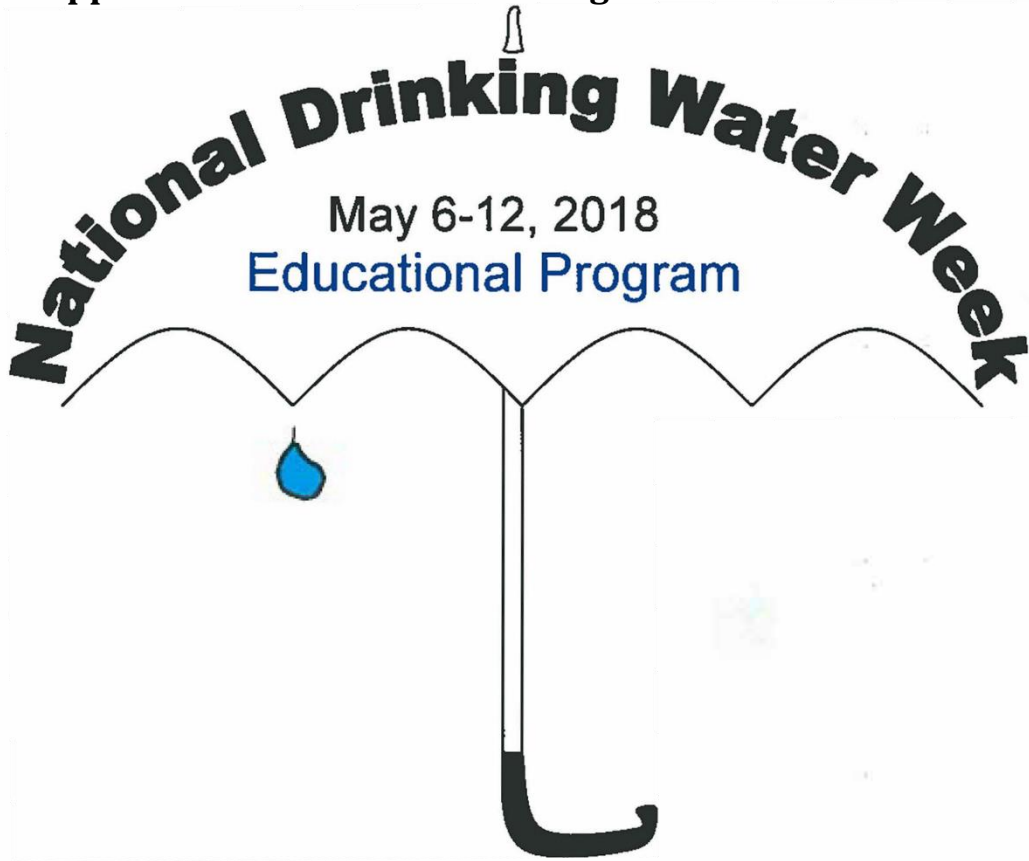
Found at \\Acgfile01\acgc\departments\Community
Development\groups\CD\COMDEV\Engineering\Environmental Programs\Recycling\Childrens
Activities

Augusta County Public Schools Recycling Teaching Guide



Created by: Hannah Hensley, Girl Scout Gold Award Project in collaboration with
Augusta County Recycling Committee. March 2015

Appendix A1.2 National Drinking Water Week



Augusta County Service Authority

Program Outline

- Mission:** To educate area third graders on the importance of water.
- Time Frame:** 45 minutes maximum.
- Location:** Churchville Elementary
- Materials:** *Splash Activity Book* for 3rd graders (one per student), One hydrologic/water careers poster per classroom, Ethel Mermaid and Tad Pole video (to be used in program), Willy Waterdrop (staff member), water pollution model, TVNCR {supplied by school}, and chalkboard.

Discussion

Below are questions in a logical order you can ask the class. Get them involved and be creative. Willy Waterdrop is there to help you. Don't just lecture to them. This is supposed to be fun and interesting.

What is water?

Everything is made of atoms. An atom is the smallest particle of an element like oxygen or hydrogen. Atoms join together to make a molecule. Water is a molecule made up of 2 hydrogen atoms (H+H) and 1 oxygen atom (O).

Hence, the formula for water is H₂O. (Willy has a water molecule to show the class).

Water is a valuable resource, why?

Water is almost as old as the earth and that's pretty old. Each water molecule is recycled over and over. The amount of the earth's water supply is about the same as it was millions of years ago. That means a dinosaur could have used the water that you might be drinking today. The water we have today is all the water we have tomorrow, so we must take care of it and protect it.

What do we use water for?

Cooking, bathing, cleaning, flushing toilets, growing food, and making electricity. (This is a good time to have one student at a time come up to the chalkboard to write down a use for water.)

Do animals and humans need water?

Yes, human beings need about 2 quarts of water a day to digest food, transport wastes, keep cells alive, make blood and control temperature (At this time you may want to show the students how much 2 quarts of water is). In fact humans are made up of 70% of water, that's over half of our entire body. Humans can live several weeks without food, but only 5 - 7 days without water. **WATER IS THE LIQUID OF LIFE.**



How much **water covers the earth's surface?**

80% of the earth's surface is covered with water. Of that 80% only a small portion is freshwater that we can actually use. 2% of the water is in the form of glaciers ice at the north and south poles, and the other 97% is saltwater which makes up the oceans. Only 1% of the earth's water is available for drinking water.

Water comes in three forms, what are they?

Water can be a **solid**, which is ice, or what happens to water when it is frozen. Water can be a **liquid**, this is when water is wet and is a fluid. Water can also be a **gas**, or a vapor and exists in the air around us and can form clouds.

How does water go from one form to the next?

Well, it really depends on the temperature. When it is really cold, 32 degrees Fahrenheit or 0 degrees Celsius, water becomes a solid or ice. When we see snow, we see raindrops which are frozen. When it's really hot, water becomes a gas. When you're boiling water, have you ever noticed the steam rising off the pan? This hot water is giving off steam or vapors. Well, that's what happens to water when the temperature is equal to or greater than 212 degrees Fahrenheit or 100 degrees Celsius.

What would happen if I put this ice cube in this jar of hot water?

What happens, it melts and changes its form and turns into a liquid. If the water in the jar is hot enough, it turns into a vapor. The ability of water to change from a solid to a liquid and a gas helps it cycle through our environment.

Does anyone know what cycle of water is called?

This is called the Hydrologic Cycle or water cycle.

Let's talk about the Hydrologic Cycle:

Let's pretend you're like Willy Water drop and you are hanging out somewhere in the ocean near your neighborhood beach and you are part of the hydrologic cycle.

..Where do you go from here?

First the sun's rays would turn you into a gas and move you through the air until you became a part of millions and millions of water molecules to form a cloud. This process is called **evaporation**. Just like the water turning into steam when you are cooking.

Now you are hanging out in this big old cloud and then suddenly you hear thunder and see a bolt of lightning and you and a bunch of other water molecules form a liquid. When water vapor forms a liquid, it is called **condensation**. You and your friends fall from the sky in the form of rain

or snow, depending on the temperature. This is called **precipitation**.



You then as a liquid help to form puddles and fill ponds, lakes and rivers. You may run off the ground and out to the ocean again or seep through the ground and be stored there as groundwater. Water moving downward through the soil is called **percolation**.

A tree may then take you up through its roots, and during those hot days, you leave the tree through its leaves as a vapor going back into the air. This is called **transpiration**.

Now let's show a video so we can see what happens to Willy's friends, Ethel Mermaid and Tad Pole as they move through the water cycle.

Video ends (start rewinding it).

Can someone in the class now tell me what the hydrologic cycle in their own words is?

So, where is water naturally stored?

Water is stored in lakes, oceans, reservoirs, rivers and underground.

Where does your school's water come from?

Beverley Manor - groundwater from a spring and surface water from two reservoirs (Middle River water). (Purchased from the City of Staunton)

Churchville - from 4 well sources owned by ACSA.

Riverheads - from 4 well sources and a reservoir in the Stuarts Draft area owned by ACSA.

Wilson - from 4 well sources and a reservoir in the Stuarts Draft area owned by ACSA.

Is all water safe to drink?

No. Sometimes we have to treat the water before we drink it. (You can expand on this. For example, talk about streams and whether it's safe to drink - it's not. Would you want to drink from a stream that has cattle in the water?)

What do we do when we treat the water?

We remove impurities from the water.

Should you drink water you find in the environment?

No, never drink water found in the environment unless you know it's safe to drink.

How can we protect water?

We cannot pollute our rivers and streams by properly disposing of trash. We can try not to waste water by fixing leaks in our homes and we can educate ourselves and our friends on water as a valuable resource.



Watershed Model:

This model shows how various land use activities can affect our water. It simulates a watershed which has various land use activities, such as farming, industries, home owners, etc. For example, if home owners fertilize their lawn and a heavy rain follows, what happens to the fertilizer? Some of it will run off into the rivers/streams.

What is Water Conservation?

Water is a finite resource. So, saving water and not using it when we need to is a way to conserve water. This is called water conservation. When you save water you are being WATER WISE.

What are some easy ways we can save water?

1. Stop a leaking faucet. Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day or 6,000 gallons a year.
2. See if your toilet is leaking. You can check this by adding a bit of food coloring to each toilet tank. Without flushing the toilet, see if the color comes to the bowl. If it does your toilet is leaking. A toilet can leak as much as 100 gallons per day.
3. Don't shower too long or fill the tub too full. Five minutes for showering or 5 inches in the tub is plenty.
4. Try to use only automatic dishwashers and clothes washing machines when there is a full load.
5. Water your garden or lawn early in the morning or late at night, not during the heat of the day or when it is windy.

Does anyone know what a green thumb is?

It's someone who can take care of plants well.

Now can anyone tell me what a Blue Thumb is?

It's someone who cares about water and who takes care of it by protecting it and not wasting it. So, get a Blue Thumb and give drinking water a hand!

Pass out Splash Activity booklets and give the poster to the teacher. (don't forget to get your video tape!)

Thank the class and say good-bye.

Things to emphasize:

Focus on precipitation, evaporation and condensation in the water cycle (this is for SOLs)

On the watershed model emphasize erosion and erosion control (plant things, such as grass, trees, etc. so the roots will hold the soil; during construction, use straw bales or plastic to help keep the soil from going into the streams)

Other things you might want to talk about:

Ask how many kids have ever been to Grand Caverns? You can discuss that we live on karst and how it's really important to protect our water from being contaminated.

I usually ask if the kids' fathers change the oil in their car? If the answer is yes, ask what they do with the used oil. Then tell them not to dump it on the ground or they might be drinking it one day. Make sure you take the used oil to be recycled.



Appendix 1.3 Recycling Information Brochure

Found at \\Acgfile01\acgc\departments\Community Development\groups\CD\COMDEV\Engineering\Environmental Programs\Recycling\Handouts and Signs

Recycling Committee Activities

Support and review recycling activities
Spring clean up event
Household hazardous waste event
Community and organizational outreach
Award recycling grants to schools

Volunteering

Interested in volunteering to help with Recycling Committee events please call 540-245-5700. Students are welcome and they will earn community service points for high school requirements.



County Ordinance

The Code of Augusta County does not require recycling. However, recycling is strongly encouraged. By recycling our precious natural resources are saved including landfill space.



Virginia Law

The State of Virginia currently requires a 25% recycling rate for each locality (VA Code §10.1-1411). Augusta County's recycling rate for 2012 was 33.38%. The State's overall recycling rate was 41.5%.



Recycling Awards

In April 2011, VA Governor McDonnell announced that Woodrow Wilson Complex Recycling Program won the Silver Environmental Excellence Award. The award commended the work of four owners comprised of ten facilities for their recycling efforts. Approximately 48 tons of materials are recycled annually that otherwise would be land-filled.

Recycling Committee

The Recycling Committee consists of seven members appointed by the Board of Supervisors as well as Board, County and Landfill liaisons. Committee members serve four-year terms.

Committee Mission

"To encourage residents of Augusta County to save our precious natural resources, including landfill space, by recycling."

Landfill Benefit

By recycling, precious landfill space is saved. Annually, 2,374 cubic yards of space is saved as well as \$53,415 in potential cost to landfill recyclables.

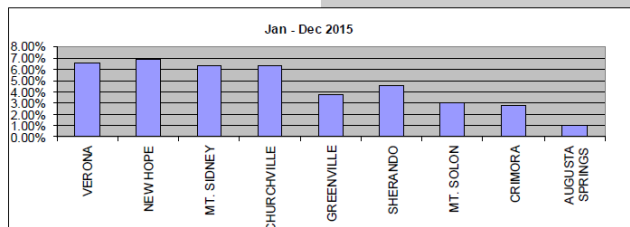
Costs and Revenue

Augusta County contracts for hauling recyclables to a local dealer. Transportation costs are approximately \$128,000 annually.

Revenue from recyclables is market driven. Augusta County has received between \$500 and \$27,000 annually depending on quantities recycled and demand.

Community Information

The following chart represents the percentage (%) of solid waste recycled at each solid waste compactor site.



Covered Trash Requirements

AUGUSTA COUNTY CODE

§20 – 22 Requirements for Vehicles Transporting Refuse:

- A. No refuse shall be hauled on any vehicle on the roads, highways, streets, or alleys in the County except in conveyances with covers over the trash being handled or in containers with tight-fitting covers and solid bottoms.
- B. No refuse shall be hauled in any manner on any vehicle that will permit the refuse to be strewn along the roads, highways, streets, or alleys of the County.

§20 – 23 Penalty:

Any violation of this Article shall be a misdemeanor and the person, firm, or corporation violating the Article shall be fined not less than ten dollars or more than three hundred dollars for each violation.

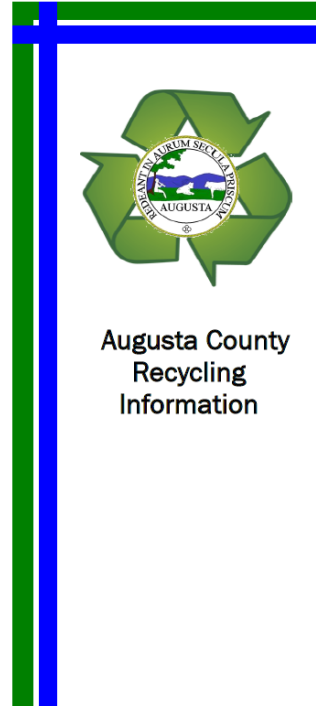
Please be sure that all trash is covered that is not in a sturdy trash can or other container with a tight fitting lid or cover. Trash must be covered when transferring to a community compactor site, landfill, etc. This code is enforced on all public roads within Augusta County.

Enforcement authority:
Augusta County Sheriff's Office
540-245-5333

For more information contact

Augusta County Government Center
18 Government Center Lane
Verona, VA 24482
(540) 245-5700
www.co.augusta.va.us

Recycling page:
www.co.augusta.va.us/Index.aspx?page=183



Augusta County
Recycling
Information

Quantity Recycled

1,188 tons of recyclables were collected in 2015. The following tons were collected for each recyclable:

Mixed paper—504	Metal—25
Aluminum cans—10	Glass—218
Cardboard—382	Plastic—47

Items Recycled and How

The following items can be recycled:

Mixed paper	Cardboard
Glass	Aluminum cans
Tin (soup) cans	Plastic (#1-7) Landfill only

Electronics and household items may be recycled at the Goodwill Industries location at the Landfill.

Please place only aluminum cans in the aluminum bin as other types of aluminum contaminate the bin.

Please flatten cardboard boxes so that ample space is maintained in the bin.

Waxed coated materials such as milk cartons and pet food bags as well as food boxes such as pizza boxes should be placed with general trash.

Please do not put any plastic bags in the bins even if recyclables are brought to the recycling centers in plastic bags. Plastic bags contaminate the bins.

Although Styrofoam is marked with a recycling symbol, it is not recyclable with plastics. Please place Styrofoam with general trash.

Please empty containers and rinse food particles from the containers.

If bins are contaminated recyclables may be rejected. In addition the value of the recyclable decreases.

Augusta County Recycling Locations

Augusta Regional Landfill

Open Monday through Saturday
8AM – 4:15PM 749 Christians Creek Road

All Recycling Locations below are open year around 7 AM until 5:30 PM Monday through Saturday.

Augusta Springs

201 Augusta Springs Road, Craigsville. Located approximately 1/2 mile off Rt. 42 just south of Augusta Springs, on the northwest side of Rt. 611.

Churchville

29 Scenic Highway, Churchville. At Riverside Shopping Center, intersection of Rt. 250 and Rt. 42, near Taste Freeze.

Crimora

380 Turk Mt. Lane, Crimora. From Rt. 340, travel east on Rt. 672, Center located at the end of the road, midway between Dooms and Crimora.

Deerfield

3056 Deerfield Valley Road, Deerfield. This location only accepts solid waste. This location does not accept recycling.

Greenville

133 Old Quarry Lane, Greenville. Off Rt. 662, on Rt. 673 west of Greenville. Before Springdale Water Gardens.

M. Sidney

2556 Lee Highway, Mt. Sidney. On Rt. 11 at the intersection of Rt. 11 and Ft. 696.

M. Solon

1187 North River Road, Mt. Solon. Southeast side of Rt. 730, approximately 1/2 mile southwest of Natural Chimneys Park.

New Hope

456 Round Hill School Road, New Hope. On the north side of Rt. 617, approximately 2 miles east of New Hope.

Sherando

1865 Mt. Toney Road, Sherando. At Sherando Community Center, west side of Rt. 664, just south of Rt. 610.

Verona

673 Berry Farm Road, Verona. Rt. 626, just 1/2 mile south of the intersection of Rt. 626 and Rt. 612.

Landfill Recycling

In addition to normal recycled items, the Landfill recycles scrap metal, wood, tires, antifreeze, used oil, and lead acid batteries. Fees may apply.

Landfill phone number: (540) 337-2857



Appendix 2.1 Recycling Committee Augusta County

Environmental Program: Recycling

What and Where

Date	September 2018
Official Document Location:	Environmental Programs Manager's office
Area of Application:	Recycling and Recycling Committee

Objectives, Targets and Actions

Activity/Product/Service:	All Recycling Documents and Recycling Committee Documents
Policy Commitment:	Historical Record and How To Manuals
Objective:	Ease of finding past documents
Target:	Continued organization and consistency of the Recycling Program and Recycling Committee
Program Review:	Yearly
Target Status:	On-going

Standard Operating Procedure (SOPs)

1.0 Purpose

- 1.1 The purpose of this SOP is to outline the proper archiving of documents.

2.0 Scope

- 2.1 The Recycling Program tracks many receipts, bills, and weights for the county owned facilities.
- 2.2 The Recycling Committee host public meetings every other month, has annual reports, by-laws, plan of action, presentation of data, minutes, recycling rates, school grants, and organizes and hosts special events focused around recycling and waste management.

3.0 Responsibilities

- 3.1 The Environmental Programs Manager is responsible for managing all aspects of the recycling data, bills, and receipts.
- 3.2 The Environmental Programs Manager is responsible for managing all Recycling Committee meetings along with all documentation.
- 3.3 The Environmental Programs Manager is responsible for managing all Recycling Committee events and projects.

4.0 Bills



A check list for what bills come in and to whom they are sent to along with date tracking for the calendar year can be found at:

file:///\\Acgcf01\acgc\departments\Community%20Development\groups\CD\COMDEV\Engineering\Environmental%20Programs\Recycling\DATA%20&%20CHARTS\checklist%20receipts.docx

Haul Folder should contain BTS charge recycling, BTS charge waste, Box Report

Record the dates that the Haul Folder is sent down and sent back from Finance

Haul Reports come at the beginning of every month and are checked for accuracy between the Receipt Slips (formally known as Pink Slips) and the BTS charge (recycling) receipts. The Environmental Program Manager signs off on the BTS charge (recycling only) and sends the folder down (BTS charge recycling and waste, Box Report) down to Finance to be confirmed and payments sent out.

County Box Reports (Box Report) is emailed from the landfill, a printed copy goes in the Haul Report folder and an electronic copy is saved to the computer. Follow the How To tab, Excel spread sheet found at:

file:///\\Acgcf01\acgc\departments\Community%20Development\groups\CD\COMDEV\Engineering\Environmental%20Programs\Recycling\DATA%20&%20CHARTS\2018%20County%20Box%20Reports.xlsx

Sonoco Bills are collected off the Sonoco website and more information can be found at

\\Acgcf01\acgc\departments\Community

Development\groups\CD\COMDEV\Engineering\Environmental Programs\Recycling\Sonoco

Sonoco bills will be used to fill in 20XX Monthly Reports and 20XX Recycling Revenue reports located

\\Acgcf01\acgc\departments\Community\Development\groups\CD\COMDEV\Engineering\Environmental Programs\Recycling\DATA & CHARTS

5.0 Recycling Committee

Meetings are hosted every other month, Annual Reports By-laws Plan of Action are updated at the first meeting of the year. Data, Minutes, Recycling Rate, School Grants, Spring Clean Up, and Household Hazardous Waste Day are all addressed one to two meetings before the events and are tracked in their respective folders. If data is collected or information is created 'How To' will be located in the folder or inside the excel document.

Six meetings are hosted a year, Agendas and Minutes:

\\Acgcf01\acgc\departments\Community Development\groups\CD\COMDEV\Engineering\Environmental Programs\Recycling\Minutes & Agendas

Annual Report for the Board of Supervisors: \\Acgcf01\acgc\departments\Community Development\groups\CD\COMDEV\Engineering\Environmental Programs\Recycling\Annual Reports

By-Laws: \\Acgcf01\acgc\departments\Community Development\groups\CD\COMDEV\Engineering\Environmental Programs\Recycling\By-Laws

Members and Attendance: \\Acgcf01\acgc\departments\Community Development\groups\CD\COMDEV\Engineering\Environmental Programs\Recycling\Members and Attendance

Plan of Action: \\Acgcf01\acgc\departments\Community Development\groups\CD\COMDEV\Engineering\Environmental Programs\Recycling\Plan of Action

Data & Charts: \\Acgcf01\acgc\departments\Community Development\groups\CD\COMDEV\Engineering\Environmental Programs\Recycling\DATA & CHARTS

Recycling Rate: \\Acgcf01\acgc\departments\Community Development\groups\CD\COMDEV\Engineering\Environmental Programs\Recycling\Recycling Rate

Augusta County School Mini Grant: \\Acgcf01\acgc\departments\Community

Development\groups\CD\COMDEV\Engineering\Environmental Programs\Recycling\School Grants

6.0 Events

These are once a year events that are based on the Recycling Committee. The event date, participation, and event happenings are selected by the Recycling Committee.

Spring Clean Up: \\Acgcf01\acgc\departments\Community Development\groups\CD\COMDEV\Engineering\Environmental Programs\Recycling\Spring Clean Up

Xmas Tree Recycling: \\Acgcf01\acgc\departments\Community Development\groups\CD\COMDEV\Engineering\Environmental Programs\Recycling\Xmas Trees

Household Hazardous Waste Day: \\Acgcf01\acgc\departments\Community

Development\groups\CD\COMDEV\Engineering\Environmental Programs\Recycling\Household Hazardous Waste Event



Augusta County Fair: \\Acgcfiler01\acgc\departments\Community
Development\groups\CD\COMDEV\Engineering\Environmental Programs\Recycling\Fair
Sweet Dreams Fair: \\Acgcfiler01\acgc\departments\Community
Development\groups\CD\COMDEV\Engineering\Environmental Programs\Recycling\Sweet Dreams



Appendix 2.2 Spring Clean Up

Augusta County

Environmental Program: Spring Clean Up

What and When

Date	September 2018
Official Document Location:	Environmental Programs Manager's office
Area of Application:	Recycling and Recycling Committee

Objectives, Targets and Actions

Activity/Product/Service:	All Document and Activities Pertaining to Spring Clean Up
Policy Commitment:	Historical Record and How To Manuals
Objective:	Next Step and Ease of finding past documents
Target:	Continued organization and consistency of the Spring Clean Up event
Program Review:	Yearly
Target Status:	On-going

Standard Operating Procedure (SOPs)

1.0 Purpose

1.1 The purpose of this SOP is to outline the proper set up of Spring Clean Up along with recording.

2.0 Scope

2.1 The Recycling Program tracts pre-event flyers, participation, bills, and weights of trash removed during Spring Clean Up.

2.2 Coordinating with contractors, non-profits, and internal departments (Landfill) while tracing interactions to better the next event.

3.0 Responsibilities

3.1 The Environmental Programs Manager is responsible for managing all aspects of the Spring Clean Up data, bills, and receipts.

3.2 The Environmental Programs Manager is responsible for managing all interactions with the public, staff, and contractors.

4.0 Pre- (January February)

Letters for Ruritan groups. Letters contain date and request for volunteers, and confirmation if Ruritan' s are hosting community events.

Approval for school flyers from the ACPS.



Landfill, Committee, Hauling Company, and Maintenance Department all need confirmation on dates.
Metal/appliance pick up at selected dumpsites confirmation.

Pre – (February March)

Confirmation letters to Ruritan to confirm dumpsters, community events, and volunteers.
Letters to Organizations we are allowing to wave tipping fees for mass collection (Camps, Trailer parks)
Confirmation of Metal appliances pick up
Elementary school flyer print
Flyer print for Elementary Flyers, Library flyers, Landfill flyers
Place add in Parks and Recreation Activities Guide: Spring

5.0 The Events (weeks before or week of)

Public Service Announcement Notice
Confirm all contacts have sufficient information and the ability to meet the public's expectations for the event.
Check in half way through event with Landfill and Maintenance for issues.

6.0 Post

Collect data from Landfill, Haul Company, and Ruritan
Pay Ruritan clubs that operate the collection sites
Thank you letters
Create report reviewing event and changes for the following year. This report is presented to the Recycling Committee.



Appendix 2.3 Household Hazardous Waste Day Augusta County

Environmental Program: HHWD

What and When

Date	September 2018
Official Document Location:	Environmental Programs Manager's office
Area of Application:	Recycling and Recycling Committee

Objectives, Targets and Actions

Activity/Product/Service:	All Document and Activities Pertaining to Household Hazardous Waste Day (HHWD)
Policy Commitment:	Historical Record and How To Manuals
Objective:	Next Step and Ease of finding past documents
Target:	Continued organization and consistency of the HHWD event
Program Review:	Yearly
Target Status:	On-going

Standard Operating Procedure (SOPs)

1.0 Purpose

- 1.1 The purpose of this SOP is to outline the proper set up of HHWD along with recording.

2.0 Scope

- 2.1 The Recycling Program tracks pre-event flyers, participation, bills, and weights of trash removed during HHWD.
- 2.2 Coordinating with contractors, non-profits, and internal departments (Landfill) while tracing interactions to better the next event.

3.0 Responsibilities

- 3.1 The Environmental Programs Manager is responsible for managing all aspects of the HHWD data, bills, and receipts.
- 3.2 The Environmental Programs Manager is responsible for managing all interactions with the public, staff, and contractors.

4.0 Pre- (June July)

Landfill, Committee, Hauling Company, and Maintenance Department all need confirmation on dates.
Approval for school flyers from the ACPS.
Talk with Landfill about Bids and confirm cost estimates.
Place add in Parks and Recreation Activities Guide: Fall



Pre – (August)

Confirmation letters to Hazardous Collection Company, Landfill, Staunton, Waynesboro, and volunteers.
Include the Flyer
Elementary school flyer confirmation on bundle and flyer numbers. Print and bundle for school distribution.
Flyer print for Elementary Flyers, Library flyers, Landfill flyers

5.0 The Events (weeks before or week of)

Public Service Announcement Notice
Confirm all contacts have information and the ability to meet the public's expectations for the event.
Confirm what is being collected by the Company and what is being collected by the County. Prepare containers as needed.
Have bays cleaned and prepared for HHWD
Buy snacks and drinks for volunteers. Set up cones and move canopy to open bay.
Activate badge so the building can be opened.
Arrive at 7:15. Sign paperwork and confirm contract complete for the Company before leaving.

6.0 Post

Collect data from Hazardous Waste Company. Review car count, and items collected by the County.
Confirm payments for Company. Pay side groups for removal of County collected items.
Thank you letters
Create report reviewing event and weights. This report is presented to the Recycling Committee, Staunton, and Waynesboro.



Appendix 3.1 Dry Screening and Outfall Inspection Management and Methodologies

Augusta County MS4

Illicit Discharge

Dry Screening and Outfall Inspection Management and Methodologies

Date of Issue: 6/15/2018

Official Document Location:

MS4 Coordinator

Area of Application:

MS4 Regulated and Extending MS4 System

Objectives, Targets and Actions

Activity/Product/Service:	Dry screening and outfall inspections in Augusta County's MS4 done annually, including a minimum number of 50 outfalls, as required by the MS4 permit to detect and eliminate illicit discharges.
Policy Commitment:	Detecting and eliminating illicit discharges in the storm sewer system. Reporting to DEQ with the MS4 Annual Report including: the screenings results, and details of any follow-up actions necessitated by screening results
Objective:	Properly fulfill the role and duties of the MS4 Permit.
Target:	50 Dry screening and outfall inspections in every permit year.
Target Status:	Development
Lead Person:	Morgan Shrewsbury, MS4 Coordinator

Comment: No actions are needed at this time.

Standard Operating Procedure (SOPs)

1.0 Purpose



- 1.1 Dry screening of outfalls from Augusta County's MS4 will be done annually to include a minimum number of 50 outfalls to be inspected, as required by the MS4 permit.

2.0 Scope

- 2.1 The Illicit Discharge Detection and Elimination Program monitors, inspects, determines and stops discharge that leads to the pollutions of state waters in accordance with MS4 requirements.
- 2.2 This aspect is being managed in accordance with DEQ and EPA regulations.

3.0 Responsibility

- 3.1 The MS4 Coordinator or his/her designee is responsible for documentation of investigations.
- 3.2 The MS4 Coordinator or his/her designee is responsible for inspection procedures.

4.0 Procedure

4.1 Pre-Inspection Procedure

- Materials needed:
 - Outfall Maps
 - Outfall Checklist
 - Past Outfall Inspection (if available)
 - Illicit Discharge Reporting Form
 - GPS
 - Pen
 - Waders
 - Camera/Smartphone
- Print out maps of the anticipated outfalls to be inspected prior to field screenings.
 - Outfall maps can be located at G:\COMDEV\Engineering\SWM\MS4\IDDE\MS4Outfall and are available to be printed directly from ArcGIS.
- Print out Outfall Checklist as the Inspection Reports prior to field screenings.
 - Field Screening have been simplified for field us to the Outfall Checklist.
- A portable unit with GPS capabilities may be used to record/update outfall data, if needed.
- The majority of outfalls are not verified in the GIS system with accurate GPS data and outfall information.
 - This will be the responsibility of the MS4 Program Coordinator or his/her appointees.

4.2 Inspection Procedure

- Inspection instructions shall be as follows:
 1. Walk from downstream to upstream (if in the stream, as to not disturb water or sediments which could alter assumptions of an outfall, inspect outfalls one at a time).
 2. Collect data and enter into portable GPS unit (if needed).
 3. Fill out the Outfall Checklist as you walk along the stream.
 4. Take pictures of each outfall and make notes on the Report.
 5. In the event that an outfall is suspected to have an illicit discharge, document the outfall/illicit discharge on the Outfall Checklist and fill out an Illicit Discharge Reporting Form. The suspected illicit discharge shall be handled with illicit discharge procedures set forth at G:\COMDEV\Engineering\SWM\MS4\IDDE
- Investigation will be done with support from IDDE Field Backpack for data collection and the Illicit Discharge Detection and Elimination Field Guide: How to Identify a Quickly Report Pollution Problems.



- Illicit Discharge Reporting Form should be completed and saved to the proper tax map ID folder at G:\COMDEV\Engineering\SWM\MS4\IDDE\Illicit Discharge as outlined in the illicit discharge procedures.
 - If the illicit discharge is potential, pursue investigation through the Illicit Discharge Procedures.
 - If the illicit discharge is historical (staining, dried material, etc.) take note on the Outfall Checklist and note if follow-up/education activities are necessary.
- 4.3 Post-Inspection Procedure
- When back in the office, load all pictures and store in designated outfall folder with the name as year_month and outfall ID (2016_05_PS10_678).
 - Inspection Date and Status are to be updated in the GIS Attribute Table. If the first time an outfall has been inspected performed completely fill out the GIS Attribute Table with collected data from the field. If assistance is needed, contact the MS4 Coordinator.
 - Outfall inspection data will be archived by the MS4 Coordinator or his/her designees.
 - Dry weather field screening to detect illicit discharges in specific areas may also be defined based on criteria such as infrastructure, land use, historical illegal discharges, dumping or cross connections. These areas will be prioritized by the MS4 Coordinator.



Appendix 3.2 MS4 Stormwater Outfall Checklist

Community Development MS4
Stormwater Outfalls

Watershed/Subshed:	Assessed by:
Outfall ID:	Weather:
Date:	Date of Last Rainfall:
Time:	Rainfall Quantity:

TYPE	MATERIAL	SHAPE	SUBMERGED	GENERAL OBSERVATIONS
Closed Pipe	Concrete	Circular	Water	
Open Channel	PVC/Plastic	Other:	N ½ Y	
	Metal	Single	Sediment	
Flow	Brick	Multiple	N ½ Y	
	Other:			

INDICATOR	DESCRIPTION		COMMENTS
Pipe Condition	Chip/Cracked	Corrosion	
	Peeling Paint	Other	
Odor	Gas	Sulfide	
	Sewage	Other	
Deposits/Stains	Oily	Paint	
	Flow Line	Iron	
Vegetation	None	Sparse	
	Moderate	Excessive	
Pipe Benthic Growth	Brown	Green	
	Orange	Other	
Pool Quality	Good	Odors	
	Oils	Suds	
	Colors	Algae	

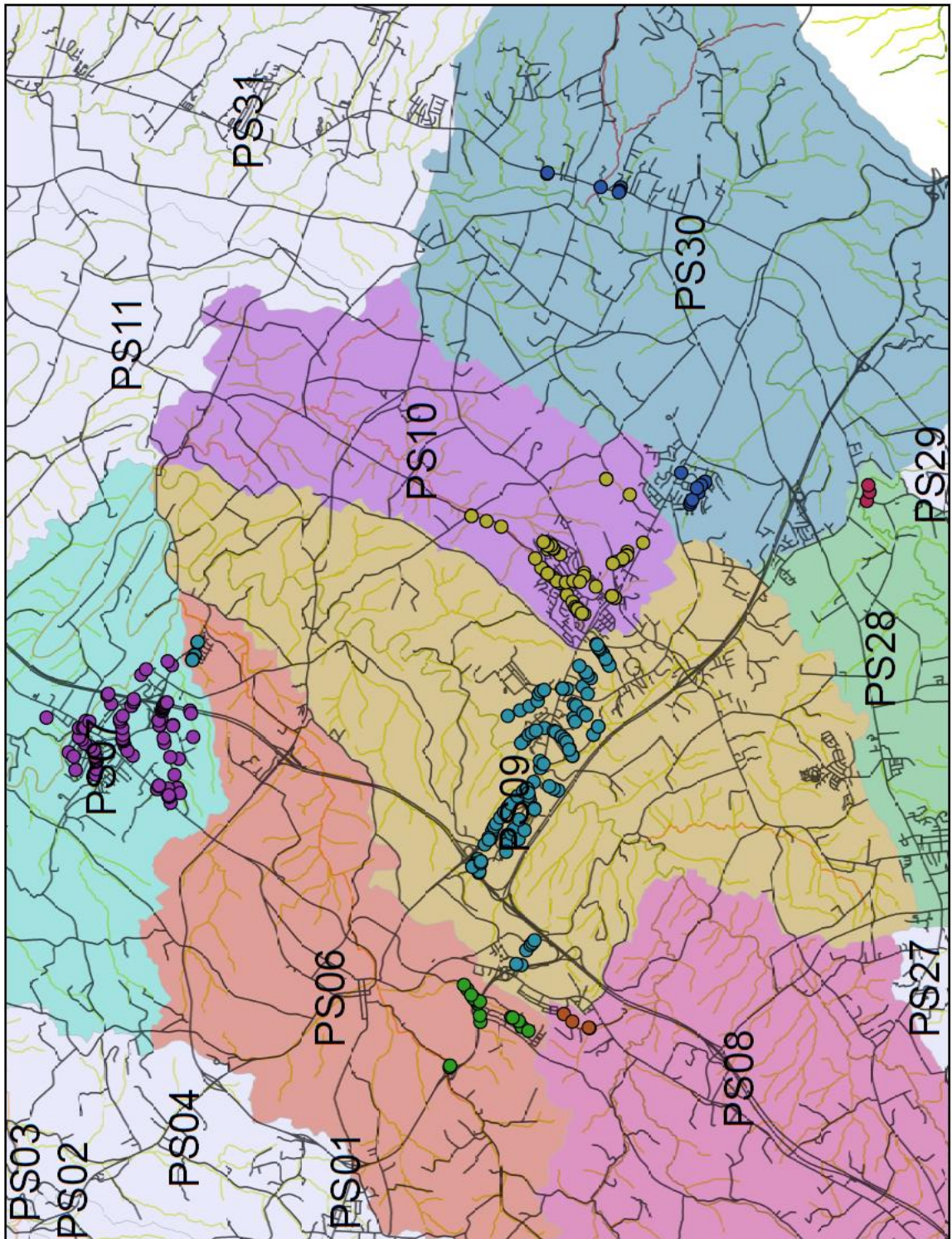
If Flowing

Indicators	Description		Ranking 1 almost non 5 Excessive		
Oder	Sewage	Petroleum/Gas	1- Faint	3 - Easily Detected	5 - Noticeable from a distance
	Sulfide	Rancid/Sour			
	Other:				
Color	Milky	Orange	1-Trace colors	3 – Noticeable	5 – Clearly Visible
	Gray	Brown			
	Other:				
Turbidity			01- Slight Cloudiness	3 - Cloudy	5 - Opaque
Floatables (not trash)	Sewage	Suds	1 - Few/slight	3 - Some; indication of origin	03 - Many
	Iron	Petroleum			



Appendix 3.3 MS4 Outfall Map

MS4 Outfall Map





Appendix 3.4 Augusta County Illicit Discharge Detection and Elimination

CHAPTER 9. ENVIRONMENT

ARTICLE II. Illicit Discharge Detection and Elimination

§ 9-30. Purpose and Authority

1. The purpose of this article is to promote the general health, safety, and welfare of the citizens of the County by protecting property and state waters through the prohibition of illicit discharges of non-storm water within the County's regulated MS4 area into the County's MS4, subject to certain exceptions.

2. This ordinance is adopted pursuant to Article 2.3 of Chapter 3.1 of Title 62.1 of the Code of Virginia.

§ 9-31. Applicability.

This ordinance is applicable to the MS4 designated areas and contributing watersheds consisting of approximately 20,600 acres and highlighted in red on a map entitled "Illicit Discharge Detection and Elimination Ordinance" which is declared part of this ordinance and which shall be kept on file in the Offices of the Department of Community Development.

§ 9-32. Definitions.

Unless the context otherwise requires, the following definitions shall be used in the interpretation and construction of this Article.

Best Management Practices (BMPs). A schedules of activities, prohibitions of practices, general good housekeeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to storm water, receiving waters, or storm water conveyance systems. BMPs also include treatment practices, operating procedures, and practices to control site runoff, spillage or leaks, sludge or water disposal, or drainage from raw materials storage.

Clean Water Act. The federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.), and any subsequent amendments thereto.

Director. The Director of the Community Development Department of Augusta County. The term includes any person or persons designated to perform certain specific administrative functions by the Director of the Community Development Department.

Hazardous Materials. Any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

Illicit Discharge. Any direct or indirect non-storm water discharge to the storm sewer system, except as exempted in Section 9-33 C of this ordinance.

Municipal Separate Storm Sewer System (MS4). The County's municipal separate storm sewer system. The terms "municipal separate storm sewer" and "municipal separate storm sewer system" shall have the meanings set forth within 9VAC25-870-10

National Pollutant Discharge Elimination System (NPDES) Storm Water Discharge Permit. A permit issued by EPA (or by a State under authority delegated pursuant to 33 USC § 1342(b)) that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.

Non-Storm Water Discharge. Any discharge to the storm sewer system that is not composed entirely of storm water.

Person. Any individual, association, organization, partnership, firm, corporation or other entity recognized by law and acting as either the owner or as the owner's agent.



Pollutant. Anything which causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, ordinances, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous materials and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind.

Storm Sewer System. Publicly-owned facilities by which storm water is collected and/or conveyed, including but not limited to any roads with drainage systems, municipal streets, gutters, curbs, inlets, piped storm drains, pumping facilities, retention and detention basins, natural and human-made or altered drainage channels, reservoirs, and other drainage structures.

Storm Water. Any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation, and resulting from such precipitation.

Storm Water Pollution Prevention Plan (SWPPP). A document which describes the Best Management Practices and activities to be implemented by a person or business to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to Storm Water, Storm Water Conveyance Systems, and/or Receiving Waters to the Maximum Extent Practicable.

Virginia Stormwater Management Program (VSMP). A program approved by the State after September 13, 2011, that has been established by a VSMP authority to manage the quality and quantity of runoff resulting from land-disturbing activities and shall include such items as local ordinances, rules, permit requirements, annual standards and specifications, policies and guidelines, technical materials, and requirements for plan review, inspection, enforcement, where authorized in the Act and associated regulations, and evaluation consistent with the requirements of the Storm Water Management Act (§62.1-44.15:24 et seq.) and associated regulations.

Virginia Pollutant Discharge Elimination System (VPDES) permit. A document issued by the State Water Control Board pursuant to the State Water Control Law authorizing, under prescribed conditions, the potential or actual discharge of pollutants from a point source to surface waters.

Wastewater. Any water or other liquid, other than uncontaminated storm water, discharged from a facility.

§ 9-33. Prohibited Discharges.

A. It shall be unlawful and a violation of this article to cause or allow any illicit discharge to enter, or have the potential of entering, the MS4.

B. Illicit discharges include, but are not limited to:

(1) Discharging, or allowing any discharge of sewage, industrial wastes, yard wastes, or other wastes, into the storm sewer system, or any component thereof, or onto driveways, sidewalks, parking lots, the ground, or any other areas draining to the storm sewer system.

(2) Connecting, or allowing any connection of any sanitary sewer to the storm sewer system.

(3) Connecting, or allowing any connection to the storm sewer system, without a valid VSMP, VPDES, or NPDES permit, any structure that conveys any liquid other than storm water or discharges listed in subsection (c), including, but not limited to, pipes, drains, sanitary sewer lines, washing machine drains, or floor drains.

(5) Throwing, placing, or depositing, or causing to be thrown, placed, or deposited in the storm sewer system anything that impedes or interferes with the free flow of storm water therein, or adversely affects water quality.

C. The following non-storm water discharges are allowable under this article:

(1) Discharges or flows covered by a separate individual or general VPDES or VSMP permit for non-storm water discharges;



(2) Individual non-storm water discharges or flows that have been identified in writing by the Virginia Department of Environmental Quality as de minimis discharges that are not significant sources of pollutants to state waters and do not require a VPDES permit;

(3) Non-storm water discharges or flows as listed in the following categories;

- a. Water line flushing;
 - b. Landscape irrigation, irrigation water, lawn and garden watering;
 - c. Diverted stream flows or rising groundwater;
 - d. Uncontaminated ground water infiltration;
 - e. Uncontaminated pumped groundwater;
 - f. Discharges from potable water sources;
 - g. Foundation drains;
 - h. Air conditioning condensate;
 - i. Springs;
 - j. Water from crawl space pumps;
 - k. Footing drains;
 - l. Individual residential car washing;
 - m. Flows from riparian habitats and wetlands;
 - n. Dechlorinated swimming pool discharges;
 - o. Street wash water; and
 - p. Firefighting activities.
- q. Dye testing, following notification to the County's Community Development Department

D. In the event any of the activities listed in subparagraph C (3) of this section are found to be a significant contributor of pollutants to be discharged into the MS4, the Director shall so notify the person performing such activities, and shall order that such activities be ceased or be conducted in such a manner as to avoid the discharge of pollutants into the MS4. The failure to comply with any such order shall constitute a violation of the provisions of this article.

§ 9-34. Inspections and Monitoring.

A. The Director shall have the authority to carry out all inspections and monitoring procedures necessary to determine compliance and/or noncompliance with this article, and to enforce the requirements of this article.

B. The Director shall have the authority, at his/her sole discretion, to require a SWPPP from any person whose property discharges, or has the potential to discharge, to the MS4.

C. The Director and/or his/her duly authorized employees, agents, or representatives of the county, bearing proper credentials and identification, shall be authorized to enter any public property or to request entry into private property at any reasonable time for the purpose of enforcing this article, including, but not limited to taking samples of discharges, inspecting monitoring equipment, inspecting and copying documents relevant to the enforcement of this article, and such other items as may be deemed necessary for the enforcement of this article.

If the owner or person in charge of the property refuses to allow the Director or his/her designees to enter in accordance with this subsection, then the Director may present sworn testimony to a magistrate or court of competent jurisdiction and request the issuance of an inspection warrant to enter the property for the purpose of making such inspections and investigations. The Director shall make a reasonable effort to obtain consent from the owner or person in charge of the property prior to seeking the issuance of an inspection warrant under this section.

D. The Director shall have the authority to require any person responsible for a discharge to the MS4 to document that such discharge meets and is in compliance with the requirements of this article. This includes, but is not limited to, the ability of the Director to require such person to provide monitoring reports, test results, and such other matters as may be deemed necessary to show that



such discharge is in compliance with the requirements of this article. The cost of any required documentation shall be the responsibility of the person responsible for the discharge.

E. The failure of any person to comply with any of the requirements of this section shall constitute a violation of this article.

§ 9-35. Enforcement and Penalties.

A. Any person who violates any of the provisions of this article shall be guilty of a class I misdemeanor and, upon conviction, is subject to punishment by a fine of not more than two thousand five hundred dollars (\$2,500.00) per violation per day and confinement in jail for not more than twelve (12) months, either or both.

B. Each day during which a violation of this article occurs or continues shall be deemed a separate and distinct violation of this article.

C. Any person who commits any of the acts prohibited by this article or violates any of the provisions of this article shall be liable to the county for all costs of testing, containment, cleanup, abatement, removal, disposal, monitoring, and any other related costs or expenses that the County may incur in connection with the enforcement of this article and/or the prohibition and/or correction of a violation of this article.

D. The Director may bring legal action to enjoin a violation of this article and the existence of any other remedy shall be no defense to any such action.

E. In addition to any of the remedies set forth above, the Director may seek to impose, or have imposed by the appropriate authority, any of the remedies provided for by § 62.1-44.15:48, Code of Virginia (1950), as amended, which are incorporated herein by reference.

F. In any court action that may result from enforcement of this article, a judge hearing the case may direct the person responsible for the violation or the property owner to correct the violation and each day that the violation continues shall constitute a separate violation of this article.

G. Any person who knowingly makes any false statements, representations, or certifications in any record, report, or other document, either filed or requested pursuant to this article, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required or used by the Director under this article in monitoring discharges, shall be guilty of a violation of this article.

H. The remedies set forth in this section shall be cumulative, not exclusive, and it shall be no defense to any action that one (1) or more of the remedies set forth in this section has been sought or granted.

9-36. Civil charges.

With the consent of any person who has violated any provision of this article, the county may provide for the payment of civil charges for violations in specific sums, not to exceed \$1,000. Civil charges shall be in lieu of any appropriate civil penalty. Such civil charges shall be paid into the treasury of the county for the purpose of abating environmental damages in the county.



Appendix 3.5 IDDE Investigation Process

Augusta County MS4 Illicit Discharge

IDDE Investigation Process

Date of Issue: 3/19/2018

Official Document Location: MS4 Coordinator
Area of Application: MS4 Regulated and Extending MS4 System

Objectives, Targets and Actions

Activity/Product/Service:	Illicit discharge inspections in Augusta County's MS4 done upon complaint or suspicion of discharge, as required by the MS4 permit to detect and eliminate illicit discharges.
Policy Commitment:	Detecting and eliminating illicit discharges in the storm sewer system. Reporting to DEQ with the MS4 Annual Report including: the screenings results, and details of any follow-up actions necessitated by screening results
Objective:	Properly fulfill the role and duties of the MS4 Permit.
Target:	Detecting and mitigating illicit discharges into the storm sewer system.
Target Status:	Development
Lead Person:	Morgan Shrewsbury, MS4 Coordinator

Comment: No actions are needed at this time.

Standard Operating Procedure (SOPs)

1.0 Purpose

1.1 Illicit Discharge Investigation for Augusta County's MS4 will be done upon complaint or suspicion of discharge.

2.0 Scope

2.1 The Illicit Discharge Detection and Elimination Program used for further inspections and requirements after an illicit discharge is found or has been reported.

2.2 This aspect is being managed in accordance with DEQ and EPA regulations.



3.0 Responsibility

- 3.1 The MS4 Coordinator or his/her designee is responsible for documentation of investigations.
- 3.2 The MS4 Coordinator or his/her designee is responsible for inspection procedures.
- 3.3 Hazardous spill response is the responsibility of the Fire Department.
Storm sewer overflows are the responsibility of Public Utilities,
- 3.4 Other spill response or pollution complaints may be routed through another agency such as the Virginia Department of Environmental Quality.

4.0 Procedure

4.1 Investigation and Documentation Process

4.1.1 Types of Illicit Discharge

- Potential Illicit Discharge: A pollutant having entered the storm sewer system but there is no evidence that the pollutant entered a live waterway.
- Actual Illicit Discharge: A pollutant having entered the storm sewer system and there is evidence that the pollutant entered a live waterway.
- Suspect Illicit Discharge: A dumping activity or spill that has not entered the storm sewer system or a live waterway.

4.1.2 Receiving Reports

- Report of illicit discharge events are received by County staff. Report may have been received by phone or in person.
- The Fire Department will notify MS4 Program Coordinator – Morgan Shrewsbury of an incident that may affect the storm sewer system. If the incident occurs outside of business hours, they will notify her during the next business day.
- Spills during municipal operations will be responded according to the procedures set forth by that department. Significant spills that require interdepartmental coordination should be routed to Augusta County Community Development and Augusta County Service Authority.

4.1.3 Initial Investigation

- The MS4 Coordinator will evaluate the Report to determine if an Illicit Discharge Investigation is needed.
- The appointed investigator/s will travel to the site to inspect the potential illicit discharge.
- Materials needed:
 - Maps of relevance
 - Illicit Investigation Process
 - Illicit Discharge Reporting Form
 - CSPDC Illicit Discharge Detection and Elimination Field Guide: How to Identify and Quickly Report Pollution Problems (If needed)
 - GPS
 - Pen
 - Waders
 - Camera

- 4.1.4 Lead investigators will trace back manholes or the stream to find the source of the pollution if safe.



- If an illicit discharge is found, but within six months of the beginning of the investigation neither the source nor the same non-stormwater discharge has been identified, then this shall be documented.
- If the observed discharge is intermittent, then Lead Investigator must document that a minimum of three separate investigations were made in attempt to observe the discharge when it was flowing. If these attempts are unsuccessful, the investigator must document.

4.2 Inspection Procedure

- Inspection instructions shall be as follows:
 1. Walk from downstream to upstream (if in the stream, as to not disturb water or sediments which could alter assumptions of an outfall, inspect outfalls one at a time).
 2. Collect data and enter into portable GPS unit (if needed).
 3. Fill out the Field Screening Inspection Report as you walk along the stream.
 4. Take pictures of each outfall and make notes on the Report.
 5. In the event that an outfall has an illicit discharge, document the outfall/illicit discharge on the Field Screening Inspection Report and fill out an Illicit Discharge Reporting Form. The suspected illicit discharge shall be handled with illicit discharge procedures set forth at \\Acgcfiler01\acgc\departments\Community Development\groups\CD\COMDEV\Engineering\SWM\MS4\IDDE\Illicit Discharge\Inspections
 - Investigation will be done with support from IDDE Field Backpack for data collection and the Illicit Discharge Detection and Elimination Field Guide: How to Identify a Quickly Report Pollution Problems.
 - Illicit Discharge Reporting Form should be completed and saved to the proper tax map ID folder at IDDE\Illicit Discharge\Inspection as outlined in the illicit discharge procedures.
- If the illicit discharge is potential, pursue investigation through the illicit discharge procedures.
- If the illicit discharge is historical (staining, dried material, etc.) take note on the Field Screening Inspection Report and note if follow-up/education activities are necessary.
- An unknown substance can be tested through a third party consultant, and/or with the Central Shenandoah Planning District Commission's IDDE kit – available to IDDE Team by calling (540) 885-5174.

- ##### 4.2.1
- As needed, investigators and IDDE Team will coordinate and dispatch a clean-up (this may involve other County departments), contact the property owner and/or responsible party, and request from the property owner/responsible party mitigation procedures (Corrective Action Plan) be documented and put into place as soon as possible. Any procedures developed will be filed with the County's IDDE Report to ensure corrective action. Enforcement escalation is outlined below. Timeframe for follow-up investigation and corrective action is determined on a case-by-case basis.



- i. Warning Letter - A warning letter is issued for a first offense illicit discharge with typically a two week follow-up investigation by the County.
- ii. Corrective Action Plan – A Corrective Action Plan is requested from the responsible party of larger spill incidents during a first offense which will address the spill response specifically and mitigation measures to be implemented to prevent further spills.
- iii. Notice of Violation (second offense) – A notice of violation is issued after a second offense or if corrective action has not been taken upon a follow-up 2 week investigation.
- iv. Criminal Fines

4.3 Post-Inspection Procedure

- The individual from the IDDE Team that responded to the incident will fill out an Illicit Discharge Reporting Form regardless of whether the event was a potential, suspect, or actual illicit discharge. This individual is also responsible for coordinating with the IDDE Team to follow up on the investigation and ensure sufficient pictures, documentation of correspondence, etc.
- When back in the office, load all pictures and store in designated outfall folder with the name as year_month and outfall ID (2016_05_OF37).
- Inspection Date and Status are to be updated in the GIS Attribute Table. If the first time an outfall has been inspected performed completely fill out the GIS Attribute Table with collected data from the field. If assistance is needed, contact the MS4 Coordinator.
- The completed IDDE form will be filed in the ComDev/Engineering/SWP/MS4/IDDE and will be named based on property tax map number as well
- Illicit discharge team will update IDDE folder with documentation, photos, letters, emails, etc. associated with the illicit discharge event.
- Files saved in the folder will be saved by [tax map number] [date investigation initiated year – month -day] [other additional title]. Examples:
 - 066-C-8 2016-04-14 IDDE Report Form.pdf
 - 049A-8 2014-02-28 Investigation Notes.docx

5.0 Time Frame

- 5.1 A time frame upon which to conduct an investigation or investigations to identify and locate the source of any observed continuous or intermittent non-stormwater discharge to be prioritized as follows per the MS4 permit:
- 5.2
 - Illicit discharges suspected of being sanitary sewage or significantly contaminated must be discharged first,
 - Investigations of illicit discharges suspected of being less hazardous to human health and safety such as noncontact cooling water or wash water may be delayed until after all suspected sanitary or significantly contaminated discharges have been investigated, eliminated, or identified. Discharges authorized under a separate VPDES or state permit require no further action under this permit.

6.0 Recourses

- 6.1 Investigators may use the Center for Watershed Protection’s publications as guides,



http://www.cwp.org/online-watershed-library/cat_view/64-manuals-and-plans/79-illicitdischarge-detection-and-elimination:

- Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments
- Illicit Discharge Detection and Elimination: Technical Appendices
- Illicit Discharge Detection and Tracking Guide
- Illicit Discharge Detection and Elimination Field Guide: How to Identify and Quickly Report Pollution Problems:
http://www.cspdc.org/programs/environment/documents/IDDEFIELDGUIDE_Shenandoah_121914_002.pdf

7.0 MS4 Annual Report

- 7.1 A summary of the illicit discharge inspection reports will be included with the MS4 Annual Report and will include required information: (i) date that 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.



Appendix 4.1 Augusta County Regulation of Stormwater and Erosion and Sediment Control

ARTICLE I. Regulation of Stormwater and Erosion and Sediment Control

§ 9-1. Purpose and authority

1. Pursuant to Virginia Code § 62.1-44.15:27, this ordinance integrates stormwater management requirements with the erosion and sediment control requirements into an integrated erosion and sediment control and stormwater program. The integrated program is intended to facilitate the submission and approval of plans, issuance of permits, payment of fees, and coordination of inspection and enforcement activities into a more convenient and efficient manner for both the County and those responsible for compliance with these programs. This ordinance accounts for any town lying within the County unless such towns choose to adopt their own program.

2. The purpose of this ordinance is to establish minimum stormwater management (SWM) and erosion and sediment control (ESC) requirements and controls to protect properties, safeguard the general health, safety, and welfare of the public residing in watersheds within the County, and protect aquatic resources.

3. This ordinance is adopted pursuant to Articles 2.3 & 2.4 of Chapter 3.1 of Title 62.1 of the Code of Virginia.

§ 9-2. Definitions

As used in the ordinance, unless the context requires a different meaning, the following terms shall have the meanings indicated:

"Administrator" means the VSMP authority responsible for administering the VSMP on behalf of the County and the VESCP authority responsible for administering the VESCP on behalf of the County. The Department of Community Development is designated as the Administrator.

"Agreement in lieu of a plan" means a contract between the Administrator and the owner or permittee that specifies methods that must be implemented to comply with the requirements of a VSMP and/or Erosion and Sediment Control Plan in the construction of a single-family residence; this contract may be executed by the Administrator in lieu of a formal site plan. Fees associated with Agreement in lieu of a Plan do not require payment to Department.

"Applicant" means any person submitting a development plan for approval or requesting the issuance of a permit, when required, authorizing land-disturbing activities to commence.



"Best management practice" or "BMP" means schedules of activities, prohibitions of practices, including both structural and nonstructural practices, maintenance procedures, and other management practices to prevent or reduce the pollution of surface waters and groundwater systems from the impacts of land-disturbing activities.

"Certified inspector" means an employee or agent of the County of Augusta who (i) holds a certificate of competence from the state board in the area of project inspection pertaining to VESCP and/or VSMP or (ii) is enrolled in the state board's VESCP and/or VSMP training program for project inspection and successfully completes such program within one year after enrollment.

"Certified plan reviewer" means an employee or agent of the County of Augusta who (i) holds a certificate of competence from the state board in the area of plan review pertaining to VESCP and/or VSMP, (ii) is enrolled in the state board's VESCP and/or VSMP training program for plan review and successfully completes such program within one year after enrollment..

"Certified program administrator" means an employee or agent of the County of Augusta who (i) holds a certificate of competence from the state board in the area of program administration pertaining to VESCP and/or VSMP or (ii) is enrolled in the state board's VESCP and/or VSMP training program for program administration and successfully completes such program within one year after enrollment.

"Clearing" means any activity which removes the vegetative ground cover including, but not limited to, root mat removal or top soil removal.

"Common plan of development or sale" means a contiguous area where separate and distinct construction activities may be taking place at different times on difference schedules.

"Conservation Plan," "Erosion and Sediment Control Plan," or "Plan" means a document containing material for the conservation of soil and water resources of a unit or group of units of land. It may include appropriate maps, an appropriate soil and water plan inventory, and management information with needed interpretations and a record of decisions contributing to conservation treatment. The plan shall contain all major conservation decisions and all information deemed necessary by the plan approving authority to assure that the entire unit or units of land will be so treated to achieve the conservation objectives.

"Control measure" means any best management practice or stormwater facility, or other method used to minimize the discharge of pollutants to state waters.

"Clean Water Act" or "CWA" means the federal Clean Water Act (33 U.S.C. §1251 et

seq.), formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution

Control Act Amendments of 1972, Public Law 92-500, as amended by Public Law 95-217, Public Law 95-576, Public Law 96-483, and Public Law 97-117, or any subsequent revisions thereto.



"County" or "Program Authority" means the County of Augusta, Virginia, which has adopted an erosion and sediment control program that has been approved by the state board.

"Department" or "DEQ" means the Department of Environmental Quality.

"Department of Community Development" means the County of Augusta, Virginia, Department of Community Development.

"Development" means land disturbance and the resulting landform associated with the construction of residential, commercial, industrial, institutional, recreation, transportation or utility facilities or structures or the clearing of land for non-agricultural or non-silvicultural purposes.

"Director" means the Director of DEQ.

"District" or "Soil and Water Conservation District" refers to the Headwaters Soil and Water Conservation District.

"Erosion Impact Area" means an area of land not associated with current land-disturbing activity but subject to persistent soil erosion resulting in the delivery of sediment onto neighboring properties or into state waters. This definition shall not apply to any lot or parcel of land of 10,000 square feet or less used for residential purposes or to shorelines where the erosion results from wave action.

"Excavating" means any digging, scooping or other methods of removing earth materials.

"Filling" means any depositing or stockpiling of earth materials.

"General permit" means the state permit titled GENERAL PERMIT FOR DISCHARGES OF STORMWATER FROM CONSTRUCTION ACTIVITIES found in Part XIV (9VAC25-880-1 et seq.) of the Regulations authorizing a category of discharges under the CWA and the Act within a geographical area of the Commonwealth of Virginia.

"Grading" means any excavating or filling of earth material or any combination thereof, including the land in its excavated or filled conditions.

"Land disturbance" or "land-disturbing activity" means a man-made change to the land surface that potentially changes its runoff characteristics including clearing, grading, or excavation except that the term shall not include those exemptions specified in Section 9-4(E)-2 of this Ordinance.

"Land-disturbing Permit" or "Permit" means a permit issued by the County for the clearing, filling, excavating, grading, transporting of land or for any combination thereof or for any purpose set forth herein.

"Layout" means a conceptual drawing sufficient to provide for the specified stormwater management facilities required at the time of approval.

"Local erosion and sediment control program" or "local control program" means an outline of the various methods employed by the County to regulate land-disturbing activities and thereby minimize



erosion and sedimentation in compliance with the state program and may include such items as local ordinances, policies and guidelines, technical materials, inspection, enforcement, and evaluation.

“Minimum Standards or Minimum Standard” means any or all of the 19 minimum standards set forth by DEQ.

"Minor modification" means an amendment to an existing general permit before its expiration not requiring extensive review and evaluation including, but not limited to, changes in

EPA promulgated test protocols, increasing monitoring frequency requirements, changes in sampling locations, and changes to compliance dates within the overall compliance schedules. A minor general permit modification or amendment does not substantially alter general permit conditions, substantially increase or decrease the amount of surface water impacts, increase the size of the operation, or reduce the capacity of the facility to protect human health or the environment.

"Operator" means the owner or operator of any facility or activity subject to regulation under this Ordinance.

"Owner" means the owner or owners of the freehold of the premises or lesser estate therein, a mortgagee or vendee in possession, assignee of rents, receiver, executor, trustee, lessee or other person, firm or corporation in control of a property.

“Perimeter Erosion and Sediment Control Permit” means a permit issued by the County for installation of only perimeter erosion and sediment control measures on any project requiring a land-disturbing permit. This permit does not authorize the permittee to engage in a land disturbance activity outside that required for installation of the perimeter erosion and sediment control measures. Projects involving an agreement in lieu of a plan do not require this permit.

"Permit" or "VSMP Authority Permit" means an approval to conduct a land-disturbing activity issued by the Administrator for the initiation of a land-disturbing activity, in accordance with this Ordinance, and which may only be issued after evidence of general permit coverage has been provided by DEQ.

"Permittee" means the person to whom the VSMP and/or land disturbing permit is issued.

"Person" means any individual, partnership, firm, association, joint venture, public or private corporation, trust, estate, commission, board, public or private institution, utility, cooperative, county, city, town or other political subdivision of the Commonwealth, any interstate body, or any other legal entity.

"Regulations" means the Virginia Stormwater Management Program (VSMP) Permit Regulations, 9VAC25-870, as amended.

“Responsible Land Disturber” means an individual from the project or development team, who will be in charge of and responsible for carrying out a land-disturbing activity covered by an approved plan or agreement in lieu of a plan, who:



- (A) Holds a Responsible Land Disturber certificate of competence,
- (B) Holds a current certificate of competence from the state board in the areas of Combined Administration, Program Administration, Inspection, or Plan Review,
- (C) Holds a current Contractor certificate of competence for erosion and sediment control, or
- (D) Is licensed in Virginia as a professional engineer, architect, certified landscape architect or land surveyor pursuant to Article 1 (Sec. 54.1-400 et seq.) of Chapter 4 of Title 54.1 of the Code of Virginia.

"Single-family residence" means a noncommercial dwelling that is intended to be occupied exclusively by one family.

"Site" means the land or water area where any facility or land-disturbing activity is physically located or conducted, including adjacent land used or preserved in connection with the facility or land-disturbing activity.

"State" means the Commonwealth of Virginia.

"State Board" means the Virginia State Water Control Board.

"State erosion and sediment Control program" or **"state program"** means the program administered by the state board pursuant to the Code of Virginia including regulations designed to minimize erosion and sedimentation.

"State permit" means an approval to conduct a land-disturbing activity issued by the state board in the form of a state stormwater individual permit or coverage issued under a state general permit or an approval issued by the state board for stormwater discharges from an MS4. Under these state permits, the Commonwealth imposes and enforces requirements pursuant to the federal Clean Water Act and regulations, the Virginia Stormwater Management Act and the Regulations.

"State Water Control Law" means Chapter 3.1 (§62.1-44.2 et seq.) of Title 62.1 of the Code of Virginia.

"State waters" means all waters on the surface and under the ground wholly or partially within or bordering the Commonwealth or within its jurisdiction, including wetlands.

"Stop Work Order" A written notice sent to the responsible land disturber or appropriate agent that stops all land-disturbing activity on the project for a specified time period.

"Stormwater" means precipitation that is discharged across the land surface or through conveyances to one or more waterways and that may include stormwater runoff, snow melt runoff, and surface runoff and drainage.

"Stormwater management plan" means a document(s) containing material describing methods for complying with the requirements of Section 9-7 of this Ordinance.



"Stormwater Pollution Prevention Plan" or "SWPPP" means a document that is prepared in accordance with good engineering practices and that identifies potential sources of pollutants that may reasonably be expected to affect the quality of stormwater discharges from the construction site, and otherwise meets the requirements of this Ordinance. In addition the document shall identify and require the implementation of control measures, and shall include, but not be limited to the inclusion of, or the incorporation by reference of, an approved erosion and sediment control plan, an approved stormwater management plan, and a pollution prevention plan.

"Subdivision" means a division of a parcel of land into two or more lots, tracts or parcels for any purpose. The term includes re-subdivision and boundary line adjustments.

"Total maximum daily load" or "TMDL" means the sum of the individual wasteload allocations for point sources, load allocations for nonpoint sources, natural background loading and a margin of safety. TMDLs can be expressed in terms of either mass per time, toxicity, or other appropriate measure. The TMDL process provides for point versus nonpoint source tradeoffs.

"Transporting" means any moving of earth materials from one place to another place other than such movement incidental to grading, when such movement results in destroying the vegetative ground cover either by tracking or the buildup of earth materials to the extent that erosion and sedimentation will result from the soil or earth materials over which such transporting occurs.

"Virginia Erosion and Sediment Control Program" or "VESCP" means a program approved by the state board that has been established by a VESCP authority for the effective control of soil erosion, sediment deposition, and nonagricultural runoff associated with a land-disturbing activity to prevent the unreasonable degradation of properties, stream channels, waters, and other natural resources and shall include such items where applicable as local ordinances, rules, permit requirements, annual standards and specifications, policies and guidelines, technical materials, and requirements for plan review, inspection, enforcement where authorized in this article, and evaluation consistent with the requirements of the Act and this chapter.

"Virginia Erosion and Sediment Control Program authority," or "VESCP authority," means an authority approved by the state board to operate a Virginia Erosion and Sediment Control Program. An authority may include a state entity, including DEQ; a federal entity; a district, county, city, or town; or for linear projects subject to annual standards and specifications, electric, natural gas and telephone utility companies, interstate and intrastate natural gas pipeline companies, railroad companies, or authorities created pursuant to § 15.2-5102.

"Virginia Stormwater Management Act" or "Act" means Article 2.3 (§ 62.1-44.15:24 et seq.) of Chapter 3.1 of Title 62.1 of the Code of Virginia.

"Virginia Stormwater BMP Clearinghouse website" means a website that contains detailed design standards and specifications for control measures that may be used in Virginia to comply with the requirements of the Virginia Stormwater Management Act and associated regulations.



“Virginia Stormwater Management Program” or “VSMP” means a program approved by the state board after September 13, 2011, that has been established by a locality to manage the quality and quantity of runoff resulting from land-disturbing activities and shall include such items as local ordinances, rules, permit requirements, annual standards and specifications, policies and guidelines, technical materials, and requirements for plan review, inspection, enforcement, where authorized in this article, and evaluation consistent with the requirements of this article and associated regulations.

"Virginia Stormwater Management Program authority" or "VSMP authority" means an authority approved by the state board after September 13, 2011, to operate a Virginia Stormwater Management Program.

§ 9-3. Programs Established

A. Pursuant to §62.1-44.15:27 of the Code of Virginia, Augusta County hereby establishes a Virginia Stormwater Management Program (VSMP) for land-disturbing activities and adopts the applicable Regulations that specify standards and specifications for VSMPs promulgated by the state board for the purposes set out in §9-1 of this Ordinance. Augusta County hereby designates the Department of Community Development as the Administrator of the Virginia stormwater management program.

B. Pursuant to § 62.1-44.15:54 of the Code of Virginia, Augusta County hereby establishes a Virginia Erosion and Sediment Control Program (VESCP) for land-disturbing activities and adopts the regulations, references, guidelines, standards and specifications promulgated by the state board for the effective control of soil erosion and sediment deposition to prevent the unreasonable degradation of properties, stream channels, waters and other natural resources. Said regulations, references, guidelines, standards and specifications for erosion and sediment control are included in but not limited to the "Virginia Erosion and Sediment Control Regulations" and the Virginia Erosion and Sediment Control Handbook, as amended. The County hereby designates the Department of Community Development as the VESCP authority.

§ 9-4. Storm Water Permit and Land Disturbing Permit Requirement; Exemptions

A. Except as provided herein, no person may engage in any land-disturbing activity until both a VSMP permit and a perimeter erosion and sediment control permit have been issued by the Administrator in accordance with the provisions of this Ordinance. In addition, as a prerequisite to engaging in the land-disturbing activities shown on the approved plan, the person responsible for carrying out the plan shall provide the name of an individual holding a certificate of competence, to the program authority, as provided by § 62.1-44.15:55, of the Virginia Erosion and Sediment Control Law, who will be in charge of and responsible for carrying out the land-disturbing activity. Failure to provide the name of an individual holding a certificate of competence prior to engaging in land-disturbing activities may result in revocation of the approval of the plan and the person responsible for carrying out the plan shall be subject to the penalties provided in this ordinance. Property owners may be issued one agreement in lieu of a plan per calendar year for which a responsible land disturber need not be named. Subsequent permits in the same year however, will require naming of a responsible land disturber.



B. No VSMP authority permit shall be issued unless and until the permit application and attendant materials and supporting documentation demonstrate that all land clearing, construction, disturbance, land development and drainage will be done according to the approved permit and until the following items have been submitted to and approved by the Administrator as prescribed herein:

1. A permit application that includes a general permit registration statement, if such statement is required, and evidence that general permit coverage is obtained;
2. An erosion and sediment control plan approved in accordance with this chapter.
3. A stormwater management plan that meets the requirements of § 9-7 of this chapter.
4. Any fees and bond required to be paid in accordance with § 9-19.

C. No grading, building or other local permit shall be issued for a property unless a VSMP authority permit, when required, has been issued by the Administrator.

D. No land disturbing permit shall be issued until the applicant submits with his application approved erosion and sediment control plans and certification that the plan will be followed and all perimeter erosion and sediment control measures have been installed, inspected and approved by the Administrator.

E. Notwithstanding any other provisions of this Ordinance, the following activities are exempt, unless otherwise required by federal law:

1. Exemptions to Stormwater Management Plan, Pollution Prevention

Plan and VSMP permit requirement

- a. Permitted surface or deep mining operations and projects, or oil and gas operations and projects conducted under the provisions of Title 45.1 of the Code of Virginia;
- b. Clearing of lands specifically for agricultural purposes and the management, tilling, planting, or harvesting of agricultural, horticultural, or forest crops, livestock feedlot operations, or as additionally set forth by the state board in regulations, including engineering operations as follows: construction of terraces, terrace outlets, check dams, desilting basins, dikes, ponds, ditches, strip cropping, lister furrowing, contour cultivating, contour furrowing, land drainage, and land irrigation; however, this exception shall not apply to harvesting of forest crops unless the area on which harvesting occurs is reforested artificially or naturally in accordance with the provisions of Chapter 11 (§ 10.1-1100 et seq.) of Title 10.1 of the Code of Virginia or is converted to bona fide agricultural or improved pasture use as described in Subsection B of § 10.1-1163 of Article 9 of Chapter 11 of Title 10.1 of the Code of Virginia;



- c. Single-family residences separately built and disturbing less than one acre and not part of a larger common plan of development or sale, including additions or modifications to existing single-family detached residential structures;
- d. Land disturbing activities that disturb less than one acre of land that are not part of a larger common plan of development or sale that is one acre or greater of disturbance;
- e. Discharges to a sanitary sewer or a combined sewer system;
- f. Activities under a State or federal reclamation program to return an abandoned property to an agricultural or open land use;
- g. Routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original construction of the project. The paving of an existing road with a compacted or impervious surface and reestablishment of existing associated ditches and shoulders shall be deemed routine maintenance if performed in accordance with this Subsection; and
- h. Conducting land-disturbing activities in response to a public emergency where the related work requires immediate authorization to avoid imminent endangerment to human health or the environment. In such situations, the Administrator shall be advised of the disturbance within seven days of commencing the land-disturbing activity and compliance with the administrative requirements of Subsection (a) is required within 30 days of commencing the land-disturbing activity.

2. Exemptions to Erosion & Sediment Control Plan and land disturbing permit requirement.

- a. Minor land-disturbing activities such as home gardens and individual home landscaping, repairs and maintenance work;
- b. Individual service connections;
- c. Installation, maintenance, or repair of any underground public utility lines when such activity occurs on an existing hard-surfaced road, street or sidewalk provided the land-disturbing activity is confined to the area of the road, street or sidewalk which is hard-surfaced;
- d. Septic tank lines or drainage fields unless included in an overall plan for land-disturbing activity relating to construction of the building to be served by the septic tank system;
- e. Surface or deep mining activities authorized under a permit issued by the Department of Mines, Minerals and Energy;
- f. Exploration or drilling for oil and gas including the well site, roads, feeder lines, and off-site disposal areas;
- g. Tilling, planting, or harvesting of agricultural, horticultural, or forest crops, or livestock feedlot operations; including engineering operations and agricultural engineering operations as follows: construction of terraces, terrace outlets, check dams, desilting basins, dikes, ponds not required to



comply with the Dam Safety Act, Article 2, (Sec. 10.1-604 et seq.) of Chapter 6 of the Code of Virginia, ditches, strip cropping, lister furrowing, contour cultivating, contour furrowing, land drainage, and land irrigation; however, this exception shall not apply to harvesting of forest crops unless the area on which harvesting occurs is reforested artificially or naturally in accordance with the provisions of Chapter 11 (Sec. 10.1-1100 et seq.) of the Code of Virginia or is converted to bona fide agricultural or improved pasture use as described in Subsection B of Sec. 10.1-1163;

h. Repair or rebuilding of the tracks, rights-of-way, bridges, communication facilities and other related structures and facilities of a railroad company;

i. Disturbed land areas of less than 10,000 square feet in size

j. Installation of fence posts, sign posts or telephone and electric poles and other kinds of posts or poles;

k. Shoreline erosion control projects on tidal waters when all of the land disturbing activities are within the regulatory authority of and approved by local wetlands boards, the Marine Resources Commission or the United States Army Corps of Engineers; however, any associated land that is disturbed outside of this exempted area shall remain subject to this ordinance; and

l. Emergency work to protect life, limb or property, and emergency repairs; however, if the land-disturbing activity would have required an approved erosion and sediment control plan, if the activity were not an emergency, then the land area disturbed shall be shaped and stabilized in accordance with the requirements of the Administrator.

§ 9-5. Stormwater Pollution Prevention Plan; Contents of Plan

A. The Stormwater Pollution Prevention Plan (SWPPP) shall include the content specified by Section 9VAC25-870-54 and must also comply with the requirements and general information set forth in Section 9VAC25-880-70, Section II [stormwater pollution prevention plan] of the general permit. Such requirements shall include, but not be limited to:

1. An approved erosion and sediment control plan in accordance with § 9-6 of this chapter

2. An approved stormwater management plan in accordance with § 9-7 of this chapter

3. A pollution prevention plan for regulated land-disturbing activities in accordance with § 9-8 of this chapter

4. And a description of any additional control measures necessary to address a TMDL in accordance with § 9-9 of this chapter

B. The SWPPP shall be amended by the operator whenever there is a change in design, construction, operation, or maintenance that has a significant effect on the discharge of pollutants to state waters which is not addressed by the existing SWPPP.



C. The SWPPP must be maintained by the operator at a central location onsite. If an onsite location is unavailable, notice of the SWPPP's location must be posted near the main entrance of the construction site. Operators shall make the SWPPP available for public review in accordance with Section II of the general permit, either electronically or in hard copy.

§ 9-6. Erosion & Sediment Control Plan; Contents of Plan

A. Except as provided herein, no person may engage in any land-disturbing activity until he or she has submitted to the Administrator an erosion and sediment control plan for the land-disturbing activity and such plan has been approved by the Administrator. Where land-disturbing activities involve lands under the jurisdiction of more than one local control program, an erosion and sediment control plan, at the option of the applicant, may be submitted to the state board for review and approval rather than to each jurisdiction concerned. Where the land-disturbing activity results from the construction of a single-family residence, an agreement in lieu of a plan may be substituted for an erosion and sediment control plan if executed by the Administrator.

B. The standards contained within the "Virginia Erosion and Sediment Control Regulations" and the Virginia Erosion and Sediment Control Handbook as amended are to be used by the applicant when making a submittal under the provisions of this ordinance and in the preparation of an erosion and sediment control plan. The Administrator, in considering the adequacy of a submitted plan, shall be guided by the same standards, regulations and guidelines.

C. Except for single family or two family dwellings covered by an Agreement in Lieu of an Erosion & Sediment Control Plan, stormwater detention or retention facilities will be required for proposed development where land disturbance is 10,000 square feet or greater and where there is a net increase in runoff between pre-developed and post-developed conditions.

D. In cases where the contributing drainage area being developed is equal to or less than 1% of the entire watershed, stormwater detention will not be required unless otherwise required by VSMP regulations. However, any concentrated water leaving the development site will be required to discharge into an adequate on or off site receiving channel.

E. All stormwater management facilities shall be designed and constructed in accordance with "Minimum Standard 19" of the Virginia Erosion and Sediment Control Law and Regulations, and the Virginia Stormwater Management Handbook, Latest Edition.

F. An approved plan may be changed by the Administrator when:

1. The inspection reveals that the plan is inadequate to satisfy applicable regulations; or
2. The person responsible for carrying out the plan finds that because of changed circumstances or for other reasons the approved plan cannot be effectively carried out, and proposed amendments to the plan, consistent with the requirements of this ordinance are agreed to by the Administrator and the person responsible for carrying out the plans.



G. Variances: The Administrator may waive or modify any of the standards that are deemed to be too restrictive for site conditions, by granting a variance. A variance may be granted under these conditions:

1. At the time of plan submission, an applicant may request a variance to become part of the approved erosion and sediment control plan. The applicant shall explain the reasons for requesting variances in writing. Specific variances which are allowed by the Administrator shall be documented in the plan.

2. During construction, the person responsible for implementing the approved plan may, with the property owner's written permission, request a variance in writing from the Administrator. The Administrator shall respond in writing within 10 calendar days either approving or disapproving such a request. If the Administrator does not approve a variance within 10 calendar days of receipt of the request, the request shall be considered to be disapproved. Following disapproval, the applicant may resubmit a variance request with additional documentation.

H. In order to prevent further erosion, the County may require approval of a plan for any land identified in the local program as an erosion impact area.

I. When land-disturbing activity will be required of a contractor performing construction work pursuant to a construction contract, the preparation, submission, and approval of an erosion and sediment control plan shall be the responsibility of the owner.

J. In accordance with the procedure set forth by § 62.1-44.15:55E of the Code of Virginia, any person engaging in the creation and operation of wetland mitigation banks in multiple jurisdictions, which have been approved and are operated in accordance with applicable federal and state guidance, laws, or regulations for the establishment, use, and operation of mitigation banks, pursuant to a permit issued by the Department of Environmental Quality, the Marine Resources Commission, or the U.S. Army Corps of Engineers, may, at the option of that person, file general erosion and sediment control specifications for wetland mitigation banks annually with the state board for review and approval consistent with guidelines established by the state board.

§ 9-7. Stormwater Management Plan; Contents of Plan

A. The Stormwater Management Plan, required in § 9-4 of this Ordinance, must apply the stormwater management technical criteria set forth in § 9-11 of this Ordinance to the entire land-disturbing activity, consider all sources of surface runoff and all sources of subsurface and groundwater flows converted to subsurface runoff, and include the following information:

1. Information on the type and location of stormwater discharges; information on the features to which stormwater is being discharged including surface waters or karst features, if present, and the predevelopment and post development drainage areas;

2. Contact information including the name, address, and telephone number of the owner and the tax map number and parcel number of the property or properties affected;



3. A narrative that includes a description of current site conditions and final site conditions
 4. A general description of the proposed stormwater management facilities and the mechanism through which the facilities will be operated and maintained after construction is complete;
 5. Information on the proposed stormwater management facilities, including:
 - a. The type of facilities;
 - b. Location, including geographic coordinates;
 - c. Acres treated; and
 - d. The surface waters or karst features, if present, into which the facility will discharge.
 6. Hydrologic and hydraulic computations, including runoff characteristics;
 7. Documentation and calculations verifying compliance with the water quality and quantity requirements of § 9-11 of this ordinance.
 8. A map or maps of the site that depicts the topography of the site and includes:
 - a. All contributing drainage areas;
 - b. Existing streams, ponds, culverts, ditches, wetlands, other water bodies, and floodplains;
 - c. Soil types, geologic formations if karst features are present in the area, forest cover, and other vegetative areas;
 - d. Current land use including existing structures, roads, and locations of known utilities and easements;
 - e. Sufficient information on adjoining parcels to assess the impacts of stormwater from the site on these parcels;
 - f. The limits of clearing and grading, and the proposed drainage patterns on the site;
 - g. Proposed buildings, roads, parking areas, utilities, and stormwater management facilities; and
 - h. Proposed land use with tabulation of the percentage of surface area to be adapted to various uses, including but not limited to planned locations of utilities, roads, and easements.
- B. Individual lots in new residential, commercial, or industrial developments shall not be considered separate land-disturbing activities. Where the land-disturbing activity results from the construction of a single-family residence, an agreement in lieu of a plan may be substituted for a stormwater management plan if executed by the Administrator. A registration statement shall not be required for coverage under the General Permit for Discharges of Stormwater from Construction Activities for construction activity involving a single-family detached residential structure, within or outside a common plan of development or sale.



C. If an operator intends to meet the water quality and/or quantity requirements set forth in § 9-11 of this Ordinance through the use of off-site compliance options, where applicable, then a letter of reservation from the off-site provider must be included. Approved off-site options must achieve the necessary nutrient reductions prior to the commencement of the applicant's land-disturbing activity except as otherwise allowed by § 62.1-44.15:35 of the Code of Virginia.

D. Elements of the stormwater management plans that include activities regulated under

Chapter 4 (§54.1-400 et seq.) of Title 54.1 of the Code of Virginia shall be appropriately sealed and signed by a professional registered in the Commonwealth of Virginia pursuant to Article 1 (§ 54.1-400 et seq.) of Chapter 4 of Title 54.1 of the Code of Virginia.

E. A stormwater management plan that is approved for a residential, commercial, or industrial subdivision shall govern the development of the individual parcels, including those parcels developed under subsequent owners

§ 9-8. Pollution Prevention Plan; Contents of Plans

A. Pollution Prevention Plan, required by 9VAC25-870-56, shall be developed, implemented, and updated as necessary and must detail the design, installation, implementation, and maintenance of effective pollution prevention measures to minimize the discharge of pollutants. At a minimum, such measures must be designed, installed, implemented, and maintained to:

1. Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;
2. Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, and other materials present on the site to precipitation and to stormwater; and
3. Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures.

B. The pollution prevention plan shall include effective best management practices to prohibit the following discharges:

1. Wastewater from washout of concrete, unless managed by an appropriate control;
2. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials;
3. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and
4. Soaps or solvents used in vehicle and equipment washing.



C. Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, are prohibited unless managed by appropriate controls.

§ 9-9. Additional Control Measures to Address a TMDL

In addition to the requirements of §9-6 through §9-8 of this chapter, if a specific Waste Load Allocation (WLA) for a pollutant has been established in a TMDL implementation plan and is assigned to stormwater discharges from a construction activity, additional control measures must be identified and implemented by the operator so that discharges are consistent with the assumptions and requirements of the WLA in a state board approved plan.

§ 9-10. Review of Submitted Plans

A. The Administrator shall determine the completeness of a plan in accordance with this Ordinance, and shall notify the applicant, in writing, of such determination, within 15 calendar days of receipt. If the plan is deemed to be incomplete, the above written notification shall contain the reasons the plan is deemed incomplete.

B. The Administrator shall have an additional 30 calendar days from the date of the communication of completeness to review the plan, except that if a determination of completeness is not made within the time prescribed in subsection (A) of this section, then plan shall be deemed complete and the Administrator shall have 30 calendar days from the date of submission to review the plan.

C. The Administrator shall review any plan that has been previously disapproved, within 45 calendar days of the date of resubmission.

D. During the review period, the plan shall be approved or disapproved and the decision communicated in writing to the person responsible for the land-disturbing activity or his designated agent. If the plan is not approved, the reasons for not approving the plan shall be provided in writing. Approval or denial shall be based on the plan's compliance with the requirements of this Ordinance.

E. If a plan meeting all requirements of this Ordinance is submitted and no action is taken within the time provided above in subsection (B) of this section for review, the plan shall be deemed approved.

F. Approved stormwater plans may be modified as follows:

(1) Modifications to an approved stormwater management plan shall be allowed only after review and written approval by the Administrator. The Administrator shall have 60 calendar days to respond in writing either approving or disapproving such request.

(2) The Administrator may require that an approved stormwater management plan be amended, within a time prescribed by the Administrator, to address any deficiencies noted during inspection.

G. The Administrator shall require the submission of a construction record drawing for permanent stormwater management facilities. The Administrator may elect not to require construction record



drawings for stormwater management facilities for which recorded maintenance agreements are not required pursuant to Section 9-12 (B).

§ 9-11. Technical Criteria for Regulated Land Disturbing Activities

A. To protect the quality and quantity of state water from the potential harm of unmanaged stormwater runoff resulting from land-disturbing activities, the County hereby adopts the technical criteria for regulated land-disturbing activities set forth in Part II B of the Regulations, as amended, expressly to include 9VAC25-870-62 [technical criteria]; 9VAC25-870-63 [water quality design criteria requirements]; 9VAC25-870-65 [water quality compliance]; 9VAC25-870-66 [water quantity]; 9VAC25-870-69 [offsite compliance options]; 9VAC25-870-72 [design storms and hydrologic methods]; 9VAC25-870-74 [stormwater harvesting]; 9VAC25-870- 76 [linear development project]; and, 9VAC25-870-85 [stormwater management impoundment structures or facilities]; 9VAC25-870-92 [comprehensive plans]; 9VAC25-870-93 [grandfathered projects]; 9VAC25-870-94 [applicability]; 9VAC25-870-95 [general]; 9VAC25-870-96 [water quality]; 9VAC25-870-97 [stream channel erosion]; 9VAC25-870-98 [flooding]; and 9VAC25-870-99 [regional plans], which shall apply to all land-disturbing activities regulated pursuant to this Ordinance, except as expressly set forth in Subsection (B) of this Section.

Notwithstanding the above references to specific sections of 9VAC25-870-60, the technical criteria are modified to include the following:

1. Stormwater runoff shall be calculated by the following methods unless an alternative method for a specific project has been approved by the Administrator:

a. Using the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) synthetic 24-hour rainfall distribution and models, including, but not limited to TR-55 and TR-20; hydrologic and hydraulic methods developed by the U.S. Army Corps of Engineers; or other standard hydrologic and hydraulic methods.

b. The Rational Method may be used for evaluating peak discharges or the Modified Rational Method for evaluating volumetric flows to stormwater conveyances with drainage areas of 200 acres or less.

2. Pre-development and post-development runoff rates shall be verified by

calculations that are consistent with good engineering practices and performed with methods approved and illustrated in the Virginia Stormwater Management Handbook. Calculations and designs must be prepared by a licensed professional engineer, a land surveyor – B, or certified landscape architect.

3. Retention or detention facilities shall be designed according to the standards and specifications in the Virginia Stormwater Management Handbook as amended. Stricter regulations may be enforced in areas



where the board of supervisors have established a general drainage improvement program. Development within these areas must also be in compliance with §9-13 (A).

4. Except for by right agricultural development, in cases of additions or incremental development, the pre-developed condition with respect to water quantity calculations submitted to demonstrate compliance with 9 VAC 25-870-66 C (Flood Protection) and D (sheet flow) shall be the condition that existed on January 1, 1990, and the pre-developed condition with respect to water quality calculations submitted to demonstrate compliance with 9 VAC 25-870-63 shall be the ground condition that existed on June 30, 2014. Stormwater detention or retention facilities may be required for proposed development where the sum of the currently proposed land disturbance and the existing impervious and semi-impervious surface is 10,000 square feet or greater and where there is a net increase in runoff between pre-developed and post-developed conditions. Existing stormwater management facilities must be verified adequate through calculations regardless of the type of development or the size of the addition or incremental development. (Ord. 10/28/15; Ord. 6/28/17)

5. Natural channel characteristics shall be preserved to the maximum extent practicable.

6. For manmade or restored conveyance systems, bottom slopes shall, where reasonably possible, be no less than 1%. Side slopes shall be no steeper than 3:1. If side slopes of 3:1 cannot be achieved, the easement shall be piped.

7. All well-defined manmade or restored conveyance systems across lots one-half (1/2) acre or less in area shall be installed within drainage easements on lot lines. For the purposes of this section a well-defined channel is a channel with side slopes steeper than 3:1 and deeper than 2 feet or otherwise would be difficult to maintain with normal lawn equipment.

8. Construction of stormwater management facilities within a Federal Emergency Management Agency (FEMA) designated 100-year floodplain shall be avoided to the extent possible. When this is unavoidable, all stormwater management facility construction shall be in compliance with all applicable regulations under the National Flood Insurance Program, 44 CFR Part 59, and Chapter 25, Division H, Article XLVII, Floodplain Overlay Districts and the Augusta County Code. These stormwater management facilities shall be designed and located, to the extent practical, to provide an unrestricted release up to at least the 25-year flood elevation of the receiving state water.



9. Any stormwater management facilities that are designed to have a permanent pool of water constructed in or adjacent to residential and commercial zoning areas shall be constructed with an aquatic bench or have a minimum of a six-foot fence installed around the perimeter of the facility.

10. Stormwater management facilities designed to detain or retain water on a temporary or permanent basis shall not be built on multiple lots, but located on one lot under single ownership. An access easement of sufficient width given site specific conditions, must be provided.

11. A construction record drawing for permanent stormwater management facilities shall be submitted to the Administrator. The construction record drawing shall be appropriately sealed and signed by a professional registered in the Commonwealth of Virginia, certifying that the stormwater management facilities have been constructed in accordance with the approved plan.

B. Until June 30, 2019, any land-disturbing activity for which a currently valid proffered or conditional zoning plan, preliminary or final subdivision plat, preliminary or final site plan or zoning with a plan of development, or any document determined by the County as being equivalent thereto, was approved by the County prior to July 1, 2012, and for which no coverage under a state permit has been issued prior to July 1, 2014 shall be considered grandfathered by the Administrator and shall not be subject to the technical criteria of Part II B [of the Regulations], but shall be subject to the technical criteria of Part II C [of the Regulations] and Chapter 18 of this Code as it existed at the time of such approval for those areas that were included in the approval, provided that the Administrator finds that such proffered or conditional zoning plan, preliminary or final subdivision plat, preliminary or final site plan or zoning with a plan of development, or any document determined by the County as being equivalent thereto, (i) provides for a layout as defined in 9VAC25-870-10 and (ii) the resulting land-disturbing activity will be compliant with the requirements of Part II C [of the Regulations]. In the event that the Locality-approved document is subsequently modified or amended in a manner such that there is no increase over the previously approved plat or plan in the amount of phosphorus leaving each point of discharge of the land-disturbing activity through stormwater runoff, and such that there is no increase over the previously approved plat or plan in the volume or rate of runoff, the grandfathering shall continue as before.

1. Until June 30, 2019, for local, state, and federal projects for which there has been an obligation of local, state, or federal funding, in whole or in part, prior to July 1, 2012, or for which DEQ has approved a stormwater management plan prior to July 1, 2012; a state permit has not been issued prior to July 1, 2014, and land disturbance did not commence prior to July 1, 2014 such projects shall be considered grandfathered by the County and shall not be subject to the technical requirements of Part II B of the Regulations, but shall be subject to the technical requirements of Part II C of the Regulations for those areas that were included in the approval.



2. For land-disturbing activities grandfathered under this Subsection shall remain subject to the Part II C [of the Regulations] for one additional state permit cycle. After such time, portions of the project not under construction shall become subject to the technical requirements of Subsection (a) above.

C. In cases where governmental bonding or public debt financing has been issued for a project prior to July 1, 2012, such project shall be subject to the technical requirements Part IIC of the Regulations.

D. The Administrator may grant exceptions to the technical requirements of Part II B or Part II C of the Regulations, provided that (i) the exception is the minimum necessary to afford relief, (ii) reasonable and appropriate conditions are imposed so that the intent of the Act, the Regulations, and this Ordinance are preserved, (iii) granting the exception will not confer any special privileges that are denied in other similar circumstances, and (iv) exception requests are not based upon conditions or circumstances that are self-imposed or self-created. Economic hardship alone is not sufficient reason to grant an exception from the requirements of this Ordinance.

1. Exceptions to the requirement that the land-disturbing activity obtain required VSMP authority permit shall not be given by the Administrator, nor shall the Administrator approve the use of a BMP not found on the Virginia Stormwater BMP Clearinghouse Website, or any other control measure duly approved by the Director.

2. Exceptions to requirements for phosphorus reductions shall not be allowed unless offsite options otherwise permitted pursuant to 9VAC25-870-69 have been considered and found not available.

E. Nothing in this Section shall preclude an operator from constructing to a more stringent standard at their discretion.

§ 9-12. Long-Term maintenance of permanent stormwater facilities

A. The Administrator shall require the provision of long-term responsibility for and maintenance of stormwater management facilities and other techniques specified to manage the quality and quantity of runoff. Such requirements shall be set forth in an instrument recorded in the local land records and shall at a minimum:

1. Be submitted to the Administrator for review and approval prior to the approval of the stormwater management plan;
2. Be stated to run with the land;
3. Provide for all necessary access to the property for purposes of maintenance and regulatory inspections;
4. Provide for inspections and maintenance and the submission of inspection and maintenance reports to the Administrator;



5. Be enforceable by all appropriate governmental parties; and

6. Be recorded among the land records prior to release of bonds.

B. At the discretion of the Administrator, such recorded instruments need not be required for stormwater management facilities designed to treat stormwater runoff primarily from an individual residential lot on which they are located, provided it is demonstrated to the satisfaction of the Administrator that future maintenance of such facilities will be addressed through an enforceable mechanism at the discretion of the Administrator.

C. If a recorded instrument is not required pursuant to Subsection 9-12 (B), the Administrator shall develop a strategy for addressing maintenance of stormwater management facilities designed to treat stormwater runoff primarily from an individual residential lot on which they are located. Such a strategy may include periodic inspections, homeowner outreach and education, or other method targeted at promoting the long-term maintenance of such facilities. Such facilities shall not be subject to the requirement for an inspection to be conducted by the Administrator.

D. For all types of development, the owner (s) or developer shall be responsible for maintenance of stormwater management facilities. In residential subdivisions only, the County may assume long-term maintenance of stormwater detention facilities and drainage easements from the developer in accordance with the provisions of the agreement required by Paragraph F below after eighty-five percent (85%) of the lots within the development have been built upon.

E. In residential subdivisions only, for final plats recorded on or after January 1, 2014 and where no homeowners association is required by this code, the County will assume both routine and long-term maintenance of stormwater detention or retention facilities in accordance with the percentage requirements of the above Paragraph D and in accordance with the provisions of the agreement required by Paragraph F below if the facility:

1. Has a capacity of at least fifteen thousand (15,000) cubic feet, and
2. Is located on property dedicated to the County.

F. For all types of development, including residential development, the responsibility of the property owner or developer and their successors for maintenance shall be set forth in a legal stormwater agreement which shall be recorded by the property owner or developer. This agreement is separate and distinct from any agreements and bonding required in accordance with a site plan or §21-36 (Subdivision). The agreement shall provide that:

1. The County will periodically conduct inspections to ensure stormwater management facilities are being properly maintained.
2. If deficiencies are found, the owner or developer and its successors will correct the deficiencies in a timely manner.



3. If applicable under Paragraph D above, the developer and its successors shall contact the county when the percentage requirement is met. At that time the county will conduct a final inspection and the developer and its successors will be notified of the results of the inspection. Any deficiencies shall be corrected by developer and its successors. If there are no deficiencies the county will accept the facilities for long term maintenance by written certificate. For purposes of this chapter, long term maintenance is defined as maintenance other than routine maintenance, such as the repair of erosion and failures that do not occur on a regular basis.

4. The property owners of all stormwater management facilities and easements shall be responsible for routine maintenance. For purposes of this chapter, routine maintenance is defined as mowing so that vegetation never exceeds the height limitation imposed in §15-22 of this code for the underlying zoning district and lot size, and removing debris and trash that occurs on a regular basis.

5. If the property owners fail to perform routine maintenance, the county reserves the right to complete the work. In such event the cost or expenses thereof shall be chargeable to and paid by the lot owners of such property and may be collected by the county as taxes and levies are collected.

§9-13. General drainage improvement programs and multi-jurisdictional systems.

A. When the board of supervisors has established a general drainage improvement program for an area having related and common drainage problems and within which the land owned or controlled by the subdivider or developer is located, the subdivider or developer shall pay a pro rata share of the cost of providing reasonable drainage facilities located outside the property limits of the land owned or controlled by the subdivider or developer but necessitated or required, at least in part, by the construction or improvement of the subdivision or development.

B. Where stormwater resulting from a project flows into another political jurisdiction, final approval of the proposed development may be deferred until the county and the other jurisdiction mutually agree that the proposed system will be satisfactory.

§9-14. Monitoring and inspections, Notice to Comply

A. The Administrator shall inspect the land-disturbing activity during construction in accordance with the County's VESCP Alternate Inspection Program for:

1. Compliance with the approved stormwater management plan;
2. Compliance with the approved erosion and sediment control plan;
3. Development, updating, and implementation of a pollution prevention plan; and
4. Development and implementation of any additional control measures necessary to address a TMDL.



B. The Administrator may, at reasonable times and under reasonable circumstances, enter any establishment or upon any property, public or private, for the purpose of obtaining information or conducting surveys or investigations necessary in the enforcement of the provisions of this Ordinance.

C. In accordance with a performance bond with surety, cash escrow, letter of credit, any combination thereof, or such other legal arrangement or instrument, the Administrator may also enter any establishment or upon any property, public or private, for the purpose of initiating or maintaining appropriate actions which are required by the permit conditions associated with a land-disturbing activity when a permittee, after proper notice, has failed to take acceptable action within the time specified.

D. Pursuant to § 62.1-44.15:40 of the Code of Virginia, the Administrator may require every VSMP authority permit applicant or permittee, or any such person subject to VSMP authority permit requirements under this Ordinance, to furnish when requested such application materials, plans, specifications, and other pertinent information as may be necessary to determine the effect of his discharge on the quality of state waters, or such other information as may be necessary to accomplish the purposes of this Ordinance.

E. Post-construction inspections of stormwater management facilities required by the provisions of this Ordinance shall be conducted by the Administrator pursuant to the Locality's adopted and state board approved inspection program, and shall occur, at minimum, at least once every five (5) years.

F. Notice to comply

1. If the Administrator determines that there is a failure to comply with the plan, notice shall be served upon the permittee or person responsible for carrying out the plan by registered or certified mail to the address specified in the permit application or in the plan certification, or by delivery at the site of the land-disturbing activities to the agent or employee supervising such activities.

2. The notice shall specify the measures needed to comply with the plan and shall specify the time within which such measures shall be completed. Upon failure to comply within the specified time, the permit may be revoked and the permittee or person responsible for carrying out the plan shall be deemed to be in violation of this ordinance and shall be subject to the penalties provided by this ordinance.

G. Action in case of violation

1. Upon determination of a violation of this ordinance, the Administrator may, in conjunction with or subsequent to a notice to comply as specified in this ordinance, issue an order requiring that all or part of the land-disturbing activities permitted on the site be stopped until the specified corrective measures have been taken.

2. If land-disturbing activities have commenced without an approved plan, the Administrator may, in conjunction with or subsequent to a notice to comply as specified in this ordinance, issue an order



requiring that all of the land-disturbing activities be stopped until an approved plan or any required permits are obtained.

3. Where the alleged noncompliance is causing or is in imminent danger of causing harmful erosion of lands or sediment deposition in waters within the watersheds of the Commonwealth, or where the land-disturbing activities have commenced without an approved plan or any required permits, a stop work order shall be issued without regard to whether the permittee has been issued a notice to comply as specified in this ordinance. Otherwise, such an order may be issued only after the permittee has failed to comply with such a notice to comply.

4. If the alleged violator has not obtained an approved plan or any required permits within seven days from the date of service of the order, the Administrator may issue an order to the owner requiring that all construction and other work on the site, other than corrective measures, be stopped until an approved plan and any required permits have been obtained.

5. The stop work order shall be served upon the owner by registered or certified mail to the address specified in the permit application or the land records of the County.

6. The owner may appeal the issuance of an order to the Augusta County Circuit Court.

7. Any person violating or failing, neglecting or refusing to obey an order issued by the Administrator may be compelled in a proceeding instituted in the Augusta County Circuit Court to obey same and to comply therewith by injunction or other appropriate remedy. Upon completion and approval of corrective action or obtaining an approved plan or any required permits, the stop work order shall immediately be lifted.

8. Nothing in this section shall prevent the Administrator from taking any other action authorized by this ordinance.

§ 9-15. Hearings and appeals

A. Any applicant under the provision of this ordinance who is aggrieved by any action or inaction of the Administrator or its agent pursuant to this ordinance shall have the right to apply for and receive a review of such action by the Board of Supervisors provided an appeal is filed within 30 days from the date of the action. Any applicant who seeks an appeal hearing before the Board of Supervisors shall be heard at the next regularly scheduled Board of Supervisors public hearing provided that the Board of Supervisors and other involved parties have at least 15 days prior notice. In reviewing the agent's actions, the Board of Supervisors shall consider evidence and opinions presented by the aggrieved applicant and agent. After considering the evidence and opinions, the Board of Supervisors may affirm, reverse or modify the action. The Board of Supervisor's decision shall be final, subject only to review by the Circuit Court of Augusta County.

B. A verbatim record of the proceedings of such hearings shall be taken and filed with the Board of Supervisor meeting minutes. Depositions may be taken and read as in actions at law.



C. Final decisions of the Administrator under this ordinance shall be subject to review by the Augusta County Circuit Court, provided an appeal is filed within 30 days from the date of any written decision adversely affecting the rights, duties, or privileges of the person engaging in or proposing to engage in land-disturbing activities. Decisions of the Circuit Court shall be subject to review by the Court of Appeals.

§ 9-16. Penalties, Injunctions, and other legal actions under the VESCP

A. Violators of any VESCP provision of this article shall be guilty of a class I misdemeanor.

B. The adoption of civil penalties according to this schedule shall be in lieu of criminal sanctions and shall preclude the prosecution of such violation as a misdemeanor under subsection (a) of this section (refer to Code of Virginia, § 62.1-44.15:63(A)).

1. A civil penalty in the amount listed on the schedule below shall be assessed against the owner of the property where the violation has occurred, for each violation of the respective offenses:

a. Commencement of land disturbing activity without an approved plan as provided in §1-4(A) shall be \$1,000.00/day.

b. A site with an approved erosion and sediment control plan or agreement in lieu of a plan found in violation of any of the 19 Minimum Standards shall be assessed civil penalties as follows:

Single Violation Multiple Violations

(Based on # of violations,

not to exceed amounts below)

1st Inspection: Warning issued Warning issued

2nd Inspection: \$100 \$250

3rd Inspection: \$150 \$500

4th Inspection: \$200 \$1,000

5th Inspection: \$250 \$1,500

6th Inspection: Refer to Co. Atty. Refer to Co. Atty.

c. Failure to obey a stop work order shall be \$100.00/day.

2. The permittee shall be notified of each violation and associate assessment in writing, via certified mail or by delivery at the site of the land-disturbing activities to the agent or employee supervising such activities. This notification shall be sent or posted no later than the first working day after the violation.



3. Each day during which the violation is found to have existed shall constitute a separate offense. However, in no event shall a series of specified violations arising from the same operative set of facts result in civil penalties which exceed a total of \$10,000.00, except that a series of violations arising from the commencement of land-disturbing activities without an approved plan for any site shall not result in civil penalties which exceed a total of \$10,000.00. The assessment of civil penalties according to this schedule shall be in lieu of criminal sanctions and shall preclude the prosecution of such violation as a misdemeanor under subsection (a) of this section.

C. The County, or the owner of property which has sustained damage or which is in imminent danger of being damaged, may apply to the Augusta County Circuit Court to enjoin a violation or a threatened violation of this article, without the necessity of showing that an adequate remedy at law does not exist. However, an owner of property will not apply for injunctive relief unless:

1. He has notified in writing the person who has violated the local program, and the County, that a violation of the local program has caused, or creates a probability of causing, damage to his property, and
2. Neither the person who has violated the local program nor the County has taken corrective action within 15 days to eliminate the conditions which have caused, or create the probability of causing, damage to his property.

D. In addition to any criminal penalties provided under this article, any person who violates any provision of this article may be liable to the County in a civil action for damages.

E. Without limiting the remedies which may be obtained in this section, any person violating or failing, neglecting, or refusing to obey any injunction, mandamus or other remedy obtained pursuant to this section shall be subject, in the discretion of the court, to a civil penalty not to exceed \$2,000.00 for each violation. A civil action for such violation or failure may be brought by the County. Any civil penalties assessed by a court shall be paid into the treasury of the County, except that where the violator is the locality itself, or its agent, the court shall direct the penalty to be paid into the state treasury.

F. With the consent of any person who has violated or failed, neglected or refused to obey any regulation or condition of a permit or any provision of this article, the County may provide an order for the payment of civil charges for violations in specific sums, not to exceed the limit specified in subsection (e) of this section. Such civil charges shall be instead of any appropriate civil penalty which could be imposed under subsection (b) or (e).

G. The County Attorney may, upon request of the Administrator, take legal action to enforce the provisions of this article.

H. Compliance with the provisions of this article shall be prima facie evidence in any legal or equitable proceeding for damages caused by erosion, siltation or sedimentation that all requirements of law have been met, and the complaining party must show negligence in order to recover any damages.



I. A Certificate of Occupancy and/or inspections by the County's building inspection department shall not be granted until all assessed civil penalties are paid and corrections to all erosion and sediment control practices have been made in accordance with the approved plans, notice of violation, stop work order, or agreement in lieu of a plan requirements, and accepted by the County.

J. Any violator may be required to restore land to its undisturbed condition or in accordance with a notice of violation, stop work order, or permit requirements. In the event that restoration is not undertaken within a reasonable time after notice, the County may take necessary corrective action, the cost of which shall be covered by the performance bond, or become a lien upon the property to be collected as taxes or levies, or be billed directly to the land owner.

§9-17. Enforcement

A. If the Administrator determines that there is a failure to comply with the VSMP authority permit conditions or determines there is an unauthorized discharge, notice shall be served upon the permittee or person responsible for carrying out the permit conditions by any of the following: verbal warnings and inspection reports, notices of corrective action, consent special orders, and notices to comply. Written notices shall be served by registered or certified mail to the address specified in the permit application or by delivery at the site of the development activities to the agent or employee supervising such activities.

1. The notice shall specify the measures needed to comply with the permit conditions and shall specify the time within which such measures shall be completed. Upon failure to comply within the time specified, a stop work order may be issued in accordance with Subsection (b) or the permit may be revoked by the Administrator.

2. If a permittee fails to comply with a notice issued in accordance with this Section within the time specified, the Administrator may issue an order requiring the owner, permittee, person responsible for carrying out an approved plan, or the person conducting the land-disturbing activities without an approved plan or required permit to cease all land-disturbing activities until the violation of the permit has ceased, or an approved plan and required permits are obtained, and specified corrective measures have been completed.

Such orders shall become effective upon service on the person by certified mail, return receipt requested, sent to his address specified in the land records of the locality, or by personal delivery by an agent of the Administrator. However, if the Administrator finds that any such violation is grossly affecting or presents an imminent and substantial danger of causing harmful erosion of lands or sediment deposition in waters within the watersheds of the Commonwealth or otherwise substantially impacting water quality, it may issue, without advance notice or hearing, an emergency order directing such person to cease immediately all land-disturbing activities on the site and shall provide an opportunity for a hearing, after reasonable notice as to the time and place thereof, to such person, to affirm, modify, amend, or cancel such emergency order. If a person who has been issued an order is not complying with the terms thereof, the Administrator may institute a proceeding for an injunction, mandamus, or other appropriate remedy in accordance with Subsection 9- 17 (c).



B. In addition to any other remedy provided by this Ordinance, if the Administrator or his designee determines that there is a failure to comply with the provisions of this Ordinance, they may initiate such informal and/or formal administrative enforcement procedures in a manner that is consistent with the enforcement provisions contained in §1-12 of this chapter, *mutatus mutandus*.

C. Any person violating or failing, neglecting, or refusing to obey any rule, regulation, ordinance, order, approved standard or specification, or any permit condition issued by the Administrator may be compelled in a proceeding instituted in the Circuit Court of Augusta County by the County to obey same and to comply therewith by injunction, mandamus or other appropriate remedy.

D. Any person who violates any VSMP related provision of this Ordinance or who fails, neglects, or refuses to comply with any order of the Administrator, shall be subject to a civil penalty not to exceed \$32,500 for each violation within the discretion of the court. Each day of violation of each requirement shall constitute a separate offense.

1. Violations for which a penalty may be imposed under this Subsection shall include but not be limited to the following:

a. No state permit registration;

b. No SWPPP;

c. Incomplete SWPPP;

d. SWPPP not available for review;

e. No approved erosion and sediment control plan;

f. Failure to install stormwater BMPs or erosion and sediment controls;

g. Stormwater BMPs or erosion and sediment controls improperly installed or maintained;

h. Operational deficiencies;

i. Failure to conduct required inspections;

j. Incomplete, improper, or missed inspections; and

k. Discharges not in compliance with the requirements of Section 9 VAC 25-880- 70 of the general permit.

2. The Administrator may issue a summons for collection of the civil penalty and the action may be prosecuted in the appropriate court.

3. In imposing a civil penalty pursuant to this Subsection, the court may consider the degree of harm caused by the violation and also the economic benefit to the violator from noncompliance.



4. Any civil penalties assessed by a court as a result of a summons issued by the Locality shall be paid into the treasury of the County to be used for the purpose of minimizing, preventing, managing, or mitigating pollution of the waters of the locality and abating environmental pollution therein in such manner as the court may, by order, direct.

E. Notwithstanding any other civil or equitable remedy provided by this Section or by law, any person who willfully or negligently violates any provision of this Ordinance, any order of the Administrator, any condition of a permit, or any order of a court shall, be guilty of a misdemeanor punishable by confinement in jail for not more than 12 months or a fine of not less than \$2,500 nor more than \$32,500, or both.

§9-18. Permits; Fees; Security for Performance

A. No person may engage in a land disturbing activity until they have acquired the necessary permits, have paid all applicable fees per the current policy of the Board of Supervisors, posted the required bond and installed all perimeter controls, unless the proposed land-disturbing activity is specifically exempt from the provisions of this ordinance.

B. Fees for a land disturbing permit when a SWM permit is not also required.

An administrative fee shall be paid to the County at the time of submission of the land disturbance permit application. The land disturbance permit fee is separate from all other fees paid to other departments in the County. The following fee is hereby adopted and shall be applied to land disturbance permits:

1. Land disturbance: where no more than one acre disturbed -- \$500.00
2. Fees for applications requiring sediment basins -- \$100.00 each basin
3. Fees for applications requiring stream crossings -- \$100.00 each crossing
4. Fee for applications requiring storm water detention or retention facilities -- \$250.00 each facility
5. Additional fee for applications requiring newly constructed storm water conveyance channels -- \$50.00 for each channel
6. Additional fee for each resubmittal of the required erosion and sediment control plan due to the owner's failure to include required information -- \$100.00

C. Fees for coverage under the general permit shall be imposed in accordance with Table 1. When a site or sites has been purchased for development within a previously permitted common plan of development or sale, the applicant shall be subject to fees in accordance with the disturbed acreage of their site or sites according to Table 1.

Table 1: Fees for coverage for new sites and sites purchased for development within a previously permitted common plan of development or sale



Type of Permit	Total Fee Amount	State Share (28%)	County Share (72%)
Agreement in lieu of a plan of a SWPPP and/or Erosion and Sediment Control Plan in the construction of a single family dwelling	\$250	N/A	\$250
VSMP General / Stormwater Management - Small Construction Activity/Land Clearing (Areas within common plans of development or sale with land disturbance acreage less than 1 acre.)	\$600	\$81.00	\$519.00
VSMP General / Stormwater Management - Small Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 1 acre and less than 5 Acres)	\$2,700	\$756	\$1,944
VSMP General / Stormwater Management – Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 5 acres and less than 10 acres)	\$3,400	\$952	\$2,448
VSMP General / Stormwater Management – Large Construction Activity/Land Clearing [Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 10 acres and less than 50 acres]	\$4,500	\$1,260	\$3,240
VSMP General / Stormwater Management – Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 50 acres and less than 100 acres)	\$6,100	\$1,708	\$4,392
VSMP General / Stormwater Management – Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 100 acres)	\$9,600	\$2,688	\$6,912

(Ord. 10/28/15)

D. Fees for the modification or transfer of registration statements from the general permit issued by the County shall be imposed in accordance with Table 2. If the permit modifications result in changes to stormwater management plans that require additional review by the County, such reviews shall be subject to the fees set out in Table 2. The fee assessed shall be based on the total disturbed acreage of the site. In addition to the general permit modification fee, modifications resulting in an increase in total disturbed acreage shall pay the difference in the initial permit fee paid and the permit fee that would have applied for the total disturbed acreage in Table 1.

Table 2: Fees for the modification or transfer of registration statements for the General Permit for Discharges of Stormwater from Construction Activities

Type of Permit	Fee Amount
VSMP General / Stormwater Management – Small Construction Activity/Land Clearing (Areas within common plans of development or sale with land disturbance acreage less than 1 acre)	\$20



VSMP General / Stormwater Management – Small Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 1 and less than 5 acres)	\$200
VSMP General / Stormwater Management – Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 5 acres and less than 10 acres)	\$250
VSMP General / Stormwater Management – Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 10 acres and less than 50 acres)	\$300
VSMP General / Stormwater Management – Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 50 acres and less than 100 acres)	\$450
VSMP General / Stormwater Management – Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 100 acres)	\$700

E. Permit maintenance fees. (9VAC-870-830):

The following annual permit maintenance shall be imposed in accordance with Table 3, including fees imposed on expired permits that have been administratively continued. With respect to the general permit, these fees shall apply until the permit coverage is terminated.

Table 3: Permit Maintenance Fees Type of Permit	Fee Amount
VSMP General / Stormwater Management – Small Construction Activity/Land Clearing (Areas within common plans of development or sale with land disturbance acreage less than 1 acre)	\$50
VSMP General / Stormwater Management – Small Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance equal to or greater than 1 acre and less than 5 acres)	\$400
VSMP General / Stormwater Management – Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 5 acres and less than 10 acres)	\$500
VSMP General / Stormwater Management – Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 10 acres and less than 50 acres)	\$650
VSMP General / Stormwater Management – Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater than 50 acres and less than 100 acres)	\$900
VSMP General / Stormwater Management – Large Construction Activity/Land Clearing (Sites or areas within common plans of development or sale with land disturbance acreage equal to or greater 100 acres)	\$1,400

General permit coverage maintenance fees shall be paid annually to the County, by the anniversary date of general permit coverage. No permit will be reissued or automatically continued without payment of the required fee. General permit coverage maintenance fees shall be applied until a Notice of Termination is effective.



F. The fees set forth in Sections C-E, above shall apply to:

1. All persons seeking coverage under the general permit.
2. All permittees who request modifications to or transfers of their existing registration statement for coverage under a general permit.
3. Persons whose coverage under the general permit has been revoked shall apply to DEQ for an Individual Permit for Discharges of Stormwater from Construction Activities.
4. Permit and permit coverage maintenance fees outlined under Section E may apply to each general permit holder.
5. County departments, groups, organizations or agencies specified in the County of Augusta Fee Waiver Policy approved by the Board of Supervisors will pay 28% of any required VSMP fee to the state in accordance with the fee schedule in §9-16, item C.

G. No permit application fees will be assessed to:

1. Permittees who request minor modifications to permits as defined in Section 9-3 of this chapter. Permit modifications at the request of the permittee resulting in changes to stormwater management plans that require additional review by the Administrator shall not be exempt pursuant to this section.
2. Permittees whose permits are modified or amended at the initiative of DEQ, excluding errors in the registration statement identified by the Administrator or errors related to the acreage of the site.

H. All incomplete payments will be deemed as nonpayments, and the applicant shall be notified of any incomplete payments. Interest may be charged for late payments at the underpayment rate set forth in §58.1-15 of the Code of Virginia and is calculated on a monthly basis at the applicable periodic rate. A 10% late payment fee shall be charged to any delinquent (over 90 days past due) account. The County shall be entitled to all remedies available under the Code of Virginia in collecting any past due amount.

I. No land-disturbing permit shall be issued until the applicant submits with his application approved erosion and sediment control plan and certification that the plan will be followed and all perimeter erosion and sediment control measures have been installed, inspected and approved by the Administrator.

J. All applicants for permits will provide to the Administrator a performance bond, cash escrow, or an irrevocable letter of credit acceptable to the Administrator and the County Attorney, to ensure that measures could be taken by the plan approving authority at the applicant's expense should the applicant fail, after proper notice, within the time specified to initiate or maintain appropriate conservation measures required of him by the approved plan as a result of his land-disturbing activity.

The amount of the bond or other security for performance shall not exceed the total of the estimated cost to initiate and maintain appropriate conservation action based on unit price for new public or private sector construction in the locality and a reasonable allowance for estimated administrative costs and inflation which shall not exceed twenty-five percent of the cost of the conservation action.



Should it be necessary for the plan approving authority to take such conservation action, the Administrator may collect from the applicant any costs in excess of the amount of the surety held.

Once the Administrator approves the conservation plan and receives a completed application for land disturbing permit, applicable fees and the required surety bond, the Administrator will issue a Perimeter Erosion and Sediment Control Permit. The owner may then install all perimeter controls as detailed in the approved erosion plan as indicated by Virginia Code, § 9VAC25-870-40 (4). Once perimeter controls are functional and seeded/stabilized, the Administrator will inspect erosion measures. If installed measures are satisfactory to the Administrator, a land disturbing permit shall be issued.

Within sixty (60) days of adequate stabilization, as determined by the Administrator in any project or section of a project, such bond, cash escrow or letter of credit, or the unexpended or unobligated portion thereof, shall be either refunded to the applicant or terminated, based upon the percentage of stabilization accomplished in the project or project section. These requirements are in addition to all other provisions relating to the issuance of permits and are not intended to otherwise affect the requirements for such permits.

AUGUSTA COUNTY STORMWATER AND EROSION CONTROL PROGRAM PERMIT REQUIREMENTS



Augusta County
MS4 Program Plan
Appendix

V2 – April 17, 2014

	ESC Plan & Land Disturbing Permit Required	SWM Plan and VSMP Permit Required	Pollution Prevention Plan Required	Additional Control Measures - TMDL
Development < 10,000 ft ² and not part of a common plan of development disturbing ≥ 10,000 ft ² .	NO	NO	NO	NO
Development < 10,000 ft ² , and IS part of a common plan of development disturbing ≥ 10,000 ft ² but ≤ 1 acre.	YES	NO	NO	YES
Development < 10,000 ft ² , and IS part of a common plan of development disturbing ≥ 1 acre.	YES	YES	YES	YES
Development ≥ 10,000 ft ² and < 1 acre and IS NOT part of a common plan of development disturbing ≥ 1 acre.	YES	NO	NO	YES
Development disturbing ≥ 1 acre or IS part of a common plan of development disturbing ≥ 1 acre	YES	YES	YES	YES

Agreement-In-Lieu of an Erosion and Sediment Control Plan and SWPPP may be permitted for construction of Single Family Dwelling



Appendix 4.2 - Tabular Rating System for Inspections

Augusta County Tabular Rating System - Inspections

Project Name: _____ ESC#: _____ Date _____.

Distance to Watercourse	Rating	Soil Erodibility (based on K factor)	Rating
Less than 50 feet	5	Low (0.23 and lower)	1
50 feet to 150 feet	3	Moderate (0.24 - 0.36)	3
Greater than 150 feet	0	High (0.37 and higher)	5
<u>Score</u>		<u>Score</u>	
Buffer:		Buffer Vegetation Condition	
0 - 50 feet - 5	5	Very Good	0
50 - 100 feet - 3	3	Dense Grass, Hay Field Good	1
150 - 300 feet - 1	1	Avg. Grass, Forest, Good Pasture Fair	3
Greater than 300 feet - 0	0	Poor Grass, Fair Pasture Poor Bare	5
<u>Score</u>		<u>Score</u>	
Distance from Disturbance to Downstream Adjacent Property		Critical Slope	
Less than 50 feet - 5	5	Greater than 15% and Greater than or = to 75' slope length or	
50 feet to 150 feet - 3	3	Is the slope:	If YES 3
Greater than 150 feet - 0	0	0-7%, Greater than or Equal to 300' slope length or	If NO 0
<u>Score</u>		7-15%, Greater than or Equal to 150' slope length?	
		<u>Score</u>	
Stage of Construction		Presence of Large Scale Measures	
Clearing & Grubbing	5	Sediment Basin	3
Rough Grading	4	Sediment Trap	2
Building Construction	3	Diversion / Slope Drain	1
Finish Grading	2		
Final Stabilization	1		
<u>Score</u>		<u>Score</u>	
Crossing Water Course		Approximate Disturbed Acreage	
YES - No rating - MUST inspect at a minimum 2-week frequency		<1 acre	0
NO - 0		1 to 3 acre	3
		3 to 5 acres	5
<u>Score</u>		> 5 acres No rating - MUST inspect at a minimum 2-week frequency	
		<u>Score</u>	

Total Score: _____

Initials: _____.

OVERALL RATING INSPECTION

(Total of the above 10 categories) RETURN FREQUENCY

If is 34+ then - Once every 2-Weeks*

If is 28-34 then - Once every 4-Weeks*

If is 21-27 then - Once every 8-Weeks* If is 20 or less then - None - Monitor on complaint basis

* - In addition, inspection will be provided at the beginning and completion of projects.



Appendix 5.1 – Stormwater BMP Maintenance Form

FACILITY ID: _____		DATE: ___/___/___	ASSESSED BY: _____
NAME: _____			HANDHELD/ GPS ID: _____
ADDRESS: _____			
PHOTO IDS: _____			
SECTION 1- BACKGROUND INFORMATION (GIS)			
BMP TYPE : <input type="checkbox"/> Dry Detention Pond <input type="checkbox"/> Dry Swale <input type="checkbox"/> Wetland <input type="checkbox"/> Extended Detention Pond <input type="checkbox"/> Wet Swale <input type="checkbox"/> Level Spreader <input type="checkbox"/> Wet Pond <input type="checkbox"/> Grass Channel <input type="checkbox"/> WQ Inlet <input type="checkbox"/> Filter (specify: _____) <input type="checkbox"/> Dry Well <input type="checkbox"/> Proprietary Device <input type="checkbox"/> Infiltration (specify: _____) <input type="checkbox"/> Permeable Pavement <input type="checkbox"/> Other <input type="checkbox"/> Check if structure is underground <input type="checkbox"/> Bioretention			YEAR CONSTRUCTED: _____ OWNERSHIP <input type="checkbox"/> Public <input type="checkbox"/> Private <input type="checkbox"/> Unknown
SITE CHARACTERIZATION			
DRAINAGE AREA: _____ (acres) IMPERVIOUS COVER: _____ (acres) Discerned from: <input type="checkbox"/> Plan <input type="checkbox"/> County Data <input type="checkbox"/> GIS <input type="checkbox"/> Field			
CONTRIBUTING DRAINAGE AREA (% land use): <i>Note – All percentages should sum up to 100%.</i> _____ Industrial _____ Commercial _____ Urban/Residential _____ Suburban/Res _____ Forested _____ Institutional _____ Golf course _____ Park _____ Crop _____ Pasture _____ Other: _____			WATER QUALITY VOL (FROM DESIGN PLAN): _____ (ft ³)
SECTION 2- FIELD VISIT			
Rain in last 48 hrs? <input type="checkbox"/> Yes <input type="checkbox"/> No		Evidence of high water table (e.g., excessive soil saturation)? <input type="checkbox"/> Yes <input type="checkbox"/> No	
DESIGN ELEMENTS			
FACILITY SIZE: Length: _____ (ft) Width: _____ (ft) Surface Area: _____ (ft ²) Depth of WQ storage _____ (ft)	OBSERVED WQ STORAGE VOL: _____ (ft ³)	HYDRAULIC CONFIGURATION <input type="checkbox"/> On-line Facility <input type="checkbox"/> Off-line Facility	DESIGN STORM(S): <input type="checkbox"/> Water Quality <input type="checkbox"/> Flood Control <input type="checkbox"/> Channel Protection <input type="checkbox"/> Unknown
BMP SIGNAGE: (check all that apply) <input type="checkbox"/> None <input type="checkbox"/> Flood Warning <input type="checkbox"/> Stormwater Education <input type="checkbox"/> No Trespassing <input type="checkbox"/> Wildlife Habitat <input type="checkbox"/> Public Property <input type="checkbox"/> Do Not Mow <input type="checkbox"/> Other: _____			
OUTLET CHARACTERISTICS			
PRIMARY OUTLET STRUCTURE:	<input type="checkbox"/> N/A – infiltration w/ no outlet <input type="checkbox"/> Pipe <input type="checkbox"/> Riser <input type="checkbox"/> Weir <input type="checkbox"/> Large Storm Overflow <input type="checkbox"/> Open channel <input type="checkbox"/> Large Storm By-pass <input type="checkbox"/> Other: _____		
OUTLET FEATURES:	<input type="checkbox"/> N/A <input type="checkbox"/> Trash Rack <input type="checkbox"/> Pond Drain <input type="checkbox"/> Inverted outlet pipe <input type="checkbox"/> Hooded outlet <input type="checkbox"/> Anti-vortex device <input type="checkbox"/> Perforated pipe <input type="checkbox"/> Gravel Diaphragm <input type="checkbox"/> Micropool outlet <input type="checkbox"/> Multiple outlet levels <i>Outlet includes restrictor?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No		
OUTLET STRUCTURE CONDITIONS:	Erosion at Outlet: <input type="checkbox"/> None <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe Outlet Clogging: <input type="checkbox"/> None <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe Structural Problems: <input type="checkbox"/> None <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe		
CONDITIONS AT OUTFALL:	<input type="checkbox"/> Stream <input type="checkbox"/> Closed storm sewer <input type="checkbox"/> Surface channel <input type="checkbox"/> Road ditch <input type="checkbox"/> Other: _____ <input type="checkbox"/> Unknown		
Active Erosion: <input type="checkbox"/> None <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe Trash: <input type="checkbox"/> None <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe Sedimentation: <input type="checkbox"/> None <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe	Odor: <input type="checkbox"/> None <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe Algae: <input type="checkbox"/> None <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe	Other WQ Problems: <input type="checkbox"/> None <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe	
Emergency Spillway Type: <input type="checkbox"/> Channel <input type="checkbox"/> Riser Overflow <input type="checkbox"/> Weir <input type="checkbox"/> Other: _____			



SOIL OR FILTER MEDIA			
TYPE OF FILTER/INFILTRATION MEDIA: (check all that apply) <input type="checkbox"/> Soil mix _____ (in) <input type="checkbox"/> Sand _____ (in) <input type="checkbox"/> Gravel _____ (in) <input type="checkbox"/> Large Stone _____ (in) <input type="checkbox"/> Organic material _____ (in) <input type="checkbox"/> Other _____ <input type="checkbox"/> N/A <input type="checkbox"/> Unknown Avg. depth of sediment build-up on surface? _____ (in)			
SOIL MEDIA SAMPLE: <i>Note – Complete during site investigation, if applicable</i> Dominant Soil Type <input type="checkbox"/> Clay <input type="checkbox"/> Loam <input type="checkbox"/> Sand <input type="checkbox"/> Sand/Loam Is the soil homogenous? <input type="checkbox"/> Yes <input type="checkbox"/> No			Comments:
VEGETATION			
GENERAL OBSERVATIONS: <input type="checkbox"/> Landscaped <input type="checkbox"/> Aquatic Bench <input type="checkbox"/> Invasive Species <input type="checkbox"/> Plant Diversity		TYPE OF GROUND COVER (% of Surface Area in Plan View up to low Outlet): <i>Note – All percentages should sum up to 100 %</i> _____ Trees _____ Grasses/Perennials _____ Ponded water _____ Other: _____ _____ Managed Turf _____ Bare Soil _____ Shrubs _____ N/A _____ Gravel/stone _____ Mulch _____ Emergent wetland	
Depth of mulch, if present: <input type="checkbox"/> Hardwood _____ (in) <input type="checkbox"/> Pine Straw _____ (in) <input type="checkbox"/> Other _____ (in) Rate degree of shading of BMP Surface Area by trees: <input type="checkbox"/> Well Shaded <input type="checkbox"/> Some Shading <input type="checkbox"/> No Shading <input type="checkbox"/> N/A			
INLET CHARACTERISTICS			
INLET #1: Diameter/Width: _____ (in)		TYPE OF INLET: <input type="checkbox"/> Open Channel <input type="checkbox"/> Closed Pipe <input type="checkbox"/> Sheet Flow <input type="checkbox"/> Curb Cut <input type="checkbox"/> Other: _____	
INLET SUBMERSION: <input type="checkbox"/> Complete <input type="checkbox"/> Partial <input type="checkbox"/> None		INLET CONDITIONS: Inlet Erosion <input type="checkbox"/> None <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe Inlet Clogging <input type="checkbox"/> None <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe Structural Problems <input type="checkbox"/> None <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe	
Elevation difference between bottom of inlet and BMP surface: _____ (in)		Comments:	
INLET #2: Diameter/Width: _____ (in)		TYPE OF INLET: <input type="checkbox"/> Open Channel <input type="checkbox"/> Closed Pipe <input type="checkbox"/> Sheet Flow <input type="checkbox"/> Curb Cut <input type="checkbox"/> Other: _____	
INLET SUBMERSION: <input type="checkbox"/> Complete <input type="checkbox"/> Partial <input type="checkbox"/> None		INLET CONDITIONS: Inlet Erosion <input type="checkbox"/> None <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe Inlet Clogging <input type="checkbox"/> None <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe Structural Problems <input type="checkbox"/> None <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe	
Elevation difference between bottom of inlet and BMP surface: _____ (in)		Comments:	
PRETREATMENT			
TYPE OF PRETREATMENT (check all that apply) <input type="checkbox"/> None <input type="checkbox"/> Sediment Forebay (_____ ft ³) <input type="checkbox"/> Grass Channel <input type="checkbox"/> Riprap Channel or Apron		PRETREATMENT FUNCTION <input type="checkbox"/> By design <input type="checkbox"/> Incidental Is pretreatment functioning? <input type="checkbox"/> Yes <input type="checkbox"/> No Is sediment removal necessary? <input type="checkbox"/> Yes <input type="checkbox"/> No Signs of pretreatment bypass? <input type="checkbox"/> Yes <input type="checkbox"/> No Signs of flow of sediment from pretreatment to BMP? <input type="checkbox"/> Yes <input type="checkbox"/> No Severity: <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe	
<input type="checkbox"/> Grass Filter Strip <input type="checkbox"/> Plunge Pool? <input type="checkbox"/> Stone Diaphragm <input type="checkbox"/> Other: _____			
GENERAL DESIGN			
BMP FEATURES (check all that apply) <input type="checkbox"/> Maintenance Access <input type="checkbox"/> Underdrain <input type="checkbox"/> Fence <input type="checkbox"/> Clean Out <input type="checkbox"/> Pond Drain <input type="checkbox"/> Multi-cell <input type="checkbox"/> Observation Well <input type="checkbox"/> Other: _____ <input type="checkbox"/> Micropool Is water present in observation well? <input type="checkbox"/> Impermeable Liner <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: _____ ft			
CONVEYANCE THROUGH BMP <input type="checkbox"/> No Defined Channel <input type="checkbox"/> Low Flow Channel <input type="checkbox"/> Concrete <input type="checkbox"/> Eroded <input type="checkbox"/> Earthen <input type="checkbox"/> Other _____ Length of Shortest Flow Path: _____ (ft)		Is BMP designed with a Permanent Pool? <input type="checkbox"/> Yes <input type="checkbox"/> No	



PERFORMANCE									
GENERAL PROBLEMS: (check all that apply)									
<input type="checkbox"/> Maintenance Needed	<input type="checkbox"/> Erosion at Embankments	<input type="checkbox"/> Permanent Pools not stable							
<input type="checkbox"/> Water Bypass of Inlet	<input type="checkbox"/> Erosion within Facility	<input type="checkbox"/> Inadequate vegetation							
<input type="checkbox"/> Water Bypass of Outlet	<input type="checkbox"/> Deposition within Facility	<input type="checkbox"/> Dead or Diseased Vegetation							
<input type="checkbox"/> Incorrect Flow Paths	<input type="checkbox"/> Inappropriate Ponding of Water	<input type="checkbox"/> Too many invasive plants							
<input type="checkbox"/> Short-circuiting of treatment mechanism	<input type="checkbox"/> Clogged Pond Drain/Underdrain	<input type="checkbox"/> Trees on Embankment							
<input type="checkbox"/> No or ineffective treatment	<input type="checkbox"/> Clogged Media	<input type="checkbox"/> Failing structural components							
<input type="checkbox"/> Ineffective pretreatment	<input type="checkbox"/> Inappropriate media material	<input type="checkbox"/> Safety issue (Note: _____)							
<input type="checkbox"/> Others _____	<input type="checkbox"/> Inappropriate underlying soil (infiltration)								
WATER QUALITY IN FACILITY: <input type="checkbox"/> N/A		EVIDENCE OF:							
Algae <input type="checkbox"/> None <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe		<input type="checkbox"/> Geese							
Odor <input type="checkbox"/> None <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe		<input type="checkbox"/> Animal Burrows							
Turbidity <input type="checkbox"/> None <input type="checkbox"/> Slight <input type="checkbox"/> Moderate <input type="checkbox"/> Severe		<input type="checkbox"/> Mosquitoes							
Color <input type="checkbox"/> Normal <input type="checkbox"/> Abnormal:		<input type="checkbox"/> BMP Alteration							
PROBLEM	1=NONE	2 - FEW	3 - SEVERAL	4-SEVERE					
TRASH	No evidence of trash	A few pieces of trash throughout BMP	Trash accumulation near inlet/outlet	Lots of trash in BMP or BMP used for storage					
BMP BANK EROSION	No noticeable erosion	Slight erosion < 5% of bank affected	Moderate erosion ~15% of bank affected	Banks severely eroded, >25% of bank affected					
SEDIMENT DEPOSITION	No sediment deposition	Areas of minor sediment deposition	Areas of some deposition, may be severe near inlet/outlets	Lots of deposition resulting in pond bottom clogging					
SURFACE SLOPE	0-1% BMP surface slope	1-3% BMP surface slope or steeper slopes with check dams,	3-5% BMP surface slope with no check dams,	>5% surface slope;					
SIDE SLOPES	BMP side slopes 3:1 or flatter	BMP side slopes 2:1	Steep BMP side slopes	Risk of side slope failure					
STRUCTURAL	No evidence of structural damage	Minor problems (e.g., bank slump, eroded channels)	Moderate structural problems -failure pending	Structural failures (e.g., bank failure, blowout)					
VISIBILITY	High visibility, near high-traffic areas	Some visibility, near traffic areas	Limited visibility, near low traffic areas	No visibility, behind buildings or fences					
ACCESSIBILITY	Maintained access area for vehicles	Access area designated, but not maintained	Access for vehicles not designated	Access for vehicles not possible					
VEG COVER	No mowing in/around BMP	Mowing along BMP edges but areas of no mow in BMP bottom	Mowed turf vegetation	BMP bottom has large areas of bare soil					
	Dense plant cover (>75%)	Plant cover, 50-75%	Some plant cover, 25-50%	Sparse vegetative cover (<25%),					
VEG HEALTH	TREES	Healthy and established	Slightly stressed	Stressed	Dead				
	GROUND COVER	Healthy and established	Slightly stressed	Stressed	Dead				
	SHRUBS	Healthy and established	Slightly stressed	Stressed	Dead				
	EMERGENT WETLAND	Healthy and established	Slightly stressed	Stressed	Dead				
OVERALL PERFORMANCE SCORE (circle one number)									
Excellent design and function, no general problems with performance	BMP is well designed, but is undersized or has a few performance problems	BMP is adequately designed, several problems with performance are noted	Poor BMP design, severe performance problems or failure						
10	9	8	7	6	5	4	3	2	1



FIELD NOTES

GOOD OR INTERESTING DESIGN FEATURES:

PHOTO #'S:

POOR OR PROBLEMATIC DESIGN FEATURES:

PHOTO #'S:

SECTION 3 – DESIGN PLAN VERIFICATION

PLAN AVAILABLE: As-built Other: _____

Do field observations match design plans/as-builts? Describe any differences.

Soil type in facility N/A Yes No If no, describe:

Pretreatment type and size N/A Yes No If no, describe:

Signage N/A Yes No If no, describe:

Low-flow channel N/A Yes No If no, describe:

Dimensions/volume N/A Yes No If no, describe:

Inlet type, #, and sizing N/A Yes No If no, describe:

Outlet type, #, and sizing N/A Yes No If no, describe:

Vegetation composition N/A Yes No If no, describe:

Other features N/A Yes No If no, describe:



Appendix 5.2 – Stormwater Easement Checklist



COUNTY OF AUGUSTA
COMMONWEALTH OF VIRGINIA
DEPARTMENT OF COMMUNITY DEVELOPMENT
P.O. BOX 590
COUNTY GOVERNMENT CENTER
VERONA, VA 24482-0590



Location of Facility:	Inspectors Name:
Inspection Date:	Type of Facility:

	Yes/No	Repair	Investigate	Comments
EMBANKMENT CREST				
Visual Settlement				
Misalignment				
Cracking				
Trees/Shrubs				
EMBANKMENT SLOPES				
Erosion				
Adequate Groundcover				
Trees, Shrubs or other				
Cracks, Settlement or Bulges				
Rodent holes				
ABUTMENTS				
Erosion				
Seepage				
Cracks				
SEEPAGE				
Seepage along embankment				
EMERGENCY SPILLWAY				
Eroding or Back cutting				
Obstructed				
Leaking				
PRINCIPAL SPILLWAY BARREL				
Seepage into Conduit				
Debris Present				
Displaced or Offset Joints				
OUTLET PROTECTION				
Obstructed				
Adequate Riprap				



Undercutting at Outlet				
Outlet Channel Scour				
Sediment Accumulation				
BASIN LOW FLOW CHANNEL				
Erosion				
Adequate Vegetation				
Obstructed				
BASIN BOTTOM & SIDE SLOPES				
Erosion				
Adequate Vegetation				
Sediment Accumulation				
Floating Debris				
High Water Marks				
Trees, Shrubs, or other				
INFLOW CHANNELS/PIPES				
Erosion				
Adequate Stabilization				
Undercutting				
Sediment Accumulation				
Obstructed				
OVERALL CONDITION OF FACILITY	GOOD	NEEDS MAINTENANCE	NEEDS REPAIR	



Appendix 6.1 County Owned Lands SWPPP and NMP

Property ID	SWPPP	NMP
Mill Place Industrial Park	No	Yes
Augusta Co Government Center Complex	Yes	Yes
Augusta Co Library – Fishersville	No	Yes
Does Not Need Implementation Plan		
Co10 Fire House (1026 Richmond Road, Staunton)	No	No
Courthouse Complex (E Johnston St, Staunton)	No	No
Verona Park	No	No

High-Priority/High Potential Facilities Checklist

Complete one form for each facility your department owns/operates.

- **Facility Name:** _____
- **Address:** _____
- **Tax Map #:** _____
- **Department:** _____
- **Person Completing This Form:** _____

Describe activities that occur at this facility:

1) Does this facility include any of the following?

Check all that apply:

- Composting facilities
- Equipment storage and maintenance facilities
- Materials storage yards
- Pesticide storage facilities
- Public works yards
- Recycling facilities
- Salt storage facilities
- Solid waste handling and transfer facilities
- Vehicle storage and maintenance yards



Other/not sure (Describe: _____)

If none checked, stop here.

If any checked above, you have a “high-priority facility”. Continue to Section #2:

2) Does this facility include any of the following?

Check all that apply:

Areas where residuals from using, storing or cleaning machinery or equipment remain and are exposed to stormwater

Materials or residuals on the ground or in stormwater inlets from spills or leaks

Material handling equipment (except adequately maintained vehicles)

Materials or products that would be expected to be mobilized in stormwater runoff during loading/unloading or transporting activities (e.g., rock, salt, fill dirt)

Materials or products stored outdoors (except final products intended for outside use where exposure to stormwater does not result in the discharge of pollutants)

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

Waste material except waste in covered, non-leaking containers (e.g., dumpsters)

Application or disposal of process wastewater (unless otherwise permitted)

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

If any checked above, you have a facility with a high potential for polluting. A Stormwater Pollution Prevention Plan (SWPPP) is required.

FOR ADMIN USE ONLY	Date:
High-Priority Facility <input type="checkbox"/>	High-potential for pollutant discharges <input type="checkbox"/>
SWPPP Completed <input type="checkbox"/>	Date:



Appendix 6.2 Good Housekeeping VEEP

The County operates as a Virginia Environmental Excellence Program (VEEP) and as such the program covers standard operating procedures that seek to minimize or prevent discharges from certain municipal operations. The VEEP program breaks down aspects of the Government Center operations and covers vehicle usage and maintenance, gasoline and solvents, acids, salt storage, and CFC emissions. All aspects are reviewed and resubmitted with the VEEP on a three year cycle along with one audit conducted in house. Training for the program and high priority aspects are conducted biannual along with individual training for new hires. Added training for IDDE is conducted biannual to appropriate staff.

The County will continue to maintain and update the Government Center VEEP as needed and will add all appropriate high potential facilities as they are identified. VEEP documents are kept with the Environmental Programs Manager and with appropriate department head staff.



Appendix 6.3 County Training Plan for Good Housekeeping

Augusta County

Environmental Program: Training Schedule

What and When

Date	September 2018
Official Document Location:	Environmental Programs Manager's office
Area of Application:	County of Augusta Employees

Objectives, Targets and Actions

Activity/Product/Service:	All Employees have access to MS4 and VEEP Education
Policy Commitment:	MS4 and VEEP training for employees and in-depth training for high priority employees.
Objective:	Training plan that insures coverage and understanding.
Target:	Meet MS4 and VEEP programs training requirements.
Program Review:	Yearly
Target Status:	On-going

Standard Operating Procedure (SOPs)

1.0 Purpose

The purpose of this SOP is to outline and organize training programs for MS4 and VEEP.

2.0 Scope

2.1 The MS4 requires training to applicable field personnel involved in recognition and reporting of illicit



discharges, in and around maintenance and public works facilities, apply pesticides and herbicides, plan reviewers, inspectors, program administrators for erosion and sediment control, and construction site operators, in and around recreational facilities, appropriate emergency response employees in compliance with the General Permit.

- 2.2 The VEEP program requires training to new employees along with yearly training to all applicable personnel along with confirmation of understanding from all contractors working on VEEP pertinent land.

3.0 Responsibilities

The Environmental Programs Manager and the MS4 Coordinator are responsible for managing records of employee in house training and records of said training.

The Environmental Programs Manager and the MS4 Coordinator are responsible for recording employee certificates related to job requirements.

The Employee is responsible for maintain certifications, continuing education, and records for job specific training.

4.0 Training/ Certificates

Each department has separate standards for how soon an employee is required to obtain their certification.

Parks and Rec and Maintenance employees are handled by the Department heads.

Engineer and Building Inspection employees' training/certification is overseen by the Head of Engineer and Head of Building Inspections.

Each employee is responsible for retaining and maintaining certification on all job required training, and will maintain an appropriate material for certificate recognition long with continuing education documentation. Employees will notify the MS4 Coordinator or the Environmental Programs Manager if a new certificate is acquired or if certificates have expired and there is no plan on recertifying.

Yearly review with each representative, and enquiring upon new employee during New Employee VEEP Training will keep the Environmental Programs Manager and the MS4 Coordinator records up to date.

5.0 In House Training

Twice a year, March and August works best for Maintenance staff, December and June works best for Community Development, and emails can cover all staff including part time and seasonal employees.

Engineer Staff Meetings will be used as training as all aspects of the MS4 are discussed.

Review of VEEP and MS4/IDDE programs will be conducted at biannual in-house training conducted by the MS4/ Environmental Program Manager.

All records of these events should be stored in: \\Acgcf01\acgc\departments\Community Development\groups\CD\COMDEV\Engineering\SWM\MS4\MCM 6\Training

6.0 Tracking/Records

The training needs date, participants, and agendas/presentations. These will be stored as follows

Agendas: \\Acgcf01\acgc\departments\Community Development\groups\CD\COMDEV\Engineering\SWM\MS4\MCM 6\Training

Member Attendance:

file:///\\Acgcf01\acgc\departments\Community%20Development\groups\CD\COMDEV\Engineering\SWM\MS4\MCM%206\Training\Good%20Housekeeping%20signin.docx

Training Log:

file:///\\Acgcf01\acgc\departments\Community%20Development\groups\CD\COMDEV\Engineering\SWM\MS4\MCM%206\Training\Ms4%20Training.xlsx

Appendix A7.1 Chesapeake Bay TMDL Action Plan



Chesapeake Bay TMDL Action Plan

MS4 General Permit Registration Number VAR040131

Updated: September 27, 2019

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A. Introduction

The Augusta County of Augusta developed this Chesapeake Bay TMDL Action Plan (Action Plan) in pursuant of the Special Conditions for the Chesapeake Bay TMDL (General Permit Part II) for the Augusta County's Municipal Separate Storm Sewer System (MS4) Permit. In the Development of this Action Plan, the Augusta County utilized the Department of Environmental Quality's Chesapeake Bay TMDL Special Condition Guidance Documents (GM 15-2005 and GM 16-2006), the General VPDES Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems and the Virginia Stormwater Management Handbook Volume II - Virginia DEQ. Furthermore, the use of in-house aerial imagery, Virginia Geographic Information Network (VGIN), and other in-house GIS data was used to meet the technical requirements for the Action Plan.

Contact Information

Principal Executive Officer

Title: Augusta County Administrator
Name: Timothy Fitzgerald
Address: 18 Government Center Lane
PO Box 590
Verona, VA 24482
Phone: (540) 245-5610
Email: tfitzgerald@co.augusta.va.us

Duly Authorized Representatives

Title: MS4 Coordinator
Name: Morgan Shrewsbury
Address: 18 Government Center Lane
PO Box 590
Verona, VA 24482
Phone: (540) 245-5700
Email: mshrewsbury@co.augusta.va.us

Title: Augusta County Engineer
Name: Doug Wolfe, P.E.
Address: 18 Government Center Lane
PO Box 590
Verona, VA 24482
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B. Chesapeake Bay TMDL Action Plan

1. Current Program and Existing Legal Authority (*General Permit Part I*)

The Augusta County has reviewed the existing MS4 Program Plan, the backing legal authorities to support the plan, and the Augusta County's ability to meet compliance standards for the Special Conditions for approved TMDL. The Augusta County only required TMDL is the Chesapeake Bay TMDL. The existing MS4 Program Plan with the addition of this Action Plan and existing legal authorities will allow the Augusta County to ensure compliance with Special Conditions outlined in the General Permit.

Several components of the Augusta County's MS4 Program will be used to meet the Special Condition. The established legal documents that will be used to assist the Augusta County in meeting the Special Conditions for the approved TMDLs are located within Chapter 9 of the Augusta County Code Environmental Articles I. and II. As well as Chapter 25. Zoning Division J. Administration and Enforcement Article LXVII. Site Plan Review.

As of July 1, 2014, the Augusta County serves as a local Virginia Stormwater Management Program (VSMP) Authority. The Augusta County has consolidated the relevant ordinances into a single chapter titled: Environment. Within this chapter, there are two Articles. Article I, *Regulation of Stormwater and Erosion and Sediment Control* and Article II *Illicit Discharge Detection and Elimination*. ARTICLE I. *Regulation of Stormwater and Erosion and Sediment Control* covers the Storm Water Permit and Land Disturbing Permit along with Erosion and Sediment (E&S) Control Plan and Long-Term maintenance of permanent stormwater facilities. The Engineering staff of the Department of Community Development is responsible for the implementation and enforcement of the VSMP permit that includes the E&S Control Program. Engineering staff attends training to obtain certification at various levels provided by the Department of Environmental Quality (DEQ). This includes program administration, site inspection, and plan review. The Augusta County Ordinance reflects all state minimum standards. The article details the standard operating procedures that are followed when reviewing and approving E&S Control Plans, inspecting and monitoring land disturbing activities, and assessing penalties and injunctions. The Virginia Erosion and Sediment Control Handbook, latest edition, provides guidance for E&S measures and minimum standards (MS-19).

Engineering staff is responsible for enforcement of the Chapter 9 "Environment". The chapter is divided as such:

ARTICLE I. Regulation of Stormwater and Erosion and Sediment Control

§ 9-1. Purpose and authority.

§ 9-2. Definitions.

§ 9-3. Programs Established.

§ 9-4. Storm Water Permit and Land Disturbing Permit Requirement; Exemptions.

§ 9-5. Stormwater Pollution Prevention Plan; Contents of Plan.

§ 9-6. Erosion & Sediment Control Plan; Contents of Plan.

§ 9-7. Stormwater Management Plan; Contents of Plan.

- § 9-8. Pollution Prevention Plan; Contents of Plans.
- § 9-9. Additional Control Measures to Address a TMDL.
- § 9-10. Review of Submitted Plans.
- § 9-11. Technical Criteria for Regulated Land Disturbing Activities.
- § 9-12. Long-Term maintenance of permanent stormwater facilities.
- § 9-13. General drainage improvement programs and multi-jurisdictional systems.
- § 9-14. Monitoring and inspections, Notice to Comply.
- § 9-15. Hearings and appeals.
- § 9-16. Penalties, Injunctions, and other legal actions under the VESCP.
- § 9-17. Enforcement.
- § 9-18. Permits; Fees; Security for Performance.

ARTICLE II. Illicit Discharge Detection and Elimination

- § 9-30. Purpose and Authority
- § 9-31. Applicability.
- § 9-32. Definitions.
- § 9-33. Prohibited Discharges.
- § 9-34. Inspections and Monitoring.
- § 9-35. Enforcement and Penalties.
- § 9-36. Civil charges.

2. New or Modified Legal Authority (General Permit Part II)

New or modified legal authorities, such as ordinances, permits, policy, specific contract language, orders, and interjurisdictional agreements, implemented or needing to be implemented to meet the requirements of Part II A 3, A 4, and A 5.

Modified legal authorities for the Augusta County Ordinance to reflect with state regulation changes on none significant sources of pollutants.

3. Estimated Existing Source Loads and Calculated Total Pollutant of Concern (POC) Required Reductions (General Permit Part II A 3)

An estimate of the annual POC loads discharged from the existing sources as of June 30, 2009, based on the Chesapeake Bay Watershed Model Progress Run 5.3.2.

Using the best data available at the time, the Augusta County estimated the existing source. How sources were calculated is provided below. In future years, the Augusta County may update the estimate of annual POC loads when new aerial photography or improved data sources are available.

The Chesapeake Bay TMDL pollutant removal estimates provided with the Chesapeake Bay TMDL Action Plan is based on the:

- Delineation of MS4 Service Area. This delineation was completed by mapping Augusta County-owned storm sewer system and removal of other MS4 operators regulated area from the 2010 Census Urbanized Area.
- A delineation of forested areas within the MS4 area. Land Cover Data from Virginia Geographic Information Network 2016 completed this. This was refined using 2009 aerial photography and ArcGIS. 'Forested' areas based on the March, 2015 Chesapeake Bay TMDL draft guidance.

- A delineation of agricultural areas within the MS4 area. Land Cover Data from Virginia Geographic Information Network 2016 completed this. This was refined using 2009 aerial photography, zoning data, and ArcGIS. 'Forested' areas based on the March, 2015 Chesapeake Bay TMDL draft guidance.
- Impervious area delineation of parcels and Land Cover Data from Virginia Geographic Information Network 2016. This was refined using 2009 aerial photography and ArcGIS.

The Chesapeake Bay TMDL pollutant removal estimates does not include VDOT, City of Staunton, or City of Waynesboro which have MS4 permits. Properties that have VPDES Industrial Stormwater permits have been removed based on VDEQ provided data.

In future years, the Augusta County may update the estimate of annual POC loads when improved data sources are available.

Table 1

Land Use Data	
Agricultural land	1,172
Entering State waters Without Conveyance System	3,042
Forested	574
Identified Conveyance System	2,674
Open Water	18
Other MS4	1,380
Land Cover Data	
Barren	30
Cropland	182
Forest	988
Impervious Extracted	1,261
Impervious Local Datasets	719
NWI/Other	17
Open Water	17
Pasture	1,814
Shrub/Scrub	113
Tree	742
Turf Grass	2,999

Total Land in MS4 Regulated Area	2498
Pervious MS4 Regulated	1362
Impervious MS4 Regulated Land	847

Existing Source Loads

The Augusta County's source loads were calculated using *Table 3b: Calculation for Estimating Existing Source Loads and Reduction Requirements for the Potomac River Basin* in the 2018-2023 General Permit.

The Augusta County's MS4 General Permit required POC reductions (40% of L2 Scoping Run) were calculated using the created MS4 regulated area data.

Table 2								
Calculation Sheet for Estimating Existing Source Loads and Reduction Requirements for the Potomac River Basin								
Pollutant	Subsource	A Loading rate (lbs/ac/yr) ¹	B Existing developed lands as of 6/30/09 served by the MS4 within the 2010 CUA	C Load (lbs/yr) ³	D Percentage of MS4 required Chesapeake Bay total L2 loading reduction	E Percentage of L2 required reduction by 6/30/2023	F 40% cumulative reduction required by 6/30/2023 (lbs/yr) ⁴	G Sum of 40% cumulative reduction (lb/yr) ⁵
Nitrogen	Regulated urban impervious	16.86	847	14,281	9%	40%	514	843
	Regulated urban pervious	10.07	1,362	13,711	6%	40%	329	
Phosphorus	Regulated Urban Impervious	1.62	847	1,372	16%	40%	88	104
	Regulated urban pervious	0.41	1,362	558	7.25%	40%	16	
Total suspended solids	Regulated urban impervious	1171.32	847	992,156	20%	40%	79,373	87,750
	Regulated urban pervious	175.8	1,362	239,363	8.75%	40%	8,378	
1Edge of stream loading rate based on the Chesapeake Bay Watershed Model Progress Run 5.3.2								
2To determine the existing developed acres required in Column B, permittees should first determine the extent of their regulated service area based on the 2010 Census urbanized area (CUA). Next, permittees will need to delineate the lands within the 2010 CUA served by the MS4 as pervious or impervious as of the baseline date of June 30, 2009.								

3Column C = Column A x Column B.
4Column F = Column C x Column D x Column E.
5Column G = The sum of the subsource cumulative reduction required by 6/30/23 (lbs/yr) as calculated in Column F

4. BMPs to be Implemented Prior to Permit Expiration

The list of BMPs to be implemented prior to July 1, 2023 (permit expiration), to meet the cumulative reductions calculated based on the permit methodology and shown below in Table 7

Appendix B outlines the Augusta County's proposed BMPs that to be implemented to meet the required reductions outlined above in Table 2. Where available more in-depth information, including percent removal efficiencies for each pollutant of concern, is located in the appendix item for each BMP.

Additional BMPs necessary to meet the required reductions will be identified based on the Stormwater Improvement Plan. This TMDL Action Plan will use the adaptive management approach so that if better practices are identified, the Augusta County may substitute alternative practices. Any substitutions or additions will be reported to DEQ in future annual reports and this TMDL Action Plan submittal. Permanent and temporary water quality trading credits and all planned BMP projects and programs be outlined in Appendix B: Summary Sheet of Planned BMPs.

5. Future projects, and associated acreage that qualify as grandfathered and methods, if developed, to offset increased loads from grandfathered projects (Part II A 5)

No later than the expiration date of this permit, the permittee shall offset the increased loads from projects grandfathered in accordance with 9VAC25-870-48 that begin construction after July 1, 2014, if the following conditions apply:

- a. The activity disturbs one acre or greater; and*
- b. The resulting total phosphorous load was greater than 0.45 lb/acre/year, which is equivalent to an average land cover condition of 16% impervious cover.*

The Augusta County has two projects inside the MS4 area and is considered Grandfathered projects from DEQ. The projects have not been started and load reductions will be addressed when or if the development is ever planned.

Molla Mill Office Park, ESC11009, was originally submitted in 2011 and has yet been readdressed the proposed 4.80 acres project. The project has been moved to on hold until further notice statues. The second project Community Fellowship Church, ESC08006, has a total of 18.42 acres to be disturbed for construction and with plans approved on 11/10/2008. The Church has already build in a different location and the project has been moved to on hold until further notice statues.

**6. Public Comments on Draft Action Plan (GENERAL PERMIT REQUIREMENTS)
(General Permit Section I.C.2.a.(12))**

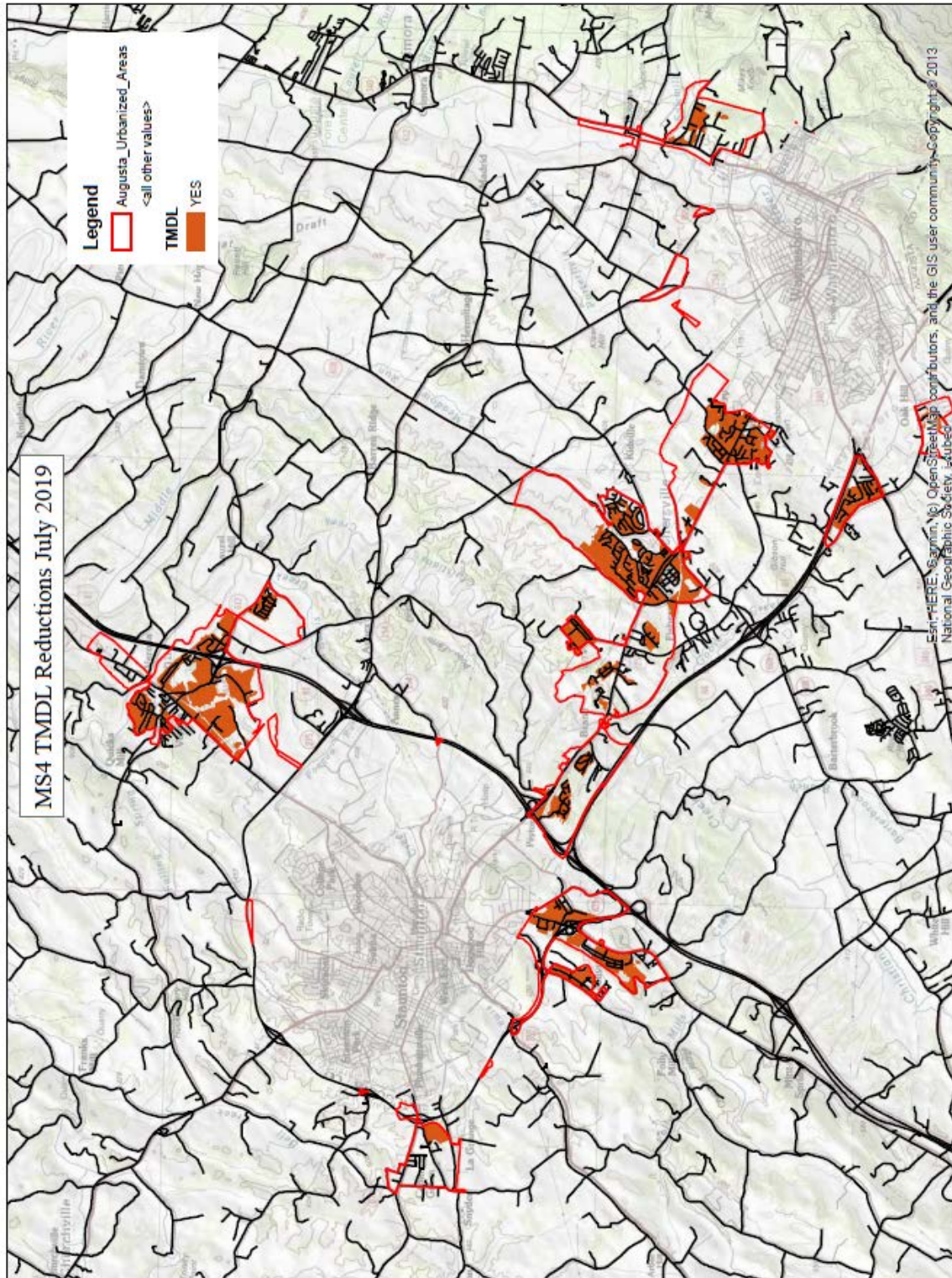
An opportunity for receipt and consideration of public comment regarding the draft Chesapeake Bay TMDL Action Plan.

The Augusta County will present the Draft Action Plan at the Augusta County Board of Supervisors and will be open for comment for a minimum of 15-day comment period before being approved. Public comment periods will be noted as applicable.

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Appendix A: MS4 Boundary and TMDL Applicable Lands

A Map showing the updated 2019 MS4 boundary land applicable for TMDL reductions.



Appendix B: Summary Sheet of Planned BMPs

Name	Type	Location	TP (lb./yr.)	TN (lb./yr.)	TSS (lb./yr.)	Estimated Cost
Septic to Sanitary Sewer ¹	Septic to Sanitary Sewer Connection	Augusta County	0.00	422.55	0.00	NA
Emerald Hills 3 BMP	Bio-retention Retrofit	38.1142, -78.9520	33.65	120.36	23,985.50	\$768,000
Teaverton 8	Bio-retention Retrofit	38.1077, -78.9709	58.2	401.58	27,307.44	\$1,062,950
Wellington 7	Bio-retention Retrofit	38.0885, -78.9382	17.17	118.47	8056.16	\$247,100
ACGC Parking Lot Reduction	Bio-retention Retrofit	38.1912, -79.0151	10.51	49.95	8280.97	\$537,307
	Totals/Avg		120	1,113	67,630	\$2,615,357

¹Credit Calculations are outlined in Appendix C: Calculations of Septic to Sanitary Sewer Connection Pollutant Removal

Appendix C Calculation of Septic System to Sanitary Sewer System Connection

Credit: Credit methodology taken from Virginia Department of Environmental Quality – email from Jamie Bauer December 2016

Verified septic system to sanitary sewer system connections: 45 connections from 2009-2019
U.S. Census Bureau Persons per household: 2.61 Persons per household in the Augusta County of Augusta

The assumed average load of TN at the edge of the septic drainfield is 9 lbs TN/year/person with an attenuation factor from edge of drainfield to edge of stream resulting in a TN load of 3.6 lbs TN/year/person at the edge of stream.

Total Nitrogen

$$3.6 \text{ lb/TN/year/person} * 2.61 \text{ persons/household} = 9.39 \text{ lbs TN/year/household TN Credit} = 9.39 \text{ lbs TN/year/household} * 45 \text{ households} = 422.55 \text{ lbs TN}$$

LID	Septic to Sanitary Install Date	Address	HUC	Lat	Long
2,952	5/5/2009	143 KINGSBURY DR	20700050704	38.0921	-78.9406
3,020	6/25/2009	78 AVON AVE	20700050704	38.09135	-78.9407
3,070	7/22/2009	42 OLD WHITE BRIDGE RD	20700050704	38.08912	-78.9416
2,924	8/26/2009	79 KINGSBURY DR	20700050704	38.09073	-78.9428
3,026	11/3/2009	76 AVON AVE	20700050704	38.09118	-78.941
3,048	3/3/2010	21 AVON AVE	20700050704	38.08954	-78.9422
3,050	4/27/2010	20 AVON AVE	20700050704	38.08977	-78.9428
2,958	4/28/2010	162 KINGSBURY DR	20700050202	38.09272	-78.9398
2,298	5/12/2010	46 TINKLING SPRING RD	20700050202	38.09715	-78.969
3,000	9/24/2010	152 OLD WHITE BRIDGE RD	20700050704	38.09174	-78.9382
3,032	12/2/2010	55 AVON AVE	20700050704	38.09043	-78.941
2,922	1/19/2011	76 KINGSBURY DR	20700050202	38.09106	-78.9432
3,074	5/3/2011	74 OLD WHITE BRIDGE RD	20700050704	38.08972	-78.9408
14,696	2/23/2012	42 MEMORIAL ST	20700050302	38.21087	-79.0026
14,680	4/12/2012	137 CONFEDERATE ST	20700050302	38.21189	-79.0026
14,684	4/12/2012	145 CONFEDERATE ST	20700050302	38.21168	-79.0028
62,372	11/2/2012	787 JEFFERSON HWY	20700050203	38.11235	-79.0103
13,916	11/6/2012	381 LEE HWY	20700050302	38.20048	-79.0101

320	7/19/2013	77 GREENVIEW DR	20700050203	38.11021	-79.0063
3,926	1/17/2014	12 SOUTH VIEW DR	20700050704	38.05925	-78.9499
3,318	4/24/2014	58 OVERLOOK RD	20700050704	38.08201	-78.9379
4,036	4/30/2014	164 SUNSET DR	20700050704	38.06119	-78.9517
58,792	5/6/2014	520 OLD GREENVILLE RD	20700050301	38.12692	-79.0707
596	6/16/2014	26 BIRCHWOOD RD	20700050203	38.10787	-78.9905
17,080	11/6/2014	225 ORCHARD RD	20700050201	38.11074	-79.0765
1,404	4/23/2015	1548 JEFFERSON HWY	20700050203	38.10381	-78.9771
21,408	5/5/2015	50 EAST SIDE HWY	20700050704	38.09297	-78.8644
334	5/7/2015	110 GREENVIEW DR	20700050203	38.10926	-79.0072
2,094	8/6/2015	20 OAK ST	20700050202	38.10075	-78.9738
17,164	5/10/2016	61 FIRST ST	20700050203	38.11831	-79.0717
304	6/27/2016	46 GREENVIEW DR	20700050203	38.11052	-79.0048
68,022	10/5/2016	50 GREENVIEW DR	20700050203	38.11043	-79.0049
17,660	11/11/2016	84 SUNSET BLVD	20700050203	38.12266	-79.0599
15,270	5/17/2017	73 VERONA COURT BLVD	20700050302	38.20132	-79.014
2,870	6/27/2017	2352 JEFFERSON HWY	20700050704	38.08948	-78.9455
288	8/21/2017	17 GREENVIEW DR	20700050203	38.11144	-79.004
13,970	8/30/2017	33 ADAMS LN	20700050302	38.19382	-79.0032
15,422	10/4/2017	25 ROLLA MILL RD	20700050302	38.20626	-79.0111
3,276	11/8/2017	68 WESTOVER DR	20700050704	38.08301	-78.9397
21,398	2/12/2018	25 EAST SIDE HWY	20700050704	38.09212	-78.8642
18,266	5/14/2018	414 PARKERSBURG TPKE	20700050104	38.1535	-79.1275
46,342	6/25/2018	2078 JEFFERSON HWY	20700050202	38.0948	-78.9562
3,916	7/5/2018	43 GRANDVIEW DR	20700050704	38.05902	-78.9492
2,940	10/22/2018	118 KINGSBURY DR	20700050202	38.09196	-78.9418
3,244	6/12/2019	2513 JEFFERSON HWY	20700050704	38.08599	-78.9392