City of Staunton, Virginia

MS4 ANNUAL REPORT

For the Virginia Stormwater Management Program General Permit Registration Statement for Small Municipal Separate Storm Sewer Systems (MS4)

General Permit No. VAR040132

Reporting Period: Permit Cycle 2, Year 2
July 1, 2019 through June 30, 2020

Certification

CERTIFICATION STATEMENT

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.

Printed Name: Steven L. Rosenberg Title: City Manager

Signature: _____ Date: September 30, 2020

Permit Number: VAR040132

MS4 Name: City of Staunton

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INTRODUCTION

Discharges from municipal separate storm sewer systems are regulated under the Virginia Stormwater Management Act, the Virginia Stormwater Management Program (VSMP) Permit regulations and the Clean Water Act as point source discharges. MS4 regulations were developed and implemented in two phases. Implementation of the first phase began in the early 1990s and required that operators of MS4s serving populations of greater than 100,000 people (per the 1990 decennial census) apply for and obtain a permit to discharge stormwater from their outfalls. The second phase of MS4 regulations became effective March 23, 2003, and required that operators of small MS4s in "urbanized areas" (as defined by the latest decennial census) obtain a permit to discharge stormwater from their outfalls.

In August 2013, the City of Staunton received a Notice of Designation as a regulated small MS4. Part of the City's jurisdiction had been identified as being located within an urbanized area according to the 2010 Decennial Census. As a result, the City must apply for and maintain coverage under the General Permit for the Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems. Similar to the Phase I programs, small MS4 programs must be designed and implemented to control the discharge of pollutants from their storm sewer system to the maximum extent practicable in a manner that protects the water quality in nearby streams, rivers, wetlands and bays.

On May 16, 2018, the City of Staunton submitted a Registration Statement outlining the City's MS4 Program to the Department of Environmental Quality (DEQ). On November 1, 2018, the City received notification from DEQ that the City had obtained continuing coverage under the General VPDES Permit for Small MS4s. Coverage under the Virginia General Permit for Discharges from Small Municipal Storm Sewer Systems requires each MS4 locality to submit an annual report by October 1 of each year describing the status of the Program's implementation for the previous permit year, July 1 through June 30.

Stormwater discharges from Phase II (small) MS4s are regulated under the General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems. Small MS4s include storm sewer systems operated by cities, counties, towns, federal facilities such as military bases, Veteran's Affairs hospitals and research facilities, Department of Defense facilities and parkways, and state facilities such as VDOT, community colleges and public universities. Under the General Permit, small MS4s must develop, implement and enforce a program that includes the following "six minimum control measures":

- Public education and outreach on stormwater impacts
- Public involvement and participation
- Illicit discharge detection and elimination
- Construction site stormwater runoff control
- Post-construction stormwater management in new development and redevelopment
- Pollution prevention/good housekeeping for municipal operations

Activities within each of the control measures are called Best Management Practices or BMPs.

This document is the City of Staunton's required Annual Report for Permit Year 2. Permit Year 2 is the period starting on July 1, 2019 and ending on June 30, 2020. The annual report includes the status of the BMPs implemented as part of the City's MS4 Program Plan. The annual report lists the measurable goals and the accomplishments achieved for each BMP. The annual report also includes any changes to the City's MS4 Program Plan.

ABOUT STAUNTON

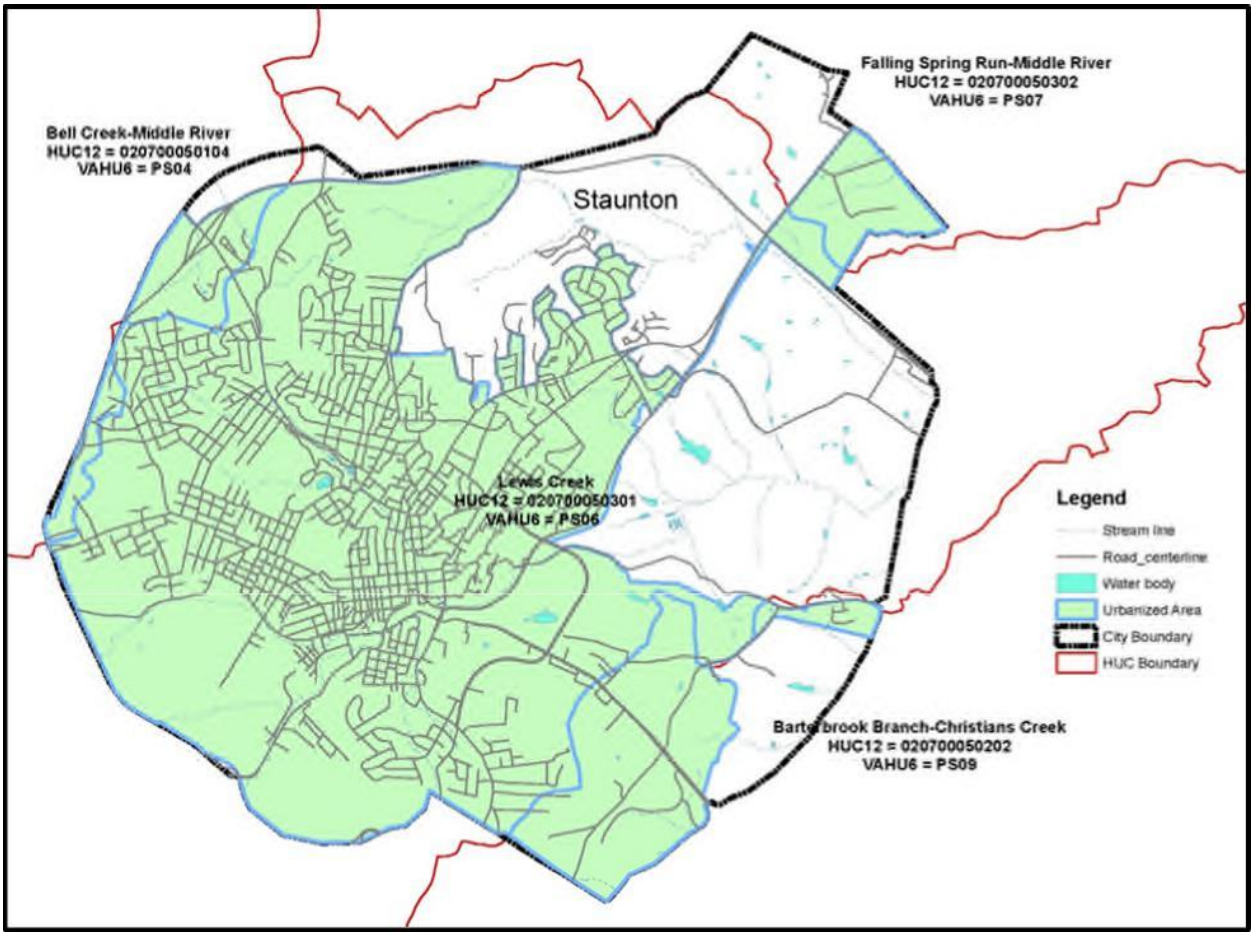
Located in the historic Shenandoah Valley, Staunton was first settled in 1732. The hamlet was named in honor of Lady Staunton, wife of Sir William Gooch who served as lieutenant-governor of Virginia from 1727 to 1749. The Virginia General Assembly established Staunton as a town in 1761.

Staunton, unique among cities for its natural beauty and architectural heritage, provides an excellent quality of life for its unified community by continuing the tradition of citizen leadership, innovation, and perseverance. The best of its history combined with the best new ideas and technology make Staunton an exceptional small city with charm, energy, ambiance, and creativity that others seek to emulate.

Today, Staunton is an independent city with a population of 24,512 as of 2010 census, located within Augusta County. Staunton is approximately 19.7 square miles in size. The urbanized area within the City of Staunton is 13.2 square miles as identified in Figure 1. This urbanized area represents a portion of the Staunton-Waynesboro Metropolitan Statistical Area, as defined by the Office of Management and Budget, which had a population of 118,502 as of the 2010 census.

The City of Staunton lies within four (4) major watersheds. The hydrologic unit codes (HUC) are the following:

Name	HUC 12	VAHU6
➢ Lewis Creek	020700050301	PS06
➢ Christians Creek/Barterbrook Branch	020700050202	PS09
➢ Middle River/Falling Spring Run	020700050302	PS07
➢ Middle River/Bell Creek	020700050104	PS04


Falling Spring Run-Middle River
HUC12 = 020700050302
VAHU6 = PS07
Bell Creek-Middle River
HUC12 = 020700050104
VAHU6 = PS04
Staunton
Lewis Creek
HUC12 = 020700050301
VAHU6 = PS06
Legend
Stream line
Road_centerline
Water body
Urbanized Area
City Boundary
HUC Boundary
Barterbrook Branch-Christians Creek
HUC12 = 020700050202
VAHU6 = PS09
Figure 1

Due to COVID 19 some activities and measures could not be implemented during the Permit Cycle 2 – Year 2 – July 1, 2019 - June 30, 2020 reporting period. These items will be noted throughout the report.

MS4 PROGRAM

Minimum Control Measure 1 – Public Education and Outreach

The public education and outreach (PE&O) BMPs will be a critical component of City's MS4 program. The PE&O program will help the citizens of the community better understand the environmental challenges that they are facing as a community. This new knowledge will encourage the community as a whole to implement changes in their lifestyles that will reduce the negative impacts their daily choices have on the environment. Additionally, this program empowers the citizens to become part of the stormwater solution by developing an understanding of program goals and providing a variety of ways to communicate observed issues to the program administer.

The PE&O BMP will focus on the following high priority areas:

- Waste/Pollution Management was selected due to the immediate impact to the community. The City of Staunton spends significant resources every year to clean streets, maintain BMP's, and to facilitate better water quality for the community.
- Watershed Awareness brings attention to the importance of caring for and maintaining the quality of the City's watersheds because the City's watersheds are located at the headwaters of the Chesapeake Bay and so can impact downstream watersheds and ultimately the Chesapeake Bay itself.
- Chesapeake Bay and local waterway nutrient impacts was chosen to increase citizen understanding and support for the City's nutrient reduction efforts. The City will be required to dedicate significant resources on the reduction of nutrients to address TMDL's. Resource allocation will be restricted without significant community support and funding.

Modifications to MCM 1:

Date: August 22, 2019

A copy of the educational brochure, "Staunton's Solutions for Stormwater Pollution, Issue Number IV," has been included in Appendix A.

BMP – 1.1 School Presentations (Category - Speaking Engagements)

The City will continue to develop targeted presentations to school age children in grades 4 through 9. The presentations will be age appropriate with the goal to build on past presentations in future years. Presentations will include interactive tools to help better understand the effects of water pollution and strategies for prevention as they relate to the City's high priority topics.

Objective and Expected Results: By targeting grades 4 through 9, the City will be providing these children with the required information to foster stormwater awareness that will translate into long lasting positive changes toward stormwater issues.

Implementation Schedule: The City will continue to provide the presentations throughout the permit cycle. The City will target 4 to 6 presentations per year. The Engineering Division will be responsible for developing and giving the presentations.

Method to Determine Effectiveness: The measure for this BMP will be based on the total number of presentations per year and the total number of students. The annual report will include these numbers.

Annual Reporting: The audience for Permit Year 2 was based on the number of students in the 6th and 9th grades attending the presentations. After consulting with school officials, it was determined that 6th and 9th grades present the best opportunity to accommodate stormwater topics within the curricula for those grades. ***BMP 1.1 not able to be implemented due to COVID 19***

*The Engineering Division also planned to participate in Staunton's Earth Day activities and will plan to participate during the next Permit Year 3.

School Presentations:

Permit Year 2	Number of Presentations Planned	Number of Presentations Conducted	Number of Students Impacted	Number Anticipated once COVID protocol allows	Number Anticipated Students Impacted
July 1, 2019 - June 30, 2020	**7 to 9**	*0	*0	**7-9**	**400**

BMP – 1.2 Waste Awareness Brochures (Category - Written Materials)

The City will develop educational brochures to provide information in an easy to read format. The brochures will concentrate on the high priority topics. In keeping the topics open to all high priority areas, the City will have the flexibility to modify the Program from one topic to another as priorities change from one year to the next. Each brochure will include information about the topic, identify desirable changes in behavior and provide contact information for questions and reporting. The educational brochures will be made available through mass mailings and at various City offices and community events.

Objective and Expected Results: By distributing educational brochures to the citizens, the City will be raising the general awareness of stormwater issues as well as providing actions the public can take to help protect water quality and minimize impacts to stormwater runoff.

Implementation Schedule: Waste brochures will continue to be developed and distributed throughout the permit cycle. The Engineering Division will be responsible for the brochure's content and distribution.

Method to Determine Effectiveness: The effectiveness of this BMP is based on the total number of brochures distributed. The annual report will include this number.

Annual Reporting: The brochure was distributed citywide by insertion into the City's water and sewer bills and by placing copies of the brochures at various locations throughout the City. A copy of the brochure has been included as Appendix A.

Waste Awareness Brochures:

Permit Year 2	Number of Brochures Distributed
July 1, 2019 - June 30, 2020	12,200

BMP – 1.3 Watershed Awareness (Category - Electronic Media)

The City has developed internet social media material to provide information in an easy to share format. The material concentrates on the topic of "Watershed Awareness". This topic was chosen in order to bring awareness to the importance of caring for and maintaining the quality of the City's watersheds and how the City's watersheds, located at the headwaters, affect downstream watersheds and ultimately the Chesapeake Bay. In keeping the social media format general, it will allow the City to have the flexibility to incorporate multiple types of social media outlets, i.e., Facebook, YouTube, etc. as priorities change and opportunities arise from one year to the next. Each post will include resources and information in regards to Staunton's watersheds and their impact on a local and state environmental well-being, identify desirable changes in behavior and provide contact information for questions and reporting. The material will be made available through social media posts through a public, City-run social media format.

Web link to the City's Facebook page:
https://www.facebook.com/stauntonstormwater

Objective and Expected Results: By using social media to reach citizens, the City will be raising the general awareness of the stormwater issues concerning watersheds, both locally and at the state level. The material will also provide actions the public can take to help protect water quality and minimize impacts to stormwater runoff.

Implementation Schedule: The Watershed Awareness social media material will continue be developed and posted throughout the permit cycle. The Engineering Division will be responsible for the social media material and its distribution.

Method to Determine Effectiveness: The effectiveness of this BMP is based on the total number of website hits. The annual report will include this number.

Annual Reporting: The estimated target audience reached is calculated by using Facebook's publishing tools and using audience details such as City of Staunton and Environmentalism, and the total number of hits, likes, and reaches on the Facebook page.

Watershed Awareness Social Media:

Permit Year 2	Number hits/likes/reaches
July 1, 2019 - June 30, 2020	8465

Minimum Control Measure 2 – Public Involvement / Participation

The public involvement/participation (POP) BMP will promote valuable input and assistance from the community. Providing the public opportunities to play an active role in the program is instrumental in 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.

The first Lewis Creek Technical Advisory Committee meeting (PCB study) of January 25, 2020 had 15 attendees, including representatives of various local agencies and concerned citizens. Meeting summary is available upon request.

Web link to the MS4 Program and annual reports
https://www.ci.staunton.va.us/departments/engineering-division/ms4-program

Modifications to MCM 2: None this permit year

BMP – 2.1 Stormwater Webpage

The City has a dedicated stormwater webpage which provides detailed stormwater information to the public. The stormwater webpage is found on the City website at the address above. Information available on the webpage includes: definitions of common stormwater elements (i.e. stormwater, watershed, Chesapeake Bay, pollution prevention, etc.), details about why stormwater is important, identification of how citizens can help, links to the City's stormwater program elements (Ordinances, erosion & sediment control, policies, design standards, general permit, annual reports, etc.), links to Federal and State stormwater program information and contact information for reporting and questions.

Objective and Expected Results: The objective of the dedicated website is to provide large amounts of detailed federal, state and local program information, accessible to a large number of citizens. The expected result is to easily be able to search for and find detailed information on stormwater in general as well as information pertaining to the City of Staunton's MS4 Program. The website also provides citizens with information on how to comment on the City's MS4 program plan, and report erosion/sediment control issues, illicit discharges, and stormwater related complaints.

Implementation Schedule: The City has implemented the website and will maintain the website by adding the annual reports and updating the site's content and links. The Engineering Division will be responsible for the page's content and will advise the webmaster of all required changes.

Method to Determine Effectiveness: The effectiveness of this BMP is based on the total number of website hits that occur each year. The annual report will include this number.

Web link to the City's Stormwater Webpage:
https://www.ci.staunton.va.us/departments/engineering-division

Annual Reporting:

Stormwater Webpage:

Permit Year 2	Number of Website Hits
July 1, 2019 - June 30, 2020	1490

BMP – 2.2 Tree Planting Program (Restoration)

The City currently has a Tree Planting Program where new trees are planted, dead or diseased trees are replaced with new plantings and structural pruning is performed on young existing trees. The City also organizes and participates in an Arbor Day/Earth Day event where seedlings are handed out to participants. The City will continue its tree planting program and its participation in the Arbor Day/Earth Day event. The City will hand out seedlings and educational brochures and discuss the benefits of tree planting on water quality.

Objective and Expected Results: Encourage the community to actively take part in stormwater enhancements. Raise the general awareness of stormwater issues as well as discussing actions, such as tree planting, the public can take to help protect water quality and minimize impacts to stormwater runoff.

Implementation Schedule: The City will continue its Tree Planting Program and participating in the Arbor Day/Earth Day event. Parks and Recreation will continue to be responsible for these programs. ***Arbor Day/Earth Day events canceled due to COVID 19***

Method to Determine Effectiveness: The effectiveness of this BMP is based on the total number of trees planted, the number of trees pruned, the number of participants and the number of seedlings handed out at the Arbor Day/Earth Day event. The annual report will include these numbers.

Annual Reporting:

Tree Planting Program

Permit Year 2	Number of trees planted	Number of trees pruned	Number of Arbor Day participants	Number of seedlings distributed
July 1, 2019 - June 30, 2020	75	444	***0**	***0**

It is anticipated there should be +/- 90 participants and +/- 200 seedlings distributed in Permit Year – 3

BMP – 2.3 DEQ/DCR Adopt-A-Stream Program (Restoration)

The City actively participates in the Virginia Adopt-A-Stream program. The Stormwater Webpage includes links to Virginia's program with directions on how to apply. The City will procure and house the needed material for volunteers to use during the clean-up event. Materials will include safety information, trash bags, safety vests and traffic control-warning signs. The City will also coordinate trash pick-up if needed.

Objective and Expected Results: Encourage the community to actively take part in stormwater enhancements to improve stream quality.

Implementation Schedule: The City continues to implement the Adopt-A-Stream program. The Engineering Division is responsible for the website's content and for coordinating the provision of available materials to volunteers.

Method to Determine Effectiveness: The effectiveness of this BMP is based on the total linear feet of stream adopted. The annual report will include this number.

Annual Reporting: No streams were adopted during Permit Year 2. The City plans to utilize its social media accounts to hopefully gain more interest in this BMP.

The City has helped to organize and participates in the Clean the Bay Day event every permit cycle year. However, due to COVID-19, the event was canceled this year. The City plans to build on and expand this event in upcoming permit years.

BMP – 2.4 Adopt-A-Street Program (Restoration)

The City currently has an Adopt-A-Street Program designed to provide an opportunity for citizens and civic groups to get involved in their community. Individuals, organizations or businesses may participate. These groups agree to adopt a street and to keep the designated area cleared of litter and other debris. In exchange, the program participants are given materials to help them with the cleanup. Signs bearing the name of their organization will be posted at the beginning of their designated cleanup areas. Areas may include City streets, vacant lots, walkways and public parking lots. The Stormwater Webpage includes links to the City's program.

Objective and Expected Results: Encourage the community to actively take part in stormwater enhancements by decreasing the trash and litter that could possibly reach a waterway.

Implementation Schedule: This program will be ongoing with Public Works continuing to be responsible for its implementation.

Method to Determine Effectiveness*:* The effectiveness of this BMP will be based on the total miles of street adopted. The annual report will include this number.

Annual Reporting: One street (Pinehill Circle) was adopted during Permit Year 2. The City plans to utilize its social media accounts to hopefully gain more interest in this BMP.

Adopt-A-Street Program:

Permit Year 2	Total miles of street adopted
July 1, 2019 - June 30, 2020	0.15

BMP – 2.5 Stormwater Partnerships (Monitoring)

The City has established a partnership with the local environmental advocacy group, the Lewis Creek Watershed Advisory Committee. The partnership will ensure that local impaired waters and pollutants of concern are emphasized in education and outreach efforts. *With the recent historic flooding which occurred in Staunton (August 8 and 22, 2020), the committee plans to focus more on property owner outreach relative to implementing SWM BMPs on private properties*.

The City is also giving serious consideration to procurement of a flood study of the watershed areas entering the City to determine the best means forward for funding and implementation of recommended flood control measures. These measures if implemented would account for both quantity and quality treatment of detention in order to meet TMDL requirements and mandates.

Objective and Expected Results: To ensure the education, outreach efforts, and volunteer opportunities are enhanced to the maximum extent possible by a coordinated effort.

Implementation Schedule: The Engineering Division will continue to send a representative to committee meetings during the upcoming permit cycle.

Method to Determine Effectiveness: The effectiveness of this BMP will be based on the total number of meetings that were attended. The annual report will include this number.
***No meetings were held after March due to COVID 19* Virtual meetings resumed on September 14, 2020.**

Annual Reporting:

Stormwater Partnerships

Permit Year 6	Total Number of Meeting Attended
July 1, 2019 - June 30, 2020	***6**

It is anticipated that 12 meetings will be attended in Permit Year – 3

BMP – 2.6 Hazardous Waste Collection Day (Disposal/Collection Event)

The City will continue to participate in the regional household hazardous waste collection day. The event is held once a year in the fall at the Augusta County Government Center. The following types of waste are accepted; solvents, oil based paints, fuels, used oil, computer equipment, lead-acid batteries, rechargeable batteries, herbicides/pesticides, small electronics, antifreeze, compact fluorescent bulbs, and fluorescent bulbs. Information about the event will be made available on the stormwater website. The City will also continue to promote this BMP by sharing informational flyers prior to the event.

Objective and Expected Results: By actively promoting the hazardous waste collection day, the City will reduce the risk of improper storage, disposal and discharges within the MS4.

Implementation Schedule: The program is ongoing. Public Works will continue to be responsible for coordinating the informational flyer.

Method to Determine Effectiveness: The City will track the total number of City vehicles dropping off hazardous waste. The annual report will include this number.

Annual Reporting:

Hazardous Waste Collection Day

Permit Year 2	Total Number of City Vehicles
July 1, 2019 - June 30, 2020	89

Minimum Control Measure 3 – Illicit Discharge Detection and Elimination

For the purposes of this permit, an illicit discharge is defined as any discharge to a municipal separate storm sewer that is not composed entirely of storm water, with exceptions for those discharges which occur pursuant to any other VSMP permit. These discharges can have immediate and long lasting impacts to the ecosystem of your local water bodies.

Modifications to MCM 3: Updated training presentation for Public Works.

BMP – 3.1 IDDE Detection Program

The City will update and maintain the IDDE Program to detect, identify and address unauthorized discharges. The program will use maintained and updated storm sewer mapping with all outfalls identified. The mapping system will be used to screen for illicit discharges. The dry weather screening element of the program includes:

- Prioritized screening schedule
- Perform a minimum 50 field screenings per year
- Methodologies to collect general information such as the date of last rain, quantity of rain, visual observations, etc.
- Defines the time frame to conduct investigations based on priorities
- Methodologies to determine the source of all illicit discharges
- Mechanisms to eliminate illicit discharges, including procedures for legal action
- Methods for follow up
- Mechanisms to track all investigations

The City will prohibit non-stormwater discharges into the storm sewer system through modifications to the ordinance. The stormwater webpage and stormwater hotline will be used to promote and facilitate public reporting of illicit discharges. A copy of the program has been included in Appendix K.

Objective and Expected Results: The goal of this control measure is to maintain, update, and enforce a program to detect, identify and address illicit discharges into City's regulated MS4 system.

Implementation Schedule: The City will maintain and implement the IDDE program throughout the permit cycle. Engineering is responsible for implementing the program with support from Public Works for investigations. The Engineering Division is responsible for ongoing maintenance of the storm sewer mapping.

The illicit discharge ordinance, City of Staunton City Code, Title 13, Division IV, Illicit Discharge and Connections, can be found at: http://www.codepublishing.com/VA/staunton.html

Physical interconnection letters were sent to VDOT and Augusta County during Permit Cycle 1, Year 2.

Method to Determine Effectiveness: The City will track the number of illicit discharges detected and enforcement actions. The annual report will include these numbers.

Annual Reporting: During Permit Year 2, 53 MS4 regulated outfalls were screened. No active illicit discharges were observed or required follow-up. Further documentation of the outfall screenings and reports of illicit discharges are available upon request. A summary of all illicit discharge reports and investigations has been included in Appendix B.

Mapping and Information Tables Confirmation Statement:

Mapping updates continued during Permit Year 2 to add/delete regulated outfalls as necessary, and **currently there are 353 regulated outfalls**. An outfall/points of discharge map has been included in Appendix C. Further documentation of the outfalls and points of discharge is available upon request.

BMP – 3.2 Mapping of Stormwater Network

The City will continue to maintain an accurate storm sewer system mapping and information table for City owned stormwater facilities using GIS and GPS locating technologies. Information to be collected and maintained includes:

- Outfalls
- Natural Streams
- Structural stormwater BMPs type and location
- Storm sewer type and size

The storm sewer map will include at least the following:

- Location of all MS4 outfalls
- A unique identifier for each outfall
- The name and location of all waters receiving discharges from MS4 outfalls and the associated HUC (6^{th} order)

The associated information table for each outfall will include at least the following:

- A unique identifier
- The estimated MS4 acreage served
- The name of the receiving water and indication if the receiving water is impaired
- The name of any applicable TMDL(s)

Objective and Expected Results: The storm sewer mapping will be a critical element of the IDDE (BMP 3.1) and structural BMP maintenance (BMP 5.2) programs. Accurate and up-to-date mapping will be necessary for these programs to succeed.

Implementation Schedule: The City will continue to maintain the storm sewer mapping throughout the duration of the permit cycle. Engineering will be responsible for developing and maintaining the sewer mapping using GIS/CAD.

Method to Determine Effectiveness: The City will track the number of storm structures mapped. The annual report will include these numbers.

Annual Reporting:

Mapping of Stormwater Network

Permit Year 2	Total number of storm sewer structures	Total number of storm sewer outfalls
July 1, 2019 - June 30, 2020	2747	749

BMP – 3.3 SPCC Training

The City will continue to provide personnel with spill prevention control and countermeasure training. The plan specifies material handling procedures and storage requirements and identifies spill cleanup procedures for areas and processes in which spills may potentially occur.

Objective and Expected Results: The SPCC training attempts to standardize operating procedures and employee training toward the goal of minimizing accidental pollutant release that could contaminate storm water runoff.

Implementation Schedule: The SPCC training is a current policy that will continue to be implemented throughout the permit cycle. Each department or division, Engineering, Public Works, Parks & Recreation and Fire Department will continue to be responsible for their departmental or divisional SPCC training.

Method to Determine Effectiveness: The City will track the number of personnel trained. The annual report will include this number.

Annual Reporting:

SPCC Training

Permit Year 2	Total number of City personnel trained	Department	Training Date
July 1, 2019 - June 30, 2020	12	Public Works	8/15/2019
	9	Public Works	10/18/2019
	9	Public Works	12/19/2020
	8	Public Works	2/20/2020
	13	Parks & Rec	6/11/2020
	42	Fire Department	9/2/2019 thru 9/4/2019
	93	City Staff trained	7/1/2019 thru 6/30/2020

Minimum Control Measure 4 – Construction Site Runoff Control

Uncontrolled stormwater runoff from construction sites can significantly impact rivers, lakes and estuaries. Sediment is the main pollutant of concern leaving a construction site. However, there are also other pollutants that commonly discharge from construction sites, including fertilizer, pesticides, oil and grease, concrete truck washout and construction debris. The construction site stormwater runoff control (CSSRC) BMP will be developed to significantly reduce or eliminate construction site pollutants from entering the local water bodies.

Modifications to MCM 4: None this permit year

BMP – 4.1 Erosion and Sediment Control Program (VESCP)

The City administers an existing program that applies to large sites as well as single family home construction. The Engineering Division reviews site plans and performs site inspections. Any commercial site and any disturbance over 10,000 square feet require an erosion and sediment control plan to be submitted and approved. The City issues a land-disturbance permit prior to any land-disturbance taking place. A pre-construction meeting is held to discuss VESCP controls and to review the plan. A City VESCP inspector also makes site visits and approves the initial controls installed. The program is enforceable through the City Code (Chapter 13). **The City has one trained VESCP Program Administrator, one certified and one trained VESCP inspector and one VESCP trained plan reviewer. DEQ training classes halted due to COVID 19. Training and testing are being rescheduled as available with the *Inspector scheduled for testing on September 21, 2020*. (The Program Administrator will sit for the Combined Administrator exam when all training is completed.)**

The legal authorities utilized by the City to ensure compliance with our VESCP and VSMP Programs include the following:

- Staunton City Code - Title 13
- City's Subdivision and Zoning Ordinance
- Virginia Erosion and Sediment Control Law and Regulations
- Virginia Stormwater Management Act and Regulations

Additional information concerning the City's Erosion and Sediment Control Program (VESCP) can be found at: https://www.ci.staunton.va.us/departments/engineering-division/erosion-and-sediment-control-program

Written procedures and policies for plan review, inspection and enforcement can be found at: http://www.codepublishing.com/VA/staunton.html and https://www.ci.staunton.va.us/government/permits

Objective and Expected Results: The City's VESCP is in place to prevent adverse impacts from erosion and sedimentation from all construction sites.

Implementation Schedule: The VESCP is an existing program and will continue to be implemented throughout the permit cycle. Engineering will continue to be responsible for the VESCP.

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. The annual report will include these values.

Annual Reporting:

Erosion and Sediment Control Program (VESCP)

Permit Year 2	Permits	Total	Commercial sites	Single-family sites
July 1, 2019 - June 30, 2020	Total number of regulated land-disturbing activities	72	13	59
	Total number of acres disturbed	90.4	76.8	13.5
	Total number of inspections conducted	790	207	583

	Enforcement	Total	Notices to Comply	Stop Work Orders
	Total number of enforcement actions taken	262	189	73

Minimum Control Measure 5 – Post Construction Runoff Control

Post-construction stormwater impacts are increases in the type and quantity of pollutants entering the receiving streams. An increase in the quantity of runoff can cause stream bank scouring and downstream flooding. Implementing a combination of structural and non-structural BMPs can reduce the water quality effects of increased impervious areas and are crucial elements of MS4 programs. Procedures need to be developed and implemented to inspect and maintain all permanent structural BMPs for both City and privately maintained facilities.

Modifications to MCM 5: No modifications in Permit Year 2

BMP – 5.1 Require VSMP Permits

The City became a VSMP Authority on July 1, 2014, responsible for administration of our local VSMP Program in accordance with Commonwealth of Virginia regulations. The City will require a VSMP permit for land disturbances of 1 acre or greater and land disturbances less than 1 acre but part of a common plan of development 1 acre or greater. Evidence of permit coverage from DEQ will be required prior to any land-disturbance taking place. The City Engineering Division is responsible for BMP 5.1 and employs 1 certified VSMP Program Administrator, 2 certified VSMP inspectors and 1 VSMP certified plan reviewers. Written procedures for inspection and enforcement are located in the engineering offices at 116 W Beverley Street. A copy of the VSMP approval letting is in Appendix Q. **The City has one trained VSMP Program Administrator, one certified and one trained VSMP inspector and 0 VSMP certified plan reviewers. DEQ training classed halted due to COVID-19. Training and testing are being rescheduled as available with the *Program Administrator scheduled for Plan Review training on September 29–October 1, 2020*. The Program Administrator will sit for the Combined Administrator exam when all training is completed.**

See BMP 4.1 for a description of the legal authorities and written procedures utilized by the City to ensure compliance with our VESCP and VSMP Programs.

Objective and Expected Results: The City 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 City of Staunton will implement local VSMP administration in accordance with Commonwealth of Virginia Regulations and will continue to require applicable VSMP requirements be instituted throughout the permit cycle. The City will implement changes to their local ordinances to comply with modifications to the VSMP permitting regulations. Engineering will be responsible for verifying VSMP permit compliance.

Method to Determine Effectiveness: The total number of permits, inspections, enforcement actions, exemptions applied for and exemptions granted will be tracked. The annual report will include these values.

Annual Reporting:

Stormwater Management Program

Permit Year 2	Permits	Total	Commercial sites	Single-family sites
July 1, 2019 - June 30, 2020	Total number of regulated land-disturbing activities	43	12	31
	Total number of exemptions applied for	0	0	0
	Total number of inspections conducted	578	190	388

Permit Year 2	Enforcement	Total	Notices to Comply	Stop Work Orders
July 1, 2019- June 30, 2020	Total number of enforcement actions taken	198	137	61

BMP – 5.2 Structural BMP Maintenance

The City has a program to ensure proper maintenance of all City owned structural BMPs. The City will continue to require a maintenance agreement for any new privately owned structural BMP. The City will continue to encourage owners of private structural BMPs without agreements to acquire the maintenance agreement. The City's Engineering Division maintains a database of stormwater management facilities. This database is located at the engineering offices at 116 W Beverley Street.

Objective and Expected Results: By continuing the BMP maintenance program the City will ensure BMPs are performing optimally and are minimizing adverse impacts to state waters.

Implementation Schedule: The BMP maintenance program will be an ongoing effort throughout the permit cycle. The development of the program will be a joint effort between Engineering and Public Works. Public Works will be responsible for the actual maintenance of all City owned structural BMPs. Engineering will be responsible for documenting new privately owned BMP agreements.

Maintenance Required/Performed in Permit Year 2: None

Method to Determine Effectiveness: The City will track the total number of new BMP agreements. The annual report will include this number.

Annual Reporting:

Structural BMP Maintenance

Permit Year 2	Total Number of BMP Maintenance Agreements	Number of SWM Agreements		Number of SWM Facilities	
		New BMPs	Existing BMPs	New BMPs	Existing BMPs
July 1, 2019 - June 30, 2020	14	2	12	2	12

BMP – 5.3 Structural BMP Inspection

The City operates a program to inspect structural BMPS within the City. The existing maintenance agreements require property owners of private BMPs to inspect maintain and submit a report to the City upon request. The standardized report is available on the stormwater webpage. The City will also inspect private BMPs once every five years. City owned BMPs will be inspected annually per the program described in BMP 5.2.

Objective and Expected Results: By continuing the BMP inspection program the City will ensure BMPs are performing optimally and achieving design pollutant reduction.

Implementation Schedule: The BMP inspection program will be ongoing throughout the permit cycle. Engineering will be responsible for implementing the programs and performing the inspections.

Method to Determine Effectiveness: The City will track the total number of BMP inspections performed by private owners and completed by City personnel. The annual report will include these numbers.

Annual Reporting:

Structural BMP Inspection

Permit Year 2	Total number of inspections	
	Public BMPs	Private BMPs
July 1, 2019 - June 30, 2020	8	33

BMP – 5.4 Structural BMP Database

The maintenance of the structural BMP database will be instrumental in implementing BMP 5.2 and BMP 5.3. 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. Engineering will be responsible for compiling and maintaining the database.

Method to Determine Effectiveness: The City will include the updates to the BMP database in the annual report.

Annual Reporting: The BMP database for BMPs brought online during Permit Year 2 has been included in Appendix D. *SMF information as required was provided to CGP through database for which coverage was obtained*.

BMP – 5.5 BMP Warehouse Submittal Confirmation Statement

All BMPs not reported in accordance with Part I.E.5 were reported through DEQ BMP Warehouse per Part I.E.5.g of the MS4 General Permit.

Minimum Control Measure 6 – Pollution / Good Housekeeping

The Pollution Prevention/Good Housekeeping BMPs allow the City to examine and alter their own actions in an effort to reduce the amount of pollutant that collects on streets, parking lots, and open spaces as a result of runoff from vehicle maintenance areas and poor stormwater maintenance.

Modifications to MCM 6:
Date: August 22, 2019
List of SWPPP sites changed to reflect discontinuation of recycling center and addition of equipment washing facility located at Parks and Recreation maintenance shop.

BMP – 6.1 Street Sweeping
The City will continue its program of regular street sweeping.

Objective and Expected Results: The street sweeping program will reduce the adverse effects that pollutants found on public roads have on receiving waters.

Implementation Schedule*:* Public works will continue this ongoing program through the permit cycle.

Method to Determine Effectiveness: The City will track the number of road miles swept and tons of debris collected. The annual report will include these numbers.

Annual Reporting:

Street Sweeping

Permit Year 2	Total number of road miles swept	Total number of tons collected
July 1, 2019 - June 30, 2020	6021	1,200

BMP – 6.2 Pollution Prevention Training

City departments, Public Works, Parks & Recreation and Fire Department, will continue its pollution prevention training to its employees. Bi-monthly safety committee meetings will incorporate environmental protection into the agenda as part of Public Works' environmental management systems program.

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. Through this training, employees realize environmental stewardship has many far reaching benefits.

Implementation Schedule: The pollution prevention training is a current policy implemented throughout the permit cycle. Each department, Public Works, Parks & Recreation and Fire Department will continue to be responsible for their departmental pollution prevention training.

Method to Determine Effectiveness: The City will track the number of personnel trained. The annual report will include this number.

Annual Reporting:

Pollution Prevention Training

Permit Year 2	Total number of City personnel trained	Department	Training Date
July 1, 2019 - June 30, 2020	38	Public Works	8/15,10/18,12/19,2/20 2019-2020
	13	Parks & Rec	6/11/2020
	42	Fire Department	9/2 thru 9/4/2019

BMP – 6.3 Yard Debris Collection Program

The City will continue its yard debris collection program. Residents are asked to rake leaves to the curb each fall where Public Works crews vacuum them up for composting. Usually each area of the City will have two specific periods for leaf collection. Leaves may be bagged and, in limited numbers, put out with regular refuse.

Objective and Expected Results: By collecting and composting yard waste the City is reducing the amount of gross discards that would otherwise end up in streams.

Implementation Schedule: This is a program that Public Works will continue throughout the permit cycle.

Method to Determine Effectiveness: The City will track the total number of cubic yards and loads of debris collected. The annual report will include these numbers.

Annual Reporting:

Yard Debris Collection Program

Permit Year 2	Total number of cubic yards collected	Total number of loads collected
July 1, 2019 - June 30, 2020	4328	312

BMP – 6.4 Dedicated Vehicle Wash Facility

The City currently operates and maintains two dedicated vehicle/equipment wash facilities, one at its equipment maintenance shop and one at its parks and recreation maintenance shop.

Objective and Expected Results: This program eliminates the many pollutants that would otherwise enter into the stormwater system if a dedicated vehicle wash facility did not exist.

Implementation Schedule: This is an ongoing program that Public Works will continue throughout the permit cycle.

Method to Determine Effectiveness: The City will track the total number of vehicles washed. The annual report will include this number.

Annual Reporting:

Dedicated Vehicle Wash Facilities

Permit Year 2	Total number of vehicles washed
July 1, 2019 - June 30, 2020	1,494

BMP – 6.5 Storm Sewer Inspection and Maintenance

The City has developed a programmatic storm sewer inspection and maintenance program. The program includes expected routine maintenance and non-routine (repair) maintenance.

Objective and Expected Results: The storm sewer inspection and maintenance program will ensure the storm sewer system is in good working order.

Implementation Schedule: The ongoing program will continue throughout the permit cycle. Engineering and Public works will be responsible for developing and implementing the program.

Method to Determine Effectiveness: The City will document the number of storm structures and linear feet of storm sewer inspected. The annual report will include these numbers.

Annual Reporting:

Storm Sewer Inspection

Permit Year 2	Total number of Storm Structures Inspected	Total Linear Feet of Storm drain Inspected
July 1, 2019 - June 30, 2020	256	3021

BMP – 6.6 Develop/Maintain SWPPPs for Required City Facility

The City has identified four high priority City facilities that it operates. They are:

Municipal High-Priority Facilities with A High Potential for Pollutant Discharge			
Name of facility	**Facility Address**	**Operator**	**Location of SWPPP**
Public Works Operations Facility	1911 Craigmont Road	Public Works	1911 Craigmont Road
Parks and Recreation Maintenance Facilities	330 Park Boulevard	Parks and Recreation	330 Park Boulevard
Middlebrook Avenue Salt Storage Facility	866 Middlebrook Avenue	Public Works	1911 Craigmont Road
Parks and Recreation Pools	600 Churchville Avenue / 1000 Montgomery Avenue	Parks and Recreation	1000 Montgomery Avenue

The City will maintain the Stormwater Pollution Prevention Plans (SWPPPs) for each high priority facility. The SWPPS will be maintained by the facilities operators, which include Public Works and Parks and Recreation staff. Each SWPPP is located on site at the facility and is available upon request.

Objective and Expected Results: These documents will provide guidance to prevent and reduce pollutant runoff from municipal operations.

Implementation Schedule: The City will maintain the SWPPPs for each high priority facilities throughout the permit cycle.

Method to Determine Effectiveness: The annual report will include the total number of SWPPP inspections completed.

Annual Reporting:

Permit Year 2- SWPPP Inspections Performed

Name of facility	Facility Address	Number of Inspections Performed	Number of SWPPP Evaluations	Number of weather events prompting inspection
Public Works Operations Facility	1911 Craigmont Road	55	1 (8/6/19)	5
Parks and Recreation Maintenance Facility	330 Park Boulevard	108		
Middlebrook Avenue Salt Storage Facility	866 Middlebrook Avenue	51	1 (8/6/19)	4
Parks and Recreation Pools	600 Churchville Avenue / 1000 Montgomery Avenue	***Number reduced due to COVID** 32		

BMP – 6.7 Develop/Maintain Nutrient Management Plans for Required City Sites

The City has identified six sites, over one acre, that require a Nutrient Management Plan (NMP). Those sites are:

Municipal Facilities Requiring Nutrient Management Plans			
Name of facility	**Facility Address**	**Planner**	**Acres Covered Under NMP**
Gypsy Hill Golf Course	300 Park Boulevard	Parks and Recreation	1.90
Braves Baseball	600 Churchville Avenue	Parks and Recreation	2.5
Gypsy Hill Baseball Fields	600 Churchville Avenue	Parks and Recreation	2.5
Montgomery Hall Baseball/Softball Fields	1000 Montgomery Avenue	Parks and Recreation	5.4
Montgomery Hall Soccer Fields	1000 Montgomery Avenue	Parks and Recreation	4
Staunton Football Complex	600 Churchville Avenue	Parks and Recreation	2.25

The City maintains a Nutrient Management Plan for each of these sites. The plans are located at each of the facilities and are available for review upon request.

Objective and Expected Results: The developed NMP will define the amount, source, placement, form and timing of the application of nutrients and soil amendments to ensure optimal management.

Implementation Schedule: The City will continue to implement the NMP through this permit cycle.

Method to Determine Effectiveness: The annual report will include the total amount of nutrients applied to the acreage of each site.

Annual Reporting:

Permit Year 2 - Municipal Facilities Requiring Nutrient Management Plans			
Name of facility	**Facility Address**	**Acres Covered Under NMP**	**Total Amount of Nutrients Applied (lbs./acre)**
Gypsy Hill Golf Course	300 Park Boulevard	1.90	Nitrogen: 84.07 Phosphorus:2.61 Potassium: 63.6
Braves Baseball	600 Churchville Avenue	2.5	Nitrogen: 43.99 Potassium: 7.84
Gypsy Hill Baseball Fields	600 Churchville Avenue	2.5	Nitrogen: 43.99 Potassium: 7.84
Montgomery Hall Baseball/Softball Fields	1000 Montgomery Avenue	5.4	Nitrogen: 43.99 Potassium: 7.84
Montgomery Hall Soccer Fields	1000 Montgomery Avenue	4	Nitrogen: 43.99 Potassium: 7.84
Staunton Football Complex	600 Churchville Avenue	2.25	Nitrogen: 135.03 Potassium: 9.58

Chesapeake Bay TMDL

In December of 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 streams, creeks, and rivers that feed the Chesapeake Bay. These measures were established as an effort to improve the water quality of the Bay and to return it to a swimmable and fishable state. The Bay TMDL limits were divided into smaller TMDLs that were assigned to drainage basins across six (6) states including Virginia. To respond to the TMDL the Commonwealth of Virginia committed to a phased approach to implementation for MS4 programs. The phased approach for MS4 communities includes a requirement to meet a reduction goal of 40% during the 2018 - 2023 MS4 Permit Cycle. The City of Staunton has developed a draft TMDL action plan based on the 2013 – 2018 permit cycle guidance document. The Virginia Department of Environmental Quality has indicated that a new guidance document will be provided for the final development of the phase II TMDL action plans. Once the guidance is provided, the City will finalize the action plan. The City of Staunton will then employ appropriate actions to meet the planning document during the 2018 – 2023 to the maximum extent practical.

Objective and Expected Results: The development of a Chesapeake Bay TMDL Action Plan that will provide implementation guidelines and a program of management practices that will facilitate compliance with the condition of future permits.

Implementation Schedule: The City submitted the TMDL Action Plan for the second permit cycle (July 1, 2018- June 30, 2023) on April 29, 2020.

1) Part II.A.13a – BMPs not Reported to the BMP Warehouse - *No BMPs installed*
2) Part II.A.13.b – Credits - *No Credits purchased*
3) Part II.A.13.c - *No BMPs installed*
4) Part II.A.13.d – BMPs planned for the Next Reporting Period – *Gypsy Hill Park Stream Restoration*

Local TMDL

The City of Staunton is located within the South River and Middle River watersheds in Augusta County Va. This waterway was listed as high priority on the impairment list for fecal coliform and general benthic in 1996. As a result, a TMDL was developed and approved in April of 2004. The City was not specifically allocated a waste load as part of the TMDL planning process. The final TMDL instead provided allocations to the major sub-watersheds including Lewis Creek.

Modification: Per discussion between the City of Staunton and Virginia DEQ it was identified that the City is not required to develop a TMDL Action Plan for the Lewis Creek watershed per email dated April 8, 2020 from Nesha Mcrae.

Objective and Expected Results: Not applicable.

Implementation Schedule: Not applicable.

Responsible Parties

The departments and divisions of responsibility for implementation of MS4 program elements are included in BMP descriptions above. Contact information for each responsible party is located below:

Executive Officer
Title: City Manager
Name: Steven L. Rosenberg
Address: P.O. Box 58
Staunton, VA 24402
Phone: 540-332-3812
Email: Rosenbergsl@ci.staunton.va.us

Program Management
Engineering Division
Title: Environmental Programs Administrator
Name: Peter K. Kesecker
Address: P.O. Box 58
Staunton, VA 24402
Phone : 540-332-3858
Email: keseckerpk@ci.staunton.va.us

Department of Public Works
Title: Director
Name: Jeffrey M. Johnston
Address: P.O. 58
Staunton, VA 24402
Phone: 540-332-3892
Email: johnstonjm@ci.staunton.va.us

Department of Parks and Recreation
Title: Director
Name: Christopher Tuttle
Address: P.O. Box 58
Staunton, VA 24402
Phone: 540-332-3945
Email: tuttlecj@ci.staunton.va.us

Staunton Fire Department
Title: Fire Chief
Name: R. Scott Garber
Address: P.O. Box 58
Staunton, VA 24402
Phone: 540-332-3884
Email: garberrs@ci.staunton.va.us

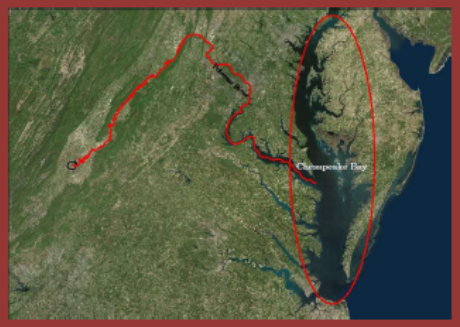
APPENDICES

APPENDIX A

STAUNTON'S SOLUTION FOR STORMWATER POLLUTION, ISSUE NUMBER IV

How does Staunton impact the Chesapeake Bay?

You might wonder, what is means to be within the Chesapeake Bay drainage basin? Well, basically our stormwater here in Staunton drains into at the Chesapeake Bay. Our stormwater begins its journey in Lewis Creek or others and flows through to Middle River, North River, Shenandoah River, Potomac River, and finally enters into the Chesapeake Bay.



It is the City's aspiration that along with our MS4 (municipal separate storm sewer system) program and the Chesapeake Bay Action Plan, we can make our local creeks and streams cleaner and help the water quality in the Chesapeake Bay.

Since beginning our MS4 program and the Chesapeake Bay Action plan, the City of Staunton has been diligently working on planning and installing stormwater best management practices that will help us to achieve this reduction goal for phosphorus, nitrogen, and sediment (or Total Suspended Solids).

Staunton's Solutions for Stormwater Pollution

This brochure is the fifth of an annual publication to inspire the citizens of Staunton to be more proactive to help prevent the stormwater runoff pollution of our local streams and watersheds.

To report stormwater pollution or if you have a question concerning stormwater, please call the City's Stormwater Hotline at **540-213-6517** or send an email to **StauntonStormwater@ci.staunton.va.us.**

For more information on the City's ongoing efforts to reduce stormwater pollution, please find us on Facebook at: **facebook.com/stauntonstormwater**

GET INVOLVED!

There are many opportunities in Staunton offering public participation:

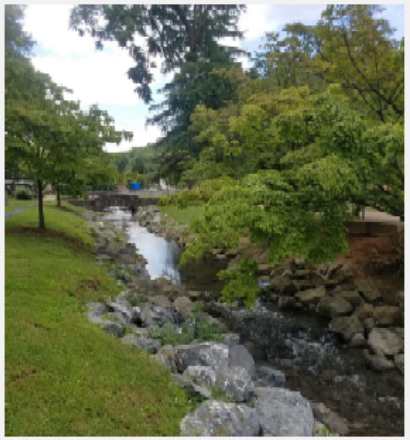
- Adopt-a-Street Program
- Adopt-a-Stream Program
- Regional Household Hazardous Waste Collection Day

Community Development Department
Engineering Division
116 West Beverley Street
3rd Floor
Staunton, VA 24401
Phone: (540) 332-3858
www.staunton.va.us

Find us on Facebook
"City of Staunton – Watershed Awareness"

Staunton's Solutions for Stormwater Pollution

Issue Number V



STAUNTON VIRGINIA

January 2020

The Chesapeake Bay TMDL

In December of 2010, the United States Environmental Protection Agency (EPA) established a Total Maximum Daily Load (TMDL) or "pollution diet" to limit the amount of Phosphorus, nitrogen, and sediment that can be released into the streams, creeks, and rivers that feed the Chesapeake Bay. These measures were established as an effort to improve the water quality of the Bay and to return it to a swimmable and fishable state. The TMDL limits were divided into smaller TMDLs that were assigned to drainage basins across six states including Virginia.

Because the City of Staunton was deemed an urbanized cluster and is within the drainage basin for the Chesapeake Bay, in 2014 Staunton was required to develop an MS4 (Municipal Separate Storm Sewer System) and a Chesapeake Bay Action Plan that would demonstrate how the City would reach these mandated TMDL reductions.

Best Management Practice (BMP)

There are many different stormwater BMPs that can be used to treat stormwater runoff and remove excess amounts of nutrients. However, many of them (ponds for example) are not practial in an urban environment. Don't panic, there are still some stormwater solutions that work and don't take up any extra space. The 3 BMPs highlights below are comprised of layers that aid in removing pollutants from stormwater.

Rain Gardens or Mirco-Bioretention are an amazing BMP that can be installed and look like regular landscaping. Rain Gardens consist of an underdrain, a layer of filter media (typically 18"-36" deep), and have native plantings.

Urban bioinfiltration devices are good to use when there isnt room for landscaping. These concrete boxes can be layered, with an underdrain, filter media, and finally a mulch layer on top.

Best Management Practices (cont.)

Permeable Pavers are another awesome urban BMP. Permeable pavers are comprised of concrete pavers, layers of stone and possibly an underdrain (that releases the filtered water into a storm drain system). The top layers of concrete pavers are separated by small aggregate that allow the water to drain and filter through the stone layers beneath, before entering the ground water/ local waterways or a storm drain system.

What can you do to help?

You might be thinking, this sounds great but I can't do this at my house! Don't worry, here are a few things that you can do around your house to help with stormwater pollution.

- Don't blow grass clippings into the street (Grass clippings contain excess amounts of nitrogen and phosphorus)
- Don't push leaves into the street, leave them behind the curb (leaves contribute to the nitrogen and total suspended solids levels).
- Don't over fertilize your lawn (the excess amount of nitrogen and phosphorus that your lawn does not use, gets carried away when it rains).

APPENDIX B

ILLICIT DISCHARGE DETECTION & ELIMINATION PROGRAM DATABASE

Illicit Discharge Detection and Elimination (IDDE) Database - FY20 July 1, 2019 thru June 30, 2020

NUMBER	NOTIFICATION TYPE	DATE POTENTIAL ILLICIT DISCHARGE OBSERVED	DATE POTENTIAL ILLICIT DISCHARGE REPORTED	DID DISCHARGE REACH LOCAL WATERWAY	WAS DISCHARGE TO IMPAIRED WATERS	DESCRIPTION OF THE INVESTIGATION INCLUDING ANY FOLLOW-UP	RESOLUTION OF THE INVESTIGATION	DATE CLOSED
1	Call from Fire Dept.	10/17/2019	10/17/2019	NO	NO			10/17/2019
2	Call from Fire Dept. (Chris French)	11/8/2019	11/8/2019	NO	NO	Due to a misoperation of the fuel pump, approximately 1 gallon unleaded gasoline with a 10% ethanol mixture was spilling on to the ground. Instead of using absorbant to contain the pill, staff decided to pour 4 gallons of water onto the spill, causing a small amount to enter a storm drain. Spill was contained to the storm drain and absorbent pads were used to remove the fuel. Customer of fuel station provided photo evidence of employee mixing water with the gasoline after his denial of it. Employee later confessed to doing it noting he didn't remember having absorbent.	FM CHRIS FRENCH ISSUED A NOTICE OF VIOLATION TO EMPLOYEEE FOR FAILURE TO FOLLOW EMERGENCY PLAN	11/8/2019
3	Notice from Lyle Hartt /Public Works	12/6/2019	12/6/2019	Yes	NO	On 12/6/19 at approximately 9:10am, a citizen called the City of Staunton Public Works to report water on the pavement near 1000 N Coalter St. PW staff arrived and found sewage overflowing from a cleanout at the corner of the property. The discharge flowed approximately 5' through grass to the street gutter and then approximately 200' to a stormwater drop inlet.	When staff arrived, the flow had not yet reached the drop inlet. They jetted the main, effectively ending the overflow at approximately 9:40am. They washed the affected street and gutter with approximately 400' gallons of water. The storm drain conveyed the diluted flow from the drop inlet approximately 2200' to an unnamed tributary to Lewis Creek.	12/6/2019
4	Perry Weller/Fire Dept.	12/16/2019	12/16/2019	NO	NO	Upon speaking with the two complainants, there was a discharge but it was gone due to the rain upon my arrival. Both described a green liquid (similar to antifreeze) moving along the gutter and going into the storm drain which dumps into the creek that runs behind the building.	Upon investigation by the Fire Dept. it was dtermine that the green liquid was from septic system leak detection dyetablets that had fallen out of the service vechile that morning, mix with the rain and ran down the gutter into the storm drain. The septic dye tablets are non-toxic.	12/16/2019
5	Notice from Lyle Hartt /Public Works	1/31/2020	2/3/2020	YES	YES	On Friday, 1/31/20, at approximately 1:15pm, a citizen notified PW of a potential sewer overflow in the crawlspace of the building at 300 Church Street.	A PW crew was dispatched and arrived on-site at approximately 1:50pm. They found that approximately 50 gallons of sewage had surcharged from a backed-up sewer main upstream of manhole L287 and was seeping through the rock wall adjacent to Lewis Creek. PW staff jetted the main from the next downstream manhole; however, the blockage was not eliminated. They then jetted from the next upstream manhole and a blockage was encountered and dissipated, effectively ending the overflow at approximately 2:30pm. The exact cause of the blockage is unknown. A video inspection of the sewer main is being scheduled to help determine the cause of the overflow and assess if any repairs are needed.	2/3/2020

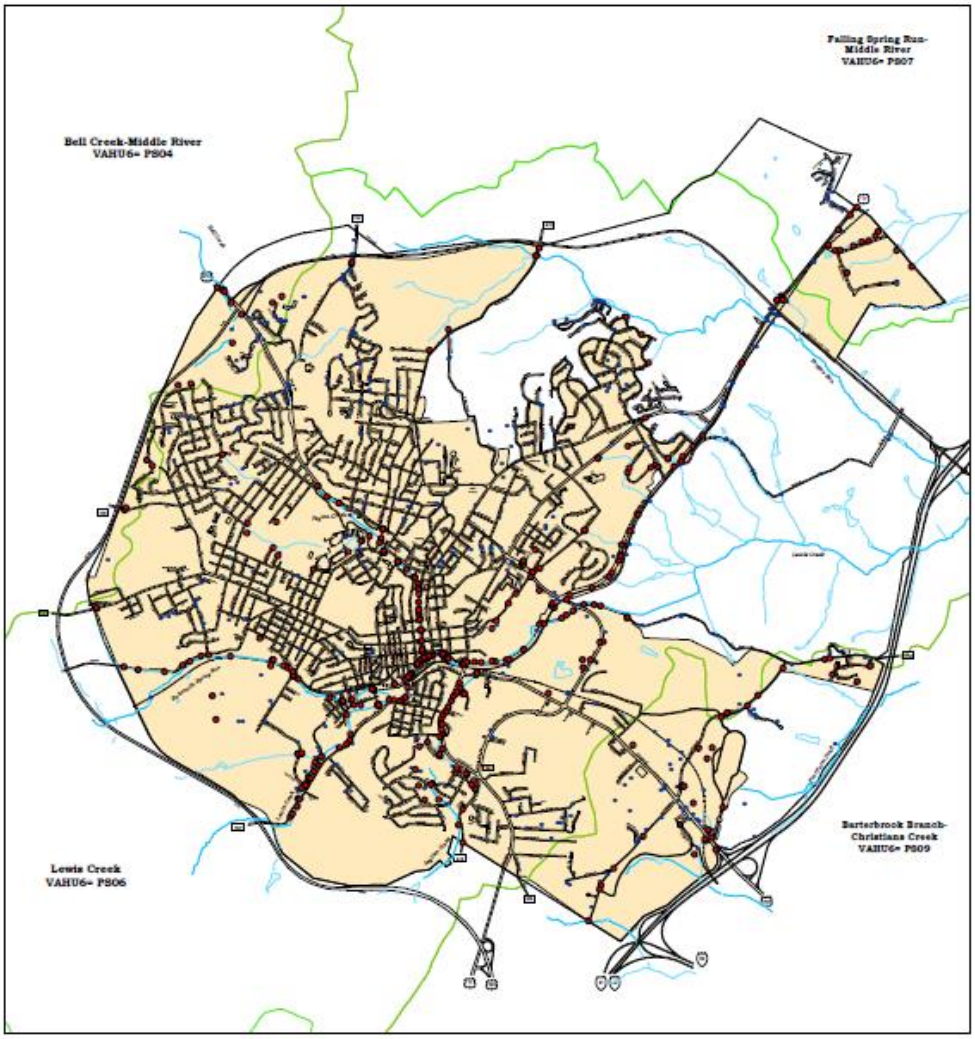
6	Perry Weller/Fire Dept.	2/7/2020	2/7/2020	NO	NO	On Friday Feb. 7th at approx. 7:30 AM a call was received from Staunton Fire Dept. to report a diesel fuel spill at the National Guard Armaory near Gypsy Hill Park. A truck had punctured the saddle fuel tank and leaked approx. 10-15 gallons from the parking lot through +/- 15' of grass into the street. Fuel then ran down the street into a drop inlet which discharges into a tributatry of Peytons Creek which runs through Gypsy Hill Park.	Upon arrival at the scene, PW was spreading sand on the street to cover and absorb any diesel fuel on the street. Pads and absorbent boom were placed in front of drop inlet.Oil sheen had entered the stream at that time but no evidence of fish kill, a boom was placed in the stream. PW swept up the sand that afternoon an disposed properly. The National Guard consultant Cardina, the contracted Remediation Company ,Project Coordinator: Dane Anderson made contact to determine and ensure spill had been contained and remediated to the City's satisfaction.	2/7/2020
7	Perry Weller/Fire Dept.	2/13/2020	2/13/2020	NO	NO	On February 13, 2020 at approximately 14:00 HRS, Inspector Courtnie May received notification from the Fire Department that a diesel spill had occurred at the Armory National Guard's maintenance shop located off Calvert St. Upon arrival, the inspector met with the City of Staunton Fire Department on Thornrose Ave. The firefighters on duty explained the route in which the truck took and stated that they would follow that and spread absorbents and lay pad	Petroleum sheen, with odor, flowing down the slope from the armory towards a storm drain. Absorbents and pads were surrounding the drop inlet. The inspector observed a sheen at the bottom of the storm drain and went downstream to determine if it has reached a waterway. The inspector did not observe a petroleum sheen on the stream. As the distance from the armory progressed, the petroleum product observed along the road lessened. The next area of greatest concern observed by the inspector was at the intersection of Middlebrook Ave and W Hampton St. The inspector arrived at the intersection at the same time as the Fire Department. Due to the grade of the slope, the inspector requested pads be replaced with absorbent booms. The Fire Department complied with the request. On February 14, 2020 Chief Adam Hicks contacted the inspector and informed her that the booms, pads, and absorbents had been replaced. Chief Hicks explained that they estimated the truck lost less than five (5) gallons of diesel from the armory to the maintenance shop. Later on February 14, 2020 Dane Anderson, project lead for Cardinal, the contracted remediation company. Mr. Anderson stated that they would continue to monitor booms and pads and remove the absorbents. Mr. Anderson stated that The City swept the main roads. At this time, 09:25 HRS on February 25, 2020, the inspector has not received any more information on the remediation.	
8	Lyle Hartt /Public Works	1/31/2020	2/3/2020	YES	YES	On Friday, 1/31/20, at approximately 1:15pm, a citizen notified PW of a potential sewer overflow in the crawlspace of the building at 300 Church Street. PW crew was dispatched and arrived on-site at approximately 1:50pm. They found that approximately 50 gallons of sewage had surcharged from a backed-up sewer main upstream of manhole L287 and was seeping through the rock wall adjacent to Lewis Creek.	PW staff jetted the main from the next downstream manhole; however, the blockage was not eliminated. They then jetted from the next upstream manhole and a blockage was encountered and dissipated, effectively ending the overflow at approximately 2:30pm. The exact cause of the blockage is unknown. A video inspection of the sewer main is being scheduled to help determine the cause of the overflow and assess if any repairs are needed.	2/3/2020

9	Lyle Hartt /Public Works	2/23/2020	2/24/2020	YES	NO	On Sunday, 2/23/20, at approximately 9:30am, a citizen notified PW of a potential sewer overflow at 506 Winchester Avenue. PW crew was dispatched and arrived on-site at approximately 10:00am. They observed that sewage was overflowing from manhole ST76, located in front of 506 Winchester Ave, at the rate of approximately 5 gpm. The overflow was travelling along the edge of the street and in the grass for approximately 100', where it entered a concrete ditch. The ditch conveyed it 125' to a storm structure, where it was pipe 140' to an unnamed tributary to Lewis Creek.	PW staff jetted the line to clear a blockage downstream of the overflow, effectively ending the overflow at 11:10am and restoring flow to the sewer pipe. A video inspection of the sewer main is being scheduled to help determine the cause of the overflow and assess if any repairs are needed.	2/24/2020
10	Pete Kesecker/Engineering	3/5/2020	3/6/2020	YES	NO	On 3/5/2020 at approx. 2:45PM Lyle Hartt/PW was informed of a sewage leak at The Kroger fuel station side parking area. Upon investagtion it was determined that it was a private sewer line. Mr Hart informed me of the sewer overflow and I went to the site and observed minimal flow from the manhole beside the parking area. Flow continued down the gutter plan onto Statler Squre Rd. and into curb drop inlet. I informed the property manager for Statler Square shopping center and the manager at Kroger of the situation. Both said a plumber was in route.	Plumber arrived at approx. 4:15PM, jetted the sewer line at the manhole, blockage was cleared and normal flow resumed.	3/6/2020

APPENDIX C

OUTFALL AND POINTS OF DISCHARGE MAP

City of Staunton Outfall Map



- Urbanized (MS4) Outfalls
- Non-Urbanized Outfalls
- Streams
- City Limits
- Tributaries
- HUC Boundary
- Urbanized Area Boundary

1 in = 1,500 ft

This map was created based off the 2010 US census

City of Staunton
August, 2019

APPENDIX D

BMP DATABASE ADDITIONS

CITY OF STAUNTON

Priately Owned BMP's Brought Online from July 1, 2019- June 30, 2020

total	ASSET NO.	BMP NO.	TAX MAP	SITE/SUBDIVISIO	SITE ADDRES	CITY PARCEL	OWNER	OWNER ADDRES	SITE LOCATION		FACILITY TYPE	ACRES TREATED			ONLINE DATE		VA HU6	RECEIVING	IMPAIRED	WITHIN MS4	PRIVATE PUBLIC	SWM AGREEMENT	LAST INSPECTI
									LATITUDE	ONGITUD		TOTAL	PERVIOUS	MPERVIOU	MONTH	YEAR							
219	DBD BAC32	BAC32	475	Linden Heights	371 Linden Dr	9028	Linden Heights Baptist Church	371 Linden Dr	38.13002	-79.0663	Dry Detention Basin				9	2019	PS06	Asylum Creek	No	Yes	Private	9/18/2019	9/11/2019
218	DBB BPC36	BPC36	242	Barrington Section 3	1210 Stocker St	101503	Par Four, LLC	11 Terry Ct #A Staunton VA 24401	38.1697	-79.0869	Bioretention Filter	0.15		0.15	12	2019	PS03	Peyton creek	No	Yes	Private	2/17/2017	

APPENDIX E

Assessment of the Appropriateness of Identified BMPs

The City of Staunton has determined that the best management practices included in the MS4 Program Plan that the City already had in place during Permit Year 2-Yr. 2 represent an appropriate selection and implementation of a stormwater management program as defined by the General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems.

No deficiencies have been found within the existing BMPs or within the new BMPs currently being developed for the Program.