

INTRODUCTION

This annual report was developed by the City of Waynesboro Stormwater Program that is a Division of the Public Works Department. The report covers the reporting cycle July 1, 2018 through June 30, 2019 – Year 1 for Permit VAR04133. The City of Waynesboro was first designated as a Phase II MS-4 Community in 2013, so the program plan for Permit Cycle 1 was incrementally adopted through June 2018. This report includes the status of compliance with the permit conditions, the appropriateness of the best management practices to meet the measurable goals of the program plan, and the reporting requirements of the general permit. Descriptions of the applicable Best Management Practices (BMPs) for each Minimum Control Measure (MCM) are included with a description of the BMP, Year 1 activities and the projected Permit Cycle 2, Year 2 activities. A summary table is provided for each of the six MCMs that include the BMP tracking measures and associated reported numbers. A grey cell in these tables indicates the program element is not applicable to that permit year. The Program Plan was updated with the new Construction General Permit regulations, available on the City of Waynesboro Website.

Contents

Minimum Control Measure 1 – Public Education and Outreach	3
Minimum Control Measure 2 – Public Involvement/Participation	6
Minimum Control Measure 3 – Illicit Discharge Detection and Elimination.....	9
Minimum Control Measure 4 – Construction Site Runoff Control	11
Minimum Control Measure 5 – Post-Construction Runoff Control.....	12
Minimum Control Measure 6 – Pollution Prevention/Good Housekeeping.....	14
Evaluation and Assessment	17
Chesapeake Bay TMDL.....	18
Appendix 1 – MS4 Outfall Inspection Export	20
Appendix 2 – Dry Weather Screening SOP	21
Appendix 3 – Illicit Discharge Detection and Elimination	22
Appendix 4 – Pollutant Reductions	23
Responsible Parties	24

MS4 PROGRAM

Minimum Control Measure 1 – Public Education and Outreach

The three high priority issues the City of Waynesboro identified in the 2018 Program Plan are South River Water Quality, Illicit Discharge and Pollution Prevention and Watershed Awareness. Additionally, The City continued with its public education and outreach efforts by delivering school presentations, managing the Stormwater Webpage, and distributing informational brochures.

BMP – 1.1 South River Water Quality

The goal for this BMP is to convey information about the threats of pet waste pollution to the South River and educate on good housekeeping practices for homeowners.

An informational write-up, 'Please Be a Good Neighbor and Clean Up after Your Dog..' of the threat of animal waste to the South River was created by Stormwater Staff and published in the Parks & Recreation Quarterly Newsletter that is mailed to Waynesboro residents. At the annual Riverfest and Pet Pawloozza event, pet owners received pet waste dispensers also with the informational write-up.

Pet waste education is included in the school presentation series. The pollutant is introduced during the fourth grade 'Raindrop Game' with a description of its negative effects on the watershed. For sixth grade education, a 'South River Jeopardy' game is incorporated, which includes pet waste facts. Additionally, the great amount of goose waste and its effects on the South River is explained to the high school students.

Permit Cycle 2, Year 2 – A pet waste pollution educational pamphlet will be created and distributed at local Veterinarian Offices.

BMP – 1.2 Illicit Discharge and Pollution Prevention

The City of Waynesboro adopted an Illicit Discharge Ordinance in June 2016. The ordinance defines prohibited discharges, the process for inspection and monitoring, and the resulting violations, enforcement and penalties from detected illegal discharges.

Detection and Elimination brochures are the main source of media for the delivery of this subject. These brochures are available at outreach events and distributed to home or business owners suspected of illegal dumping, discharging into the MS4 system or directly into the South River. The Stormwater Webpage on the City of Waynesboro Website has the brochure available for review and contains a link to the Illicit Discharge Ordinance.

PC 2, Y 2 – Distribution of brochures will continue at homes and businesses suspect of illegal dumping and available at outreach events.

BMP – 1.3 Watershed Awareness

Watershed Awareness education highlighted the fact that Waynesboro residents are in the direct South River Watershed and ultimately are part of the Chesapeake Bay Watershed. School presentations were the main setting for delivery as students learned the definition of a watershed, how it is affected by surrounding conditions, and actions that impact a watershed. The students learned by playing 'South River Jeopardy', display and interaction with the Enviroscope (simulated watershed), and bracelets that display "Only Rain, Down the Drain" and "Property of the South River Watershed". The bracelets were also distributed at the annual Riverfest.

PC 2, Y 2 - Continue with the delivery of watershed education and refine as seen fit to streamline the materials. The City has retained the Center for Watershed Protection to assist with the development of Watershed Awareness Training for Public Works, Parks and Recreation and Fire Department employees.

BMP – 1.4 School Presentations

City Staff delivered seven presentations to fourth and sixth graders along with the high school Ecology Class. All fourth graders (277 students) were presented with material that correlated to the Standards of Learning for the Earth Science curriculum. The key topics were sources of water pollution including illicit discharge, soil properties, aquatic life and watershed concepts. The majority of the presentations were outdoors with hands-on activities to boost focus and retainage of the material. Each student received a bracelet with the slogan "Only Rain, Down the Drain" to accentuate the presented material.

The annual sixth grade science 'field day' at Kate Collins Middle School was successful for its second year. The threat of weather pushed the activities inside, however the educational agenda was modified and well received. The City Staff along with the Department of Forestry, Department of Game and Inland Fisheries and the Soil and Water Conservation District held stations at the event. Stations included 'South River Watershed Jeopardy', South River macro-invertebrates, good foresting practices, Waynesboro Landfill past and future, and individual rain gauge making. Additionally, Wastewater and Water Treatment Plant tours were given by the associated staff. The material presented to the 240 students built upon the fundamentals learned throughout the earth science semester.

The Waynesboro High School Ecology Class of 17 students assisted Stormwater and Parks and Recreation Staff with the re-planting of biofilters at Ridgeview Park this past fall. The function and components of the bio-filters were presented with a brief description of the completed stream restoration project. This past spring, the students assisted with a small cleanup along the Greenway Trail and adjacent parking lot owned by The City. The students learned of a future park plan to retrofit the parking lot adjacent to the South River and the positive effects it could have on the community and the watershed.

PC 2, Y 2: The components of the fourth and sixth grade education are successful and will carry forward into Year 2. The education agenda for the high school Ecology Class Staff may adapt with small projects Stormwater Staff have going on or educational opportunities deemed adequate to compliment the class curriculum.

BMP – 1.5 Stormwater Webpage

A dedicated stormwater page is available on the City's website to provide detailed MS4 information to the public including the MS4 Annual Reports to date, <https://www.waynesboro.va.us/291/Stormwater-Administration>.

Additional information on the Stormwater Administration page includes links to the Stormwater Capital Improvements Program, water quality organizations, ideas for reducing stormwater runoff at a residential scale, along with the Virginia Stormwater Management Regulations. The City Stormwater Page had 502 Page Views and 382 Unique Views during Permit Year 1.

PC 2, Y 2: The City will update the website with a continual focus on basic stormwater and watershed concepts; stormwater projects /retrofits happenings within the City, and on-going programmatic and water-quality related initiatives.

BMP – 1.6 Educational Brochures

The Stormwater Department currently has three easy to read educational brochures to increase the public's basic knowledge of stormwater concepts. They consist of a general MS4 Program information brochure, an Illicit Discharge brochure that was created with the development of the City Ordinance, and Backyard Composting education. The former two brochures are available on the City Website and all three are available at outreach events. Alternative booklets and pamphlets are available at events that cover Chesapeake Bay friendly homeowner practices from fertilizer application to car washing tips. City Staff distributed approximately 75 brochures to the public at outreach events this year.

PC 2, Y 2: The City will continue to distribute materials to focus on 'Watershed Concepts' and 'Illicit Discharge' as well as developing and distributing information on 'Pet Waste' as a source of pollution. Additionally, the City has worked with the Promotores de Salud Program at the James Madison University, Institute for Innovation in Health & Human Services to develop similar Spanish language information to better reach the Hispanic community.

Public Outreach and Education Summary

The City reached approximately **1,150 individuals** during Permit Year 1. School presentations constituted 47% of the total, the outreach events allowed City Staff to present basic stormwater material to children of all ages. School aged children make up 60% of our target audience and 40% general public.

Minimum Control Measure 1 – Public Education and Outreach Summary

BMP	Permit Year	Strategy
1.1 South River Water Quality	1 through 5	Written Materials, Media, Signage, Alternative Materials, Presentations
1.2 Illicit Discharge and Pollution Prevention	1 through 5	Written Materials, Media, Presentations
1.3 Watershed Awareness	1 through 5	Written Materials, Alternative Materials, Signage, Presentations

Minimum Control Measure 2 – Public Involvement/Participation

BMP – 2.1 Stormwater Webpage and Hotline (Monitoring, Pollution Prevention)

The City has established a dedicated Stormwater Webpage and hotline for public reporting and input. The link is as follows: <http://www.waynesboro.va.us/291/Stormwater-Administration>
The portal provides easy citizen access to ask stormwater related questions or report concerns, such as illicit discharge.

The portal and hotline are checked daily and all relayed issues are entered into the Operations Management System (OMS) to be assigned a request for investigation. Stormwater Staff will perform a field inspection of the reported issue, assign a corrective task to the appropriate Operations crew if necessary, then contact to discuss with the caller. During Year 1, there were 135 stormwater requests entered into the OMS.

PC 2, Y 2: The City will continue to maintain these means of communication and promptly respond to messages and address citizen concerns.

BMP – 2.2 Tree Planting Program (Restoration)

The City has a Tree Planting Program, which entails tree planting, dead or diseased trees replaced, and structural pruning performed on young, existing trees. This year five trees were planted, 27 removed and 12 pruned.

The City also organizes and encourages the community to participate in an annual Arbor Day event. This year the Arbor Day program held at Ridgeview Park hosted 15 second grade students from the North Branch School. Representatives from the Department of Forestry taught the students general tree characteristics, how they are beneficial, and how certain species thrive in certain environments. The participants were able to assist with shoveling dirt and planting an American Yellowwood along with learning how to plant the seedlings received by each.

PC 2, Y 2: The City Stormwater Program will continue support of the Arbor Day event and raise general awareness to the public on the benefits of trees.

BMP – 2.3 Stormwater Booth at Community Events (Educational Events)

Riverfest is an annual event in Waynesboro that promotes environmental conservation and watershed stewardship. At Riverfest 2019, Program staff presented basic MS4 information and targeted education on pet waste. A Stormwater scavenger hunt was created for the event that defined pet waste threats, stormwater infrastructure and South River life. Approximately 40 kids navigated the scavenger hunt and approximately 65 program informational brochures were obtained by the public. The Riverfest organization estimated 3,000 children and adults attended the 2019 event.

Stormwater Staff hosted a rain barrel making workshop this past spring to promote “good homeowner” practices. There were 8 participants that received the materials free of charge with the expectation each would be used at the residences. The workshop was a success and may be continued annually.

PC 2, Y 2: The City Stormwater Program will continue to participate in the Riverfest and provide interactive activities as an effective method for families to learn the connection between the urban landscape and its effect on the South River.

BMP – 2.4 Household Hazardous Waste Collection Program (Disposal Event)

The City participated in the regional Household Hazardous Waste Collection day held at the Augusta County Government Center. The following types of waste are accepted: gasoline, kerosene, oil-based paints & stains, rechargeable batteries, pesticides, solvents, diesel fuel, #2 fuel oil, polyurethane, automobile batteries, herbicides, small electronics, antifreeze, 2 cycle fuel mix, CFL and fluorescent bulbs, motor oil, mercury devices and computers.

The City supplied informational materials prior to the Collection Day on the website and public facilities to reduce the risk of improper storage and discharges or disposal into the MS4 system. City staff assisted with collecting Household Hazardous Waste at the event; City vehicles dropped off approximately two loads of hazardous material during the day.

PC 2, Y 2: The City will continue to post the Hazardous Waste Collection Day on the website prior to the event and provide support staff for the event.

BMP – 2.5 Pet Waste Station Implementation (Pollution Prevention)

(In accordance with the Program Plan, this BMP will not be expanded until Permit Year 4.)

The Parks and Recreation Department currently maintains Pet Waste Stations along the South River Greenway and two City Parks. It is estimated the Greenway receives 10,000 visitors per year with 20% taking advantage of the pet waste station.

PC 2, Y 2: Maintain the pet waste stations and encourage use by pet owners.

BMP – 2.6 Community Good housekeeping (Restoration)

The Stormwater Webpage provides a link to educate viewers on the Clean Stream program and maintains preparedness to offer assistance to local groups and schools in their stream cleanup events.

Stormwater Staff and the local Trout Unlimited (TU) chapter hosted a stream cleanup in November 2018. Staff reached out to local civic groups and businesses to take on the cleanup effort. There were 20 individuals that assisted from both businesses and as a caring citizen. The City Greenway was cleaned and produced 48 bags of trash and a mattress.

PC 2, Y 2: Stormwater Staff plans to partner with TU to expand community outreach for the local stream cleanup initiative. Several businesses and community groups will be approached to assist with a fall stream cleanup. The goal is to educate on the significance of waterway health and practices to improve the longevity of water quality.

Minimum Control Measure 2 – Public Involvement/Participation Summary

BMP	Tracking Measure	Reported Number				
		Year 1	Year 2	Year 3	Year 4	Year 5
2.1 Stormwater Webpage and hotline	# of stormwater related requests	135				
2.2 Tree Planting Program	# of trees planted	5				
	# of trees pruned	12				
	# of participants	15				
2.3 Community Events	# of participants	605				
2.4 Household Hazardous Waste Collection	# of dump truck loads	2				
2.5 Pet Waste Station	# of new installations					
2.5 Community Good Housekeeping	Linear feet of stream	6,800				

Minimum Control Measure 3 – Illicit Discharge Detection and Elimination

BMP – 3.1 IDDE Detection Program

The Illicit Discharge Detection Program continues to screen, identify and address unauthorized discharges.

City staff continued using a mobile IDDE Application to log outfall inspections and track necessary maintenance or follow-up monitoring activities. During this year, 54 MS4 outfalls were screened using the application, which tracks and prioritizes screenings based on a sub-watershed map and Illicit Discharge Potential (IDP) ranking of different outfalls within the City. The spreadsheet of MS4 Outfall inspections can be found in Appendix 1.

Site specific folders for each reported illicit discharge are located on the MS4 Program Server. There were five locations of suspected illicit discharge this year, which required investigation. Only one of the locations proved to have discharged directly toward the South River. The incident happened May 21, 2019 by a concrete company that washed-out directly uphill from the river. The discharge was called in by a concerned citizen and investigated by staff right away. The company was contacted and informed of the violation and directed to clean the shoulder of the street and riprap affected by the concrete washing. There was not enough concrete to reach the river to be detected. The company returned upon request and cleaned as much of the wet product as possible. A letter stating the violation and code reference along with the Illicit Discharge brochure was mailed to the company for reference. The incident was closed May 22, 2019.

PC 2, Y 2: Screening and data input of at least 50 outfalls will continue this year in the Illicit Discharge Application. Educational efforts will continue with the goal of eliminating non-stormwater discharges.

BMP – 3.2 Mapping of Stormwater Network

The City has updated and sent a GIS derived map and attribute table to DEQ on June 19, 2019. The inventory of public inlets and manholes showed an increase this year as a residential subdivision's public improvements were accepted and an increase in GPS field work. Staff will continue to update and maintain an accurate storm sewer system map and information table for City-owned stormwater facilities using GIS and GPS technologies. Information collected and to be maintained includes:

- MS4 outfalls
- Name and location of receiving waters, and if it is impaired
- HUC (6th order)
- Information table containing unique outfall identifier
- Estimated MS4 acreage served
- Applicable TMDL
- Structural stormwater BMPs type and location

- Storm sewer type and size
- Land Use

PC 2, Y 2: Staff will continue maintaining and updating the map as part of its outfall screening and systematic infrastructure condition assessments.

BMP - 3.3 Refinement of Written Procedures to Detect, Identify and Address Unauthorized Non-Stormwater Discharges to the MS-4

The dry weather outfall screening Standard Operating Procedure (SOP) can be found in Appendix 2 and the Illicit Discharge Detection and Elimination SOP is in Appendix 3.

PC 2, Y 2: The SOP's will be used as guidance for IDDE screening and may be refined if improvements are warranted for clear direction.

BMP – 3.4 SPCC Training

Public Works Department employees were provided standardized process operating procedures for handling and working with substances in a safe manner and included information on spill-handling procedures. In addition, all personnel employed by the City Fire Department and essential Parks & Recreation personnel receive spill response training.

PC 2, Y 2: The City will continue with its goal to educate employees on standard operating procedures to minimize accidental pollutant release that could potentially contaminate stormwater runoff or waterways.

Minimum Control Measure 3 – Illicit Discharge Detection and Elimination

BMP	Tracking Measure	Reported Number				
		Year 1	Year 2	Year 3	Year 4	Year 5
3.1 IDDE Detection Program	# of ID detected	5				
	# of enforcement actions	1				
3.3 Mapping of Stormwater Network	# of Inlets mapped	89				
	# of Manholes mapped	29				
	# of Outfalls mapped	7				
	# of MS4 Outfalls	150				
3.4 SPCC Training	# of personnel trained	120				

Minimum Control Measure 4 – Construction Site Runoff Control

The City of Waynesboro operates two parallel programs to manage Construction Site Runoff, by serving as an Erosion and Sediment Control (ESC) and Virginia Stormwater Management Program (VSMP) Authority. The City has a dedicated Administrator, Inspector, and Plan Reviewer for these programs, assisted by additional administrative and field personnel as needed.

BMP – 4.1 Erosion and Sediment Control Ordinance

The ESC Ordinance is found within Waynesboro's City Code, Chapter 30, Article II. Stormwater Staff continued to implement the ordinance and its legal authorities to require permitted construction sites to install, inspect, and maintain ESC controls.

PC 2, Y 2: ESC Ordinance updates in accordance with changes made to the Commonwealth of Virginia Code will be adopted this permit year if necessary.

BMP – 4.2 Erosion and Sediment Control Program

The City continues to administer an Erosion and Sediment Control Program in accordance with the DEQ approved standards and specifications.

A total of 70 permits that covered 28.28 acres of disturbed land opened this permit year, generating 512 inspections. Six of the permits were non-single family and 32 were single family outside a Common Plans of Development (CPOD).

PC 2, Y 2: Continue to operate a compliant program in accordance with Virginia State regulation and successfully minimize sediment-laden runoff from construction sites from reaching local water bodies. Additionally, ESC Staff will also continue to maintain proper certifications and tracking parameters.

BMP – 4.3 Require VSMP Permits

The City became a VSMP Authority on July 1, 2014 and is responsible for administration of the local VSMP Program in accordance with Commonwealth of Virginia regulations.

There were 32 single family permits in a CPOD and no non-residential permits opened this year. There were 12 VSMP permits reissued with the new permit cycle. The City of Waynesboro ESC Staff also issued two Notice to Comply documents, two Stop Work Orders, no fines and one Letter of Enforcement.

PC 2, Y 2: The City will continue to implement local VSMP Program administration and require applicable VSMP requirements to be instituted throughout the permit cycle.

Minimum Control Measure 4 – Construction Site Runoff Control

BMP	Tracking Measure	Reported Number				
		Year 1	Year 2	Year 3	Year 4	Year 5
4.1 Erosion and Sediment Control Program	# of new sf land disturbance activities	32				
	# of new non-sf land disturbance activities	6				
	# of acres	28.28				
	# of inspections	512				
	# of enforcement actions	0				
4.2 Require VSMP Permits	# of permits	0				
	# of single family permits (CPOD)	32				
	# of full inspections	5				
	# of 'spot' inspections	75				
	# of CPOD inspections	247				
	# of enforcement actions	5				
	# of exemptions	0				

Minimum Control Measure 5 – Post-Construction Runoff Control

The City of Waynesboro implements the VSMP consistent with the Virginia Stormwater Management Act and VSMP Regulations. The City’s stormwater management BMP’s were reported using the DEQ BMP Warehouse in accordance with the CGP requirements.

The City did not complete any projects requiring coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities.

BMP – 5.1 Public Structural BMP Inspection and Maintenance

All City-owned structural BMPs are inspected at least bi-annually by Stormwater Staff for structural integrity. Should maintenance be required, a task will be created for Public Works Operation’s Staff to correct the found issues.

This Permit Year maintenance tasks consisted of tree removal in five ponds, selective invasive flora removal from six BMPs, sediment removal from three and rodent hole remediation in one pond.

PC 2, Y 2: The City will continue routine maintenance of storm facilities on a minimal bi-annual basis, as well as continue contracted maintenance of invasive species in select BMP’s.

BMP – 5.2 Private Structural BMP Inspection and Maintenance

Inspections of structural BMPs by owners within the City have increased with the development of the BMP inspection program plan. Existing maintenance agreements require property owners of private BMPs to inspect, maintain, and submit an annual report to the City. Additionally, the program appoints the City to inspect all privately owned BMPs once every 5 years.

Stormwater staff mailed reminder letters and an inspection checklist to BMP owners with a recorded maintenance agreement. In response, 11 out of 20 of the owners returned the completed inspection form. Staff inspected 23 of privately owned facilities and mailed the inspection report and suggested maintenance to the owners.

PC 2, Y 2: The City will continue to inspect private facilities and track inspections from owners of privately owned BMPs on an annual basis. The opportunity will remain for existing owners of private structural BMPs without agreements to acquire a Stormwater Maintenance Agreement with the incentive of becoming eligible for stormwater utility fee credits.

BMP – 5.3 Structural BMP Database

The Structural BMP Database is an effective tool in implementing BMP 5.1 and BMP 5.2. The public and private BMP inventory is modified as new facilities come on-line or taken offline. Stormwater and Engineering Staff are responsible for input of new facilities brought online to The City’s ARC GIS and the DEQ database; there was one facility constructed this year.

PC 2, Y 2: The City will continually update its BMP Database in-house and through the DEQ database.

Minimum Control Measure 5 – Post-Construction Site Runoff Control

BMP	Tracking Measure	Reported Number				
		Year 1	Year 2	Year 3	Year 4	Year 5
5.1 Public BMPs	# of public inspection	36				
5.2 Private BMPs	# of inspections by owners	12				
	# of inspection by staff	23				
	# of enforcement actions	0				
5.3 Structural BMP Database	# of BMPs brought online	1				
	# of maintenance agreements	1				

Minimum Control Measure 6 – Pollution Prevention/Good Housekeeping

BMP – 6.1 Street Sweeping

Street sweeping remains an important component of the City's Pollution Prevention efforts as it can lead to significant reductions in the amount of sediment and related pollutants reaching surface waters.

The City continued with the schedule of sweeping Arterial and Collector roads bi-monthly and local roads by ward, monthly. Alleys designed to carry stormwater flows were swept on an as-needed basis only. City owned high priority sites (Public Works Operations, Parks and Recreation and the Recycling Center) were swept a minimum of once per month.

The ice storm that hit Waynesboro and surrounding communities in November of 2018 left extensive amounts of damage and downed debris to be removed by City Crews. The street sweeper was not able to perform sweeping efforts for approximately three months during massive debris cleanup efforts. The amount of debris collected by the sweeper and the resulting pollutant reductions were calculated using the Mass Loading Approach laid out in the Recommendations of the Expert Panel to Define Removal Rates for Street and Storm Drain Cleaning Practices. Those results can be found in Appendix 4.

PC 2, Y 2: Street sweeping operations will continue in accordance with Waynesboro's Street Sweeping Plan. Analysis of the weight and composition of debris using the mass loading approach will continue to be reported. In addition, the City is implementing a program to track lane miles swept at different frequencies in accordance with Table 17 of the Expert Panel report.

BMP – 6.2 Pollution Prevention Training

The City Public Works Department provides pollution prevention training to its employees. Monthly safety committee meetings incorporate environmental protection into the agenda as part of Public Works' Environment & Safety Program.

There were 92 Public Works employees provided with information on safe handling and spill prevention procedures and discussions of hazard assessment. Training was conducted in a "tool box" method in addition to formal training.

PC 2, Y 2: The City has retained the Center for Watershed Protection (CWP) to provide training for Public Works Operations, Parks and Recreation and the Fire Department in stormwater knowledge, watershed awareness and pollution prevention. The CWP will also assist in the development of daily operational procedures to minimize pollutant discharge from Public Works Operations Yard.

BMP – 6.3 Yard Debris Collection Program

The City has an on-going yard debris and fall leaf collection program that reduces the amount of yard waste that reaches storm sewers and surface waters.

Public Works employees collected 4095cu.yd.of leaf and yard debris for a total of 227.5 loads. A majority of the debris is a result of the November 2018 ice storm. The City Website hosted

information on proper yard waste disposal and promotes recycling of debris and leaf litter. Additionally, Informational brochures on composting were made available at public events.

PC 2, Y 2: Continue collecting yard debris and leaves, tracking the weight and number of loads kept from storm inlets and waterways. Education on proper disposal techniques will continue on the website and public events.

BMP – 6.4 Vehicle Wash Program

A vehicle washing program, minimizes the amount of pollutants from vehicle wash runoff entering the stormwater system and plays an important role in pollutant reduction. The Public Works Facility SWPPP identifies a designated washing bay and drying beds as vehicle/equipment washing areas. Trucks are prohibited to dump contents into the wash bay drain, connected to the sewer system.

An oil and water separator stormwater filtering device was installed at the end of June 2019 to filter water leaving the wash bay and the surrounding area prior to reaching the South River.

PC 2, Y 2: Continue to monitor washing facilities during routine SWPPP inspections. The PW Operations crews and Parks and Recreation maintenance crews will receive proper vehicle washing training in Permit Year 2.

BMP – 6.5 Storm Sewer Inspections and Maintenance

A storm sewer inspection and maintenance program aids in routine and non-routine maintenance and repair of stormwater facilities.

The City employed contracting services in the spring of 2019 to clean and CCTV approximately 11,250 linear feet of a portion of the stormwater system that was targeted due to advanced age. Additionally 160 storm structures were inspected as part of a citizen request, outfall screenings and concerns discovered in the field.

PC 2, Y 2: The City will continue to perform storm sewer structure inspections at reported and historic hotspots. Maintenance will be performed by in-house crews with available manpower and equipment along with annual contracted services for locations to be CCTV'd and cleaned.

BMP – 6.6 Develop Stormwater Pollution Prevention Plan (SWPPP) for Required City Facilities

There are three identified high priority facilities owned by Waynesboro; the Public Works Operations Yard, the Landfill and Recycler location, Parks and Recreation storage buildings all requiring a SWPPP.

All three of the SWPPP's were modified this permit year to reflect changes on site. A monitoring location was deleted from the Public Works Operations site as the drain does not receive any activity except precipitation and it flows back into the Wastewater Treatment Plant onsite. The

remainder of the document called for minor modifications to include installed BMP's. The Park Pool backwash monitoring location was deleted as the discharge amounts are miniscule. The Recycler/Landfill SWPPP was modified to reflect BMP's installed onsite. The reports are housed in a central location at Public Works Operations and the Parks and Recreation building.

PC 2, Y 2: The City will continue to implement routine, quarterly, and comprehensive SWPPP inspections. SWPPP modifications will be implemented with changing field conditions.

BMP – 6.7 Develop Nutrient Management Plan (NMP) for Required City Sites

The City identified 12 sites over one (1) acre that required a NMP and implemented the plans during the 5th year of the permit cycle. The 12 sites that retain a NMP consist of parks, ball fields, schools and a cemetery totaling 106.6 acres.

Parks and Recreation Staff hold a license for nutrient application and City Schools contract out application to a certified turf management company. There were a total of 11 applications through Permit Year 1. There have been no modifications at this time.

PC 2, Y 2: The Nutrient Management Plan implementation will continue through Permit Cycle 2 with a required renewal in 2021.

Minimum Control Measure 6 – Pollution Prevention/Good Housekeeping

BMP	Tracking Measure	Reported Number				
		Year 1	Year 2	Year 3	Year 4	Year 5
6.1 Street Sweeping	# of Miles	4483				
	Tons of debris	404.66				
6.2 Pollution Prevention Training	# of personnel trained	92				
6.3 Yard Debris Collection Program	Cubic yards	4095				
	# of loads of yard debris	227.5				
6.4 Dedicated Vehicle Wash Facility	# of Operations vehicles washed	260				
	# of Fire vehicles washed	11				
6.5 Storm Sewer Inspection and Maintenance	# of structures inspected	160				
	Linear feet of line inspected	11,250				
6.6 Develop SWPPP for Required City Facilities	Development of plans	3				
6.7 Develop NMP for City Sites	Development of plans	2				

Evaluation and Assessment

The City of Waynesboro is required to comply with the Annual Reporting requirements for MS-4 Communities contained in section I D.2.e. of the General Permit and to submit annual reports to the Department of Environmental Quality (DEQ) for the period of July 1 to June 30. A summary of those requirements is below.

- I D.2.e: This report analyzes the effectiveness of BMP's identified by the City for MCM's 1 through 6 to address permit requirements. The program plan was modified to set appropriate program goals, which reflect the changes in metrics for Permit Cycle 2.

The dedication to MCM 1, Public Education and Outreach by staff will continue on a positive path. A well-rounded program has developed over the past six years with continuous support from the teachers, local government and civic groups.

As part of MCM 2, Stormwater Staff is shifting toward annual stream clean-up partnerships with local businesses, organizations and schools.

The MCM 3 screening of outfalls has successfully concluded a full cycle.

For MCM 4, staff is working with council and legal team to implement the VA Code changes into the local ordinance.

As part of MCM 5, BMP's are being tracked and inputted to the local and state database as required. Stormwater Staff is on track to inspect all private facilities in a 5 year cycle and public bi-annually.

Stormwater Staff's goal for Permit Cycle 2 is to refine MCM 6. Standard Operating Procedures will be developed for good housekeeping by City employees working in the field. The pollution prevention training program will be improved upon by incorporating education on the MS4 program background, touching on the adverse effects of pollutant discharge, heighten watershed awareness and methods to incorporate into daily field operations.

Chesapeake Bay TMDL

The City submitted a TMDL Action Plan Draft with the registration statement for the second permit cycle (July 1, 2018 - June 30, 2023) that is provisionally approved by The Department. The Action Plan was developed using the 2015 Chesapeake Bay TMDL Special Condition Guidance issued by The Department. The City, with the assistance of a consultant, followed this guidance to define the MS4 Service Area, Waste Load Allocation, high priority sites, and a Preliminary Probable Cost for Implementation for the final Action Plan.

The TMDL Action Plan includes information on projects completed during Permit Cycle 1 including regulated acres treated and pollutant removal efficiencies for BMP's that were installed since 2009. Based on the methodology provided in the 2015 Guidance, the City is in compliance with the Chesapeake Bay Special Condition. The City's Action Plan will be updated when new guidance is issued.

The City of Waynesboro continues to develop additional capital improvement projects that will have a positive impact on water quality. While there were not any specific projects included in the action plan, The City reserves the right to move forward with new projects as they are warranted and funding becomes available. The subsequent credits will be applied to the City's TMDL reductions requirements. Any credits above and beyond the required second cycle reductions will be applied to third cycle requirements. All new projects and the constituent reductions will be incorporated into the annual MS4 report.

Total POC Reductions Required by 2023

		A	B	C	D	E	F	G	
Pollutant	Subsource	Loading Rate	MS-4 Area	Loading (lbs/yr)	L2 loading rate reduction	% required by 6/30/2023	40% reduction (lbs/yr)	Sum of 40% reduction	Existing Credits
Nitrogen	Regulated Urban Impervious	16.86	1791	30,196.26	9%	40%	1,087	1,988	2,211
	Regulated Urban Pervious	10.07	3727	37,530.89	6%	40%	901		
Phosphorous	Regulated Urban Impervious	1.62	1791	2,901.42	16%	40%	186	230	505
	Regulated Urban Pervious	0.41	3727	1,528.07	7.25%	40%	44		
Total Suspended Solids	Regulated Urban Impervious	1171.32	1791	2,097,834.12	20%	40%	167,827	190,759	325,307
	Regulated Urban Pervious	175.80	3727	655,206.60	8.75%	40%	22,932		

Existing Load Reductions				
Site	BMP Type	Pollutant Reductions (lbs/ac/yr)		
		TN	TP	TSS
Street Sweeping*	Street Sweeping	487	159	229,710
Jefferson Park	Constucted Wetland	1,529	291	94,635
Pelham East**	Constucted Wetland	190	53	
Ridgeview Park	Bio-Retention	4	1	544
Fir Street	Land Use Change	1	1	418
Totals		2,211	505	325,307

*Estimated Annual Reduction for Planning Purposes

**TSS Reductions Included in Jefferson Park

Appendix 1 – MS4 Outfall Inspection Export

Landuse	Outfall Id	Last Inspection Date	Flow Present	Illicit Discharge	High Risk	Maintenance Required
Residential	swOTLT-0055-3760	2/26/2019	No	Unlikely	False	False
Residential	swOTLT-0041-3760	2/26/2019	No	Unlikely	False	False
Residential	swOTLT-0072-3770	2/27/2019	No	Unlikely	False	False
Residential	swOTLT-0072-3770	2/27/2019	No	Unlikely	False	False
Residential	swOTLT-0102-3771	1/28/2019	No	Unlikely	False	True
Durable Manufacturing	swOTLT-0073-3770	2/27/2019	No	Unlikely	False	False
Residential	swOTLT-0110-3770	2/27/2019	Yes	Unlikely	False	False
Residential	swOTLT-0072-3770	2/27/2019	No	Unlikely	False	False
Residential	swOTLT-0072-3770	2/27/2019	No	Unlikely	False	False
Non-durable Manufacturing	swOTLT-0162-3760	5/3/2019	No	Unlikely	False	False
Residential	swOTLT-0017-3771	3/27/2019	No	Unlikely	False	False
Residential	swOTLT-0171-3760	1/28/2019	No	Unlikely	False	False
Residential	swOTLT-0072-3770	2/27/2019	No	Unlikely	False	False
Residential	swOTLT-0154-3760	1/23/2019	No	Unlikely	False	False
Residential	swOTLT-0072-3770	2/27/2019	No	Unlikely	False	False
Residential	swOTLT-0161-3761	1/28/2019	No	Unlikely	False	False
Other Industrial	swOTLT-0128-3770	1/28/2019	No	Unlikely	False	False
Residential	swOTLT-0072-3770	2/27/2019	No	Unlikely	False	False
Open Space	swOTLT-0105-3770	1/23/2019	No	Unlikely	False	True
Shopping Center	swOTLT-0121-3750	1/28/2019	No	Unlikely	False	False
Residential	swOTLT-0072-3770	2/27/2019	No	Unlikely	False	False
Residential	swOTLT-0072-3770	2/27/2019	No	Unlikely	False	False
Residential	swOTLT-0095-3770	3/27/2019	No	Unlikely	False	False
Residential	swOTLT-0090-3771	1/28/2019	No	Unlikely	False	True
Residential	swOTLT-0143-3760	2/27/2019	No	Unlikely	False	True
Residential	swOTLT-0024-3760	2/26/2019	No	Unlikely	False	True
Residential	swOTLT-0179-3760	4/30/2019	No	Unlikely	False	True
Residential	swOTLT-0023-3760	2/26/2019	No	Unlikely	False	False
Residential	swOTLT-0129-3760	1/10/2019	No	Unlikely	False	False
Residential	swOTLT-0083-3760	2/26/2019	No	Unlikely	False	False
Residential	swOTLT-0005-3770	1/23/2019	No	Unlikely	False	False
Other	swOTLT-0051-3770	1/23/2019	No	Unlikely	False	False
Residential	swOTLT-0101-3760	2/26/2019	No	Unlikely	False	False
Residential	swOTLT-0130-3760	5/16/2019	No	Unlikely	False	False
Residential	swOTLT-0001-3770	3/14/2019	No	Unlikely	False	False
Residential	swOTLT-0151-3760	5/1/2019	No	Unlikely	False	False
Residential	swOTLT-0010-3770	3/14/2019	No	Unlikely	False	False
Residential	swOTLT-0174-3760	5/2/2019	No	Unlikely	False	False
Residential	swOTLT-0035-3770	1/28/2019	No	Unlikely	False	False
Residential	swOTLT-0060-3761	3/27/2019	No	Unlikely	False	False
Residential	swOTLT-0129-3770	5/16/2019	No	Unlikely	False	False
Residential	swOTLT-0158-3760	5/1/2019	No	Unlikely	False	False
Residential	swOTLT-0123-3770	3/14/2019	No	Unlikely	False	False
Other	swOTLT-0178-3760	1/10/2019	No	Unlikely	False	False
Residential	swOTLT-0059-3771	3/27/2019	No	Unlikely	False	False
Residential	swOTLT-0072-3770	2/27/2019	No	Unlikely	False	False
Durable Manufacturing	swOTLT-0108-3770	2/27/2019	Yes	Unlikely	False	False
Residential	swOTLT-0028-3770	5/3/2019	No	Unlikely	False	False
Residential	swOTLT-0116-3770	5/16/2019	Stagnant	Unlikely	False	False
Other Industrial	swOTLT-0107-3770	11/29/2018	No	Unlikely	False	False
Residential	swOTLT-0144-3760	2/27/2019	Yes	Unlikely	False	False
Other	swOTLT-0036-3750	1/28/2019	Yes	Unlikely	False	False
Residential	swOTLT-0155-3760	1/23/2019	No	Unlikely	False	False
Residential	swOTLT-0152-3760	5/1/2019	No	Unlikely	False	False
Residential	swOTLT-0160-3760	1/23/2019	No	Unlikely	False	False
Residential	swOTLT-0052-3771	3/27/2019	No	Unlikely	False	False

Appendix 2 – Dry Weather Screening SOP

1. Preparing for Outfall Screenings
 - a. Charge iPad for the use of the mobile web-based IDDE application.
 - b. Check previous 48 hour precipitation amounts, to ensure no trace amounts. If trace amounts are present, do not perform inspections.
 - c. Make a list of outfalls to be screened, search locations on ArcGIS, attached outfall photos and previous inspections for familiarity.
 - i. Check for stormwater easements in place on private property, use the prescriptive easement if none is found unless a No Trespassing sign is posted.
 - d. Put on safety boots and reflective vest.
 - e. Pack camera or phone with camera, loppers, machete, manhole puller, iPad, pad and pen.
2. Collecting Data
 - a. Bring up the location to be screened on the mobile application. The unique identifier and HUC Code will populate.
 - b. A screen to input outfall information, such as material, shape, size and land use will open.
 - c. The Outfall Inspection screen opens that populates the time and the inspector, a place to put in rainfall amounts for last 48 hours, discharge location, condition, headwall condition, if maintenance is required and if flow is present.
 - d. If flow is present the inspector goes to the Flowing Physical Indicators screen to input flow depth, quantitative characteristics, odor, color, turbidity and floatables.
 - e. Should non-flow physical indicators, such as stains, pool quality or pipe algae they will be added on the associated tab.
 - f. Potential for illicit discharge and if necessary track down is logged and inspection validated by initials.
 - g. Photos may be taken and saved within the inspection.
 - h. The inspection and photos are then submitted.
 - i. The inspection can be viewed on a desktop server on the developer's website.
3. Follow-up to Outfall Screening
 - a. If potential pollution is identified, use the MS4 system map to locate the direction and nearest access point of the associated pipe or other conveyance.
 - b. Work from the MS4 outfall back through the pipe network to the nearest manhole or inlet.
 - c. Investigate each successive upstream pipe access point until the potential pollutant is no longer present.
 - d. Should the outfall flow be excessive or the outfall has a high number of pollution indicators, DEQ and the Waynesboro Environmental Safety Coordinator at Public Works Operations shall be immediately be notified.
 - e. If maintenance is required at an MS4 outfall, Stormwater Staff will insert the location and necessary work to be completed on the Stormwater Operations Crew maintenance list and inform the crew supervisor of the new additions.

Appendix 3 – Illicit Discharge Detection and Elimination

1. Receive complaint of a suspected illicit discharge.
2. The location and details are entered into the Operations Management System, Cartegraph and is tasked to a member of Stormwater Staff.
 - a. Cartegraph will display, if any historic information at the specified location.
 - b. The MCM 3 folder on the MS4 Drive will be checked for previous reports at the site.
3. A field inspection will be conducted to verify a violation(s).
 - a. The site conditions, photographs, and additional pertinent information will be logged into Cartegraph.
 - b. Following the site investigation, an outfall screening at the MS4 discharge point will be conducted using the mobile application.
4. A violation(s) is detected.
 - a. The discharge is contained or controlled.
 - i. The owner of the property is contacted, an illicit discharge brochure is distributed, that references the illicit discharge ordinance and a deadline to have the discharge removed.
 - ii. A letter will be sent to the letter that states the discharge type, amount and removal deadline.
 - b. The discharge has migrated from the location of origin.
 - i. Notify DEQ if there is a threat to additional private property and/or a water body.
 - ii. Issue notice of violation with the illicit discharge ordinance excerpt and a compliance timeline for clean-up and implementation of onsite BMPs to prevent future discharges.
5. Follow-up inspections.
 - a. Inspect the site and effected offsite locations at the stated deadline.
 - i. Update the Cartegraph system with the follow-up inspection notes.
 - ii. Insert inspection notes in the site folder within the MCM 3 folder on the MS4 Drive.
 - b. No remedial action for discharge.
 - i. The owner will be notified of the remaining violation and The City or procured contracted services will remediate the site and invoice the owner for the work.
 - c. A willful violation of The City Illicit Discharge Ordinance constitutes as a class 1 misdemeanor.
 - i. Each day that a violation of this chapter is maintained or permitted to remain shall constitute a separate offense.

Appendix 4 – Pollutant Reductions

	Mass (Tons)	Eligible Solids	Type of Mass	Mass (lbs)	Dry (lbs)	P (lbs/yr)	N (lbs/yr)	TSS (Tns/yr)			
Flush	16.43	11.50	Solid	23,002.00	16,101.40	96.61	43.47	2.42			
					Total Reductions	96.61	43.47	2.42			
	Landfill Tonnage	Lbs Sweeper Debris	N Dry Weight*	P Dry Weight**	TSS Dry Weight***						
Sweeper	404.66	809,320.00	2023.3	809.32	242,796						
Totals	404.66	809,320.00	2,023.30	809.32	242,796						
						19 Pollutant Removal					
						Tons of Debris	Tons of Sediment	Pounds of Nitrogen	Pounds of Phosphorous		
						Sweeper Truck	404.66	121	2023	809	
						Storm Drain	16.43	2	43	97	
						Total	421.09	123	2066	906	

Responsible Parties

The departments 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: Michael G. Hamp II
Address: Charles T. Yancey Municipal Building
503 W. Main St, Suite 210
Waynesboro, VA 22980
Phone: 540-942-6600
Email: hampmg@ci.waynesboro.va.us

Program Management

Engineering Division
Title: City Engineer
Name: Todd Wood, P.E.
Address: 941 Fir St.
Waynesboro, VA 22980
Phone: 540-942-6627
Email: publicworks@ci.waynesboro.va.us

Department of Parks & Recreation
Title: Director
Name: C. Dwayne Jones
Address: 413 Port Republic Road
Waynesboro, VA 22980
Phone: 540-942-6735
Email: jonescd@ci.waynesboro.va.us

Department of Public Works
Title: Director
Name: Brian McReynolds, P.E.
Address: 941 Fir St.
Waynesboro, VA 22980
Phone: 540-942-6624
Email: publicworks @ci.waynesboro.va.us