

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, 2020 through June 30, 2021 – Year 3 for Permit VAR04133. The City of Waynesboro is in its second MS4 Permit Cycle and operates in accordance with the 2018 MS4 Program Plan, available on the City of Waynesboro Website. 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.

The applicable Best Management Practices (BMPs) for each Minimum Control Measure (MCM) are included with a description of Year 3 activities and the projected Permit Cycle 2, Year 4 activities. Our numbers for the MCM #1 – Public Education and Outreach and MCM #2 – Public Involvement/Participation reporting metrics were slightly increased this year but still low due to the continuation of the COVID-19 restrictions. 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.

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MS4 PROGRAM

Minimum Control Measure 1 – Public Education and Outreach

Waynesboro's high priority issues are identified as South River Water Quality, Illicit Discharge and Pollution Prevention and Watershed Awareness. Staff was able to deliver three (3) school presentations and host three (3) watershed clean-up events in the spring. Public education and outreach efforts for the high-priority issues remained partly virtual.

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.

This permit year a new Watershed Friendly Homeowner Guide brochure was created. The guide includes lawn care tips to reduce stormwater pollution. Staff also created a Grass Clippings informational pamphlet that discusses the 'do's and don'ts' of grass clippings. The brochure and pamphlet are available to view on the Stormwater Program webpage.

The Parks & Recreation (P&R) Department was not able to host the annual Petpawlooza event once again and instead created an 'April Stool's Day' campaign. During the week of April Fool's Day P&R Staff installed signs at the Greenway trailheads and in the Parks to educate the community about picking up after their pets. Additionally, pet waste dispensers provided by the Stormwater Program were distributed in various locations along the Greenway and Parks.

Permit Cycle 2, Year 4– The pet waste station inventory expansion slated for PY 4 in accordance to the Program Plan, was completed in Permit Year 2. During PY 4, the inventory will be mapped and posted on the City Website to show availability to pet owners.

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.

Staff continues to distribute 'Detection and Elimination' brochures to home or business owners suspected of illegal dumping, discharging into the MS4 system or directly into the South River. In addition to this brochure, the Illicit Discharge Ordinance language can be found in the 'Watershed Friendly Homeowner Guide' and the 'Grass Clippings' pamphlet.

PC 2, Y 4 – Distribution of brochures will continue at homes and businesses suspected of illegal dumping, and made available at outreach events and on the webpage.

BMP – 1.3 Watershed Awareness

Watershed Awareness education emphasizes the fact that Waynesboro residents are in the direct South River Watershed and ultimately are part of the Chesapeake Bay Watershed. This year, three fourth grade school presentations and one sixth grade science field day introduced the definition of a watershed, how it is affected by surrounding conditions, and actions that impact a watershed. The students played a round of 'South River Jeopardy' with categories, such as South River Life, South River and Watershed, Stormwater Infrastructure, Water Pollution and Potluck. The Soil and Water Conservation District partners brought an interactive soils map with soil samples.

Staff hosted three watershed cleanups during the week of Earth Day. One evening was a local church group, Waynesboro High School Ecology students one afternoon, and The Wildlife Center employees, members of the High School Key Club, Promotores de Salud, and the South River Paddlers along with the general public, one Saturday morning. Additionally, we provided bags and gloves to a local business that collaborated a cleanup on a separate day. Most of the efforts put forth were at areas adjacent to the streams that feed the South River. There was a great amount of enthusiasm and effort put forth by all.

The Stormwater Webpage and the Public Works Facebook page hosts a variety of watershed awareness education. The webpage is updated monthly with the 'South River Current' newsletter that is published by the South River Science Team. The newsletter discusses facts, history and health of the South River. Additionally, the viewer can take a watershed tour with 'Perry the Raindrop' to learn about the water cycle, flooding, where rain goes and the importance of stormwater best management practices to reduce stormwater pollution in a watershed. There is also a 'For the Kiddos' section that hosts crosswords, word scrambles and links to activities associates with waterway health.

PC 2, Y4 - Continue with the delivery of watershed education and refine as seen fit to streamline the materials.

BMP – 1.4 School Presentations

City Staff delivered three presentations to fourth graders at two schools (51 students). The fourth graders 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, as formerly mentioned.

This permit year the sixth-grade science field day was able to reconvene with City Staff and education partners. There were 142 students that rotated through stations 10 stations. These included South River Jeopardy, an Underground Classroom trailer and Virtual Water Station both presented by the Soils & Water Conservation group, Drone Flying by engineering consultants Draper Aden, a Snow Plow & Salt Station where students learned the detriments of excessive salt treatment during the winter and Landfill History, Geodes and Fly-Tying Stations.

A presentation about the Mulberry Run Constructed Wetland in Waynesboro was delivered to 15 Governor School students.

PC 2, Y 4: Stormwater Staff will reach out to teachers for education opportunities. This effort will include the four elementary schools' fourth graders, the middle school sixth graders and the high school ecology class.

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 approved MS4 Program Plan and 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, South River education materials and at-home children's activities. The City Stormwater Page had 556 Page Views and 421 Unique Views. This is slight decrease from Permit Year 2, which was average prior to the pandemic.

PC 2, Y 4: The City will continue to update educational materials during in an effort to build upon basic stormwater concepts and watershed awareness.

BMP – 1.6 Educational Brochures

As mentioned in BMP 1.1, two educational brochures were created in Permit Year 3. One is the Watershed Friendly Homeowner Guide and the other is the Grass Clippings pamphlet. These pamphlets, along with a general MS4 Program and the Illicit Discharge and Pet Waste brochures are available for viewing on the Stormwater Webpage.

PC 2, Y 4: The City will continue to post the brochures on the website and to distribute these materials that focus on 'Watershed Concepts', 'Illicit Discharge' and 'Pet Waste' at outreach events as they reconvene.

Public Outreach and Education Summary

Staff delivered presentations to 193 children during Permit Year 3. Stormwater and watershed educational links and puzzles were continually posted on the Stormwater Webpage with some added to the Public Works Facebook page to inform residents that the educational opportunities for children and adults were available.

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, Training Materials
1.3 Watershed Awareness	1 through 5	Written Materials, Media, Alternative Materials, Signage, Presentations, Training Materials,

Minimum Control Measure 2 – Public Involvement/Participation

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

The City continues to utilize 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. There was one (1) flooding concern this Permit Year sent through the webpage. The resident was contacted to provide additional details and pictures. Flooding concerns are scored using the City’s Capital Improvement Plan criteria that evaluates Personal Safety and Property Damage, Frequency of Flooding and Number of Properties Affected.

The portal and hotline are checked regularly 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 3, there were 58 stormwater requests entered into the OMS. The hotline received approximately 25 calls from residents regarding public education and outreach.

PC 2, Y 3: 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)

Waynesboro has been part of the Tree City USA program for 30 years. This allows for a Tree Planting Program, which entails tree planting, dead or diseased trees replaced, and structural pruning performed on young, existing trees. This year 43 trees were planted and 6 were pruned.

The YMCA daycare children attended the annual Arbor Day event where they followed panels down the Greenway that displayed The Lumberjack’s Beard story. Then the City Horticulture Staff along with Patricia Nylander from the Department of Forestry, planted an October Glory Red Maple

while the children learned how to properly plant a tree. Patricia also talked about how many of our everyday products contain wood. Each child received a White Pine sapling to plant at home.

PC 2, Y 4: 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)

The annual community supported events, in which Staff attend were canceled again for Permit Year 3, due to COVID-19. As mentioned in MCM-1, virtual interactive activities and educational newsletters are posted on the Stormwater Webpage for children and adults.

PC 2, Y 4: The City Stormwater Program will continue to participate in the Riverfest, if reconvened in spring 2022. This event sees 1,000 – 2,000 individuals and educates on the past, present, and future of the South River. The event promotes conservation and water stewardship of the South River Basin.

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

The City participated in the regional fall Household Hazardous Waste Collection day held on September 19, 2020 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 posted informational materials prior to the Collection Day to gain participation and 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 two loads of hazardous material during the day.

PC 2, Y4: 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)

The Parks and Recreation Department continues to maintain the Greenway and the parks' pet waste stations while Public Works maintains one at the Mulberry Run Wetland. The four new stations installed last year are being used on a regular basis, especially at Mulberry Run by neighborhood dog walkers. There are two more phases of the Greenway and a proposed Constructed Wetland to be constructed within the next few years that will receive a pet waste station at completion.

PC 2, Y 4: Create a Pet Waste Station Location map to post on the City website and Facebook page for pet owner use.

BMP – 2.6 Community Good housekeeping (Restoration)

Stormwater Staff hosted three watershed cleanups in April as discussed in BMP 1.3. This was by far our biggest volunteer turn out. Additionally, Public Works provided bags and gloves to one business that cleaned the road at their warehouse location. There was a total of 61 individuals that assisted from businesses, schools, churches, civic groups and as residents. Areas cleaned adjacent to both Pratt’s and Rockfish Run, and in the South River produced 147 bags of trash, four (4) tires and four (4) pieces of furniture.

The Local chapter of Trout Unlimited hosted a South River cleanup on April 7, 2021. Their effort was in and adjacent to the river by the Greenway. There was also a good amount of trash collected by Trout Unlimited and volunteers.

PC 2, Y 4: The City will continue with the goal to educate on the significance of waterway health and practices to improve the longevity of water quality. A spring cleanup will be scheduled for April 2022.

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	250	200		
2.2 Tree Planting Program	# of trees planted	5	11	43		
	# of trees pruned	12	12	6		
	# of participants	15	3	10		
2.3 Community Events	# of participants	605	0			
2.4 Household Hazardous Waste Collection	# of dump truck loads	2	7.5	2		
2.5 Pet Waste Station	# of new installations		4			
2.5 Community Good Housekeeping	Linear feet of stream	6,800	8,575	15,350		

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.

This Permit Year City staff moved from using a mobile IDDE specific application to our Public Works operations and maintenance system application, Cartegraph to log outfall inspections and track necessary maintenance or follow-up monitoring activities. The screening criteria developed in Cartegraph are in accordance with 2018 MS4 General Permit.

During this year, 50 MS4 outfalls were screened using Cartegraph, with no positive results for illicit discharge, however there were two that required general outfall maintenance.

There were three reported illicit discharges this year. The first was dismissed upon field investigation, as there was no evidence found. The second was on July 16, 2020 in Ridgeview Park. There was a chlorine delivery for the public swimming pool with P&R Staff onsite. The hose malfunctioned on the delivery truck and lost approximately 90 gallons of chlorine into the parking lot with approximately 65 gallons reaching a bioretention island in close proximity, and none reached the South River. The City Hazmat team responded within 15 minutes with equipment to soak up the spill. The City Horticulturist examined the soil media, the quick life-span of chlorine did not cause any damage to the media. The burned bioretention plantings were removed and replaced and are thriving. This incident was closed July 24, 2021.

On June 7, 2021 Public Works staff responded to a call referencing a strong smell of sanitary sewer at a stormwater outfall. Staff tracked the flow and smell upstream by opening manholes and grates to discover the source. There was a brick sanitary sewer manhole that was allowing sewage to weep into the storm system. The writeup on the event and the remedy can be found in Appendix A. DEQ was notified within 24-hours of the discovery and was sent a remediation plan within the five-day allowable window.

PC 2, Y 4: Screening and data input of at least 50 outfalls will continue this year using the Cartegraph Application. Educational efforts will continue with the goal of minimizing non-stormwater discharges.

BMP – 3.2 Mapping of Stormwater Network

The City updated and sent a GIS derived map and attribute table to DEQ on June 19, 2019. The inventory of mapped public inlets, manholes and outlets increased this permit year mainly from subdivision development. 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 4: Staff will continue maintaining and updating the map as part of its outfall screening and systematic infrastructure condition assessments.

BMP – 3.3 SPCC Training

Public Works Department employees are provided standardized process operating procedures for handling and working with substances in a safe manner and delivered 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 4: 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	2	2		
	# of enforcement actions	1	1	0		
3.2 Mapping of Stormwater Network	# of Inlets mapped	89	211	88		
	# of Manholes mapped	29	16	3		
	# of Outfalls mapped	7	157	2		
	# of MS4 Outfalls	150	-4	7		
3.3 SPCC Training	# of personnel trained	120	156	144		

Minimum Control Measure 4 – Construction Site Runoff Control

The City of Waynesboro operates two parallel programs, in accordance with Part I.E.4.a (1) of the MS4 General Permit, that 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 Program

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

A total of 66 permits were issued, generating a total of 1,883 inspections. Twelve of the permits were non-single family and 31 were single family outside of a CPOD. There were 17 enforcement documents issued with no resulting fines.

PC 2, Y 4: Continue to operate a compliant program in accordance with Virginia State regulation to 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

There were 37 single family permits in a CPOD and 14 non-residential permits opened this year. The City of Waynesboro ESC Staff also issued 3 Notice to Comply documents this year.

PC 2, Y 4: 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	36	63	66		
	# of new non-sf land disturbance activities	2	12	18		
	# of acres	28.28	86.79	23.64		
	# of inspections	512	2042	1883		
	# of enforcement actions	0	4	17		
4.2 Require VSMP Permits	# of permits	0	20	14		
	# of single family permits (CPOD)	32	17	37		
	# of full inspections	5	3	27		
	# of 'spot' inspections	75	20	40		
	# of CPOD inspections	247	189	495		
	# of enforcement actions	5	15	3		
	# of exemptions	0	0	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 annually by Stormwater Staff for structural integrity. Additionally, Wild Ginger Ecological Field Services clean woody debris and selectively spray invasive species at seven of the BMP's at least annually.

PC 2, Y 3: The City will continue routine maintenance of storm facilities on, at least an annual basis, as well as continue contracted maintenance of invasive species in select BMP's.

BMP – 5.2 Private Structural BMP Inspection and Maintenance

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 21 of the owners returned a completed inspection report. Staff inspected 59 privately owned facilities; all of the facilities passed with no maintenance required.

PC 2, Y 3: 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.

PC 2, Y 3: 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	22	22		
5.2 Private BMPs	# of inspections by owners	12	8	11		
	# of inspection by staff	23	90	59		
	# of enforcement actions	0	0	0		
5.3 Structural BMP Database	# of BMPs brought online	1	8	0		
	# of maintenance agreements	1	6	0		

Minimum Control Measure 6 – Pollution Prevention/Good Housekeeping

BMP – 6.1 Street Sweeping

The City continued with the Street Sweeping Plan found in the Stormwater Program Plan. This Permit Year, Cartegraph tracked that 3,439 lane miles were swept and classified by the frequencies in accordance with Table 17 of the Expert Panel report.

The amount of debris collected by the sweeper and the resulting pollutant reductions were calculated using the Mass Loading Approach outlined by the Recommendations of the Expert Panel to Define Removal Rates for Street and Storm Drain Cleaning Practices. This Permit Year, two samples were collected from the Sweeper and sent to a laboratory where they were dried and analyzed for Nitrogen and Phosphorous. The mass loading calculations and the lab results can be found Appendix B.

PC 2, Y 4: Street sweeping operations will continue in accordance with Waynesboro’s Street Sweeping Plan. Reporting of the weight and composition of debris using the mass loading approach and lane miles swept at different frequencies will continue through the end of this permit year.

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. In November 2020, a Pollution Prevention Toolbox Training sheet was sent to all of the Public Works Departments.

The good housekeeping and pollution prevention Standard Operating Procedures (SOP’s) created in PY2, remained unchanged this year. The list of SOPs being used, include fueling and fuel spill procedures, vehicle storage, fleet washing, chemical handling, garbage can washing, salt storage, and pool backwashing procedures.

PC 2, Y 4: The City will continue to implement the SOPs and provide pollution prevention training to new employees.

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 182 loads of debris equal to 3,276 cu.yds in Permit Year 3. In addition to the Watershed Friendly Homeowner Guide, the Public Works Webpage posts information on proper yard waste disposal and promotes recycling of debris and leaf litter.

PC 2, Y 4: 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 at public events.

BMP – 6.4 Vehicle Wash Program

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 sanitary sewer system.

An SOP for Operations and Parks & Rec. was developed in PY2 for vehicle washing in the Operations' wash bay. The purpose and procedure are outlined to prevent future occurrences of fleet washing off heavy loads in the wash bay opposed to the drying beds.

PC 2, Y 4: Stormwater Staff will continue to monitor washing facilities during routine SWPPP inspections.

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.

There were 111 storm structures and 10,900 LF of pipe that were inspected and cleaned as part of the annual flush contract. The pollutant removals in accordance with the Storm Drain Dry Weight Calculation method can be found in Appendix B.

Additionally, 22 storm structures were inspected with four inlet replacements as part of citizen requests. Annual maintenance of large stormwater conveyance ditches was performed by in-house maintenance crews.

PC 2, Y 4: 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. Services will be contracted in spring 2022 to video and clean problematic storm lines and structures.

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, and the Parks and Recreation storage buildings, all requiring a SWPPP. The Parks & Recreation SWPPP’s 4.2 Historical Leaks and Spills section was modified in July 2020 after the chlorine spill described in BMP 3.1.

Staff for the respective departments continue to perform bi-weekly inspections and Stormwater Administrative Staff perform quarterly inspections, including the Comprehensive Evaluation. The reports are housed in a central location at Public Works Operations and the Parks and Recreation building.

PC 2, Y 4: 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 Schools and Parks NMP were renewed and approved on March 1, 2021. The NMP’s remained unchanged, covering 11 sites with a total of 106.6 acres. Please find the site locations and the associated acreage in Appendix C.

Parks and Recreation did not have any nutrient applications this permit year and the Schools had eight (8).

PC 2, Y 4: Staff will remain within the specifications of nutrient applications for all sites.

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	3497.78	3439		
	Tons of debris	404.66	545	439.04		
6.2 Pollution Prevention Training	# of personnel trained	92	165	128		
6.3 Yard Debris Collection Program	Cubic yards	4095	3852	3276		
	# of loads of yard debris	227.5	214	182		
6.4 Dedicated Vehicle Wash Facility	# of Operations vehicles washes	260	260	240		
	# of Fire vehicles washes	11	624	520		
6.5 Storm Sewer Inspection and Maintenance	# of structures inspected	160	110	135		
	Linear feet of line inspected	11,250	452	14,783		
6.6 Develop SWPPP for Required City Facilities	Development of plans	3	3	3		
6.7 Develop NMP for City Sites	Development of plans	2	2	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 remains unchanged.

MCM 1 - City Staff along with educational partners was able to deliver watershed education presentations to students at their respective schools. Virtual stormwater education remained an alternative source and resources were updated through the year.

MCM 2 – Riverfest, the largest outreach event was cancelled this year. The number of watershed cleanup volunteers and amount of collected trash, greatly increased this year.

MCM 3 - There were two illicit discharges detected during Permit Year 3. Both were responded to immediately and closed out with effective remedies.

MCM 4 – The Waynesboro Construction Runoff program is administered in accordance with Part I.E.4.a (1) of the MS4 General Permit.

MCM 5 - BMP's are being tracked and uploaded into the local and state database as required.

MCM 6 – The Nutrient Management Plans were renewed this year with no changes to sites or acreage. The pollutant removal reductions were similar to previous years for BMP's 6.1 and 6.5. - The City continues to include the mass loading nutrient reduction numbers for street seeping in accordance with the Action Plan. However, the nutrient reductions were also calculated using the Expert Panel method. The reductions are listed in the Chesapeake Bay TMDL section of this report.

Chesapeake Bay TMDL

This Permit Year the street sweeping and storm drain cleaning BMP's were employed for pollutant reductions. In addition to using the mass loading approach for the street sweeping pollutant reduction numbers, the Expert Panel Report method was employed to calculate the reductions. This exercise was executed in anticipation of the phasing out of the Mass Loading method, June 30, 2022. A reduction of 48 lbs. of Nitrogen, 13lbs. of Phosphorous and 18,672 lbs. of Sediment was calculated using the Expert Panel Report method. The Dry Weight Storm Drain Calculation method was used to calculate the reductions from storm drain cleaning, resulting in 60 lbs. of Nitrogen, 134 lbs. of Phosphorous and 6,000 lbs. of Sediment removed from the MS-4 drainage system.

In Permit Year 4, a project to enhance 1,087 L.F. of Rockfish Run streambank will begin and achieve a designed reduction of 167.88 lb/yr of N, 77.31 lb/yr of P, and 29,305.71 lb/yr of TSS. Also, The City will continue to utilize street sweeping and storm drain cleaning as methods of pollutant reductions in Permit Year 4.

This Permit Year an application to receive SLAF funding to convert a stormwater detention pond to a constructed wetland was submitted to DEQ. The City Council has appropriated matching funds from the stormwater utility to support the project. Using the Virginia Runoff Reduction method, there will be a 59.6 lbs. of Phosphorous reduction annually with the proposed retrofit. This will allow the City to surpass its June 30, 2023 pollutant reduction goal.

Waynesboro continues to develop additional projects for the Capital Improvement Plan (CIP) that will have a positive impact on water quality. Identified projects will be added during normal maintenance operations and use the appropriate guidance to quantify pollutant removal rates annually and will be included in the Annual Report.

Appendix A – James Ave Sewer Overflow

RE: Illicit Discharge from James Ave Sewer

On June 7, 2021 the City of Waynesboro had an illicit discharge from its sanitary sewer collection system due to the buildup of non-degradable products along an 8" mainline that's shown to be in disrepair from aging. City forces quickly responded to the emergency and were successful at flushing the line to restore proper flow to the system. The brick manhole allowed sanitary sewage weep into the adjacent stormwater manhole. There was sewage in the storm system for roughly 935 LF of pipe before making it to an outfall at the bottom of the system. The sewer team placed sandbags below the outfall and used the vacuum truck to capture as much discharge as possible and thoroughly cleaned the storm sewer lines, while vacuuming the discharge.

The site was continually monitored and maintained until the brick manhole could be replaced. The brick manhole was replaced with a precast manhole by mid-August. The investigation was closed August 23,2021.

Appendix B – Permit Year 3 Pollutant Reductions

Permit Cycle 2, Year 3 Pollutant Reductions

	Landfill Tonnage	Lbs Sweeper Debris	N Dry Weight*	P Dry Weight*	TSS Dry Weight**
Sweeper	439	878,080	2195.2	878.08	263,424
Totals	439.04	878,080	2,195	878.08	263,424

*TN Dry Weight Conversion = .0025 per Lb Sweeper Debris

**TP Dry Weight Conversion = .001 per Lb Sweeper Debris

***TSS Dry Weight Conversion = .3 per Lb Sweeper Debris

Lab Sample #1	Pounds/Ton	
TP	274	0.548
TN	613	1.226

Lab Sample #2		
TP	363	0.726
TN	2011	4.022

	Mass (Tons)	Eligible Solids	Type of Material	Mass (lbs)	Dry (lbs)	P (lbs/yr)	N (lbs/yr)	TSS (Tns/yr)
Flush	22.75	15,925	Solid	31,850	22295	133.77	60	3.34
				Total Reductions		133.77	60.1965	3.34425

Pollutant Removal				
	Tons of Debris	Tons of Sediment	Pounds of Nitrogen	Pounds of Phosphorous
Sweeper	439	132	2195	878
Flush	22.75	3	60	134
Labs			5	1
Total	462	135	2,260	1,013

Appendix C – Nutrient Management Plan Sites

Park Sites

1. Constitution Park – 9 acres of managed turf
101 Short Street; 38.066180, -78.885748
2. Coyner Springs Park – 3 acres managed turf
2091 Lyndhurst Road; 38.052363, -78.930681
3. Waynesboro Cemetery – 13 acres managed turf
420 Rosser Ave.; 38.069817, -78.907216
4. Ridgeview Park – 19.5 acres managed turf
700 S. Magnolia Ave.; 38.065687, -78.905610
5. North Park Turf – 7 acres managed turf
800 Bridge Ave.; 38.078884, -78.878020
6. Basic Park – 5 acres managed turf
Address: 1405 Genicom Drive; 38.085687, -78.874977

School Sites

1. Berkeley Glenn Elementary School – 6.25 acres managed turf
1020 Jefferson Ave.; 38.056500, -78.899527
2. Kate Collins Middle School – 15.1 acres managed turf
1625 Ivy St.; 38.080588, -78.894770
3. Wayne Hills Preschool – 4.65 acres managed turf
937 Fir St.; 38.080188, -78.889436
4. Wenonah Elementary School – 4 acres managed turf
125 N. Bayard Ave.; 38.068065, -78.879718
5. Westwood Hills Elementary School – 5 acres managed turf
548 Rosser Ave.; 38.069871, -78.910585
6. William Perry Elementary School – 8.75 acres managed turf
840 King Ave.; 38.083734, -78.880646
7. Waynesboro High School – 6.35 acres managed turf
1200 W. Main St.; 38.070848, -78.897498

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
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Program Management

Engineering Division
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Department of Parks & Recreation
Title: Director
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Department of Public Works
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