NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT FOR DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS

GENERAL DISCHARGE PERMIT NO. 13-IM-5500 GENERAL NPDES NO. MDR055500

Final Determination:

April 27, 2018

Effective Date:

October 31, 2018

Expiration Date: October 30, 2023

This National Pollutant Discharge Elimination System (NPDES) general permit covers small municipal separate storm sewer systems (MS4s) in certain portions of the State of Maryland. MS4 owners and operators to be regulated under this general permit must submit a Notice of Intent (NOI) to MDE by October 31, 2018. An NOI serves as notification that the MS4 owner or operator intends to comply with the terms and conditions of this general permit.

APPENDIX D

Municipal Small MS4 Progress Report

Maryland Department of the Environment (MDE)

National Pollutant Discharge Elimination System (NPDES) Small Municipal Separate Storm Sewer Systems (MS4) General Permit

This Progress Report is required for those jurisdictions covered under General Discharge Permit No. 13-IM-5500. Progress Reports must be submitted to:

Maryland Department of the Environment, Water and Science Administration Sediment, Stormwater, and Dam Safety Program 1800 Washington Boulevard, Suite 440, Baltimore, MD 21230-1708 Phone: 410-537-3543 FAX: 410-537-3553

Web Site: www.mde.maryland.gov

Contact Information

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Responsible Personnel:	Daryl Braithwaite	
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Signature of Responsible Personnel

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.

Daryl Braithwaite	Daryl Braithwaite	10-30-2022
Printed Name	Signature	Date

Reporting Period (State Fiscal Year): 10-1-2021 TO 10-1-2022		1-2022		
Due D	ate:	10/31/2022	Date of Submission:	10-31-22
Type o	of Repor	t Submitted:		
	Impervi	ious Area Restora	ation Progress Report (Annual): F
	Six Mir	nimum Control M	Measures Progress (Years 2 and	1 4): F
	Both:	⊽		
Permi	ttee Info	ormation:		
	Renewa	al Permittee: 🔽		

Compliance with Reporting Requirements

New Permittee:

Part VI of the Small MS4 General Discharge Permit (No. 13-IM-5500) specifies the reporting information that must be submitted to MDE to demonstrate compliance with permit conditions. The specific information required in this MS4 Progress Report includes:

- 1. Annual: Progress toward compliance with impervious area restoration requirements in accordance with Part V of the general permit. All requested information and supporting documentation must be submitted as specified in Section I of the Progress Report.
- 2. Years 2 and 4: Progress toward compliance with the six minimum control measures in accordance with Part IV of the general permit. All requested information and supporting documentation shall be reported as specified in Section II of the Progress Report. MDE may request more frequent reporting and/or a final report in year 5 if additional information is needed to demonstrate compliance with the permit.

Instructions for Completing Appendix D Reporting Forms

The reporting forms provided in Appendix D allow the user to electronically fill in answers to questions. Users may enter quantifiable information (e.g., number of outfalls inspected) in text boxes. When a more descriptive explanation is requested, the reporting forms will expand as the user types to allow as much information needed to fully answer the question. The permittee must indicate in the forms when attachments are included to provide sufficient information required in the MS4 Progress Report.

	Section I: Impervious Area Restoration Reporting
1.	a. Was the impervious area baseline assessment submitted in year 1? ▼ Yes ∇No
	b. If No, describe the status of completing the required information and provide a date at which all information required by MDE will be submitted:
	c. Has the baseline been adjusted since the previous reporting year? ☐ Yes ☑ No
2. 0	Complete the information below based on the most recent data:
	Total impervious acres of jurisdiction covered under this permit: 546.9
	Total impervious acres treated by stormwater water quality best management practices (BMPs): 80.21
	Total impervious acres treated by BMPs providing partial water quality treatment (multiply acres treated by percent of water quality provided): 4.51
	Total impervious acres treated by nonstructural practices (i.e., rooftop disconnections, non-rooftop disconnections, or vegetated swales): $\boxed{0.1}$
	Total impervious acres untreated in the jurisdiction: 466.69
	Twenty percent of this total area (this is the restoration requirement): 109.38
	Verify that all impervious area draining to BMPs with missing inspection records is not considered treated. Describe how this information was incorporated into the overall analysis:
All Bi totals.	MPs in the 2022 report have current inspection records and are included in the treatment
2.	Has an Impervious Area Restoration Work Plan been developed and submitted to MDF in accordance with Part V.B, Table 1 of the permit or other format? ▼ Yes

Has MDE approved the work plan? \overrightarrow{v}_{Yes} \overrightarrow{l}_{No}

If the answer to either question is No, describe the status of submitting (or resubmitting) the work plan to MDE and provide a date at which all outstanding information will be available:

Describe progress made toward restoration planning, design, and construction efforts and describe adaptive management strategies necessary to meet restoration requirements by the end of the permit term:

The City continues to develop and revise management strategies for implementing the restoration program. Outfall stabilization, stream restoration, and alternative BMPs remain our major implementation strategies. In the restoration activity schedule, future projects planned have been revised and refined to meet program objectives.

The City's efforts to install planned treatment facilities in 2021 and 2022 were delayed due to the pandemic and impacts on our staffing and contractor availability. Additionally, the City experienced a significant extreme rain event on September 19, 2020 that produced flash flooding resulting in private property impacts due to run-off from the public right of way. Subsequently, the budget and staff resources were redirected to develop and install additional stormwater capacity to address those impacted areas. The City provided additional infrastructure capacity at 3 locations and restored portions of a collapsed 48-inch boxed culvert that was damaged.

Once the flooding response work was completed, the City could resume work on the previously planned projects. This included the installation of permeable pavers and bioretention storage on Elson Place, an Outfall Stabilization project at Circle Woods, and the installation of a bioretention facility on Grant Ave and Holly Ave.

Additionally, the City kicked off an enhanced tree planting program (Tree Takoma which is providing trees at no cost to City residents, focusing on areas with less canopy, multi-family, and commercial properties) and assisted MNCPPC by providing partial funding and design development of a bioretention facility at Hillwood Manor Playground.

In the upcoming year, the City intends to complete several major projects that were planned previously, including the Takoma Branch Stream Restoration and the Brashear's Run Outfall Stabilization. Additionally, the City will soon put into operation a new EV street sweeper, ordered in 2021, and intends to double sweeping operations as a result of the new, enhanced equipment.

3.	Has a Restoration Schedule been completed and submitted to MDE in accordance with
	Part V.B, Table 2 of the permit?
	Yes No

In year 5, has a complete restoration schedule been submitted including a complete list of projects and implementation dates for all BMPs needed to meet the twenty percent restoration requirement?

Tyes No

Are the projected implementation years for completion of all BMPs no later than 2025?
☐ Yes No

As a result of the revisions to the allowed credit for the alternative BMP contribution for street sweeping and storm drain vacuuming, as well as the delay of planned projects due to the need to address urgent flooding issues exposed in September, 2020, current projections show that the City will not reach the 20% treatment required until 2027.

Describe actions planned to provide a complete list of projects in order to achieve compliance by the end of the permit term:

Our program plans include outfall stabilization and stream restoration in the upcoming years. We also plan to expand our street sweeping program frequency to increase the amount of credit, as well as increase tree planting.

Describe the progress of restoration efforts (attach examples and photos of proposed or completed projects when available):

In 2022, the City completed a stormwater drainage improvement in conjunction with the outfall stabilization for a major pipeline relocation project on Cockerille Avenue that ends at Circle Woods. This project resolved a known flooding issue affecting private property.

Additional projects completed in 2022 included the installation of a 500 SF surface area bioretention pond at Holly Ave and Grant Ave and the installation of 1,750 SF of permeable paver on Elson Place, a dead-end street directly adjacent to Sligo Creek.

The Flower Avenue Green Street Project, a one-mile-long collaborative effort between SHA, Montgomery County, and the City of Takoma Park, which began in 2019, was completed in 2021. This project added seven (7) Bioretention facilities with a total of 2,906 SF of filter surfaces to our treatment inventory.

4. Has the BMP database been submitted to MDE in Microsoft Excel format in accordance with Appendix B, Tables B.1.a, b, and c?

▼ Yes ∇No

Is the database complete?

▼ Yes No

If either answer is No, describe efforts underway to complete all data fields, and a date that MDE will receive the required information:

5. Provide a summary of impervious area restoration activities planned for the next reporting cycle (attach additional information if necessary):

A project at Brashear's Run, an outfall to Sligo Creek, includes 110 LF of outfall stabilization. The project is planned and permitted through MNCPPC and will be executed by the City of Takoma Park.

The design and MDE permit for the Takoma Branch Stream Restoration Project consisting of 100 linear feet of outfall and stream bank restoration, previously delayed, is scheduled to begin. This project is preparing for contract selection and will be constructed in FY2023

6. Describe coordination efforts with other agencies regarding the implementation of impervious area restoration activities:

The City jointly developed the design of a Bioretention facility for Hillwood Manor Park, a park owned by MNCPPC. The City contributed \$50,000 towards construction and will be responsible for system maintenance.

The Takoma Branch Stream restoration is a joint effort with MNCPPC. The land is owned by MNCPPC. The project design was a collaborative effort between the City and MNCPPC. The City is funding this phase of construction.

Similarly, the Brashear's Run outfall stabilization was collaboratively designed by the City and MNCPPC, but will be financed by the City.

7. List total cost of developing and implementing the impervious area restoration program during the permit term:

Installation of BMP's since 2007 to date incurred an estimated total cost of \$4,577,700 for both structural and alternative measures.

The annual budget is typically \$700 - \$750K and includes \$250,000 for Capital Projects, \$150,000 for maintenance and repairs, \$120,000 for video inspections, pipe cleaning, and IDDE, and \$80,000 for engineering assistance. The remainder is personnel costs for the 0.75 FTE's associated with the program.

The FY23 stormwater management budget is \$1,300,000, increased to include funding toward purchase of the new EV street sweeper and \$150K for implementation of a Stormwater Resiliency Study, as well as carry-over funding to complete projects originally planned for FY22.

In addition to the dedicated stormwater budget, the City funds several programs through the Public Works operating budget that supplements the stormwater program (leaf

collection, street sweeping, and tree planting), The City anticipates the budget to remain similarly allocated through the permit term.

Section II: Minimum Control Measures Reporting Forms

MCM #1: Public Education and Outreach

1.	Does the permittee maintain a process and phone number for the public to report water
	quality complaints?
	FYes FNo

Number of complaints received: 12

Describe the actions taken to address the complaints:

Feb 11, 2021, Takoma Park Fire Department was staged at the Takoma Park Middle School doing "some training and cleaning". This incident was investigated and found to introduce no pollution.

Sediment-laden water at Brashears' run out-fall on Maple Avenue was reported on February 16, 2021. Staff visited the site to determine the source but was not able to identify it.

March 8, 2021 incident was reported related to a water service line breach at 6633 Eastern Avenue which caused sediment from landscaping work to be washed into the roadway. City staff alerted WSSC, which made repairs.

On Mar 30, 2021, the City received a report that the water in Long Branch creek was yellow. Staff investigated and determined the source was a water main break. WSSC was on site and made the repairs.

On June 25, 2021, high turbidity pollution was reported in Brashear's Run. The source was identified as a water line break on Sherman Avenue that eroded soil under the roadway and into the creek. WSSC was onsite and made repairs.

July 1, 2021, muddy water was reported at the end of the Baltimore Avenue stream culvert. Staff investigated and identified the source was a construction site at Montgomery College and a failure in their dewatering system filter. County S & E inspector responded, and the contractor was required to take remedial action.

July 9, 2021, runoff from a construction site at 6922 Prince Georges Avenue was reported. The matter was investigated by Montgomery County Sediment and Erosion Control inspector. The contractor was advised to install a silt fence and confine run-off within the site.

August 1, 2021, runoff was observed to transport sediment from the Montgomery College construction site. City staff notified Montgomery County S & E inspector, and he required upgrading and repair of control devices.

Aug 20, 2021, City staff conducted a site visit to the Montgomery College Construction site during a flash flood warning and heavy rainfall. Erosion and Sediment Control (ESC)measures were found to be working appropriately.

On February 12, 2022, a sewer backup from a storage tank overflowed in the parking lot of the City's Community Center. The sewage was discharged into the nearby stormwater drain in the parking lot. The overflowing tank was pumped out the following day, and the pumps were repaired.

February 23, 2021, we received a report of an exposed salt pile on the Washington Adventist Hospital campus parking lot, which is adjacent to Sligo Creek's steep banks. City staff visited the site and contacted College grounds management staff. The salt was removed.

July 16, 2022, a watermain breach was reported on the grounds of Washington Adventist Hospital. The incident was reported to the City, MDE, and WSSC. Substantial amounts of chlorinated water and sediments were transported to Sligo Creek. Hospital facility staff were able to shut off the water source, and the contractor repaired the system on July 18, 2022.

2. Describe training to employees to reduce pollutants to the MS4:

Supervisors of four operational areas within Public Work's, including Vehicle Maintenance, Sanitation, Gardens, and Right of Way, were collectively briefed on the Stormwater Pollution Prevention Program to minimize pollution release from the Public Works facilities. This was done relative to quarterly inspections of the areas. The Department has in place a Standard Operating Procedure (SOP) for spills as well as Stormwater Pollution Prevention Plan (SWPPP).

Supervisors for each of the Department Divisions took part in Spill Prevention Control and Countermeasures (SPCC) training consisting of video, PowerPoint presentation, testing, and certification. This training was held on January 11, 2022

The Right Way, Gardens, Vehicle Maintenance, and Sanitation personnel were trained using site-specific PowerPoint and videos in both DPW spill prevention and general pollution prevention with respect to the MS4 program; the trainings were held on January 21, 2022, February 1, 2022 and February 11, 2022.

3. Describe the target audience(s) within the jurisdiction:
Internally, the target audience is the Public Works staff who are responsible for pollution prevention.

Externally, the target audience includes residents, businesses, and construction companies operating within the boundary of the City of Takoma Park.

4. Are examples of educational/training materials attached with this report?

☐ Yes ☑ No

Provide the number and type of educational materials distributed: Describe how the public outreach program is appropriate for the target audience(s):

Internal training videos produced by Excel are used for internal training. These provide specific information for use by staff who work with materials that can cause pollution and who respond to spills and maintenance situations. The training materials have been previously included in the 2020 report.

Newsletter Articles, Direct Mail, Bus Shelter Ads, and the City's Stormwater Management pages of the website are intended for the general public. They provide information and reminders about the City's stormwater program and best practices for reducing water pollution.

- 5. Describe how stormwater educational materials were distributed to the public (e.g., newsletters, website):
- 1. Direct Mail In January, 2021 the City mailed a letter to every single-family property notifying them of a Council Session to be held on February 10, 2021 to discuss a change to the Stormwater Utility Fee and provided information about the Stormwater Management Program and an interactive map showing impervious surface for each property. In June, 2021, the City sent a direct mail flyer to 3,600 single-family property owners with specific details about the updated fee structure and the fee for their property. (both are attached in the Appendix)
- 2. The City website http://takomaparkmd.gov/government/public-works/stormwater-management-program/ The website was updated in 2021 to include direct links to the impervious surface map, and a new FAQ about our stormwater management programs. The site also provides links to relevant information from the Maryland Department of Environment and the United States Environmental Protection Agency. The City's NPDES MS-4 compliance reports and Watershed Implementation Plan Phase II reports are also posted on the website.
- 3. Takoma Park Monthly Newsletter February 2021 City Newsletter included an article on the proposed change to the Stormwater Utility Fee structure, April 2021 City Newsletter included a notice of a Tree workshop, the October 2021 edition included information about a program to encourage the planting of trees on private property and provided rebates, the June 2022 edition included an article on the new Stormwater abatement credit program, and the August, 2022 edition included an announcement about the start of a household battery drop-off program.
- 4. Bus Shelter Posters The City has an arrangement with our bus shelter provider to use ten shelter ad spaces each month for public education efforts. The program includes posters for Stormwater, Anti-Litter, and Pesticide Restriction "Safe Grow Law" during this reporting period. The posters have been previously included in the 2020 report.

- 5. City Council Work Sessions related to Stormwater Management issues were held on March 10, 2021, September 8, 2021, March 16, 2022, and July 13, 2022. The meetings are advertised on the City Website, Social Media and recorded and available for viewing and accessible on YouTube and the City's website. The coversheet of Agenda Items is attached in the Appendix)
- 6. Describe how educational programs facilitated efforts to reduce pollutants in stormwater runoff:

The internal education and staff training efforts have improved our facility operations to reduce spills and improve the storage of materials that could potentially contaminate runoff if not managed correctly. Additionally, we have spill kits readily available, so if a spill happens, it is cleaned up immediately.

The information provided from the direct mail to single-family residents included information about measures to take within the private property to add stormwater treatment and/or reduce run-off.

The Ad campaigns provide regular reminders of the City's regulation banning the use of pesticides for cosmetic lawn care and public messages about not littering.

Newsletter articles have encouraged tree planting, battery recycling and provided information about the stormwater management program.

- 7. Provide a summary of the activities planned for the next reporting cycle:
 - Public meetings: The Stormwater Resiliency Study will include a minimum of 4 public meetings to review the scope of the study, initial results, and provide information on measures property owners can take to reduce flooding and improve stormwater management.
 - Prepare relevant Newsletter articles to inform and educate the public on environmental matters, including pollution prevention and stormwater management.
 - Continue the bus shelter ad campaign and coordinate with City Television to air new versions of videos (if available) on public educational material.
 - Continue the staff training on pollution prevention
- 8. List the total cost of implementing this MCM over the permit term:

 An estimated cost is \$10,000 over the permit term. This cost is limited to material expenditures

MCM #2: Public Involvement and Participation

1. Describe how the public involvement and participation program is appropriate for the target audience(s):

Given the limited staffing allocated to our Stormwater Management program in the City (.5 FTE engineer and .25 FTE Construction Manager), our ability to provide robust programs for the public is extremely limited.

During this reporting period, the City held several Council Work Sessions to discuss the Stormwater Management Program and the proposed changes to the Stormwater Utility Fee. These meetings were open to the public and were available to listen to remotely. The sessions were recorded and archived so residents could access them in the future.

We continue to rely on organizations such as the Friends of Sligo Creek to organize twice-a-year trash clean-up events for Sligo Creek.

The City's Urban Forest Management program has expanded the City's tree planting programs and is now offering tree planting on private property for no cost, with a focus on multi-family and commercial properties in areas with lower tree canopy. We plan to increase tree planting on private property in FY23. Part of the program includes consultation on the property and an explanation of the benefit of trees and proper species and location for the site. Additionally, the City coordinates with Tree Montgomery to provide a Tree Care workshop annually in the City.

The Mark A Drain campaign has been of interest by the Boy Scouts. They can earn merit badges for their participation, and we have had Eagle Scout projects organized around this program.

The Annual Household Hazardous Waste event is held annually and advertised in the City Newsletter ad website. Because it happens each year on the first Saturday in June, residents can plan for it and now rely on it to safely dispose of hazardous materials.

For this reporting period, activities were significantly impacted by the COVID pandemic.

2.	Quantify and report public involvement and participation efforts show applicable.	vn below where
	Number of participants at public events:	125
	Quantity of trash and debris removed at clean up events:	unknown
	Number of employee volunteers participating in sponsored events:	8

MCM #2: Public Involvement and Participation	
Number of trees planted:	221
Length of stream cleaned (feet):	~0.5 miles
Number of storm drains stenciled:	0
Number of public notices published to facilitate public participation:	11
Number of public meetings organized:	8
Total number of attendees at all public meetings:	200+
Describe the agenda, items discussed, and collaboration efforts with it for public meetings:	nterested parties
The agendas for the Council Work Sessions to discuss the Stormwater Ma Program and the proposed revisions to the Stormwater Utility Fee are inc appendix.	nagement luded in the
The City's annual Household Hazardous Waste (HHW) event took place of June 4, 2022. Clean Harbors Inc. provided the services. Among the material over 160 pounds of flammable liquid and 2,240 pounds of liquid pesticide we had approximately 120 participants.	als collected were
The Conservation Montgomery Tree Workshop allows 25 participants and discuss tree issues.	d is a field walk to
The Friends of Sligo Creek clean-up events are announced through their o coordinated by their volunteers.	rganization and
Describe how public comments have been incorporated into the perm program, including water quality improvement projects to address im restoration requirements:	ittee's MS4 pervious area
As part of any capital project in the City, including sidewalk repair or insta comments are received on the plans, and issues related to stormwater maidentified. Mitigation measures are added to the plan when they are feas	anagement are
When the City updated the Stormwater Utility Fee, the public requested to credit program, which went into effect for FY23. This enables those residentaken steps to manage and treat run-off on their property to receive credit reduced utility fee for approved measures. The City's Credit Policy & Guidare at: Stormwater Utility Fee Credit Policy and Guidance Document	ents who have lit by way of a

MCM #2: Public Involvement and Participation

Describe any additional events and activities if applicable:

The City has commissioned the Low Impact Development Center to conduct a Stormwater Resiliency Study for the City. This project includes a plan that will identify up to 20 flood-prone locations and develop concept plans to address the issue. Also included in the scope is the development of a Dashboard that will allow each resident to understand the impacts and potential solutions to reducing runoff and improving water quality on their property. The Study will include four public meetings to enable public comments and input. The end products, including the dashboard and list of stormwater management measures, will be made available through the City's website to help educate and inform the public.

3. Provide a summary of activities planned for the next reporting cycle:

Convene public meetings to review the progress of the Stormwater Resiliency Study and receive review and comments from the public

Continue the tree planting program – Tree Takoma, which includes onsite property survey and tree planting recommendations provide through a contract with Casey Trees.

Advertise and promote the Friends of Sligo Creek stream clean-up events

Support community clean-up and invasive removal volunteer days

Continue the Household Hazardous Waste Collection Day

Solicit volunteers for the Mark A Drain program

4. List the total cost of implementing this MCM for the permit term:

The annual cost has increased from \$45,000 annually to \$100,000 or roughly \$350-\$400K over the permit term. The cost of the tree planting is funded by the Urban Forest budget, and the Household Hazardous Waste Collection Day is funded by the Sanitation Division Budget. The only program listed funded by the Stormwater budget is the Mark A Drain Campaign.

Tree planting - The City previously provided a \$100 rebate per tree. The new program covers the entire cost of a tree (originally \$40,000 per year, expected to increase to \$80,000 - \$100,000

Household Hazardous Waste event \$10,000 Mark Drain Campaign material - up to \$3,000 plus personnel cost

1. Does the permittee maintain a map of the MS4 owned or operated by the permittee, including stormwater conveyances, outfalls, stormwater best management practices (BMPs), and waters of the U.S. receiving stormwater discharges? ▼ Yes 「No

If Yes, attach the map to this report and provide a progress update on any features that are still being mapped. If No, detail the current status of map development and provide an estimated date of submission to MDE:

The City's GIS Stormwater infrastructure database was updated in September 2022 by KCI. The updated database schema includes structure condition assessment through multiple iterations of field assessment, and maintains historic condition assessment data. The database was updated to include stormwater BMP polygons and associated BMP drainage areas. A point feature class for permitted BMP was created and linked the BMP and drainage area(s). The data from the IDDE program - Dry Weather Outfall Test results obtained was associated with outfall locations and includes data from 2007, 2010, 2015, 2017, 2019, 2020, and 2021. The data from 2022 will be added in the future update.

2. Does the permittee have an ordinance, or other regulatory means, that prohibits illicit discharges?

▼ Yes 「No

If Yes, describe the means for enforcement utilized by the permittee (alternatively, a link may be provided to the permittee's webpage where this information is available). If No, describe the permittee's plan, including approximate time frame, to establish a regulatory means to prohibit illicit discharges:

The City of Takoma Park receives reporting of illicit discharges into the stormwater system or area waterways. Under the City Code section 16.04.270, "Unsafe Condition-Entry onto property", city staff is authorized to enter onto private property for the purpose of investigating the cause of the illicit discharge. During this reporting period, Public Works staff responded to twelve (12) such incidents described in detail under the minimum control measure section MCM#1, 1.

The City's response involved site visits to gather information and contact the Montgomery County Department of Environmental Protection (MCDEP) and informing the Maryland Department of Environment (MDE) as necessary. The City entered into an MOU with Montgomery, which authorizes the County to enforce IDDE within the City. MCDEP continues to provide enforcement where necessary for reported incidents within the City. If legal issuing of infractions and enforcement become necessary, the county staff undertakes the legal proceeding according to the MOU established by both City and Montgomery County in 2006.

MCM #3: Illicit Discharge Detection and Elimination (IDDE)		
3.	Describe the process the permittee utilizes for gaining access to private property to	
	investigate and eliminate illicit discharges:	

Under the City Code section 16.04.270 "Unsafe Condition-Entry onto property", city staff is authorized to enter onto private property for the purpose of investigating the cause of illicit discharge. In all cases, City Staff try to contact the property owner before accessing their property, but if unknown or non-responsive would proceed. Most investigations have taken place on public property within a stream or street surface.

4. Did the permittee submit to MDE standard operating procedures (SOPs) in accordance with Part IV.C of the permit? Yes No

If No, provide a proposed date that SOPs will be submitted to MDE. MDE may require more frequent reports for delays in program development:

Did MDE approve the submitted SOPs? ▼ Yes 「No

If No, describe the status of requested SOP revisions and approximate date of resubmission for MDE approval:

5. Describe how the permittee prioritized screening locations in areas of high pollutant potential and identify the areas within which screenings were conducted during this reporting period:

The City primary land use is residential. There is limited commercial areas and no industrial locations. For the purposes of prioritizing screening locations, we rely on past water quality testing results to determine which areas we will more closely investigate to identify the source of elevated pollutants identified during the annual testing. The annual dry weather analysis and outfall evaluation was performed by Bay Land Consultants & Designers, Inc. In 2021, 23 distinct outfalls were observed to have dry weather flow, and in 2022, 14 outfalls had dry weather flow. Water quality samples were obtained and tested for pollutants from these outfalls.

6. Answers to the following questions must reflect this two-year reporting period.

How many outfalls are identified on the map? | 78

How many outfalls were required to be screened for dry weather flows to meet the minimum numeric requirement (i.e., 20% of total outfalls, up to 100)?

How many outfalls were screened for dry weather flows? 78

Per the permittee's SOP, how frequently were outfalls required to be screened? **Annually** -

In 2021, Samples were collected at 23 distinct outfalls with active flow after 72 hours of dry weather.

In 2022, samples were collected at 14 distinct outfalls with active flow after 72 hours of dry weather.

At what frequency were outfalls screened during the reporting period? **Annually** -

In 2021, Nine (9) of the 23 outfalls had elevated levels of E. coli and/or enterococci. Also, fourteen (14) of the 23 outfalls displayed chlorine levels that were above the Maryland standards and/or EPA chronic and acute toxicity standards.

In 2022, Seven (7) of the 14 Outfalls had elevated levels of E. coli and/or enterococci.

One (1) of the 14 outfalls displayed chloride levels above the EPA chronic and acute toxicity standards.

Five (5) of the 14 outfalls displayed pH levels below the Maryland standards and the EPA standards

How many dry weather flows were observed? 37-2 yrs

If dry weather flows were observed, how many were determined to be illicit discharges? 36-2yr

Describe the investigation process to track and eliminate each suspected illicit discharge and report the status of resolution:

In compliance with City's SOP for Illicit Discharge Detection and Elimination, once elevated levels of pollutants are detected from outfall testing, an investigation takes place back up the system to try and detect the source. Manholes closest to the outfall are investigated first, then progressively moving up the pipe network and inspecting at manholes to determine the source. Indicators such as the presence of flow, colors, odors, floatable materials, or deposits or stains are used to trace the source. The City has contracted with Bay Land Consultants to performed the investigation.

In March and April 2021, the City contracted Bay Land Consultants to investigate possible illicit discharge source at three outfalls with levels of pollutants exceeding

EPA standards during 2019 and 2020 dry weather sampling. Chlorine, E. coli and enterococci were identified for Outfall #80; E. coli and enterococci for Outfall #212; and Enterococci, color, chloride and Chlorine for Outfall #1106. Tracking related to Outfall #80 included testing back up the line at three manholes. Sample results exceeded standards for E coli and Enterococci. The first manhole had elevated enterococci, the second manhole exceeded E. Coli and the third exceeded enterococci and Chlorine. The chlorine results in the third manhole suggest possible sanitary wastewater contamination.

Tracking related to outfall #212 included testing back up the line of 5 manholes. The levels of E coli and enterococci were low in all manholes except in the second manhole. Tracking related to outfall 1106 included testing back up the line at one manhole for Chloride, Chlorine and color. Results had elevated chloride which could be a result of sewage contamination and water softener discharges.

The City intends to follow up with WSSC requesting leak testing of sewer lines as well as include the storm lines in inspections program CCTV to assess the condition of the pipes for potential repairs.

In August 2022, one outfall was selected to be tracked to identify potential source of elevated E-coli. Outfall #1077 was tested for E. coli because it exceeded Maryland and EPA standards during the 2022 outfall screening. The potential source was identified and described as likely exfiltration occurring from the sanitary sewer pipes and getting into the storm drain system due to degrading integrity of the storm pipes. The City plans to CCTV from the outfall to the first manhole when a routine inspection is scheduled for this area.

- 7. Describe maintenance or corrective actions undertaken during this reporting period to address erosion, debris buildup, sediment accumulation, or blockage problems:
 - 1. Video Pipe Inspection and Cleaning:

Every year Department of Public Works obtains contractual support to conduct closed circuit television (CCTV) investigations and cleaning of its stormwater infrastructure. During this reporting period, the CCTV inspection and cleaning took place in a portion of Sub-basin 5. The annual funding available for this work is \$55,000 -\$65,000.

In FY21-1,119 linear feet of pipe were cleaned, as well as 62 inlets and 5.54 tons of debris was removed

In FY22 - 8,109 linear feet of pipe was cleaned, as well as 124 inlets and 17 tons of debris was removed.

After the pipe cleaning is complete the system is videoed and the City is provided with pipe and structure rating to identify any problems or issues that may need to be addressed.

 Street Sweeping: Normally, the sweeping cycle runs from March through October each year. The City previously used a TYMCO Model 600 BAH sweeper mounted on a 2011 International 4300 DT10m Truck. The sweeper is operated by in-house staff. In

addition to the sweeping route, storm drain pipes and inlets are also regularly inspected during and after rain, snow and storm events to ensure proper drainage. In this reporting period, the City sweeper collected 70.2 tons of debris. Street sweeping zones were visited 3 to 6 times during sweeping periods in spring, summer and fall. We have developed a spreadsheet to track street sweeping lane-mile coverage. The City's sweeper became inoperable in late 2021 and the ordered replacement was delayed, due to the pandemic and supply chain issues, for almost a year. Delivery is expected in Nov 2022.

- 3. Leaf Collection: The City operates a 5-week program for vacuum leaf collection. This program plays a significant role in keeping leaf debris out of the storm drain system and thus, we considered it an effective BMP as it reduces leaves from entering the storm drain system and significantly reduces the amount of decaying organic matter entering the stream. The City has tracked the weight of leaf materials collected annually since 2020, however, we have not incorporated this weight in our pollution reduction computations for treatment credit.
- 4. One outfall stabilization project was executed in 2022 at Circle Woods. This outfall stabilization is included in City's Restoration Activities Schedule.
- 5. Inlet and pipe clearing In addition to the scheduled system inspection performed by a contractor, the City staff responds to reports of blocked inlets or standing water in the right of way. The City uses equipment to clear the blockage. In this reporting cycle, staff addressed systems blockages at Takoma Ave and Buffalo Ave inlet, Baltimore Avenue culvert, Maple Avenue and Tulip Avenue inlet, and Poplar Avenue inlet, across from Spring Park
- 8. Is the permittee maintaining all IDDE inspection records and are they available to MDE during site inspections?

 ▼ Yes No
- 9. If spills, illicit discharges, and illegal dumping occurred during this reporting period, describe the corrective actions taken, including enforcement activities, and indicate the status of resolution:

Reports of spills or possible pollutant discharges are included in the response under MCM#1, Question 1.

10. Attach to this report specific examples of educational materials distributed to the public related to illicit discharge reporting, illegal dumping, and spill prevention. If these are not available, describe plans to develop public education materials and submit examples with the next Progress Report:

The City has information on our webpage to help the public determine whether they are seeing pollution or a naturally occurring condition in the stream. Weblink for the page: https://takomaparkmd.gov/government/public-works/stormwater-management-program/what-is-the-stuff-in-the-creeks/

- 11. Specify the number of employees trained in illicit discharge detection and spill prevention: 22
- 12. Provide examples of training materials. If not available, describe plans to develop employee training and submit examples with the next Progress Report:

 The training material consisted of a presentation, video, and quiz purchased from the Excel Visual media called Rain Check Stormwater Pollution Prevention for MS4s. Training materials can be viewed at:

https://excalvisual.com/product-page/rain-check-stormwater-pollution-prevention-for-m-1

13. List the cost of implementing this MCM during this permit term:

The annual budget is \$120,000 for video inspection, cleaning and dry weather testing, as well as IDDE tracking. Over the 5-year permit term, the total is \$600,000.

MCM #4: Construction Site Stormwater Runoff Control	
Ero	sion & Sediment Control Program Procedures, Ordinances, and Legal Authority
1.	Does the permittee have an MDE approved ordinance? ▼ Yes 「No
	Has the permittee submitted modifications to MDE? ☐ Yes No
	Has the adopted ordinance been submitted to MDE? ▼ Yes No
	If No, is the adopted ordinance attached? ☐ Yes ☐ No
2.	Does the permittee rely on the County, local Soil Conservation District, or MDE to perform any or all requirements for an acceptable erosion and sediment control program? Yes No
	If Yes, check all that apply: ✓ Plan Review and Approval ✓ Construction Inspections ✓ Enforcement
3.	Does the permittee have a process to ensure that all necessary permits for a proposed development have been obtained prior to issuance of a grading or building permit? Yes No
	Explain how the permittee ensures all permits are in place:
	The City does not issue grading or building permits – those are issued by Montgomery County. The City and County have established a requirement for all Takoma Park permit applicants to provide a Municipality Letter from Takoma Park before they can receive a County permit. The applicants request the Municipality letter from the City and it includes information about the possible City permits that may be required including stormwater, tree protection plan and tree removal permit, and for any work in the Right of Way. The issuance of a Municipality Letter is provided by the City's Planning Department; however, the City Engineer and Urban Forest Manager receive copies so they are aware of the proposed project.

Erosion & Sediment Control Program Implementation Information

MCM #4: Construction Site Stormwater Runoff Control

1.	Does the permittee have a process for receiving, investigating, and resolving complaints from interested parties related to construction activities and erosion and sediment control? Yes No
	Describe the process:
perfo Erosi	on and sediment control plan review, and inspection during construction, is ormed by Montgomery County's Department of Permitting Services, Sediment and on Control office. City staff actively observed work sites and worked closely with tgomery County inspectors regarding identifying compliance issues.
List o	f complaints received and results for the permit term include:
visitea	t of sediment run-off from an active construction site at 430 Ethan Allen Avenue – City staff I the site, and notified the County E & S inspector. E & S inspector found site conditions to be their permit requirements.
Report and no fence.	t of sediment from 6822 Prince Georges Ave — active construction site — staff visited the site otified the County E & S inspector who issued stop work and required installation of a silt
notifie	122, report of sediment run-off from 203 Lincoln Avenue— City staff visited the site, and and the County E & S inspector. E & S inspector found site conditions to be within their permit ements.
	Provide a list of all complaints and summary of actions taken to resolve them:
2.	Total number of active construction projects within the reporting period: NA
	Provide a list of all construction projects and disturbed areas:
	The City does not issue construction permits. Those are issued by Montgomery County.
	Does the permittee submit grading reports to MDE (only applies if the permittee has an MDE approved ordinance)? ☐ Yes ☐ No ☐ N/A

MCM #4: Construction Site Stormwater Runoff Control

3.	Total number of violation notices issued related to this MCM within the permit area (report total number whether the permittee or another entity performs inspections):

Enforcement is performed by Montgomery County

Describe the status of enforcement activities:

Describe how the permittee communicates and collaborates with the enforcement authority for violations within the permit area. Include measures taken by the permittee such as suspending or denying a building or grading permit in order to prevent the discharge of pollutants into the MS4:

City staff routinely observe construction sites for implementation of erosion and sediment control practices and their effectiveness, especially during storm events. In the event of violations, City staff notify the County E & S inspector. The Inspector then determines course of action and notifies the City of action taken. Since the construction permits are issued by the County, the City does not have authority to suspend building or grading permit.

Are erosion and sediment control inspection records retained and available to MDE during field review of local programs?

r Yes r No

If No, explain:

Inspection is performed by Montgomery County Inspectors and the inspection records are retained by the County.

- 4. Number of staff trained in MDE's Responsible Personnel Certification:
- 5. Describe the coordination efforts with other entities regarding the implementation of this MCM:

The coordination is limited to Montgomery County.

6. List the total cost of implementing this MCM over the permit term:

The cost associated with this MCM is staff time and all staff are salaried. Hours spent on specific topics or inspection is not monitored.

MCM #5: Post Construction Stormwater Management

	Stormwater Management Program Procedures, Ordinances, ar	d Legal Authority
1.	Does the permittee have an MDE approved ordinance?	▼ Yes 「No
	Has the permittee submitted modifications to MDE?	□ Yes □ No
	Has the adopted ordinance been submitted to MDE?	▼ Yes 「No
	If No, is the adopted ordinance attached?	Γ Yes Γ No
1.	Does the permittee have a memorandum of understanding (Maperform any or all requirements for an acceptable stormwater Yes No	OU) with the County to program?
	If Yes, check all that apply: Plan Review and Approval First Year Post Construction Inspections As-Built Plan Approval Post Construction Triennial Inspections Enforcement BMP Tracking and Reporting	
	Stormwater Management Program Implementation In	formation
	 Has an Urban BMP database been submitted in accordance structure in Appendix B, Tables B.1.a, b, and c as a Micro Yes No 	ee with the database osoft Excel file?
	Describe the status of the database and efforts to complete all	data fields:
	The urban BMP database is complete and up to date in all fields. have complete records for 89 Public facilities and 20 alternative permits for 65 private facilities, bring the total number of BMPs	BMPs, as well as issued 35
	2. Total number of triennial inspections performed: 33	
	Total number of BMPs jurisdiction-wide: 174	
	Are inspections performed at least once every three years for ✓ Yes ✓ No	all BMPs?

MCM #5: Post Construction Stormwater Management If No, describe how the permittee will catch up on past inspections and remain on track to perform BMP inspections once every three years: 11 Public Filteras and Modular Wetland System facilities are inspected tri-annually, and the remaining public BMPs are inspected annually. The alternative BMP's including stream restoration projects are inspected tri-annually and Outfall Stabilization projects are inspected annually. Private facilities are required to be inspected tri-annually. Are BMP inspection records retained and available to MDE during field review of local programs? ▼ Yes 下 No 3. Total number of violation notices issued: Describe efforts to bring BMPs into compliance and the status of enforcement activities within the jurisdiction: During this reporting term all required inspections have been performed. For those private facilities that were non-responsive, the City completed the inspection. 4. Describe how the permittee coordinates and cooperates with the County to ensure stormwater BMPs are functioning according to approved standards. (Applicable for municipalities that rely on the County to perform stormwater triennial inspections): This does not apply as the County does not perform Tri-annual inspections, except on County owned properties (playgrounds, fire station and schools) 5. Provide a summary of routine maintenance activities for all publicly owned BMPs: Public SMW facilities including BMPs inspection and maintenance is performed by both DPW staff and contractors. During this reporting period, the City's contractor performed vegetation management, mulch replenishment, and litter and sediment removal. A new contract is now in place as of 2022 for a 3-year term. The contractor's efforts are augmented by the City's Gardening staff who perform plant replacement, weeding and structural repairs as needed. Records of all inspections and maintenance are scanned and stored on the City's records.

Describe how often BMPs are maintained. Specify whether maintenance activities are

Number of publicly owned BMPs: 89

more frequent for certain BMP types:

MCM #5: Post Construction Stormwater Management

Public Bioretention facilities are inspected and maintained between 2 and six times per year. Modular wetland, permeable pavers, Filterra and stream restoration projects are monitored and maintained on as needed basis but at least tri-annually. We have found that bioretention facilities require much more frequent maintenance than modular wetland, Filtera, or permeable pavement facilities.

Are BMP maintenance checklists and procedures for publicly owned BMPs available to MDE during field review of local programs?

Ves. \(\subset \text{No} \)

Are BMP maintenance records retained and available to MDE during field review of local programs?

▼ Yes □ No

If either answer is No, describe planned actions to implement maintenance checklists and procedures and provide formal documentation of these activities:

- 6. Number of staff trained in proper BMP design, performance, inspection, and routine maintenance: 3
- 7. Provide a summary of activities planned for the next reporting cycle:
 - Review of permitted facilities Inspection dates to ensure completion
 - Inspection and maintenance of all publicly owned BMPs; and any private facilities for which the property owner fails to respond in the required time frame
 - Ensure required as-built documents are submitted for all new private facilities
 - Implement a program to test infiltration rates on permeable surface facilities to determine when media replacement is required, based on performance
- 8. List the total cost of implementing this MCM over the permit term:

The contractual costs for facility maintenance are currently about \$75,000 annually, or an estimated \$375,000 over the permit term. In-house maintenance performed by City staff is not included, nor are hours spent performing maintenance on these specific sites.

MCM #6: Pollution Prevention and Good Housekeeping

 Provide a list of topics covered during the last training session related to pollution prevention and good housekeeping, and attach to this report specific examples of training materials:

- 1.Spill Prevention
- 2. Spill Recovery and impact mitigation. Spill cleanup kit
 - Quarterly Yard Inspection for different areas.
 - Schedule of street sweeping
- 3. Best Management Practices for Public Works operations

List all training dates within this two-year reporting period:

Supervisors - January 11, 2022

Staff - Rain Check MS4 on January 21, 2022, February 1, 2022 and February 11, 2022

Number of staff attended:

2. Are the good housekeeping plan and inspection records at each property retained and available to MDE during field review of the local program? Ves V No

If No, explain:

Provide details of all discharges, releases, leaks, or spills that occurred in the past reporting period using the following format (attach additional sheets if necessary).

Property Name:

Date:

Describe observations:

Describe permittee's response:

Property DPW Fuel Isle Date: 06/04/2021 & 06/17/2021

Observations: Vehicle overfilled Diesel Fuel

Response: Absorbent used, fuel collected and disposed of with hazmat properly.

Property *DPW* Date: 09/14/2021

Observations: Oil spill, approximately 5 gallons, when the oil filter was improperly installed

Response: Mechanic contained spill with absorbent and disposed of properly.

Property DPW Date: 10/4/2022

Observations: The fuel Tank in Tub Grinder developed a leak, and approximately 25 gallons

Response: Staff discovered the leak, the fuel tank was pumped, and absorbent was placed

to collect spill. Nearby leaf mulch that was contaminated was disposed of properly.

3. Quantify and report property management efforts as shown below, where applicable (attach additional sheets if necessary).

Number of miles swept:

335

MCM #6: Pollution Prevention and Good Housekeeping
Amount of debris collected from sweeping (indicate units): 147 Tons
If roads and streets are swept, describe the strategy the permittee has implemented to maximize efficiency and target high priority areas:
The City has split the City into 5 sweeping zones. From March through October, each zone is to receive sweeping at least two times per year. As the City is primarily residential, all streets are covered in a similar manner; there are no perceived target areas.
Number of inlets cleaned: 186
Amount of debris collected from inlet cleaning (indicate units): 22.54 Ton
Describe how trash and hazardous waste materials are disposed of at permittee owned and operated property(ies), including debris collected from street sweeping and inlet cleaning:
Trash and debris collected from street sweeping are stored in a contained area with a waterproof tarp cover. When sufficient material has been collected, staff load it into a roll-off box or large dump truck and take materials to the County Waste Disposal Facility.
For material collected in inlet cleaning operations, the materials are deposited on a paved surface and surrounded by hay bales to allow water to drain and the debris to dry out slightly. If rain is in the forecast, the material pile is covered with a waterproof tarp. Once sufficiently drained, the material is loaded into a roll-off or dump truck and disposed of at the Count waste facility
All hazardous waste materials dropped off at the annual Household Hazardous Waste Day are identified, loaded, and packaged by the Hazardous Waste vendor Clean Harbors. Any material dropped off outside the scheduled date, or left abandoned, is stored on pallets with spill containment in the truck parking bay until the next event.
Does the permittee have a current State of Maryland public agency permit to apply pesticides? ▼ Yes 「 No
If No, explain (e.g., contractor applies pesticides):
Does the permittee employ at least one individual certified in pesticide application? ▼ Yes No
If Yes, list name(s):

Anna Mische John

If the permittee applied pesticides during the reporting year, describe good housekeeping methods (e.g., integrated pest management, alternative materials/techniques):

The use of pesticides is limited to invasive plants for which manual control is not effective. Pesticides are stored in fireproof and waterproof cabinets. Safety Data sheets are available for all materials. The City uses horticultural vinegar and propane torch burning, as well as hand pulling for weeds as the primary control measures.

If the permittee applied fertilizer during the reporting year, describe good housekeeping methods (e.g., application methods, chemical storage, native or low maintenance species, training):

No fertilizers were applied

If the permittee applied materials for snow and ice control during the reporting year, describe good housekeeping methods (e.g., pre-treatment, truck calibration and storage, salt domes):

Salt used for snow and ice control is stored in a waterproof facility with a domed vinyl roof. Prior to each salt truck deployment, the staff calibrates the spreaders to ensure they are working appropriately.

After weather events where road salt was used, the City runs the street sweeper over the streets to pick up excess piles and remove salt from the roadway surface whenever possible.

Describe good housekeeping BMP alternatives not listed above:

City's staff drive throughout the City during and after a rain event to identify issue such as clogged inlet.

In the Public Work facility, which has an industrial discharge permit, the City has implemented a number of good housekeeping measures to minimize exposure to precipitation and they are:

- The yard is checked and monitored weekly for trash or other potential pollutant issues
- Recycled oil is picked up quarterly as the container is filled by FCC Environmental.
- Drum disposal is picked up as needed by PCC Lubricants
- Paved areas are swept bi-weekly.
- Trash receptacles are placed at strategic locations in the yard to ensure no trash is thrown on the ground. Containers are checked and emptied on a daily basis.
- Oil absorbent is maintained on site for use at the fueling station and parking area to mitigate fuel leaks. The used absorbent is placed in a plastic bag and disposed of in a trash receptacle.
- 4. If applicable, provide a status update for permittee owned or operated properties

regarding coverage under the Maryland General Permit for Stormwater Discharges Associated with Industrial Activity or an individual industrial surface water discharge permit:

City's Public Work Facility has received an Industrial Discharge permit.

5. List the total cost of implementing this MCM over the permit term:

The cost associated with street sweeping averages \$6K to \$10K annually for brooms, disposal and maintenance. Staff time for the driver is salaried and not tracked. Absorbent supplies and associated materials are purchased account for less than \$1,000 annually. Staff time associated with this measure is not tracked and staff are salaried. The estimated cost over the permit term is \$40K.

Phase II MS4 Restoration Activity Schedule(Takoma Park No. 13-IM-5500	Restoral	ion Activity	Schedule(Takom	a Park No	. 13-IN	1-5500)			Cost (\$)
Total Acreage (1337.6); Impervious Acre Baseline (546.9); 20% Restoration BASETarget (109.4 acres) -restored to date 119.9 acres	npervious Ac	re Baseline (546.9); 2	0% Restoration	BASETarget (109.4 acres) -re	stored to d	ate 119.9 acres			
Type of Restoration Project	BMP Code ¹	(Optional)	Cost (\$K) ²	Imperv Acres Treated	Imperv Acre Target and Balance 10938	Project Status ³	Year Complete or Projected Implementation Year (by 2025)	MD Grid Coordinate (Northing/Easting)	MD Grid Coordinates (Northing/Easting)	Cost (\$)
5 Cleveland Avenue- Bioretention	FBIO	TP07BMP000001	\$ 30	0.20	81 601	J	2007	478983	1307647	\$ 30,000
Dooin	MMBR	TPOSBMP000002	\$ 19		109.12	ی د	2008	479651	1308869	\$ 61 000
12 Cieveland Avenue Kallistole Storage Basili Philadelphia Ave Com Center Parking	MMBR	TP09BMP000005			108 65	U	2009	478777	1309071	\$ 13,000
	AGRE	TP10BMP000006			108,59	U	2010	478981	1310916	
Hancock Step pool outfall stablization	MMBR	TP10BMP000007	\$ 36		107.73	၁	2010	478965	1310950	\$ 36,000
	SPSC	TP10BMP000008	\$ 23	0.24	107.49	S	2010	478939	1309509	\$ 23,000
ılar wetland	MENF	TP10BMP000009	\$ 216		19 901	U	2010	477496	1315521	\$ 216,000
Westmoreland Avenue - Bioretention	MMBR	TP10BMP000010	89 1	1	106.55	υ (2010	476349	1309100	\$ 5,000
	MENF	TP10BMP000097	5 45	0.40	90.49	ی ر	2010	479940	1315345	3 45.200
Tarric Circle	MMBR	TPI IBMP000011		1	90 901) U	2011	479168	1312158	
Anne & Kennewick 1-SE LOC 15	MMBR	TP11BMP000013	6	L	105 97	Ü	2011	481963	1314887	
	MMBR	TP11BMP000014		L	105.80	C	2011	481984	1314839	\$ 9,000
Anne & Wildwood 2 NE	MMBR	TP12BMP000015	SA.	0.02	105.77	၁	2012	481644	1314443	\$ 7,000
	MMBR	TP12BMP000016	S	4	105.54	Ü	2012	481521	1314459	
Columbia & Poplar	MMBR	TP12BMP000017	\$ 15	1	105.33	0	2012	477118	1310516	
Kirklynn & Lockney	MMBR	TP12BMP000018	5A 1	1	105.21	٥	2012	481115	1315114	8/88
Manor Circle triangle	MMBR	TP12BMP000019	24	0.34	104 87	· ·	2012	41/849	13010/1	2 23,008
Tulip Bio Swale	MMBK	TP12BMP000020		1	104 77	ر د	2012	483508	1311462	21.01.02
Wabash	MANDE	TELEBRADOCOCE	000	1	101.46	, .	2012	483479	1311441	\$ 20 000
Wabash 2 Wakach 2 Sumla Ellium	IRAS	TP12BMP000023	9 69	L	104.44	0	2012	483550	1311385	000 6 \$
Wildwood & Haverford	MMBR	TP12BMP000024	\$41	L	104.37	o	2012	479375	1315262	\$ 4,440
Grant dead-end	FBIO	TP12BMP000025	\$ 64		104 07	U	2012	480415	1315810	\$ 94,470
Holton Lane	MMBR	TP13BMP000026	\$ 24		103 90	U	2013	482880	1311097	\$ 23,678
Hudson Avenue 1	MMBR	TP13BMP000027		4	103 69	ال	2013	482866	1311158	\$ 27,115
Hudson Avenue 2	MMBR	TP13BMP000028		1	103.61	٥	2013	482831	1311197	\$ 13,558
Hudson Avenue 3	MMBR	TP13BMP000029	69 6	0 22	103.39	ی د	5013	4/8463	1312131	5 13,336
Jackson & Lincoln 1	MMBK	TP14BMP000030	- m	30 0 0	103.28	ی ار	\$107 \$104	704074	1312110	26962
Jackson & Lincoln 2	MMBK	TPLIABMEDOCOST	A 9	1	103 04	ر	2014	021217	1313308	
Jackson & Lincoln 3	MANADD	TP14BMF000032	9 9	20 07	19 501	ر د	2014	475857	1312863	\$ 20,000
Elm & Lincoln	MMBB	TPI4BMP00033	9 54	L	102.82	0	2014	480448	1309840	\$ 23,098
Ritchic Avenue -1	MMBR	TP14BMP000035		L	102.69	o	2014	480462	1309863	
Ritchic Avenue - 2	MMBR	TP14BMP000036	S		102.63	o	2014	480478	1309901	
Ritchic Avenue - 3	MMBR	TP14BMP000037	99		102.59	O	2014	480522	1309830	
Ritchic Avenue - 4	MMBR	TP14BMP000038	5A (11 0.03	102.55	ی ا	2014	480523	1309870	8 16311
Ritchie Avenue - 5	MMBR	TP14BMP000039	A	1	102.42	ی ر	#10Z	480683	1311333	
Monta Modular Worland Suctom	MENE	TP14BMP000041	9 59	L	101.68	o	2014	476159	1312677	\$ 57,388
Prince George & Circle Pond	FBIO	TP14BMP000042			101 53	ပ	2014	483244	1311041	
Roanoke Avenue - 8312- Filter	FUND	TP14BMP000043		33 0.40	101.13	o	2014	479460	1307356	\$ 32,783
Wetland behind Park Ritchie	WPWS	TP14BMP000044	YN .		98.65	0 0	2014	479692	1309765	NA 42.251
Baltimore Ave Wet Pond	WPWS	TPISBMP000044	χ e	7 0 0 7	97.80	ی د	2013	474806	1311692	
Fourth Ave 6500	MMBR	TP15BMP000045		13 0.07	97.74	٥	2015	480652	1313285	\$ 12,866
Fourth Ave 6504 Gardand Avenue Bioretention	MMBR	TP15BMP000047		L	97.57	3	2015	480014	1310247	\$ 15,781
Richic & PW	MMBR	TP15BMP000048		L	97.42	U	2015	483364	1311410	\$ 17,335
Roanoke and Eastridee	MMBR	TP15BMP000049	5	Ц	97.15	၁	2015	477561	1314396	
Glazewood Larch1	MMBR	TP16BMP000050	64	36 0.25	06'96	O	2016	477527	1314424	
Glazewood Larch2	MMBR	TP16BMP000051		1	96.65	O (2016	477578	1314442	
Glazewood Larch3	MMBR	TP16BMP000052			19'96	، ن	2016	477578	1314442	\$ 6,330
Maple Avenue Permeable Pavers	APRP	TP16BMP000054	59 6	87 0.21	96.40	ب ر	2016	478060	1313000	
Colby Avenue Park	MMBK	TP17BMP000084	4 4		96.29	ں ار	2017	480088	1309079	
Dog Park - Trench Drain & SWALE	MSWB	TP17BMP000056	9 5/3		95.90	U	2017	477780	1313547	
Hayward - Permeable Pavers & S	APRP	TP17BMP000057	54	15 0.10	95.80	U	2017	477780	1313547	
End of Colby Permeable Paver & S	FUND	TP17BMP000058	59		95 68	U	2017	478259	1312764	\$ 74,210
Wildwood Jackson Filtera LOC 19	MENF	TP17BMP000059	69	20 0.12	95.56	S	2017	480755	1315136	\$ 19,939

64 6	\$ 9,164	\$ 22,735	\$ 22,735	\$ 17,023	\$ 44,435	S 47,597	\$ 73,429	\$ 53.270	\$ 36,316	\$ 38,285	\$ 168,688	\$ 109 122	221.00	3 23,000	\$ 20.000	\$ 15,000	000 01 \$	10,000	000 01	00000	\$ 35,000	100,000	30,000	\$ 50,000	\$ 12,481	\$ 10,151	\$ 12,118	\$ 10,828	\$ 74.210	\$ 50,000	S 3.019.174 Cost			\$ 4,000	\$ 5,000	\$ 5,000	\$ 4,000	NA NA	NA	30,164	\$ 48,966	69	Ϋ́	\$ 94,700	\$ 20,000	\$ 30,000	1 S 16.000	\$ 26.620	\$ \$0.000	\$ 20,000	3,000	\$ 4,000	\$ 4,000	\$ 20,000	\$ 40,799	\$ 3,020	\$ 17.912	1315900 \$ 25,000 114	\$ 10,000	\$ 25,000	1312086 5 8,144		\$ 7.817	\$ 7.817	\$ 7.817 \$ 5.000 \$ 9.919	\$ 7.817 \$ 5,000 \$ 9,919 \$ 7,467	\$ 7.817 \$ 5.000 \$ 9,919 \$ 7.467 \$ 130,900
H	+	4	98 1313009	4	53 1313937		4	-	50 1313500	_	L	-	+	1	+	80 1311667	36 1311729	L	1211700	1	+	1	+		-	20 1314490	58 1314470	14 1314166	71 1310864	26 1315748			-	1	-	-	1309500		06 1311800	140 1308700	040 1308800	-	_	H	1313000	1311300		4	1	4	+	+	1	+	+	+	-		-	+			H				
477787	479135	478035	478098	477231	477263	477530	477570	477710	477750	477180	478163	478160	2007	419010	483680	483680	483336	483780	703100	1001	481220	480300	4/0083	476602	480350	479120	479458	481214	482171	477826				480580	474020	474010	4806	477420	474190	479340	476040	477240	479760	481080	480110	484810	479670	478410	478	476130	480700	474910	474850	477380	479560	477390	480050	481350	478500	474000	477657		477	477588	478	477588 478779 476696 478240	477588 478779 476696 478240 480094
2017	2020	2018	2018	2019	2019	2019	2019	2019	2019	2019	2019	2019	1000	7707	2021	2021	2021	1000	1000	1202	1707	2021	707	2021	2021	2021	2021	2021	2022	2022				2007	2007	2007	2007	2007	2007	2008	2008	2008	2008	2010	2010	2012	2011	2013	2013	2013	2013	2013	2013	2013	2014	2015	2016	2016	2016	2017	2018		2018	2018	2018	2018 2018 2018 2018	2018 2018 2018 2018 2019
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95.43	95.37	95 22	95.07	94.88	94.59	94.28	93,70	93.25	93.14	93.02	92.97	92 97	00000	87.03	92.54	92.34	92.30	77 70	1777	57.76	97.76	91.87	71.16	99 16	91.64	91.58	91.54	91.51	91.31	90.43		Out at	ICITIES	90.43	90.43	90.43	90.43	60.06	90.05	68 88	88.17	87.97	87.97	77.78	87.68	87.60	87.60	87.51	87.41	87.27	87.27	87.27	87.27	87 14	87.01	87.01	86.83	86.56	86.56	86.56	86.56	72 70	90.30	86.56	86.56	86.56 86.48 86.48	86.48 86.48 86.48 86.48
0.13	90 0	0.15	0.15	61.0	0.29	0.31	0.58	0.45	0.11	0.12	0.05	00.0	200	0.34	60 0	0.20	0.04	0.03	500	500	80.0	0.29	0.15	90.0	0 02	90.0	0.04	0.03	0.20	88.0		O T L L	ALL LED FAC	00.00	00.0	00'0	00.00	0.34	0.04	1.17	0.72	0.20	00.0	0.20	0.10	80.0	00'0	0.09	0.10	0.15	00.0	0000	0.00	0.13	0.13	00.0	61.0	0.27	0.00	00 0	00 0	000	00.0	000	00 0	60 0	00 0
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69 6	69	69	69	69	S	69)	643	89	64)	69	64	t	+	A	64)	s	649		9 6	A G	A	N	A	64)	64	S	S	54	64	H	1	tan interior	SILIUII	s	64	69	69		L	649	64	s		SA	s	54	69	59	69	T		+	69	1	69	59	649	sa	S	649	64	64	9	9 64		+++	++++
TP17BMP000060	FP18BMP000058	TP18BMP000059	TP18BMP000060	TP19BMP000061	TP19BMP000062	TP19BMP000063	P19BMP000064	P19BMP000065	P19BMP000066	TP19BMP000067	P19BMP000068	TP19BMP00069	The labour the proposed of	L P I S B M P U U U V U	FP19BMP000110	TP19BMP000111	FP19BMP000112	TPIGRMPOOTIZ	ALL DOOR AND ON THE	1 F 19 BINI POOD 14	TP19BMP000115	TP19BMP000116	1 P19BMP000117	TP19BMP000118	FP19BMP000119	TP19BMP000120	TP19BMP000121	TP19BMP000127	TP22BMP000128	TP22BMP000136		d diet unit in the	PRIVATE AND INSTITUTIONAL PERMITTED FACILITIES	TP07BMP000104	TP07BMP000105	TP07BMP000106	TP07BMP000107	TP07BMP000108	TP07BMP000109	TPOSBMP000100	TP08BMP000101	TP08BMP000102	TP08BMP000103	TP10BMP000096	TP10BMP000099	TP11BMP000095	TP11BMP000098	TP12BMP000091	TP12BMP000092	TP13BMP000088	TP13BMP000089	TP13BMP000090	TP13BMP000093	TP13BMP000094	TP14BMP000087	TP15BMP000086	TP16BMP000082	TP16BMP000083	TP16BMP000085	TP17BMP000079	TP18BMP000074	TD18BMB00075	TI IBRIAN COOK	TP18BMP000076	TP18BMP000076	TP18BMP000076 TP18BMP000077 TP18BMP000078	TP18BMP000076 TP18BMP000077 TP18BMP000078 TP19BMP000072
			,,		FBIO					MENF								MANBD		Ī	1	T	1	1	MMBR	MMBR	MMBR	MMBR		2	ı				MIDW	MIDW	MIDW						MSWB				MENF	MIDW	MILS	MMBR	MIDW				MMBR	MIDW	MSWB	MMBR	MILS	MMBR	FBIO	- Order	FBIO	FBIO	FBIO		
2.20	Park View Infiltration basin			Devonshire & Glazewood BIO #2					MWS#5 Lincoln & Elm CB1131	3833		ools Assess Biographics	Cincom Aspen Biologication	Grant & Holly Bto #2	lower Avenue ESD#1 sha151229	Flower Avenue ESD#2@STA113+00					Flower Avenue ESD#18	Flower Avenue ESD#20	Ethan Allen SWM-01A SHA BMP 150970 S1303	n Allen SWM-03 SHA BMP 150971 ST 313	Glenside and Jackson RG0201	Glenside and Haverford RG501	Glenside and Merwood Drive RG401	Glenside and Ann Street Mbio	neable Pavers at Elson St Dead End to Slipo Creek	Hillwood Manor Neighborhood Park	WOOD INTERIOR LIGHT TO THE PARTY OF THE PART			121 Ritchie Avenue	Talabi of MD -1 (6432 5TH Ave.)	Talahi of MD -2 (6428 5TH Ave)	(23 Ritchie Avenue (125)	Montgomery County -Carroll Avenue Fire Station	6411 Orchard Avenue	Takoma Dark Elementary School	Incide Presentes	Cristo Rev H.S. 1010 Larch	MNCPPC_Pincy Branch Park	Walencen's 1329 E University	shineton Adventist University-7707 Greenwood	Gateway Properties-8435 Piney Branch	Montgomery Housing (MHP)- 7610 Maple	Montgomery Housing (MHP) - Aspen Court	MNCPPC- 7515 Hancock	6882 New Hampshire Avenue	127 Ritchic Avenue	6608 Poplar Avenue	6507 Highland Avenue	Cristo Ray High School	Montgomery College Pavilion	7020 New Hampshire Avenue	Washington Adventist University 7600 Flower*R	Taco Beli Takoma Park*R	21 Grant Avenue	Sligo Mill Overlook Playground	7305 Jackson Avenue*R	The state of the s	03 Jackson Avenue*N	33 Jackson Avenue*N Lee Avenue-Resubmision CCPC*N	U3 Jackson Avenue*N Loc Avenue-Resubmision CCPC*N I Takoma Park*R	7309 Jackson Avenue"N 17 Lea Avenue-Resubmision CCPC*N 7-11 Takonna Park*R 36 Philadelphia Avenue**N	7303 Jackson Avenue*N T1 Loc Avonue-Resubmision CCPC*N 7-11 Takoma Park* 36 Philadelphia Avenue**N Takoma Park Middle School*R

											4.16	Impervious Acres Treated	P	
		4	ALTERNATIVE BMPS	VE BMPS										
Stream Restoration - New York & Baltimore	STRE	TP05BMP000122	6/3	45	2.00	84 27	၁	2005	479674	1306993	\$ 45,313			
Outfall at Cristo Ray High School	DUT	TP08BMP000003	s	3	0.20	84.07	2	2008	476915	1315324	\$ 2,500			
Stream Restoration - Mississippi	STRE	TP08BMP000121	643	43	2.28	81.79	C	2008	481264	1309339	\$ 43,362			
Outfall stabilization at Linden Avenue	OUT	TP10BMP000011	56	5	0.15	81.64	C	2010	477432	1315518	\$ 5,000			
Stream Restoration -Circlewood	STRE	TP13BMP000120	69	39	7.90	73.74	C	2013	475401	1311193	\$ 38,964	_		
Stream Restoration - Hayward	STRE	TP16BMP000119	S	19	3.78	96 69	J	2016	477904	1313550	\$ 67,442			
Outfall & grouted step pool at Dog Park	OUT	TP17BMP000061	59	40	0.70	69 26	C	2017	480950	1310900	\$ 39,611			
Tree Planting FY 17	FPU	TP17BMP000123	S	30	0.38	88 89	C	2017	NA	NA	\$ 30,000			
Street Sweeping - over the Permit Term	VVS	TP18BMP000001	NA		26.00	42.88	ď	2023	NA	NA	NA	133		
Outfall stabilization at Hilltop	TUO	TP18BMP000061	59	11	0.45	42.43	C	2018	480916	1310780	\$ 16,674			
Tree Planting FY18	FPU	TP18BMP000124	69	30	0.38	42.05	o o	2018	NA	NA	30,000			
Tree Plantine FY19	FPU	TP19BMP000125	649	30	0.57	41 48	o	5019	NA	NA	000'0E S	136		
Storm Drain Cleaning - over the normit term	SDV	TP20BMP000008	Ϋ́Z		8 00	33.48	a,	2023	ΑN	NA	ΝA	137		
Tree Plantino FV20	FPU	TP20BMP000126	69	30	0.76	32.72	J	2020	Ϋ́Z	NA	\$ 45,000	138		
Glongide and Merchood smale & outfall stablization	TITO	TP20BMP000127	se	74	0.52	32.20	o O	2021	479430	1314630	\$ 74,431	139		
Outfall Crabbington Cleanide and Hounford	Į	TP20BMP000128	64	69	0.19	10.01	U	2021	479011	1314894	\$ 68,660	140 As of 2022:	of 2022:	
Outlait Sautzation Chaistac and Haverold	File	TPJODAMBOOLIS	9	14	0.21	31.80	ر	1000	480250	1314247			5	4.577.707.50
Glenside and Jackson swale and outfall stabilization	100	TECUDINIFOUNTS TECHNIST	9 6	5 6	170	1010		1000	AIA	NIA				80.21
Tree Planting FY21	PFO	1P21BMP000127	A .	7 5	650	30.00	,	1707	0,000	OOC LCT			die Commission	30 00
Outfall stabilization at Cockerille and Circlewoods	OUT	TP22BMP000125	e4	09	0.35	30.86	اد	7707	475760	1311200			143 Crear Remaining	CT 62
Tree Planting FY22	FPU	TP22BMP000129	6 49	25	0.80	30.06	C C	2022	NA	NA	\$ 70,000	_		
											\$ 757,535	Cost		
											56.21	Impervious Acres Treated	20	
		PLAN	NNED BMP	NED BMPS THRU 2025	50									
Stream Restoration-Takoma Branch	STRE	TBD	S	250	2	28.06	d	2023	474898	1312274	\$ 250,000			
Maple Outfall Repair (Brashears Run)	DUT	TBD	649	93	0	27.06	Ь	2023	479890	1311281	\$ 92,800			
Tree Planting FY23	FPU	TBD	643	30	F.1	26	Ь	2023	NA	NA	\$ 93,000			
Filteras @ Houston Court & HoustonAvenuc (4)	MENF	TBD	59	80	1.0	24 92	Ь	2024	478631	1307108	\$ 80,000			
Outfall structure number 1028(7113 Central Avenue)	TUO	TBD	649	65	8.0	24.12	Ь	2024	479174	1314457	\$ 59,000			
Outfall structure number 1221(7101 New Hampshire Ave)	DUT	TBD	69	82	9.0	23.52	d,	2024	477860	1315110	\$ 82,000			
Lefferson Slope outfall stabilization	DUT	TBD	69	30	3	20.52	Ь	2024	479560	1311900	S 30,000			
Jefferson Bio swale	MSWB	TBD	54	08	1.2	19 32	Ь	2024	479556	1311900	80,000			
Albany @ Baltimore Curbside & Median	MENF	TBD	69	10	6.0	18 42	а,	2024	479508	1310836	\$ 70,000			
Tree Planting FY24	FPU	твр	\$	30	1.14	17.28	Д	2024	ΝA	NA	\$ 93,000			
Bioretention @ Gude & Poplar Ave	FB10	TBD	69	40	0.05	17,23	а,	2025	475080	1312315	\$ 40,000	As of 2025:		
Structure #273 - Outfall stabilization on Poplar	OUT	TBD	64)	40	0.7	16.53	Ь	2025	475013	1312308	\$ 40,00	40,000 TOTAL COST \$	5,771,507.50	
Filteris @ Kennebec	MENF	TBD	S	09	0.2	16.33	Ь	2025	481651	1311360	S 60.00	60,000 TOTAL CREDIT	101.27 Acres	
Slico Mill Rd Outfall Restoration	DUT	TBD	649	150	9	10.33	Ь	2025	474585	1312161	\$ 15.000	Credit Remaining	8.09 Acres	
Tree Planting FV75	Ddd	TBD	549	30	1.3	6	Ь	2025	NA	NA	S 109,000	0		
											S 1,193,800	0 Cost	34	
											21.06	Impervious Acres Treated	pa	
	List.	PLAN	NNED BMF	NED BMPS 2026 & 2027	027							-		
Flower Ave & Cherry Ave OutFall stablization	SPSC	TBD	S	09	1.2	8	P	2026	478812	1313147	\$ 60,000	o		
Tree Planting FY26	FPU	TBD	69	30	1.3	6.47	Ь	2026	NA	NA	\$ 109,000	0		
Bioretention @ Franklin Apartment	FBIO	TBD	54	65	13	5.37	Ь	2026	479778	1310570	\$ 65,000	ol		
Bioretention @ Essex Parking at Maple	FBIO	TBD	69	45	8.0	4.57	d	2026	479625	1311164	\$ 45,000	ol		
Brasher Run Stream Restoration phase two	STRE	TBD	69	150	3.8	0.77	Д	2027	479754	1311618	\$ 150,000	ा		
Tree Planting FY27	FPU	TBD	64	30	1.3	-0.56	<u>a</u>	2027	NA	NA	\$ 109.00	109.000 20% Treatment Credit Achieved 2027	Achieved 2027	

			FUTUR	RE BMPS.			200				
Outfall Stablization on NH Ave across from Elson	STRE	TBD	59	100	2.0	-2.56	2028			89	100,000
Stream Restoration-Takoma Branch phase two	STRE	TBD	69	250	0.01	-12.56	2028	474856	1311977	59	250,000
Wachington McGlaughton stream stabilization	STRE	TBD	64	150	8.0	-20.56	2029			69	150,000
I such and Christiand stream stabilization	STRE	TBD	59	200	5.0	-25.56	2030			59	200,000
OutFall Stabilization 1220 & 1221 New Hampshire	TUO	TBD	649	001	0.5	-26.06	2031			S	100,000
Outfall Stabilization 861 and Hayward	TUO	TBD	649	100	0.2	-26 26	2032			69	100,000