

**FACT SHEET**  
**Clean Water Act (CWA) National Pollutant Discharge Elimination System (NPDES)**  
**Permit No. DC0000221**  
**Government of the District of Columbia**  
**Municipal Separate Storm Sewer System (MS4)**

This final Fact Sheet accompanies the final reissued NPDES permit number DC0000221, issued to the Government of the District of Columbia for discharges from its Municipal Separate Storm Sewer System (MS4).

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**I. PERMITTEE INFORMATION**

**A. NPDES PERMIT NUMBER:** DC0000221 (Reissuance)

**B. PERMITTEE NAME AND MAILING ADDRESS**

Government of the District of Columbia  
The John A. Wilson Building  
1350 Pennsylvania Avenue, N.W.  
Washington, D.C. 20004

**C. MS4 ADMINISTRATOR NAME AND MAILING ADDRESS**

Director, District Department of Energy and Environment  
1200 First Street, N.E., 6<sup>th</sup> Floor  
Washington, D.C. 20002

**D. FACILITY LOCATION:** District of Columbia’s Municipal Separate Storm Sewer System (MS4)

**II. RECEIVING WATERS**

Potomac River, Anacostia River, Rock Creek, and Stream Segments Tributary To Each Such Water Body

**III. ACTION TO BE TAKEN**

EPA is today finalizing reissuance of the District of Columbia NPDES MS4 Permit. The Final Permit is intended to replace the 2018 Permit, (hereinafter referred to as the 2018 Final Permit), which was administratively continued past the June 22, 2023 expiration date. The reissued permit takes effect on December 18, 2023.

The reissued permit has been designed around many of the Stormwater Management Program elements established under previous permits as well as the District of Columbia's (hereinafter referred to as the District) updated *Consolidated TMDL Implementation Plan* (2022) and the revised *Stormwater Management Program Plan* (2022), both of which were requirements of the 2018 Final Permit. EPA has incorporated several enforceable limits and adaptive management benchmarks into this draft permit which will allow the Agency and the public to monitor the District's progress in reducing and managing the effects of urban stormwater runoff on receiving waters in and around the District.

On January 31, 2023, EPA offered a draft permit for public notice and comment for a period of 45 days. The comment period closed on March 17, 2023. EPA received comments from five individuals and organizations. In considering all of those comments and incorporating many of them into final permit language, EPA determined that some changes were substantive enough to justify a second public notice and comment period. Accordingly, EPA offered a revised draft permit for public notice and comment on July 13, 2023. Although the comment period initially was set for 30 days, EPA extended the comment period to a total of 60 days at the request of some commenters. That comment period closed on September 13, 2023. EPA received four (4) sets of comments during this second public notice and comment period. Responses to all comments received from both rounds of public notice and comment are provided in a separate Response to Comments document that is being published concurrently with the reissued Final Permit and this Fact Sheet.

EPA has carefully considered all comments received and has made modifications to the Final Permit in response to many of them. Even where EPA has not made changes directly in response to a particular comment or as specifically suggested, all comments have influenced the overall set of provisions in this permit. EPA has weighed public and private interests and water quality concerns and balanced them with resources available to the District to implement a robust stormwater program. EPA greatly appreciates the time and effort made by all commenters to improve the Final Permit.

Generally, this Fact Sheet addresses only provisions that are new, notably different from the 2018 Final Permit, or that may be confusing without additional context. Provisions that were first introduced in prior District MS4 permits are discussed in the accompanying Fact Sheets for each such issuance.<sup>1</sup> Very minor changes, made for the purpose of providing clarity, consistency, or ease of reading, are not discussed in this Fact Sheet.

#### **IV. FEDERAL AUTHORITIES FOR REQUIREMENTS IN THE FINAL PERMIT**

Though not exhaustive, the following table lists many of the legal authorities for major provisions contained in this Final Permit. EPA also refers readers to the Standard Permit Conditions (Part 6) of this Final Permit for additional regulatory requirements.

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<sup>1</sup> Fact Sheets for all draft and final permits since 2011 are included in the Administrative Record for this permit.

<b>Required Program Application Element</b>	<b>Regulatory References</b>
Adequate Legal Authority	40 C.F.R. § 122.26(d)(2)(i)(A)-(F)
Adequate Fiscal Resources	40 C.F.R. § 122.26(d)(1)(vi)
Existing Structural and Source Controls	40 C.F.R. § 122.26(d)(2)(iv)(A)(1)
Implementing measures necessary to achieve TMDL WLAs	40 C.F.R. § 122.44(d)(1)(vii)(B)
Using BMPs to meet water quality objectives, as appropriate	40 C.F.R. § 122.44(k)
Compliance schedules and deadlines	40 C.F.R. § 122.47
Roadways	40 C.F.R. § 122.26(d)(2)(iv)(A)(3)
Pesticides, Herbicides, and Fertilizers Application	40 C.F.R. § 122.26(d)(2)(iv)(A)(6)
Municipal Waste Sites	40 C.F.R. § 122.26(d)(2)(iv)(A)(5)
Spill Prevention and Response	40 C.F.R. § 122.26(d)(2)(iv)(B)(4)
Infiltration of Seepage	40 C.F.R. § 122.26(d)(2)(iv)(B)(7)
Stormwater Management Program for Commercial and Residential Areas	40 C.F.R. § 122.26(d)(2)(iv)(A)
Manage Critical Source Areas	40 C.F.R. § 122.26(d)(iii)(B)(6)
Stormwater Management for Industrial Facilities	40 C.F.R. § 122.26(d)(2)(iv)(C)
Industrial and High-Risk Runoff	40 C.F.R. § 122.26(d)(2)(iv)(C), (iv)(A)(5)
Identify Priority Industrial Facilities	40 C.F.R. § 122.26(d)(2)(iv)(C)(1)
Illicit Discharges and Improper Disposal	40 C.F.R. § 122.26(d)(2)(iv)(B)(1)-(5), (iv)(B)(7)
Flood Control Projects	40 C.F.R. § 122.26(d)(2)(iv)(A)(4)
Public Education and Participation	40 C.F.R. § 122.26(d)(2)(iv)(A)(6), (iv)(B)(5), (iv)(B)(6)
Assessment of Controls	40 C.F.R. § 122.26(d)(2)(iv)(D)(v)
Monitoring	40 C.F.R. § 122.26(d)(2)(iv)(B)(2), (iii), iv(A), (iv)(C)(2)

Characterization Data	40 C.F.R. § 122.26(d)(2)(iii)(B)-(D), 40 C.F.R. § 122.21(g)(7)
Monitoring Reports	40 C.F.R. § 122.44(i)
Annual Reports, including Electronic Annual Reports after December 1, 2020	40 C.F.R. § 122.42(c) 40 C.F.R. § 122.27
Other Reporting	40 C.F.R. § 122.41(l)

## V. OVERVIEW OF PERMIT REQUIREMENTS

This portion of the Fact Sheet for the 2023 Final Permit provides a summary overview of the major permit requirements and changes from the prior permit. This list is not intended to be exhaustive. The number in parentheses after each bullet is the subsection of the permit where the information or requirement can be found.

Permittee: no change

Receiving Waters: no change

Permit Limits: Limits listed below collectively represent the Maximum Extent Practicable (MEP) for this permit term.

- 1,175 Acres Managed (AM) over the five-year permit term with basin-specific requirements; change from 1,038 in prior permit. (1.5.3.1)
- Of those 1,175 AM, 175 must be located in the Public Right-Of-Way (PROW); change from 62 in prior permit (1.5.3.1)
- 7,770 trees planted annually; change from 6,705 in prior permit. (1.5.3.2)
- 38,850 net trees planted over 5 years; change from 33,525 from prior permit. (1.5.3.2)
- 108,347 pounds of trash captured, removed, or prevented from entering the Anacostia; no change from prior permit (1.5.3.3)
- Catch basin maintenance program to ensure that each basin is inspected annually; no change from prior permit (3.3.4)
- Use of mobile application to track volume of debris collected and estimate anticipated pollutant reductions achieved from basin clean out and specific timeframe to clean out catch basins within 30 days if found to require cleaning; new requirements (3.3.4)
- Repair of 20 storm drain outfalls; change from 50 in prior permit (3.3.5)
- Development and implementation of a Piping Infrastructure clean-out program to mitigate sedimentation and prevent obstructions of the conveyance system; new requirement. (3.3.6)
- Street sweeping on a minimum of 10,932 road miles annually; change from 8,000 in prior permit (3.3.7)

### MEP Determination

In drafting the reissued DC MS4 Permit, NPDES permit number DC0000221, EPA made a determination as to what was the “Maximum Extent Practicable” for the permittee for this permit term – i.e., what is the most the permittee could practicably do for each metric or requirement as well as wholistically, considering all the requirements. EPA considered many factors in setting the overall Acres Managed requirement as well as the sub-requirements for street sweeping, tree planting, and trash reduction and the additional requirements for outfall repairs and catch basin cleanouts.

MEP analyses are wholistic, taking into consideration multiple factors and concerns. As EPA stated in its Phase II stormwater rule: “EPA has intentionally not provided a precise definition of MEP to allow maximum flexibility in MS4 permitting. MS4s need the flexibility to optimize reductions in storm water pollutants on a location-by-location basis. EPA envisions that this evaluative process will consider such factors as conditions of receiving waters, specific local concerns, and other aspects included in a comprehensive watershed plan. Other factors may include MS4 size, climate, implementation schedules, current ability to finance the program, beneficial use of receiving water, hydrology, geology, and capacity to perform operation and maintenance.” 464 Fed. Reg. at 68754.

As primary considerations, EPA reviewed the District’s financial and logistical capacity – i.e., assuming adequate funding, how much of a particular BMP could the District reasonably complete within the five-year permit term. To inform those factors, EPA reviewed the District’s application materials and past performance using Annual Report information, the District’s Consolidated TMDL Implementation Plan, the District’s SWMP, the results of the District’s bacteria source tracking studies, the District’s Urban Tree Canopy Plan, Sustainable D.C. 2.0 Plan, Climate Ready DC Plans, and EPA’s O&M Catch Basin Cleaning Fact Sheet. EPA also reviewed the results from a Regional Applied Research Effort that was a coordinated project between Region 3, EPA’s Office of Research and Development, and DOEE to perform additional microbial bacteria source tracking.

After reviewing all that information, EPA exercised its discretion and concluded that the clear, specific, and measurable permit requirements included in the permit constitute MEP for this permit term.

### Report Updates and Deliverables:

- Stormwater Fee status update due with 2025 Annual Report (2.2.3)
- Proposed updates to Stormwater Regulations due four years from the effective date of the permit, if clearance is obtained to proceed (2.2.4.1)
- Detailed Analysis regarding effect of increasing retention standard to 2” (2.2.4.3)
- Revised TMDL IP made available for public notice and comment 15 months prior to permit expiration (2.2.5)
- Alternatives for Ice and Snow Management due with 2025 Annual report (2.6)

- Revised SWMP made available for public notice and comment 18 months prior to permit expiration (2.9)
- Program for Inspection and Clean Out of Piping Infrastructure due four years from the effective date of the permit (3.3.6)
- Requirement to complete specific bacteria source reduction activities in the Anacostia and Rock Creek watersheds based upon source tracking studies performed during the previous permit term (4.5.2)
- QAPPs for WQ monitoring and assessment due by end of first year of the permit (4.3)
- Strategy to support diversity, equity, and inclusion into CWA objectives due by December 1, 2027 (7.3.2)

Flood Management: EPA is adding provisions in the permit for the permittee to develop programs and practices regarding flooding, to the extent that such programs and practices do not already exist.

- Comprehensive Flood Model due by the end of the permit term (2.7.1.1)
- Identification of actions for high-risk flooding areas to minimize water quality impacts due by the end of the permit term (2.7.1.2)
- Identification of candidates for the development of stormwater management plans due by the end of the permit term (2.7.1.3)
- Establishment of the FloodSmart Homes Program two years from the effective date of the permit (2.7.2)

Environmental Justice Considerations: EPA is adding provisions in the permit regarding outreach, education, and training regarding environmental justice and the incorporation of environmental justice considerations into permit implementation.

- Training requirements for diversity, equity, inclusion, and justice (DEIJ) (3.9)
- Focused education/outreach for underserved communities (3.10)
- Use of findings of BMP distribution analysis to rank future projects and identify priority project/activity locations (7.3.1)
- Activities to support DEIJ into CWA objectives (7.3.2)

Permit renewal application: due to EPA nine (9) months before permit expiration (2.10)

## **VI. DETAILED EXPLANATION OF PERMIT REQUIREMENTS**

This portion of the Fact Sheet for the 2023 Final Permit goes section-by-section to explain the basis for various permit provisions.

### **Part 1. DISCHARGES AUTHORIZED UNDER THIS PERMIT**

#### **1.1 MS4 Permit Area**

This Final Permit covers all areas within the jurisdictional boundary of the District of Columbia (“DC” or “the District”) served by or contributing to discharges to, from, or through the Municipal Separate Storm Sewer System (MS4) owned or operated by the Government of the District of Columbia. This Final Permit covers other MS4 discharges operated by other entities within DC if those discharges do not have coverage under a separate NPDES permit; these are largely federal systems such as those on lands operated by the National Park Service.

In an abundance of caution, EPA has added the clarifier “in the MS4 Permit Area” in several places in the draft permit where there may otherwise be some confusion. However, this is technically not necessary as this permit only regulates discharges to, from, or through the MS4.

## 1.2 Permittee

Consistent with the rationale for simplifying the definition of “Permittee” provided in Fact Sheet for the 2018 Final Permit, EPA is maintaining the simplified description of Permittee.

## 1.3 Authorized Discharges

This provision is largely unchanged from the 2018 Final Permit, except that the language “or applicable District regulations” was added to the second paragraph to clarify that commingled discharges may be discharged to the MS4 if they are authorized not only by an NPDES permit, but also by the District’s groundwater regulations.

## 1.4 Permittee Authorities and Obligations

### 1.4.1 Permittee Legal Authority

The draft permit reflects that the Permittee has satisfied the permit application requirements to demonstrate adequate legal authority, 40 C.F.R. § 122.26(d)(2)(i).<sup>2</sup>

### 1.4.3 Permittee Fiscal Resources

The District has complied with the fiscal resource requirements of the federal regulations regarding its application for stormwater discharges by including a description in the revised SWMP of the financial resources currently available to the District such as the District Stormwater Fee, Enterprise Fund, Anacostia River Clean Up and Protection Fund, and Clean Water Construction Program, in addition to a number of grant programs that can be utilized to assist with funding the implementation of the MS4 program and compliance with the

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<sup>2</sup> See SWMP; referenced in Application, <https://doee.dc.gov/sites/default/files/dc/sites/ddoe/publication/attachments/Stormwater%20Management%20Plan%202022.pdf>

requirements of the MS4 permit. See SWMP at page 2; see also 40 C.F.R. § 122.26(d)(1)(vi) *see also* 40 C.F.R. §122.26(d)(2)(vi).

The draft permit requires the Permittee to “provide sufficient finances, staff, equipment and support capabilities to implement the provisions of this permit, including, but not limited to, the Stormwater Management Program required herein.” EPA understands that the Permittee intends to maintain a dedicated funding source for the program, in addition to the other resources and incentives mentioned above that support stormwater-related efforts. The Permittee must continue to certify to this requirement in each Annual Report (see Annual Report Template, Question 1).

### 1.5 Discharge Limits

EPA explained the framework for discharge limits in the Final Fact Sheet for the 2011 permit. Because that explanation is also applicable to this draft permit, EPA excerpts parts of that discussion here:

*Today’s Final Permit is premised upon EPA’s longstanding view that the MS4 NPDES permit program is both an iterative and an adaptive management process for pollutant reduction and for achieving applicable water quality standard and/or total maximum daily load (TMDL) compliance. See generally, “National Pollutant Discharge Elimination System Permit Application Regulations for Stormwater Discharges,” 55 F.R. 47990 (Nov. 16, 1990).*

*EPA is aware that many permittees, especially those in highly urbanized areas such as the District, likely will be unable to attain all applicable water quality standards within one or more MS4 permit cycles. Rather the attainment of applicable water quality standards as an incremental process is authorized under section 402(p)(3)(B)(iii) of the Clean Water Act, 33 U.S.C. § 1342(p)(3)(B)(iii), which requires an MS4 permit “to reduce the discharge of pollutants to the maximum extent practicable” (MEP) “and such other provisions” deemed appropriate to control pollutants in municipal stormwater discharges. To be clear, the goal of EPA’s stormwater program is attainment of applicable water quality standards, but Congress expected that many municipal stormwater dischargers would need several permit cycles to achieve that goal.*

*Specifically, the Agency expects that attainment of applicable water quality standards in waters to which the District’s MS4 discharges, requires staged implementation and increasingly more stringent requirements over several permitting cycles. During each cycle, EPA will continue to review deliverables from the District to ensure that its activities constitute sufficient progress toward standards attainment. With each permit reissuance EPA will continue to increase stringency until such time as standards are met in all receiving waters. Therefore today’s Final Permit is clear that attainment of applicable water quality standards and consistency with the assumptions and requirements of any applicable WLA are requirements of the Permit, but, given the*



*iterative nature of this requirement under CWA Section 402(p)(3)(B)(iii), the Final Permit is also clear that “compliance with all performance standards and provisions contained in the Final Permit shall constitute adequate progress toward compliance with DCWQS and WLAs for this permit term”.*

*EPA believes that permitting authorities have the obligation to write permits with clear and enforceable provisions and thus the determination of what is the “maximum extent practicable” under a permit is one that must be made by the permitting authority and translated into provisions that are understandable and measurable. In this Final Permit EPA has carefully evaluated the maturity of the District stormwater program and the water quality status of the receiving waters, including TMDL wasteload allocations. In determining whether certain measures, actions and performance standards are practicable, EPA has also looked at other programs and measures around the country for feasibility of implementation. Therefore, today’s Final Permit does not qualify any provision with MEP thus leaving this determination to the discretion of the District. Instead, each provision has already been determined to be the maximum extent practicable for this permit term for this discharger.<sup>3</sup>*

The explanation provided in 2011 continues to apply to this Final Permit.

EPA emphasizes that *all* measures in the draft permit are pivotal in making progress toward attaining applicable wasteload allocations (WLAs) and other water quality objectives. Stormwater controls required by the Final Permit include a balance of prevention and protection measures, which are intended to minimize the likelihood of additional impairments occurring, and reduction and remediation measures, which are intended to address current impairments. The table below identifies which provisions of the Final Permit are intended to address each applicable pollutant of concern.

<b>TMDL Pollutants and Applicable Planning and Implementation Requirements</b>			
<b>Pollutants</b>	<b>TMDLs</b>	<b>Permit Requirements</b>	
		<b>Planning (Part 2)</b>	<b>Implementation (Part 3)</b>
<b>Nutrients</b>			
Nitrogen, Phosphorus	<ul style="list-style-type: none"> <li>Anacostia Nutrients and BOD (2008)</li> <li>Chesapeake Bay Phosphorus, Nitrogen and Sediment (2010)</li> </ul>	2.2, 2.4, 2.5, 2.6	3.2, 3.3.1, 3.3.2, 3.3.3, 3.3.4, 3.3.5, 3.3.6, 3.4, 3.5, 3.6, 3.7.6, 3.7.8, 3.8, 3.9, 3.10
<b>Conventional Pollutants</b>			

<sup>3</sup> See DC MS4 Final Fact Sheet for 2011 permit issuance, [https://www3.epa.gov/reg3wapd/pdf/pdf\\_npdes/stormwater/DCMS4/FinalPermit2011/DCMS4FINALDCfactsheet093011.pdf](https://www3.epa.gov/reg3wapd/pdf/pdf_npdes/stormwater/DCMS4/FinalPermit2011/DCMS4FINALDCfactsheet093011.pdf)

Biochemical Oxygen Demand (BOD)	<ul style="list-style-type: none"> <li>• Kingman Lake TSS, Oil and Grease, BOD (2003)</li> <li>• Anacostia Nutrients and BOD (2008)</li> </ul>	2.2, 2.5, 2.6	3.2, 3.3.2, 3.3.8, 3.4, 3.6, 3.7.7, 3.7.8, 3.8, 3.9, 3.10
Total Suspended Solids (TSS), Sediment	<ul style="list-style-type: none"> <li>• Kingman Lake TSS, Oil and Grease, BOD (2003)</li> <li>• Watts Branch TSS (2003)</li> <li>• Anacostia TSS (2012)</li> <li>• Chesapeake Bay Phosphorus, Nitrogen and Sediment (2010)</li> </ul>	2.2, 2.4, 2.5, 2.6	3.2, 3.3.2, 3.3.3, 3.3.4, 3.3.5, 3.3.6, 3.3.7, 3.4, 3.5, 3.6, 3.7.8, 3.8, 3.9, 3.10
Bacteria	<ul style="list-style-type: none"> <li>• Anacostia &amp; Tributaries Bacteria (2014)</li> <li>• Kingman Lake Bacteria (2014)</li> <li>• Potomac &amp; Tributaries Bacteria (2014)</li> <li>• Tidal Basin and Ship Channel Bacteria (2014)</li> <li>• Chesapeake and Ohio Canal Bacteria (2014)</li> <li>• Rock Creek Bacteria (2014)</li> <li>• Oxon Run Bacteria (2014)</li> </ul>	2.2, 2.2.2.1	3.2, 3.3.1, 3.4, 3.6, 3.8, 3.9, 3.10
<b>Metals</b>			
Arsenic, Copper, Lead, Mercury, Zinc	<ul style="list-style-type: none"> <li>• Anacostia &amp; Tributaries Metals and Organics (2003)</li> <li>• Kingman Lake Organics and Metals (2003)</li> <li>• Oxon Run Organics, Metals, and Bacteria (2004)</li> <li>• Three Potomac Tributaries Organics and Metals (2016)</li> <li>• Rock Creek Organics and Tributaries Organics and Metals (2016)</li> </ul>	2.2, 2.5.1	3.2, 3.3.2, 3.3.3, 3.3.4, 3.3.6, 3.4, 3.6, 3.7.7, 3.8, 3.9, 3.10
<b>Organics</b>			
Polyaromatic Hydrocarbons (PAHs), Chlordane, Heptachlor Epoxide, Dieldrin, DDT, DDE, DDD, PCBs	<ul style="list-style-type: none"> <li>• Anacostia &amp; Tributaries Metals and Organics (2003)</li> <li>• Kingman Lake Organics and Metals (2003)</li> <li>• Potomac and Anacostia Tidal PCB (2007)</li> <li>• Oxon Run Organics, Metals, and Bacteria (2004)</li> <li>• Tidal Basin &amp; Washington Ship Channel Organics (2004)</li> <li>• Rock Creek Organics and Tributaries Organics and Metals (2016)</li> <li>• Three Potomac Tributaries Organics and Metals (2016)</li> </ul>	2.2, 2.2.2.2, 2.5.2	3.2, 3.3.2, 3.3.3, 3.4, 3.6, 3.7.5, 3.7.7, 3.8, 3.9, 3.10
<b>Other Pollutants</b>			
Oil & Grease	<ul style="list-style-type: none"> <li>• Hickey Run Oil &amp; Grease (1999)</li> <li>• Anacostia Oil &amp; Grease (2003)</li> <li>• Kingman Lake TSS, Oil and Grease, BOD (2003)</li> </ul>	2.2, 2.5.1	3.2, 3.3.2, 3.3.4, 3.4, 3.6, 3.7.5, 3.7.7

			3.8, 3.9, 3.10
Trash	• Anacostia Trash (2010)	2.2, 2.5	3.2, 3.3.2, 3.3.4, 3.3.6, 3.4, 3.7.1, 3.7.2, 3.7.3, 3.7.4, 3.8, 3.9, 3.10

As explained in the Definitions section (Part 8) of the Final Permit, “milestones” are quantifiable interim objectives included in the permit towards attainment of a WLA. When EPA incorporates a milestone into the permit, it becomes an enforceable permit limit. EPA has developed the Final Permit to ensure that this distinction is clear, and the terms “limits” and “milestones” are used appropriately in different contexts.

### 1.5.3.1 The Acres Managed Limit

In the 2012 Final Revised Permit, EPA established the requirement for on-site retention because it is an effective means of preventing and minimizing discharges of stormwater, and its associated pollutants, to surface waters.<sup>4</sup> Therefore, a metric for the amount of stormwater captured in on-site stormwater retention controls can be used as an indicator for the amount of pollutants that have been kept out of receiving streams.

An important discharge limit included in this Final Permit, which is carried over from the 2018 Final Permit, is expressed as “Acres Managed”. The Permittee developed the Acres Managed metric to track implementation for a subset of stormwater controls, primarily those that involve retention of stormwater. As defined in the Final Permit, one Acre Managed is one acre of land treated by stormwater control measures to the applicable standard established in the Permittee’s stormwater regulations or consistent with the relevant voluntary program.

Below are examples to show how Acres Managed can be calculated.

*Example 1:* A development project required to meet the 1.2-inch retention standard for Development and Redevelopment  $\geq$  5,000 square feet (Subsection 3.2.2) implements 1.2 inches of retention across 5 acres, through any combination of on-site and/or off-site retention controls = five (5) Acres Managed.

*Example 2:* A Public Right-of-Way Project subject to the District’s “MEP” process (Subsection 3.2.4) implements 1.8 inches of on-site retention across 2 acres = two (2) Acres Managed.

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<sup>4</sup> See the 2011 Draft Fact Sheet for a more in-depth discussion, [https://www3.epa.gov/reg3wapd/pdf/pdf\\_npdes/stormwater/DCMS4/DraftPermit2010/DCMS4DraftFactSheet\\_04-19-10.pdf](https://www3.epa.gov/reg3wapd/pdf/pdf_npdes/stormwater/DCMS4/DraftPermit2010/DCMS4DraftFactSheet_04-19-10.pdf)

*Example 3:* A Public Right-of-Way Project subject to the District’s “MEP” process (Subsection 3.2.4) implements 0.9 inches of on-site retention across 2 acres = two (2) Acres Managed.

*Example 4:* A redevelopment project required to meet the 0.8-inch on-site retention standard for Substantial Improvement Projects (Subsection 3.2.5) across one half-acre, through any combination of on-site and off-site retention controls = one half (0.5) Acre Managed.

*Example 5:* A homeowner voluntarily implementing porous pavement through the District’s RiverSmart Homes Program (Subsection 3.2.9) achieves 0.6 inches of on-site retention across one quarter acre = one quarter (1/4) Acre Managed.

It is straightforward to apply the Acres Managed metric to stormwater controls that retain stormwater directly, as that was the initial context for this metric. However, the Permittee’s stormwater program includes several other activities that are important to achieving necessary pollutant reductions. It is possible, but more complicated, to apply the Acres Managed metric to implementation measures such as street sweeping and catch basin cleaning. Equally likely, Acres Managed may not be the best metric for these types of stormwater controls, and alternate numeric metrics are established in Subsections 3.3.7 and 3.3.4, respectively, of the Final Permit for those activities.

EPA has included a provision in the Final Permit (Subsection 2.5.2) that was carried over from the 2018 Final Permit that allows the Permittee to propose to EPA methods for estimating pollutant reductions where there currently are no such methods, so that those pollutant reductions may be counted toward meeting permit requirements. The methods may include translation to Acres Managed, if appropriate, or may express the reduction in pounds, colonies per liter, or other applicable unit. For example, during the previous permit term, DOEE submitted a proposal to convert stream restoration projects into equivalent Acres Managed using a methodology based on the Maryland Department of Environment approach but adapted to be better aligned with District stormwater regulations. It is important to maintain this provision in the permit should a new practice and/or method be developed in the future.

The following table includes most of the major stormwater control measures in the Final Permit and articulates the current metrics and permit limits. In some cases, metrics and/or numeric limits linked directly (e.g., pounds or tons) or indirectly (e.g., Acres Managed) to pollutant reductions have not been formally established. EPA encourages the development of numeric metrics for as many measures as possible.

<b>Metrics and Permit Limits</b>			
<b>Stormwater Control Measure</b>	<b>Metric(s)</b>	<b>Limit in Permit</b>	<b>Pollutants</b>
On-Site Retention			
New and Redevelopment	Acres Managed	Part of 1,175 Acres Managed permit total	Multiple pollutants

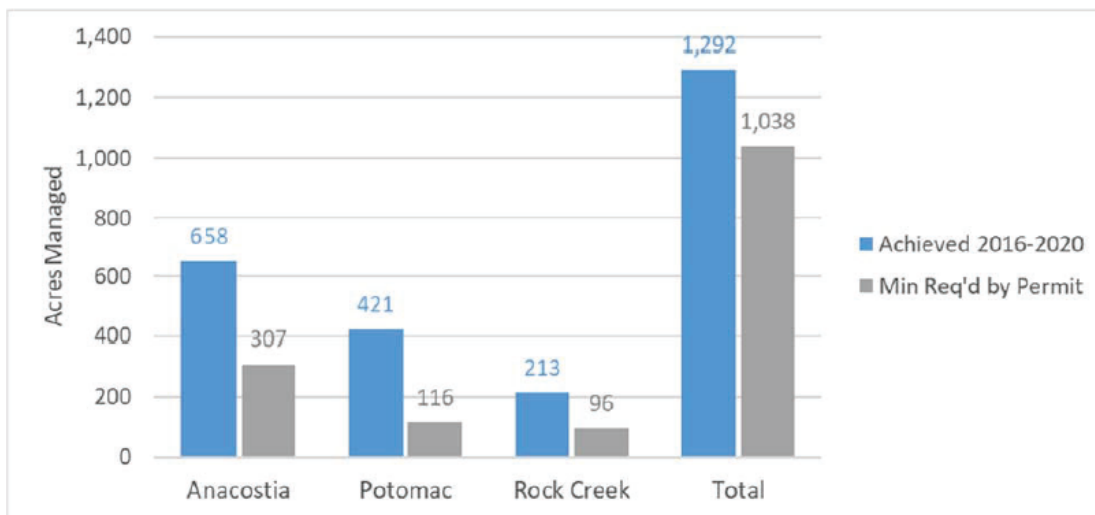
5,000 square feet and larger			
PROW activities subject to DC's MEP process	Acres Managed	175 Acres Managed, part of 1,175 Acres Managed permit total	Multiple pollutants
Incentive programs such as RiverSmart	Acres Managed	Part of 1,175 Acres Managed permit total	Multiple pollutants
Tree Plantings	Net # Trees Planted  May also be translated to Acres Managed	38,850 net total trees for the 5-year permit term, with benchmark of 7,770 annual average.  (Shall also be converted and included in the 1,175 Acres Managed permit total)	Multiple pollutants
<b>Other than On-Site Retention</b>			
Stream, Buffer and Floodplain Restoration	Acres Managed	Part of 1,175 Acres Managed permit total	Nitrogen Phosphorus Sediment
Industrial SWPPP at municipal facilities		All relevant operations must implement SWPPPs; all relevant operations must have appropriate compliance and enforcement mechanisms.	Multiple Pollutants
Pesticide, Herbicide and Fertilizer		Maintain the program.	Pesticides Herbicides Nitrogen Phosphorus
Catch Basin clean-outs	# catch basins inspected and cleaned out	Inspections performed annually and clean out within 30 days	Multiple Pollutants
Storm Drain Outfall Repair	# outfalls repaired	20 outfalls permit term total	Sediment Nitrogen Phosphorus
Street Sweeping	Road Miles Swept	10,932 road miles swept annually	Multiple Pollutants
Construction SWPPP		All relevant construction activities must implement SWPPPs; all construction activities must have appropriate compliance and enforcement mechanisms.	Sediment Nitrogen Phosphorus
Snow and Ice Management		Implement the program.	Multiple Pollutants

Critical Source controls		All critical sources must implement appropriate measures; all sources must have appropriate compliance and enforcement mechanisms	Multiple Pollutants
Illicit Discharge Elimination		All identified illicit discharges must be eliminated/remedied	Multiple Pollutants
Illegal Disposal Elimination		All identified illegal disposals must be remedied	Multiple Pollutants
Trash Removal (clean-ups, skimmers, trash racks)	Pounds of Trash Captured/Removed/Prevented	108,347 pounds annually Anacostia River Watershed	Trash
Plastic Shopping bag fee	Estimate of bags prevented		
Polystyrene Foam Food Containers and Service ware Bans	Estimate of containers prevented		
Plastic Straw Ban	Estimate of straws prevented		
Coal Tar Ban		Maintain the restrictions.	PAHs
Lawn Fertilizer Restrictions		Maintain the restrictions.	Nitrogen Phosphorus
Hazardous Waste Collection		Maintain the program.	Metals, PAHs & others
Leaf and Yard Waste Collection		Maintain the program.	Nitrogen Phosphorus

### The 1,175 Acres Managed Permit Limit

The Permittee's 2016 *Consolidated TMDL Implementation Plan* (TMDL IP) proposed a 5-year milestone of 1,038 Acres Managed for each of the next few permit terms, including the 2018 permit term as well as this upcoming 2023 permit term. As reported in the 2022 TMDL IP, for the five-year reporting period 2016-2020, DOEE was able to achieve 1,292 acres managed (See graph below). EPA used this information from the 2022 TMDL IP as well as Acres Managed data from the 2021 and 2022 MS4 Annual Reports to determine the number of acres managed to be implemented in the MS4 Permit Area as a limit in the Final Permit for this permit term. (See table below) To calculate the 1,175 Acres Managed metric, which EPA has determined constitutes MEP for this permit term, EPA considered modeled outcomes from the 2022 TMDL IP as well as recent actual implementation as reported in Annual Reports, as shown below.

<b>Calculation of Acres Managed (includes PROW)</b>	
<b>Year</b>	<b>Acres Managed</b>
2016-2020 (from TMDL IP)	1,292
2021 (from Annual Report)	172
2022 (from Annual Report)	183
Total	1,647
Annual average 2016-2022	235
Annual average x 5	1,175

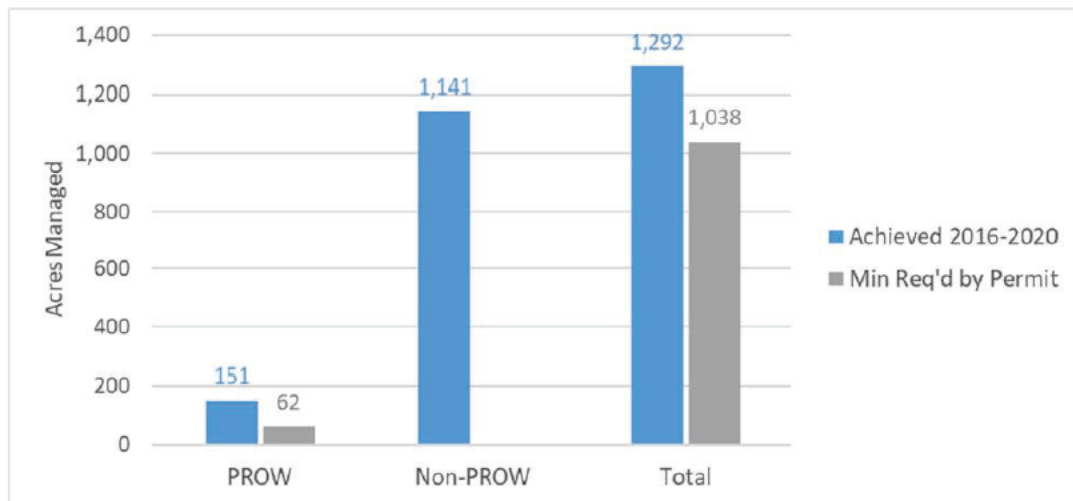


In its 2016 TMDL IP, the Permittee originally proposed specific milestones for each of the three major basins that totaled 1,038 Acres Managed. However, the Permittee subsequently expressed concern about achieving those milestones given the uncertainty about where future development may occur. Therefore, EPA provided some flexibility in the 2018 Final Permit milestones, which are carried over as limits in this Final Permit, to reflect this continued uncertainty. Specifically, EPA has included limits that allow the Permittee to achieve half of the 1,175 total (588 Acres Managed) in any major basin in the MS4 Permit Area. The remaining 587 Acres Managed must be achieved in specific major basins, as shown in the table below. This distribution among major basins is based on an analysis that the Permittee provided to EPA via email December 8, 2022, which is included in the Administrative Record for the Final Permit and shows similar estimated projections from potential/expected development projects and opportunities throughout the MS4 Permit Area in each of the three major basins.

<b>Major Basin</b>	<b>5-Year Limits (Acres Managed)</b>
Anacostia River	353
Potomac River	131

Rock Creek	103
Anywhere in the MS4 Permit Area	588
Total	1,175

The Permittee’s 2022 TMDL IP documents that the District successfully implemented stormwater projects for 151 Acres Managed from 2016-2020 in Public Rights of Way (PROWs) (See chart below). Discussions with the District Department of Transportation regarding future PROW projects within the next five years as well as this past performance demonstrates the feasibility of increasing the number of Acres Managed in PROW projects for this permit term. Consistent with the methodology used above to determine the overall number of Acres Managed to be implemented throughout the MS4 Permit Area, EPA used information from the 2022 TMDL IP as well as PROW data from the 2021 and 2022 MS4 Annual Reports to determine the number of Acres Managed to be implemented in the PROW. (See table below). As a result, EPA is establishing the requirement for 175 Acres Managed to be implemented in PROWs in the draft permit, which is an increase from the 62 Acres Managed to be implemented in PROWs in the current permit.



<b>Calculation of PROW Acres Managed</b>	
<b>Year</b>	<b>Acres Managed</b>
2016-2020 (from TMDL IP)	151
2021 (from Annual Report)	19
2022 (from Annual Report)	72
Total	242
Annual Average (2016-2022)	35
Annual average x 5	175



### 1.5.3.2 Limits for Tree Planting in the MS4 Permit Area

The 2018 Final Permit required the Permittee to achieve a net increase of 6,705 trees planted annually in the MS4 Permit Area. EPA reviewed the Permittee’s Urban Tree Canopy Plan and the Permittee’s 2016 – 2022 Annual Reports to assess MEP for tree planting for this permit term. The District’s Urban Tree Canopy Plan calls for 10,800 trees per year District-wide. The following table details total tree plantings in the District for the past six years.

<b>Net Tree Plantings in the MS4 Permit Area<sup>5</sup></b>	
<b>Year</b>	<b>Trees Planted</b>
2016	6,085
2017	7,794
2019	9,550
2020	8,918
2021	8,218
2022	6,065
<b>6-Year Total</b>	<b>46,630</b>
<b>6-Year Average</b>	<b>7,770</b>
Annual net tree planting numbers are from the Permittee’s MS4 Annual Reports for the years noted.	

The Final Permit requires the Permittee to achieve a minimum net increase of 38,850 trees in the MS4 Permit Area by the end of the five-year permit term and sets a net annual average benchmark of 7,770 tree plantings in the MS4 Permit Area. This is an increase from the current permit, which required an increase of 33,525 trees in the MS4 Permit Area during the five-year permit term with a net average of 6,705. The MS4 Permit Area is approximately two-thirds (2/3) of the total District land area. Using the District’s Urban Tree Canopy Plan, which calls for 10,800 trees to be planted District-wide per year, the MS4 Permit Area portion would be 7,200 (10,800 multiplied by 2/3). Over the past six years, the Permittee averaged 7,770 net trees planted per year in the MS4 Permit Area, and EPA has no information to suggest that the past six years have been an anomaly or that the average rate of tree planting cannot be sustained. However, EPA notes that MEP is not automatically determined to be the maximum number ever achieved; to the contrary, an MEP determination must assess what is practicable. The annual benchmark of 7,770 represents an increase over the 6,705 annual net tree planting required in the 2018 Final Permit, and one that the Permittee can be reasonably expected to achieve based on past performance.

<sup>5</sup> Note that there is no Annual Report for the year 2018. When the permit was reissued in 2018, the first Annual Report was due in 2019 due to the timing of reissuance.

EPA is setting these numbers as annual averages rather than annual minimums. This is a change from the prior permit. It is intended to provide the Permittee some flexibility in years in which funding, contracts, weather, or other variables delay tree plantings, but still ensure that the overall objective is achieved and that it is enforceable. The five-year averaging period will begin with the first year this permit is in effect. Should the permit be extended beyond five years, net tree plantings should continue to accrue at this rate and totals should increase commensurately.

#### Limits for Installation of Green Roofs in the MS4 Permit Area

The Final Permit no longer requires a specific number of square feet of green roofs in the MS4 Permit Area. There are a number of reasons for this change. First and foremost, the concept of including a metric for green roofs in the MS4 permit was based upon a Letter of Agreement between EPA and the District dating back to 2007. This letter was the result of Settlement Agreement/negotiations for a permit drafted over fifteen years ago. Additionally, because the Permittee has already installed a substantial number of green roofs in the MS4 Permit Area (See tables below: over 760,000 ft<sup>2</sup> during the 2011 Permit Term and over 1,000,000 ft<sup>2</sup> during the 2018 Permit Term), there is concern that the amount of space available for future additional green roof installation is limited. EPA also notes that while there is not a specific green roof metric in the draft permit, green roofs remain one of the many stormwater retention options available to the District to achieve the 1,175 Acres Managed limit.

<b>Fiscal Year</b>	<b>Total Installed Districtwide (sq. ft.)</b>	<b>Total Installed in MS4 (sq. ft.)</b>	<b>Total Installed through Green Roof Rebate Program (sq. ft.)</b>
2017	336,355	80,440	22,877
2016	414,977	147,190	22,137
2015	143,160	53,695	29,876
2014	148,908	18,089	60,222
2013	523,968	416,674	27,656
2012	79,137	45,825	26,287
<b>Totals</b>	<b>1,646,505</b>	<b>761,913</b>	<b>189,055</b>

<b>Reporting Year</b>	<b>Green Roofs Installed in the MS4 Permit Area (ft<sup>2</sup>)</b>
2019	168,185
2020	274,892
2021	412,354

2022	186,080
<b>TOTAL</b>	<b>1,041,511</b>

### 1.5.3.3 Limits for Trash in the Anacostia Watershed

The Final Permit requires the capture, removal, or prevention of 108,347 pounds of trash annually in the Anacostia River within the MS4 Permit Area. This number is both consistent with the current applicable wasteload allocation in the Anacostia Trash TMDL and practicable because the Permittee’s Annual Reports demonstrate that the Permittee can continue to achieve this limit. The permit must be consistent with the TMDL that is currently in effect; therefore, it reflects the discharge limit of trash removal. If the TMDL is revised during the permit term, and another metric is developed, the permit may be modified to be consistent with its terms and conditions.

## 1.6 Compliance Framework

The compliance framework for this Final Permit is the same as in the 2018 Final Permit, i.e., compliance with all provisions of this permit will constitute reasonable and adequate progress toward compliance with DC water quality standards and relevant wasteload allocations for this permit term. This is consistent with CWA section 402(p)(3) and the goals of the CWA at section 101, as well as EPA’s Phase I and Phase II stormwater regulations and preambles, in that full compliance with water quality standards may not be met in a single permit term with respect to discharges from municipal separate storm sewer systems, but that progress toward that end instead will be iterative over multiple permit cycles.

## Part 2. STORMWATER MANAGEMENT PROGRAM PLANNING

The Final Permit has been organized such that all planning requirements, along with schedules for completion, are included in Part 2. Planning requirements include tasks to undertake assessments, develop new strategies, and update existing plans and tools.

### 2.1 Elements of the Stormwater Management Program

The Stormwater Management Program (SWMP) is a multi-faceted program that includes all activities to meet the requirements of this permit. The purpose of the program is to prevent and mitigate the effects of stormwater discharges via the MS4 on the physical, chemical, and biological integrity of receiving waters. The SWMP Plan is the collection of all strategies, plans and schedules that describe and document the SWMP.

EPA has determined that implementation of the SWMP required by the permit will reduce the discharge of pollutants to the maximum extent practicable (MEP) for this permit term. The MEP determination is based on an assortment of information, including:

- The Permittee’s performance under prior permit terms as demonstrated by the Permittee’s annual reports and compliance inspections/audits/assessments;
- Plans and strategies developed by the Permittee, including the permit application with attachments, the 2022 SWMP Plan, the 2022 *Consolidated TMDL Implementation Plan*, and a number of other plans as cited in relevant sections of this Fact Sheet;
- Conversations with the Permittee about logistical and financial feasibilities in a variety of District operations; and
- Advances in technologies and best practices in the field of stormwater management.

In deriving permit requirements, EPA considered the following factors: staff experience and knowledge, municipal equipment and policies, community resources and priorities, knowledge of how private entities may respond to incentives and regulations, and various other factors. EPA also considered what the Permittee has done and proposes to do, as well as the current state of best practices and technological advancements in stormwater management.<sup>6</sup> The Final Permit reflects a balance of many considerations to determine what is practicable for this permit term.

## 2.2 Total Maximum Daily Load (TMDL) Planning

One of the key requirements of the 2012 Final Revised Permit was development of the *Consolidated TMDL Implementation Plan*, (TMDL IP) with the expectation that the measures and schedules laid out in that plan would be incorporated into future permits. The TMDL IP has always been intended to be a long-term road map for implementing measures to address water quality impairments attributable wholly or partially to MS4 discharges, including impairments from legacy pollutants that were historically discharged through the MS4. The 2018 Final Permit required that the TMDL IP be revised and submitted as part of the application for this permit. This Final Permit will continue the practice of including provisions that implement the TMDL IP.

The TMDL IP builds on a foundation of logical model assumptions, reasonable baselines, and a solid gap analysis. EPA encourages interested parties to review the updated September 2022 TMDL IP, which is available on the District’s website.<sup>7</sup>

### 2.2.1 Maintaining and Refining TMDL Databases and Modeling Tools

DOEE’s TMDL IP Modeling Tool is used to estimate, track, and account for pollutant load generation and reduction across the District. During the 2018 permit term, the model was assessed and data relevant to both the rainfall and runoff coefficient components were revised

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<sup>6</sup> “EPA envisions application of the MEP standard as an iterative process. MEP should continually adapt to current conditions and BMP effectiveness...” 64 FR 68271, 68754 (Dec. 8, 1999).

<sup>7</sup> See *Consolidated Total Maximum Daily Load (TMDL) Implementation Plan Report*, September 2022, [https://doee.dc.gov/sites/default/files/dc/sites/ddoe/publication/attachments/FINAL%202022%20Consolidated%20TMDL%20Implementation%20Plan%2009132022\\_0.pdf](https://doee.dc.gov/sites/default/files/dc/sites/ddoe/publication/attachments/FINAL%202022%20Consolidated%20TMDL%20Implementation%20Plan%2009132022_0.pdf)

using the most up-to-date information available. In addition, sediment delivery ratios were updated by EPA's Chesapeake Bay Program Office (CBPO) to incorporate the unique land river segments in the District, and delivery ratios for total nitrogen (TN) and total phosphorus (TP) were developed that did not previously exist. These updates were all incorporated into the model for the development of the 2022 update to the TMDL IP. The Final Permit requires that the Permittee continue to update its suite of databases and modeling tools as necessary to inform the next iteration of the TMDL IP and subsequent permits. In addition, the permit requires DOEE to include progress toward achieving milestones and benchmarks in each MS4 Annual Report-which is a practice that DOEE has engaged in for several years.

#### 2.2.2.1 Bacteria Milestones and Benchmarks for the Next Permit Term

Some of the lengthiest WLA attainment timelines in the Permittee's TMDL IP are for *E. coli*. This is largely because sources of *E. coli* in the District are poorly understood, and thus the TMDL IP relies mostly on general stormwater measures to achieve the necessary reductions, rather than measures that specifically target sources of *E. coli*.

The 2018 Final Permit required the Permittee to undertake a bacteria source tracking study to make informed decisions about allocation of resources to strategies that most effectively reduce *E. coli* in stormwater discharges (i.e., the benchmarks and milestones). During the 2018 permit term, DOEE initiated three separate sampling studies to perform microbial source tracking (MST) of bacteria sources in its watersheds. Due to delays in sample collection and analysis resulting from COVID restrictions, the projects were not able to be completed as anticipated. Sampling and analysis were completed for two of the studies in the Rock Creek and Anacostia watersheds. A third study that aims to focus on identifying human markers of bacteria is planned in the Anacostia. The Final Permit continues the practice of requiring the Permittee to use any information from these and future efforts to update its milestones and benchmarks in its updated *Consolidated TMDL Implementation Plan*, which will be subject to public notice and comment per the schedule in Subsection 2.2.5.5 of the Final Permit. Specific bacteria reduction activities were also added to Section 4.5.2 of the permit as well. See the discussion later in this fact sheet for the rationale for their inclusion in the Final Permit.

#### 2.2.2.2 Legacy Pollutant Milestones and Benchmarks for the Next Permit Term

The TMDL IP timelines for attainment of the WLAs for chlordane, heptachlor epoxide, dieldrin, DDT, DDE, DDD and PCBs, are also quite lengthy. Based on MS4 discharge data as well as in-stream data, the TMDL IP concludes that though these pollutants historically did reach surface waters via the MS4, ongoing sources of these legacy pollutants have been largely eliminated. However, their presence in receiving water sediments continues to present water quality concerns.

DOEE is already implementing actions to address sources of PCBs in the sediment in the Anacostia River. As part of the Anacostia River Sediment Project

(<https://restoretheanacostiariver.com/arsp-home>), DOEE developed the Proposed Plan: Early Action Areas in Main Stem, Kingman Lake, and Washington Channel document (DOEE, 2019) and an Interim Record of Decision in September 2020 to guide sediment cleanup in the Anacostia River. PCBs are one of the specific pollutants identified for remediation as part of this project.

PCB concentrations and loads should continue to decrease as the Anacostia River Sediment Project is executed, additional BMPs are implemented, legacy sediment is removed from the sewer system, and atmospheric contributions continue to decline. However, should monitoring show that PCB loads are still an issue, adaptive management principles can be used to change course and develop different tactics to address PCBs in future permits.

The Final Permit requires the Permittee to use the information that was collected from the toxics investigation required by the 2018 Final Permit as discussed in the document *Draft Investigations of Ongoing MS4 Toxic Contaminants to the Anacostia River* to establish milestones and benchmarks to be included in the updated *Consolidated TMDL Implementation Plan*.

Furthermore, Section 3.3.6 has been added to the Final Permit and requires the Permittee to develop a program to inspect and clean the piping infrastructure of the MS4 to mitigate sedimentation with priority given to areas with known or suspected sediment issues and areas where the system discharges to waterbodies impaired by toxics, such as PCBs, which are known to be found in legacy sediments.

#### 2.2.2.3 District BMP Opportunity Assessment

DOEE is in the process of identifying suitable locations for potential future stormwater retrofit projects that can be implemented over the next several years to help meet MS4 WLAs. In 2021 and 2022, the Center for Watershed Protection conducted field work to assess the feasibility of potential stormwater BMP opportunities throughout the District. The goal of this project was to develop a list of potential stormwater management opportunities that can be implemented by DOEE and its partners over the next several years for the purposes of meeting water quality goals.

The sites have been partially evaluated and may be selected for full design and construction in the future to help meet the District's MS4, TMDL, and Chesapeake Bay requirements with the goal of improving water quality in the Anacostia and Potomac Rivers. This set of projects, if implemented, could achieve as much as 22.7 million gallons of runoff reduction, over 11,500 pounds of sediment reduction, and over 180 acres of MS4 Acres Managed.

The Final Permit requires the Permittee to utilize this assessment as part of its future TMDL Planning efforts and identify projects that can be included in the updated *Consolidated TMDL Implementation Plan* that is required in Section 2.2.5 to assist the Permittee with achieving WLAs applicable to the MS4.

### 2.2.3 Stormwater Fee Status Update

In the 2018 Final Permit, the Permittee was required to evaluate options regarding its stormwater fee and to propose an increase if the evaluation supported an increase. The District completed this analysis and reported its findings in the 2020 MS4 Annual report. As summarized in the 2020 MS4 Annual report, the amount of revenue generated by the stormwater fee, charged based on a property's amount of impervious surface, has remained flat since 2010. This is mostly due to there being no change since 2010 to the monthly charge per equivalent residential unit. The fee evaluation was conducted throughout 2020 while the financial impact of COVID 19 was still unclear but was anticipated to be substantial. As a result, DOEE concluded that increasing the stormwater fee was infeasible at that time. The 2022 updated TMDL IP notes that the District will continue to evaluate opportunities to increase the fee on an ongoing basis. Therefore, the Final Permit requires the Permittee to submit an update regarding the status of the stormwater fee with its 2025 Annual Report.

The Final Permit does not require the Permittee to increase or otherwise modify stormwater fees, as whether and how to set stormwater fees is ultimately a local government decision, made with notable public input.

### 2.2.4 Updating Stormwater Management Regulations

The 2018 Final Permit required the Permittee to undertake an analysis to explore combinations of options, including lowering thresholds, eliminating exemptions for regulated projects, or applying different retention standards in priority watersheds to attain WLAs in a timely fashion. As reported in the attachments to the District's 2020 MS4 Annual Report, the District evaluated several options for how to improve stormwater management in the District through regulatory changes, including:

1. Increasing the on-site stormwater retention standard to 2 inches;
2. Applying a different retention standard to priority watersheds;
3. Lowering the threshold for regulated projects or eliminating exemptions for unregulated projects; and
4. Revising standards in stormwater management, considering factors such as sea level rise, extreme weather, and changing precipitation patterns.

After the initial evaluation, DOEE determined that there are two options that represent cost-effective opportunities for enhancing stormwater management: (1) lowering the threshold of regulated projects through the adoption of small area regulations; and (2) revising the peak discharge requirement for the 15-year storm to better prepare for increased frequency of larger storms due to climate change. The Final Permit requires that action be taken in response to the evaluation and that proposed updates to existing District regulations occur no later than four years from the effective date of the permit, so long as DOEE obtains the necessary pre-clearance from the Mayor's office to proceed with regulatory updates.

The Final Permit also requires the Permittee to submit to EPA an analysis, in the form of a study, plan, report, or other narrative as to the effect of increasing the current 1.2” retention standard to 2 inches . The analysis should specifically discuss the impact on water quality improvements and how increasing the standard could assist with achieving WLAs in a timelier fashion. In addition, the analysis should detail considerations of cost compared to environmental benefit. EPA received a couple public comments asking for the retention standard to be increased to 2” from the current 1.2”. The District provided a short description in the attachment to the 2020 Annual Report as to why the 1.2” standard did not need to be adjusted, citing high cost related to minimal environmental benefit. This requirement would build upon that evaluation to justify maintaining the current retention standard.

In addition to researching and developing new regulations to lower the threshold for regulated projects, the District amended its stormwater regulations on January 31, 2020, and proposed additional regulatory updates on September 18, 2020. The January amendments include three key changes that should increase the installation of new, voluntary GI retrofit projects in the MS4. First, for projects discharging to the Combined Sewer System that drain to storage tunnels designed to prevent combined sewage overflows (CSOs), DOEE will waive the 50% minimum on-site retention requirement if the project commits to using Stormwater Retention Credits (SRCs) from the MS4 to achieve their off-site retention. Second, the regulatory amendments now require projects in the MS4 to purchase SRCs from the MS4 to meet off-site retention requirements. Finally, changes were made to the SRC program which are discussed in Section 3.2.3.

#### 2.2.5 Updating the *Consolidated TMDL Implementation Plan*

The general requirements for the content of the updated TMDL IP are largely unchanged from the 2018 Final Permit. However, the date for the completion and public notice of the draft updated TMDL IP have changed.

The Final Permit requires the Permittee to provide for public notice and comment on a fully updated TMDL IP fifteen (15) months prior to the expiration date of this permit, and then provide the revised TMDL IP, along with any changes attributable to public comment, to EPA nine (9) months prior to expiration of the permit.

### 2.3 Inspection Program for Regulated On-site and Off-site Control Measures

In 2019, DOEE piloted the Self-inspection Self-reporting (SISR) program<sup>8</sup>. The SISR application enables property owners with a regulated stormwater BMP to report, track, share, and submit inspection and maintenance service reports to the District Stormwater Database. DOEE also developed the Stormwater Facility Self-Inspection and Self-Reporting Guide<sup>9</sup> to

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<sup>8</sup> See DOEE’s website at <https://doee.dc.gov/service/sisr> for more information

<sup>9</sup>[https://doee.dc.gov/sites/default/files/dc/sites/ddoe/service\\_content/attachments/Stormwater%20Management%20Facility%20Self-Inspection%20and%20Self-Reporting%20Guidance%20Manual.pdf](https://doee.dc.gov/sites/default/files/dc/sites/ddoe/service_content/attachments/Stormwater%20Management%20Facility%20Self-Inspection%20and%20Self-Reporting%20Guidance%20Manual.pdf)



explain how to use the SISR app to submit a report, provide helpful information on how to select a maintenance service provider, and describe which types of BMPs can be inspected and maintained by individual property owners and which require professional assistance. The Final Permit requires DOEE to continue to implement the SISR program and maintain dedicated staff to review and respond to SISR submittals. Additionally, the Final Permit requires the Permittee to maintain the appropriate legal mechanisms to ensure that when control measures are found to be not installed properly or not functioning as designed, they are brought back into compliance.

## 2.4 Public Right-of-Way Optimal Design

The 2018 Final Permit required that the Permittee develop a set of Public Right of Way (PROW) optimal designs in an effort to standardize designs and optimize costs, performance, community palatability, and other relevant factors. As stated in the 2021 Annual Report, DDOT provides design guidance for green infrastructure in its 2019 Design and Engineering Manual<sup>10</sup>, which was used to develop standardized designs for green infrastructure in the PROW. These standardized designs are intended to reduce the time and cost required for design, such that the standardized designs can be used for construction quickly while being customized to local site conditions. DDOT has identified target BMPs to standardize and has identified how the existing standards can be grouped and simplified further to minimize or eliminate the time needed for design and review purposes. The standardized designs include approximate stormwater retention volume, area treated, volume treated, and the draw-down time for each BMP. The Final Permit requires the Permittee to utilize the newly developed design standards for all PROW projects (with the exception of capital improvement projects) in the MS4 Permit Area.

EPA notes that this approach represents an improvement in stormwater management in PROWs consistent with the status of DDOT's program and in conjunction with the requirement for 175 acres managed to be completed in the PROW during this permit term.

## 2.5 Evaluation of Pollutant Reductions from Other Activities

### 2.5.1 Catch Basin Cleaning and Mobile Data Collection

To aid in tracking progress towards WLA attainment, the 2018 Final Permit required the Permittee to develop a method for estimating pollutant reductions from catch basin cleaning. Included with the SWMP Plan that was submitted to EPA as part of the permit renewal application was an SOP for the collection, processing, and reporting of data for catch basin cleaning operations. All catch basins in the MS4 Permit Area are cleaned regularly by DC Water and are now tracked through a mobile app with easily downloadable data that DOEE receives for MS4 reporting purposes. In addition, DOEE uses the data to estimate sediment and nutrient

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<sup>10</sup> [https://ddot.dc.gov/sites/default/files/dc/sites/ddot/page\\_content/attachments/DEM-2019-01-01\\_DDOT\\_DEM\\_Updates\\_FINAL.PDF](https://ddot.dc.gov/sites/default/files/dc/sites/ddot/page_content/attachments/DEM-2019-01-01_DDOT_DEM_Updates_FINAL.PDF)

pollutant reductions using recommendations from published literature (such as the Chesapeake Bay Expert Panel Report) for reporting.

### 2.5.2 Other Controls or Management Measures

The Final Permit continues the practice for allowing the Permittee the option of developing pollutant reduction estimate methodologies for any other activity that prevents or reduces stormwater pollutant discharges and submitting that method to EPA for approval. This option was utilized by DOEE during the 2018 permit term to estimate pollutant reduction credit related to stream restoration projects and EPA feels that in keeping with the iterative nature of the MS4 program and continual improvements to stormwater technologies it is important to maintain this option in this Final Permit. Any method proposed by the Permittee may express reductions as Acres Managed equivalences if appropriate or may express them in specific measures of the pollutant itself.

### 2.6 Development of Alternatives for Ice and Snow Management

The 2018 Final Permit required the Permittee to ensure that water quality-related requirements for preventive and control measures were included in the District Snow and Ice Removal Plan. As a result, DOEE developed a pilot project coordinated with the Department of Public Works to reduce road salt use by testing calcium magnesium acetate during the 2019 and 2020 reporting years as an environmentally friendly alternative treatment. However, during those years there were no qualifying snow events to implement the pilot. DOEE and EPA agreed to continue to implement the pilot during the winter of 21-22 and had only one successful event to collect data. Because DOEE cannot control the weather and there is still interest in completing this evaluation, this condition is being carried over into this Final Permit. The goal is to have two additional winters to collect data and have the analysis submitted to EPA with the Annual Report in 2025. Any changes to the District Snow and Ice Removal Plan resulting from this pilot shall be incorporated into the revised SWMP Plan that is due with the permit renewal application.

### 2.7 Flood Management for Water Quality

Executive Order (EO) 14008 of January 27, 2021, aimed to elevate the issue of climate change. The EO calls upon the federal government to strengthen clean air and water protections, hold polluters accountable for their actions, and promote environmental justice in communities across America. The EO instructs Agencies, such as EPA, to make achieving environmental justice part of their mission by developing programs, policies, and activities to address the disproportionately high and adverse human health, environmental, climate-related and other cumulative impacts on disadvantaged communities, historically marginalized and overburdened by pollution and under-investment in housing, transportation, water and wastewater infrastructure, as well as the accompanying economic challenges of such impacts. Taking this EO into account, EPA has incorporated climate and flooding management into this Final Permit with an emphasis on community impacts.

Federal regulations at 40 CFR § 122.26(d)(2)(iv) describe the stormwater management program for large and medium MS4s. The SWMP, as explained throughout this fact sheet, forms the basis for the MS4 permit. The regulations state that the program shall include a number of plans and processes to reduce the discharge of pollutants to the maximum extent practicable. The regulations also state that programs proposed by the applicant shall be considered by the regulator when developing permit conditions. As a result, EPA reviewed several District plans and programs related to flooding and climate resilience when drafting this permit as discussed below.

In the past few years, the District has seen record-breaking extreme weather (like heat waves and snowstorms), higher tides caused by rising sea level, heavy rains and flooding, warmer average temperatures and two to three times as many dangerously hot days. Recognizing the need to prepare and adapt, the District established a goal to make the city more resilient to future climate change. *Climate Ready DC* is the District's strategy for achieving this goal while helping to ensure that the city continues to grow greener, healthier, and more livable.

In 2018, DOEE launched an effort to prioritize and accelerate implementation of the strategies within the 2016 *Climate Ready DC* Plan. In consultation with District agencies and community partners, DOEE identified the highest-priority actions for near-term implementation and investigated opportunities to move those actions forward. Based on the full screening, DOEE identified several actions to advance by designing more detailed implementation strategies.

In 2020, the District identified the steps to take in the near term to address the most urgent risks it faces in a changing climate. The *Climate Ready by 2050 Strategy* outlines how the District will regularly track progress toward achieving the District's goal to be climate resilient by 2050. A number of those identified vulnerabilities and recommendations in the *Climate Ready by 2050 Strategy* dovetail with elements of the Permittee's stormwater management program to ensure that mutual water quality and flood management benefits may be realized.

Specifically, the *Climate Ready by 2050 Strategy* calls for three specific actions related to "futureproof" the storm sewer system: (1) development of an integrated flood model; (2) development of climate-change adjusted Intensity, Duration, Frequency (IDF) curves; and (3) development of community-based stormwater management plans. See pages 14-15 of the *Climate Ready by 2050 Strategy*.

The Final Permit requires the District to complete the development of the flood model by the end of the permit term. Climate adjusted IDF curves have recently been developed for the Chesapeake Bay watershed<sup>11</sup> so the permit does not require the District to duplicate this

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<sup>11</sup> <https://midatlantic-idf.rcc-acis.org/>

effort, but instead the District is encouraged to integrate this updated information into resilient design guidelines for infrastructure and stormwater regulations.

After the integrated flood model analysis and considering updated IDF curves, the District will have a strong understanding of which neighborhoods are most vulnerable to coastal, riverine, and rainfall flooding. In collaboration with community members, the District will then be able to develop a series of neighborhood-level plans and green infrastructure investments to manage local flood risks. Therefore, the permit requires that these neighborhoods be identified by the end of this permit term so that plan development can be incorporated into future permits.

Additionally, the *Climate Ready by 2050 Strategy* recommends the development of the FloodSmart Homes program, modeled after the DOEE RiverSmart program. This program would act as a source of important information for District residents within the floodplain, providing information about individualized risks and potential solutions. Specifically, the District is exploring how it might provide free home resilience audits, along with incentives for implementing home improvements. This program is already under development and the permit requires that it be completed by the end of 2025. See pages 30-31 of the *Climate Ready by 2050 Strategy*.

The actions that the District has outlined in its climate implementation strategies for high priority action related to stormwater management which are incorporated into the Final Permit include:

- Development of an integrated flood model to better account for inland flood risks (2.7.1.1)
- Identification of actions for areas of high flood risk that could minimize the water quality impacts of a flood event on receiving waters (2.7.1.2)
- Identification of areas of highest risk for impacts on water quality due to flooding as candidates for the future development of stormwater management plans (2.7.1.3)
- Development of the FloodSmart Homes Program (2.7.2)

## 2.8 Submittals to EPA

Section 2.8 of the Final Permit provides a summary table (Table 2) with the schedules for all planning and assessment elements required to be submitted to EPA. The Table also makes note of which of these elements the Permittee shall make available for public notice and comment, and which are subject to EPA approval.

EPA is also encouraging implementation of new plans and strategies sooner rather than later and has carefully considered when and whether additional public notice and EPA review is needed before implementation of specific action that will be determined during this permit term. EPA encourages the Permittee to consider any input at any time on any element of the

program. EPA also has tailored permit terms and conditions in the Final Permit to be reasonably prescriptive about what is required in these assessments and strategies, so that immediate implementation can accelerate water quality benefits. In addition, EPA underscores that all the required plans and assessments will become part of the package that EPA will assess and refine when reissuing this permit for the next permit term. At that time all those elements will be available for public notice and comment.

### 2.9 Updated SWMP Plan for Next Permit Term

EPA requires that the updated SWMP Plan be made available for public notice and comment no later than eighteen (18) months prior to the expiration date of the Final Permit and submitted to EPA no later than nine (9) months prior to that expiration date.

### 2.10 Application for the Next Permit Term

The Final Permit requires that the Permittee develop a permit application package no later than 270 days (9 months) prior to the expiration date of this permit. The permit application package includes the permit application forms, a fully updated SWMP Plan, and a fully updated TMDL IP.

The permit also requires that if EPA makes available an electronic MS4 application form at least six months prior to the renewal application submittal date (15 months prior to the permit expiration date), the Permittee shall use the electronic mechanism and process developed by EPA to submit the renewal application.

## Part 3. STORMWATER MANAGEMENT PROGRAM IMPLEMENTATION

The Final Permit has been organized such that all requirements for implementing stormwater control measures are included in Part 3.

### 3.1 Implementing Part 3 of the Permit

Part 3 describes the programs that the Permittee is required to maintain to achieve pollutant reductions, demonstrate progress toward achieving applicable TMDL WLAs, and meet other water quality objectives. EPA emphasizes that all the retention measures in Section 3.2 are included in the 1,175 Acres Managed discharge limit.

### 3.2 Achievement of the Acres Managed Numeric Limit

This section has been organized so that all requirements related to on-site and off-site retention (Acres Managed) are included in one Section (3.2).

#### 3.2.1 Accountability for Retention Measures

The Final Permit requires the Permittee to continue implementing programs that establish accountability for retention measures, such as posting on the District website the status of all projects, including both on-site and off-site stormwater management volumes retained (3.2.1.1) and maintaining a database to track inspection and compliance status of projects using off-site retention (3.2.1.3).

### 3.2.2 Implementing the Standard for Development and Redevelopment for Projects Greater than or Equal to 5,000 Square Feet

This provision is unchanged from the 2018 Final Permit. This provision requires the Permittee to continue to require the design, construction, and maintenance of stormwater controls to achieve on-site retention of 1.2" of stormwater from a 24-hour storm with a 72-hour antecedent dry period through evapotranspiration, infiltration, and/or stormwater harvesting and reuse for all public and private development and redevelopment projects that disturb greater than or equal to 5,000 square feet of land area, in concert with the provision for off-site retention in Subsection 3.2.3.

### 3.2.3 Stormwater Retention Credit (SRC) Program

The Final Permit requires that the Permittee continue to implement the SRC off-site mitigation program.

Beginning in 2013, development projects over 5,000 square feet were subject to the District's stormwater management requirements. These regulations require on-site retention of either the 1.2-inch storm for land disturbing activities or the 0.8-inch storm for building renovations. Developers can comply with this requirement partially or entirely off-site by purchasing SRCs.

The SRC Program was developed to provide flexibility for regulated projects to meet a portion of their stormwater obligation off-site while promoting the installation of more green infrastructure in the MS4 Permit Area, where stormwater drains directly into the District's rivers and streams with little to no treatment.

#### 3.2.3.2 SRC Price Lock Program

The 2018 Final Permit required the Permittee to establish an SRC Purchase Agreement Program and technical support for property owners interested in generating SRCs. As a result, DOEE established its SRC Price Lock Program which the Final Permit requires the Permittee to continue to implement throughout the permit term.

Through DOEE's SRC Price Lock Program, eligible SRC generators have the option to sell SRCs to DOEE at fixed prices. SRC generators can participate without losing the option to sell to

another buyer. The option to sell to DOEE effectively constitutes a price floor in the SRC market and offers certainty about the revenue from an SRC-generating project.

New, voluntary green infrastructure projects in the MS4 Permit Area are eligible to enter an SRC Purchase Agreement to sell their SRCs to DOEE. After completing the SRC-generating project, participants have the option to sell their SRCs to DOEE at the price specified in the SRC Purchase Agreement or sell on the SRC market (at a price negotiated with the buyer).

### 3.2.4 Implementing the Standard for Projects in the Public Right-of-Way

This provision is unchanged from the 2018 Final Permit. The Final Permit continues to require that a site-specific determination be made of the maximum amount of stormwater retention that is practicable in the PROW and that the Permittee's design considerations and decision process continue to be the mechanism for implementing stormwater retention measures in the PROW, as described in detail in the District's *Stormwater Management Guidebook (2020)*, <http://doee.dc.gov/swguidebook>.

The status of all PROW projects must continue to be posted on the Permittee's website as a public record of the efficacy of this process, and EPA encourages all stakeholders to evaluate this information and provide feedback to the Permittee and to EPA on the strengths and weaknesses of this approach. At this time, however, EPA considers that the Permittee has made a reasonable demonstration for practicability of this evaluation and decision process as it applies to implementation of the on-site retention standard in PROWs and agrees that the site-specific approach constitutes MEP for this permit term.

### 3.2.5 Implementing the Standard for Substantial Improvement Projects

This provision is unchanged from the 2018 Final Permit. The Permittee shall continue to require the design, construction, and maintenance of stormwater controls to achieve on-site retention of 0.8" of stormwater from a 24-hour storm with a 72-hour antecedent dry period through evapotranspiration, infiltration, and/or stormwater harvesting and reuse for all development projects where less than 5,000 square feet of soil is disturbed, but where the combined footprint of improved building and land-disturbing activities is greater than or equal to 5,000 square feet and which are undergoing substantial improvement. "Substantial Improvement" is defined in the District's stormwater regulations and that definition applies to this permit.

### 3.2.6 Stormwater Management Guidebook

This provision is unchanged from the 2018 Final Permit. The Permittee shall continue to improve and implement the *Stormwater Management Guidebook* (last updated in 2020, available at <https://doee.dc.gov/swguidebook>) for use by land use planners and developers for all projects addressed by this permit.

### 3.2.7 Green Area Ratio Program

This provision is unchanged from the 2018 Final Permit. The Permittee shall continue to implement and refine the Green Area Ratio program to improve stormwater management in the MS4 Permit Area while allowing flexibility for developers and designers to meet development standards.

### 3.2.8 Tree Planting

Section 1.5.3.2 of this fact sheet discusses the rationale for how the number of trees to be planted this permit term (7,700) was determined. The 7,700 annual tree planting shall be calculated as a net increase, such that annual mortality or other loss is also included in the calculation, and proper operation and maintenance provisions are also stipulated.

### 3.2.9 RiverSmart Programs

This provision remains largely unchanged from the 2018 Final Permit. The lone change is the removal of the RiverSmart Rooftops program from the list, as this program has been discontinued. Although the District's RiverSmart Programs have provided stormwater benefits to the District for several years, they are specifically incorporated into the Final Permit to allow a formal mechanism for tracking and reporting of Acres Managed benefits. The Permittee shall continue to implement and refine its suite of RiverSmart programs (Homes; Communities; Schools; Rebates; Targeted Watersheds). These voluntary retention projects do not need to meet the 1.2" retention requirement, but they may be used to generate SRCs if they otherwise meet all the requirements of the District stormwater regulations.

### 3.2.10 Stream, Buffer and Floodplain Restoration

Restoration of streams, stream buffers, and floodplains are specifically incorporated into the Final Permit to allow a formal mechanism for tracking and reporting of pollutant reductions/Acres Managed for these activities. The Permittee may take credit for pollutant reductions from stream, buffer, or floodplain restoration activities where stream bed load or bank erosion contributes to the nutrient, total suspended solids (TSS) or sediment load in that stream. The credit towards the Acres Managed metric must be aligned with the memo "*Proposed Methodology for Calculating an Equivalent Area Managed for Stream Restoration Projects*" that was submitted to and approved by EPA in November 2021.

### 3.2.11 Priority Watershed Projects

EPA incorporated the requirement to identify priority watersheds and targeted implementation actions into the 2018 Final Permit. In its updated 2022 *Consolidated TMDL Implementation Plan*, the District described the multiple strategies used to identify priority watersheds for targeted implementation as well as the factors that were considered when developing targeted subwatersheds, such as: local water quality, habitat and stream health,



and climate resilience. The Final Permit now includes a provision to implement two projects per year during this permit term in any of the identified priority watersheds that address those factors such as installation of practices upland of stream restoration sites, projects that reduce multiple TMDL pollutants, and projects that address areas with assets vulnerable to flooding and extreme heat events associated with climate change.

### 3.3 Municipal Operations

On July 3, 2018, a corrected Administrative Order on Consent (AOC) became effective to resolve alleged violations of the Permittee’s MS4 permit. As part of the AOC, the District is required to implement and report annually on its operation and maintenance (O&M) program for municipal facilities in the MS4 Area. The O&M Program elements are listed below with relevant corresponding permit provisions:

<b>Noncompliance Issue</b>	<b>Corresponding Provision in the Draft Permit</b>
Failure to develop and implement SWPPPs at District-owned property;	3.3.2.2
Failure to adequately maintain BMPs	3.8
Failure to practice good housekeeping and to implement a specific inspection schedule at municipal facilities;	2.3, 3.3.2
Failure to implement employee training;	3.9
Failure to maintain the P2 database	3.3.2.7

#### 3.3.1 Response to Sanitary Sewer Overflow to the MS4

This provision is unchanged since the last permit.

This provision is a long-standing element of the District SWMP to ensure adequate and timely response to illicit discharges via the MS4 that result from overflows from the sanitary sewer system. At the request of the Permittee, EPA modified this provision in the 2018 Final Permit to mark the response time and the notification of sewer and public health officials from the time the overflow is confirmed rather than from the time the Permittee is notified of the overflow. This provides the Permittee the opportunity to establish that the event is actual prior to initiating response procedures.

#### 3.3.2 Industrial Activities at Municipal Operations

This provision is unchanged from the 2018 Final Permit.

#### 3.3.3 Pesticide, Herbicide and Fertilizer Use.

This provision remains largely unchanged from the 2018 Final Permit. The change made to this section includes added language to clarify that this provision applies only to those areas and facilities within the MS4 Permit Area that are governed by the District's Integrated Pest Management regulations which the District has the authority to regulate.

#### 3.3.4 Catch Basin Operation and Maintenance

The Final Permit requires that all MS4 catch basins be inspected at least once during the permit term and cleaned out as necessary as outlined in the SOP for the collection, processing, and reporting of data for catch basin cleaning operations that includes information on the catch-basin specific frequencies for cleaning and other maintenance. Under the new GIS-mobile field application system, the Permittee can maintain adequate data on each catch basin to determine how frequently each catch basin must be cleaned out; these frequencies may be more or less frequently than annually, depending upon the rates at which they accumulate materials. This system was required to be developed during the 2018 permit term to assist the Permittee with optimizing resources devoted to catch basin maintenance activities.

Additionally, the Final Permit contains new language that includes a specific timeframe for cleaning of catch basins if it is deemed necessary. Based on EPA guidance/fact sheets on this topic, EPA has determined that thirty (30) days is a reasonable amount of time to complete catch basin cleaning, barring any obstructions or access issues.

#### 3.3.5 Storm Drain Outfall Operation and Maintenance

DOEE previously requested that EPA revise the repair objectives from an annual percentage of outfalls in need of repair to a numeric total for the permit term. EPA made this change in the 2018 Final Permit, which required the Permittee to repair a total of fifty (50) catch basins by the end of the permit term but provided the opportunity to use an alternative pollutant reduction calculation instead of physical outfall repair. The Permittee was able to physically repair four (4) outfalls at the time of the latest annual report (2022) but anticipates completing repair of nine (9) outfalls by the end of the permit term and proposes to use an alternative pollutant reduction demonstration to account for the remaining forty-one (41) outfall repairs.

In the Final Permit, EPA is requiring twenty (20) outfalls to be repaired and/or replaced as necessary during the permit term. As a standard practice, the Permittee is physically repairing and/or replacing MS4 outfalls as part of stream restoration projects, which are usually lengthier in total project time than simply repairing outfalls without also restoring the stream.

The number of total outfalls to be repaired in the Final Permit is based upon anticipated future restoration projects that are currently in the design phase and/or expect to be completed during the permit term. During this permit term, there are three restoration projects being proposed that include outfall repairs. There are approximately 24-30 outfalls proposed to be repaired and/or replaced as part of those projects; however, the projects may not all be

completed before the end of the permit term. Therefore, EPA has concluded that 20 outfalls is an adequate number of outfalls to be completed by the end of the permit term. Additionally, EPA is removing from the Final Permit the ability to substitute outfall repairs with alternative pollutant reduction calculation; all twenty (20) outfalls must be physically repaired or replaced.

### 3.3.6 Maintenance of Conveyance System Piping Infrastructure

Although most toxic pollutants are no longer generated, their presence in receiving water sampling results continues to present water quality concerns. These pollutants may be conveyed to surface waters via stormwater outfalls as legacy sediments are flushed through the storm sewer system.

Consequently, the Final Permit requires that the Permittee develop a program within four years of the effective date of the permit, to inspect and clean the piping infrastructure components of the stormwater system. Inspections and cleanout shall be conducted on a rotating basis of a sufficient frequency to mitigate sedimentation and obstructions to infrastructure. This cleanout schedule/frequency shall be outlined in the program that is submitted to EPA for review. Priority for infrastructure to be inspected and cleaned shall be given to sections of the conveyance system that are known to have sediment issues and areas where the conveyance discharges to waterbodies impaired by toxics, such as PCBs, which are known to be attached to legacy sediment. Consequently, the Final Permit requires that the program be implemented upon its completion.

### 3.3.7 Street Sweeping

The 2018 Final Permit required the Permittee to sweep 8,000 road miles annually in the MS4 Permit Area. In this Final Permit EPA is maintaining the reporting metric for street sweeping to align with the Chesapeake Bay Program partnership models for pollutant reduction estimates, and the Permittee's reporting obligations under that program.

In this Final Permit, EPA is requiring that the Permittee sweep no less than 10,932 miles annually in the MS4 Permit Area. This is based on numbers reported in the MS4 Annual Reports from 2019-2022 during which time the Permittee was piloting its georeferencing-based street sweeping system that will make it possible to accurately estimate the number of miles swept in the MS4 Permit Area. The numbers are difficult to interpret as an average because there were times during 2020 and 2021 where street sweeping was suspended because of COVID; therefore, EPA calculated both a 4-year and 3-year average as shown in the chart below and determined that the 3-year average was more accurate to determine what is practicable for this permit term.

<b>Street Sweeping in the MS4 Permit Area</b>	
<b>Year</b>	<b>Miles Swept</b>
2019	12,606

2020	8,195
2021	6,119*
2022	11,995
<b>4-Year Total</b>	38,915
<b>4-Year Average</b>	9,729
<b>3-Year Total (removing the outlier year of 2021)</b>	32,796
<b>3-Year Average</b>	10,932
Annual street sweeping numbers are from the Permittee's MS4 Annual Reports for the years noted.	
*Street sweeping was suspended for a time during this reporting year due to the COVID-19 pandemic	

### 3.3.8 Transportation and Utility Construction Activities

This provision is unchanged from the 2018 Final Permit.

Standard and emergency utility and road repair projects will continue to be required to implement soil erosion and sedimentation measures and to remove silt from all dewatering discharges. This addresses a specific gap in construction coverage since these projects generally disturb less than one acre but are quite common and often occur in proximity to storm drains.

### 3.3.9 Snow and Ice Management

The Final Permit requires that the Permittee begin updating its new cold weather management procedures no later than one year after the completion of the road salt alternative pilot. This is one year after the Permittee is required to report to EPA (with the 2025 Annual Report) on the results of the investigation into using an alternative road salt treatment should the pilot show that it is feasible.

#### 3.4.1 Critical Source Inventory

This provision is unchanged from the 2018 Final Permit.

#### 3.4.2 Inspection of Critical Sources

Per agreement with EPA, the Permittee conducts inspections at facilities in the District with coverage under EPA's *Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activities* in accordance with EPA's *Compliance Monitoring Strategy (CMS)*. The language in this Subsection has therefore been modified, as follows, to clarify that facilities with

coverage under the MSGP must be inspected per the terms of the CMS, while facilities without coverage under the MSGP are subject to the specific terms of the Final Permit as follows:

*Unless otherwise covered under the Multi-Sector General Permit (MSGP) for Stormwater Discharges Associated with Industrial Activity or an individual permit, the Permittee shall continue to inspect all Critical Sources in the MS4 Permit Area that are identified in the Critical Source Inventory at least two times during the five-year term of this permit. Critical Sources covered under the MSGP, or an individual permit, shall be inspected according to the EPA-approved Compliance Monitoring Strategy or the inspection schedule required by the individual permit.*

### 3.5 Construction Activities

This section has been modified to align with EPA's 2022 Construction General Permit (CGP) for inspections of sites that disturb greater than or equal to one acre of soil. Language has been added to Section 3.5.3 to specify the frequency with which routine inspections should be performed for sites that disturb greater than or equal to one acre consistent with the frequencies found in the EPA CGP and requires that trained individuals perform construction site inspections. The Final Permit further recommends that inspectors maintain certification from a program such as EPA's Construction Inspection Training Course or an equivalent training.

### 3.6 Illicit Discharges and Illegal Disposal

This provision is unchanged from the 2018 Final Permit.

### 3.7 Targeted Pollutant Controls

A new section was included in the 2018 Final Permit to consolidate a number of the Permittee's existing SWMP programs and policies focused on specific source controls for several important pollutants of concern, all of which have local water quality implications, including relevant TMDL wasteload allocations for trash, polyaromatic hydrocarbons, nitrogen, phosphorus, multiple metals and toxics. Continuing that progression, the targeted controls for this Final Permit include:

- Trash prevention and removal efforts (3.7.1);
- The District fee on disposable shopping bags (3.7.2);
- The District ban on certain polystyrene foam food containers (which also now includes service ware items) (3.7.3);
- The District ban on plastic straws (3.7.4);
- The District ban on the use of coal tar pavement products (3.7.5);
- The District restrictions on phosphorus lawn fertilizers (3.7.6);
- The District program for hazardous waste collection (3.7.7); and

- The District leaf and yard waste collection program (3.7.8).

While most of the targeted pollution control programs are established and ongoing, inclusion in the Final Permit provides a foundation for tracking and reporting the pollutant reductions from these initiatives.

### 3.8 Operation and Maintenance of Stormwater Control Measures

The provisions for operation and maintenance are largely carried forward from the 2018 Final Permit, including the requirements for non-District-operated stormwater control measures (3.8.2) to explicitly include the need for a long-term verification process, including regular inspections that may be conducted by the Permittee or by third parties, or may include owner/operator certifications.

An addition to the Final Permit in Section 3.8.1 specifically requires the District to perform maintenance activities in consultation with the most recent iteration of DOEE's Stormwater Management Guidebook for green stormwater infrastructure on properties owned or managed by the District.

### 3.9 Stormwater Training

This section was revised to clarify that the Permittee is required to train its employees, contractors, subcontractors, and agents as specified in Table 3 on an annual basis as well as within six (6) months of being hired.

Additionally, to integrate environmental justice into this permit, the Final Permit requires the Permittee to develop and offer training to all employees responsible for the implementation of this permit related to incorporating diversity, equity, inclusion, and justice (DEIJ) into the Clean Water Act objectives associated with the MS4 Permit Area. The Final Permit uses a step-based approach for achieving this objective. First, the Permittee is required to conduct an inventory of all existing CWA related training programs and identify which of those trainings would be appropriate for the inclusion of DEIJ content. Next, the Permittee is required to develop appropriate DEIJ training to incorporate into those identified training programs in step one. Finally, the Permittee is required to offer training upon the completion of its development.

### 3.10 Targeted Public Education

The public education targets and objectives remain largely unchanged from the 2018 Final Permit with one notable addition. The Final Permit includes a requirement for the Permittee to provide focused community engagement for historically underserved communities in the MS4 Permit Area. The metrics to be reported on include outreach events conducted,

multi-lingual educational materials distributed, and community activities performed in underserved areas.

#### Part 4. WATER QUALITY ASSESSMENT

##### 4.1 Water Quality Assessment Program

Monitoring requirements in the Permittee’s MS4 permits prior to 2011 consisted largely of discharge characterization, which was accomplished through end-of-pipe monitoring for over 100 different analytes/pollutants. Most of the results for most of those pollutants were non-detect, indicating that for more than 10 years those contaminants had not been pollutants of concern in District MS4 discharges. In addition, the Permittee was required to conduct standard dry weather screening for detection of illicit MS4 connections and discharges.

In 2015, the Permittee submitted the *Revised Monitoring Program*<sup>12</sup> to EPA for review and approval. The Permittee subsequently updated the Program in 2016. EPA previously approved this *Revised Monitoring Program* and has incorporated elements of it into the Final Permit-along with the relevant components of the Rapid Stream Assessment Program established in 2019. The following Table provides an overview of the water quality assessment elements.

Overview of the Water Quality Assessment Program

<b>Monitoring Element</b>	<b>Frequency</b>
Wet Weather Monitoring	3 events each year
Dry Weather Screening	On a rolling basis so that each outfall is inspected once in the permit term
Macro-invertebrates	Every other Year
Habitat	Part of the RSA for each stream reach at least once during the permit term
Geomorphology	Part of the RSA for each stream reach at least once during the permit term
Receiving Water Quality	Once each month
Trash Traps	4 times each year
Trash Transects	Twice each year

<sup>12</sup> See *Revised Monitoring Program*, To meet the requirements of the District Department of Environment’s NPDES permit, May 2015, [https://dcstormwaterplan.org/wp-content/uploads/DDOE\\_Revised\\_Monitoring\\_Program\\_DRAFT\\_FINAL\\_050815.pdf](https://dcstormwaterplan.org/wp-content/uploads/DDOE_Revised_Monitoring_Program_DRAFT_FINAL_050815.pdf)

## 4.2 Wet Weather Discharge Monitoring

### 4.2.1 Pollutants, Collection Methods, and Frequencies

The Final Permit requires that wet weather discharge monitoring continue to be conducted for the same nine pollutants of concern noted in Table 7 of the Final Permit. These are the same nine pollutants that were monitored as pollutants of concern in the 2018 Final Permit and is consistent with the 2022 SWMP Plan that was submitted with the application.

The frequency of wet weathering monitoring also remains unchanged in the Final Permit. Federal regulations at 40 C.F.R. 122.26(d)(2)(iii)(A)(1) require that stormwater runoff at each of the identified outfalls be sampled from three storm events.

### 4.2.2 Associated *in situ* Sampling

This provision is unchanged from the 2018 Final Permit. The *in situ* sampling parameters included in the Final Permit are listed in the 2022 SWMP Plan that was submitted with the application. These are the same parameters that are listed in the 2018 Final Permit.

### 4.2.3 Sampling Locations

The selection of wet weather monitoring sites is based on several factors including the collection of long-term wet weather data for trend analysis, collection of data from sites that are representative of the District's discharges, and collection of data to support additional needs as identified over the course of the next permit cycle. Site selection resulted in three monitoring sites within each of the District's major watersheds (Anacostia River, Potomac River, and Rock Creek).

The Final Permit stipulates specific Continuous Record and Stratified Random sampling locations that are consistent with the 2022 SWMP Plan that was submitted with the application. EPA will also support additional adjustments to these locations should conditions (safety, accessibility, etc) warrant. All changes/substitutions must be appropriately justified and documented.

### 4.2.4 Qualifying Wet Weather Events

The Final Permit defines when wet weather sampling shall be conducted consistent with federal regulations that define an allowable storm event in 40 CFR §122.21 (g)(7)(ii) using the following criteria:

- The storm event must contain greater than 0.1 inches of precipitation.
- Each storm event must be at least 30 days apart from a previously sampled storm.



- Each storm event must be preceded by a period of 72 hours during which no more than 0.1 inch of precipitation has been recorded.
- The rainfall intensity of each storm event must be within 50% of the average median rainfall volume and duration for the region

#### 4.3 Rapid Stream Assessment Monitoring Program

In 2019, DOEE developed a Rapid Stream Assessment (RSA) Program. The intent of the RSA is to collect information to provide a high-level overview of the entire perennial, safely wadeable stream network within the District. This information can help identify potential issues as well as locations that may warrant follow-up inspections or more in-depth evaluations. The information from the RSA can also serve as a baseline against which to compare information from future assessments.

The Final Permit requires the Permittee to maintain the RSA and complete the evaluation of all accessible stream reaches in the District by the end of the five-year permit term. The Final Permit also requires the Permittee to develop a QAPP by the end of the first year of permit coverage separately from the document required in section 4.4.1.1 to support other receiving water assessments.

##### 4.3.1 – 4.3.2 Geomorphology and Habitat Assessments

These Sections require the Permittee to conduct evaluations of geomorphology and habitat in conjunction with the RSA program that was established in 2019. According to the RSA, each stream reach in the District shall be assessed every five years. These assessments of changes in the in-stream geomorphology and evaluation of physical habitat metrics will assist the District to achieve the goal of collection of data and basic information on the health and integrity of the District's waters and related aquatic ecosystems.

#### 4.4 Receiving Water Assessments

Discharge data alone do not provide a full picture of the ecological health of receiving waters, thus the need to evaluate in-stream variables. The Permittee's monitoring program must continue to include evaluations of habitat, macroinvertebrates, and geomorphology, as well as in-stream water quality monitoring. Macroinvertebrate communities must be assessed every other year. Habitat and geomorphology must be assessed once per permit term. Baselines for each of these variables were established during the 2018 permit term and continues as a condition of the Final Permit so that these indicators can continue to be evaluated and tracked over the long-term as part of the evaluation of the health of receiving waters and the effectiveness of the MS4 program.

The Permittee is also required to continue to conduct in-stream water quality sampling monthly for total nitrogen, ammonia, nitrite, nitrate, total phosphorus, orthophosphate, copper, zinc, sulfate, pH, acid neutralizing capacity, dissolved oxygen, specific conductance, and

hardness. Continuing the collection and analysis for these parameters from the 2018 permit term should provide information for the Permittee to acquire a solid assessment of water quality in District receiving waters.

#### 4.4.2 Receiving Water Quality Sampling

The Final Permit includes the following quality sampling parameters to be used as indicators of in-stream water quality: total nitrogen, total phosphorus, *E. coli*, total suspended solids, water temperature, dissolved oxygen, and conductivity. EPA underscores that this particular element of the monitoring program is not to track specific pollutants (see Sections 4.2, 4.5, and 4.6 of the Final Permit for those objectives), but to characterize the general health of the receiving waters as efficiently as possible. These parameters are intended to be indicator pollutants and will not be used for estimates of loading or to identify specific types or sources of discharges.

Note that chloride has been omitted from Table 9 as a sampling parameter. After discussions with the Permittee, EPA concluded that it is not necessary to sample for chloride for the following reasons:

1. DOEE has been including and will continue to include conductivity as a sampling parameter in its ambient stream monitoring program to assist in evaluating against its narrative criterion. Measuring conductivity is frequently used as a surrogate for chloride concentrations in streams, and numerous scientific studies have shown strong correlations between the two. A requirement to measure both conductivity and chloride seems redundant.
2. Measuring chloride in receiving waters requires expensive and time-intensive laboratory analyses. In contrast, conductivity is easily and quickly measured in situ with hand-held water quality sensors. Because conductivity can be a surrogate for chloride concentrations, the cost to measure chloride in addition to conductivity is unwarranted from an economic and budgeting standpoint.
3. DOEE's ambient monitoring program conducts sampling in District streams and rivers on a monthly schedule. While this data provides valuable insight into long-term trends, the potential for "flashy" elevated inputs of chloride during winter months is likely being missed. To better characterize these events, DOEE is developing a continuous conductivity sensor network. Last fall, DOEE installed continuous conductivity sensors in 4 streams (Battery Kemble, Luzon Branch, Piney Branch, and Fort Dupont tributary) and is planning to add additional sensors in other waterbodies over the next few years as funding allows. Not only will this network of continuous sensors provide a better picture of road salt loading into streams during winter months, but it will also provide valuable information about elevated ion constituents in District waterbodies throughout the year.

#### 4.4.3 Benthic Macroinvertebrate Sampling

This Section is unchanged from the 2018 Final Permit and continues to align with the Permittee's 2016 *Revised Monitoring Program*, approved by EPA in 2016.

#### 4.5 Dry Weather Screening and Source Identification

Many of the elements and requirements of the dry weather screening program were established in prior permits as part of the District's program to detect and eliminate illicit discharges to, from, or through the MS4. Methods, schedules, priority systems, and follow-up protocols of the base program are largely unchanged in the Final Permit.

##### 4.5.2 Bacteria Source Reduction Activities

The 2018 Final Permit required the Permittee to conduct a Bacteria Source Tracking study to identify sources of *E. coli* in the MS4 area where WLAs have not yet been attained (also see Fact Sheet discussion on Subsection 2.2.2.1). DOEE initiated separate sampling studies to do microbial source tracking (MST) of bacteria sources in its Rock Creek and Anacostia watersheds during the 2018 permit term. The study in the Anacostia watershed included a cooperative partnership with EPA's Office and Research and Development which investigated the correlation between combining genetic fecal source identification methods with land use GIS mapping to improve management of bacteria-impaired urban streams impacted by discharges from stormwater outfalls. EPA feels that it is important to continue the efforts to identify specific sources of bacteria to attain WLAs at a more rapid pace; therefore, the Final Permit includes both planning requirements to continue to update milestones and benchmarks in Section 2.2.2.1 and implementation efforts discussed below.

The results of the EPA study as explained in published manuscript<sup>13</sup> indicated that both human and animal waste contribute to poor water quality in certain areas of the District. Based on the results of the study, which included samples performed in the seven catchments identified in the map below, the Final Permit requires the Permittee to implement additional activities to assist in achieving *E. coli* reductions. First, the permit requires the Permittee to conduct illicit discharge investigations for both the Fort Dupont and Fort Chaplin catchments, since surface water quality sampling (the locations of which are indicated by the red arrows in the map below) showed *E. coli* levels that exceeded the local *E. coli* single sample maximum assessment level of 410 MPN/100 ml in 67% and 48% of the samples, respectively-including during periods of dry weather. (see Fig. 3 below)

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<sup>13</sup> <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0278548>

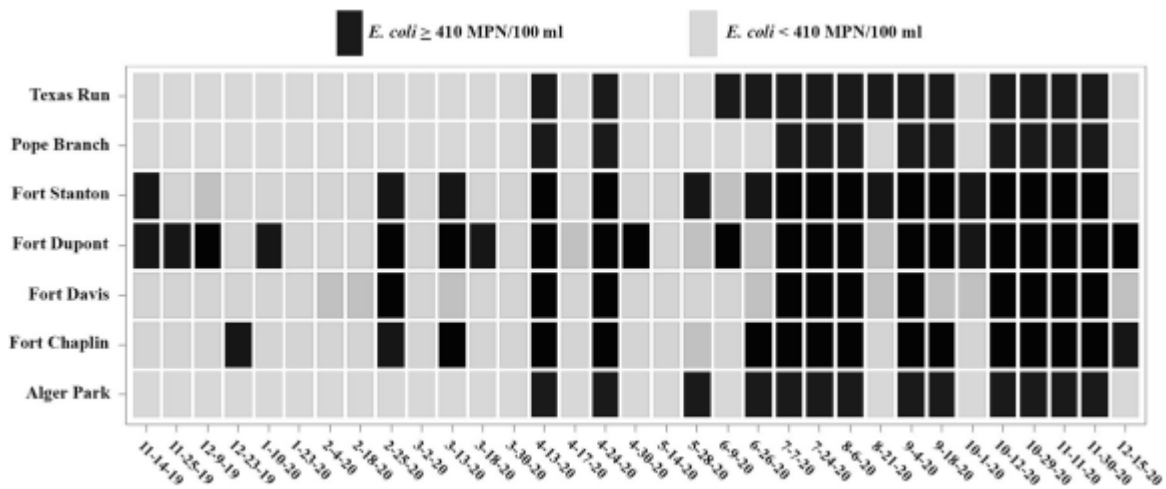
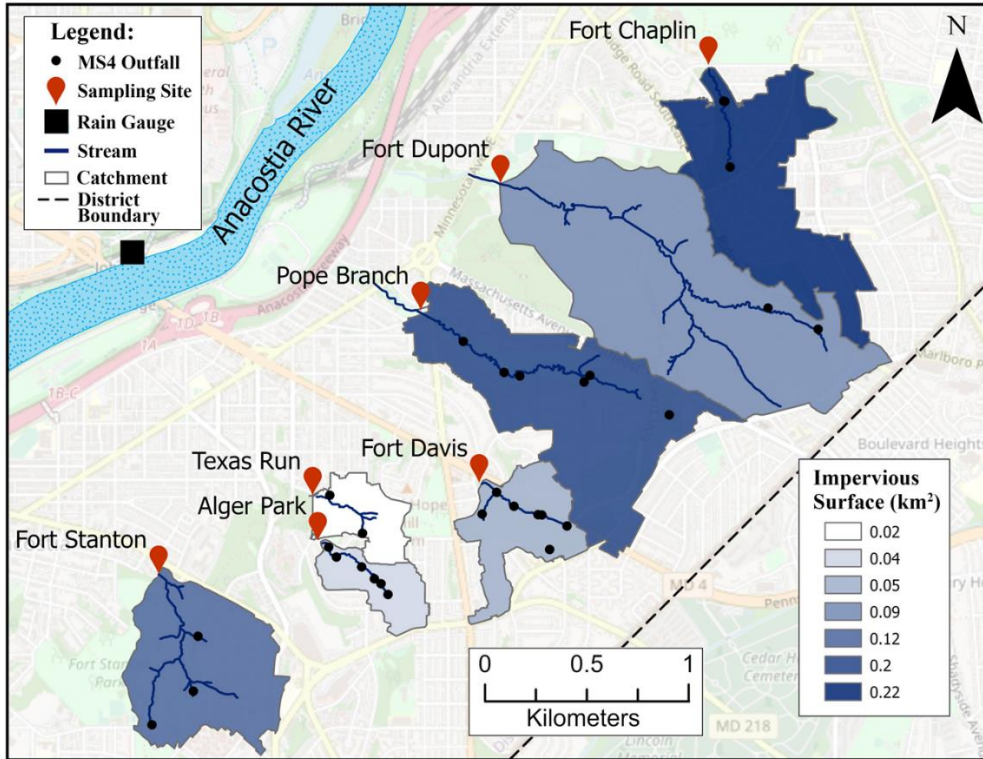
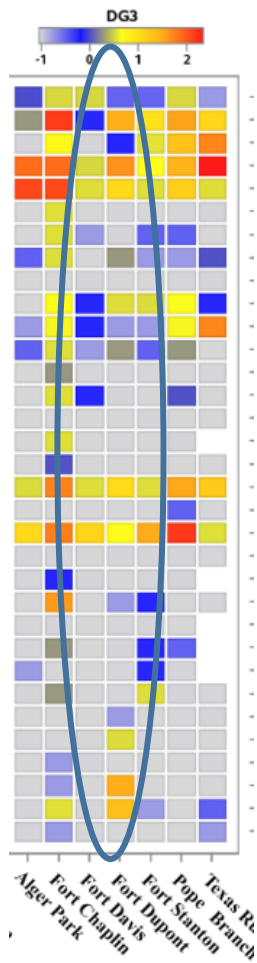


Fig 3. Samples that exceeded the local single sample maximum of *E. coli* 410 MPN/100 ml.

The permit further requires the Permittee to conduct targeted pet waste education and outreach to the residents in the Fort Chaplin catchment area, since sampling results (as seen in the heat map below) showed the most frequent and highest levels of dog waste genetic markers in the Fort Chaplin catchment.

Both the Fort Chaplin and Fort Dupont catchments are located in high Demographic Index areas as identified on EPA’s EJ Screen. They are also located in Ward 7, which has a high minority population and is an area where the number of families living in poverty is twice the District’s

overall rate. Therefore, the efforts to determine the sources of bacteria in these areas also addresses the issue of environmental justice.



Additionally, the attachment to the 2022 MS4 Annual Report included a description of the results of a 12-month study using MST to determine likely sources of fecal contamination in the Rock Creek watershed. Based on the results of that study, the permit requires an illicit discharge investigation of the land draining to the Broad Branch monitoring station within two years of the effective date of the permit, since the sampling results showed that the marker for human waste was detected in 100% of the samples taken from the Broad Branch site-which included 78 samples taken during dry weather.

#### 4.6 Trash Monitoring

During the previous permit term, the Permittee participated in a multi-jurisdictional collaboration of MS4 communities subject to the Anacostia Trash TMDL. That work group established monitoring protocols to align metrics for tracking and reporting on trash reduction and removal. As such, the Permittee proposed a revised monitoring approach for trash, which EPA previously approved. The Final Permit requires the Permittee to continue to sample trash from all trash traps at least 4 times per year for weight and counts of different types of trash.

In addition, the Permittee is also required to conduct transect monitoring at 13 locations in the Rock Creek, Potomac River, and Anacostia River watersheds twice a year. Data on trash count will be collected at all 13 sites.

These data shall be used for the assessment of compliance with the Anacostia Trash TMDL WLA, and the effectiveness of the District's bag fee and targeted source control efforts. The Permittee may also use these data to inform future policy decisions regarding trash reduction.

#### 4.7 Data Synthesis

As noted above, the primary reason for continuing the Permittee's water quality assessment program is to ensure that there are data of sufficient type and amount to support meaningful interpretations and come to reasonable conclusions about the effectiveness of water quality programs and the status of receiving waters. To that end, the selection of meaningful indicators and the appropriate interpretation of those indicators is very important.

There are two basic categories of indicators for the Permittee's stormwater management program. The Final Permit requires that the Permittee provide a synthesis of what these indicators reveal:

*Programmatic Indicators* are metrics to evaluate specific aspects of program implementation such as numbers/types of control measures installed, number of inspections performed, or number of illicit connections identified and corrected. Because of the multi-faceted nature of the Final Permit and the Permittee's stormwater management program, there are numerous programmatic indicators (see Annual Reporting Template, and the discussion below).

*Watershed Indicators* are metrics used to evaluate specific aspects of ecological health, such as macroinvertebrate community diversity, geomorphological indices, or water quality data. The Water Quality Assessment program outlined in Part 4 of the Final Permit identifies the indicators that have been selected for the Permittee's program, including the pollutants of concern and the physical and biological variables being assessed on a regular basis.

Collectively these indicators provide the foundation for evaluating both short-term and long-term water quality patterns, as well as how well water quality protection programs are functioning. The Final Permit requires that the Permittee continue to estimate annual pollutant loadings for the identified pollutants of concern (4.7.2.1); estimate annual progress towards all numeric limits (4.7.2.2); and, using all data and information collected per the water quality assessments, continue to implement the suite of long-term indicators to be used to assess both outfall and receiving water quality (4.7.2.3).

The Final Permit requires that the Permittee provide, in each annual report, a short synthesis of areas of the program deemed effective with ongoing effort, and areas where additional strategies are needed to effectively tackle certain pollutants or sources. The conclusions must be supported by the indicators (4.7.3.1).

The Permittee must also provide a synopsis of progress towards meeting all WLAs attributed to the DC MS4. The Permittee must also update the SWMP with elements of the program that will be enhanced to make timely progress towards the water quality objectives of the draft permit and towards meeting District water quality standards (4.7.3.2).

#### 4.8 Data Management

The Final Permit includes a requirement for maintenance and proper stewardship of database systems to ensure the long-term integrity of information and effective and nimble data storage, management, and retrieval.

### Part 5. REPORTING REQUIREMENTS

Reporting requirements consist of three basic elements: (1) annual submittal of discharge monitoring reports, (2) preparation and submittal of MS4 annual reports, and (3) keeping information readily available to the public.

#### 5.1 Discharge Monitoring Reports

The Final Permit requires that all discharge monitoring be reported electronically to EPA via NetDMR in Discharge Monitoring Reports.

#### 5.2 Annual Reporting to EPA

EPA has aligned reporting periods for the Final Permit with reporting periods for the Chesapeake Bay TMDL. Because the Permittee must calculate implementation and pollutant reductions for many of the same activities for both purposes, it is only logical to align reporting periods, i.e., July 1 through June 30. The first annual report will be due December 1, 2024, which will cover the period from the date the permit is effective until June 30, 2024. The Final Permit requires that annual reports be submitted to EPA, and posted on the District website, no later than December 1 of each year.

EPA notes that federal electronic reporting requirements for NPDES MS4 annual reports are expected to go into effect during this permit term, which may necessitate a change in the reporting requirements of the Final Permit to ensure consistency with the regulations.

In the Final Permit, EPA is continuing the practice for the Permittee to submit an electronic PDF form to EPA until such a time that the permittee is required to submit the Annual Report via EPA's NeT system, which is currently under development.

### 5.3 Reporting to the Public

Providing information to interested stakeholders and the general public on the activities and outcomes of the stormwater management program is vitally important. EPA received a number of comments during the public notice period for the 2018 Final Permit that the public desires additional information not only on specific activities, but also on water quality in District receiving waters. Therefore, EPA is continuing to include the following requirements in this Final Permit, as outlined in the following discussions.

#### 5.3.1 MS4 Annual Report Story Map

During the last permit term, the Permittee was required to develop a new Web-based Graphical Interface to provide a wide array of information to the public in an easily accessible format. DOEE created the MS4 Annual Report Story Map to comply with this provision of the 2018 Final Permit. This Final Permit includes a provision to continue to implement a graphical interface (Story Map) that shall include the following types of information linked through a GIS-referenced set of maps: locations of all stormwater control measures in the MS4 Permit Area, sortable by type/function, drainage area, storage volume, and installation date; data on stormwater retention credits certified in the MS4 Permit Area; statistics on implementation of specific types of control measures such as green roofs and trees; TMDL WLAs by stream segment and by pollutant; and monitoring locations linked to monitoring data. The Permittee will continue to refine this system over time and to supplement the information with additional data and other multimedia content as it becomes available.

The 2018 Final Permit also required the Permittee to make the Story Map available to the public within one month of the submittal of the Annual Report. This requirement has been changed from one to two months in the Final Permit to allow for DOEE proper timing to fulfill its obligation. With the Annual Report being due December 1, and hectic staff schedules around the holidays, EPA felt this was an acceptable change.

#### 5.3.2 Website Information Repository

This provision is unchanged from the 2018 Final Permit.

#### 5.3.3 Permit Limit and Benchmark Progress

The Permittee shall publicly report on annual progress toward all numeric limits in the Final Permit and all benchmarks in the TMDL IP in a readily understandable format. The Permittee may include this progress as part of its MS4 Annual Report Story Map (5.3.1), on the DOEE website (5.3.2), or, as part of annual reports (5.2) or other assessments, as long as the public is able to understand and track progress.



## Part 6. STANDARD PERMIT CONDITIONS FOR NPDES PERMITS

Pursuant to 40 C.F.R. § 122.41, “[a]ll conditions applicable to NPDES permits shall be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to these regulations (or the corresponding approved State regulations) must be given in the permit.”

## Part 7. OTHER REQUIREMENTS

### 7.1 National Historic Preservation Act

In June 2023, EPA concluded consultation under the National Historic Preservation Act Section 106 with respect to the DC MS4 Permit. The District of Columbia Historic Preservation Office (HPO) provided a finding of no adverse effect for the issuance of the permit and reiterated conditions from its March 2016 determination for the proposed finding. EPA has included that same recommended language in the Final Permit to incorporate the applicable conditions.

### 7.2 Endangered Species Act

In 2023, EPA completed consultation under the Endangered Species Act (ESA) Section 7 with respect to the DC MS4 Permit. The National Marine Fisheries Service concurred via letter dated March 31, 2023, with EPA’s conclusion that the Final Permit is not likely to adversely affect any ESA listed species and/or designated critical habitat. The U.S. Fish and Wildlife Service concurred via letter dated May 16, 2023, that the Final Permit will have no effect on the long-eared bat and is not likely to adversely affect the Hay’s spring amphipod.

The Biological Evaluation and correspondence with the Services on the consultation is included in the Administrative Record for this draft permit.

### 7.3 Environmental Justice Considerations

On his first day in office, President Biden signed an Executive Order directing all federal agencies to incorporate equity into their programs and services to ensure the consistent and systematic fair, just, and impartial treatment of all individuals. EPA is working on immediate and affirmative steps to better infuse equity and environmental justice principles and priorities into our practices, policies, and programs, including the NPDES program. Some of the topics that NPDES permitting authorities and permittees can tailor to help disproportionately affected communities include BMP retrofit opportunities, public outreach and education programs, and funding sources.

An important aspect of environmental justice is making sure that underserved populations are represented. To reach these important parts of the community, when the draft TMDL IP and SWMP were developed by DOEE as part of the application for this permit, EPA

provided notice via email to Advisory Neighborhood Commissions impacted by the MS4, to offer additional public outreach to those communities that may not have historically provided input into the stormwater program. The same method was used to distribute the draft permit and its associated documents for both the first and second public notice and comment periods to ensure that all DC residents were able to provide feedback during the public notice and comment period.

In 2021, the Water Quality Division at DOEE performed an analysis of how BMPs are distributed as part of an effort to determine how to incorporate equity into District water quality programs. Using Montgomery County's Watershed Restoration Suitability & Equity Mapping Tools as an example, DOEE gathered data on BMPs required by the 2013 Stormwater Rule as well as BMPs implemented via DOEE's voluntary RiverSmart programs to analyze. The analysis focused on the Demographic Index that is part of EPA's EJ Screen tool, which identifies minority and low-income areas, which DOEE chose as the groups that are historically underserved and underrepresented in the District. This Final Permit requires the District to utilize the results of its BMP analysis to rank projects to implement in the future and prioritize those watersheds that shall be targeted for the projects/activities that are required by Section 3.2.11 of the Final Permit.

The Final Permit also requires the Permittee to develop a strategy by December 1, 2027 to support diversity, equity, inclusion, and justice into Clean Water Act objectives that impact the MS4 Permit Area. The Final Permit provides examples for the types of activities that can be considered, including:

- Incentives for implementation of voluntary BMPs in high Demographic Index areas
- Targeted outreach and education in underserved communities
- Priority for studies/projects required by the permit to be performed in underserved communities

#### 7.4 401 Certification

In accordance with CWA 401(a)(1), on March 23, 2023, EPA requested certification from the District of Columbia, via DOEE, that the permitted MS4 discharges will comply with applicable water quality requirements and set the reasonable period of time for certification at 60 days, expiring on May 22, 2023. On May 22, 2023, EPA received the District's 401 certification. Although the District's 401 certification included a condition, EPA determined, pursuant to 40 CFR 121.9(b), the District had waived that condition. As required by the federal regulations, EPA notified the District of that waiver on June 1, 2023.

In addition, in accordance with CWA 401(a)(2), on June 15, 2023, EPA provided notification to both Maryland and Virginia, as the water quality of those states may be affected by discharges from the DC MS4. Maryland and Virginia had until August 14, 2023 to determine

whether discharges from the DC MS4 will affect their water quality requirements and so notify EPA. EPA received a response from VADEQ on June 21, 2023, stating that they had no objections to the permit issuance. There was no response received from MDE. All correspondence related to 401 certifications and determinations are included in the Administrative Record for the Final Permit.

#### Part 8. PERMIT DEFINITIONS

Terms not specifically defined in the Final Permit or in Clean Water Act regulations, are meant to be interpreted as in common usage.

Terms added to the Final Permit that were not in the 2018 Final Permit include: “Conveyance System Piping Infrastructure” and “Total Maximum Daily Load”.

#### Appendix A. ANNUAL REPORT TEMPLATE

For the 2018 Final Permit, EPA developed an Annual Report Template in a fillable portable document format for ease of both preparation and review. The Annual Report Template is not an official EPA form and, as such, there is no requirement that the Permittee use it. However, the Permittee has used the form for the past four reporting periods and has indicated their preference for the simplified format. Whether the fillable form is used or not, the Final Permit requires that each annual report include the elements contained in the template.

The Annual Report Template for the Final Permit has been updated to include new provisions that were not applicable to the 2018 Final Permit and reflects changes to due dates and other specific data for the new activities required to be reported by the Final Permit.

EPA also notes that implementation of the new e-reporting requirements for MS4s may necessitate some modifications to the reporting requirements during this permit term and has included appropriate language in Section 5.2.2. See Electronic Reporting Rule, 80 Fed. Reg. 64064 (Oct. 22, 2015); see also 40 C.F.R. 122.22(e).

#### **VII. POINT OF CONTACT**

For additional information regarding this permit or any of the associated documents, please contact EPA Region III using the information below:

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