PERMIT FOR THE DISTRICT OF COLUMBIA
MUNICIPAL SEPARATE STORM SEWER SYSTEM

TABLE OF CONTENTS

1. DISCHARGES AUTHORIZED UNDER THIS PERMIT
   - 1.1 MS4 Permit Area
   - 1.2 Permittee
   - 1.3 Authorized Discharges
   - 1.4 Permittee Authorities and Obligations
     - 1.4.1 Permittee Legal Authority
     - 1.4.2 Permittee Laws, Regulations and Ordinances
     - 1.4.3 Permittee Fiscal Resources
   - 1.5 Discharge Limits
   - 1.6 Compliance Framework

2. STORMWATER MANAGEMENT PROGRAM PLANNING
   - 2.1 Elements of the Stormwater Management Program
   - 2.2 Total Maximum Daily Load (TMDL) Planning
     - 2.2.1 Revising TMDLs in Need of Revision
     - 2.2.2 Maintaining and Refining TMDL Databases and Modeling Tools
     - 2.2.3 Milestones and Benchmarks for the Next Permit Term
     - 2.2.4 Stormwater Fee Options Evaluation
     - 2.2.5 Cost/Benefit Analysis of Updating Stormwater Management Regulations
     - 2.2.6 Incorporate New or Revised TMDLs into the Consolidated TMDL Implementation Plan
     - 2.2.7 Adaptive Management of TMDL Implementation Strategies
     - 2.2.8 Keeping the Consolidated TMDL Implementation Plan Updated
   - 2.3 Inspection Strategy for Regulated On-site and Off-site Control Measures
   - 2.4 Public Right-of-Way Retrofit Planning
     - 2.4.1 Eliminating Exemptions for Certain Small Projects
     - 2.4.2 Public Right-of-Way Optimal Design
   - 2.5 Evaluation of Pollutant Reductions from Catch Basin Cleaning
   - 2.6 Development of Alternatives for Ice and Snow Management
   - 2.7 Flood and Climate Management Assessment
   - 2.8 Submittals to EPA
   - 2.9 Updated Stormwater Management Program Plan for the Next Permit Term
   - 2.10 Application for the Next Permit Term

3. STORMWATER MANAGEMENT PROGRAM IMPLEMENTATION
   - 3.1 On-Site Retention Standard
     - 3.1.1 Implementing the Standard for Development and Redevelopment Projects Greater than or Equal to 5,000 Square Feet
     - 3.1.2 Stormwater Retention Credit Program
     - 3.1.3 Implementing the Standard for Projects in the Public Right-of-Way
     - 3.1.4 Implementing the Standard for Substantial Improvement Projects

3.1.5 Stormwater Management Guidebook
3.1.6 Green Area Ratio Program
3.2 Retrofit Program for Existing Discharges
3.2.1 Retrofits of Impervious Surfaces
3.2.2 RiverSmart Programs
3.2.3 Green Roofs
3.2.4 Tree Canopy
3.2.5 Stream, Buffer and Floodplain Restoration
3.3 Municipal Operations
3.3.1 Response to Sanitary Sewer Overflow to the MS4
3.3.2 Industrial Activities at Municipal Operations
3.3.3 Pesticide, Herbicide and Fertilizer Use
3.3.4 Catch Basin Operation and Maintenance
3.3.5 Storm Drain Outfall Operation and Maintenance
3.3.6 Street Sweeping
3.3.7 Transportation and Utility Construction Activities
3.3.8 Snow and Ice Management
3.4 Critical Sources
3.4.1 Inventory of Critical Sources and Source Controls
3.4.2 Maintenance of Stormwater Management Controls
3.4.3 Inspection of Critical Sources
3.4.4 Compliance Assurance
3.5 Construction Activities
3.5.1 Erosion and Sediment Control Regulations
3.5.2 Plan Review and Approval
3.5.3 Inspections
3.5.4 Enforcement
3.6 Illicit Discharges and Illegal Disposal
3.6.1 Illicit Discharges
3.6.2 Illegal Disposal
3.7 Targeted Pollutant Controls
3.7.1 Trash Prevention and Removal
3.7.2 Plastic Shopping Bag Fee
3.7.3 Polystyrene Foam Food Containers Ban
3.7.4 Coal Tar Ban
3.7.5 Restriction on Phosphorus in Lawn Fertilizers
3.7.6 Hazardous Waste Collection
3.7.7 Leaf and Yard Waste Collection
3.8 Operation and Maintenance of Stormwater Control Measures
3.8.1 District-Operated Stormwater Control Measures
3.8.2 Non-District-Operated Stormwater Control Measures
3.9 Stormwater Training
3.10 Public Outreach and Education
3.10.1 Website
3.10.2 Targeted Public Education

4. WATER QUALITY ASSESSMENT
- 4.1 Water Quality Assessment Program
  - 4.1.1 Assessment Program Objectives
  - 4.1.2 Assessment Program Overview
  - 4.1.3 Requirements Common to all Assessment Program Elements
- 4.2 Wet Weather Discharge Monitoring
  - 4.2.1 Pollutants, Collection Methods and Frequencies
  - 4.2.2 Associated *in situ* Sampling
  - 4.2.3 Sampling Locations
  - 4.2.4 Qualifying Wet Weather Events
- 4.3 Receiving Water Assessments
  - 4.3.1 Establishing a Receiving Waters Assessment Program and Baselines
  - 4.3.2 Water Quality
  - 4.3.3 Benthic Macroinvertebrates
  - 4.3.4 Geomorphology
  - 4.3.5 Habitat
- 4.4 Dry Weather Screening and Source Identification
  - 4.4.1 Identifying Dry Weather Flows and Sources
  - 4.4.2 Bacteria Source Tracking
- 4.5 Trash Monitoring
  - 4.5.1 Trash Trap Monitoring
  - 4.5.2 Transect Monitoring
- 4.6 Data Synthesis
  - 4.6.1 Programmatic Indicators
  - 4.6.2 Watershed Indicators
  - 4.6.3 Assessing Strengths and Weakness of the Program
- 4.7 Data Management
  - 4.7.1 Database Organization
  - 4.7.2 Data Stewardship

5. REPORTING REQUIREMENTS
- 5.1 Keeping Information Publicly Available
  - 5.1.1 Program Status on the District Stormwater Website
  - 5.1.2 Milestone and Benchmark Progress
  - 5.1.3 Posting Annual Reports
- 5.2 Discharge Monitoring Reports
- 5.3 Annual Reports
  - 5.3.1 Annual Report Schedule
  - 5.3.2 Annual Report Template
  - 5.3.3 Signature and Certification

6. STANDARD PERMIT CONDITIONS FOR NPDES PERMITS
- 6.1 Incorporation by Reference
- 6.2 Duty to Comply
- 6.3 Duty to Reapply
- 6.4 Duty to Mitigate

6.5 Proper Operation and Maintenance
6.6 Permit Actions
6.7 Property Rights
6.8 Duty to Provide Information
6.9 Inspection and Entry
6.10 Monitoring and Records
6.11 Signatory Requirement
6.12 Reporting Requirements
6.13 Upset

7. OTHER REQUIREMENTS
7.1 National Historic Preservation Act
7.2 Endangered Species Act

8. PERMIT DEFINITIONS

APPENDIX A Annual Report Template

TABLES

TABLE 1 Numeric Milestones in Acres Managed for this Permit Term (Part 1.5.3.1)
TABLE 2 SWMP Elements to be submitted to EPA and/or to Public Notice (Part 2.8)
TABLE 3 Street Sweeping Miles per Year (Part 3.3.6)
TABLE 4 Training for District Employees, Contractors, Subcontractors, Agents and Stakeholders Implementing District Stormwater Regulations (Part 3.9)
TABLE 5 Public Education Initiatives and Metrics (Part 3.10.2)
TABLE 6 Overview of the Water Quality Assessment Program (Part 4.1.2)
TABLE 7 Monitoring and Assessment Records Retention (Part 4.1.3.4)
TABLE 8 Wet Weather Discharge Sample Parameter and Collection Methods (Part 4.2.1)
TABLE 9 Sampling Locations for Wet Weather Discharge Monitoring (Part 4.2.3)
TABLE 10 Associated Factors in the Receiving Water Assessment (Part 4.3.1.8)
TABLE 11 Receiving Water Quality Sampling Parameters (Part 4.3.2.1)

1. DISCHARGES AUTHORIZED UNDER THIS PERMIT

1.1 MS4 Permit Area

This permit covers all areas within the jurisdictional boundary of the District of Columbia (DC, District or Permittee) served by or contributing to discharges from the Municipal Separate Storm Sewer System (MS4) owned or operated by the District of Columbia. This permit also covers all areas served by or contributing to discharges from MS4s owned or operated by other entities within the jurisdictional boundaries of the District of Columbia unless those areas have separate coverage under a National Pollutant Discharge Elimination System (NPDES) MS4 permit. Hereinafter these areas collectively are referred to as the "MS4 Permit Area".

1.2 Permittee

The "permittee" is the Government of the District of Columbia, including all departments, agencies and authorities.

1.3 Authorized Discharges

This permit authorizes all stormwater point source discharges to waters of the United States to, from and through the District of Columbia's MS4 that comply with the requirements of this permit. This permit also authorizes the discharge of stormwater commingled with flows contributed by process wastewater, non-process wastewater, or stormwater associated with industrial activity provided such discharges are authorized under separate NPDES permits.

The receiving waters to which the permittee is authorized to discharge are: the Potomac River, Anacostia River, Rock Creek and tributaries to each such waterbody.

This permit authorizes the following non-stormwater discharges to the MS4 but only when the specified conditions have been met: discharges resulting from clear water flows, roof drainage, dechlorinated water line flushing, landscape irrigation, ornamental fountains, diverted stream flows, rising ground waters, uncontaminated ground water infiltration to separate storm sewers, uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation waters, springs, footing drains, lawn watering, individual resident car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, wash water, emergency firefighting activities. Such non-stormwater discharges to the MS4 are only authorized where: (1) appropriate stormwater activities and controls required by this permit have been applied; (2) such discharges are managed so that water quality is not further impaired; and (3) the requirements of the federal Clean Water Act, 33 U.S.C. §§ 1251 *et seq.* (CWA or Clean Water Act), and EPA regulations are met.

For any municipal activity associated with industrial activity, as defined by 40 C.F.R. § 122.26, which discharges stormwater to, from and through the DC MS4, the permittee shall obtain separate coverage under either: (1) the EPA Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP); or (2) an individual NPDES permit.

1.4 Permittee Authorities and Obligations

1.4.1 Permittee Legal Authority

The permittee shall use its existing legal authority to control discharges to and from the MS4 in order to prevent or reduce the discharge of pollutants to achieve water quality objectives, including but not limited to, applicable water quality standards, and all provisions of this permit.

1.4.2 Permittee Laws, Regulations and Ordinances

The permittee shall review and revise, where applicable, building, health, road and transportation, and other codes, standard operating procedures, regulations and ordinances to remove barriers to, and to facilitate the implementation of the following: (1) standards resulting from issuance and implementation of District stormwater regulations; and (2) performance standards and other requirements of this permit.

Nothing in this permit shall be construed to preclude the institution of any legal action or to relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable District law, regulation or ordinance identified herein. In the case of "exemptions and waivers" or other exceptions to coverage under District law, regulation or ordinance, Federal law and regulation shall be controlling.

1.4.3 Permittee Fiscal Resources

The permittee shall 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, for which the District shall maintain a dedicated funding source.

1.5 Discharge Limits

The permittee must manage, implement and enforce a stormwater management program (SWMP) in accordance with the Clean Water Act and corresponding stormwater NPDES regulations, 40 C.F.R. Part 122, to meet the following requirements:

1.5.1 Effectively prohibit non-stormwater discharges to, from and through the MS4, except those authorized by Part 1.3 herein and those authorized by another NPDES permit.

1.5.2 Effectively prohibit pollutants in stormwater discharges or other unauthorized discharges to, from and through the MS4 as necessary to comply with existing District of Columbia Water Quality Standards (DCWQS).

1.5.3 Attain applicable wasteload allocations (WLAs) for each established or approved Total Maximum Daily Load (TMDL) for each receiving water body consistent with federal requirements at 33 U.S.C. § 1342(p)(3)(B)(iii) and 40 C.F.R. § 122.44(k)(2)-(3) by achieving the

following collective numeric WLA attainment milestones established as limits and schedules for this permit term:

1.5.3.1 To be attained by the end of this five-year permit term, a collective reduction in all TMDL pollutants of concern other than trash, per all requirements of Part 3 herein:

TABLE 1
Numeric Milestones in Acres Managed for this Permit Term

Major Basin	**5-Year Milestones (Acres Managed)**
Anacostia River	552
Potomac River	335
Rock Creek	151
Total	**1,038**

At a minimum, 46 of the total acres managed shall come from retrofits in the Public Right-of-Way (PROW), in any balance of watersheds across the District.

1.5.3.2 To be attained annually by the anniversary of permit issuance, in every year of this permit term, per the requirements of Part 3.8.1:

Remove 103,188 pounds of trash from the Anacostia River Basin.

1.5.4 Comply with all other provisions and requirements contained in this permit, and in plans, schedules and other deliverables required by this permit.

1.6 Compliance Framework

Compliance with all provisions contained in this permit, including milestones and final dates for attainment of applicable WLAs, shall constitute adequate progress toward compliance with DCWQS and WLAs for this permit term.

2. STORMWATER MANAGEMENT PROGRAM PLANNING

2.1 Elements of the Stormwater Management Program

The Stormwater Management Program (SWMP) required by this permit has been determined to reduce the discharge of pollutants to the maximum extent practicable for this permit term. All existing and new strategies, initiatives, schedules, actions and programs required by this permit are elements of the Stormwater Management Program. The permittee may combine some or all of the necessary strategies into a single SWMP document, or may maintain elements as separate documents.

The permittee shall continue to implement, assess and upgrade all of the controls, procedures and control measures required by this permit and in the plans that comprise the SWMP. The permittee shall ensure that updates to plans and strategies are consistent with all compliance requirements and deadlines contained in this permit. The permittee shall post current versions of all plans that comprise the SWMP on its website at an easily identifiable location at all times.

2.2 Total Maximum Daily Load (TMDL) Planning

2.2.1 Revising TMDLs in Need of Revision

2.2.1.1 No later than September 1, 2017 the permittee shall submit to EPA and post on the District website a list of TMDLs in need of revision, along with a schedule for the revisions that includes intensive monitoring to support such revisions.

2.2.1.2 Following submittal to EPA, the permittee shall immediately commence implementation of the scheduled TMDL revisions.

2.2.2 Maintaining and Refining TMDL Databases and Modeling Tools

The permittee shall continue to update the Consolidated TMDL Implementation Plan modeling tool and associated databases, which shall be used in development of revised plans, schedules or strategies. The modeling tool shall also be used to provide consistent tracking of progress against milestones and benchmarks. WLA milestone and benchmark databases shall be accessible through a graphical user interface for effective utilization by multiple audiences including the public.

2.2.3 Milestones and Benchmarks for the Next Permit Term

2.2.3.1 Using information from the Bacteria Source Tracking study required in Part 4.4.2 herein, the permittee shall develop new milestones and benchmarks for implementing controls to attain *E. coli* WLAs. No later than June 1, 2019 the permittee shall make available for public notice and comment the results of the Bacteria Source Tracking study, along with the new proposed milestones and benchmarks. No later than October 1, 2019, the permittee shall submit this package to EPA for review and approval. Upon submission of this package to EPA, the permittee shall begin immediate implementation of controls on sources of *E. coli*. Should the permittee opt to revise any of the bacteria TMDLs per Part 2.2.1, the Bacteria Source Tracking study elements will be included in those revised TMDLs, and the schedule for the study and revised milestones and benchmarks will be revised by EPA accordingly.

2.2.3.2 Other than for TMDLs identified in Part 2.2.1 as scheduled for revision, the permittee shall develop a Legacy Pollutant Minimization Plan for the following TMDL pollutants: chlordane, heptachlor epoxide, dieldrin, DDT, DDE, DDD and PCBs. The Legacy Pollutant Minimization Plan shall include measures to confirm that these legacy pollutants are largely *in situ* in the sediments of receiving streams rather than in ongoing MS4 discharges. If ongoing discharges are identified, the Legacy Pollutant Minimization Plan shall include a strategy

to identify and eliminate sources of such legacy pollutants. The permittee shall develop new milestones and benchmarks for these legacy pollutants for implementing controls to attain relevant MS4 WLAs. The permittee shall make this plan available for public notice and comment no later than 3 months prior to the due date of the 2020 Annual Report. The permittee shall include this Legacy Pollutant Minimization Plan with the 2020 Annual Report for EPA review and approval.

2.2.3.3 During this permit term, the permittee shall develop a list of targeted watersheds and targeted implementation approaches to be implemented in the following permit term, and incorporate them into the Consolidated TMDL Implementation Plan, which shall be made available for public notice and comment and submitted to EPA per the schedule in Part 2.8 herein. The revised Consolidated TMDL Implementation Plan shall include new milestones and benchmarks for TMDLs that have been modified, for *E. coli* and legacy pollutants, as relevant, and shall also address and incorporate any comments received from EPA.

2.2.4 Stormwater Fee Options Evaluation

The permittee shall submit to EPA with the 2019 Annual Report an evaluation of options for increasing the District's Stormwater Fee. The evaluation shall include an assessment of how the Stormwater Fee works in tandem with other financing options such as the Stormwater Retention Credit Purchase Agreement Program, incentive programs and regulatory requirements. If the permittee determines, per the assessment, that an increase in the District's Stormwater Fee is feasible, the permittee shall propose an increase. The results of this stormwater fee options evaluation shall be included as a component of the updated Stormwater Management Program, that is made available for public notice and comment and submitted to EPA per the schedule in Part 2.8 herein.

2.2.5 Analysis of Updating Stormwater Management Regulations

2.2.5.1 The permittee shall submit to EPA, together with the 2019 Annual Report, an analysis of potential changes to existing stormwater management regulations. The analysis shall explore options identified in the Consolidated TMDL Implementation Plan, such as increasing the on-site stormwater retention volume to 2 inches, lowering the threshold for regulated projects, and/or applying the standard to priority watersheds. The assessment shall include and consider projections of how changes to climate will potentially alter precipitation and runoff amounts, intensities and patterns in the District.

2.2.5.2 Should the analysis required herein indicate that changes to the stormwater management regulations are feasible and warranted, the permittee shall develop the following: an implementation strategy, which includes public outreach; schedules that may include phasing; and other variables. This analysis and the strategy, if applicable, must be included as a component of the updated Stormwater Management Program that is made available for public notice and comment and submitted to EPA per the schedule in Part 2.8 herein.

2.2.6 Incorporate New or Revised TMDLs into the Consolidated TMDL Implementation Plan

2.2.6.1 The permittee shall update the Consolidated TMDL Implementation Plan within 6 months of EPA approval of any new or revised TMDL to include:

a. A specified schedule for attainment of WLAs that includes final attainment dates and, where applicable, interim milestones and numeric benchmarks.
   i. Numeric benchmarks shall specify annual pollutant load reductions and the extent of control actions to achieve these numeric benchmarks.
   ii. Interim milestones shall be included where final attainment of applicable WLAs requires more than five years. Milestone intervals shall be as frequent as possible but shall in no case be greater than five (5) years.

b. Demonstration using modeling of how each applicable WLA shall be attained using the chosen controls, by the date for ultimate attainment.

c. An associated narrative providing an explanation for the schedules and controls included in the Consolidated TMDL Implementation Plan.

2.2.6.2 Unless and until an applicable TMDL is no longer in effect (*e.g.,* withdrawn, reissued or the receiving water is delisted), the Consolidated TMDL Implementation Plan must include all elements of Part 2.2.6.1 herein for each TMDL as approved or established.

2.2.7 Adaptive Management of TMDL Implementation Strategies

Should implementation fall short of any milestone or benchmark stipulated in this permit, the permittee shall make appropriate adjustments to the Consolidated TMDL Implementation Plan and commence revised implementation within 6 months, unless EPA approves a written request from the permittee for a different schedule. The Plan modification shall include a description and implementation schedule for the additional controls to achieve the incorporated milestones.

2.2.8 Keeping the Consolidated TMDL Implementation Plan Updated

2.2.8.1 The permittee shall ensure that the most current version of the Consolidated TMDL Implementation Plan is posted on the District website at all times.

2.2.8.2 The permittee shall include a fully updated Consolidated TMDL Implementation Plan, including new assessments and strategies, as a component of an updated Stormwater Management Program, that is public noticed and submitted to EPA per the schedule in Part 2.8 herein.

2.2.8.3 No later than 15 months prior to the expiration date of this permit, the permittee shall make available for public notice and comment a fully updated Consolidated TMDL Implementation Plan addressing all of the elements required in this permit. No later than 270 days (9 months) prior to the expiration date of this permit, the permittee shall submit to EPA the fully updated Consolidated TMDL Implementation Plan for review and approval, as part of the application package for permit renewal in Part 2.8 herein.

2.3 Inspection Strategy for Regulated On-site and Off-site Control Measures

With the 2018 Annual Report, the District shall submit to EPA an Inspection Strategy for regular inspections of all regulated on-site and off-site stormwater control measures. The Inspection Strategy shall include prioritization for significant or high risk stormwater control measures and structures. Legal mechanisms must be in place to ensure that return to compliance happens expeditiously for all stormwater control measures that are no longer in place or no longer function per design. The strategy may include provisions for third-party inspections, self-reporting and other procedures that provide cost-effective accountability mechanisms to ensure all measures continue to function as designed.

2.4 Public Right-of-Way Retrofit Planning

2.4.1 Eliminating Exemptions for Certain Small Projects

With the 2018 Annual Report, the permittee shall submit a description of a program that provides requirements for projects currently exempt from the District on-site retention standards in Parts 3.1.1, 3.1.3 and 3.1.4 herein. The permittee shall ensure that the new requirements go into effect no later than January 1, 2019, unless EPA approves a written request for an alternative schedule.

2.4.2 Public Right-of-Way Optimal Design

With the 2020 Annual Report, the permittee shall submit a determination of optimal design options for public rights-of-way, by category, *e.g.,* major arteries, residential streets, alleys, medians, sidewalks, etc., optimizing cost, performance, community palatability and other factors.

2.5 Evaluation of Pollutant Reductions from Catch Basin Cleaning

During this permit term, the permittee shall complete a study to determine a method for tracking and estimating the volume of material removed from catch basins during cleaning, and the concentration of targeted pollutants of concern for the purpose of estimating pollutant reductions attributable to catch basin cleaning. The permittee shall include a summary of the catch basin cleaning study and the method that is selected for estimating pollutant reductions with the revised Stormwater Management Program Plan submitted to EPA as part of the application package for renewal of the MS4 permit per Part 2.8 herein.

2.6 Development of Alternatives for Ice and Snow Management

The permittee shall include water quality-related requirements for preventive and control measures in the District Snow Response Plan. These measures shall be based on an evaluation of the use, application and removal of anti-icers, chemical deicers, salt, sand, and/or sand/deicer mixtures in an effort to minimize the impact of these materials on water quality, and consideration of: techniques available for reducing pollution from deicing salts in snowmelt runoff and runoff

from salt storage facilities, and the use of porous/permeable surfaces that require less use of deicing materials and activities. Measures included in the District Snow Response Plan shall be included in the 2019 Annual Report. Any changes made to snow and ice management shall be included in the Updated Stormwater Management Program Plan per Part 2.9 herein.

2.7 Flood and Climate Management Assessment

2.7.1 The permittee shall review all development and redevelopment proposed in floodplain areas within the MS4 Permit Area to ensure that the site is reasonably protected from flooding and that the construction minimizes the impacts on the water quality of receiving water bodies caused by a flood event.

2.7.2 The permittee shall review all development and redevelopment within the MS4 Permit Area to assess effects on flood storage or carrying potential of encroachment, alteration or improvement to any water bodies.

2.7.3 The permittee shall continue co-leading and supporting the Silver Jackets interagency flood risk management coordination team to ensure that the flood management projects are effectively operated and maintained in the MS4 Permit Area and to build public awareness of the impact of flooding on the water quality of receiving water bodies.

2.7.4 The permittee shall collaborate with stakeholders in developing and implementing flood management projects in areas of known flood hazard, including implementing green infrastructure measures along with other control measures and coordinating with neighboring jurisdictions to explore a watershed-wide approach in stormwater and flood management within the MS4 Permit Area.

2.7.5 The permittee shall use future climate condition estimates and evaluate the need for revised standards in stormwater management, considering the effects of climate change such as sea level rise, extreme weather and heavy and more frequent precipitation events. The permittee shall also use this information to determine which stormwater management infrastructure and/or assets need enhanced resilience measures to ensure optimum performance.

2.8 Submittals to EPA

The Permittee shall submit Stormwater Management Program strategies, elements, initiatives and plans to EPA for review and approval according to the schedule in Table 2 below, including providing elements for public comment as indicated in the table.

TABLE 2
SWMP Elements to be submitted to EPA and/or to Public Notice

Element	Deadline for Submittal to EPA	Subject to EPA Approval *	Subject to Formal Public Notice and Comment **
New Planning or Assessment Requirement			
Schedule to Revise Outdated TMDLs (2.2.1.1)	No later than September 1, 2017	No	No
Water Quality Assessment Program QAPP (4.3.1.1)	At the end of the first year of the sampling cycle	No	No
Inspection Strategy for Regulated On-Site and Off-Site Measures (2.3)	With the 2018 Annual Report	No	No
Eliminating Exemptions for Certain Small Projects (2.4.1)	With the 2018 Annual Report	No	No
Stormwater Fee Options Evaluation (2.2.4)	With the 2019 Annual Report	No	No
Cost Benefit Analysis of Updating the Stormwater Regulations (2.2.5)	With the 2019 Annual Report	No	No
Alternatives for Ice and Snow Management (2.6)	With the 2019 Annual Report	No	No
Report on *E. coli* source tracking study and new milestones and benchmarks (2.2.3.1)	October 1, 2019	Yes	Yes
Legacy Pollutant Minimization Plan (2.2.3.2)	With the 2020 Annual Report	Yes	Yes
Optimal Designs in Public Rights-of-Way (2.4.2)	With the 2020 Annual Report	No	No
Study to Estimate Pollutant Reductions from Catch Basin Cleaning (2.4)	With the Updated Stormwater Management Program Plan, 270 days before permit expiration date	No	No
Regular Reporting			
Discharge Monitoring Reports (5.2)	Annually via NetDMR	No, but EPA will review for permit compliance and may request changes to the program if	No
Annual Reports (5.3)	Annual reports shall cover the cycle of July 1 through June 30 of each year, and are due		No

	to EPA no later than December 1 of each year beginning in 2018.	warranted.	
Updated Strategies/Plans			
Updated Consolidated TMDL Implementation Plan (2.2.8.3)	270 days before permit expiration date	Yes, but not every time it's updated; only as a part of the SWMP package requesting permit renewal.	Yes, but not every time it's updated; only as a part of the SWMP package requesting permit renewal.
Updated Stormwater Management Program Plan (2.9)	270 days before permit expiration date	Yes	Yes
Permit Application for Renewal			
MS4 Permit Application (2.10)	270 days before permit expiration date	EPA reviews for completeness	No

* EPA may choose to comment on any of these plans or assessments.
** The District shall make all of these plans and assessments available on the District website and consider any input received.

2.9 Updated Stormwater Management Program Plan for the Next Permit Term

No later than 15 months prior to the expiration date of this permit, the permittee shall public notice a fully updated Stormwater Management Program (SWMP) Plan addressing all of the elements required in this permit. The updated SWMP Plan shall be informed by planning elements of Part 2, implementation efforts in Part 3 and water quality assessments in Part 5. No later than 270 days (9 months) prior to the expiration date of this permit the permittee shall submit to EPA the fully updated plan for review and approval, as part of the application package for permit renewal.

2.10 Application for the Next Permit Term

The permittee shall develop a permit application based on the findings presented in each of the annual reports submitted during the permitting cycle, and on any feed-back received from EPA and the public. The permit application package must be submitted no later than 270 days (9 months) prior to the expiration date of this permit. The permit application package, which includes EPA Forms 1 and 2F (with required attachments), the updated SWMP Plan (Part 2.9), and the updated Consolidated TMDL Implementation Plan (Part 2.2), shall define the next iterative set of objectives for the program and provide an analysis to demonstrate that these objectives shall be achieved in the subsequent permit term.

3. STORMWATER MANAGEMENT PROGRAM IMPLEMENTATION

3.1 On-Site Retention Standard

The permittee shall continue to develop, implement, and enforce a program in accordance with this permit that integrates stormwater control measures at the site, neighborhood and watershed levels within the MS4 Permit Area that shall be designed to mimic pre-development site hydrology through the use of on-site stormwater retention measures (*e.g.,* harvest and use, infiltration and evapotranspiration), through policies, regulations, ordinances and incentive programs.

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

The permittee shall 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 use for all public and private development and redevelopment projects that disturb greater than or equal to 5,000 square feet of land area. This requirement shall continue to be implemented in concert with the off-site mitigation program to compensate for any portion of the 1.2" volume to be retained off-site (Stormwater Retention Credits, see Part 3.2.2), consistent with the following:

3.1.1.2 The permittee shall annually post on its website the status of all projects complying with the stormwater management regulations, including the 1.2" total performance volume calculated for the project, the amount of stormwater retention volume achieved on-site, the amount of stormwater retention volume achieved off-site, and the compliance status of each project with an off-site retention volume.

3.1.1.3 The permittee shall continue to maintain a formal process for site plan reviews and a post-construction verification process (*e.g.,* inspections, submittal of as-builts) to ensure that standards are appropriately implemented.

3.1.1.4 The permittee shall maintain a database to track plan review, inspection and the on-site and off-site retention performance of each project subject to this regulatory requirement and, for projects using off-site retention, the compliance status of those projects with their off-site retention volume.

3.1.2 Stormwater Retention Credit Program

3.1.2.1 The permittee shall continue to implement the Stormwater Retention Credit (SRC) program to manage and track off-site mitigation to implement the 1.2" on-site stormwater retention requirement.

3.1.2.2 If a retention practice was installed prior to July 1, 2013, it will only be eligible to generate SRCs if an application has been submitted within 6 months after the effective date of this permit.

3.1.2.3 The permittee shall commit $12.75 million to establish a Stormwater Retention Credit Purchase Agreement Program and to provide technical and outreach support for green infrastructure site identification for the purposes of SRC generation. All SRCs purchased by the District shall be retired to achieve additional benefit to District water bodies.

3.1.3 Implementing the Standard for Projects in the Public Right-of-Way

The Permittee shall continue to implement a methodical analysis and decision process for projects in public rights-of-way (PROW) in order to ensure that the project has exhausted every opportunity to achieve maximum feasible on-site stormwater retention volume (SWRv). These projects need not conduct off-site mitigation or purchase SRCs. However, these projects are subject to design and site plan review requirements to ensure maximum feasible combinations of on-site retention volume, water quality treatment and design options, including in some situations stormwater management of more than the 1.2" retention volume. Each process shall follow the six design steps described in the District's *Stormwater Management Guidebook*. In order to take advantage of opportunities for optimum stormwater management, these projects may include non-PROW areas that are disturbed as a part of the reconstruction of existing PROW or to allow pedestrian access alongside existing PROW. These projects shall be posted on the District website, per the requirements of Part 3.2.1.2 herein.

3.1.4 Implementing the Standard for Substantial Improvement Projects

3.1.4.1 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 use for all development projects where less than 5,000 square feet of soil is disturbed, but where the buildings or structures have a footprint that is greater than or equal to 5,000 square feet and which are undergoing substantial improvement. "Substantial improvement," consistent with District regulations at 12J DCMR § 202, means any repair, alteration, addition, or improvement of a building or structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the improvement or repair is started. The permittee may allow a portion of the 0.8" volume to be compensated for in an off-site mitigation program consistent with the requirements of 3.2.2 herein.

3.1.4.2 No later than January 1, 2019, the permittee shall begin implementing water quality design elements or provisions for projects currently exempt from on-site retention requirements. See Part 2.4.1 herein for the planning element of this requirement.

3.1.5 Stormwater Management Guidebook

The permittee shall continue to improve and implement the *Stormwater Management Guidebook* for use by land use planners and developers for all projects addressed by this permit,

to include up-to-date objectives and specifications for integration of stormwater management technologies, including on-site retention practices.

3.1.6 Green Area Ratio Program

The permittee shall continue to implement and refine the Green Area Ratio program to increase the quantity and quality of planted areas in the District while allowing flexibility for developers and designers to meet development standards. The Green Area Ratio Program shall continue to use a scoring system to encourage green technology practices. This shall be achieved through zoning requirements.

3.2 Retrofit Program for Existing Discharges

The permittee shall continue to implement targeted retrofit programs for additional retention and/or management of existing stormwater discharges in the MS4 Permit Area.

3.2.1 Retrofits of Impervious Surfaces

During this permit term, the permittee shall continue to implement retrofits for stormwater discharges to equal the number of managed acres in Table 1, Part 1.5.3.1 herein, *i.e.,* 1,038 acres, with a minimum of 46 of such acres located in the Public Right-of-Way (PROW).

3.2.2 RiverSmart Programs

The permittee shall continue to implement and refine its suite of RiverSmart programs (Homes; Communities; Schools; Rooftops; Rebates; Targeted Watersheds). These voluntary retrofits are not subject to the 1.2" on-site retention requirement, but they may be used to generate SRCs if they meet all the requirements for SRCs per Part 3.2.1 and 3.2.2 herein, and the District's stormwater regulations.

3.2.3 Green Roofs

During this permit term, the permittee shall ensure the installation of a minimum 350,000 square feet of new green roofs in the District.

3.2.4 Tree Canopy

During this permit term, the permittee shall achieve a minimum net annual tree planting rate of 8,000 plantings annually within the MS4 Permit Area, with the objective of achieving a District-wide urban tree canopy coverage of 40% by 2032. The annual total tree planting shall be calculated as a net increase, such that annual mortality or other loss is also included in the estimate. The permittee shall ensure that trees are planted and maintained to achieve optimal stormwater retention and tree survival rate, including through requirements for adequately designed and sized tree boxes. Trees shall be planted in accordance with the Planting Specifications issued by the International Society of Arboriculture as appropriate to the site conditions.

3.2.5 Stream, Buffer and Floodplain Restoration

The permittee may take credit for WLA reduction from stream, buffer or floodplain restoration activities where stream bed load or bank erosion contributes to nutrient, TSS or sediment load.

3.3 Municipal Operations

3.3.1 Response to Sanitary Sewer Overflow to the MS4

The permittee shall continue to implement an effective response protocol for overflows of the sanitary sewer system to, from and through the MS4. The response protocol shall clearly identify District agencies, departments and authorities responsible for implementing each element of the protocol, and appropriate contact information. The response protocol shall contain, at a minimum, procedures for:

1. Investigating any complaints of a sanitary sewer overflow (SSO) within 24 hours of the incident report.
2. Responding to SSOs with containment within two hours of notification.
3. Notifying appropriate sewer and public health agencies within 24 hours when the sanitary sewer overflows to the MS4.
4. Notifying the public in a timely and effective manner when SSO discharges to, from and through the MS4 may adversely affect public health.

This provision in no way authorizes SSO discharges to, from or through the MS4.

3.3.2 Industrial Activities at Municipal Operations

3.3.2.1 The permittee shall implement stormwater pollution prevention measures at all District-owned or leased facilities and job sites within the MS4 Permit Area where industrial activities occur or are considered critical sources as defined at Part 8 herein. For any operations with coverage under the EPA Multi-Sector General Permit (MSGP), the provisions of the MSGP supersede the requirements of this provision.

3.3.2.2 The permittee shall ensure that Stormwater Pollution Prevention Plans (SWPPPs) are created and/or regularly updated for District-owned, operated and leased facilities and all job sites within the MS4 Permit Area that conduct industrial activities that could contribute to stormwater pollution, including vehicle maintenance and fueling, storage and washing, or material storage. District SWPPPs shall contain the following information as relevant to such facilities:

a. Primary contacts at the facility and/or contacts for the site's pollution prevention team;
b. Description of activities and physical attributes of the exterior elements of the site, including a site map;

c. Summary of potential pollutant sources, including spills and leaks and salt storage;
d. Description of the control measures used to mitigate stormwater pollution, including good housekeeping, maintenance, material management, spill prevention and response, erosion and sediment control measures, and employee training; and
e. Description of the schedules and procedures for implementing stormwater control measures, inspecting the site, and assessing and monitoring pollutants in stormwater discharging from the site.

3.3.2.3 The permittee shall ensure that facilities with SWPPPs conduct quarterly self-inspections, with more frequent inspections for facilities with high levels and likelihood of contributing to stormwater pollution. Inspections shall consist of walking the site to investigate potential sources of pollution and completing a facility checklist.

3.3.2.4 Wash water at District-owned and operated facilities is prohibited from being discharged to, from and through the MS4 or directly into District waterways. Wash water includes water from washing vehicles and equipment, water from washing building exteriors when it contains soap and other pollutants, and the dumping of wash water used in the interior of buildings. Within this permit term, the permittee shall implement measures to eliminate the discharge of wash waters to, from and through the MS4 by requiring wash water to be collected and hauled off-site for disposal or redirected to the sanitary sewer. Alternative pre-treatment methods shall be considered on a case-by-case basis and approved by DOEE plan reviewers prior to implementation.

3.3.2.5 The permittee shall regularly perform inspection, maintenance and repair of stormwater controls at District-owned or operated facilities, including green infrastructure, filtration and separation systems, and stormwater storage structures.

3.3.2.6 The permittee shall maintain a database inventory of all municipal operations that conduct industrial activities or are considered critical sources, and provide such inventory to EPA upon request.

3.3.2.7 The permittee shall retain records, as part of the database system, to demonstrate compliance with the requirements of Part 3.4.2 herein. Records shall be maintained for employee training, inspections and follow-up, spills and major leaks, and contracts used to implement stormwater control measures, monitor stormwater and provide regular maintenance of control measures.

3.3.3 Pesticide, Herbicide and Fertilizer Use

3.3.3.1 The permittee shall continue to implement control measures to manage pollutant discharges associated with the storage and application of pesticides, fertilizers, herbicides, the use of toxic substances, and runoff from landscape irrigation according to an integrated pest management Program (IPM). The IPM Program shall be an ecosystem-based strategy that focuses on long-term prevention of pests or their damage through a combination of techniques such as biological control, habitat manipulation, modification of cultural practices, use of resistant

varieties, and use of low or no chemical and irrigation input landscapes, in accordance with the provisions of this permit, procedures and practices described in the SWMP and regulations.

3.3.3.2 The permittee shall continue to utilize IPM controls to reduce pollutants related to the storage and application of pesticides, herbicides, and fertilizers applied by its employees, contractors or agents to public rights-of-way, parks, and other District-owned or leased property to ensure that:

a. Pesticides and herbicides are used only if monitoring indicates that they are needed according to established guidelines;
b. Fertilizers are used only when soil tests indicate that they are necessary, and only in minimum amounts and for needed purposes (e.g., seed germination);
c. Treatments are made with the purpose of removing only the target organism;
d. Pest controls are selected and applied in a manner that minimizes risks to human health, beneficial, non-target organisms, and the environment;
e. No pesticides, herbicides, or fertilizers are applied to an area immediately prior to an expected rain event, or during or immediately following a rain event, or when water is flowing off the area;
f. No banned or unregistered pesticides or herbicides are stored or applied;
g. All staff applying pesticides or herbicides are certified or are under the direct supervision of a pesticide or herbicide applicator certified in the appropriate category;
h. Procedures are implemented to encourage the retention and planting of native and/or non-invasive, naturalized vegetation to reduce water, pesticide, herbicide, and fertilizer needs;
i. Pesticides, herbicides, and fertilizers are stored indoors or under cover on paved surfaces or enclosed in secondary containment and storage areas inspected regularly to reduce the potential for spills; and
j. Landscapes that maximize on-site retention of stormwater, while minimizing mowing, chemical inputs and irrigation are given preference for all new landscape installation.

3.3.3.3 The permittee shall continue to use Geographic Information System (GIS) layers showing public land and sewersheds, as well as background data, to identify priority areas for a targeted strategy to reduce the sources of pesticides, herbicides, and fertilizers that contaminate the stormwater runoff to, from and through the MS4.

3.3.4 Catch Basin Operation and Maintenance

3.3.4.1 The permittee shall continue to operate a catch basin maintenance program that ensures that each catch basin within the MS4 Permit Area is cleaned at least once annually during the life of the permit, with allowances within a reasonable margin of error for logistical obstacles.

3.3.4.2 As part of its catch basin maintenance program, the permittee shall, within 12 months of the effective date of this permit, develop and implement a GIS-based mobile field

application for asset management and tracking maintenance activities, as proposed in the District's 2013 Catch Basin study.

3.3.4.3 Based on data collected using the mobile field application, the permittee shall implement changes to catch basin cleaning frequencies for specific portions of the MS4 Permit Area and update the Stormwater Management Program Plan accordingly.

3.3.5 Storm Drain Outfall Operation and Maintenance

The permittee shall implement the District's outfall repair plan to ensure that outfalls in poor repair do not impair water quality. During this permit term, the permittee shall repair approximately 10% of outfalls in need of repair each year, such that 50% of all outfalls in need of repair have been repaired by the end of the permit term. The permittee may substitute a portion of outfall repairs with stream restoration with a demonstration that the in-stream water quality benefits of restoration exceed those derived from outfall repairs.

3.3.6 Street Sweeping

The permittee shall conduct street sweeping on no less than 44,000 road miles annually in the MS4 Permit Area in accordance with the following requirements:

TABLE 3
Street Sweeping Miles per Year

Type of Roadway	**Miles Swept per Year**
Highway and Arterial	25,000
Ward Sweeping	6,000
Signed Sweeping	13,000
Total	**44,000**

3.3.7 Transportation and Utility Construction Activities

The Permittee shall ensure that standard and emergency utility/road repair projects limit the amount of soil disturbance to the immediate area under repair. The projects shall implement basic soil erosion/sedimentation control measures and remove silt from dewatering prior to discharge. In addition, stormwater conveyances which are denuded shall be re-sodded, reseeded and mulched, or otherwise stabilized for rapid revegetation, and these areas must have effective erosion control until stabilized.

3.3.8 Snow and Ice Management

3.3.8.1 The permittee shall continue to manage the application of anti-icers, chemical deicers, salt, sand, and/or sand/deicer mixtures to minimize the impact of these materials on water quality.

3.3.8.2 Per the requirement to include water quality requirements for controls and prevention in the District Snow Response Plan required in Part 2.5 herein, the permittee shall begin implementing new ice and snow management procedures and practices no later than December 1, 2019.

3.3.8.3 The permittee shall continue to implement and update a program to ensure that excessive quantities of snow and ice control materials do not enter the District's water bodies. Except when the permittee determines that the foremost concern of snow removal activities is public health and safety, the District shall avoid snow dumping or storage in areas adjacent to water bodies, wetlands, or areas near public or private drinking water wells which would ultimately discharge to, from or through the MS4.

3.4 Critical Sources

3.4.1 Inventory of Critical Sources and Source Controls

3.4.1.1 The permittee shall continue to maintain an up-to-date inventory or database of all facilities, including federal facilities that are critical sources of stormwater pollution as defined at Part 8 herein. The updated Critical Source Inventory may be accomplished through collection of new information obtained through field activities or through other readily available inter and intra-agency informational databases (*e.g.,* business licenses, pretreatment permits, sanitary sewer hook-up permits, and similar information). Critical sources to be tracked shall include the following:

a. Commercial automotive service facilities, *e.g.,* car wash, service, fueling and salvage facilities, including mobile operations.
b. Facilities conducting industrial activities, as defined at 40 C.F.R. §122.26(b)(14); and requiring coverage under: (1) the MSGP for Stormwater Discharges Associated with Industrial Activities; or (2) an individual permit, including but not limited to private solid waste transfer stations, hazardous waste treatment, disposal and/or recovery plants, industrial facilities subject to SARA or EPCRA Title III.
c. Aircraft or ship/boat maintenance and fueling activities.
d. Construction sites exceeding one acre, or sites under one acre that are part of a larger common plan of development that is one acre or greater.
e. Dry cleaners.
f. Salvage and recycling operations.
g. Other facilities that the permittee may identify as a critical source.

3.4.1.2 The permittee shall include in the Critical Source Inventory the following minimum fields of information for each critical source facility or operation:

a. Name of facility and name of owner/ operator;

b. Address of facility;
c. Size of facility;
d. Activities conducted at the facility that could impact stormwater;
e. Stormwater management controls, including spill prevention and response measures; and
f. Inspection and maintenance schedules, dates and findings.

3.4.2 Maintenance of Stormwater Management Controls

The permittee shall ensure maintenance of all stormwater management controls, including spill prevention and response measures, at critical source facilities.

3.4.3 Inspection of Critical Sources

The permittee shall continue to inspect all critical source facilities 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.

3.4.4 Compliance Assurance

At each critical source facility, the permittee's inspector(s) shall verify that the operator is implementing a control strategy sufficient to protect water quality. Where the permittee determines that existing measures are not adequate to protect water quality, the permittee shall require and enforce additional site-specific controls sufficient to protect water quality.

3.5 Construction Activities

3.5.1 Erosion and Sediment Control Regulations

The permittee shall continue to implement the District's Erosion and Sediment Control Regulations for all projects that are 50 square feet and larger, consistent with current policies and regulations, to reduce the discharge of pollutants from construction activities.

3.5.2 Plan Review and Approval

The permittee shall continue to implement the review and approval process for erosion and sediment control plans. Also, the permittee shall ensure that all construction activities impacting one acre or greater, or less than one acre when part of a larger common plan of development or sale that is one acre or greater, are not authorized until the District receives documentation that the construction activity has received coverage under EPA's NPDES Construction General Permit (CGP).

3.5.3 Inspections

The permittee shall continue to implement inspection procedures, including but not limited to inspection of permitted construction sites that disturb more than 5,000 square feet of soil as follows:

a. Pre-construction meeting to review soil and sediment control measures;
b. Initial site inspection to verify proper installation and maintenance of sediment and erosion control measures;
c. Other inspections, as necessary, to ensure compliance with relevant standards and requirements; and
d. Final inspection to verify proper installation of stormwater control measures following final stabilization of the project site.

The permittee shall ensure that construction activity inspectors prioritize inspections in targeted areas, such as sites discharging to water quality-impaired waters, sites near surface waters, areas undergoing rapid development, large construction sites and sites with a history of non-compliance.

3.5.4 Enforcement

When a violation of local erosion and sediment control ordinances occurs, the permittee shall follow existing enforcement procedures and practices using standardized reports as part of the inspection process to provide accurate record-keeping of inspections of construction sites.

3.6 Illicit Discharges and Illegal Disposal

3.6.1 Illicit Discharges

The permittee shall continue to implement and refine the established schedule of procedures and practices implemented to detect, eliminate and prevent illicit discharges.

3.6.1.1 The permittee shall continue to refine and update the inventory of all outfalls in the MS4 Permit Area, including any changes to the identification and mapping of existing permitted outfalls. This inventory shall be integrated with GIS, and shall include size, type, location (GPS coordinates), condition, receiving water, date of last inspection, and information pertaining to the facility or facilities that discharge to each outfall (including name, address, and description of the facility using SIC or similar code). The permittee shall use this information to develop updated maps of outfalls and sewersheds for use in the field conducting outfall inspections and for subsequent desktop analysis of any discharges.

3.6.1.2 The permittee shall continue to conduct regular dry weather screening inspections in target areas, per the procedures in Part 4.4 herein.

3.6.1.3 The permittee shall continue to maintain a system for reporting illicit discharges and providing immediate responses to those reports.

3.6.1.4 The permittee shall continue to issue fines and undertake additional enforcement procedures, as necessary, to eliminate illicit discharges.

3.6.1.5 The permittee shall continue to implement procedures to prevent, contain, and respond to spills that may discharge to, from or through the MS4.

3.6.1.6 The permittee shall maintain a database of all identified illicit discharges and information on their elimination.

3.6.2 Illegal Disposal

The permittee shall continue to implement the prohibition against the disposal or dumping of used motor vehicle fluids, household hazardous wastes, grass clippings, leaf litter, and animal waste to, from or through the MS4. The permittee shall ensure the implementation of programs to collect used motor vehicle fluids (at a minimum oil and anti-freeze) for recycle, reuse, and proper disposal and to collect household hazardous waste materials (including paint, solvents, pesticides, herbicides, and other hazardous materials) for recycle, reuse, or proper disposal. The permittee shall ensure that such programs are readily available within the District, and that they are publicized and promoted on a regular basis, pursuant to Public Education provisions at Part 3.11 herein. The permittee, including the Metropolitan Police Department and Department of Public Works, shall continue to enforce against illegal dumping.

3.7 Targeted Pollutant Controls

3.7.1 Trash Prevention and Removal

3.7.1.1 The permittee shall continue to attain the reduction/removal of 103,188 pounds of trash annually from the Anacostia River Watershed, as determined in the Anacostia River Watershed Trash TMDL, as a specific single-year measure, using a combination of trash traps and other structural controls, clean-ups, hotspot sweeping, skimmer boat activities and prevention measures (e.g. education and outreach, policies focused on specific types of trash).

3.7.1.2 The permittee shall continue to participate in the Anacostia Trash multi-jurisdictional collaboration to align metrics for tracking and reporting on trash reduction and removal with adjacent jurisdictions.

3.7.1.3 The permittee shall apply the technologies and other activities developed in the Anacostia River Watershed Trash TMDL efforts throughout the entire MS4 Permit Area.

3.7.2 Disposable Bag Fee

The permittee shall continue to implement the Anacostia Clean Up and Protection Act of 2009.

3.7.3 Polystyrene Foam Food Containers Ban

The permittee shall continue to implement the District's ban on certain polystyrene foam food containers.

3.7.4 Coal Tar Ban

The permittee shall continue to implement the District's ban on coal tar pavement products, including conducting outreach and enforcement activities.

3.7.5 Restriction on Phosphorus in Lawn Fertilizers

The permittee shall continue to implement the District's program on phosphorus lawn fertilizer restrictions.

3.7.6 Hazardous Waste Collection

The permittee shall continue to implement a hazardous waste collection program.

3.7.7 Leaf and Yard Waste Collection

The permittee shall continue to implement a leaf and yard waste collection program.

3.8 Operation and Maintenance of Stormwater Control Measures

3.8.1 District-Operated Stormwater Control Measures

The permittee shall continue to improve and implement operation and maintenance protocols, policies and guidance for all District-owned and -operated stormwater control measures, including maintenance needs and triggers, inspection frequencies, and a tracking system to document relevant information.

3.8.2 Non-District-Operated Stormwater Control Measures

The permittee shall continue to improve and implement operation and maintenance protocols, policies, guidance, ordinances, codes, inspections and other accountability measures for all stormwater control practices on non-District-controlled property. Such stormwater control measures may include combinations of deed restrictions, ordinances, maintenance agreements, or other policies deemed appropriate by the District. The permittee shall also include a long-term verification process of operation and maintenance (O&M), which may include municipal inspections, third-party inspections, owner/operator certifications on a frequency deemed appropriate by the District, and/or other mechanisms. The District must continue to maintain an electronic inventory of practices on private property and O&M information for each such stormwater control measure.

3.9 Stormwater Training

For all activities included in Part 3.4 of this permit, the permittee shall continue to implement an on-going training program for those employees, contractors, subcontractors and agents specified below, and any other individuals whose job functions may impact stormwater program implementation. The training program shall address the following items as relevant to specific job responsibilities: (i) the importance of protecting water quality; (ii) the requirements of this permit; (iii) design, performance, operation and maintenance standards; (iv) inspection procedures; (v) the selection of appropriate stormwater control measures; (vi) ways that job activities are to be performed in order to prevent or minimize impacts to receiving waters; and (vii) procedures for tracking, inspecting and reporting, including potential illicit discharges. In addition, the permittee shall continue training developers and other relevant stakeholders on the requirements of the District stormwater regulations and the *Stormwater Management Guidebook*. As appropriate, the permittee may combine this training with training on other relevant topics, such as climate change. The permittee shall provide follow up and refresher training at a minimum of one time every twelve months, and shall include any changes in procedures, techniques or requirements.

In accordance with Table 4 below, the permittee shall ensure that the training program includes those employees, contractors, subcontractors and agents who work in the following areas, and others as deemed necessary:

TABLE 4
Training for District Employees, Contractors, Subcontractors, Agents
and Stakeholders with Stormwater Management and/or Pollution Prevention Responsibilties

Duties	**Training Areas**
Municipal water treatment and waste water treatment	• impacts of stormwater pollution and sources of runoff and pollutants • the requirements of this permit • overview of what is in their facility SWPPP • spill response, good housekeeping, operation and maintenance requirements, and material control measures • maintenance and operation of stormwater controls • inspection and reporting procedures
Relevant employees at all District industrial facilities	
Municipal Planning	• Plan Review • Planning design, installation and/or operation and maintenance of stormwater control measures
Transportation planning and engineering	
Road and utility crews	• Street sweeping • Catch basin cleanout • Spill prevention and response • Snow and ice removal • Soil erosion and sedimentation control, including dewatering controls

	• Relevant operation and maintenance of stormwater controls
Construction	Erosion and sedimentation controls, including proper dewatering
Inspectors	Everything above + specialized inspection area subject matter
Parks and recreation department	Relevant stormwater control measures, with emphasis on herbicides, pesticides, fertilizers, irrigation and other relevant areas
Garage and mechanic crew Fleet maintenance	• Vehicle/boat washing • Fueling • Storage, use and disposal of critical materials • Spill prevention and response
Fire and police departments	• Issues related to emergency response • Spill prevention and response • Illegal disposal
Facility and building maintenance and janitorial	• Management and maintenance of facility grounds and exteriors, including stormwater controls • Storage, use and disposal of critical materials • Spill prevention and response • Snow and ice removal
Builders, design professionals, regulators, resource agencies and stakeholders focused on stormwater management/green technology practices	• Design methods for integration of stormwater management/green technology measures at various project scales • Guidance on performance of various types of stormwater management/green technology practices measures in the District • Use of the District's database for submitting plan details • Use of the District's Off-site Retention Program

3.10 Public Outreach and Education

3.10.1 Website

The permittee shall make available the most recent or updated version of all documents and reports that are part of the Stormwater Management Program Plan on the District website in a format that is easily accessible and logically navigable.

3.10.2 Targeted Public Education

The permittee shall continue to refine and deliver targeted education efforts and to measure the understanding and adoption of selected targeted behaviors among the targeted

audiences, in accordance with the metrics contained in Table 5 below. The permittee shall identify metrics for educational targets that do not have them, and begin reporting on such metrics in the first annual report during this permit term. As new, more informative metrics are developed they may supplement or replace the existing metrics. The permittee shall use the resulting measurements to direct education and outreach resources most effectively, as well as to evaluate changes in adoption of the targeted behaviors.

Table 5
Public Education Initiatives and Metrics

Education Targets and Objectives	**Metrics**
General Public	
General sources of stormwater pollution and impacts of stormwater flows into surface waters	Number of views of DOEEs stormwater website content
Source control practices and environmental stewardship actions in landscaping and rainwater reuse	Adoption of stormwater practices by target audiences through the RiverSmart Program
A household hazardous waste education and outreach program to control illicit discharges to the MS4	• Level of participation in HHW collection program • Utilization of illicit discharge reporting system
Vehicle maintenance stormwater control measures, including car washing practices	
Stormwater control measures for removing ice from sidewalks and roads	
Meaningful watershed educational experiences and other education for District youth and teachers	• Number of District youth receiving environmental education • Number District teachers receiving environmental education training
Litter Prevention Campaign	Evaluation of the effectiveness of the Litter Prevention Campaign
Business and Industry	
Impacts of increased stormwater flows and pollution into receiving water bodies and sources of runoff and pollutants	Number of views of DOEEs stormwater website content
Stormwater control measures for use and storage of automotive chemicals, pesticides, hazardous cleaning supplies, and other materials	Track compliance and noncompliance at industrial and critical source operations
Impacts of illicit discharges and how to prevent and report them	Utilization of illicit discharge reporting system
Stormwater permitting requirements and pollution	Number/percentage of

prevention plans that require development of stormwater control measures	industrial facilities with SWPPPs
Homeowners	
Impacts of increased stormwater flows and pollution into receiving water bodies	Number of views of DOEE's stormwater website content
Runoff reduction techniques, including landscape design, site design, on-site retention, pervious paving, retention of forests and mature trees	Adoption of stormwater practices by target audiences through the RiverSmart Program
Monitoring and maintenance of on-site stormwater control measures	
Yard care and landscaping techniques that protect water quality, including fertilizer application	
Swimming pool discharge and maintenance	
Engineers, Contractors, Developers, Construction Operators, Review Staff and Land Use Planners	
Impacts of increased stormwater flows into receiving water bodies	Number of views of DOEEs stormwater website content
Technical standards for stormwater regulations including, but not limited to, the following: i. construction site sediment and erosion control ii. Stormwater Retention Volume iii. Water Quality Treatment Volume iv. Extreme flood requirements v. Green Area Ratio requirements vi. Public Right-of-Way requirements	• Attendance at stormwater workshops and trainings • Numbers/trends in site plan submittals consistent with requirements
Runoff reduction techniques, including site design, on-site reduction, pervious pavement, alternative parking lot design, retention of forests and mature trees	
Stormwater treatment and flow controls	
How to utilize the online Stormwater Database	Track successful use of the Database

4. WATER QUALITY ASSESSMENT

4.1 Water Quality Assessment Program

4.1.1 Assessment Program Objectives

The permittee shall establish a long-term assessment program to meet the following objectives:

4.1.1.1 Make wet weather loading estimates of pollutants from the MS4 to receiving waters.

4.1.1.2 Evaluate the health of receiving waters.

4.1.1.3 Perform additional monitoring as necessary to identify additional sources of pollution and track progress towards meeting WLAs.

4.1.2 Assessment Program Overview

Table 6 provides an overview of the types and frequencies of monitoring that the permittee shall conduct.

TABLE 6
Overview of the Water Quality Assessment Program

Monitoring Element	**Frequency**	Year 1				Year 2				Year 3				Year 4				Year 5			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
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	Once during spring index period each year																				
Habitat	Once during summer of the first year, then on an as-needed basis																				
Geomorph-ology	Once during summer of the first year, then on an as-needed basis																				
Receiving Water Quality	Once each month																				
Trash	3 wet weather events each year																				

4.1.3 Requirements Common to all Assessment Program Elements

4.1.3.1 The permittee shall ensure that all analyses are performed in accordance with analytical methods approved under 40 C.F.R. Part 136 and subsequent amendments. When there is not an approved analytical method the permittee may use any method supported by relevant scientific literature, but must provide a description of the method.

4.1.3.2 The permittee is authorized to use a more current or sensitive detection method than the one identified in 40 C.F.R. Part 136 if one exists for a particular parameter, including but not limited to PCBs (Method 1668B) and mercury (Method 1631E). If used, the permittee shall report the alternative method for compliance reporting and monitoring purposes.

4.1.3.3 The permittee shall continue to select and use appropriate flow measurement devices and methods consistent with accepted scientific practices to ensure the accuracy and

reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device.

4.1.3.4 The permittee shall continue to retain records of all monitoring information, including all calibration and maintenance records for a period of at least five (5) years from the date of such sample, measurement or report. Records of monitoring information shall include the items contained in Table 7 below:

TABLE 7
Monitoring and Assessment Records Retention

Date, exact location, time and methods of sampling measurements
Individual(s) who performed the sampling measurements
Date(s) analyses were performed
Individual(s) who performed the analyses
Analytical techniques or methods used
Results of such analyses

4.2 Wet Weather Discharge Monitoring

4.2.1 Pollutants, Collection Methods and Frequencies

The permittee shall conduct wet weather discharging monitoring for all of the pollutants in Table 8 for a minimum of three wet weather events each year.

TABLE 8
Wet Weather Discharge Sample Parameters and Collection Methods

Pollutant	**Collection Method**
Total suspended solids	Composite Sample
Total nitrogen	Composite Sample
Total phosphorus	Composite Sample
Copper	Composite Sample
Lead	Composite Sample
Zinc	Composite Sample
Cadmium	Composite Sample
E. coli	Grab Sample

4.2.2 Associated *in situ* Sampling

The permittee shall also collect *in situ* samples for water temperature, dissolved oxygen, conductivity, pH and hardness in order to provide the necessary information for appropriate interpretation of wet weather data.

4.2.3 Sampling Locations

The permittee shall conduct wet weather discharge monitoring at all continuous record sites and all stratified random as specified in Table 9 below. Stratified random "oversample" sites may permanently replace a stratified random site from the same watershed should conditions warrant. The District may substitute stratified random sites for oversample sites not included in Table 9, but must explain and justify those substitutions in the QAPP.

TABLE 9
Sampling Locations for Wet Weather Discharge Monitoring

Sampling Location	**Watershed**	**Type of Site**
Anacostia High School	Anacostia River	Continuous Record
Archbold Parkway	Potomac River	Continuous Record
Walter Reed/Ft. Stevens	Rock Creek	Continuous Record
F-538-CD-7-8-SE, Anacostia River	Anacostia River	Stratified Random
F-412-IK-7-8-SE, Texas Ave Tributary	Anacostia River	Stratified Random
F-391-C-6-7-SW Washington Ship Channel	Potomac River	Stratified Random
F-240-K-3-NW, Potomac River	Potomac River	Stratified Random
F-357-EF-33-34-NW, Portal Branch	Rock Creek	Stratified Random
F-186-IK-11-12-NW, Normanstone Creek	Rock Creek	Stratified Random
F-683-IK-3-4-NE, Anacostia River	Anacostia River	Oversample
F-562-RS-1-2-NE, Watts Branch	Anacostia River	Oversample
F-284-CD-19-20-SE, Oxon Run	Potomac River	Oversample
F-22-TU-11-12-NW, C&O Canal	Potomac River	Oversample
F-139-IK-19-20-NW, Broad Branch	Rock Creek	Oversample
F-91-IK-29-30-NW, Pinehurst Branch Tributary	Rock Creek	Oversample

4.2.4 Qualifying Wet Weather Events

4.2.4.1 The permittee shall collect all samples from a discharge resulting from a storm event that is greater than 0.1 inches in predicted precipitation and that occurs at least 72 hours from the end of a previous event with at least 0.1 inches of measured rainfall within the District.

4.2.4.2 The permittee shall maintain the following records regarding wet weather sampling: (i) date and duration (in hours) of the storm events sampled; (ii) rainfall measurements or estimates (in inches) of the storm event which generated the sampled runoff; (iii) the duration (in hours) between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event; and (iv) a calculated flow estimate of the total volume (in gallons) and nature of the discharge sampled.

4.3 <u>Receiving Water Assessments</u>

4.3.1 Establishing a Receiving Waters Assessment Program and Baselines

4.3.1.1 The permittee shall develop a Quality Assurance Program Plan (QAPP) to support all elements of the receiving waters assessment program. The permittee shall complete a comprehensive draft QAPP prior to beginning field sampling and assessments required by this permit, but may elect to finalize the QAPP at the end of the first year of the sampling cycle. The permittee shall submit this final QAPP to EPA at the end of the first year of the sampling cycle.

4.3.1.2 The permittee shall ensure that all receiving water assessment activities required by this permit adhere to those established by the Maryland Biological Stream Survey (MBSS), unless another protocol is established in this permit. Where comparisons between reference stream conditions are used, such reference streams shall be those waters established per the MBSS.

4.3.1.3 The permittee shall ensure that receiving water assessments are conducted at 26 wadeable stream sites selected through a randomized sampling approach. The permittee may replace one or more or the original locations with one or more of the identified 26 oversample sites.

4.3.1.4 The permittee shall ensure that upstream and downstream photographs are taken at each site at the time each sample is collected or assessment is conducted.

4.3.1.5 The permittee shall ensure that current and recent weather (*i.e.,* within the past 24 hours) is recorded for each sampling and assessment activity.

4.3.1.6 The permittee shall ensure that all monitoring activities are conducted within the same 75-meter stream reach per site, unless site conditions preclude such monitoring as documented by the permittee.

4.3.1.7 The permittee shall ensure that all sampling and data collection protocols have associated field data sheets, quality assurance/quality control (QA/QC) procedures, and chain of custody forms (as appropriate). Data collection may be recorded digitally with electronic back-up procedures.

4.3.1.8 During the first-year field assessments, the permittee shall collect the information contained in Table 10 to inform the stormwater management program and to identify situations or problems that may require follow-up.

TABLE 10
Associated Factors in the Receiving Water Assessment

Information	**Description**
Utilities	Type of pipe or outfall (e.g., sanitary, stormwater) and the potential impact to the stream based on current condition.
Obstructions	Any material, natural or manmade, obstructing the stream channel and perceived the impact.
Erosion points	Impacts within or along the stream channel, such as head cuts or

	bank erosion.
Dump Sites	Locations where dumping of trash or disposal of liquid or solid materials is occurring.
Crossings	Locations along the stream channel where flow is being impacted due to a structure (e.g., bridge) or modification of the stream channel (e.g., berm) that allows crossing.
Buffer deficiencies	Areas along the stream where the stream's vegetative buffer has been removed and has been replaced with other materials, such as lawn, a parking lot, etc.

4.3.1.9 The permittee shall ensure that all data are maintained in a central geodatabase that can store locational information and data sets. Metadata for all data sets shall be recorded.

4.3.2 Water Quality

4.3.2.1 The permittee shall sample receiving waters for the indicator parameters in Table 11 at least one time every month during this permit term. Sampling frequencies for specific parameters may be adjusted, as appropriate, where the permittee documents the basis for such adjustment.

TABLE 11
Receiving Water Quality Sampling Parameters

Total nitrogen	Total phosphorus	pH
Ammonia	Orthophosphate	Acid neutralizing capacity
Nitrite	Copper	Dissolved organic carbon
Nitrate	Zinc	Specific conductance
Chloride	Sulfate	Hardness

4.3.2.2 Sampling and analysis procedures shall be performed according to the QAPP required by Part 4.3.1.1 herein.

4.3.3 Benthic Macroinvertebrates

The permittee shall sample for benthic macroinvertebrates during the spring index period (March 1 through April 30) each year using the Maryland Biological Stream Survey (MBSS) protocols and according to the QAPP required by Part 4.3.1.1 herein.

4.3.4 Geomorphology

The permittee shall conduct geomorphological assessments during the summer index period (June 1 through September 30) using a Rosgen Level 1 classification system and according to the QAPP required by Part 4.3.1.1 herein. Long-term sampling frequencies shall be established at no less than once every five years. As data for purposes of evaluating long-term trends

accumulate, frequency of sampling may be reevaluated and a revised sampling schedule proposed to EPA in the revised SWMP submitted with the renewal application per Part 2.10 herein.

4.3.5 Habitat

The permittee shall assess certain habitat metrics during the spring index period (March 1 through April 30) in association with macroinvertebrate sampling, and other habitat metrics during the summer index period (June 1 through September 30), in association with the geomorphological assessment per the MBSS protocols and according to the QAPP required by Part 4.3.1.1 herein. Assessments shall occur in the first year of this permit cycle. Long-term sampling frequencies shall be established at no less than one time every five years. As data for purposes of evaluating long-term trends accumulate, frequency of sampling may be reevaluated and a revised sampling schedule proposed to EPA in the revised SWMP submitted with the renewal application per Part 2.10 herein.

4.4 Dry Weather Screening and Source Identification

4.4.1 Identifying Dry Weather Flows and Sources

4.4.1.1 The permittee shall ensure that field crews visually assess each MS4 outfall using DOEE's Dry Weather Outfall Inspection Form, documenting outfall identification, location and physical characteristics such as the presence of odor, oily sheen, turbid discharge and floatables, and any other dry weather flows. Photos, forms and notes on changes since the previous inspection shall be linked to the outfall database.

4.4.1.2 Frequency of visual monitoring shall be based on a priority system that balances knowledge of prior problems, priority areas in the District MS4 area and other factors. All outfalls shall be visually inspected at least one time during the permit term.

4.4.1.3 All dry weather flows identified during inspections that are not immediately identifiable shall be followed up-line in an attempt to determine the source.

4.4.1.4 If visual monitoring indicates that there is no measurable dry weather flow, but there is evidence of intermittent discharge (*e.g.,* staining, small trickle, algal growth), the permittee shall revisit the outfall within 3 days of the previous visual monitoring to check for measurable flow.

4.4.1.5 If the source cannot be identified from visual observations, the permittee shall take *in situ* screening samples to help identify the source(s) of the flow.

4.4.1.6 If the source cannot be identified through visual or in-field chemical screening methods, the permittee shall conduct a desktop analysis, involving cross-referencing with other dry weather flows, the database of critical sources and other applicable information. Follow-up investigations may include dye testing, video inspection, evaluation of facilities in the sewershed and additional sampling.

4.4.2 Bacteria Source Tracking

During the permit term, the permittee shall conduct a bacteria source tracking study to identify types of sources of bacteria in the MS4 Permit Area where *E. coli* WLAs have not yet been attained. The sampling design should be sufficient to inform development of a source reduction strategy, milestones and benchmarks per Part 2.2.3.1 herein. The study must be completed on a timeline to allow new milestones and benchmarks to be developed for public notice and comment no later than June 1, 2019 and submittal to EPA no later than October 1, 2019. Should the permittee opt to revise one or more of the bacteria TMDLs, the source tracking study shall be included in the revised TMDL, and EPA will adjust compliance schedules accordingly.

4.5 Trash Monitoring

4.5.1 Trash Trap Monitoring

4.5.1.1 The permittee shall continue to sample all trash traps located in the District's waterbodies and at outfalls at least 4 times per year for weight and counts of different types of trash.

4.5.1.2 Trash traps shall be stationary control measures installed at outfalls and within the District's waterbodies. Each trap shall be maintained on a weekly basis and after a major storm event.

4.5.1.3 The permittee shall collect and record wet weight and counts for different materials from trash captured by each trap. The permittee shall capture data on weight and count, at a minimum, for the following trash types: food wrappers, beverage containers, plastic bags, foam products (including products made of expanded and extruded polystyrene), tires and plastic balls.

4.5.1.4 For purposes of assessing compliance with the Anacostia Trash TMDL, data shall be reported annually on the amount of trash captured by trash traps located in the District.

4.5.2 Transect Monitoring

4.5.2.1 The permittee shall continue to participate in the Anacostia Trash multi-jurisdictional collaboration to align metrics for tracking and reporting on trash reduction and removal.

4.5.2.2 The permittee shall sample 500-foot transects at 13 locations in the Rock Creek, Potomac River, and Anacostia River watersheds at least two times per year. Data on trash weight shall be collected at 6 of these sites, and data on count and weight shall be collected at all 13 sites.

4.5.2.3 These data shall be used to assess effectiveness of District trash reduction initiatives, including the bag fee and the foam ban, as well as to inform future policy decisions.

4.6 Data Synthesis

4.6.1 Programmatic Indicators

The permittee shall evaluate the effectiveness of the Stormwater Management Program through the use of multiple programmatic indicators linked to the requirements in Part 3 of this permit. The Annual Reporting Template in Appendix A herein identifies the programmatic indicators used to evaluate the success of implementing stormwater control measures.

4.6.2 Watershed Indicators

The permittee shall also evaluate the effectiveness of the Stormwater Management Program through the use of multiple watershed indicators linked mostly to the assessment requirements of Part 4 of this permit, and the synthesis of those data through analysis and modeling.

4.6.2.1 The permittee shall estimate annual cumulative pollutant loadings for all pollutants listed in Table 8 herein.

4.6.2.2 The permittee shall estimate annual progress towards all numeric milestones in Part 1.5.3.1 herein for acres managed and pounds of trash in the Anacostia River Watershed.

4.6.2.3 Using all other data and information collected per the water quality assessment requirements of Parts 4.1 through 4.5 herein, the permittee shall establish a multi-faceted suite of indicators to be reported over multiple permit terms. These indicators shall address discharge quality as well as receiving water quality. These indicators shall balance current status with long-term trends in order to determine elements of the program that are effective and those needing additional improvement. This suite of indicators shall be developed in consultation with EPA and other stakeholders and finalized with submittal of the updated SWMP submitted to EPA as part of the application package for permit renewal per Part 2.10 of this permit. These indicators shall be established as long-term metrics for the SWMP and may be included as requirements in future permits.

4.6.3 Assessing Strengths and Weakness of the Program

4.6.3.1 In each annual report the permittee shall provide 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, supported by interpretation of both programmatic and watershed indicators. Conclusions shall be based on interpretations of the indicators.

4.6.3.2 With the annual report in the fifth year of the permit (2021), the permittee shall provide a synopsis of progress made towards meeting all WLAs applicable to the DC MS4, and a summary of program elements that shall be enhanced in the updated SWMP in order to make timely progress towards the water quality objectives of this permit and meeting the District's water quality standards.

4.7 Data Management

4.7.1 Database Organization

The permittee shall maintain database systems to ensure long-term integrity of information and effective and nimble data storage, management and retrieval.

4.7.2 Data Stewardship

The permittee shall ensure the all relevant databases are stewarded by data managers who shall ensure consistency and accountability in data quality assurance, entry and maintenance.

5. REPORTING REQUIREMENTS

5.1 Keeping Information Publicly Available

5.1.1 Program Status on the District Stormwater Website

Consistent with Part 3.11.1 herein, the permittee shall maintain a District stormwater website on the status of the District stormwater program. The most recent versions of all plans and documents that comprise the Stormwater Management Program documentation (at a minimum: Stormwater Management Program Plan; Consolidated TMDL Implementation Plan Report; Revised Monitoring Program; District Urban Tree Canopy Plan) and studies and assessments undertaken in fulfillment of this permit shall be available on the website at all times.

5.1.2 Milestone and Benchmark Progress

The permittee shall report on the District stormwater website its annual progress against all numeric milestones in this permit and all benchmarks in the Consolidated TMDL Implementation Plan, in a readily-understandable format.

5.1.3 Posting Annual Reports

The permittee shall post each annual report on the District stormwater website at the same time that the annual report it is submitted to EPA.

5.2 Discharge Monitoring Reports

Discharge Monitoring Reports (DMRs) must include all analytical results of all monitoring described in Part 4 of this permit (*i.e.,* storm event data, wet weather loading, dry weather screening, and flow), including but not limited to any data collected that were not required by the permit. For example, if a pollutant was monitored more frequently than required by the permit, it must be included in any calculations of load or other metrics.

The permittee shall submit Discharge Monitoring Reports on an annual basis via NetDMR (http://www.epa.gov/netdmr/). DMRs are due each year no later than December 1, and include all data for the yearly sampling cycle July 1 through June 30.

5.3 Annual Reports

5.3.1 Annual Report Schedule

The annual reporting cycle shall cover the period of July 1 through June 30 of each year. The permittee shall submit an annual report to EPA no later than December 1 of each year for the duration of the permit term starting with December 1, 2017.

5.3.2 Annual Report Template

The annual report shall follow the format and include the content of the Annual Report Template in Appendix A herein. The permittee is encouraged to use the fillable PDF version of this template provided by EPA for each annual report.

5.3.3 Signature and Certification

The permittee shall sign and certify the annual report in accordance with 40 C.F.R §122.22(b), and include a statement or resolution that the permittee's governing body or agency (or delegated representative) has reviewed or been apprised of the content of such submissions. The permittee shall provide a description of the procedure used to meet the foregoing requirement.

6. STANDARD PERMIT CONDITIONS FOR NPDES PERMITS

6.1 Incorporation by Reference

Pursuant to 40 C.F.R. § 122.41, all conditions applicable to NPDES permits contained in 40 C.F.R. §§ 122.41 and 122.42, which are not expressed in this Permit, are incorporated herein by reference.

6.2 Duty to Comply

6.2.1 The permittee must comply with all conditions of this permit. Noncompliance with any provision of this permit constitutes a violation of the Clean Water Act and may result in an enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

6.2.2 Any person may be assessed an administrative penalty by the Administrator for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed $10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $25,000. Penalties for Class II

violations are not to exceed $10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $125,000.

6.2.3 Pursuant to the 2016 Civil Monetary Penalty Inflation Adjustment Rule, 40 C.F.R. Part 19, and Section 309(g)(2)(B) of the Act, 33 U.S.C. § 1319(g)(2)(B), any person who has violated any NPDES permit condition or limitation on or after August 1, 2016 through the present is liable for an administrative penalty not to exceed $20,628 per day for each day of violation up to a total penalty amount of $257,848. 81 Fed. Reg. 43091 (July 1, 2016).

6.3 Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, it must apply for and obtain a new permit. The permittee shall submit the application for renewal at least 270 days before the expiration date of this permit.

6.4 Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

6.5 Proper Operation and Maintenance.

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

6.6 Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause for the reasons described at 40 C.F.R. § 122.64. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

6.7 Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

6.8 Duty to Provide Information.

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Director upon request, copies of records required to be kept by this permit.

6.9 Inspection and Entry

The permittee shall allow EPA, or an authorized representative (including an authorized contractor acting as a representative of the Director), upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this permit;

2. Have access to and copy, at reasonable times, any records that must be maintained under the conditions of this permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), processes, or operations regulated or required under this permit; and

4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

6.10 Monitoring and Records.

6.10.1 Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

6.10.2 The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

6.10.3 Records of monitoring information shall include:

a. The date, exact place, and time of sampling or measurements;
b. The individual(s) who performed the sampling or measurements;
c. The date(s) analyses were performed;
d. The individual(s) who performed the analyses;
e. The analytical techniques or methods used; and
f. The results of such analyses.

6.10.4 Monitoring must be conducted according to test procedures approved under 40 C.F.R Part 136 unless another method is required under 40 C.F.R. Chapter I.

6.10.5 The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

6.11 Signatory Requirement

6.11.1 All applications, reports, and information submitted to EPA shall be signed and certified by either a principal executive officer or ranking elected official, or a duly authorized representative of that person.

6.11.2 A person is a duly authorized representative only if: (i) the authorization is made in writing by a person described above; (ii) the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity (a duly authorized representative may thus be either a named individual or any individual occupying a named position); and (iii) the written authorization is submitted to EPA.

6.11.3 If an authorization under the preceding paragraph is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, the permittee must submit a new notice satisfying the requirements of this paragraph to EPA prior to or together with any reports, information, or applications to be signed by an authorized representative.

6.11.4 *Certification.* Any person signing a document required by this Permit shall make the following certification:

> I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

6.12 Reporting Requirements.

6.12.1 *Anticipated noncompliance.* The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

6.12.2 *Monitoring reports.* Monitoring results shall be reported at the intervals specified elsewhere in this permit.

6.12.3 *Compliance schedules.* Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

6.12.4 *Twenty-four hour reporting.*

a. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written report shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (combined sewer overflows, sanitary sewer overflows, or bypass events), type of sewer overflow structure (*e.g.,* manhole, combine sewer overflow outfall), discharge volumes untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the sewer overflow event, and whether the noncompliance was related to wet weather. As of December 21, 2020 all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events submitted in compliance with this section must be submitted electronically by the permittee to the Director or initial recipient, as defined in 40 C.F.R. § 127.2(b), in compliance with this section and 40 C.F.R. Part 3 (including, in all cases, subpart D to Part 3), § 122.22, and 40 C.F.R. Part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of Part 127, permittees may be required to electronically submit reports related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section by a particular permit or if required to do so by state law. The Director may also require permittees to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section.

b. The following shall be included as information which must be reported within 24 hours under this paragraph.

i. Any unanticipated bypass which exceeds any effluent limitation in the permit. (See 40 C.F.R. § 122.41(g))
ii. Any upset which exceeds any effluent limitation in the permit.
iii. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the permit to be reported within 24 hours. (See 40 C.F.R. § 122.44(g))

c. The Director may waive the written report on a case-by-case basis for reports under 6.1.2.4 herein if the oral report has been received within 24 hours.

6.12.5 *Electronic reporting.* The permittee shall electronically submit the required NPDES information (as specified in Appendix A to 40 C.F.R. Part 127) to EPA Region III as specified in Part 5 herein. For all documents required by this Permit that are submitted electronically, any person providing the electronic signature for such documents shall ensure that all of the relevant requirements of 40 C.F.R. Part 3 (including, in all cases, subpart D to part 3) (Cross-Media Electronic Reporting); 40 CFR § 122.2; and 40 C.F.R. Part 127 (NPDES Electronic Reporting Requirements) are met for that submission.

6.13 Upset

6.13.1 *Definition. Upset* means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

6.13.2 *Effect of an upset.* An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Paragraph 6.13.3 herein are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

6.13.3 *Conditions necessary for a demonstration of upset.* A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An upset occurred and that the permittee can identify the cause(s) of the upset;
b. The permitted facility was at the time being properly operated; and
c. The permittee submitted notice of the upset as required in this section (24-hour notice).
d. The permittee complied with any remedial measures required in this section.

6.13.4 *Burden of proof.* In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

7. OTHER REQUIREMENTS

7.1 National Historic Preservation Act of 1966, 54 U.S.C. §§ 300101 *et seq.*

During the design stage of any project by the Government of the District of Columbia within the scope of this permit that may include ground disturbance, new and existing or retrofit construction, or demolition of a structure, the permittee shall notify the Historic Preservation liaison and provide the liaison planning documents for the proposed undertaking. The documents shall include project location; scope of work or conditions; photograph of the area/areas to be impacted and the methods and techniques for accomplishing the undertaking. Depending on the complexity of the undertaking, sketches, plans and specifications shall also be submitted for review. The documentation shall enable the liaison to assess the applicability of compliance procedures associated with Section 106 of the National Historic Preservation Act. Among the steps in the process are:

a. The determination of the presence or absence of significant historic properties (architectural, historic or prehistoric). This can include the evaluation of standing structures and the determination of the need for an archaeological survey of the project area.
b. The evaluation of these properties in terms of their eligibility for nomination to the National Register of Historic Places.
c. The determination of the effect that the proposed undertaking will have on these properties.
d. The development of mitigating measures in conjunction with any anticipated effects.

All such evaluations and determinations shall be presented to the permittee for its concurrence.

If an alternate Historic Preservation procedure is approved by EPA in writing during the term of this permit, the alternate procedure shall become effective after its approval.

7.2 Endangered Species Act, 16 U.S.C. Chapter 35

[NOTE: Per the requirements under Section 7 of the Endangered Species Act (50 C.F.R. 402; 16 U.S.C. § 1536(c)) and concurrent with public notice of this draft permit, EPA is submitting a Biological Evaluation and Finding of No Effect to the U.S. Fish and Wildlife Service (FWS) and The National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries). Following consultation, the Services may stipulate requirements for the final permit.]

8. PERMIT DEFINITIONS

Terms that are not defined herein shall have the meaning accorded them with precedence according to the following authorities in the order listed: section 502 of the Clean Water Act, 33 U.S.C. §§ 1251 *et seq.*; Clean Water Act implementing regulations, 40 C.F.R. Part 122; or as in common usage.

“Acres Managed” refers to any area that is treated (or managed) by stormwater control measures above and beyond what is already implemented in the MS4 area on the effective date of this permit. Acres managed is not a direct measure of pollutant reduction, but stands as a collective indicator of reductions in multiple pollutants in stormwater as would be realized from on-site retention of 1.2” of stormwater as applied to the relevant drainage area and standardized by acres. Not all stormwater control measures will be retention measures; for those that are not, ‘acres managed’ will be estimated based on a pollutant reduction equivalent.

“Annual Report” refers to the report that the permittee is required to submit annually pursuant to Part 5.3 herein.

"Benchmark" as used in this permit is a quantifiable goal or target to be used to assess progress toward “milestones” (see separate definition) and WLAs, such as a numeric goal for stormwater control measure implementation. If a benchmark is not met, the permittee should take appropriate corrective action to improve progress toward meeting milestones or other objectives. Benchmarks are intended as an adaptive management aid and generally are not considered to be enforceable.

“Consolidated TMDL Implementation Plan” is the ongoing and adaptive management strategy, initially required by the District’s 2011 MS4 permit, that describes stormwater control measures and timelines for all TMDLs that include wasteload allocations to the District MS4.

“Critical Sources” are those activities and operations that make, use, store, transport or dispose of materials or substances that have the potential to become pollutants in stormwater discharges.

“CWA" means Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub.L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. (6-483 and Pub. L. 97-117, 33 U.S.C. §§ 1251 *et seq.*

"Director" means the Regional Administrator of USEPA Region 3 or an authorized representative.

"Discharge" for the purpose of this permit, unless indicated otherwise, refers to discharges to, from or through the Municipal Separate Storm Sewer System (MS4).

“Discharge Monitoring Report (DMR)” is the reporting system and format for providing monitoring data to EPA.

“EPA” means USEPA Region 3.

“General Retention Compliance Calculator” is a spreadsheet tool developed in concert with the District Stormwater Management Guidebook to assist developers in meeting the District’s stormwater regulations.

“Green Area Ratio Program” is the landscaping program codified in District zoning regulations (Title 11 DCMR) Chapter 34, to increase the quantity and quality of environmental performance of the urban landscape.

“Green Roof” is a roof system that stores rainwater where the water is taken up by plants and/or transpired into the air.

“Green Technology Practices” means stormwater control measures that are used to mimic pre-development site hydrology by using site design techniques that retain stormwater on-site through infiltration, evapotranspiration, harvest and use.

"Guidance" means assistance in achieving a particular outcome or objective.

"Illicit connection" means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer system.

"Illicit discharge" means any discharge to a municipal separate storm sewer system that is not composed entirely of stormwater except discharges pursuant to an NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer system) and discharges resulting from firefighting activities, pursuant to 40 C.F.R. § 122.26(b)(2).

“Maryland Biological Stream Survey (MBSS)” is the Maryland Department of Natural Resources program and set of protocols for assessing and evaluating ecological resources in Maryland’s streams and rivers.

“Maximum Extent Practicable” is an iterative standard applied by the permitting authority upon the issuance or reissuance of an MS4 permit, to optimize permit conditions in such a way as to balance water quality objectives with implementation feasibility. Permit requirements are meant to be robust and challenging, but still technically and economically achievable.

"Milestone" as used in this permit is an interim step toward attainment of a WLA that upon incorporation into the permit shall become an enforceable limit or requirement to be achieved by a stated date. A milestone should be expressed in numeric terms, i.e. as a volume reduction, pollutant load, specified implementation action or set of actions or other objective metric, when possible and appropriate.

“On-Site Retention” means the use of soils, vegetation, water harvesting and other mechanisms and practices to retain a target volume of stormwater on a given site through the functions of: pore space and surface ponding storage; infiltration; reuse, and/or evapotranspiration.

“Performance standard” means for purposes of this permit, a measure or provision for attainment of an outcome or objective.

“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.

"Public Right-of-Way (PROW)" is the surface, the air space above the surface (including air space immediately adjacent to a private structure located on public space or in a PROW), and the area below the surface of any public street, bridge, tunnel, highway, railway track, lane, path, alley, sidewalk, or boulevard, where a property line is the line delineating the boundaries of public space and private property.

"Retrofit" means improvement in a previously developed area that results in reduced stormwater discharge volumes and pollutant loads and/or improvement in water quality over current conditions.

"RiverSmart" is a series of District programs that facilitates the implementation of voluntary stormwater management measures and retrofits. For more information see: http://doee.dc.gov/service/get-riversmart.

"Stormwater" means storm water runoff, snow melt runoff, and surface runoff and drainage.

"Stormwater Control Measure" or Control Measure is a management practice, structure or policy that captures, diverts or manages the volume of stormwater or minimizes or eliminates the concentrations of pollutants in stormwater discharges.

"Stormwater Retention Credit (SRC)" is one gallon of retention capacity for one year, as certified by the District Department of Environment and Energy.

"Stormwater Management Program (SWMP)" is a multi-faceted program that includes all activities to meet the requirements of the permit to prevent and mitigate the effects of stormwater discharges via the MS4 on the physical, chemical and biological integrity of receiving waters.

"Stormwater Management Program (SWMP) Plan" is the collection of all strategies, plans and schedules that describe and document the SWMP.

"Stormwater Retention Volume (SWRv)" is the volume of stormwater from a site for which the site is required to achieve retention.

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond reasonable control. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. See 40 C.F.R. § 122.41(n)(1).

"Wasteload Allocation" means the portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution.

"Water quality standards" refers to the District of Columbia's Surface and Ground Water Quality Standards codified at Code of District of Columbia Regulations §§ 21-1100 *et seq.*, which are

effective on the date of issuance of the permit and any subsequent amendments which may be adopted during the life of this permit.

"Waters of the United States" is defined at 40 C.F.R. § 122.2.

"Watershed Indicators" are metrics used to evaluate specific aspects of ecological health, such as macroinvertebrate community diversity, geomorphological indices or water quality data.

APPENDIX A

Annual Report Template

Annual Report Template
District of Columbia Municipal Separate Storm Sewer System
NPDES Permit Number DC0000221

Reporting Period:	July 1,	to	June 30,	Report Submittal Date:	

Contact Person	Name:	Title:

Phone Number:	E-mail Address:

DC Stormwater Website URL:

Part 1 Authorized Discharges

1. Per Part 1.4.3, does the permittee certify that there are sufficient finances, staff, equipment, and support capabilities to implement the provisions of this permit, including the maintenance of a dedicated funding source?	Yes No

2. Per Part 1.5, fill in only the boxes for prior and current years. Report the same milestones for prior years as reported in those annual reports. Leave boxes for future years empty.

Acres Managed Milestones Annual Report Year (Year in which the report is due)					
	2017	2018	2019	2020	2021
Anacostia River					
Potomac River					
Rock Creek					

Total Acres Managed to Date:		Acres

Annual Report Year (Year in which the report is due)					
	2017	2018	2019	2020	2021
Pounds of trash removed in the Anacostia River Basin					

3. Are tables for all WLA benchmarks attached to this annual report?	Yes No

Part 2 Stormwater Management Planning

4. For the Annual Report due December 1, 2018:	
a. Is the Inspection Strategy for Regulated On-Site and Off-Site Measures (2.3) attached?	Yes No
b. Is the strategy for Eliminating Exemptions for Certain Small Projects (2.4.1) attached?	Yes No

5. For the Annual Report due December 1, 2019:	
a. Is the Stormwater Fee Options Evaluation (2.2.4) attached?	Yes No
b. Is the Cost Benefit Analysis of Updating the Stormwater Regulations (2.2.5) attached?	Yes No
c. Is Alternatives for Ice and Snow Management (2.6) attached?	Yes No

6. For the Annual Report due December 1, 2020:	
a. Is the Legacy Pollutant Minimization Plan (2.2.3.2) attached?	Yes No
b. Was it made available for public comment, and were those comments considered in drafting this plan?	Yes No
c. Is Optimal Designs in Public Rights-of-Way (2.4.2) attached?	Yes No

7. Per Part 2.2.1.2, are TMDL revisions underway per the schedule provided to EPA in September 2017?	Yes No

8. Per Part 2.2.2 on maintaining and refining TMDL databases, provide a short status update.

9. Per Part 2.2.6, have any TMDLs with MS4 WLAs been approved during this permit year?	Yes No
• If so, list the TMDL(s) and briefly note measures taken to develop milestones and benchmarks.	

10. Per Part 2.7 on flood and climate management assessment, provide a brief narrative on actions taken in this during this reporting period.

Part 3 Stormwater Management Program Implementation

11. Is the performance status, including on-site and off-site retention volumes, of all projects subject to the District stormwater regulations posted on the District stormwater website?	Yes No

12. URL if the website is different from the one provided above:

13. How many site plan reviews were conducted during this reporting period?		reviews
• How many of these projects were in public rights-of-way?		projects
• How many site plans were finally approved during this reporting period?		approvals

14. How many gallons were retained for construction projects completed this reporting year subject to the requirements of Parts 3.1.1, 3.1.3 and 3.1.4?		
• Total on-site retention		gallons
• Total off-site retention		gallons

15. For the 2017 Annual Report only: has SRC eligibility for projects installed prior to July 1, 2013 been eliminated?	Yes No N/A

16. Has the Stormwater Retention Credit Purchase Agreement Program been established?	Yes No
• Provide a brief description of the status.	

17. At the of this reporting period how many SRCs more than 1-year old are going unused?		SRCs

18. Per Part 3.1.4.2, are water quality design elements being implemented for projects that were exempt from on-site retention requirements under the prior permit?	Yes No

19. Per Part 3.1.6, have any modifications been made to the District's Green Area Ratio program during this reporting period?	Yes No
• Provide a brief summary of changes.	

20. Per Part 3.1.5.2, have any modifications been made to the District's *Stormwater Management Guidebook* during this reporting period?	Yes No
• Provide a brief summary of changes.	

21. Per Part 3.2.2, how many gallons of on-site retention was created through RiverSmart programs during this reporting year?		gallons

22. Per Part 3.2.3, how many square feet of green roofs were installed in the District during this reporting year?		square feet

23. Per Part 3.2.4, what was the net tree increase within the MS4 Permit Area during this reporting year?		trees

24. Per Part 3.2.5, as relevant, provide specific metrics (miles, square feet) for any stream, buffer or floodplain restoration projects for which the District claims either acre managed credits or pollutant reduction credits during this reporting period.

25. Per Part 3.3.1, how many SSOs to the MS4 occurred during this reporting year?		overflows
• Were responses consistent with the requirements of Part 3.3.1?		Yes No

26. Per Part 3.3.2, number of District-owned, operated and leased facilities and job sites within the District MS4 Area that conduct industrial activities during this reporting period.		facilities/ sites
• Number of these facilities with Stormwater Pollution Prevention Plans meeting the requirements of Part 3.3.2.2 a-e, or the MSGP.		facilities/ sites
• If not all facilities have SWPPPs, are they being developed?	Yes No N/A	
• Do all facilities conduct self-inspections no less frequently than quarterly?		Yes No
• If you answered 'no' to either of the questions above, describe corrective actions being taken.		

27. Per Part 3.3.2.4, have wash water discharges to the MS4 from District operations been fully prohibited and eliminated?		Yes No
• If not, describe corrective actions being taken.		
• Number of inspections of District industrial operations this reporting period.		inspections
• Number of corrective actions taken?		actions
• Is the permittee maintaining a database inventory of all municipal operations that conduct industrial activities and/or are considered critical sources?		Yes No

28. Per Part 3.3.2.7, are appropriate records being retained?	Yes No

29. Per Part 3.3.3, are all District operations utilizing pesticides, herbicides and fertilizers consistent with the requirements?		Yes No
• Number of Nutrient Management Plans being implemented in the District.		NMPs
• Number of Integrated Pest Management Plans being implemented in the District.		IPMs
• Provide any additional lawn fertilizer statistics.		

30. Per Part 3.3.4, how many catch basins are in the MS4 area?		basins
• During this reporting year, how many catch basins were cleaned?		basins
• What is the total estimated volume or weight of material removed?		
• What is the total estimated volume or weight of material removed?		gallons tons
• Has the GIS-based mobile field application been implemented to track catch basin maintenance activities?		Yes No

31. Per Part 3.3.4.3, describe any modifications to catch basin cleaning frequencies.

32. Per Part 3.3.5, how many MS4 outfalls are in the District?		outfalls
• During this reporting year, how many outfalls were repaired?		outfalls

33. Per Part 3.3.6, provide miles of streets swept in this reporting year:

Miles of Street Swept					
Highway and Arterial		miles	Ward Sweeping		miles
Signed Sweeping		miles	Total		miles

34. Per Part 3.3.7, are transportation and utility construction activities implementing all appropriate soil erosion and sedimentation control measures?	Yes No

35. Per Part 3.3.8, describe any modifications to water quality-related elements of the District's snow and ice management activities and policies during this reporting period.

36. Per Part 3.4.1.1, is the District maintaining an up-to-date inventory of all facilities that are defined in the permit as critical sources?		Yes No
• Number of inspections of critical sources conducted during this reporting year.		inspections
• Number of problems identified during these inspections.		problems
• How many of these problems were resolved?		resolved
• How many are still pending?		pending

37. Per Part 3.5.2, how many construction plan reviews were completed during this reporting year?		reviews
• How many plans were approved?		approved
• How many construction site inspections were conducted?		inspections
• How many inspections identified compliance problems?		inspections
• How many enforcement actions were initiated?		actions
• How many of the identified compliance problems were resolved?		resolved

38. Per Part 3.6.1, is the District maintaining an up-to-date inventory of all outfalls in the MS4 area and all illicit discharge information?		Yes No
• How many outfalls are included in the inventory?		outfalls
• Is the District implementing a system for reporting illicit discharges?		Yes No
• Number of reports received through the reporting system during this reporting period.		reports
• Number of illicit discharges identified through all mechanisms during this reporting year.		identified
• Number of illicit discharges eliminated during this reporting year.		eliminated

39. Per Part 3.6.2, summarize illegal disposal incidents documented and corrective actions during this reporting period.

40. Per Part 3.7.1.1, annual trash reductions in the Anacostia River basin for this reporting year:

Annual Trash Reductions in the Anacostia River Basin		
	Trash Removed (pounds)	Annual Load Reduction (pounds)
Trash Traps		
Environmental Hot Spots		
Clean-up Events		
Skimmer Boats		
Clean Teams Program		
Bag Law		
Other:		
Other:		
Totals		

• Does the District continue to participate in the Anacostia Trash Multi-jurisdictional collaboration?	Yes No
• How are these trash reduction technologies and activities being applied in other parts of the MS4 area?	

41. Per Part 3.7.2, how many bag law compliance inspections were conducted?		inspections
• How many violations were identified?		violations
• How many NOVs were issued or other corrective actions taken?		actions

42. Per Part 3.7.3, how many polystyrene foam food container ban Compliance inspections were conducted?		inspections
• How many violations were identified?		violations
• How many NOVs were issued or other corrective actions taken?		actions

43. Per Part 3.7.4, how many coal tar ban compliance inspections were conducted?		inspections
• How many violations were identified?		violations
• How many NOVs were issued or other corrective actions taken?		actions

44. Per Part 3.7.5, how many phosphorus lawn fertilizer compliance inspections were conducted during this reporting period?		inspections
• How many violations were identified?		violations
• How many NOVs were issued or other corrective actions taken?		actions

45. Per Part 3.7.6, how much household hazardous waste was collected in this reporting period?		
• total gallons of HHW		gallons
• total linear feet of HHW		feet

46. Per Part 3.7.7, how many tons of leaves and holiday trees were collected in this reporting year?		
• tons of leaves		tons
• tons of holiday trees		tons

47. Per Part 3.8.1, how many District-operated stormwater control measure inspections were conducted during this reporting period?		inspections
• How many violations were identified?		violations
• How many corrective actions were taken?		actions

48. Per Part 3.8.2, how many Non-District-operated stormwater control measure inspections were conducted during this reporting period?		inspections
• How many control measures were verified?		verified
• How many violations were identified?		identified
• How many enforcement or corrective actions were taken?		actions
• Provide a brief description of the verification process.		

49. Per Part 3.9, list stormwater training in this reporting year:

Stormwater Trainings this Year			
Topic	Audience	# Sessions	# People Trained

50. Per Part 3.10.2, targeted public education in this reporting year:		
a. Number of views of the District stormwater website.		views
b. Number of retweets of District tweets on stormwater topics.		retweets
c. For pet waste, number of bag dispensers/disposal containers.		units
d. For pet waste, number of pet waste disposal bags used.		bags
e. Number of pet waste signs installed.		signs
f. Number of RiverSmart audits completed.		audits
g. Number of RiverSmart projects installed by type:		

Number of RiverSmart Projects Installed					
	Rain barrels		Rain gardens		Permeable pavers
	Cisterns		Green roofs		Stormwater planters

h. Stormwater Retention Credits generated by the RiverSmart program.		credits
i. Number of District youth receiving environmental training.		youth
j. Number of District teachers receiving environmental training.		teachers
k. Number of participants in environmental boat tours.		participants
l. Provide a brief summary of the environmental education training programs.		
m. Provide a brief summary of the litter prevention campaign.		

Part 4 Water Quality Assessment

51. Per Part 4.1.2.1, are all analyses performed in accordance with analytical methods approved under 40 CFR Part 136 and subsequent amendments?	Yes No

52. Per Part 4.1.2.2, describe or provide citation(s) for any alternative method(s) being used.

53. Per Part 4.1.2.3, are appropriate flow measurement devices and methods being utilized?	Yes No

54. Per Part 4.1.2.4, are monitoring and assessment records being retained?	Yes No

55. Is all wet weather discharge monitoring consistent with the requirements of Part 4.2 of the permit?	Yes No

56. Have any oversample sites been substituted for continuous record sites?				Yes No
• If yes, note the old/oversample sites and the new/continuous sites below.				
Old site		New site		
Old site		New site		
Old site		New site		

57. For the 2017 Annual Report only: has the QAPP, describing receiving water assessment methods, been submitted to EPA?	Yes No N/A

58. Do all receiving water assessments adhere to Maryland Biological Stream Survey methods, any alternative methods described in the QAPP, and all requirements of Part 4.3.1 of the permit?	Yes No

59. Are all data maintained in a central geodatabase?	Yes No

60. Is all in-stream water quality sampling consistent with the requirements of the QAPP and Part 4.3.2 of the permit?	Yes No

61. Is all benthic macroinvertebrate sampling consistent with the requirements of the QAPP and Part 4.3.3 of the permit?	Yes No

62. Are all geomorphological assessments consistent with the requirements of the QAPP and Part 4.3.4 of the permit?	Yes No

63. Are all habitat assessments consistent with the requirements of the QAPP and Part 4.3.5 of the permit?	Yes No

64. Is all dry weather screening and source identification consistent with the requirements of Part 4.4 of the permit?	Yes No

65. For 2017 and 2018 Annual Reports only: is the Bacteria Source Tracking Study consistent with the requirements of Part 4.4.2 of the permit?	Yes No

66. Is all trash monitoring consistent with the requirements of Part 4.5 of the Permit?	Yes No

67. If there are any deviations from the required elements of Part 4, explain.

68. Annual Cumulative Pollutant Loads in this Reporting Year:

Annual Cumulative Pollutant Loads					
	Rock Creek	Anacostia River	Potomac River	Total	
Total Suspended Solids					tons
Total Nitrogen					pounds
Total Phosphorus					pounds
Copper					pounds
Lead					pounds
Zinc					pounds
Cadmium					pounds
E. coli					billion MPN

69. Annual Cumulative Pollutant Load Reductions in this Reporting Year:

Annual Cumulative Pollutant Reductions					
	Rock Creek	Anacostia River	Potomac River	Total	
Total Suspended Solids					tons
Total Nitrogen					pounds
Total Phosphorus					pounds
Copper					pounds
Lead					pounds
Zinc					pounds
Cadmium					pounds
E. coli					billion MPN

70. Is an evaluation of the effectiveness of the Stormwater Management Program attached?	Yes No
• Does it include a synthesis of programmatic and watershed indicators, per Part 4.6 of the permit, using data from this reporting year and prior reporting years in order to identify changes or trends over time?	Yes No
• Does it include tables and figures to summarize and help describe patterns?	Yes No
• Also, per Part 4.6.3.1, does the evaluation also include a short synthesis of areas the program deemed effective with ongoing efforts, and areas where additional strategies are needed to effectively tackle certain pollutants or sources?	Yes No
• For the 2021 Annual Report only: is a short synopsis of progress towards meeting all WLAs applicable to the MS4 attached?	Yes No

Signature and Certification

This report must be signed by either a principal executive officer or ranking elected official, or his or her duly authorized representative. This report may be submitted electronically.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:	

Signatory	Name:	Title:

Date Signed:	