

Report Submittal Date:

Reporting Period:

Contact Person (name and title):

Phone Number:

E-mail Address:

DC Stormwater Website URL:

---

## Part 1 Discharges Authorized Under this Permit

1. Per Section 1.4.3 of the permit, does the Permittee certify that there are sufficient finances, staff, equipment, and support capabilities to implement the provisions of this permit?
2. Per Section 1.5.3.1 of the permit, fill in only the boxes for prior and current years. Report the same permit limits for prior years as reported in those annual reports. Leave boxes for future years empty. PROW acres may also be reported for respective major basins, as relevant. PROW numbers will not be added to major basin numbers. Acres Managed should include all types of installations detailed in Section 3.2 of the permit.

Acres Managed  
By Annual Report Year

	2019	2020	2021	2022	2023
Anacostia River					
Potomac River					
Rock Creek					
Public Right-of-Way					

Total

3. Net Tree Planting in the MS4 Permit area

2019	2020	2021	2022	2023	Total tree plantings to date this permit term

Are tree plantings included in the estimate of Acres Managed in #2?

4. Square Feet of green roofs installed in the MS4 Permit area

2019	2020	2021	2022	2023	Total square feet of green roofs installed to date this permit term

5. Are green roofs in the estimate of Acres Managed in #2?

Per Section 1.5.3.2 of the permit, report pounds of trash captured, removed, or prevented from entering the Anacostia River. Fill in only the boxes for prior and current years. Report the same permit limits for prior years as reported in those annual reports. Leave boxes for future years empty.

Pounds of Trash  
 Annual Report Year (year in which this report is due)

2019	2020	2021	2022	2023

6. Are tables for all WLA benchmarks attached to this annual report?

## Part 2 Stormwater Management Planning

7. For the Annual Report due December 1, 2019:
  - a. Per Section 2.3 of the permit, is the Inspection Strategy for Regulated On-Site and Off-Site Measures attached?
8. For the Annual Report due December 1, 2020:
  - a. Per Section 2.2.3 of the permit, Is the Stormwater Fee Options Evaluation attached?
  - b. Per Section 2.2.4 of the permit, is the Analysis of Updating the Stormwater Regulations attached?
  - c. Per Section 2.6 of the permit, are alternatives for ice and snow management discussed in the attached Snow and Ice Removal Plan?
9. For the Annual Report due December 1, 2021:
  - a. Per Section 2.4 of the permit, are Standardized Public Right-of-Way Optimal Designs attached?
10. Per Section 2.2.1 of the permit, on maintaining and refining TMDL databases, provide a short status update.
11. Per Section 2.2.5.1 of the permit, have any TMDLs with MS4 WLA been approved during this permit term?

- a. If so, list the TMDL(s) and briefly note measures taken to develop milestones and benchmarks.
  
12. Per Section 2.7 of the permit, on Infrastructure Resilience Assessments, provide a brief narrative of actions taken during this reporting period.

## Part 3 Stormwater Management Program Implementation

13. Per Section 3.2.1.1, 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?

Stormwater regulations website, if different then the URL posted above.

14. Per Section 3.2.1.3 of the permit, how many site plan reviews were conducted during this permit term?

- a. How many of these projects were in the PROW?
- b. How many site plans were finally approved during this reporting period?

15. How many gallons were retained for development projects completed this reporting year subject to the requirements of Section 3.2.2, 3.2.4, and 3.2.5 of the permit?

- a. Total on-site retention (gallons):
- b. Total off-site retention (gallons):

16. Per Section 3.2.3.2, has Stormwater Retention Credit (SRC) eligibility for projects installed prior to July 1, 2013 been eliminated (in association with revisions to the District stormwater regulations)?

17. Per Section 3.2.3.3, has the SRC Purchase Agreement Program been established?

- a. Provide a brief description of the SRC Purchase Agreement Program status?
  - b. At the end of this reporting period how many SRCs more than 1-year old are going unused?
18. Per Section 3.2.6 of the permit, have any modifications been made to the District's Stormwater Management Guidebook during this reporting period?
- a. If yes, provide a brief summary of changes.
19. Per Section 3.2.7 of the permit, have any modifications been made to the District's Green Area Ratio program during this reporting period?
- a. If yes, provide a brief summary of the changes.

20. Per Section 3.2.11 of the permit, as relevant, provide specific metrics (miles, square feet, etc.) for any stream, buffer, or floodplain restoration project for which the Permittee claims either Acres Managed credits or Pollutant Load Credits during this reporting period.

b. Are these projects included in the estimates of acres managed in #2?

21. Per Section 3.3.1 of the permit, how many storm sewer overflows (SSOs) to the MS4 occurred during this reporting period?

Were responses consistent with the requirements of Section 3.3.1 of the permit?

22. Per Section 3.3.2 of the permit, provide the number of District-owned, operated, and leased facilities and job sites within the MS4 area that conducted industrial activities during the reporting period.

a. Number of these facilities with Stormwater Pollution Prevention Plans (SWPPPs) meeting the requirements of Section 3.3.2.2a-e of the permit or MSGP.

b. If not all facilities have SWPPPs, are they being developed?

c. Do all facilities conduct self-inspections no less frequently than quarterly?

d. If you answered 'no' to either of the questions above, describe corrective actions being taken.

23. Per Section 3.3.2.4 of the permit, have wash water discharges to the MS4 from District operations been fully prohibited and eliminated?

- a. If not, describe corrective actions being taken.
- b. Number of inspections of District industrial operations this reporting period.
- c. Number of corrective actions taken?
- d. Is the Permittee maintaining a database inventory of all municipal operations that conduct industrial activities and/or are considered critical sources?

24. Per Section 3.3.2.7 of the permit, are appropriate records being retained?

25. Per Section 3.3.3 of the permit, are all District operations utilizing pesticides, herbicides, and fertilizers consistent with requirements?

- a. Number of Integrated Pest Management (IPM)/ Nutrient Management (NM) Plans being implemented in the District.
- b. Description of IPM/NM planning through the Permittee's Pollution Prevention program.



26. Per Section 3.3.4 of the permit, how many catch basins are in the MS4 Permit area?

- a. During the reporting year, how many of those catch basins were inspected?
- b. During this reporting year, how many of those catch basins were cleaned?
- c. What is the total estimated volume or weight of materials removed from the catch basin that were cleaned? (gallons or tons)
- d. Has the GIS-based mobile field application been implemented to track catch basin maintenance activities?
- e. Per Section 3.3.4.3 of the permit, describe any modifications to catch basin cleaning frequencies.

27. Per Section 3.3.5 of the permit how many MS4 outfalls are in the MS4 Permit area?

- a. During the reporting year, how many of those outfalls were repaired?
- b. What is the cumulative number of outfalls with repairs complete in this permit term?

28. Per Section 3.3.6 of the permit, provide miles of streets swept in the MS4 Permit area in this reporting year?

29. Per Section 3.3.7 of the permit, are transportation and utility construction activities implementing all appropriate soil and sedimentation control measures?
- a. If not, describe corrective action being taken.
30. Per Section 3.3.8 of the permit, describe any modifications to water quality-related elements of the District's snow and ice management activities and policies during this reporting period.
31. Section 3.4 of the permit, is the Permittee maintaining an up-to-date inventory of all facilities that are defined in the permit as critical sources?
- a. Number of inspections of critical sources conducted during this reporting year.
- b. Number of problems identified during these inspections.
- c. How many of these problems were resolved?
- d. How many problems are still pending?
32. Per Section 3.5 of the permit, how many construction plan reviews were completed during this reporting year?
- a. How many plans were approved?
- b. How many construction site inspections were conducted?
- c. How many inspections identified compliance problems?

- d. How many enforcement actions were initiated?
  - e. How many of the identified compliance problems were resolved?
33. Per Section 3.6.1 of the permit, is the Permittee maintaining an up-to-date inventory of all outfalls in the MS4 area and all illicit discharge information?
- a. How many outfalls are included in the inventory?
  - b. Is the Permittee implementing a system for reporting illicit discharges?
  - c. Number of reports received through the reporting system during this reporting period.
  - d. Number of illicit discharges identified through all mechanisms during this reporting year.
  - e. Number of illicit discharges eliminated during this reporting year.
34. Per Section 3.6.2 of the permit, summarize illegal disposal incidents documented and corrective actions taken during this reporting period.

35. Per Section 3.7.1.1 of the permit, provide annual trash reductions in the Anacostia River basin for this reporting period. Totals should be reported under Question 5.

**Annual Trash Reductions in the Anacostia River Basin**

Program	Trash Removed (lbs)	Annual Load Reduction (lbs)
Trash Traps		
Environmental Hotspots		
Clean-up Events		
Skimmer Boats		
Clean Team Program		
Bag Law		

- a. Does the Permittee continue to participate in the Anacostia Trash Multi-jurisdictional Collaboration?
- b. How are these trash reduction technologies and activities being applied in other parts of the MS4 area?

36. Per Section 3.7.2 of the permit, how many bag law compliance inspections were conducted?

- a. How many violations were identified?
- b. How many NOVs were issued or other corrective actions taken?

37. Per Section 3.7.3 of the permit, how many polystyrene foam food container ban compliance inspections were conducted?

- a. How many violations were identified?
- b. How many NOVs were issued or other corrective actions taken?

38. Per Section 3.7.4 of the permit, how many coal tar ban compliance inspections were conducted?

- a. How many violations were identified?
- b. How many NOVs were issued or other corrective actions taken?

39. Per Section 3.7.5 of the permit, how many phosphorus lawn fertilizer compliance inspections were conducted during this reporting period?

- a. How many violations were identified?
- b. How many NOVs were issued or other corrective actions taken?

40. Per Section 3.7.6 of the permit, how much household hazardous waste was collected in this reporting period?

- a. Total gallons of household hazardous waste.
- b. Total linear feet of household hazardous waste.

41. Per Section 3.7.7 of the permit, how many tons of leaves and holiday trees were collected in this reporting period?

- a. Total tons of leaves collected.
- b. Total tons of holiday trees collected.

42. Per Section 3.8.1 of the permit, how many District-operated stormwater control measures inspections were conducted during the reporting period?

- a. How many violations were identified?
- b. How many corrective actions were taken?

43. Per Section 3.8.2 of the permit, how many Non-District operated stormwater control measure inspections were conducted during this reporting period?

- [illegible]

Topic	Audience	Number of Sessions	Number of People Trained

45. Per Section 3.10 of the permit, provide the following information regarding targeted public education in this reporting year.

Number of views of the District stormwater website	
Number of retweets of District tweets on stormwater topics	
For pet waste, number of bag dispensers/ disposal containers	
For pet waste, number of pet waste disposal bags used	
Number of pet waste signs installed	
Number of RiverSmart audits completed	

**Number of RiverSmart Practices Installed**

Rain Barrels	Rain Gardens	Permeable Pavers	Stormwater Planters	Green Roofs	Cisterns

- a. Stormwater Retention Credits generated by the RiverSmart Program.
- b. Number of District youth receiving environmental training.
- c. Number of District teachers receiving environmental training.
- d. Number of participants in environmental boat tours.
- e. Provide a summary of the environmental education training program.
  
- f. Provide a brief summary of the litter prevention campaign.



## Part 4 Water Quality Assessment

46. Per Section 4.1.3.1 of the permit, are all analyses performed in accordance with analytical methods approved under 40 C.F.R. Part 136 and subsequent amendments?
47. Per Section 4.1.3.2 of the permit, describe or provide citation(s) for any alternative method(s) being used.
48. Per Section 4.1.3.3 of the permit, are appropriate flow measurement devices and methods being utilized?
49. Per Section 4.1.3.4 of the permit, are monitoring and assessment records being retained?
50. Is all wet weather discharge monitoring consistent with the requirements of Section 4.2 of the permit?
51. Per Section 4.2.3 of the permit, have any oversample sites been substituted for continuous record sites, or other new continuous record sites established?
- a. 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:	
Old site:		New site:	

52. For the 2019 Annual Report only: Per Section 4.3.1.1 of the permit, has the QAPP describing receiving water assessment methods been submitted to EPA?
53. Do all receiving water assessments adhere to the Maryland Biological Stream Survey methods, any alternative methods described in the QAPP, and all requirements of Section 4.3.1 of the permit?
54. Per Section 4.3.1.9 of the permit, are all data maintained in a central geodatabase?
55. Is all in-stream water quality sampling consistent with the requirements of the QAPP and Section 4.3.2 of the permit?
56. Is all benthic macroinvertebrate sampling consistent with the requirements of the QAPP and Section 4.3.3 of the permit?
57. Are all geomorphological assessments consistent with the requirements of the QAPP and Section 4.3.4 of the permit?
58. Are all habitat assessments consistent with the requirements of the QAPP and Section 4.3.5 of the permit?
59. Is all dry weather screening and source identification consistent with the requirements of Section 4.4.1 of the permit?
60. For 2019 and 2020 Annual Reports only: Is the Bacteria Source Tracking Study consistent with the requirements of Section 4.4.2 of the permit and on track to be completed and submitted to EPA by July 1, 2021, or has an alternative schedule been requested?

61. Is all trash monitoring consistent with the requirements of Section 4.5 of the permit?

62. Explain any deviations from the required elements of Part 4 of the permit.

63. Per Section 4.6.2.1 of the permit, Estimated Annual Cumulative Pollutant Loads in this reporting year.

	Rock Creek	Anacostia River	Potomac River	Total
Total Suspended Solids				
Total Nitrogen				
Total Phosphorus				
Copper				
Lead				
Zinc				
Cadmium				
<i>E.coli</i>				

64. Estimated Annual Cumulative Pollutant Reductions in this reporting year.

	Rock Creek	Anacostia River	Potomac River	Total
Total Suspended Solids				
Total Nitrogen				
Total Phosphorus				
Copper				
Lead				
Cadmium <sup>1</sup>				
<i>E.coli</i>				

1. An EPA report (402-R-99-004B- linked below) that reviewed several studies with varied site conditions has documented mean partition coefficients for metals. DDOE used these metal-specific partition coefficients (K<sub>d</sub>) and associated particle associated fraction (f<sub>p</sub>) values to model pollutant reduction for these metals through BMP implementation. Since many of the relevant low impact development (LID) practices have similar removal rates for lead and cadmium, the relationship between these two metals, their f<sub>p</sub> values, and the areas retrofitted were used to estimate cadmium reductions achieved through the Retrofit Program. DDOE will use this methodology to estimate the pollutant load reduction for cadmium in future Annual Reports.

65. Per Section 4.6 of the permit, is an evaluation of the effectiveness of the Stormwater Management Program attached?


- a. Does it include a synthesis of programmatic and watershed indicators, per Section 4.6 of the permit, using data from this reporting year and prior reporting years in order to identify changes or trends over time?
- b. Does it include, per Section 4.6.2.2 of the permit, an estimate of progress towards all numeric limits in Section 1.5.3.1 of the permit?
- c. Per Section 4.6.3.1 of the permit, does the evaluation 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?
- d. For the 2022 Annual Report only: is a short synopsis of progress towards meeting all WLAs applicable to the MS4 attached?
- e. Is the development of a multi-faceted suite of indicators on track to be submitted with the updated SWMP in 2022?

66. Are all databases being maintained per the requirements of Section 4.7?

## Signature and Certification

This report must be signed by either a principle 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 and/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 person who managed 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:		Date:	12-2-2019
Print Name:	Jonathan Champion	Title:	Associate Director

## Table of Attachments

1	Inspection Strategy for regulated On-site and off-site measures .....	1
2	Evaluation of the stormwater management program .....	3
3	EPA Consent Agreement Reporting .....	25
4	QAPP .....	26
5	Discharge Monitoring Report Forms .....	27

## **1 INSPECTION STRATEGY FOR REGULATED ON-SITE AND OFF-SITE MEASURES**

The Department of Energy and Environment's (DOEE) goal is to conduct maintenance inspections of all post construction stormwater best management practices (BMPs) at least twice during the first five years of operation and at least once every three years thereafter to ensure completion of scheduled maintenance and servicing of stormwater BMPs. Inspectors prioritized maintenance inspections based on the following: a complaint received regarding a location where stormwater BMPs are in use; a request for inspection by the owner or their agent; a request to verify the condition of a stormwater BMP for certification of Stormwater Retention Credits (SRCs), or impervious cover reduction stormwater fee discount; date of final construction of BMP; date of last maintenance inspection; and date of Stormwater Management Plan (SWMP) approval. DOEE maintains legal mechanisms to ensure compliance with all local and federal stormwater regulations. Inspection authority is codified in local regulations and when water quality violations occur, DOEE can take either informal or formal action to achieve compliance. DOEE can also refer a case for Criminal Enforcement, D.C. Official Code § 8-103.16, or to the EPA.

Informal Action, D.C. Official Code § 8-103.16 (b), consists of:

1. Directive
2. Cease and Desist Orders
3. Written Notice of Violation (Warning)
4. Administrative Orders (Notice of Noncompliance, Letters of Agreement, Consent Agreements)

Formal Action can precede judicially or administratively, D.C. Official Code § 8-103.16 -17, and consists of:

1. The Civil Infraction process - D.C. Official Code § 8-103.16(f)
2. Emergency/ Special Orders - D.C. Official Code § 8-103.17(b)
3. Judicial Action- D.C. Official Code § 8-103.18(a)(2)

Due the number of BMPs in the District has increased due to regulatory compliance, Stormwater Retention Credit (SRC) generation, voluntary BMP installations, and pollution prevention during inspections, DOEE must now utilize additional innovative solutions to keep up with workload increases.

One such approach that DOEE is currently piloting is the Self-Inspection Self-Reporting (SISR) program. The SISR application will enable property owners with a regulated stormwater BMP to track and submit inspection and maintenance service reports to the Stormwater Database (SWDB). DOEE inspectors will review each submission to ensure that the reported inspections and maintenance service are sufficient for the BMP type. A complete submission will contain: a completed and signed inspection report, clear before and after photos, and service reports. Ten percent of the submitted reports will be visually inspected on site by DOEE as part of quality assurance measures. During the pilot phase, DOEE's primary focus is to assist District agencies

with properly inspecting and maintaining their stormwater BMPs. However, DOEE is expanding the program to cover privately owned or operated BMPs as well.

The success of SISR will result in an overhaul of current maintenance inspection operations. DOEE will be able to focus maintenance inspections towards commercial, high-density residential, industrial, educational, and medical facilities in the MS4 area, with special attention to ensuring that newly constructed BMPs are inspected twelve months after the construction completion date. Owners not participating in the program may experience increased enforcement for failure to maintain their BMPs.

Stormwater BMPs that are part of the SRC or RiverSmart Rewards programs will still require an inspection as part of the initial application but may be able to submit inspection and maintenance reports through SISR at least 6 months prior to the start of the next 3-year certification period in future phases of the SISR program. DOEE would conduct an inspection if the agency deemed the reported inspection and maintenance information were insufficient. A copy of the stormwater BMP maintenance contract must also be submitted to DOEE prior to recertification to avoid a lapse in the program's certification. DOEE is committed to working with District Agencies to ensure all stormwater BMPs owned by the District of Columbia are functioning in accordance with the approved SWMP. District Agencies will also be able to utilize SISR to track stormwater management assets, inspection, and maintenance.

DOEE currently has a contract and will continue to work with licensed contractors to demonstrate proper maintenance of some LID practices at District-owned facilities.

DOEE's Self-Inspection and Self-Reporting Program and Guide can be found at:  
<https://doee.dc.gov/service/sisr>.

Additional information about BMP inspections is found in DOEE's Stormwater Guidebook that can be found at <https://doee.dc.gov/swguidebook>.



## 2 EVALUATION OF THE STORMWATER MANAGEMENT PROGRAM

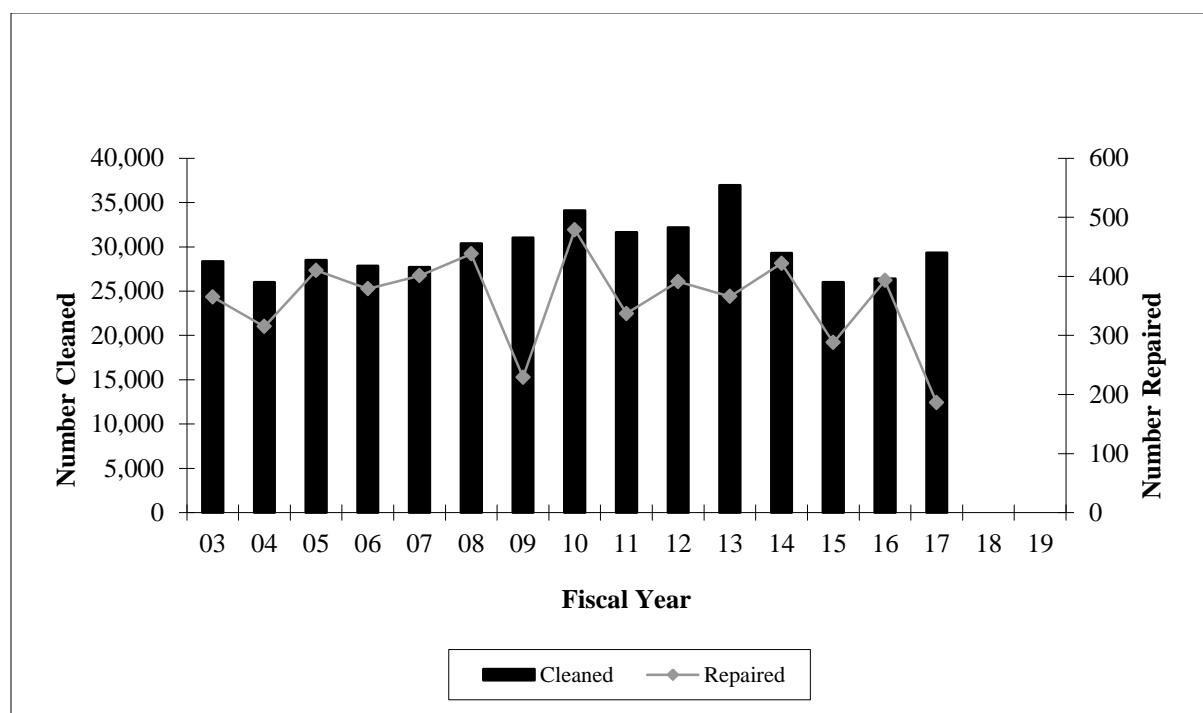
The District's MS4 Annual Report, Section 4.6, requires a data synthesis of programmatic and watershed indicators.

### 4.6.1 Programmatic Indicators

*The Permittee shall evaluate the effectiveness of the SWMP using multiple programmatic indicators linked to the requirements in Part 3 of this permit. The Annual Reporting Template in Appendix A of this permit identifies the programmatic indicators used to evaluate the success of implementing stormwater control measures.*

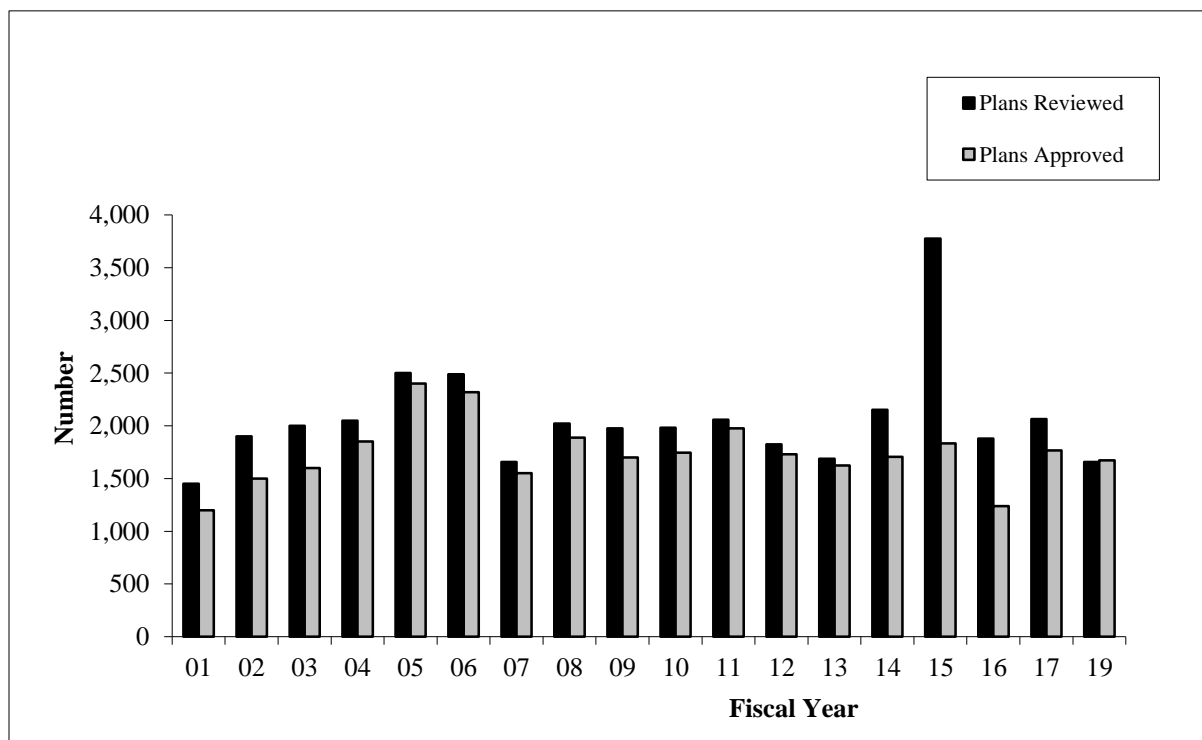
As required by Section 4.6.1, the effectiveness of the Stormwater Management Program is evaluated using the programmatic indicators found in Part 3 of the MS4 Permit. The Annual Report describes implementation of these programs in this reporting year. In interest of doing a complete synthesis, indicators are being reviewed over the life of multiple permit terms. As seen in the figures below, major program indicators have seen either a steady progression in implementation.

#### *Catch Basin Cleaning Activities (Section 3.3.4)*



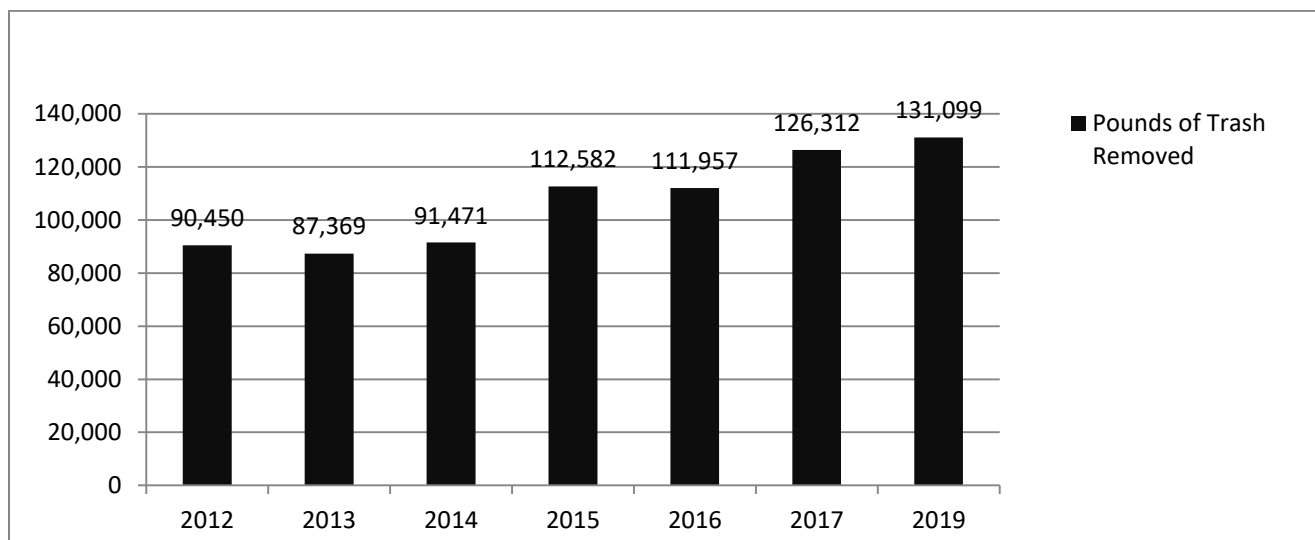
**Figure 1 Number of Catch Basins Cleaned and Repaired Over Time**

### *Construction Activities (Section 3.5)*

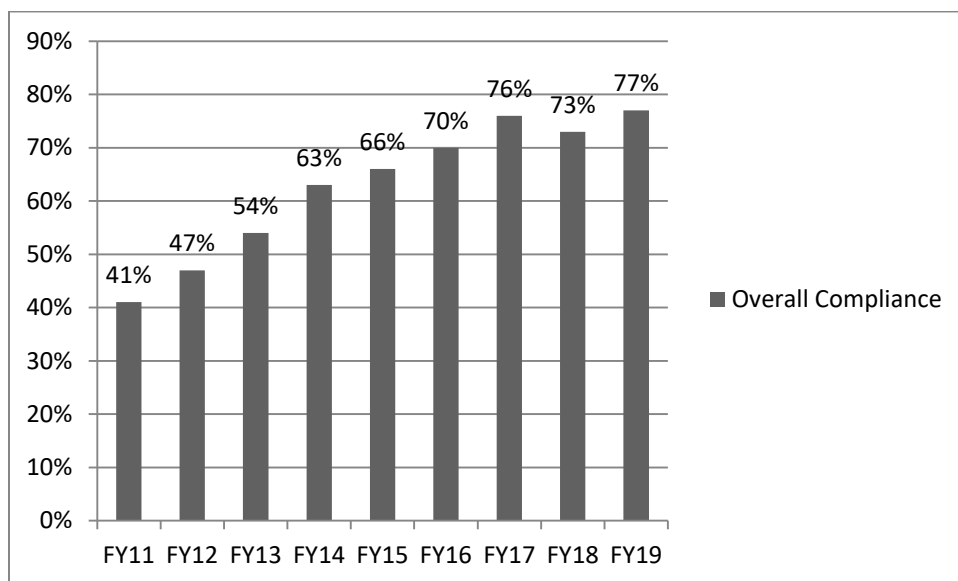


**Figure 2** Total Number of Stormwater Management and Erosion and Sediment Control Plans Reviewed and Total Number of Plans Approved Over Time

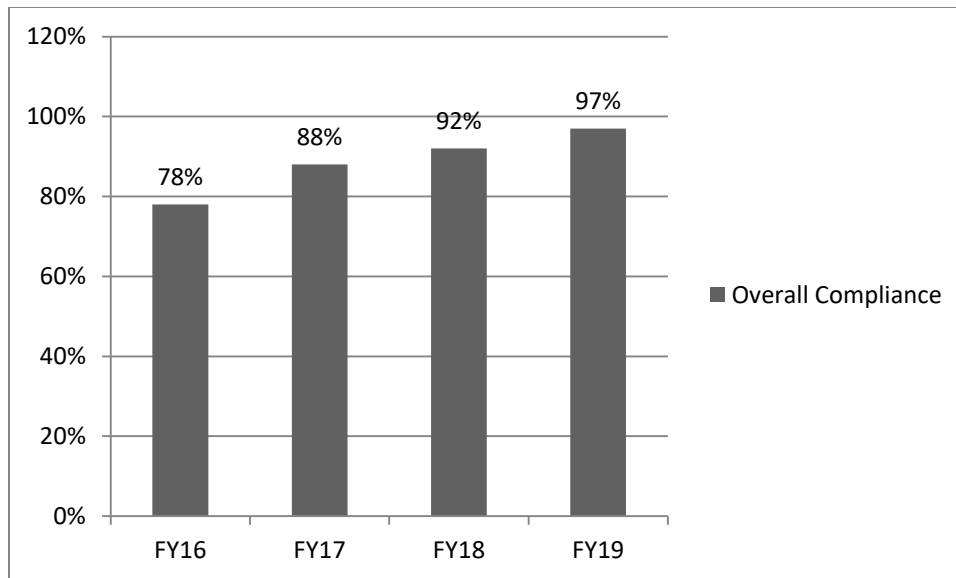
### *Targeted Trash and Litter Pollutant Controls (Section 3.7)*



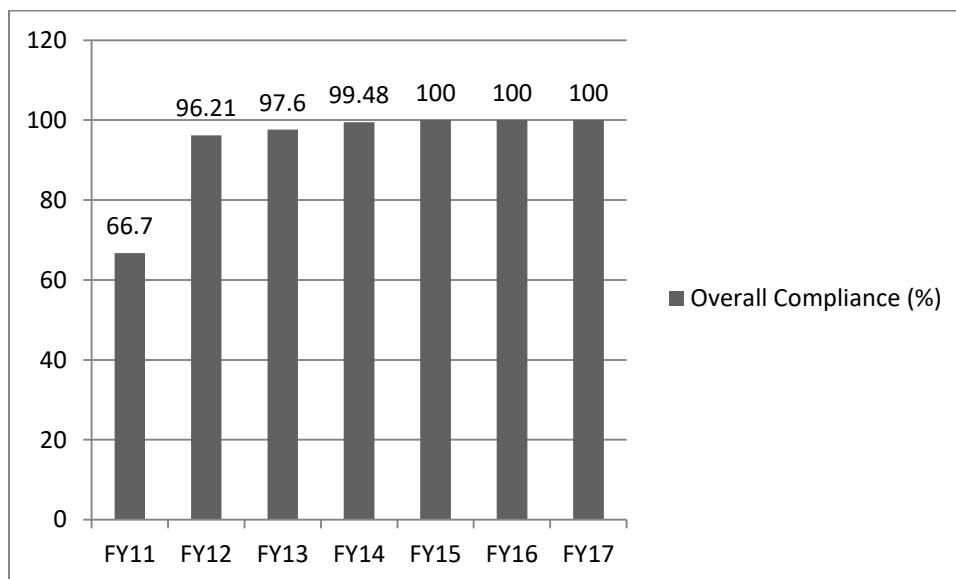
**Figure 3 Annual Pounds of Trash Removed Over Time**



**Figure 4 Bag Law Compliance Rates Over Time**



**Figure 5 Foam Ban Compliance Rates**



**Figure 6 Coal Tar Pavement Sealant Ban Compliance Rates**

**Table 1 Coal Tar Pavement Sealant Ban Inspections and Compliance Rates**

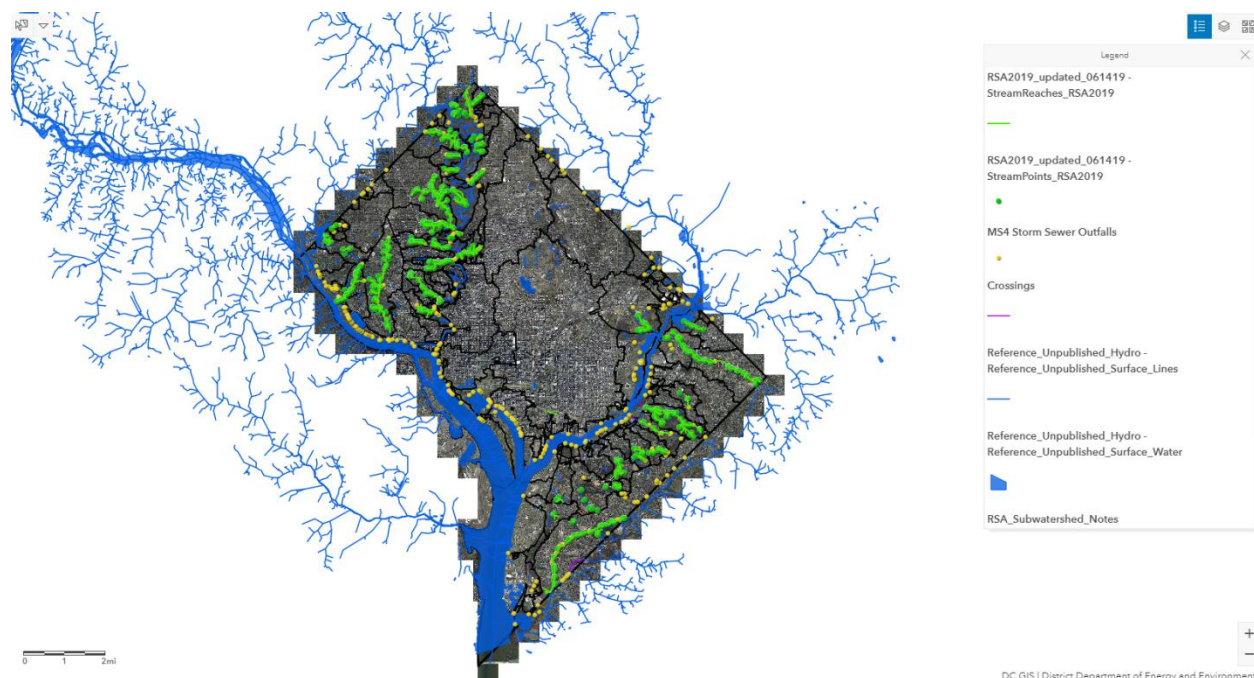
<b>Fiscal Year</b>	<b>Inspections</b>	<b>Positive CT Field Tests</b>	<b>Overall Compliance (%)</b>
<b>FY11</b>	36	13	66.7
<b>FY12</b>	79	2	96.21
<b>FY13</b>	163	6	97.6
<b>FY14</b>	190	9	99.48
<b>FY15</b>	83	1	100
<b>FY16</b>	60	0	100
<b>FY17</b>	64	4*	100
<b>FY18</b>	60	6*	100
<b>FY19</b>	63	1	100
<b>TOTALS:</b>	611	31	

#### 4.6.2 Watershed Indicators

*The Permittee shall also evaluate the effectiveness of the SWMP using 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.*

In the 2019 reporting year, DOEE began implementing the Receiving Waters Assessment Program as required in Section 4.3 of the District's MS4 Permit. As part of this program DOEE has developed a Rapid Stream Assessment. The intent of the Rapid Stream Assessment (RSA) is to collect information to provide a high-level overview of the entire wadeable stream network within the District. This information can help identify potential issues as well as locations that may warrant follow-up inspections or more in-depth evaluations. The information from the RSA can also serve as a baseline with which to compare information from these assessments in the future. All data collected as part of this program is housed in ArcGIS.

In the first year of implementation, DOEE assessed 58.784 miles of streams, which translates to approximately 47.8 percent of wadeable streams in the District, Figure 7. The first reporting year focused on implementation and protocol QA/QC. DOEE will complete an assessment of the remaining 52.2 percent of wadeable streams in the next sampling season. From then on, DOEE will aim to re-assess approximately 20 percent of wadeable streams each year, allowing for trend analysis of RSA results in future reporting years.



**Figure 7 Rapid Stream Assessment Achievements**

#### 4.6.2.1 Estimate Annual Cumulative Pollutant Loadings

*The Permittee shall estimate annual cumulative pollutant loadings for all pollutants listed in Table 7 of this permit.*

DOEE continues to implement a wet weather monitoring program at representative outfalls, Table 2. The wet weather sampling summary data for the required monitoring parameters is detailed in Table 3, Table 4, and Table 5. The geometric mean for each parameter was calculated to represent the event mean concentration (EMC).

**Table 2 Monitoring Site Information**

Site	Outfall	Watershed
SW1	Outfall 999 - Gallatin	Anacostia
SW2	Outfall 123 - Oxon Run	Potomac
SW3	Outfall 851 - Soapstone Creek	Rock Creek
SW4	Outfall 1035 – Kenilworth and Douglas	Anacostia
SW5	Outfall 260 – 53 <sup>rd</sup> and Dix Street	Anacostia
SW6	Outfall 950 – Potomac Tributary	Potomac
SW7	Outfall 103 – Oxon Run	Potomac
SW8	Outfall 825 – Tilden and Reno	Rock Creek
SW9	Outfall 901 – Tributary to Pinehurst Br.	Rock Creek

**Table 3 Potomac Watershed Wet Weather Sampling Data 2018-2019, geometric mean**

<b>Potomac River Watershed</b>				
<b>Parameter</b>	<b>Unit</b>	<b>SW2</b>	<b>SW6</b>	<b>SW7</b>
E. Coli	MPN/100ml	964.06	1113.98	735.23
Cadmium	mg/L	0.000155	0.000161	0.000261
Copper	mg/L	0.0218	0.0123	0.0265
Lead	mg/L	0.0007	0.0007	0.0027
Zinc	mg/L	0.0464	0.0378	0.0967
Total Suspended Solids	mg/L	10.03	2.71	28.01
Phosphorus, Total	mg/L	0.36	0.16	0.35
Nitrogen, Total	mg/L	4.08	4.88	4.13

n=3 except SW5, which is n=1

Note: where value is < (less than) or non-detect, the Detection Limit (DL) value is used

**Table 4 Anacostia Watershed Wet Weather Sampling Data 2018-2019, geometric mean**

<b>Anacostia River Watershed</b>				
<b>Parameter</b>	<b>Unit</b>	<b>SW2</b>	<b>SW6</b>	<b>SW7</b>
E. Coli	MPN/100ml	1600	1600	920
Cadmium	mg/L	0.000247	0.000112	0.00036
Copper	mg/L	0.0208	0.0165	0.008
Lead	mg/L	0.001	0.0046	0.0019
Zinc	mg/L	0.048	0.0524	0.0446
Total Suspended Solids	mg/L	13.9	17.35	16
Phosphorus, Total	mg/L	0.32	0.13	0.12
Nitrogen, Total	mg/L	3.99	3.46	3.28

n=3 except SW5, which is n=1

Note: where value is < (less than) or non-detect, the Detection Limit (DL) value is used

**Table 5 Rock Creek Watershed Wet Weather Sampling Data 2018-2019, geometric mean**

Rock Creek Watershed				
Parameter	Unit	SW3	SW8	SW9
E. Coli	MPN/100ml	1600	1600	1600
Cadmium	mg/L	0.000321	0.000188	0.00006
Copper	mg/L	0.0195	0.0182	0.0139
Lead	mg/L	0.0049	0.0027	0.0003
Zinc	mg/L	0.0613	0.1062	0.0406
Total Suspended Solids	mg/L	30.86	19.31	1.86
Phosphorus, Total	mg/L	0.31	0.12	0.18
Nitrogen, Total	mg/L	3.73	3.15	3.45

n=3 except SW5, which is n=1

Note: where value is < (less than) or non-detect, the Detection Limit (DL) value is used

Table 6 provides the annual cumulative pollutant load occurring in the three main watersheds within the District.

**Table 6 Annual Cumulative Pollutant Load**

	Rock Creek	Anacostia River	Potomac River	Total	Units
Total Suspended Solids	263	167	301	731	tons
Total Nitrogen	142,134	82,875	195,520	420,529	Pounds/ yr
Total Phosphorous	10,544	5,353	12,905	28,802	Pounds/yr
Copper	765	763	902	2,430	Pounds/yr
Lead	170	69	62	301	Pounds/yr
Zinc	1,913	1,089	2,077	5,079	Pounds/yr
Cadmium	13	9	9	30	Pounds/yr
E. coli	2.86E+14	3.00E+14	1.90E+14	7.76E+14	MPN/100ml

DOEE calculated the potential pollutant load and volume reductions achieved through the annual BMP implementation, Table 7. The load and volume reduction estimates were developed using the District's Implementation Plan Modeling Tool (IPMT). With green roof installation being a notable achievement this reporting period DOEE has also included the volume reductions for the District's green roof implementation, Table 8



**Table 7 Pollutant Load Reductions, 07/01/2018 - 06/30/2019**

<b>Watershed</b>	<b>Runoff Retained (gallons)</b>	<b>TN (lbs)</b>	<b>TP (lbs)</b>	<b>TSS (lbs)</b>	<b>E. coli (billion MPN)</b>	<b>Copper (lbs)<sup>1</sup></b>	<b>Lead (lbs)</b>	<b>Cadmium<sup>1</sup> (lbs)</b>	<b>Zinc (lbs)</b>
Anacostia	42,246,405	1,291	150	30,159	9,927	20.78	6.45	7.06	48.22
Rock Creek	16,158,627	486	56	7,788	3,686	7.73	2.39	2.62	15.00
Potomac River	9,513,951	283	33	4,141	2,148	4.50	1.40	1.53	8.72
<b>Total</b>	<b>67,918,983</b>	<b>2,060</b>	<b>239</b>	<b>42,089</b>	<b>15,760</b>	<b>33.01</b>	<b>10.24</b>	<b>11.21</b>	<b>71.94</b>

1 An EPA report (402-R-99-004B- linked below) that reviewed several studies with varied site conditions has documented mean partition coefficients for metals. DDOE used these metal-specific partition coefficients (Kd) and associated particle associated fraction (fp) values to model pollutant reduction for these metals through BMP implementation. Since many of the relevant low impact development (LID) practices have similar removal rates for lead and cadmium, the relationship between these two metals, their fp values, and the areas retrofitted were used to estimate cadmium reductions achieved through the Retrofit Program. DDOE will use this methodology to estimate the pollutant load reduction for cadmium in future Annual Reports.

**Table 8 Runoff Retained by Green Roof, by major watershed**

<b>Watershed</b>	<b>Annual Runoff Retained (gallons)</b>		
	<b>LA</b>	<b>WLA</b>	<b>Total</b>
Anacostia	0	493,430	<b>493,430</b>
Rock Creek	6,296	261,738	<b>268,033</b>
Potomac	0	675,972	<b>675,972</b>
<b>Total</b>	<b>6,296</b>	<b>1,431,140</b>	<b>1,437,436</b>

As required, DOEE has attached all WLA benchmarks to this annual report, Table 11. This table provides a watershed scale summary that includes load reductions MS4 and direct drainage area for each non-CSS watersheds. The color coding indicates whether the Wasteload Allocation (WLA) has been achieved for that waterbody/pollutant combination, Table 10.

Table 9 Table Key

Green cells indicate that the WLA has already been achieved for that waterbody and pollutant combination.
Blue cells indicate that the benchmark load reduction was achieved or exceeded for that waterbody and pollutant combination.
Orange cells indicate that the benchmark load reduction was not achieved for that waterbody and pollutant combination.
Grey cells indicate that there is no MS4 WLA for that waterbody and pollutant combination, and therefore no benchmark has been established. Load reductions are provided for informational purposes only.

Table 10 Overall Summary of WLA Benchmark Achievements, 07/01/2018 - 06/30/2019

WLA Achieved	32
Benchmark Achieved	27
Benchmark Not Achieved	175
No WLA or benchmark	822

Table 11 Pollutant Load Reductions from BMP Implementation with WLA Benchmarks, 07/01/2018 to 06/30/2019

Watershed	Runoff Retained (gallons)	TN (lbs)	TP (lbs)	TSS (lbs)	Fecal Coliform (billion MPN)	BOD (lbs)	Oil and Grease (lbs)	As (lbs)	Cu (lbs)	Pb (lbs)	Ca <sup>1</sup> (lbs)	Hg(lbs)	Zn (lbs)	Chlordane (lbs)	DDD (lbs)	DDE (lbs)	DDT (lbs)	Dieldrin (lbs)	Heptachl or Epoxide (lbs)	PAH1 (lbs)	PAH2 (lbs)	TPCB (lbs)	E. coli (Billion MPN)
Anacostia	27,953,343	857.72	99.31	20,006.0	16,402	8,562	915.1	4.0E-01	1.4E+01	4.3E+00	4.7E+00	4.9E-02	3.2E+01	2.4E-03	7.8E-04	3.5E-03	9.0E-03	6.8E-05	2.2E-04	1.5E-01	1.0E+00	2.1E-02	6,582.6
Anacostia Lower	14,068,072	450.59	52.13	10,726.5	8,692	4,398	441.6	2.1E-01	7.3E+00	2.3E+00	2.5E+00	2.6E-02	1.7E+01	1.2E-03	4.1E-04	1.9E-03	4.8E-03	3.4E-05	1.1E-04	7.8E-02	5.3E-01	1.1E-02	3,488.3
Anacostia Upper	13,885,272	407.13	47.17	9,279.5	7,710	4,165	473.5	1.9E-01	6.5E+00	2.0E+00	2.2E+00	2.3E-02	1.5E+01	1.2E-03	3.7E-04	1.7E-03	2E-03	4E-05	1.1E-04	7.6E-02	5.0E-01	9.9E-03	3,094.2
ANATF_DC	23,579,026	527.65	61.93	12,420.1	10,242	5,058	572.1	2.4E-01	8.5E+00	2.7E+00	3.0E+00	3.0E-02	2.0E+01	1.4E-03	4.9E-04	2E-03	5.6E-03	3.9E-05	1.3E-04	9.0E-02	6.0E-01	1.3E-02	4,110.5
ANATF_MD	5,676,887	129.28	14.90	3,000.3	2,459	1,257	127.7	5.9E-02	2.1E+00	6.4E-01	7.0E-01	7.3E-03	4.8E+00	3.6E-04	1.2E-04	5.3E-04	1.4E-03	1.0E-05	3.3E-05	2.3E-02	1.5E-01	3.1E-03	986.9
Battery Kemble Creek	60,314	2.30	0.27	33.1	43	14	1.8	9.8E-04	3.5E-02	1.2E-02	1.3E-02	1.2E-04	7.0E-02	5.3E-06	2.0E-06	4E-06	3E-05	1.5E-07	4.8E-07	3.3E-04	2.4E-03	5.2E-05	17.3
Broad Branch	1,958,761	57.52	6.72	1,072.3	1,090	394	84.4	2.7E-02	9.2E-01	2.8E-01	3.1E-01	3.3E-03	1.8E+00	1.6E-04	5.2E-05	2.4E-04	6.0E-04	4.7E-06	1.6E-05	1.0E-02	7.0E-02	1.4E-03	437.3
C&O Canal	655,254	22.77	2.64	320.1	428	164	18.3	9.9E-03	3.5E-01	1.1E-01	1.3E-01	1.2E-03	7.0E-01	5.7E-05	2.0E-05	9.4E-05	2.3E-04	1.6E-06	5.2E-06	3.6E-03	2.5E-02	5.3E-04	171.9

Watershed	Runoff Retained (gallons)	TN (lbs)	TP (lbs)	TSS (lbs)	Fecal Coliform (billion MPN)	BOD (lbs)	Oil and Grease (lbs)	As (lbs)	Cu (lbs)	Pb (lbs)	Ca <sup>1</sup> (lbs)	Hg(lbs)	Zn (lbs)	Chlordane (lbs)	DDD (lbs)	DDE (lbs)	DDT (lbs)	Dieldrin (lbs)	Heptachlor Epoxide (lbs)	PAH1 (lbs)	PAH2 (lbs)	TPCB (lbs)	E. coli (Billion MPN)
Dalecarlia Tributary	1,749,490	49.99	5.75	644.0	936	410	51.2	2.3E-02	7.9E-01	2.4E-01	2.6E-01	2.8E-03	1.5E+00	1.4E-04	4.5E-05	2.0E-04	5.1E-04	4.2E-06	1.4E-05	9.6E-03	6.1E-02	1.2E-03	375.5
Dumbarton Oaks	11,101	0.31	0.04	5.5	6	2	0.4	1.4E-04	4.9E-03	1.5E-03	1.6E-03	1.8E-05	9.4E-03	9.1E-07	2.8E-07	1.2E-06	3.2E-06	2.7E-08	8.9E-08	6.1E-05	3.9E-04	7.5E-06	2.3
Fenwick Branch	56,982	1.58	0.18	28.3	30	11	2.0	7.3E-04	2.5E-02	7.6E-03	8.3E-03	9.0E-05	4.8E-02	4.7E-06	1.4E-06	6.3E-06	1.6E-05	1.4E-07	4.6E-07	3.1E-04	2.0E-03	3.8E-05	11.8
Fort Chaplin Tributary	69,752	1.93	0.22	42.7	36	21	2.1	9.0E-04	3.1E-02	9.3E-03	1.0E-02	1.1E-04	7.0E-02	5.7E-06	1.7E-06	7.7E-06	2.0E-05	4.7E-07	5.6E-07	3.8E-04	4.7E-03	4.7E-05	14.5
Fort Davis Tributary	42,273	1.17	0.13	25.9	22	13	1.3	5.4E-04	1.9E-02	5.6E-03	6.2E-03	6.7E-05	4.3E-02	3.5E-06	1.1E-06	4.7E-06	1.2E-05	1.0E-07	3.4E-07	2.3E-04	5.1E-03	2.8E-05	8.8
Fort Dupont Tributary	33,303	0.92	0.11	20.4	17	10	1.0	4.3E-04	1.5E-02	4.7E-03	4.9E-03	5.3E-05	3.4E-02	2.7E-06	8.3E-07	3.7E-06	9.5E-06	8.1E-08	2.7E-07	1.8E-04	1.2E-03	2.2E-05	6.9
Fort Stanton Tributary	34,889	0.97	0.11	21.4	18	10	1.1	4.5E-04	1.7E-02	4.9E-03	5.1E-03	5.5E-05	3.5E-02	2.9E-06	8.4E-07	3.8E-06	1.1E-05	8.2E-08	2.8E-07	1.9E-04	2.3E-03	2.3E-05	7.2
Foundry Branch	36,475	1.01	0.12	12.8	19	9	1.0	4.7E-04	1.6E-02	4.9E-03	5.3E-03	5.8E-05	3.6E-02	3.0E-06	9.1E-07	4.0E-06	1.1E-05	8.3E-08	2.9E-07	2.0E-04	3.1E-03	2.5E-05	7.6
Hickey Run	2,835,556	83.75	9.63	1,906.9	1,582	850	86.4	3.9E-02	1.3E+00	4.1E-01	4.5E-01	4.8E-03	3.1E+00	2.4E-04	6.5E-05	4.4E-04	7.7E-04	9.6E-06	2.3E-05	1.6E-02	1.0E-01	2.0E-03	634.9
Kingman Lake	129,495	3.59	0.41	79.3	67	39	3.9	1.7E-03	5.7E-02	1.7E-02	1.9E-02	2.1E-04	1.3E-01	1.1E-05	3.2E-06	1.4E-05	3.7E-05	3.1E-07	1.0E-06	7.4E-04	4.5E-03	8.7E-05	26.9
Klingie Valley Run	39,647	1.10	0.13	19.7	21	8	1.4	5.1E-04	1.7E-02	5.3E-03	5.8E-03	6.3E-05	3.4E-02	3.3E-06	9.1E-07	4.0E-06	1.1E-05	9.6E-08	3.2E-07	2.1E-04	4.7E-03	2.7E-05	8.2
Lower Beaverdam Creek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Luzon Branch	2,434,160	76.94	8.87	1,470.9	1,464	500	84.3	3.5E-02	1.2E+00	3.8E-01	4.2E-01	4.5E-03	2.4E+00	2.1E-04	7.0E-05	3.2E-04	8.5E-04	5.9E-06	1.9E-05	1.3E-02	9.0E-02	1.8E-03	587.4
Melvin Hazen Valley Branch	14,273	0.40	0.05	7.1	7	3	0.5	1.8E-04	6.3E-03	1.9E-03	2.1E-03	2.3E-05	1.2E-02	1.2E-06	6.7E-06	6.6E-06	1.1E-06	5.8E-08	1.1E-07	8.5E-05	1.0E-04	9.6E-06	3.0
Nash Run	342,964	9.50	1.09	209.9	178	103	10.4	4.4E-03	1.5E-01	4.6E-02	5.0E-02	5.4E-04	3.5E-01	2.8E-05	8.6E-06	3.8E-05	9.8E-05	8.3E-07	2.7E-06	1.9E-03	2.2E-02	2.3E-04	71.3
Normanstone Creek	414,962	11.50	1.32	206.1	215	82	14.4	5.3E-03	1.8E-01	5.5E-02	6.0E-02	6.4E-04	3.5E-01	3.4E-05	1.0E-05	4.6E-05	1.2E-04	1.0E-06	3.3E-06	2.3E-03	4.7E-02	2.8E-04	86.2
Northwest Branch	5,403,779	162.87	18.75	3,742.2	3,087	1,621	164.6	7.5E-02	2.6E+00	8.0E-01	8.8E-01	2.0E-03	6.0E+00	4.6E-04	5.4E-04	7.7E-04	7.7E-03	3.5E-05	4.3E-05	3.0E-02	1.0E-01	3.9E-03	1,238.8
Oxon Run	2,237,753	65.94	7.58	860.2	1,232	525	62.6	3.0E-02	1.0E+00	3.2E-01	3.5E-01	7.3E-03	2.0E+00	1.9E-04	5.9E-05	2.7E-04	6.8E-04	5.6E-06	1.8E-05	1.2E-02	7.9E-02	1.6E-03	494.6
Pinehurst Branch	391,421	10.85	1.24	194.4	203	77	13.6	5.0E-03	1.7E-01	5.2E-02	5.7E-02	2.4E-04	3.3E-01	3.2E-05	9.8E-06	4.3E-05	1.1E-04	9.5E-07	3.1E-06	2.3E-03	4.7E-02	2.6E-04	81.3
Piney Branch	578,747	23.17	2.71	479.3	448	114	20.0	1.0E-02	3.7E-01	2.1E-01	1.3E-01	3.3E-03	7.4E-01	5.3E-05	2.1E-05	8.5E-05	2.5E-04	1.4E-06	4.6E-06	3.2E-03	2.4E-02	5.4E-04	179.9
Pope Branch	118,514	3.28	0.38	72.5	61	36	3.6	1.5E-03	5.2E-02	1.6E-02	1.7E-02	9.4E-04	2.1E-01	9.7E-06	3.0E-06	1.3E-05	4.5E-05	9.7E-07	9.5E-07	6.5E-04	1.1E-03	8.0E-05	24.6
Portal Branch	9,515	0.41	0.05	8.6	8	2	0.3	1.8E-04	6.4E-03	2.2E-03	2.4E-03	2.5E-05	1.3E-02	8.9E-07	7.7E-07	7.6E-06	3.6E-06	3.8E-08	7.6E-08	3.5E-05	1.1E-04	9.4E-06	3.2
Potomac Lower	2,448,898	71.79	8.25	934.3	1,342	574	68.5	3.3E-02	1.1E+00	3.5E-01	3.8E-01	4.0E-03	2.2E+00	2.0E-04	6.4E-05	2.9E-04	7.4E-04	5.9E-06	2.0E-05	1.3E-02	8.7E-02	1.7E-03	538.5
Potomac Middle	1,304,156	44.22	5.57	659.6	877	359	52.2	2.0E-02	7.2E-01	2.4E-01	2.6E-01	5.3E-03	4.0E+00	1.1E-04	4.1E-05	1.4E-04	8.4E-04	3.2E-06	1.0E-05	7.3E-03	5.0E-02	1.1E-03	352.0
Potomac Upper	3,216,107	96.55	11.13	1,273.7	1,809	764	92.4	4.4E-02	1.5E+00	4.7E-01	5.2E-01	4.4E-03	9.0E+00	2.7E-04	8.6E-05	9.4E-04	9.4E-04	8.6E-06	2.6E-05	1.8E-02	2.1E-01	2.3E-03	725.8

Watershed	Runoff Retained (gallons)	TN (lbs)	TP (lbs)	TSS (lbs)	Fecal Coliform (billion MPN)	BOD (lbs)	Oil and Grease (lbs)	As (lbs)	Cu (lbs)	Pb (lbs)	Ca <sup>1</sup> (lbs)	Hg(lbs)	Zn (lbs)	Chlordane (lbs)	DDD (lbs)	DDE (lbs)	DDT (lbs)	Dieldrin (lbs)	Heptachlor Epoxide (lbs)	PAH1 (lbs)	PAH2 (lbs)	TPCB (lbs)	E. coli (Billion MPN)
POTTF_DC	12,081,507	241.18	27.94	4,329.3	4,568	1,593	270.5	1.1E-01	3.8E+00	1.2E+00	1.3E+00	1.3E-02	7.5E+00	6.5E-04	2.2E-04	9.9E-04	2.5E-03	1.8E-05	6.1E-05	4.2E-02	2.8E-01	5.7E-03	1,833.1
POTTF_MD	1,809,753	35.04	4.04	454.6	656	284	36.1	1.6E-02	5.6E-01	1.7E-01	1.9E-01	2.0E-03	1.1E+00	1.0E-04	3.2E-05	1.4E-04	3.6E-04	2.9E-06	9.7E-06	6.7E-03	4.3E-02	8.4E-04	263.4
Rock Creek Lower	1,364,534	45.26	5.24	877.9	862	270	47.3	2.0E-02	7.2E-01	2.3E-01	2.5E-01	5E-03	1.4E+00	1.2E-04	4.1E-05	1.9E-04	7.4E-04	3.3E-06	1.1E-05	7.5E-03	5.2E-02	1.1E-03	345.8
Rock Creek Upper	6,860,135	203.26	23.47	3,780.0	3,839	1,382	254.2	9.3E-02	3.2E+00	1.0E+00	1.1E+00	1.2E-02	6.3E+00	5.7E-04	1.8E-04	3.3E-04	1E-03	7.5E-05	5.5E-05	3.8E-02	5.5E-01	4.9E-03	1,540.9
Soapstone Creek	1,734,391	48.07	5.50	861.4	898	343	60.1	2.2E-02	7.7E-01	2.3E-01	2.5E-01	8E-03	1.5E+00	1.4E-04	4.3E-05	1.9E-04	5.0E-04	4.2E-06	1.4E-05	9.5E-03	6.0E-02	1.2E-03	360.4
Texas Avenue Tributary	1,400,781	38.82	4.44	857.4	725	420	42.7	1.8E-02	6.2E-01	1.9E-01	2.0E-01	2E-03	1.4E+00	1.1E-04	3.5E-05	1.6E-04	4.0E-04	3.4E-06	1.1E-05	7.7E-03	4.9E-02	9.4E-04	291.1
Tidal Basin	1,586	0.04	0.01	0.6	1	0	0.0	2.0E-05	7.0E-04	2.1E-04	2.3E-04	5E-06	1.3E-03	1.3E-07	4.0E-08	1.8E-07	5.7E-07	3.8E-09	1.3E-08	8.7E-06	5.5E-05	1.1E-06	0.3
Washington Ship Channel	1,300,984	44.14	5.56	658.4	875	359	52.1	2.0E-02	7.2E-01	2.4E-01	2.6E-01	5E-03	1.4E+00	1.1E-04	4.1E-05	1.9E-04	8.4E-04	1E-06	1.0E-05	7.5E-03	5.2E-02	1.1E-03	351.4
Watts Branch	1,456,775	41.43	4.86	938.4	786	437	58.9	1.9E-02	6.7E-01	2.0E-01	2.2E-01	4E-03	5E+00	1.2E-04	3.8E-05	7.4E-04	3E-04	5E-06	1.2E-05	8.5E-03	2E-02	1.0E-03	315.4
Watts Branch - Lower	362,296	10.04	1.15	221.8	188	109	11.0	4.7E-03	1.6E-01	4.8E-02	5.3E-02	7E-04	3.7E-01	3.0E-05	9.1E-06	4.0E-05	1.0E-04	8.7E-07	2.9E-06	2.0E-03	1.3E-02	2.4E-04	75.3
Watts Branch - Upper	1,094,479	31.39	3.71	716.6	598	328	47.8	1.5E-02	5.1E-01	1.5E-01	1.7E-01	8E-03	1.2E+00	9.1E-05	2.9E-05	1.3E-04	3.3E-04	2.6E-06	8.7E-06	6.0E-03	3.9E-02	7.7E-04	240.1
CSS - Anacostia	14,293,061	433.11	50.33	10,153.4	8,332	4,406	485.3	2.0E-01	7.0E+00	2E+00	2.4E+00	5E-02	6E+01	1.2E-03	0E-04	8E-03	6E-03	5E-05	1.1E-04	9E-02	2E-01	1.1E-02	3,344.1
CSS - Potomac	2,544,790	70.87	8.11	1,273.2	1,324	503	88.2	3.3E-02	1.1E+00	4E-01	3.7E-01	0E-03	2E+00	2.1E-04	6.4E-05	8E-04	3E-04	2E-06	2.0E-05	1.4E-02	9E-02	1.7E-03	531.4
CSS - Rock Creek	7,933,959	237.58	27.47	3,130.4	4,483	1,860	237.7	1.1E-01	3.8E+00	1.2E+00	1.3E+00	3E-02	7.5E+00	6.7E-04	2.2E-04	9.9E-04	5E-03	1.8E-05	6.3E-05	4.2E-02	2.8E-01	5.7E-03	1,799.3

Note that summations include MS4 and Direct Drainage areas. There is no distinction between runoff draining into a water body and runoff that is conveyed in collection system within the three CSS segments.

""-"" indicates no reductions resulted from BMP implementation.

1. An EPA report (402-R-99-004B- linked below) that reviewed several studies with varied site conditions has documented mean partition coefficients for metals. DDOE used these metal-specific partition coefficients (Kd) and associated particle associated fraction (fp) values to model pollutant reduction for these metals through BMP implementation. Since many of the relevant low impact development (LID) practices have similar removal rates for lead and cadmium, the relationship between these two metals, their fp values, and the areas retrofitted were used to estimate cadmium reductions achieved through the Retrofit Program. DDOE will use this methodology to estimate the pollutant load reduction for cadmium in future Annual Reports. <http://www.epa.gov/sites/production/files/2015-05/documents/402-r-99-004b.pdf>.

Due to the gap between when the previous permit expired and the new permit came into effect, DOEE has not submitted an MS4 Annual Report since January 22, 2018. To maintain a complete record DOEE is also submitting volume and pollutant load reductions, as well as WLA achievements, for the time period of 10/01/2017 to 06/30/2018.

Table 12 Table Key

Green cells indicate that the WLA has already been achieved for that waterbody and pollutant combination.
Blue cells indicate that the benchmark load reduction was achieved or exceeded for that waterbody and pollutant combination.
Orange cells indicate that the benchmark load reduction was not achieved for that waterbody and pollutant combination.
Grey cells indicate that there is no MS4 WLA for that waterbody and pollutant combination, and therefore no benchmark has been established. Load reductions are provided for informational purposes only.

Table 13 Overview Summary Table of WLA Benchmark Achievements, 10/01/2017 - 06/30/2018

WLA Achieved	32
Benchmark Achieved	28
Benchmark Not Achieved	174
No WLA or benchmark	822

Table 14 Pollutant Load Reductions from BMP Implementation with WLA Benchmarks, 10/01/2017 - 06/30/2018

Watershed	Runoff Retained (gallons)	TN (lbs)	TP (lbs)	TSS (lbs)	Fecal Coliform (billion MPN)	BOD (lbs)	Oil and Grease (lbs)	Arsenic (lbs)	Copper (lbs)	Lead (lbs)	Cadmium (lbs)	Mercury (lbs)	Zinc (lbs)	Chlordane (lbs)	DDD (lbs)	DDE (lbs)	DDT (lbs)	Dieldrin (lbs)	Heptachlor Epoxide (lbs)	PAH1 (lbs)	PAH2 (lbs)	TPCB (lbs)	E. coli (Billion MPN)
Anacostia	15,246,090	488.77	57.33	11,805.5	9,537	4,769	538.9	2.3E-01	8.0E+00	2.5E+00	2.7E+00	2.8E-02	1.9E+01	1.3E-03	4.5E-04	2.1E-03	2.5E-03	3.7E-05	1.2E-04	8.4E-02	5.8E-01	1.2E-02	3,827.4
Anacostia Lower	2,027,118	84.83	9.94	2,190.1	1,680	608	61.8	3.8E-02	1.4E+00	4.5E-01	5.0E-01	4.7E-03	3.3E+00	1.9E-04	7.8E-05	3.7E-04	9.1E-04	4.9E-06	1.6E-05	1.1E-02	9.0E-02	2.0E-03	674.4
Anacostia Upper	13,218,973	403.94	47.39	9,615.3	7,856	4,161	477.2	1.9E-01	6.6E+00	2.1E+00	2.2E+00	2.3E-02	1.5E+01	1.1E-03	3.7E-04	1.7E-03	4.3E-03	3.2E-05	1.1E-04	3.7E-02	4.9E-01	9.9E-03	3,152.9
ANATF_DC	16,733,022	286.87	33.80	7,113.7	5,712	2,541	256.9	1.3E-01	7.7E+00	1.5E+00	1.7E+00	1.6E-02	1.1E+01	7.2E-04	7.7E-04	2.1E-03	1.1E-03	1.9E-05	6.3E-05	4.4E-02	2.1E-01	7.0E-03	2,292.6
ANATF_MD	4,272,333	90.97	10.98	2,129.2	1,758	923	161.2	4.3E-02	1.5E+00	4.6E-01	5.0E-01	5.3E-03	3.4E+00	2.6E-04	8.4E-04	3.8E-03	9.7E-03	7.4E-06	2.5E-05	1.7E-01	1.1E-01	2.2E-03	705.7

Watershed	Runoff Retained (gallons)	TN (lbs)	TP (lbs)	TSS (lbs)	Fecal Coliform (billion MPN)	BOD (lbs)	Oil and Grease (lbs)	Arsenic (lbs)	Copper (lbs)	Lead (lbs)	Cadmium (lbs)	Mercury (lbs)	Zinc (lbs)	Chlordane (lbs)	DDD (lbs)	DDE (lbs)	DDT (lbs)	Dieldrin (lbs)	Heptachlor Epoxide (lbs)	PAH1 (lbs)	PAH2 (lbs)	TPCB (lbs)	E. coli (Billion MPN)
									00						05	04	04			02	01		
Battery Kemble Creek	328,123	9.10	1.04	115.4	170	77	9.2	4.2E-03	4E-01	4E-02	4.8E-02	5E-04	2E-01	2.7E-05	2E-06	6E-05	4E-05	7E-07	2.6E-06	8E-03	1E-02	2.2E-04	68.3
Broad Branch	685,803	19.88	2.28	364.2	373	136	23.8	9.1E-03	2E-01	9E-02	1.1E-01	1E-03	6E-01	5.7E-05	8E-05	0E-05	1E-04	1E-06	5.5E-06	8E-03	4E-02	4.8E-04	149.8
C&O Canal	370,681	10.27	1.18	130.1	192	87	10.4	4.8E-03	6E-01	4E-02	5.4E-02	5E-04	3E-01	3.0E-05	3E-06	1E-05	1E-04	9E-07	3.0E-06	0E-03	3E-02	2.5E-04	77.0
Dalecarlia Tributary	808,977	22.90	2.62	292.7	428	190	22.6	1.1E-02	6E-01	1E-01	1.2E-01	3E-03	7E-01	6.7E-05	1E-05	2E-05	4E-04	2E-06	6.5E-06	4E-03	8E-02	5.5E-04	171.6
Dumbarton Oaks	31,717	0.88	0.10	15.8	16	6	1.1	4.1E-04	4E-02	4E-03	4.6E-03	5E-05	2E-02	2.6E-06	9E-07	5E-06	1E-06	7E-08	2.5E-07	7E-04	1E-03	2.1E-05	6.6
Fenwick Branch	82,959	2.66	0.31	51.0	51	16	2.9	1.2E-03	2E-02	3E-02	1.5E-02	5E-04	8E-02	7.1E-06	4E-06	1E-05	8E-05	2E-07	6.6E-07	6E-04	1E-03	6.3E-05	20.3
Fort Chaplin Tributary	41,727	1.16	0.13	25.5	22	13	1.3	5.4E-04	8E-02	5E-03	6.1E-03	6E-05	4E-02	3.4E-06	0E-06	6E-06	2E-05	1E-07	3.3E-07	3E-04	4E-03	2.8E-05	8.7
Fort Davis Tributary	245,713	6.81	0.78	150.4	127	74	7.5	3.2E-03	1E-01	3E-02	3.6E-02	9E-04	2E-01	2.0E-05	2E-06	7E-05	0E-05	5E-07	2.0E-06	4E-03	5E-03	1.7E-04	51.1
Fort Dupont Tributary	68,192	1.89	0.22	41.7	35	20	2.1	8.8E-04	0E-02	9E-03	9.9E-03	1E-04	6E-02	5.6E-06	7E-06	6E-06	9E-05	1E-07	5.4E-07	7E-04	4E-03	4.6E-05	14.2
Fort Stanton Tributary	479,213	13.28	1.52	293.3	248	144	14.6	6.2E-03	1E-01	6E-02	7.0E-02	6E-04	4E-01	3.9E-05	2E-05	3E-05	4E-04	1E-06	3.8E-06	6E-03	7E-02	3.2E-04	99.6
Foundry Branch	528,047	14.63	1.67	185.4	273	124	14.8	6.8E-03	3E-01	7E-02	7.7E-02	4E-04	4E-01	4.3E-05	3E-05	9E-05	5E-04	1E-06	4.2E-06	9E-03	8E-02	3.6E-04	109.7
Hickey Run	4,696,805	143.53	16.63	3,492.2	2,838	1,556	143.6	6.8E-02	4E+00	7E-01	8.1E-01	4E-03	5E+00	4.0E-04	4E-04	1E-04	6E-03	1E-05	3.8E-05	6E-02	8E-01	3.6E-03	1,138.9
Kingman Lake	168,622	4.97	0.57	113.1	94	51	5.1	2.3E-03	9E-02	2E-02	2.7E-02	8E-04	1E-01	1.4E-05	5E-06	0E-05	2E-05	4E-07	1.3E-06	3E-04	1E-03	1.2E-04	37.7
Klingie Valley Run	50,748	1.41	0.16	25.2	26	10	1.8	6.5E-04	2E-02	6E-03	7.4E-03	8E-05	4E-02	4.2E-06	3E-06	6E-06	4E-05	1E-07	4.1E-07	8E-04	8E-03	3.4E-05	10.5
Lower Beaverdam Creek	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Luzon Branch	361,767	10.26	1.18	186.4	192	71	13.1	4.7E-03	6E-01	5E-02	5.4E-02	9E-04	3E-01	3.0E-05	3E-06	1E-05	1E-04	8E-07	2.9E-06	0E-03	3E-02	2.5E-04	77.2
Melvin Hazen Valley								2.2	7	2	2.5E-03	2	1	1.4	4	1	4	4	1.3E	9	5	1.1E-	

Watershed	Runoff Retained (gallons)	TN (lbs)	TP (lbs)	TSS (lbs)	Fecal Coliform (billion MPN)	BOD (lbs)	Oil and Grease (lbs)	Arsenic (lbs)	Cop per (lbs)	Lead (lbs)	Cadmiu m <sup>1</sup> (lbs)	Mercu ry (lbs)	Zinc (lbs)	Chlorda ne (lbs)	DDD (lbs)	DDE (lbs)	DDT (lbs)	Dieldr in (lbs)	Heptachl or Epoxide (lbs)	PAH1 (lbs)	PAH2 (lbs)	TPCB (lbs)	E. coli (Billion MPN)
Branch	16,899	0.47	0.05	8.4	9	3	0.6	E-04	.5E- 03	2E-03		7E-05	4E-02	E-06	.2E- 07	.9E- 06	.8E- 06	1E-08	-07	.3E- 05	.9E- 04	05	3.5
Nash Run	176,031	4.88	0.56	107.8	91	53	5.4	2.3 E-03	.8E- 02	2. 3E-02	2.6E-02	2. 8E-04	1. 8E-01	1.4 E-05	.4E- 06	.0E- 05	.0E- 05	4. 3E-07	1.4E -06	.7E- 04	.1E- 03	1.2E- 04	36.6
Normanstone Creek	233,945	6.48	0.74	116.2	121	46	8.1	3.0 E-03	.0E- 01	3. 1E-02	3.4E-02	3. 7E-04	2. 0E-01	1.9 E-05	.9E- 06	.6E- 05	.7E- 05	5. 7E-07	1.9E -06	.3E- 03	.1E- 03	1.6E- 04	48.6
Northwest Branch	3,952,210	115.39	13.78	2,668.5	2,215	1,188	188.1	5.4 E-02	.9E+ 00	5. 7E-01	6.3E-01	6. 7E-03	4. 3E+00	3.3 E-04	.1E- 04	.8E- 04	.2E- 03	9. 6E-06	3.2E -05	.2E- 02	.4E- 01	2.8E- 03	888.8
Oxon Run	4,307,384	168.96	21.44	2,737.7	3,456	1,350	157.0	7.6 E-02	.8E+ 00	9. 5E-01	1.0E+00	9. 4E-03	5. 6E+00	3.9 E-04	.6E- 04	.6E- 04	.9E- 03	1. 0E-05	3.4E -05	.4E- 02	.8E- 01	4.0E- 03	1,386.8
Pinehurst Branch	294,112	10.34	1.20	204.8	198	58	10.2	4.6 E-03	.6E- 01	5. 3E-02	5.8E-02	5. 7E-04	3. 2E-01	2.6 E-05	.3E- 06	.3E- 05	.1E- 04	7. 1E-07	2.3E -06	.6E- 03	.1E- 02	2.4E- 04	79.4
Piney Branch	27,079	0.75	0.09	13.4	14	5	0.9	3.5 E-04	.2E- 02	3. 6E-03	3.9E-03	4. 3E-05	2. 3E-02	2.2 E-06	.8E- 07	.0E- 06	.7E- 06	6. 6E-08	2.2E -07	.5E- 04	.4E- 04	1.8E- 05	5.6
Pope Branch	172,979	4.79	0.55	105.9	90	52	5.3	2.2 E-03	.6E- 02	2. 3E-02	2.5E-02	2. 7E-04	1. 7E-01	1.4 E-05	.3E- 06	.9E- 05	.9E- 05	4. 2E-07	1.4E -06	.5E- 04	.0E- 03	1.2E- 04	35.9
Portal Branch	62,481	1.73	0.20	31.0	32	12	2.2	8.0 E-04	.8E- 02	8. 3E-03	9.1E-03	9. 9E-05	5. 3E-02	5.1 E-06	.6E- 06	.9E- 06	.8E- 05	1. 5E-07	5.0E -07	.4E- 04	.2E- 03	4.2E- 05	13.0
Potomac Lower	5,681,287	207.03	25.80	3,220.0	4,167	1,672	195.5	9.4 E-02	.4E+ 00	1. 1E+00	1.2E+00	1. 2E-02	6. 8E+00	5.0 E-04	.9E- 04	.1E- 04	.3E- 03	1. 4E-05	4.5E -05	.1E- 02	.3E- 01	5.0E- 03	1,672.3
Potomac Middle	5,770,366	167.34	19.30	2,172.2	3,133	1,353	171.6	7.7 E-02	.7E+ 00	8. 1E-01	8.9E-01	9. 5E-03	5. 1E+00	4.8 E-04	.5E- 04	.7E- 04	.7E- 03	1. 4E-05	4.6E -05	.2E- 02	.0E- 01	4.0E- 03	1,257.5
Potomac Upper	3,280,447	99.51	12.21	1,359.7	1,912	769	181.1	4.6 E-02	.6E+ 00	5. 0E-01	5.5E-01	5. 7E-03	3. 1E+00	2.7 E-04	.1E- 05	.1E- 04	.0E- 03	7. 9E-06	2.6E -05	.8E- 02	.2E- 01	2.4E- 03	767.4
POTTF_DC	11,097,194	237.49	30.15	3,918.2	4,804	1,802	315.1	1.1 E-01	.9E+ 00	1. 3E+00	1.4E+00	1. 3E-02	7. 8E+00	5.7 E-04	.2E- 04	.0E- 03	.6E- 03	1. 6E-05	5.1E -05	.5E- 02	.6E- 01	5.7E- 03	1,927.8
POTTF_MD	906,835	12.30	1.41	158.0	230	101	12.1	5.7 E-03	.9E- 01	5. 9E-02	6.5E-02	7. 0E-04	3. 7E-01	3.6 E-05	.1E- 05	.9E- 05	.3E- 04	1. 0E-06	3.4E -06	.4E- 03	.5E- 02	3.0E- 04	92.2
Rock Creek Lower	864,607	24.07	2.77	433.3	450	171	31.6	1.1 E-02	.8E- 01	1. 2E-01	1.3E-01	1. 4E-03	7. 4E-01	7.1 E-05	.2E- 05	.7E- 05	.5E- 04	2. 1E-06	6.9E -06	.8E- 03	.0E- 02	5.8E- 04	180.8
Rock Creek Upper	2,166,588	63.92	7.35	1,180.6	1,203	428	75.6	2.9 E-02	.0E+ 00	3. 1E-01	3.4E-01	3. 6E-03	2. 0E+00	1.8 E-04	.8E- 05	.6E- 04	.6E- 04	5. 2E-06	1.7E -05	.2E- 02	.7E- 02	1.5E- 03	482.7
Soapstone Creek	329,747	9.35	1.07	169.5	175	65	11.4	4.3 E-03	.5E- 01	4. 5E-02	4.9E-02	5. 3E-04	2. 9E-01	2.7 E-05	.4E- 06	.8E- 05	.7E- 05	8. 0E-07	2.6E -06	.8E- 03	.2E- 02	2.3E- 04	70.3

Watershed	Runoff Retained (gallons)	TN (lbs)	TP (lbs)	TSS (lbs)	Fecal Coliform (billion MPN)	BOD (lbs)	Oil and Grease (lbs)	Arsenic (lbs)	Cop per (lbs)	Lead (lbs)	Cadmiu m <sup>1</sup> (lbs)	Mercu ry (lbs)	Zinc (lbs)	Chlorda ne (lbs)	DDD (lbs)	DDE (lbs)	DDT (lbs)	Dieldr in (lbs)	Heptachl or Epoxide (lbs)	PAH1 (lbs)	PAH2 (lbs)	TPCB (lbs)	E. coli (Billion MPN)
Texas Avenue Tributary	26,414	0.73	0.08	16.2	14	8	0.8	3.4 E-04	1 .2E- 02	3. 5E-03	3.8E-03	4. 2E-05	2. 7E-02	2.2 E-06	6 .6E- 07	2 .9E- 06	7 .5E- 06	6. 4E-08	2.1E -07	1 .5E- 04	9 .2E- 04	1.8E- 05	5.5
Tidal Basin	101,976	2.83	0.32	35.8	53	24	2.9	1.3 E-03	4 .5E- 02	1. 4E-02	1.5E-02	1. 6E-04	8. 6E-02	8.4 E-06	2 .6E- 06	1 .1E- 05	2 .9E- 05	2. 5E-07	8.1E -07	5 .6E- 04	3 .5E- 03	6.9E- 05	21.2
Washington Ship Channel	5,657,289	164.21	18.94	2,132.5	3,075	1,326	168.4	7.5 E-02	2 .6E+ 00	8. 0E-01	8.7E-01	9. 3E-03	5. 0E+00	4.7 E-04	1 .5E- 04	6 .6E- 04	1 .7E- 03	1. 4E-05	4.5E -05	3 .1E- 02	2 .0E- 01	3.9E- 03	1,234.0
Watts Branch	1,119,100	42.35	4.94	1,060.7	829	336	34.1	1.9 E-02	6 .8E- 01	2. 2E-01	2.4E-01	2. 4E-03	1. 6E+00	1.0 E-04	3 .9E- 05	1 .8E- 04	4 .5E- 04	2. 7E-06	8.9E -06	6 .2E- 03	4 .6E- 02	1.0E- 03	332.8
Watts Branch - Lower	377,828	21.70	2.58	603.2	443	113	11.5	9.5 E-03	3 .5E- 01	1. 2E-01	1.3E-01	1. 2E-03	8. 6E-01	4.2 E-05	2 .0E- 05	9 .8E- 05	2 .4E- 04	9. 1E-07	3.0E -06	2 .2E- 03	2 .1E- 02	5.1E- 04	177.7
Watts Branch - Upper	741,272	20.66	2.37	457.5	386	222	22.6	9.6 E-03	3 .3E- 01	9. 9E-02	1.1E-01	1. 2E-03	7. 5E-01	6.1 E-05	1 .9E- 05	8 .3E- 05	2 .1E- 04	1. 8E-06	5.9E -06	4 .1E- 03	2 .6E- 02	5.0E- 04	155.0
CSS - Anacostia	8,521,201	281.04	32.90	6,923.2	5,543	2,712	294.7	1.3 E-01	4 .6E+ 00	1. 5E+00	1.6E+00	1. 6E-02	1. 1E+01	7.5 E-04	2 .6E- 04	1 .2E- 03	3 .0E- 03	2. 1E-05	6.8E -05	4 .7E- 02	3 .3E- 01	6.9E- 03	2,224.6
CSS - Potomac	2,336,843	71.24	8.21	1,334.9	1,332	462	81.0	3.2 E-02	1 .1E+ 00	3. 5E-01	3.8E-01	4. 0E-03	2. 2E+00	2.0 E-04	6 .4E- 05	2 .9E- 04	7 .3E- 04	5. 7E-06	1.9E -05	1 .3E- 02	8 .4E- 02	1.7E- 03	534.5
CSS - Rock Creek	5,278,077	152.83	17.54	1,979.1	2,870	1,240	147.6	7.0 E-02	2 .4E+ 00	7. 4E-01	8.1E-01	8. 7E-03	4. 7E+00	4.4 E-04	1 .4E- 04	6 .2E- 04	1 .6E- 03	1. 3E-05	4.2E -05	2 .9E- 02	1 .9E- 01	3.7E- 03	1,151.8



#### 4.6.2.2 Estimate Progress Towards all Numeric Limits

*The Permittee shall estimate annual progress towards all numeric limits in Subsection 1.5.3.1 of this permit for acres managed and pounds of trash in the Anacostia River.*

The District continues to implement and enforce its Stormwater Management Program in accordance with the MS4 Permit and the Revised Stormwater Management Plan. This reporting year, the District has made progress towards achieving the numeric limits of section 1.5.3.1 of the District's MS4 Permit, Table 15. Based on current implementation rates, DOEE expects to achieve or surpass the requirements by the end of this permit term.

**Table 15 Annual Progress Towards Numeric Limits of the MS4 Permit for Trees Planted, Green Roofs Installed, and Trash Removed**

<b>Numeric Requirement</b>	<b>Achievement During Reporting Year</b>	<b>Percent Complete</b>	<b>Achievement During Permit Term</b>
Achieve a minimum net increase of 33,525 trees in the MS4 Permit Area	9,073 trees	27.06%	9,073 trees
Install 350,000 square feet of green roofs within the MS4 Permit area	139,165 square feet	39.78%	139,165 square feet
Remove 108,347 pounds of trash annually from the Anacostia River	131,099 lbs	NA	Not Applicable

DOEE has made progress towards the Acres Managed requirements of Section 1.5. The progress achieved during this reporting period is outlined in Table 16.

Due to the gap between when the previous permit expired and the new permit came into effect, DOEE has not submitted an MS4 Annual Report since January 22, 2018. To maintain a complete record DOEE is also reporting on the annual progress towards the acres managed numeric limits for the time period of 10/01/2017 to 06/30/2018, Table 17.

The total work to date from the end of the reporting period is outlined in Table 18. Over this entire period, DOEE achieved their TMDL Implementation Plan targets for the Anacostia and Potomac watersheds.

**Table 16 Annual Progress Towards Numeric Limits of the MS4 Permit for Acres Managed, 07/01/2018 - 06/30/2019**

Major Drainage Basin	Sewershed	Regulated PROW (square feet)	Regulated Parcels (square feet)	Voluntary Retrofits (square feet)	Total (square feet)	Total (acres)	TMDL IP Target (acres)	Difference Between Actual and Target (acres)
Anacostia	MS4	35,142	2,001,822	903,627	2,940,591	68	110	(43)
	CSS	537,294	1,424,902	301,261	2,263,456	52	-	-
	MS4 + CSS	572,436	3,426,724	1,204,888	5,204,047	119	-	-
Rock Creek	MS4	43,717	601,054	247,783	892,554	20	30	(10)
	CSS	41,917	808,702	174,234	1,024,853	24	-	-
	MS4 + CSS	85,634	1,409,756	422,017	1,917,407	44	-	-
Potomac	MS4	95,316	536,052	297,313	928,681	21	67	(46)
	CSS	107,687	498,627	48,658	654,972	15	-	-
	MS4 + CSS	203,003	1,034,679	345,971	1,583,653	36	-	-
TOTAL	MS4	174,175	3,138,928	1,448,723	4,761,826	109	208	(98)
	CSS	686,898	2,732,231	524,152	3,943,280	91	-	-
	MS4 + CSS	861,072	5,871,159	1,972,876	8,705,107	200	-	-

**Table 17 Annual Progress Towards Numeric Limits of the MS4 Permit for Acres Managed,  
10/01/2017 - 06/30/2018**

Major Drainage Basin	Sewershed	Regulated PROW (square feet)	Regulated Parcels (square feet)	Voluntary Retrofits (square feet)	Total (square feet)	Total (acres)	TMDL IP Target (acres)	Difference Between Actual and Target (acres)
Anacostia	MS4	81,449	1,331,331	927,352	2,340,132	54	110	(57)
	CSS	79,908	620,593	441,408	1,141,910	26	-	
	MS4 + CSS	161,357	1,951,925	1,368,760	3,482,042	80	-	
Rock Creek	MS4	24,889	104,622	161,056	290,567	7	30	(24)
	CSS	10,272	330,068	181,476	521,816	12	-	-
	MS4 + CSS	35,161	434,690	342,532	812,383	19	-	-
Potomac	MS4	18,128	2,528,511	227,456	2,774,095	64	67	(3)
	CSS	26,901	316,040	35,179	378,120	9	-	-
	MS4 + CSS	45,029	2,844,551	262,635	3,152,215	72	-	-
TOTAL	MS4	124,466	3,964,464	1,315,864	5,404,794	124	208	(84)
	CSS	117,081	1,266,701	658,063	2,041,845	47	-	
	MS4 + CSS	241,547	5,231,166	1,973,927	7,446,640	171	-	-

**Table 18 Annual Progress Towards Numeric Limits of the MS4 Permit for Acres Managed,  
10/1/2017-06/30/2019**

Major Drainage Basin	Sewershed	Regulated PROW (square feet)	Regulated Parcels (square feet)	Voluntary Retrofits (square feet)	Total (square feet)	Total (acres)	TMDL IP Target (acres)	Difference Between Actual and Target (acres)
Anacostia	MS4	116,591	3,333,153	1,830,979	5,280,723	121.23	110	11
	CSS	617,202	2,045,495	742,669	3,405,365		-	
	MS4 + CSS	733,793	5,378,648	2,573,648	8,686,089		-	
Rock Creek	MS4	68,606	705,676	408,839	1,183,121	27.16	30	(3)
	CSS	52,189	1,138,770	355,710	1,546,669		-	-
	MS4 + CSS	120,795	1,844,446	764,549	2,729,790		-	-
Potomac	MS4	113,444	3,064,563	524,769	3,702,776	85.00	67	18
	CSS	134,588	814,667	83,837	1,033,092		-	-
	MS4 + CSS	248,032	3,879,230	608,606	4,735,868		-	-
TOTAL	MS4	298,641	7,103,392	2,764,587	10,166,620	233.39	208	26
	CSS	803,979	3,998,932	1,182,215	5,985,126		-	
	MS4 + CSS	1,102,620	11,102,324	3,946,803	16,151,746		-	-

#### 4.6.2.3 Multi-faceted Suite of Indicators

*Using all other data and information collected per the water quality assessment requirements of Part 4 of this permit, 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 Section 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.*

DOEE is on track to meet this permit requirement and will be working with EPA and stakeholders to develop a multi-faceted suite of indicators that address discharge and receiving water quality.

#### 4.6.3 Synthesis of Strengths and Weaknesses

*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 address certain pollutants or sources, supported by interpretation of both programmatic and watershed indicators. Conclusions shall be based on interpretations of the indicators.*

##### ***Strengths***

DOEE has had continued success implementing many stormwater management program. Notable achievements include:

- Since the expiration of the last permit and through the end of this reporting period, the District has retrofitted 233 acres in the MS4 Permit area.
- The District has installed 139,165 square feet of green roof this reporting year.
  - Installed a sum total of ~4.5 million square feet of green roof throughout the District.
- Planted 9,073 net trees in MS4 area (accounting for mortality).
  - The Districtwide total of 14,324 trees planted this reporting year exceeds the annual tree planting rate (10,648 trees) needed to achieve the District's 40% tree canopy goal.
- Installed 15.4 acres of green infrastructure through the Stormwater Retention Credit (SRC) Price Lock Program, with another 6.2 acres in design, permitting, and/or construction.
- Expanded the targeted trash and litter source control programs to include any food service product designed for single use; which includes foam and straws.
- Steady increase in compliance rates for bag law, foam ban, and coal tar ban inspections.

### ***Weaknesses***

DOEE has identified several program areas that could be improved: interagency coordination, pollution prevention, and fertilizer law enforcement.

1. The District has a number of mechanisms in place to ensure that coordination across all agencies with responsibilities to implement Permit provisions occurs. However, with the increasing complexity of the Stormwater Management Program DOEE has identified a need for increased sister agency coordination. Previous coordination activities included monthly Technical Working Group meetings and yearly Director level Stormwater Advisory Panel meetings. To improve, DOEE has elevated interagency coordination to include the following;
  - Working with the City Administrator, Deputy Mayor for Operations and Infrastructure (DMOI), and Executive Office of the Mayor to leverage funding, support, and set priorities.
  - Holding regular BMP maintenance meetings between DOEE, DDOT, and DPW staff.
  - Increasing sister agency coordination for pollution prevention measures and compliance at District facilities.
2. Since the last permit, DOEE has made large strides in District Pollution Prevention implementation. However, this is an area that is still in need of strengthening. Strategies that DOEE is using to improve this program are: increased interagency coordination, targeted Stormwater Pollution Prevention Plan development efforts, and increased municipal staff training.
3. The District has been implementing the outreach components of the Anacostia River Clean Up and Protection Fertilizer Act of 2012. DOEE created a website and outreach materials for retailers, distributors, and lawn care professionals. DOEE is currently updating delegations of authority that will assign the inspection and compliance component internally.

### **3 EPA CONSENT AGREEMENT REPORTING**

As required, DOEE is posting the Consent Order Status Report concurrently with the MS4 Annual Report. This report will be posted to DOEE's website on December 23, 2019 and will be found at: <https://doee.dc.gov/publication/ms4-discharge-monitoring-and-annual-reports>.

#### **4 QAPP**

Section 4.3 requires that DOEE submit develop and submit a Quality Assurance Program Plan (QAPP) for the Receiving Waters Assessment Program. The receiving waters sampling are being performed by DOEE's Water Quality Division staff and are covered under the QAPP that was submitted to EPA in 2017. The QAPP for the Rapid Stream Assessment portion of the program is attached.



## **5 DISCHARGE MONITORING REPORT FORMS**

This year, due to an unresolved issue with NetDMR, DMR data is being submitted via paper DMR forms. Once the NetDMR issue is resolved all data will be reported there.

## DISCHARGE MONITORING REPORT (DMR)

 NAME  
 ADDRESS  
 Gov of the District of  
 Columbia, 414 4th St NW,  
 Washington, DC 20001

DC0000221

PERMIT NUMBER

DISCHARGE NUMBER

 SW1: Outfall 999 - Gallatin,  
 Anacostia Watershed

 FACILITY  
 LOCATION  
 Dept of Energy and Environment, 1200  
 First St NE, 5th Floor, Washington, DC  
 20002

FROM

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY
2018	07	01		2019	06	30

TO

NOTE: Read instructions before

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
Solids, Total Suspended, 00530, Effluent Gross	SAMPLE						13.9	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Nitrogen, Total (as N), 00600, Effluent Gross	SAMPLE						3.99	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Phosphorus, Total (as P), 00665, Effluent Gross	SAMPLE						0.32	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Copper, 01256, Effluent Gross	SAMPLE						0.0208	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Lead, 01259, Effluent Gross	SAMPLE						0.001	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Zinc, 01264, Effluent Gross	SAMPLE						0.048	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
E.Coli, MTEC-MF, 31648, Effluent Gross	SAMPLE						1600	MPN/1 00 MLS		3/yr	Grab
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Jonathan Champion, Associate Director

TYPED OR PRINTED

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 OF PRINCIPAL EXECUTIVE  
 OFFICER OR AUTHORIZED AGENT

TELEPHONE

DATE

202

535-1722

19

12

02

AREA

NUMBER

YEAR

MO

DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

DISCHARGE MONITORING REPORT (DMR)

NAME  
ADDRESS  
Gov of the District of  
Columbia, 414 4th St NW,  
Washington, DC 20001

DC0000221

PERMIT NUMBER

DISCHARGE NUMBER

SW1: Outfall 999 - Gallatin,  
Anacostia Watershed

FACILITY  
LOCATION  
Dept of Energy and Environment, 1200  
First St NE, 5th Floor, Washington, DC  
20002

MONITORING PERIOD					
YEAR	MO	DAY	FROM	TO	
2018	07	01			
2019	06	30			

NOTE: Read instructions before

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
Cadmium, Total (as Cd), 01027, Effluent Gross	SAMPLE						0.000247	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Jonathan Champion, Associate Director

TYPED OR PRINTED

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 OF PRINCIPAL EXECUTIVE  
OFFICER OR AUTHORIZED AGENT

TELEPHONE

DATE

202 535-1722 19 12 02

AREA NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

## DISCHARGE MONITORING REPORT (DMR)

 NAME  
 ADDRESS  
 Gov of the District of  
 Columbia, 414 4th St NW,  
 Washington, DC 20001

DC0000221

PERMIT NUMBER

DISCHARGE NUMBER

 SW5: Outfall 260 - 53rd  
 and Dix St, Anacostia  
 Watershed

 FACILITY  
 LOCATION  
 Dept of Energy and Environment, 1200  
 First St NE, 5th Floor, Washington, DC  
 20002

FROM

MONITORING PERIOD						
YEAR	MO	DAY		YEAR	MO	DAY
2018	07	01		2019	06	30

TO

NOTE: Read Instructions before

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
Solids, Total Suspended, 00530, Effluent Gross	SAMPLE						16	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Nitrogen, Total (as N), 00600, Effluent Gross	SAMPLE						3.28	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Phosphorus, Total (as P), 00665, Effluent Gross	SAMPLE						0.12	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Copper, 01256, Effluent Gross	SAMPLE						0.008	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Lead, 01259, Effluent Gross	SAMPLE						0.0019	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Zinc, 01264, Effluent Gross	SAMPLE						0.0446	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
E.Coli, MTEC-MF, 31648, Effluent Gross	SAMPLE						920	MPN/1 00 MLS		3/yr	Grab
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Jonathan Champion, Associate Director

TYPED OR PRINTED

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 OF PRINCIPAL EXECUTIVE  
 OFFICER OR AUTHORIZED AGENT

TELEPHONE

DATE

202

535-1722

19

12

02

AREA

NUMBER

YEAR

MO

DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

## DISCHARGE MONITORING REPORT (DMR)

 NAME  
 ADDRESS  
 Gov of the District of  
 Columbia, 414 4th St NW,  
 Washington, DC 20001

DC0000221

PERMIT NUMBER

DISCHARGE NUMBER

 FACILITY  
 LOCATION  
 Dept of Energy and Environment, 1200  
 First St NE, 5th Floor, Washington, DC  
 20002

FROM

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
2018	07	01	2019	06	30

TO

 SW5: Outfall 260 - 53rd  
 and Dix St, Anacostia  
 Watershed

NOTE: Read instructions before

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
Cadmium, Total (as Cd), 01027, Effluent Gross	SAMPLE						0.00036	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Jonathan Champion, Associate Director

TYPED OR PRINTED

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 OF PRINCIPAL EXECUTIVE  
 OFFICER OR AUTHORIZED AGENT

TELEPHONE

DATE

202 535-1722 19 12 02

AREA NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

## DISCHARGE MONITORING REPORT (DMR)

 NAME  
 ADDRESS  
 Gov of the District of  
 Columbia, 414 4th St NW,  
 Washington, DC 20001

DC0000221

PERMIT NUMBER

DISCHARGE NUMBER

 SW4: Outfall 1035 -  
 Kenilworth and Douglas,  
 Anacostia Watershed

 FACILITY  
 LOCATION  
 Dept of Energy and Environment, 1200  
 First St NE, 5th Floor, Washington, DC  
 20002

MONITORING PERIOD						
YEAR	MO	DAY				
2018	07	01	TO			
YEAR	MO	DAY				
2019	06	30				

NOTE: Read Instructions before

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
Solids, Total Suspended, 00530, Effluent Gross	SAMPLE						17.35	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Nitrogen, Total (as N), 00600, Effluent Gross	SAMPLE						3.46	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Phosphorus, Total (as P), 00665, Effluent Gross	SAMPLE						0.13	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Copper, 01256, Effluent Gross	SAMPLE						0.0165	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Lead, 01259, Effluent Gross	SAMPLE						0.0046	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Zinc, 01264, Effluent Gross	SAMPLE						0.0524	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
E.Coli, MTEC-MF, 31648, Effluent Gross	SAMPLE						1600	MPN/1 00 MLS		3/yr	Grab
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Jonathan Champion, Associate Director

TYPED OR PRINTED

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 OF PRINCIPAL EXECUTIVE  
 OFFICER OR AUTHORIZED AGENT

TELEPHONE

DATE

202 535-1722 19 12 02

AREA NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)



## DISCHARGE MONITORING REPORT (DMR)

 NAME  
 ADDRESS  
 Gov of the District of  
 Columbia, 414 4th St NW,  
 Washington, DC 20001

DC0000221

PERMIT NUMBER

DISCHARGE NUMBER

 SW4: Outfall 1035 -  
 Kenilworth and Douglas,  
 Anacostia Watershed

 FACILITY  
 LOCATION  
 Dept of Energy and Environment, 1200  
 First St NE, 5th Floor, Washington, DC  
 20002

FROM

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
2018	07	01	2019	06	30

TO

NOTE: Read instructions before

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
Cadmium, Total (as Cd), 01027, Effluent Gross	SAMPLE						0.000112	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Jonathan Champion, Associate Director

TYPED OR PRINTED

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 OF PRINCIPAL EXECUTIVE  
 OFFICER OR AUTHORIZED AGENT

TELEPHONE

DATE

202 535-1722 19 12 02

AREA NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

## DISCHARGE MONITORING REPORT (DMR)

 NAME  
 ADDRESS  
 Gov of the District of  
 Columbia, 414 4th St NW,  
 Washington, DC 20001

DC0000221

PERMIT NUMBER

DISCHARGE NUMBER

 SW7: Outfall 103 - Oxon  
 Run, Potomac Watershed

 FACILITY  
 LOCATION  
 Dept of Energy and Environment, 1200  
 First St NE, 5th Floor, Washington, DC  
 20002

FROM

MONITORING PERIOD						
YEAR	MO	DAY		YEAR	MO	DAY
2018	07	01		2019	06	30

TO

NOTE: Read instructions before

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
Solids, Total Suspended, 00530, Effluent Gross	SAMPLE						28.01	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Nitrogen, Total (as N), 00600, Effluent Gross	SAMPLE						4.13	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Phosphorus, Total (as P), 00665, Effluent Gross	SAMPLE						0.35	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Copper, 01256, Effluent Gross	SAMPLE						0.0265	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Lead, 01259, Effluent Gross	SAMPLE						0.0027	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Zinc, 01264, Effluent Gross	SAMPLE						0.0967	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
E.Coli, MTEC-MF, 31648, Effluent Gross	SAMPLE						735.23	MPN/1 00 MLS		3/yr	Grab
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Jonathan Champion, Associate Director

TYPED OR PRINTED

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 OF PRINCIPAL EXECUTIVE  
 OFFICER OR AUTHORIZED AGENT

TELEPHONE

DATE

202	535-1722	19	12	02
AREA	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)



PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

Form Approved

OMB No. 2040-0004

DISCHARGE MONITORING REPORT (DMR)

NAME  
ADDRESS  
Gov of the District of  
Columbia, 414 4th St NW,  
Washington, DC 20001

DC0000221

PERMIT NUMBER

DISCHARGE NUMBER

SW7: Outfall 103 - Oxon  
Run, Potomac Watershed

FACILITY  
LOCATION  
Dept of Energy and Environment, 1200  
First St NE, 5th Floor, Washington, DC  
20002

FROM

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
2018	07	01	2019	06	30

TO

NOTE: Read Instructions before

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
Cadmium, Total (as Cd), 01027, Effluent Gross	SAMPLE						0.000261	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Jonathan Champion, Associate Director

TYPED OR PRINTED

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 OF PRINCIPAL EXECUTIVE  
OFFICER OR AUTHORIZED AGENT

TELEPHONE

DATE

202 535-1722 19 12 02

AREA NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

## DISCHARGE MONITORING REPORT (DMR)

 NAME  
 ADDRESS  
 Gov of the District of  
 Columbia, 414 4th St NW,  
 Washington, DC 20001

DC0000221

PERMIT NUMBER

DISCHARGE NUMBER

 SW2: Outfall 123- Oxon  
 Run, Potomac Watershed

 FACILITY  
 LOCATION  
 Dept of Energy and Environment, 1200  
 First St NE, 5th Floor, Washington, DC  
 20002

FROM

YEAR	MO	DAY
2018	07	01

TO

YEAR	MO	DAY
2019	06	30

## MONITORING PERIOD

NOTE: Read Instructions before

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
Solids, Total Suspended, 00530, Effluent Gross	SAMPLE						10.03	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Nitrogen, Total (as N), 00600, Effluent Gross	SAMPLE						4.08	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Phosphorus, Total (as P), 00665, Effluent Gross	SAMPLE						0.36	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Copper, 01256, Effluent Gross	SAMPLE						0.0218	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Lead, 01259, Effluent Gross	SAMPLE						0.0007	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Zinc, 01264, Effluent Gross	SAMPLE						0.0464	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
E.Coli, MTEC-MF, 31648, Effluent Gross	SAMPLE						964.06	MPN/1 00 MLS		3/yr	Grab
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Jonathan Champion, Associate Director

TYPED OR PRINTED

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 OF PRINCIPAL EXECUTIVE  
 OFFICER OR AUTHORIZED AGENT

TELEPHONE

202 535-1722

AREA

NUMBER

DATE

19 12 02

YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

Form Approved

OMB No. 2040-0004

## DISCHARGE MONITORING REPORT (DMR)

NAME Gov of the District of  
ADDRESS Columbia, 414 4th St NW,  
Washington, DC 20001

DC0000221

PERMIT NUMBER

DISCHARGE NUMBER

SW2: Outfall 123- Oxon  
Run, Potomac Watershed

FACILITY  
LOCATION Dept of Energy and Environment, 1200  
First St NE, 5th Floor, Washington, DC  
20002

## MONITORING PERIOD

FROM

YEAR	MO	DAY
2018	07	01

TO

YEAR	MO	DAY
2019	06	30

NOTE: Read instructions before

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
Cadmium, Total (as Cd), 01027, Effluent Gross	SAMPLE						0.000155	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Jonathan Champion, Associate Director

TYPED OR PRINTED

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 OF PRINCIPAL EXECUTIVE  
OFFICER OR AUTHORIZED AGENT

TELEPHONE

DATE

202

535-1722

19

12

02

AREA

NUMBER

YEAR

MO

DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

## DISCHARGE MONITORING REPORT (DMR)

 NAME  
 ADDRESS  
 Gov of the District of  
 Columbia, 414 4th St NW,  
 Washington, DC 20001

DC0000221

PERMIT NUMBER

DISCHARGE NUMBER

 SW9: Outfall 901 -  
 Pinehurst Tributary, Rock  
 Creek Watershed

 FACILITY  
 LOCATION  
 Dept of Energy and Environment, 1200  
 First St NE, 5th Floor, Washington, DC  
 20002

MONITORING PERIOD						
YEAR	MO	DAY				
2018	07	01	FROM	TO	2019	06 30

NOTE: Read instructions before

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
Solids, Total Suspended, 00530, Effluent Gross	SAMPLE						1.86	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Nitrogen, Total (as N), 00600, Effluent Gross	SAMPLE						3.45	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Phosphorus, Total (as P), 00665, Effluent Gross	SAMPLE						0.18	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Copper, 01256, Effluent Gross	SAMPLE						0.0139	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Lead, 01259, Effluent Gross	SAMPLE						0.0003	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Zinc, 01264, Effluent Gross	SAMPLE						0.0406	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
E.Coli, MTEC-MF, 31648, Effluent Gross	SAMPLE						1600	MPN/1 00 MLS		3/yr	Grab
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Jonathan Champion, Associate Director

TYPED OR PRINTED

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 OF PRINCIPAL EXECUTIVE  
 OFFICER OR AUTHORIZED AGENT

TELEPHONE

DATE

202 535-1722 19 12 02

AREA NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

## DISCHARGE MONITORING REPORT (DMR)

 NAME  
 ADDRESS  
 Gov of the District of  
 Columbia, 414 4th St NW,  
 Washington, DC 20001

DC0000221

PERMIT NUMBER

DISCHARGE NUMBER

 SW9: Outfall 901 -  
 Pinehurst Tributary, Rock  
 Creek Watershed

 FACILITY  
 LOCATION  
 Dept of Energy and Environment, 1200  
 First St NE, 5th Floor, Washington, DC  
 20002

FROM

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
2018	07	01	2019	06	30

TO

NOTE: Read instructions before

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
Cadmium, Total (as Cd), 01027, Effluent Gross	SAMPLE						0.00006	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Jonathan Champion, Associate Director

TYPED OR PRINTED

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 OF PRINCIPAL EXECUTIVE  
 OFFICER OR AUTHORIZED AGENT

TELEPHONE

DATE

202

535-1722

19

12

02

AREA

NUMBER

YEAR

MO

DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)



## DISCHARGE MONITORING REPORT (DMR)

 NAME  
 ADDRESS  
 Gov of the District of  
 Columbia, 414 4th St NW,  
 Washington, DC 20001

DC0000221

PERMIT NUMBER

DISCHARGE NUMBER

 SW6: Outfall 950 -  
 Potomac Tributary,  
 Potomac Watershed

 FACILITY  
 LOCATION  
 Dept of Energy and Environment, 1200  
 First St NE, 5th Floor, Washington, DC  
 20002

MONITORING PERIOD						
YEAR	MO	DAY				
2018	07	01	TO			
YEAR	MO	DAY				
2019	06	30				

NOTE: Read Instructions before

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
Solids, Total Suspended, 00530, Effluent Gross	SAMPLE						2.71	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Nitrogen, Total (as N), 00600, Effluent Gross	SAMPLE						4.88	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Phosphorus, Total (as P), 00665, Effluent Gross	SAMPLE						0.16	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Copper, 01256, Effluent Gross	SAMPLE						0.0123	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Lead, 01259, Effluent Gross	SAMPLE						0.0007	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Zinc, 01264, Effluent Gross	SAMPLE						0.0378	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
E.Coli, MTEC-MF, 31648, Effluent Gross	SAMPLE						1113.98	MPN/1 00 MLS		3/yr	Grab
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Jonathan Champion, Associate Director

TYPED OR PRINTED

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 OF PRINCIPAL EXECUTIVE  
 OFFICER OR AUTHORIZED AGENT

TELEPHONE

DATE

202	535-1722	19	12	02
AREA	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

Form Approved

OMB No. 2040-0004

## DISCHARGE MONITORING REPORT (DMR)

NAME  
ADDRESS  
Gov of the District of  
Columbia, 414 4th St NW,  
Washington, DC 20001

DC0000221

PERMIT NUMBER

DISCHARGE NUMBER

SW6: Outfall 950 -  
Potomac Tributary,  
Potomac Watershed

FACILITY  
LOCATION  
Dept of Energy and Environment, 1200  
First St NE, 5th Floor, Washington, DC  
20002

FROM

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
2018	07	01	2019	06	30

TO

NOTE: Read instructions before

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
Cadmium, Total (as Cd), 01027, Effluent Gross	SAMPLE						0.000161	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Jonathan Champion, Associate Director

TYPED OR PRINTED

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 OF PRINCIPAL EXECUTIVE  
OFFICER OR AUTHORIZED AGENT

TELEPHONE

DATE

202 535-1722 19 12 02

AREA NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

## DISCHARGE MONITORING REPORT (DMR)

 NAME  
 ADDRESS  
 Gov of the District of  
 Columbia, 414 4th St NW,  
 Washington, DC 20001

DC0000221

PERMIT NUMBER

DISCHARGE NUMBER

 SW3: Outfall 851-  
 Soapstone Creek, Rock  
 Creek Watershed

 FACILITY  
 LOCATION  
 Dept of Energy and Environment, 1200  
 First St NE, 5th Floor, Washington, DC  
 20002

FROM

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
2018	07	01	2019	08	30

TO

NOTE: Read instructions before

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
Cadmium, Total (as Cd), 01027, Effluent Gross	SAMPLE						0.000321	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Jonathan Champion, Associate Director

TYPED OR PRINTED

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 OF PRINCIPAL EXECUTIVE  
 OFFICER OR AUTHORIZED AGENT

TELEPHONE

202 535-1722

AREA

NUMBER

DATE

19 12 02

YEAR

MO

DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)



## DISCHARGE MONITORING REPORT (DMR)

 NAME  
 ADDRESS  
 Gov of the District of  
 Columbia, 414 4th St NW,  
 Washington, DC 20001

DC0000221

PERMIT NUMBER

DISCHARGE NUMBER

 FACILITY  
 LOCATION  
 Dept of Energy and Environment, 1200  
 First St NE, 5th Floor, Washington, DC  
 20002

## MONITORING PERIOD

FROM

YEAR	MO	DAY
2018	07	01

TO

YEAR	MO	DAY
2019	06	30

 SW3: Outfall 851-  
 Soapstone Creek, Rock  
 Creek Watershed

NOTE: Read instructions before

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
Solids, Total Suspended, 00530, Effluent Gross	SAMPLE						30.86	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Nitrogen, Total (as N), 00600, Effluent Gross	SAMPLE						3.73	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Phosphorus, Total (as P), 00665, Effluent Gross	SAMPLE						0.31	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Copper, 01256, Effluent Gross	SAMPLE						0.0195	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Lead, 01259, Effluent Gross	SAMPLE						0.0049	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
Zinc, 01264, Effluent Gross	SAMPLE						0.0613	mg/L		3/yr	CP
	PERMIT REQUIREMENT										
E.Coli, MTEC-MF, 31648, Effluent Gross	SAMPLE						1600	MPN/1 00 MLS		3/yr	Grab
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Jonathan Champion, Associate Director

TYPED OR PRINTED

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 OF PRINCIPAL EXECUTIVE  
 OFFICER OR AUTHORIZED AGENT

TELEPHONE

DATE

202 535-1722 19 12 02

AREA NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)