

QUARTERLY OPERATIONS REPORT

DISTRICT OF COLUMBIA

COMBINED SEWER OVERFLOW FACILITIES

FOURTH QUARTER, 2018

Prepared By:

D.C. Water and Sewer Authority
Department of Sewer Services
2nd & N Streets, SE
Washington, D.C. 20003



**DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY**
Serving the Public • Protecting the Environment

**Monthly Operations Report For
*Combined Sewer System***

Month: October 2018

Prepared By:
District of Columbia
Water and Sewer Authority
Department of Sewer Services
Washington, D.C. 20003

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY
Washington, D.C.

*Monthly Operations Report for Combined Sewer System
Month: October 2018*

Table of Contents

- 1. INTRODUCTION**
- 2. OPERATION AND MAINTENANCE**
 - 2.1 Regulators
 - 2.2 Outfalls, Tide Gates and CSO Signs
 - 2.3 Pumping Stations
 - 2.4 Inflatable Dams and SCADA Systems
- 3. DRY WEATHER OVERFLOWS**
- 4. SOLIDS AND FLOATABLES CONTROL**
 - 4.1 Catch Basin Cleaning
 - 4.2 BMP Demonstration for Solid and Floatable Control
 - 4.3 Anacostia River Floating Debris Removal Program
 - 4.4 CSS Litter Control
- 5. MONITORING**
 - 5.1 Bar Racks at Main & O Street
 - 5.2 Rainfall Data
 - 5.3 Wet Weather Overflows

1. INTRODUCTION

The District of Columbia Water and Sewer Authority (DC Water) operates a wastewater collection system comprised of separate and combined sewers. Separate storm and sanitary sewers serve two-thirds of the District. In the combined sewer system (CSS), there is a single sewer to convey storm water and sanitary wastes. The area served by combined sewers comprises about one-third of the District.

During dry weather, sanitary wastes collected in the CSS are conveyed to the DC Water's advanced wastewater treatment plant at Blue Plains (BPAWWTP or the Blue Plains AWWTP). During periods of rainfall, the capacity of a combined sewer may be exceeded and the excess flow, which is a mixture of storm water and sanitary wastes, is discharged directly to the Anacostia River, Rock Creek or the Potomac River or their tributary waters. This report summarizes the operations of the combined sewer system for the month indicated.

2. OPERATION AND MAINTENANCE

2.1 Regulators

Regulators divert combined sewage to interceptors, which convey flow to BPAWWTP for treatment. When flows exceed the capacities of the systems such as during significant rain events, regulators divert excess flow to the tunnel system for temporary storage, and CSO outfalls which discharge to receiving waters. The following table summarizes inspections of CSO regulators in the collection system.

**Table 2-1
Regulator Structures**

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
2 ¹	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	N/A				
4 ¹	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	N/A				
5 ¹	Poplar Point Pumping Station	004	N/A				
6	Chicago Street and Railroad Ave, SE	005	10/12/18	*			
7	W Street and Railroad Ave, SE	005	10/12/18	*			
8 ¹	Good Hope Rd, west of Nichols Ave, SE	006	N/A				
9	13 th Street and Ridge Place, SE (Diversion Structure)	007	10/12/18	*			
9a	13 th Street and Ridge Place, SE (Regulator Structure)	007	10/12/18	*			
9b	11 th Street Bridge and DC 295 SB (CSO-007 Diversion Chamber)	007	10/22/18	*			
11	"O" Street Pumping Station	011(a)	10/24/18	*			
12	Storm Pump Discharge at Main Pumping Station	011	10/18/18	*			
13	2 nd Street, 300 ft. north of N Place, SE	009	10/24/18	*			
14	2 nd Street, 250 ft. north of N Place, SE	011(a)	10/24/18	*			
15	South Capitol and E Streets	010	10/16/18	*			
15a	Half and L Streets, SE	010	10/16/18	*			
15b	South Capitol and I Streets	010	10/01/18	*			
15c	South Capitol and I Streets	010	10/01/18	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
16	North of Main Sewage Pumping Station	012	10/16/18	*			
17	4 th and N Streets, SE, Both Extended	013	10/24/18	*			
17a	K Street between 6 th Street and 7 th Street, SE (Side Overflow Weir)	013	10/26/18	*			
17b	4 th and N Streets, SE, Both Extended (CSO-013 Diversion Chamber)	013	10/24/18	*			
18	6 th and M Streets, SE (Diversion and Overflow Structure)	014	10/02/18	*			
18a	Tingey Street SE and 5 1 / 2 Street SE (CSO-014 Diversion Chamber)	014	10/24/18	*			
19	9 th and M Streets, SE	015	10/10/18	*			
19a	9 th and M Streets, SE	015	10/10/18	*			
19b	9 th and M Streets, SE (Diversion Chamber)	015	10/10/18	*			
19c	9 th and M Streets, SE (Diversion Chamber)	015	10/10/18	*			
20	12 th and M Streets, SE	016	10/10/18	*			
20a	12 th and M Streets, SE	016	10/10/18	*			
20b	12 th and M Streets, SE (CSO-016 Diversion Chamber)	016	10/10/18	*			
21	14 th and M Streets, SE	017	10/10/18	*			
21a	14 th and M Streets, SE (CSO-017 Diversion Chamber)	017	10/10/18	*			
22a	Barney Circle and Pennsylvania Ave, SE	018	10/10/18	*			
22b	Barney Circle and Pennsylvania Ave, SE	018	10/10/18	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	10/10/18	*			
22d	Kentucky Ave and Potomac Street, SE	018	10/22/18	*			
22e	14 th Street and Kentucky Ave, SE	018	10/22/18	*			
23	Independence Ave, 21 st Street, SE, Extended	019	10/15/18	*			
24a ²	East Capitol St, west of RFK stadium	019	N/A				
28	21 st and Constitution Ave, NW	020	10/09/18	*			
29	22 nd Street, between Constitution Ave and C St, NW	020	10/09/18	*			
30	17 th and D Streets, NW	020	10/03/18	*			
31	15 th Street and Pennsylvania Ave, NW	020	10/03/18	*			
33	10 th and F Streets, NW	020	10/03/18	*			
34	23 rd Street, north of Constitution Ave, NW	020	10/16/18	*			
34a	23 rd Street near C Street, NW	020	10/09/18	*			
35	Northeast of Roosevelt Bridge, NW	021	10/16/18	*			
36	27 th and I Streets, NW	022	10/03/18	*			
36a	New Hampshire Ave and Eye Street, NW	022	10/03/18	*			
36b	19 th and L Streets, NW	022, 034	10/12/18	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
36d	17 th and L Streets, NW	022, 034	10/12/18	*			
36g	18 th and M Streets, NW	022, 034	10/12/18	*			
36h	18 th and M Streets, NW	022, 034	10/12/18	*			
37	27 th and Eye Streets, NW	022	10/03/18	*			
38	29 th and K Streets, NW	024	10/01/18	*			
38a	30 th Street, south of K Street, NW	024	10/01/18	*			
39a	30 th and K Streets, NW	024	10/01/18	*			
39b	30 th and K Streets, NW	024	10/01/18	*			
41b	31 st and K Streets, NW	025	10/01/18	*			
41c	31 st and K Streets, NW	025	10/01/18	*			
42	Wisconsin Ave and K Street, NW	026	10/01/18	*			
43	Potomac and Water Streets, NW	027	10/01/18	*			
43a	Potomac and Water Streets, NW	027	10/01/18	*			
44	Water Street, west of Potomac St, NW	027	10/01/18	*			
45	36 th and M Streets, NW	028	10/02/18	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	10/02/18	*			
47	38 th Street and Reservoir Road, NW	029	10/02/18	*			
47a	37 th and T Streets, NW	029	10/02/18	*			
47b	37 th and T Streets, NW	029	10/02/18	*			
47c	38 th and W Streets, NW	029	10/02/18	*			
49 ⁱ	Pennsylvania Ave, east side of Rock Creek, NW	031	N/A				
50	26 and M Streets, NW	032	10/15/18	*			
51	N Street Extended, west of 25 th Street, NW	033	10/15/18	*			
52	22 nd Street between M and N Streets, NW	034	10/16/18	*			
52a	N Street between 22 nd and 23 rd Streets, NW	034	10/18/18	*			
53	22 nd and M Streets, NW	022, 034	10/18/18	*			
53a	22 nd and M Streets, NW	022, 034	10/18/18	*			
53b	L Street between 21 st Street and New Hampshire Ave, NW	022, 034	10/18/18	*			
53c	L and 22 nd Streets, NW	022	10/18/18	*			
54	23 rd and O Streets, NW	034	10/05/18	*			
55	22 nd Street, south of Q Street, NW	035	10/05/18	*			
55a	22 nd Street, south of Q Street, NW	035	10/05/18	*			
56	23 rd and Massachusetts Ave, NW	036	10/05/18	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
57	23 rd Street, south of Q Street, NW	036	10/05/18	*			
58 ¹	Northwest of Belmont Road and Rock Creek and Potomac Parkway, NW	037	N/A				
59	North of Belmont Rd, east of Kalorama Cir, NW	038	10/12/18	*			
60	Connecticut Ave, east of Rock Creek, NW	039	10/12/18	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	10/12/18	*			
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	10/17/18	*			
63	Harvard Street and Rock Creek Parkway, NW	042	10/17/18	*			
64	Adams Mill Road, south of Irving Street, NW	043	10/17/18	*			
65	Kenyon Street and Adams Mill Road, NW	044	10/17/18	*			
65a	Kenyon Street and Adams Mill Road, NW	044	10/17/18	*			
66	Adams Mill Road and Lamont Street, NW	045	10/17/18	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	10/17/18	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	10/17/18	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	10/17/18	*			
70	Piney Branch Parkway, west of 16 th Street, NW	049	10/17/18	*			
70i	5 th and Quackenbos Streets, NW	049	10/12/18	*			
71	28 th Street, west of Rock Creek Parkway, NW	050	10/12/18	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	10/05/18	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	10/05/18	*			
73	O Street Extended and Rock Creek Parkway, NW	052	10/05/18	*			
74 ¹	Q Street, west of Rock Creek, NW	053	N/A				
75	West side of Rock Creek, 300 ft. south of Massachusetts Ave, NW	054	10/15/18	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	10/15/18	*			
77a	Normanstone Dr and Normanstone Lane, NW	056	10/15/18	*			
78 ¹	28th Street Extended, west of Rock Creek, NW	057	N/A				
79 ¹	Connecticut Ave and Rock Creek Parkway, NW	058	N/A				
84	26 th and P Streets, NW	060	10/05/18	*			
84a	26 th and P Streets, NW	060	10/05/18	*			
86	Diversion Chamber and Vortex Drop at First and Channing St, NW (First St Tunnel)	019	10/19/18	*			
88	Flagler and Adams St. NW (First St Tunnel)	019	10/19/18	*			
89	First and V St, NW (First St Tunnel)	019	10/19/18	*			
90	First and V St, NW (First St Tunnel)	019	10/19/18	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
91	First and V St, NW (First St Tunnel)	019	10/19/18	*			
92	CSO 019 Diversion Near Eastside PS (Anacostia River Tunnel)	019	10/19/18	*			
93	CSO 018 Diversion Near Barney Circle (Anacostia River Tunnel)	018	10/19/18	*			
95	M Street Approach Channel M and Water St SE (Anacostia River Tunnel)	015, 016, 017	10/19/18	*			
96	CSO 007 Shaft at 11 th St Bridge and DC I-295 SB Diversion Facilities (Anacostia River Tunnel)	007	10/22/18	*			
97	CSO 005 Diversion at Chicago St Trunk Sewer, I295 SB (Anacostia River Tunnel)	005	10/22/18	*			
98	Main Pumping Station Diversions (Anacostia River Tunnel)	009-012	10/19/18	*			
99	CSO 009 and 011a Diversion Facilities (Anacostia River Tunnel)	009, 011a	10/19/18	*			
100	CSO 012 Diversion Facilities (Anacostia River Tunnel)	012	10/16/18	*			
101	Main Outfall Sewer Diversion Chamber (Anacostia River Tunnel)	N/A	10/23/18	*			
102	Anacostia Main Interceptor Diversion Chamber	N/A	10/23/18	*			
103	Poplar Point PS Emergency Overflow Chamber (Anacostia River Tunnel)	N/A	10/23/18	*			
104	Poplar Point PS Discharge Chamber	N/A	10/23/18	*			
105	Potomac Outfall Sewer Diversion Chamber (Anacostia River Tunnel)	003A	10/23/18	*			

Notes:

1. Noted structures no longer function as a combined sewer overflow regulator structure.
2. Structure 24a is being used for bypass pumping to support work on East Side Force Main. The force main work is necessary for the construction of the Northeast Boundary Tunnel. Anticipated completion date November 2018. During the bypass pumping operation, DC Water will be unable to perform a direct inspection, Structure 24a will be monitored via indirect monitoring of downstream flows to determine that the structure is operating properly.

2.2 Outfalls, Tide Gates and CSO Signs

The following table summarizes inspections, maintenance and work performed on outfall structures, tide gates and CSO signs in the collection system.

**Table 2-2
Outfalls and Tide Gates**

NPDES Outfall	Location	Date Inspected	Outfall Condition		Tide Gate Present?		Tide Gate Condition		CSO Sign		Notes, Work Needed or Performed
			OK	Needs Work	Yes	No	OK	Needs Work	OK	Needs Work	
003 ¹	Bolling Air Force Base, at Giavanolli and Chanute, SW	N/A									
003a	Joint Base Anacostia Bolling, Macdill and Arnold Ave SW	10/23/18	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	10/04/18	*		*		*		*		
006 ¹	Good Hope Road and Welsh Memorial Bridge	N/A									
007	Between 11 th St. and Anacostia Bridges, SE	10/04/18	*		*		*		*		
009	O St. Sewage Pumping Station, SE	10/18/18	*		*		*		*		
010	O St. Sewage Pumping Station, SE	10/18/18	*			*			*		
011	Main Sewage Pumping Station, SE	10/18/18	*			*			*		
011(a)	Main Sewage Pumping Station, SE	10/18/18	*		*		*		*		
012	Main Sewage Pumping Station, SE	10/18/18	*		*		*		*		
013	Southeast Federal Center, aligned with 4 th St.	10/18/18	*		*		*		*		
014	Navy Yard, aligned with 6 th St., SE	10/18/18	*		*		*		*		
015	Navy Yard, aligned with 9th Street, SE	10/18/18	*			*			*		
016	12th and O Streets, SE	10/11/18	*		*		*		*		
017	M and Water Street, SE	10/11/18	*		*		*		*		
018	East of Barney Circle & South of Pennsylvania Avenue Bridge, SE	10/11/18	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility & D.C. General Hospital	10/19/18	*		*		*		*		
019a	Adjacent to Service Drive behind swirl facility & D.C. General Hospital (Tunnel Overflow Structure)	10/19/18	*		*		*		*		
020	Rock Creek Parkway and Independence, NW	10/04/18	*		*		*		*		
021	Rock Creek Parkway and C St., NW	10/04/18	*		*		*		*		
022	Rock Creek Parkway and G St., NW	10/04/18	*		*		*		*		
024	South of 30 th and K Streets, NW ¹	10/04/18	*		*		*		*		
025	South of 31st and K Streets, NW	10/04/18	*		*		*		*		
026	Wisconsin Avenue and Water Street, NW	10/04/18	*		*		*		*		
027	33 rd and Water Sts., NW	10/04/18	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	10/04/18	*			*			*		
029	Adjacent to C&O Canal, aligned with 38 th St. NW	10/04/18	*			*			*		

NPDES Outfall	Location	Date Inspected	Outfall Condition		Tide Gate Present?		Tide Gate Condition		CSO Sign		Notes, Work Needed or Performed
			OK	Needs Work	Yes	No	OK	Needs Work	OK	Needs Work	
031 ¹	Rock Creek Pkwy & Pennsylvania Avenue, NW	N/A									
032	26th and M Street, NW.	10/15/18	*			*			*		
033	Across street from St. Francis Jr. High and aligned with N St., NW.	10/15/18	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	10/05/18	*			*			*		
035	P St. Bridge and Rock Creek Parkway	10/05/18	*			*			*		
036	22nd Street, South of Q Street NW.	10/11/18	*		*		*		*		
037 ¹	Waterside Dr. and Rock Creek Parkway	N/A									
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	10/12/18	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	10/12/18	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	10/12/18	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	10/11/18	*		*		*		*		
042	Harvard St. and Beach Dr NW.	10/11/18	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	10/11/18	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	10/11/18	*		*		*		*		
045	North of Beach Dr. and Walbridge Pl, NW.	10/11/18	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	10/17/18	*			*			*		
047	Piney Branch Parkway and Ingleside Terrace	10/17/18	*		*		*		*		
048	South of Piney Branch Parkway and 17 th St.	10/17/18	*		*		*		*		
049	North of Piney Branch Parkway and 17 th St.	10/17/18	*		*		*		*		
050	Rock Creek Parkway and L St., NW	10/12/18	*		*		*		*		
051	Across Rock Creek Pkwy, aligned with Olive St., NW.	10/18/18	*		*		*		*		
052	Between P & Penna. Ave Bridges, aligned with O Street, NW.	10/18/18	*		*		*		*		
053 ¹	Q St. Bridge and Rock Creek Parkway, NW.	N/A									
054	Massachusetts Ave & Rock Creek Parkway, NW.	10/15/18	*		*		*		*		
056	Normanstone Dr. and Rock Creek Parkway, NW.	10/15/18	*		*		*		*		
057 ¹	28th Street and Rock Creek Parkway, NW	N/A									
058 ¹	Connecticut Ave & Rock Creek Parkway, NW.	N/A									
060	North of P St. Bridge & Rock Creek Pkwy, NW	10/11/18	*		*		*		*		

Notes:

1. Outfall no longer functions as a combined sewer outfall.

2.3.1 Pumping Stations

Pumping station operations are summarized in the table below.

**Table 2-3
Pumping Stations – Inspections and Equipment in Service**

<i>Pumping Station</i>	<i>No. of Inspections</i>	<i>No. Screens</i>	<i>No. Pumps</i>	<i>Screens or Pumps Out of Service</i>	<i>Dates</i>	<i>Reason</i>	<i>Work Order Number</i>	<i>Schedule to Restore to Service</i>
Main	30	3	4	Screen #2	10/01/18 – 10/26/18	Gear Box Failure	18-651934	Returned to service on 10/26/18. New gear box was ordered and installed.
				Bypass Screen #4	10/10/18 – 10/26/18	Bent Rake, Screen Not Running	18-652702	Returned to service on 10/26/18.
Eastside ¹	1	2	4	Screen # 1	10/01/18 – 10/31/18	Bent Rake, Screen Not Running	18-352157	Anticipated 11/30/18. Capital improvement project was developed to replace screen. Awaiting delivery of screen.
Poplar Point ³	1	2	4	None	-	-	-	-
Potomac ²	30	4	5	Pump #2	10/04/18 – 10/31/18	Ball Valve Gear Box Failure	18-651490	Anticipated 11/30/18. Gear box is being repaired.

Notes:

1. Eastside pumping station taken out of service 08/23/2018 – 11/6/18 for work on the downstream East Side Force Main. The force main work is necessary for the construction of the Northeast Boundary Tunnel. A bypass pumping operation at Structure 24a is redirecting the flow to Main Pumping Station.
2. On October 11, pumps 1 and 3 at the Potomac Pumping Station experienced high vibration levels which reduced the pump capacity.
3. Poplar Point Pumping Station was taken out of service 10/10/18 – 10/11/18 for cleaning of the Anacostia Main Interceptor Diversion Sewer. Flow was redirected through the old Poplar Point Pumping Station during the shutdown on 10/10/18 and 10/11/18. Firm capacity was maintained.

**Table 2-4
Pumping Stations – Preventive Maintenance**

<i>Pumping Station</i>	<i>Date Performed</i>	<i>Type of Preventive Maintenance Performed¹</i>	<i>Work Order Number</i>	<i>Comments</i>
Main	10/03/18	Group A	18-598827	Add oil, grease bearings and replace packing if needed.
O St	10/24/18	Group A	19-32227	Add oil, grease bearings and replace packing if needed.
Eastside	10/14/18	Group A	18-611460	Add oil, grease bearings and replace packing if needed.
Poplar Point	See Note 3	See Note 3		
Potomac	10/10/18	Group A	18-611663	Add oil, grease bearings and replace packing if needed.
Rock Creek	10/13/18	Group A	18-598841	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	10/13/18	Group A	18-598855	Add oil, grease bearings and replace packing if needed.
Earl Place	10/22/18	Group A	18-621219	Add oil, grease bearings and replace packing if needed.
1 st Street Tunnel Dewatering	10/29/18	Group B	19-77027	

Notes:

1. Group A consists of:
 - Exercise bar screens
 - Exercise all sump pumps
 - Drain condensation from air compressor storage tank
 - Check depth of screening in the screen room and schedule Vector truck as required
 - Check all safety equipment
 - Issue work order requests as required
2. Group B consists of:
 - a. Inspect and manually run CSO Pumps
 - b. Generator:
 - i. Inspection operation and test, inspect oil level, inspect coolant level
 - c. MCC:
 - i. Test gas monitoring system
 - ii. Inspect and test level indicators
 - d. Valve Vault
 - i. Lubricate knife gate valve stem and stem nut
 - ii. Flush air and vacuum release valve
3. DC Water’s construction contractor is performing inspection and maintenance activities as part of completion of punch list and closeout activities for Poplar Point Pumping Station

**Table 2-5
Pumping Stations – Pumpage**

<i>Pumping Station</i>	<i>Sanitary Pumpage</i>		<i>Screenings Collected (tons)¹</i>	<i>Pumpage of CSO from First Street Tunnel back to Sewer System</i>	
	<i>Total Wastewater (mg)</i>	<i>Daily Average Wastewater (mg)</i>		<i>Date</i>	<i>Volume (mg)</i>
Main ^{1,2}	1732.09	55.87	N/A	N/A	N/A
O St ^{1,2}	156.56	5.05	N/A	N/A	N/A
Eastside ³	0.00	0.00	N/A	N/A	N/A
Poplar Point	353.98	11.42	N/A	N/A	N/A
Potomac	4655.67	150.18	N/A	N/A	N/A
Rock Creek	147.87	4.77	N/A	N/A	N/A
Upper Anacostia	49.32	1.59	N/A	N/A	N/A
Earl Place	0.269	0.009	N/A	N/A	N/A
1 st Street Tunnel Dewatering	N/A	N/A	N/A	10/09/18	0.17
				10/12/18	0.05
				10/15/18	0.03
				10/30/18	0.17

Notes:

1. Screenings collected from the Main and O Street Pumping Stations are combined from the sanitary flow and combined sewer overflows, due to the design of the screening system that consists of vertical trash racks, with no mechanical cleaning. Therefore, quantification of captured screening materials, specifically from combined sewer overflows, is not feasible.
2. Flow meters have been installed in accordance with NPDES Permit No. DC002199 to record CSO discharges from Main and O Street Pumping Stations. This data is reported via Discharge Monitoring Reports submitted to the EPA on a monthly basis. A summary of metered and modeled CSO discharges is included in Section 5.
3. Eastside pumping station taken out of service 08/23/2018 – 11/6/18 for work on the downstream East Side Force Main. The force main work is necessary for the construction of the Northeast Boundary Tunnel. A bypass pumping operation at Structure 24a is redirecting the flow to Main Pumping Station.

2.4 Inflatable Dams and SCADA System

DC Water operates and maintains nine inflatable dams at seven different locations. Table 2-6 summarizes the date(s) the inflatable dams were inspected, and their operational status and condition. The inflatable dams consist of multi-ply elastomeric (i.e., “rubber”) fabric dams installed in major overflow conduits within the combined sewer system. The objective of the inflatable dam installation is to increase the effective depth to which the sewage must rise in the combined sewer before overflows occur. The effect of the installation is to retain a greater volume of combined sewage flow resulting from low to moderate intensity storms by maximizing storage within the CSS. During higher intensity storms, when the full carrying capacity of the overflow conduit is required to prevent upstream flooding, the dam is deflated automatically. Inflatable dam operations are summarized below:

**Table 2-6
Inflatable Dams – Inspections and Equipment in Service**

<i>Inflatable Dam Structure No</i>	<i>Date Inspected</i>	<i>Was Dam Out of Service During the Month?</i>	<i>Dates out of Service</i>	<i>Reason</i>	<i>Schedule to Restore to Service</i>
14 - East	10/16/18	No	N/A	N/A	N/A
14 - West	10/16/18	No	N/A	N/A	N/A
15	10/16/18	No	N/A	N/A	N/A
15a ¹	10/16/18	Yes	10/26/18	Power Loss	10/26/18
16 - East	10/16/18	No	N/A	N/A	N/A
16 - West	10/16/18	No	N/A	N/A	N/A
34	10/16/18	No	N/A	N/A	N/A
35	10/16/18	No	N/A	N/A	N/A
52	10/16/18	No	N/A	N/A	N/A

Notes:

1. Structure 15a lost power on 10/26/18, however power was restored that same day.

Table 2-7

Inflatable Dams & SCADA Sites - Wet Weather Operations

<i>Inflatable Dam Structure No.</i>	<i>Overflow Dates</i>	<i>Estimated Duration of Overflow</i>
14 (E & W)	10/18/18	1 hrs. 1 min
15	None	N/A
15A	10/26/18	0 hrs. 8 mins
16 (E & W)	None	N/A
34	None	N/A
35	10/11/18	0 hrs. 5 mins
52	None	N/A
<i>Structures on Outfall Sewers</i>	<i>Overflow Dates</i>	<i>Estimated Duration of Overflow</i>
Outfall Structure 1	None	This structure has been bulk headed. Overflows are no longer possible.
Outfall Structure 1A	None	This structure has been bulk headed. Overflows are no longer possible.
Outfall Structure 2	None	N/A
<i>Outfall Sewer Control Gates</i>	<i>Operational Status</i>	<i>Position</i>
Outfall Sewer Control Gate No.1	Operational	Open
Outfall Sewer Control Gate No.2	Operational	This structure has been bulk headed. Overflows are no longer possible
Outfall Sewer Control Gate No.2	Operational	This structure has been bulk headed. Overflows are no longer possible

Notes:

3. DRY WEATHER OVERFLOWS

There was no dry weather combined sewer overflow during October 2018.

4. SOLIDS AND FLOATABLES CONTROL

4.1 Catch Basin Cleaning

The following tables summarize catch basin cleaning in the Anacostia CSO area and in the entire sewer system:

**Table 4-1
Catch Basin Cleaning**

Ward	Total CBs	CBs in CSS	Inspections			Cleaning					
			CBs in Anacostia CSS	Total Anacostia CBs Inspected Once this Year	Total Anacostia CBs Inspected Twice this Year	CBs Cleaned Thru Last Month		CB's Cleaned This Month		Total CBs Cleaned This Year to Date	
						Total	In CSS	Total	In CSS	Total	In CSS
1	1447	1404	650	644	632	1428	1406	29	24	1457	1430
2	2774	2584	451	441	423	2514	2379	89	88	2603	2467
3	3630	181	0	0	0	3556	172	89	1	3645	173
4	3459	1683	0	0	0	3320	1627	13	4	3333	1631
5	3928	1732	1674	1647	715	3870	1790	92	60	3962	1850
6	3269	2618	2610	2610	2233	2346	1777	874	863	3220	2640
7	3700	35	35	35	33	2991	10	413	13	3404	23
8	2801	210	210	207	200	2321	211	220	4	2541	215
Grand Total	25008¹	10447¹	5630¹	5584	4236	22346	9372	1819	1057	24165	10429
% Cleaned/Inspected to Date				99%	75%	89%	89%			97%	100%

1. The number of catch basins in our service area changes with the ongoing connections and abandonments to the sewer infrastructure.

4.2 BMP Demonstration for Solid and Floatable Control

DC WATER operates the following demonstration projects designed to remove solids and floatables from CSO prior to discharge.

- Netting system at CSO 018 to Anacostia River
- Bar Rack at CSO 040 and 041 to Rock Creek

**Table 4-2
BMP Demonstration Projects – Report**

<i>Facility</i>	<i>Date Inspected</i>	<i>Condition</i>	<i>Work Needed</i>	<i>Work performed</i>	<i>Material Removed (LB)</i>
Netting System CSO 018	10/12/2018	Good	Routine cleaning	Routine cleaning	None
Bar Rack CSO 040	10/12/2018	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	10/11/2018	Good	None	Routine Cleaning	(1)

Notes:

(1) System was designed so that captured solids and floatable are conveyed to Blue Plains for treatment.

4.3 Anacostia River Floating Debris Removal Program

This program was initiated in October 1992 to remove floating debris from Anacostia and Potomac Rivers on a routine basis. The program has continued from that time and is now under the auspices of DC WATER, Department of Sewer Services. The floating debris removal program utilizes a skimmer boat and support boats to remove floatable debris from the Rivers as well as trash, which accumulates on the riverbanks and in the mud flats at low tides. Work for the most part is directed toward the Anacostia River. The boats pick up debris five days a week. Operations are summarized as follows:

**Table 4-3
Anacostia River Floating Debris Removal Program – Summary**

<i>Program Operation</i>	5-day work week, excluding holidays, weather permitting
<i>Work Days this month:</i>	22
<i>Days not Operating</i>	5
<i>Reason not Operating</i>	Maintenance, wind, low water levels, lightning, flooding.
<i># Skimmer in Fleet</i>	4 Skimmers
<i># Skimmers Out of Service</i>	None (on the last day of the month)
<i>Dates</i>	N/A
<i>Reason</i>	N/A
<i>Plan to Restore to Service</i>	N/A
<i>Amount Material Collected</i>	60 tons this month. Calendar year to date 730 tons.
<i>Nature of Material</i>	Bottles, cans, natural debris and plastics.

4.4 CSS Litter Control

This section describes DC WATER’s efforts to coordinate litter control efforts with the National Park Service and D.C. Department of Public Works to maximize litter control efforts in the combined sewer system.

Status:

October 6, 2018, coordinated with the National Park Service to clean 12 catch basins along the perimeter of White House.

- 1500 & 1600 Blks of H Street NW
- 400 thru 700 Blks of 15th Street NW
- 400 thru 700 Blks of 17th Street NW
- 700 Blk of Jackson Place NW
- 700 Blk of Madison Place NW
- 1500 & 1600 Blks of Pennsylvania Ave NW

5. MONITORING

5.1 Condition Report Bar Racks at Main and O Street Storm Pumps

DC Water performs visual surveys of the bar racks at Main and O Street Pumping Stations to characterize the quantity and nature of floatable discharge. The physical condition of the bar racks and any maintenance requirements are also noted.

**Table 5-1
Bar Racks at Main & O Street Pumping Stations**

Inspector: Keith Watts

Pumping Station	Inspector	Date Inspected	Condition		Work Order Number	Work Needed	Work Performed or Schedule for Completion
			Good	Needs Work			
Bar Racks at O Street Storm Pumps (CSO 010)	KW	10/28/18	X		19-40396		
Bar Racks at Main Storm Pumps (CSO 011)	KW	10/28/18	X		19-40389		

5.2 Rain Data

Rain data from National Airport and from the rain gauges installed in the CSS are summarized below.

National Airport rain data for the month of October 2018 is not available due to the Federal Government Shutdown.

Date	Brentwood Pumping Station	Bryant Street Pumping Station	Main Pumping Station	Rock Creek Pumping Station	National Airport
10/1/2018	0	0	0	0	
10/2/2018	0	0	0	0	
10/3/2018	0	0	0	0	
10/4/2018	0.01	0	0	0	
10/5/2018	0	0	0	0.01	
10/6/2018	0	0	0	0	
10/7/2018	0	0	0	0	
10/8/2018	0	0	0	0	
10/9/2018	0	0	0.02	0	
10/10/2018	0	0	0	0	
10/11/2018	1.35	1.40	1.45	1.34	
10/12/2018	0	0.03	0.01	0.01	
10/13/2018	0.02	0.02	0.02	0.02	
10/14/2018	0.02	0.03	0.01	0.02	
10/15/2018	0.23	0.18	0.12	0.18	
10/16/2018	0	0	0	0	
10/17/2018	0	0	0	0	
10/18/2018	0	0	0	0	
10/19/2018	0	0	0	0	
10/20/2018	0.08	0.08	0.06	0.07	
10/21/2018	0	0	0.01	0	
10/22/2018	0	0	0	0	
10/23/2018	0	0	0	0	
10/24/2018	0	0	0	0	
10/25/2018	0	0	0	0	
10/26/2018	0.61	0.60	0.64	0.56	
10/27/2018	0.61	0.61	0.55	0.48	
10/28/2018	0.02	0.03	0.01	0.01	
10/29/2018	0.01	0.01	0	0	
10/30/2018	0	0	0	0	
10/31/2018	0	0	0	0	
TOTAL	2.96	2.99	2.90	2.70	0

5.3 Wet Weather Overflows

Combined Sewer System Model Results are summarized below.

District of Columbia Water and Sewer Authority

Combined Sewer System Model Results
 Period: October, November, December 2018

SCENARIO: QuarterlyReport_2018Q4, created January 10, 2018

NPDES No.	Description	Data Source	Number of Overflows (Occurrences)	CSO Overflow Volume (mg)	Total Duration of Overflow (hrs)	Avg Duration of Overflow (hrs)	Maximum Duration of Overflow (hrs)	Minimum Duration of Overflow (hrs)
Anacostia CSOs								
005	Chicago St and Railroad Station SE	Modeled	0	0.00	0.00	0.00	0.00	0.00
006	Good Hope Road, West of Nichols Ave, SE	separated						
007	13 th Street and Ridge Place, SE	Metered	2	2.26	6.42	3.21	6.25	0.17
009	2nd Street, 300 feet North of N Place, SE	Metered	0	0.00	0.00	0.00	0.00	0.00
010	O Street Sewage Pumping Station, SE (pumped Overflow)	Metered	2	10.42	6.67	3.34	5.42	1.25
011	South of Main Sewage Pumping Station, SE (pumped overflow)	Metered	0	0.00	0.00	0.00	0.00	0.00
011a	South of Main Sewage Pumping Station, SE (gravidly overflow)	Metered	0	0.00	0.00	0.00	0.00	0.00
012	North of Main Sewage Pumping Station, SE (Tiber Creek)	Metered	3	3.01	1.16	0.39	1.00	0.08
013	4th and N Streets, SE	Modeled	1	0.17	1.25	1.25	1.25	1.25
014	6th and M Streets, SE	Modeled	2	0.37	1.25	0.63	1.00	0.25
015	9th and M Streets, SE	consolidated to tunnel system						
016	12th and M Streets, SE	consolidated to tunnel system						
017	14th and M Streets, SE	consolidated to tunnel system						
018	Barney Circle and Pennsylvania Ave, SE	consolidated to tunnel system						
019	Northeast Boundary	Metered	1	67.77	6.92	6.92	6.92	6.92
019A	Northeast Boundary - Tunnel OF	Metered	2	11.90	3.58	1.79	2.75	0.83
	SUBTOTAL			95.90				
Potomac CSOs								
003A	JBAB Tunnel OF	Metered	1	10.11	4.58	4.58	4.58	4.58
020	23rd Street, North of Constitution Ave, NW (Easby Point)	Modeled	10	39.08	39.50	3.95	11.25	0.25
021	Northeast of Roosevelt Bridge, NW	Modeled	13	214.41	50.75	3.90	13.50	0.50
022	27th and K Streets, NW	Modeled	12	2.17	44.75	3.73	11.50	0.25
024	30th and K Streets, NW	Modeled	10	20.18	40.75	4.08	13.75	0.25
025	31st & K St NW	Modeled	3	0.05	2.50	0.83	1.25	0.25
026	Wisconsin Avenue and K St, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
027	Water Street West of Street, NW	Modeled	13	9.13	63.00	4.85	15.00	1.50
028	36th and M Streets, NW	Modeled	79	10.82	614.75	7.78	43.75	5.00
029	Canal Road 1000 feet east of Rock Creek NW	Modeled	14	11.69	67.75	4.84	15.50	0.50
	SUBTOTAL			317.65				
Rock Creek								
031	Pennsylvania Avenue, East Rock Creek, NW	separated						
032	26th and M Streets, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
033	N Street extended west of 25th Street, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
034	23rd and O Streets, SW	Modeled	0	0.00	0.00	0.00	0.00	0.00
035	22nd Street south of Q Street, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
036	22nd Street South of Q Street, NW	Modeled	13	0.474	40.75	3.13	11.00	0.50
037	Northwest of Belmont and Rock Creek and Potomac Parkway	separated						
038	North of Belmont Road east of Katorama Circle, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
039	Connecticut Avenue east of Rock Creek, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
040	Billmore Street extended east of Rock Creek, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
041	Ontario extended and Rock Creek Parkway	Modeled	0	0.00	0.00	0.00	0.00	0.00
042	Harvard Street and Rock Creek Parkway, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
043	Adams Mill Road South of Irving Street, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
044	Kenyon Street and Adams Mill Road, NW	Modeled	0	0.000	0.00	0.00	0.00	0.00
045	Adams Mill Road and Lamont Street, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
046	Park Road south of Piney Branch Parkway, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
047	Ingleside Terrace extended and Piney Branch Parkway	Modeled	0	0.000	0.00	0.00	0.00	0.00
048	Mt. Pleasant Street extended and Piney Branch Parkway	Modeled	0	0.00	0.00	0.00	0.00	0.00
049	Piney Branch and Lamont Street, NW	Modeled	13	22.10	52.25	4.02	11.75	1.00
050	28th Street west of 16th Street, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
051	Olive Street extended and Rock Creek Parkway, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
052	O Street extended and Rock Creek Parkway, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
053	O Street west of Rock Creek Parkway, NW	separated						
054	West Side of Rock Creek 300 ft. south of Mass. Ave, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
056	Normanstone Drive extended west of Rock Creek, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
057	28th Street extended west of Rock Creek, NW	separated						
058	Connecticut Avenue and Rock Creek Parkway, NW	separated						
060	P St and 26 th St, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
	SUBTOTAL			22.57				
	TOTAL			438.11				

District of Columbia Water and Sewer Authority

Combined Sewer System Model Results

Period: October, November, December 2018

SCENARIO: QuarterlyReport_2018Q4, created January 10, 2018

NPDES No.	Description	Data Source	Number of Overflows (Occurrences)	CSO Overflow Volume (mg)	Total Duration of Overflow (hrs)	Avg Duration of Overflow (hrs)	Maximum Duration of Overflow (hrs)	Minimum Duration of Overflow (hrs)
I:\SEWER\CSO QUARTERLY REPORT\CSO 4th Quarter Report 2018\COPY of Y2018Q4_Report_10Jan2019_DRAFT.XLSX Q4Y2018								

Prepared by: Greeley and Hansen LLC and Limno-Tech, Inc.



**DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY**
Serving the Public • Protecting the Environment

**Monthly Operations Report For
*Combined Sewer System***

Month: November 2018

Prepared By:
District of Columbia
Water and Sewer Authority
Department of Sewer Services
Washington, D.C. 20003

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY
Washington, D.C.

*Monthly Operations Report for Combined Sewer System
Month: November 2018*

Table of Contents

- 1. INTRODUCTION**
- 2. OPERATION AND MAINTENANCE**
 - 2.1 Regulators
 - 2.2 Outfalls, Tide Gates and CSO Signs
 - 2.3 Pumping Stations
 - 2.4 Inflatable Dams and SCADA Systems
- 3. DRY WEATHER OVERFLOWS**
- 4. SOLIDS AND FLOATABLES CONTROL**
 - 4.1 Catch Basin Cleaning
 - 4.2 BMP Demonstration for Solid and Floatable Control
 - 4.3 Anacostia River Floating Debris Removal Program
 - 4.4 CSS Litter Control
- 5. MONITORING**
 - 5.1 Bar Racks at Main & O Street
 - 5.2 Rainfall Data
 - 5.3 Wet Weather Overflows

1. INTRODUCTION

The District of Columbia Water and Sewer Authority (DC Water) operates a wastewater collection system comprised of separate and combined sewers. Separate storm and sanitary sewers serve two-thirds of the District. In the combined sewer system (CSS), there is a single sewer to convey storm water and sanitary wastes. The area served by combined sewers comprises about one-third of the District.

During dry weather, sanitary wastes collected in the CSS are conveyed to the DC Water’s advanced wastewater treatment plant at Blue Plains (BPAWWTP or the Blue Plains AWWTP). During periods of rainfall, the capacity of a combined sewer may be exceeded and the excess flow, which is a mixture of storm water and sanitary wastes, is discharged directly to the Anacostia River, Rock Creek or the Potomac River or their tributary waters. This report summarizes the operations of the combined sewer system for the month indicated.

2. OPERATION AND MAINTENANCE

2.1 Regulators

Regulators divert combined sewage to interceptors, which convey flow to BPAWWTP for treatment. When flows exceed the capacities of the systems such as during significant rain events, regulators divert excess flow to the tunnel system for temporary storage, and CSO outfalls which discharge to receiving waters. The following table summarizes inspections of CSO regulators in the collection system.

**Table 2-1
Regulator Structures**

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
2 ¹	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	N/A				
4 ¹	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	N/A				
5 ¹	Poplar Point Pumping Station	004	N/A				
6	Chicago Street and Railroad Ave, SE	005	11/05/18	*			
7	W Street and Railroad Ave, SE	005	11/05/18	*			
8 ¹	Good Hope Rd, west of Nichols Ave, SE	006	N/A				
9	13 th Street and Ridge Place, SE (Diversion Structure)	007	11/02/18	*			
9a	13 th Street and Ridge Place, SE (Regulator Structure)	007	11/02/18	*			
9b	11 th Street Bridge and DC 295 SB (CSO-007 Diversion Chamber)	007	11/30/18	*			
11	"O" Street Pumping Station	011(a)	11/29/18	*			
12	Storm Pump Discharge at Main Pumping Station	011	11/28/18	*			
13	2 nd Street, 300 ft. north of N Place, SE	009	11/23/18	*			
14	2 nd Street, 250 ft. north of N Place, SE	011(a)	11/23/18	*			
15	South Capitol and E Streets	010	11/08/18	*			
15a	Half and L Streets, SE	010	11/08/18	*			
15b	South Capitol and I Streets	010	11/20/18	*			
15c	South Capitol and I Streets	010	11/20/18	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
16	North of Main Sewage Pumping Station	012	11/08/18	*			
17	4 th and N Streets, SE, Both Extended	013	11/20/18	*			
17a	K Street between 6 th Street and 7 th Street, SE (Side Overflow Weir)	013	11/23/18	*			
17b	4 th and N Streets, SE, Both Extended (CSO-013 Diversion Chamber)	013	11/20/18	*			
18	6 th and M Streets, SE (Diversion and Overflow Structure)	014	11/23/18	*			
18a	Tingey Street SE and 5 1 / 2 Street SE (CSO-014 Diversion Chamber)	014	11/20/18	*			
19	9 th and M Streets, SE	015	11/19/18	*			
19a	9 th and M Streets, SE	015	11/19/18	*			
19b	9 th and M Streets, SE (Diversion Chamber)	015	11/19/18	*			
19c	9 th and M Streets, SE (Diversion Chamber)	015	11/19/18	*			
20	12 th and M Streets, SE	016	11/19/18	*			
20a	12 th and M Streets, SE	016	11/19/18	*			
20b	12 th and M Streets, SE (CSO-016 Diversion Chamber)	016	11/19/18	*			
21	14 th and M Streets, SE	017	11/19/18	*			
21a	14 th and M Streets, SE (CSO-017 Diversion Chamber)	017	11/19/18	*			
22a	Barney Circle and Pennsylvania Ave, SE	018	11/06/18	*			
22b	Barney Circle and Pennsylvania Ave, SE	018	11/06/18	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	11/06/18	*			
22d	Kentucky Ave and Potomac Street, SE	018	11/06/18	*			
22e	14 th Street and Kentucky Ave, SE	018	11/06/18	*			
23	Independence Ave, 21 st Street, SE, Extended	019	11/20/18	*			
24a ²	East Capitol St. west of RFK stadium	019	N/A				
28	21 st and Constitution Ave, NW	020	11/14/18	*			
29	22 nd Street, between Constitution Ave and C St, NW	020	11/14/18	*			
30	17 th and D Streets, NW	020	11/06/18	*			
31	15 th Street and Pennsylvania Ave, NW	020	11/06/18	*			
33	10 th and F Streets, NW	020	11/06/18	*			
34	23 rd Street, north of Constitution Ave, NW	020	11/08/18	*			
34a	23 rd Street near C Street, NW	020	11/14/18	*			
35	Northeast of Roosevelt Bridge, NW	021	11/08/18	*			
36	27 th and I Streets, NW	022	11/14/18	*			
36a	New Hampshire Ave and Eye Street, NW	022	11/14/18	*			
36b	19 th and L Streets, NW	022, 034	11/14/18	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
36d	17 th and L Streets, NW	022, 034	11/14/18	*			
36g	18 th and M Streets, NW	022, 034	11/14/18	*			
36h	18 th and M Streets, NW	022, 034	11/14/18	*			
37	27 th and Eye Streets, NW	022	11/14/18	*			
38	29 th and K Streets, NW	024	11/05/18	*			
38a	30 th Street, south of K Street, NW	024	11/05/18	*			
39a	30 th and K Streets, NW	024	11/05/18	*			
39b	30 th and K Streets, NW	024	11/05/18	*			
41b	31 st and K Streets, NW	025	11/05/18	*			
41c	31 st and K Streets, NW	025	11/05/18	*			
42	Wisconsin Ave and K Street, NW	026	11/05/18	*			
43	Potomac and Water Streets, NW	027	11/05/18	*			
43a	Potomac and Water Streets, NW	027	11/05/18	*			
44	Water Street, west of Potomac St, NW	027	11/05/18	*			
45	36 th and M Streets, NW	028	11/02/18	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	11/02/18	*			
47	38 th Street and Reservoir Road, NW	029	11/02/18	*			
47a	37 th and T Streets, NW	029	11/02/18	*			
47b	37 th and T Streets, NW	029	11/02/18	*			
47c	38 th and W Streets, NW	029	11/02/18	*			
49 ¹	Pennsylvania Ave, east side of Rock Creek, NW	031	N/A				
50	26 and M Streets, NW	032	11/21/18	*			
51	N Street Extended, west of 25 th Street, NW	033	11/21/18	*			
52	22 nd Street between M and N Streets, NW	034	11/08/18	*			
52a	N Street between 22 nd and 23 rd Streets, NW	034	11/08/18	*			
53	22 nd and M Streets, NW	022, 034	11/23/18	*			
53a	22 nd and M Streets, NW	022, 034	11/23/18	*			
53b	L Street between 21 st Street and New Hampshire Ave, NW	022, 034	11/21/18	*			
53c	L and 22 nd Streets, NW	022	11/21/18	*			
54	23 rd and O Streets, NW	034	11/19/18	*			
55	22 nd Street, south of Q Street, NW	035	11/19/18	*			
55a	22 nd Street, south of Q Street, NW	035	11/19/18	*			
56	23 rd and Massachusetts Ave, NW	036	11/19/18	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
57	23 rd Street, south of Q Street, NW	036	11/19/18	*			
58 ^l	Northwest of Belmont Road and Rock Creek and Potomac Parkway, NW	037	N/A				
59	North of Belmont Rd, east of Kalorama Cir, NW	038	11/02/18	*			
60	Connecticut Ave, east of Rock Creek, NW	039	11/02/18	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	11/02/18	*			
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	11/07/18	*			
63	Harvard Street and Rock Creek Parkway, NW	042	11/07/18	*			
64	Adams Mill Road, south of Irving Street, NW	043	11/07/18	*			
65	Kenyon Street and Adams Mill Road, NW	044	11/07/18	*			
65a	Kenyon Street and Adams Mill Road, NW	044	11/07/18	*			
66	Adams Mill Road and Lamont Street, NW	045	11/07/18	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	11/07/18	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	11/07/18	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	11/07/18	*			
70	Piney Branch Parkway, west of 16 th Street, NW	049	11/07/18	*			
70i	5 th and Quackenbos Streets, NW	049	11/06/17	*			
71	28 th Street, west of Rock Creek Parkway, NW	050	11/02/18	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	11/15/18	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	11/15/18	*			
73	O Street Extended and Rock Creek Parkway, NW	052	11/15/18	*			
74 ^l	Q Street, west of Rock Creek, NW	053	N/A				
75	West side of Rock Creek, 300 ft. south of Massachusetts Ave, NW	054	11/19/18	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	11/19/18	*			
77a	Normanstone Dr and Normanstone Lane, NW	056	11/19/18	*			
78 ^l	28th Street Extended, west of Rock Creek, NW	057	N/A				
79 ^l	Connecticut Ave and Rock Creek Parkway, NW	058	N/A				
84	26 th and P Streets, NW	060	11/15/18	*			
84a	26 th and P Streets, NW	060	11/15/18	*			
86	Diversion Chamber and Vortex Drop at First and Channing St, NW (First St Tunnel)	019	11/30/18	*			
88	Flagler and Adams St. NW (First St Tunnel)	019	11/30/18	*			
89	First and V St, NW (First St Tunnel)	019	11/30/18	*			
90	First and V St, NW (First St Tunnel)	019	11/30/18	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
91	First and V St, NW (First St Tunnel)	019	11/30/18	*			
92	CSO 019 Diversion Near Eastside PS (Anacostia River Tunnel)	019	11/26/18	*			
93	CSO 018 Diversion Near Barney Circle (Anacostia River Tunnel)	018	11/26/18	*			
95	M Street Approach Channel M and Water St SE (Anacostia River Tunnel)	015, 016, 017	11/19/18	*			
96	CSO 007 Shaft at 11 th St Bridge and DC I-295 SB Diversion Facilities (Anacostia River Tunnel)	007	11/30/18	*			
97	CSO 005 Diversion at Chicago St Trunk Sewer, I295 SB (Anacostia River Tunnel)	005	11/30/18	*			
98	Main Pumping Station Diversions (Anacostia River Tunnel)	009 -012	11/30/18	*			
99	CSO 009 and 011a Diversion Facilities (Anacostia River Tunnel)	009, 011a	11/30/18	*			
100	CSO 012 Diversion Facilities (Anacostia River Tunnel)	012	11/30/18	*			
101	Main Outfall Sewer Diversion Chamber (Anacostia River Tunnel)	N/A	11/30/18	*			
102	Anacostia Main Interceptor Diversion Chamber	N/A	11/29/18	*			
103	Poplar Point PS Emergency Overflow Chamber (Anacostia River Tunnel)	N/A	11/30/18	*			
104	Poplar Point PS Discharge Chamber	N/A	11/30/18	*			
105	Potomac Outfall Sewer Diversion Chamber (Anacostia River Tunnel)	003A	11/30/18	*			

Notes:

1. Noted structures no longer function as a combined sewer overflow regulator structure.
2. Structure 24a is being used for bypass pumping to support work on East Side Force Main. The force main work is necessary for the construction of the Northeast Boundary Tunnel. The force main was returned to service on 11/06/18, but due to construction activities at the site, the force main was taken out of service on 11/09/18. Anticipated completion date December 2018. During the bypass pumping operation, DC Water will be unable to perform a direct inspection, Structure 24a will be monitored via indirect monitoring of downstream flows to determine that the structure is operating properly

2.2 Outfalls, Tide Gates and CSO Signs

The following table summarizes inspections, maintenance and work performed on outfall structures, tide gates and CSO signs in the collection system.

**Table 2-2
Outfalls and Tide Gates**

NPDES Outfall	Location	Date Inspected	Outfall Condition		Tide Gate Present?		Tide Gate Condition		CSO Sign		Notes, Work Needed or Performed
			OK	Needs Work	Yes	No	OK	Needs Work	OK	Needs Work	
003 ¹	Bolling Air Force Base, at Giavanolli and Chanute, SW	N/A									
003a	Joint Base Anacostia Bolling, Macdill and Arnold Ave SW	11/30/18	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	11/29/18	*		*		*		*		
006 ¹	Good Hope Road and Welsh Memorial Bridge	N/A									
007	Between 11 th St. and Anacostia Bridges, SE	11/29/18	*		*		*		*		
009	O St. Sewage Pumping Station, SE	11/28/18	*		*		*		*		
010	O St. Sewage Pumping Station, SE	11/28/18	*			*			*		
011	Main Sewage Pumping Station, SE	11/28/18	*			*			*		
011(a)	Main Sewage Pumping Station, SE	11/28/18	*		*		*		*		
012	Main Sewage Pumping Station, SE	11/28/18	*		*		*		*		
013	Southeast Federal Center, aligned with 4 th St.	11/28/18	*		*		*		*		
014	Navy Yard, aligned with 6 th St., SE	11/28/18	*		*		*		*		
015	Navy Yard, aligned with 9th Street, SE	11/28/18	*			*			*		
016	12th and O Streets, SE	11/27/18	*		*		*		*		
017	M and Water Street, SE	11/27/18	*		*		*		*		
018	East of Barney Circle & South of Pennsylvania Avenue Bridge, SE	11/27/18	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility & D.C. General Hospital	11/26/18	*		*		*		*		
019a	Adjacent to Service Drive behind swirl facility & D.C. General Hospital (Tunnel Overflow Structure)	11/26/18	*		*		*		*		
020	Rock Creek Parkway and Independence, NW	11/28/18	*		*		*		*		
021	Rock Creek Parkway and C St., NW	11/28/18	*		*		*		*		
022	Rock Creek Parkway and G St., NW	11/28/18	*		*		*		*		
024	South of 30 th and K Streets, NW ¹	11/28/18	*		*		*		*		
025	South of 31st and K Streets, NW	11/28/18	*		*		*		*		
026	Wisconsin Avenue and Water Street, NW	11/28/18	*		*		*		*		
027	33 rd and Water Sts., NW	11/28/18	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	11/28/18	*			*			*		
029	Adjacent to C&O Canal, aligned with 38 th St. NW	11/28/19	*			*			*		

NPDES Outfall	Location	Date Inspected	Outfall Condition		Tide Gate Present?		Tide Gate Condition		CSO Sign		Notes, Work Needed or Performed
			OK	Needs Work	Yes	No	OK	Needs Work	OK	Needs Work	
031 ¹	Rock Creek Pkwy & Pennsylvania Avenue, NW	N/A									
032	26th and M Street, NW.	11/21/18	*			*			*		
033	Across street from St. Francis Jr. High and aligned with N St., NW.	11/21/18	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	11/19/18	*			*			*		
035	P St. Bridge and Rock Creek Parkway	11/19/18	*			*			*		
036	22nd Street, South of Q Street NW.	11/23/18	*		*		*		*		
037 ¹	Waterside Dr. and Rock Creek Parkway	N/A									
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	11/02/18	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	11/02/18	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	11/02/18	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	11/29/18	*		*		*		*		
042	Harvard St. and Beach Dr NW.	11/29/18	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	11/29/18	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	11/29/18	*		*		*		*		
045	North of Beach Dr. and Walbridge Pl, NW.	11/29/18	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	11/07/18	*			*			*		
047	Piney Branch Parkway and Ingleside Terrace	11/07/18	*		*		*		*		
048	South of Piney Branch Parkway and 17 th St.	11/07/18	*		*		*		*		
049	North of Piney Branch Parkway and 17 th St.	11/07/18	*		*		*		*		
050	Rock Creek Parkway and L St., NW	11/02/18	*		*		*		*		
051	Across Rock Creek Pkwy, aligned with Olive St., NW.	11/29/18	*		*		*		*		
052	Between P & Penna. Ave Bridges, aligned with O Street, NW.	11/29/18	*		*		*		*		
053 ¹	Q St. Bridge and Rock Creek Parkway, NW.	N/A									
054	Massachusetts Ave & Rock Creek Parkway, NW.	11/19/18	*		*		*		*		
056	Normanstone Dr. and Rock Creek Parkway, NW.	11/19/18	*		*		*		*		
057 ¹	28th Street and Rock Creek Parkway, NW	N/A									
058 ¹	Connecticut Ave & Rock Creek Parkway, NW.	N/A									
060	North of P St. Bridge & Rock Creek Pkwy, NW	11/23/18	*		*		*		*		

Notes:

1. Outfall no longer functions as a combined sewer outfall.

2.3.1 Pumping Stations

Pumping station operations are summarized in the table below.

**Table 2-3
Pumping Stations – Inspections and Equipment in Service**

<i>Pumping Station</i>	<i>No. of Inspections</i>	<i>No. Screens</i>	<i>No. Pumps</i>	<i>Screens or Pumps Out of Service</i>	<i>Dates</i>	<i>Reason</i>	<i>Work Order Number</i>	<i>Schedule to Restore to Service</i>
Main	30	3	4	Bypass Screen #4	11/03/18 – 11/05/18	Bent Rake, Screen Not Running	19-87360	Returned to service on 11/06/18.
Eastside ¹	1	2	4	Screen # 1	11/01/18 – 11/30/18	Bent Rake, Screen Not Running	18-352157	Anticipated 12/17/18. Capital improvement project was developed to replace screen.
Poplar Point	1	2	4	None	-	-	-	-
Potomac ²	30	4	5	Pump #2	11/01/18 – 11/09/18	Ball Valve Gear Box Failure	18-651490	Gear box was repaired. Pump returned to service on 11/09/18.
				Pump #4	11/02/18 – 11/06/18	Ball Valve Actuator Failure	19-77688	Ball Valve was repaired and pump returned to service on 11/06/18.

Notes:

1. Eastside pumping station taken out of service 08/23/2018 – 11/06/18 for work on the downstream East Side Force Main. The force main work is necessary for the construction of the Northeast Boundary Tunnel. Due to construction activities, the force main needed to be taken out of service on 11/09/18, anticipated return to service is December 2018. While the force main was out of service, a bypass pumping operation at Structure 24a redirected the flow to Main Pumping Station.
2. On November 2nd, 5th, and 24th, pumps 1 and 3 at the Potomac Pumping Station experienced high vibration levels which reduced the pump capacity.

**Table 2-4
Pumping Stations – Preventive Maintenance**

<i>Pumping Station</i>	<i>Date Performed</i>	<i>Type of Preventive Maintenance Performed¹</i>	<i>Work Order Number</i>	<i>Comments</i>
Main	11/05/18	Group A	18-642079	Add oil, grease bearings and replace packing if needed.
O St	11/26/18	Group A	19-92541	Add oil, grease bearings and replace packing if needed.
Eastside	11/12/18	Group A	19-10126	Add oil, grease bearings and replace packing if needed.
Poplar Point	See Note 3	See Note 3		
Potomac	11/12/18	Group A	19-10797	Add oil, grease bearings and replace packing if needed.
Rock Creek	11/10/18	Group A	18-642093	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	11/10/18	Group A	18-642107	Add oil, grease bearings and replace packing if needed.
Earl Place	11/22/18	Group A	19-37674	Add oil, grease bearings and replace packing if needed.
1 st Street Tunnel Dewatering	11/14/18	Group B	19-127573	

Notes:

1. Group A consists of:
 - Exercise bar screens
 - Exercise all sump pumps
 - Drain condensation from air compressor storage tank
 - Check depth of screening in the screen room and schedule Vector truck as required
 - Check all safety equipment
 - Issue work order requests as required
2. Group B consists of:
 - a. Inspect and manually run CSO Pumps
 - b. Generator:
 - i. Inspection operation and test, inspect oil level, inspect coolant level
 - c. MCC:
 - i. Test gas monitoring system
 - ii. Inspect and test level indicators
 - d. Valve Vault
 - i. Lubricate knife gate valve stem and stem nut
 - ii. Flush air and vacuum release valve
3. DC Water’s construction contractor is performing inspection and maintenance activities as part of completion of punch list and closeout activities for Poplar Point Pumping Station

**Table 2-5
Pumping Stations – Pumpage**

<i>Pumping Station</i>	<i>Sanitary Pumpage</i>		<i>Screenings Collected (tons)¹</i>	<i>Pumpage of CSO from First Street Tunnel back to Sewer System</i>	
	<i>Total Wastewater (mg)</i>	<i>Daily Average Wastewater (mg)</i>		<i>Date</i>	<i>Volume (mg)</i>
Main ^{1,2}	1549.88	51.66	N/A	N/A	N/A
O St ^{1,2}	175.44	6.05	N/A	N/A	N/A
Eastside ³	25.38	0.85	N/A	N/A	N/A
Poplar Point	404.09	13.47	N/A	N/A	N/A
Potomac	4951.80	165.06	N/A	N/A	N/A
Rock Creek	187.88	6.26	N/A	N/A	N/A
Upper Anacostia	55.53	1.85	N/A	N/A	N/A
Earl Place	0.351	0.012	N/A	N/A	N/A
1 st Street Tunnel Dewatering	N/A	N/A	N/A	11/12/18	0.17
				11/25/18	0.16
				11/26/18	0.02

Notes:

1. Screenings collected from the Main and O Street Pumping Stations are combined from the sanitary flow and combined sewer overflows, due to the design of the screening system that consists of vertical trash racks, with no mechanical cleaning. Therefore, quantification of captured screening materials, specifically from combined sewer overflows, is not feasible.
2. Flow meters have been installed in accordance with NPDES Permit No. DC002199 to record CSO discharges from Main and O Street Pumping Stations. This data is reported via Discharge Monitoring Reports submitted to the EPA on a monthly basis. A summary of metered and modeled CSO discharges is included in Section 5.
3. Eastside pumping station taken out of service 08/23/2018 – 11/06/18 for work on the downstream East Side Force Main. The force main work is necessary for the construction of the Northeast Boundary Tunnel. Due to construction activities, the force main needed to be taken out of service on 11/09/18, anticipated return to service is December 2018. While the force main was out of service, a bypass pumping operation at Structure 24a redirected the flow to Main Pumping Station.

2.4 Inflatable Dams and SCADA System

DC Water operates and maintains nine inflatable dams at seven different locations. Table 2-6 summarizes the date(s) the inflatable dams were inspected, and their operational status and condition. The inflatable dams consist of multi-ply elastomeric (i.e., “rubber”) fabric dams installed in major overflow conduits within the combined sewer system. The objective of the inflatable dam installation is to increase the effective depth to which the sewage must rise in the combined sewer before overflows occur. The effect of the installation is to retain a greater volume of combined sewage flow resulting from low to moderate intensity storms by maximizing storage within the CSS. During higher intensity storms, when the full carrying capacity of the overflow conduit is required to prevent upstream flooding, the dam is deflated automatically. Inflatable dam operations are summarized below:

**Table 2-6
Inflatable Dams – Inspections and Equipment in Service**

<i>Inflatable Dam Structure No</i>	<i>Date Inspected</i>	<i>Was Dam Out of Service During the Month?</i>	<i>Dates out of Service</i>	<i>Reason</i>	<i>Schedule to Restore to Service</i>
14 - East	11/14/18	No	N/A	N/A	N/A
14 - West	11/14/18	No	N/A	N/A	N/A
15	11/08/18	No	N/A	N/A	N/A
15A	11/08/18	No	N/A	N/A	N/A
16 - East	11/08/18	No	N/A	N/A	N/A
16 - West	11/08/18	No	N/A	N/A	N/A
34	11/08/18	No	N/A	N/A	N/A
35	11/08/18	No	N/A	N/A	N/A
52	11/08/18	No	N/A	N/A	N/A

Notes:

Table 2-7

Inflatable Dams & SCADA Sites - Wet Weather Operations

<i>Inflatable Dam Structure No.</i>	<i>Overflow Dates</i>	<i>Estimated Duration of Overflow</i>
14 (E & W)	None	N/A
15	11/20/18	0 hrs. 55 mins
15A	11/5/18	0 hrs. 9 mins
	11/19/18	1 hr. 18 mins
16 (E & W)	11/5/18	0 hrs. 16 mins
	11/8/18	0 hrs. 25 mins
34	None	N/A
35	11/5/18	1 hr. 9 mins
	11/9/18	0 hrs. 3 mins
	11/24/18	1 hr. 45 mins
52	None	N/A
<i>Structures on Outfall Sewers</i>	<i>Overflow Dates</i>	<i>Estimated Duration of Overflow</i>
Outfall Structure 1	None	This structure has been bulk headed. Overflows are no longer possible.
Outfall Structure 1A	None	This structure has been bulk headed. Overflows are no longer possible.
Outfall Structure 2	None	N/A
<i>Outfall Sewer Control Gates</i>	<i>Operational Status</i>	<i>Position</i>
Outfall Sewer Control Gate No.1	Operational	Open
Outfall Sewer Control Gate No.2	Operational	This structure has been bulk headed. Overflows are no longer possible
Outfall Sewer Control Gate No.2	Operational	This structure has been bulk headed. Overflows are no longer possible

Notes:

3. DRY WEATHER OVERFLOWS

There was no dry weather combined sewer overflow during November 2018.

4. SOLIDS AND FLOATABLES CONTROL

4.1 Catch Basin Cleaning

The following tables summarize catch basin cleaning in the Anacostia CSO area and in the entire sewer system:

**Table 4-1
Catch Basin Cleaning**

Ward	Total CBs	CBs in CSS	Inspections			Cleaning					
			CBs in Anacostia CSS	Total Anacostia CBs Inspected Once this Year	Total Anacostia CBs Inspected Twice this Year	CBs Cleaned Thru Last Month		CB's Cleaned This Month		Total CBs Cleaned This Year to Date	
						Total	In CSS	Total	In CSS	Total	In CSS
1	1447	1404	650	645	634	1457	1430	22	22	1479	1452
2	2774	2584	451	451	436	2603	2467	158	141	2761	2608
3	3630	181	0	0	0	3645	173	52	11	3697	184
4	3459	1683	0	0	0	3333	1631	107	77	3440	1708
5	3928	1732	1674	1654	1614	3962	1850	46	29	4008	1879
6	3269	2618	2610	2610	2394	3220	2640	205	172	3425	2812
7	3700	35	35	35	33	3404	23	131	12	3535	35
8	2801	210	210	207	200	2541	215	16	2	2557	217
Grand Total	25008¹	10447¹	5630¹	5602	5311	24165	10429	737	466	24902	10895
% Cleaned/Inspected to Date				99%	94%	97%	100%			100%	104%

1. The number of catch basins in our service area changes with the ongoing connections and abandonments to the sewer infrastructure.

4.2 BMP Demonstration for Solid and Floatable Control

DC WATER operates the following demonstration projects designed to remove solids and floatables from CSO prior to discharge.

- Netting system at CSO 018 to Anacostia River
- Bar Rack at CSO 040 and 041 to Rock Creek

**Table 4-2
BMP Demonstration Projects – Report**

<i>Facility</i>	<i>Date Inspected</i>	<i>Condition</i>	<i>Work Needed</i>	<i>Work performed</i>	<i>Material Removed (LB)</i>
Netting System CSO 018	11/1/2018	Good	Routine cleaning	Routine cleaning	None
Bar Rack CSO 040	11/02/2018	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	11/29/2018	Good	None	Routine Cleaning	(1)

Notes:

(1) System was designed so that captured solids and floatable are conveyed to Blue Plains for treatment.

4.3 Anacostia River Floating Debris Removal Program

This program was initiated in October 1992 to remove floating debris from Anacostia and Potomac Rivers on a routine basis. The program has continued from that time and is now under the auspices of DC WATER, Department of Sewer Services. The floating debris removal program utilizes a skimmer boat and support boats to remove floatable debris from the Rivers as well as trash, which accumulates on the riverbanks and in the mud flats at low tides. Work for the most part is directed toward the Anacostia River. The boats pick up debris five days a week. Operations are summarized as follows:

**Table 4-3
Anacostia River Floating Debris Removal Program – Summary**

<i>Program Operation</i>	5-day work week, excluding holidays, weather permitting
<i>Work Days this month:</i>	20
<i>Days not Operating</i>	7
<i>Reason not Operating</i>	Maintenance, wind, low water levels, lightning.
<i># Skimmer in Fleet</i>	4 Skimmers
<i># Skimmers Out of Service</i>	None (on the last day of the month)
<i>Dates</i>	N/A
<i>Reason</i>	N/A
<i>Plan to Restore to Service</i>	N/A
<i>Amount Material Collected</i>	70 tons this month. Calendar year to date 800 tons.
<i>Nature of Material</i>	Bottles, cans, natural debris and plastics.

4.4 CSS Litter Control

This section describes DC WATER’s efforts to coordinate litter control efforts with the National Park Service and D.C. Department of Public Works to maximize litter control efforts in the combined sewer system.

No Activity this month.

5. MONITORING

5.1 Condition Report Bar Racks at Main and O Street Storm Pumps

DC Water performs visual surveys of the bar racks at Main and O Street Pumping Stations to characterize the quantity and nature of floatable discharge. The physical condition of the bar racks and any maintenance requirements are also noted.

**Table 5-1
Bar Racks at Main & O Street Pumping Stations**

Inspector: Keith Watts

Pumping Station	Inspector	Date Inspected	Condition		Work Order Number	Work Needed	Work Performed or Schedule for Completion
			Good	Needs Work			
Bar Racks at O Street Storm Pumps (CSO 010)	KW	11/28/18	X		19-102881		
Bar Racks at Main Storm Pumps (CSO 011)	KW	11/28/18	X		19-102874		

5.2 Rain Data

Rain data from National Airport and from the rain gauges installed in the CSS are summarized below.

National Airport rain data for the month of November 2018 is not available due to the Federal Government Shutdown.

Date	Brentwood Pumping Station	Bryant Street Pumping Station	Main Pumping Station	Rock Creek Pumping Station	National Airport
11/1/2018	0	0	0	0	
11/2/2018	0.75	0.66	0.83	1.00	
11/3/2018	0.03	0.04	0.03	0.04	
11/4/2018	0	0	0	0	
11/5/2018	1.36	1.22	1.34	1.17	
11/6/2018	0.88	0.81	0.72	0.78	
11/7/2018	0	0	0	0	
11/8/2018	0	0	0	0	
11/9/2018	0.51	0.43	0.54	0.40	
11/10/2018	0	0	0	0	
11/11/2018	0	0	0	0	
11/12/2018	0.60	0.55	0.56	0.55	
11/13/2018	0.40	0.41	0.34	0.39	
11/14/2018	0	0	0	0	
11/15/2018	0.38	1.23	1.23	1.08	
11/16/2018	0.06	0.06	0.05	0.07	
11/17/2018	0	0	0	0	
11/18/2018	0	0	0	0	
11/19/2018	0	0	0	0	
11/20/2018	0	0	0	0	
11/21/2018	0	0	0	0	
11/22/2018	0	0	0	0	
11/23/2018	0	0	0	0	
11/24/2018	1.42	1.44	1.32	1.54	
11/25/2018	0	0	0	0	
11/26/2018	0.39	0.38	0.39	0.38	
11/27/2018	0	0	0	0.01	
11/28/2018	0	0	0	0	
11/29/2018	0	0	0	0	
11/30/2018	0	0.01	0	0	
TOTAL	6.78	7.23	7.35	7.41	0

5.3 Wet Weather Overflows

Combined Sewer System Model Results are summarized below.

District of Columbia Water and Sewer Authority

Combined Sewer System Model Results
 Period: October, November, December 2018

SCENARIO: QuarterlyReport_2018Q4, created January 10, 2018

NPDES No	Description	Data Source	Number of Overflows (Occurrences)	CSO Overflow Volume (mg)	Total Duration of Overflow (hrs)	Avg Duration of Overflow (hrs)	Maximum Duration of Overflow (hrs)	Minimum Duration of Overflow (hrs)
Anacostia CSOs								
005	Chicago St and Railroad Station SE	Modeled	0	0.00	0.00	0.00	0.00	0.00
006	Good Hope Road, West of Nichols Ave. SE	separated						
007	13 th Street and Ridge Place SE	Metered	2	2.26	6.42	3.21	6.25	0.17
009	2nd Street, 300 feet North of N Place, SE	Metered	0	0.00	0.00	0.00	0.00	0.00
010	O Street Sewage Pumping Station, SE (pumped Overflow)	Metered	2	10.42	6.67	3.34	5.42	1.25
011	South of Main Sewage Pumping Station, SE (pumped overflow)	Metered	0	0.00	0.00	0.00	0.00	0.00
011a	South of Main Sewage Pumping Station, SE (gravity overflow)	Metered	0	0.00	0.00	0.00	0.00	0.00
012	North of Main Sewage Pumping Station, SE (Tiber Creek)	Metered	3	3.01	1.16	0.39	1.00	0.08
013	4th and N Streets, SE	Modeled	1	0.17	1.25	1.25	1.25	1.25
014	6th and M Streets, SE	Modeled	2	0.37	1.25	0.63	1.00	0.25
015	9th and M Streets, SE	consolidated to tunnel system						
016	12th and M Streets, SE	consolidated to tunnel system						
017	14th and M Streets, SE	consolidated to tunnel system						
018	Barney Circle and Pennsylvania Ave, SE	consolidated to tunnel system						
019	Northeast Boundary	Metered	1	67.77	6.92	6.92	6.92	6.92
019A	Northeast Boundary - Tunnel OF	Metered	2	11.90	3.58	1.79	2.75	0.83
	SUBTOTAL			95.90				
Potomac CSOs								
003A	JBAB Tunnel OF	Metered	1	10.11	4.58	4.58	4.58	4.58
020	23rd Street, North of Constitution Ave, NW (Easby Point)	Modeled	10	39.08	39.50	3.95	11.25	0.25
021	Northeast of Roosevelt Bridge, NW	Modeled	13	214.41	50.75	3.90	13.50	0.50
022	27th and K Streets, NW	Modeled	12	2.17	44.75	3.73	11.50	0.25
024	30th and K Streets, NW	Modeled	10	20.18	40.75	4.08	13.75	0.25
025	31st & K St NW	Modeled	3	0.05	2.50	0.83	1.25	0.25
026	Wisconsin Avenue and K St., NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
027	Water Street West of Street, NW	Modeled	13	9.13	63.00	4.85	15.00	1.50
028	36th and M Streets, NW	Modeled	79	10.82	614.75	7.78	43.75	5.00
029	Canal Road 1000 feet east of Rock Creek NW	Modeled	14	11.69	67.75	4.84	15.50	0.50
	SUBTOTAL			317.85				
Rock Creek								
031	Pennsylvania Avenue, East Rock Creek, NW	separated						
032	26th and M Streets, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
033	N Street extended west of 25th Street, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
034	23rd and O Streets, SW	Modeled	0	0.00	0.00	0.00	0.00	0.00
035	22nd Street south of Q Street, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
036	22nd Street South of Q Street, NW	Modeled	13	0.474	40.75	3.13	11.00	0.50
037	Northwest of Belmont and Rock Creek and Potomac Parkway	separated						
038	North of Belmont Road, east of Kalorama Circle, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
039	Connecticut Avenue east of Rock Creek, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
040	Billmore Street extended east of Rock Creek, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
041	Ontario extended and Rock Creek Parkway	Modeled	0	0.00	0.00	0.00	0.00	0.00
042	Harvard Street and Rock Creek Parkway, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
043	Adams Mill Road South of Irving Street, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
044	Kenyon Street and Adams Mill Road, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
045	Adams Mill Road and Lamont Street, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
046	Park Road south of Piney Branch Parkway, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
047	Ingleside Terrace extended and Piney Branch Parkway	Modeled	0	0.00	0.00	0.00	0.00	0.00
048	Mt. Pleasant Street extended and Piney Branch Parkway	Modeled	0	0.00	0.00	0.00	0.00	0.00
049	Piney Branch and Lamont Street, NW	Modeled	13	22.10	52.25	4.02	11.75	1.00
050	28th Street west of 18th Street, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
051	Olive Street extended and Rock Creek Parkway, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
052	O Street extended and Rock Creek Parkway, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
053	O Street west of Rock Creek Parkway, NW	separated						
054	West Side of Rock Creek 300 ft. south of Mass. Ave, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
056	Normanstone Drive extended west of Rock Creek, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
057	28th Street extended west of Rock Creek, NW	separated						
058	Connecticut Avenue and Rock Creek Parkway, NW	separated						
060	P St and 26 th St, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
	SUBTOTAL			22.57				
	TOTAL			436.11				

District of Columbia Water and Sewer Authority

Combined Sewer System Model Results

Period: October, November, December 2018

SCENARIO: QuarterlyReport_2018Q4, created January 10, 2018

NPDES No.	Description	Data Source	Number of Overflows (Occurrences)	CSO Overflow Volume (mg)	Total Duration of Overflow (hrs)	Avg Duration of Overflow (hrs)	Maximum Duration of Overflow (hrs)	Minimum Duration of Overflow (hrs)
I:\SEWER\CSO QUARTERLY REPORT\CSO 4th Quarter Report 2018\COPY of Y2018Q4_Report_10Jan2019_DRAFT.XLSX\Q4Y2018								

Prepared by: Greeley and Hansen LLC and Limno-Tech, Inc.



**DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY**
Serving the Public • Protecting the Environment

**Monthly Operations Report For
*Combined Sewer System***

Month: December 2018

Prepared By:
District of Columbia
Water and Sewer Authority
Department of Sewer Services
Washington, D.C. 20003

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY
Washington, D.C.

*Monthly Operations Report for Combined Sewer System
Month: December 2018*

Table of Contents

- 1. INTRODUCTION**
- 2. OPERATION AND MAINTENANCE**
 - 2.1 Regulators
 - 2.2 Outfalls, Tide Gates and CSO Signs
 - 2.3 Pumping Stations
 - 2.4 Inflatable Dams and SCADA Systems
- 3. DRY WEATHER OVERFLOWS**
- 4. SOLIDS AND FLOATABLES CONTROL**
 - 4.1 Catch Basin Cleaning
 - 4.2 BMP Demonstration for Solid and Floatable Control
 - 4.3 Anacostia River Floating Debris Removal Program
 - 4.4 CSS Litter Control
- 5. MONITORING**
 - 5.1 Bar Racks at Main & O Street
 - 5.2 Rainfall Data
 - 5.3 Wet Weather Overflows

1. INTRODUCTION

The District of Columbia Water and Sewer Authority (DC Water) operates a wastewater collection system comprised of separate and combined sewers. Separate storm and sanitary sewers serve two-thirds of the District. In the combined sewer system (CSS), there is a single sewer to convey storm water and sanitary wastes. The area served by combined sewers comprises about one-third of the District.

During dry weather, sanitary wastes collected in the CSS are conveyed to the DC Water's advanced wastewater treatment plant at Blue Plains (BPAWWTP or the Blue Plains AWWTP). During periods of rainfall, the capacity of a combined sewer may be exceeded and the excess flow, which is a mixture of storm water and sanitary wastes, is discharged directly to the Anacostia River, Rock Creek or the Potomac River or their tributary waters. This report summarizes the operations of the combined sewer system for the month indicated.

2. OPERATION AND MAINTENANCE

2.1 Regulators

Regulators divert combined sewage to interceptors, which convey flow to BPAWWTP for treatment. When flows exceed the capacities of the systems such as during significant rain events, regulators divert excess flow to the tunnel system for temporary storage, and CSO outfalls which discharge to receiving waters. The following table summarizes inspections of CSO regulators in the collection system.

**Table 2-1
Regulator Structures**

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
2 ¹	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	N/A				
4 ¹	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	N/A				
5 ¹	Poplar Point Pumping Station	004	N/A				
6	Chicago Street and Railroad Ave, SE	005	12/03/18	*			
7	W Street and Railroad Ave, SE	005	12/03/18	*			
8 ¹	Good Hope Rd, west of Nichols Ave, SE	006	N/A				
9	13 th Street and Ridge Place, SE (Diversion Structure)	007	12/03/18	*			
9a	13 th Street and Ridge Place, SE (Regulator Structure)	007	12/03/18	*			
9b	11 th Street Bridge and DC 295 SB (CSO-007 Diversion Chamber)	007	12/19/18	*			
11	"O" Street Pumping Station	011(a)	12/19/18	*			
12	Storm Pump Discharge at Main Pumping Station	011	12/20/18	*			
13	2 nd Street, 300 ft. north of N Place, SE	009	12/13/18	*			
14	2 nd Street, 250 ft. north of N Place, SE	011(a)	12/13/18	*			
15	South Capitol and E Streets	010	12/13/18	*			
15a	Half and L Streets, SE	010	12/13/18	*			
15b	South Capitol and I Streets	010	12/19/18	*			
15c	South Capitol and I Streets	010	12/19/18	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
16	North of Main Sewage Pumping Station	012	12/13/18	*			
17	4 th and N Streets, SE, Both Extended	013	12/19/18	*			
17a	K Street between 6 th Street and 7 th Street, SE (Side Overflow Weir)	013	12/20/18	*			
17b	4 th and N Streets, SE, Both Extended (CSO-013 Diversion Chamber)	013	12/19/18	*			
18	6 th and M Streets, SE (Diversion and Overflow Structure)	014	12/07/18	*			
18a	Tingey Street SE and 5 1 / 2 Street SE (CSO-014 Diversion Chamber)	014	12/19/18	*			
19	9 th and M Streets, SE	015	12/17/18	*			
19a	9 th and M Streets, SE	015	12/17/18	*			
19b	9 th and M Streets, SE (Diversion Chamber)	015	12/17/18	*			
19c	9 th and M Streets, SE (Diversion Chamber)	015	12/17/18	*			
20	12 th and M Streets, SE	016	12/17/18	*			
20a	12 th and M Streets, SE	016	12/17/18	*			
20b	12 th and M Streets, SE (CSO-016 Diversion Chamber)	016	12/17/18	*			
21	14 th and M Streets, SE	017	12/17/18	*			
21a	14 th and M Streets, SE (CSO-017 Diversion Chamber)	017	12/17/18	*			
22a	Barney Circle and Pennsylvania Ave, SE	018	12/21/18	*			
22b	Barney Circle and Pennsylvania Ave, SE	018	12/21/18	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	12/21/18	*			
22d	Kentucky Ave and Potomac Street, SE	018	12/10/18	*			
22e	14 th Street and Kentucky Ave, SE	018	12/10/18	*			
23	Independence Ave, 21 st Street, SE, Extended	019	12/14/18	*			
24a ²	East Capitol St, west of RFK stadium	019	N/A				
28	21 st and Constitution Ave, NW	020	12/11/18	*			
29	22 nd Street, between Constitution Ave and C St, NW	020	12/11/18	*			
30	17 th and D Streets, NW	020	12/11/18	*			
31	15 th Street and Pennsylvania Ave, NW	020	12/11/18	*			
33	10 th and F Streets, NW	020	12/11/18	*			
34	23 rd Street, north of Constitution Ave, NW	020	12/18/18	*			
34a	23 rd Street near C Street, NW	020	12/11/18	*			
35	Northeast of Roosevelt Bridge, NW	021	12/18/18	*			
36	27 th and I Streets, NW	022	12/11/18	*			
36a	New Hampshire Ave and Eye Street, NW	022	12/11/18	*			
36b	19 th and L Streets, NW	022, 034	12/07/18	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
36d	17 th and L Streets, NW	022, 034	12/07/18	*			
36g	18 th and M Streets, NW	022, 034	12/07/18	*			
36h	18 th and M Streets, NW	022, 034	12/07/18	*			
37	27 th and Eye Streets, NW	022	12/11/18	*			
38	29 th and K Streets, NW	024	12/03/18	*			
38a	30 th Street, south of K Street, NW	024	12/03/18	*			
39a	30 th and K Streets, NW	024	12/03/18	*			
39b	30 th and K Streets, NW	024	12/03/18	*			
41b	31 st and K Streets, NW	025	12/03/18	*			
41c	31 st and K Streets, NW	025	12/03/18	*			
42	Wisconsin Ave and K Street, NW	026	12/03/18	*			
43	Potomac and Water Streets, NW	027	12/03/18	*			
43a	Potomac and Water Streets, NW	027	12/03/18	*			
44	Water Street, west of Potomac St, NW	027	12/03/18	*			
45	36 th and M Streets, NW	028	12/07/18	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	12/07/18	*			
47	38 th Street and Reservoir Road, NW	029	12/07/18	*			
47a	37 th and T Streets, NW	029	12/07/18	*			
47b	37 th and T Streets, NW	029	12/07/18	*			
47c	38 th and W Streets, NW	029	12/07/18	*			
49 ^l	Pennsylvania Ave, east side of Rock Creek, NW	031	N/A				
50	26 and M Streets, NW	032	12/17/18	*			
51	N Street Extended, west of 25 th Street, NW	033	12/17/18	*			
52	22 nd Street between M and N Streets, NW	034	12/05/18	*			
52a	N Street between 22 nd and 23 rd Streets, NW	034	12/05/18	*			
53	22 nd and M Streets, NW	022, 034	12/10/18	*			
53a	22 nd and M Streets, NW	022, 034	12/10/18	*			
53b	L Street between 21 st Street and New Hampshire Ave, NW	022, 034	12/17/18	*			
53c	L and 22 nd Streets, NW	022	12/17/18	*			
54	23 rd and O Streets, NW	034	12/10/18	*			
55	22 nd Street, south of Q Street, NW	035	12/10/18	*			
55a	22 nd Street, south of Q Street, NW	035	12/10/18	*			
56	23 rd and Massachusetts Ave, NW	036	12/10/18	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
57	23 rd Street, south of Q Street, NW	036	12/10/18	*			
58 ¹	Northwest of Belmont Road and Rock Creek and Potomac Parkway, NW	037	N/A				
59	North of Belmont Rd, east of Kalorama Cir, NW	038	12/11/18	*			
60	Connecticut Ave, east of Rock Creek, NW	039	12/11/18	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	12/11/18	*			
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	12/12/18	*			
63	Harvard Street and Rock Creek Parkway, NW	042	12/12/18	*			
64	Adams Mill Road, south of Irving Street, NW	043	12/12/18	*			
65	Kenyon Street and Adams Mill Road, NW	044	12/12/18	*			
65a	Kenyon Street and Adams Mill Road, NW	044	12/12/18	*			
66	Adams Mill Road and Lamont Street, NW	045	12/12/18	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	12/12/18	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	12/12/18	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	12/12/18	*			
70	Piney Branch Parkway, west of 16 th Street, NW	049	12/12/18	*			
70i	5 th and Quackenbos Streets, NW	049	12/07/18	*			
71	28 th Street, west of Rock Creek Parkway, NW	050	12/07/18	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	12/10/18	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	12/10/18	*			
73	O Street Extended and Rock Creek Parkway, NW	052	12/10/18	*			
74 ¹	Q Street, west of Rock Creek, NW	053	N/A				
75	West side of Rock Creek, 300 ft. south of Massachusetts Ave, NW	054	12/14/18	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	12/14/18	*			
77a	Normanstone Dr and Normanstone Lane, NW	056	12/14/18	*			
78 ¹	28th Street Extended, west of Rock Creek, NW	057	N/A				
79 ¹	Connecticut Ave and Rock Creek Parkway, NW	058	N/A				
84	26 th and P Streets, NW	060	12/10/18	*			
84a	26 th and P Streets, NW	060	12/10/18	*			
86	Diversion Chamber and Vortex Drop at First and Channing St, NW (First St Tunnel)	019	12/26/18	*			
88	Flagler and Adams St, NW (First St Tunnel)	019	12/26/18	*			
89	First and V St, NW (First St Tunnel)	019	12/26/18	*			
90	First and V St, NW (First St Tunnel)	019	12/26/18	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
91	First and V St, NW (First St Tunnel)	019	12/26/18	*			
92	CSO 019 Diversion Near Eastside PS (Anacostia River Tunnel)	019	12/26/18	*			
93	CSO 018 Diversion Near Barney Circle (Anacostia River Tunnel)	018	12/26/18	*			
95	M Street Approach Channel M and Water St SE (Anacostia River Tunnel)	015, 016, 017	12/17/18	*			
96	CSO 007 Shaft at 11 th St Bridge and DC I-295 SB Diversion Facilities (Anacostia River Tunnel)	007	12/19/18	*			
97	CSO 005 Diversion at Chicago St Trunk Sewer, I295 SB (Anacostia River Tunnel)	005	12/19/18	*			
98	Main Pumping Station Diversions (Anacostia River Tunnel)	009 - 012	12/26/18	*			
99	CSO 009 and 011a Diversion Facilities (Anacostia River Tunnel)	009, 011a	12/13/18	*			
100	CSO 012 Diversion Facilities (Anacostia River Tunnel)	012	12/13/18	*			
101	Main Outfall Sewer Diversion Chamber (Anacostia River Tunnel)	N/A	12/21/18	*			
102	Anacostia Main Interceptor Diversion Chamber	N/A	12/21/18	*			
103	Poplar Point PS Emergency Overflow Chamber (Anacostia River Tunnel)	N/A	12/21/18	*			
104	Poplar Point PS Discharge Chamber	N/A	12/21/18	*			
105	Potomac Outfall Sewer Diversion Chamber (Anacostia River Tunnel)	003A	12/21/18	*			

Notes:

1. Noted structures no longer function as a combined sewer overflow regulator structure.
2. Structure 24a is being used for bypass pumping to support work on East Side Force Main. The force main work is necessary for the construction of the Northeast Boundary Tunnel. The force main was restored to service, and the bypass pumping operation was completed on 12/10/18. DC Water was unable to perform the direct inspection during the month of December due to the contractor's equipment. Structure 24a was monitored via indirect monitoring of downstream flows to determine that the structure is operating properly.

2.2 Outfalls, Tide Gates and CSO Signs

The following table summarizes inspections, maintenance and work performed on outfall structures, tide gates and CSO signs in the collection system.

**Table 2-2
Outfalls and Tide Gates**

NPDES Outfall	Location	Date Inspected	Outfall Condition		Tide Gate Present?		Tide Gate Condition		CSO Sign		Notes, Work Needed or Performed
			OK	Needs Work	Yes	No	OK	Needs Work	OK	Needs Work	
003 ¹	Bolling Air Force Base, at Giavanolli and Chanute, SW	N/A									
003a	Joint Base Anacostia Bolling, Macdill and Arnold Ave SW	12/21/18	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	12/06/18	*		*		*		*		
006 ¹	Good Hope Road and Welsh Memorial Bridge	N/A									
007	Between 11 th St. and Anacostia Bridges, SE	12/06/18	*		*		*		*		
009	O St. Sewage Pumping Station, SE	12/20/18	*		*		*		*		
010	O St. Sewage Pumping Station, SE	12/20/18	*			*			*		
011	Main Sewage Pumping Station, SE	12/20/18	*			*			*		
011(a)	Main Sewage Pumping Station, SE	12/20/18	*		*		*		*		
012	Main Sewage Pumping Station, SE	12/20/18	*		*		*		*		
013	Southeast Federal Center, aligned with 4 th St.	12/20/18	*		*		*		*		
014	Navy Yard, aligned with 6 th St., SE	12/20/18	*		*		*		*		
015	Navy Yard, aligned with 9th Street, SE	12/20/18	*			*			*		
016	12th and O Streets, SE	12/20/18	*		*		*		*		
017	M and Water Street, SE	12/20/18	*		*		*		*		
018	East of Barney Circle & South of Pennsylvania Avenue Bridge, SE	12/20/18	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility & D.C. General Hospital	12/26/18	*		*		*		*		
019a	Adjacent to Service Drive behind swirl facility & D.C. General Hospital (Tunnel Overflow Structure)	12/26/18	*		*		*		*		
020	Rock Creek Parkway and Independence, NW	12/06/18	*		*		*		*		
021	Rock Creek Parkway and C St., NW	12/06/18	*		*		*		*		
022	Rock Creek Parkway and G St., NW	12/06/18	*		*		*		*		
024	South of 30 th and K Streets, NW ¹	12/06/18	*		*		*		*		
025	South of 31st and K Streets, NW	12/06/18	*		*		*		*		
026	Wisconsin Avenue and Water Street, NW	12/06/18	*		*		*		*		
027	33 rd and Water Sts., NW	12/06/18	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	12/06/18	*			*			*		
029	Adjacent to C&O Canal, aligned with 38 th St. NW	12/06/18	*			*			*		

NPDES Outfall	Location	Date Inspected	Outfall Condition		Tide Gate Present?		Tide Gate Condition		CSO Sign		Notes, Work Needed or Performed
			OK	Needs Work	Yes	No	OK	Needs Work	OK	Needs Work	
031 ¹	Rock Creek Pkwy & Pennsylvania Avenue, NW	N/A									
032	26th and M Street, NW.	12/17/18	*			*			*		
033	Across street from St. Francis Jr. High and aligned with N St., NW.	12/17/18	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	12/10/18	*			*			*		
035	P St. Bridge and Rock Creek Parkway	12/10/18	*			*			*		
036	22nd Street, South of Q Street NW.	12/24/18	*		*		*		*		
037 ¹	Waterside Dr. and Rock Creek Parkway	N/A									
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	12/11/18	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	12/11/18	*		*		*		*		
040	Aligned with Biltmore Rd.. between Connecticut Ave and Ellington Bridge.	12/11/18	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	12/24/18	*		*		*		*		
042	Harvard St. and Beach Dr NW.	12/24/18	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	12/24/18	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	12/24/18	*		*		*		*		
045	North of Beach Dr. and Walbridge Pl, NW.	12/24/18	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	12/12/18	*			*			*		
047	Piney Branch Parkway and Ingleside Terrace	12/12/18	*		*		*		*		
048	South of Piney Branch Parkway and 17 th St.	12/12/18	*		*		*		*		
049	North of Piney Branch Parkway and 17 th St.	12/12/18	*		*		*		*		
050	Rock Creek Parkway and L St., NW	12/07/18	*		*		*		*		
051	Across Rock Creek Pkwy, aligned with Olive St., NW.	12/24/18	*		*		*		*		
052	Between P & Penna. Ave Bridges, aligned with O Street, NW.	12/24/18	*		*		*		*		
053 ¹	Q St. Bridge and Rock Creek Parkway, NW.	N/A									
054	Massachusetts Ave & Rock Creek Parkway, NW.	12/14/18	*		*		*		*		
056	Normanstone Dr. and Rock Creek Parkway, NW.	12/14/18	*		*		*		*		
057 ¹	28th Street and Rock Creek Parkway, NW	N/A									
058 ¹	Connecticut Ave & Rock Creek Parkway, NW.	N/A									
060	North of P St. Bridge & Rock Creek Pkwy, NW	12/24/18	*		*		*		*		

Notes:

1. Outfall no longer functions as a combined sewer outfall.

2.3.1 Pumping Stations

Pumping station operations are summarized in the table below.

**Table 2-3
Pumping Stations – Inspections and Equipment in Service**

<i>Pumping Station</i>	<i>No. of Inspections</i>	<i>No. Screens</i>	<i>No. Pumps</i>	<i>Screens or Pumps Out of Service</i>	<i>Dates</i>	<i>Reason</i>	<i>Work Order Number</i>	<i>Schedule to Restore to Service</i>
Main	30	3	4	Screen #1	12/01/18 – 12/14/18	Bent Rake, Screen Not Running	19-127860	Returned to service on 12/14/18.
				Screen #2	12/15/18 – 12/31/18	Broken Rake, Screen Not Running	19-150358	Anticipated 1/31/19. Rake is being repaired.
Eastside ¹	1	2	4	Screen # 1	12/01/18 – 12/13/18	Bent Rake, Screen Not Running	18-352157	Returned to service on 12/13/18. Capital improvement project was developed to replace screen.
Poplar Point	1	2	4	None	-	-	-	-
Potomac	30	4	5	None	-	-	-	-

Notes:

1. Eastside pumping station taken out of service 08/23/2018 – 11/06/18 for work on the downstream East Side Force Main. The force main work is necessary for the construction of the Northeast Boundary Tunnel. Due to construction activities, the force main needed to be taken out of service on 11/09/18, and was returned to service on 12/10/18. While the force main was out of service, a bypass pumping operation at Structure 24a redirected the flow to Main Pumping Station.

**Table 2-4
Pumping Stations – Preventive Maintenance**

<i>Pumping Station</i>	<i>Date Performed</i>	<i>Type of Preventive Maintenance Performed¹</i>	<i>Work Order Number</i>	<i>Comments</i>
Main	12/05/18	Group A	19-64666	Add oil, grease bearings and replace packing if needed.
O St	12/26/18	Group A	19-144063	Add oil, grease bearings and replace packing if needed.
Eastside	12/12/18	Group A	19-78226	Add oil, grease bearings and replace packing if needed.
Poplar Point	See Note 3	See Note 3		
Potomac	12/12/18	Group A	19-78302	Add oil, grease bearings and replace packing if needed.
Rock Creek	12/28/18	Group A	19-101430	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	12/05/18	Group A	19-64680	Add oil, grease bearings and replace packing if needed.
Earl Place	12/23/18	Group A	19-89823	Add oil, grease bearings and replace packing if needed.
1 st Street Tunnel Dewatering	12/28/18	Group B	19-184688	

Notes:

1. Group A consists of:
 - Exercise bar screens
 - Exercise all sump pumps
 - Drain condensation from air compressor storage tank
 - Check depth of screening in the screen room and schedule Vector truck as required
 - Check all safety equipment
 - Issue work order requests as required
2. Group B consists of:
 - a. Inspect and manually run CSO Pumps
 - b. Generator:
 - i. Inspection operation and test, inspect oil level, inspect coolant level
 - c. MCC:
 - i. Test gas monitoring system
 - ii. Inspect and test level indicators
 - d. Valve Vault
 - i. Lubricate knife gate valve stem and stem nut
 - ii. Flush air and vacuum release valve
3. DC Water's construction contractor is performing inspection and maintenance activities as part of completion of punch list and closeout activities for Poplar Point Pumping Station

**Table 2-5
Pumping Stations – Pumpage**

<i>Pumping Station</i>	<i>Sanitary Pumpage</i>		<i>Screenings Collected (tons)¹</i>	<i>Pumpage of CSO from First Street Tunnel back to Sewer System</i>	
	<i>Total Wastewater (mg)</i>	<i>Daily Average Wastewater (mg)</i>		<i>Date</i>	<i>Volume (mg)</i>
Main ^{1,2}	1705.58	55.02	N/A	N/A	N/A
O St ^{1,2}	165.61	5.34	N/A	N/A	N/A
Eastside ³	108.46	3.50	N/A	N/A	N/A
Poplar Point	436.31	14.07	N/A	N/A	N/A
Potomac	5068.91	163.51	N/A	N/A	N/A
Rock Creek	233.46	7.53	N/A	N/A	N/A
Upper Anacostia	55.61	1.79	N/A	N/A	N/A
Earl Place	1.142	0.037	N/A	N/A	N/A
1 st Street Tunnel Dewatering	N/A	N/A	N/A	12/11/18	0.17
				12/24/18	0.16

Notes:

1. Screenings collected from the Main and O Street Pumping Stations are combined from the sanitary flow and combined sewer overflows, due to the design of the screening system that consists of vertical trash racks, with no mechanical cleaning. Therefore, quantification of captured screening materials, specifically from combined sewer overflows, is not feasible.
2. Flow meters have been installed in accordance with NPDES Permit No. DC002199 to record CSO discharges from Main and O Street Pumping Stations. This data is reported via Discharge Monitoring Reports submitted to the EPA on a monthly basis. A summary of metered and modeled CSO discharges is included in Section 5.
3. Eastside pumping station taken out of service 08/23/2018 – 11/06/18 for work on the downstream East Side Force Main. The force main work is necessary for the construction of the Northeast Boundary Tunnel. Due to construction activities, the force main needed to be taken out of service on 11/09/18, and was returned to service on 12/10/18. While the force main was out of service, a bypass pumping operation at Structure 24a redirected the flow to Main Pumping Station.

2.4 Inflatable Dams and SCADA System

DC Water operates and maintains nine inflatable dams at seven different locations. Table 2-6 summarizes the date(s) the inflatable dams were inspected, and their operational status and condition. The inflatable dams consist of multi-ply elastomeric (i.e., “rubber”) fabric dams installed in major overflow conduits within the combined sewer system. The objective of the inflatable dam installation is to increase the effective depth to which the sewage must rise in the combined sewer before overflows occur. The effect of the installation is to retain a greater volume of combined sewage flow resulting from low to moderate intensity storms by maximizing storage within the CSS. During higher intensity storms, when the full carrying capacity of the overflow conduit is required to prevent upstream flooding, the dam is deflated automatically. Inflatable dam operations are summarized below:

**Table 2-6
Inflatable Dams – Inspections and Equipment in Service**

<i>Inflatable Dam Structure No</i>	<i>Date Inspected</i>	<i>Was Dam Out of Service During the Month?</i>	<i>Dates out of Service</i>	<i>Reason</i>	<i>Schedule to Restore to Service</i>
14 - East	12/13/18	No	N/A	N/A	N/A
14 - West	12/13/18	No	N/A	N/A	N/A
15	12/13/18	No	N/A	N/A	N/A
15A	12/13/18	No	N/A	N/A	N/A
16 - East	12/13/18	No	N/A	N/A	N/A
16 - West	12/13/18	No	N/A	N/A	N/A
34	12/18/18	No	N/A	N/A	N/A
35	12/18/18	No	N/A	N/A	N/A
52	12/18/18	No	N/A	N/A	N/A

Notes:

Table 2-7

Inflatable Dams & SCADA Sites - Wet Weather Operations

<i>Inflatable Dam Structure No.</i>	<i>Overflow Dates</i>	<i>Estimated Duration of Overflow</i>
14 (E & W)	None	N/A
15	None	N/A
15A	12/15/18	3 hrs. 55 mins
16 (E & W)	12/15/18	1 hr. 45 mins
34	12/16/18	6 hrs. 19 mins
35	12/15/18	0 hrs. 16 mins
	12/16/18	8 hrs. 56 mins
52	None	N/A
<i>Structures on Outfall Sewers</i>	<i>Overflow Dates</i>	<i>Estimated Duration of Overflow</i>
Outfall Structure 1	None	This structure has been bulk headed. Overflows are no longer possible.
Outfall Structure 1A	None	This structure has been bulk headed. Overflows are no longer possible.
Outfall Structure 2	None	N/A
<i>Outfall Sewer Control Gates</i>	<i>Operational Status</i>	<i>Position</i>
Outfall Sewer Control Gate No.1	Operational	Open
Outfall Sewer Control Gate No.2	Operational	This structure has been bulk headed. Overflows are no longer possible
Outfall Sewer Control Gate No.2	Operational	This structure has been bulk headed. Overflows are no longer possible

Notes:

3. DRY WEATHER OVERFLOWS

There was no dry weather combined sewer overflow during December 2018.

4. SOLIDS AND FLOATABLES CONTROL

4.1 Catch Basin Cleaning

The following tables summarize catch basin cleaning in the Anacostia CSO area and in the entire sewer system:

**Table 4-1
Catch Basin Cleaning**

Ward	Total CBs	CBs in CSS	Inspections			Cleaning					
			CBs in Anacostia CSS	Total Anacostia CBs Inspected Once this Year	Total Anacostia CBs Inspected Twice this Year	CBs Cleaned Thru Last Month		CB's Cleaned This Month		Total CBs Cleaned This Year to Date	
				Total	In CSS	Total	In CSS	Total	In CSS		
1	1447	1404	650	650	650	1479	1452	56	56	1535	1508
2	2774	2584	451	451	451	2761	2608	128	128	2889	2736
3	3630	181	0	0	0	3697	184	29	1	3726	185
4	3459	1683	0	0	0	3440	1708	55	44	3495	1752
5	3928	1732	1674	1674	1674	4008	1879	42	31	4050	1910
6	3269	2618	2610	2610	2610	3425	2812	64	64	3489	2876
7	3700	35	35	35	35	3535	35	594	7	4129	42
8	2801	210	210	208 ²	208 ²	2557	217	261	5	2818	222
Grand Total	25008¹	10447¹	5630¹	5628	5628	24902	10895	1229	336	26131²	11231²
% Cleaned/Inspected to Date				100%	100%	100%	104%			104%	108%

1. The number of catch basins in our service area changes with the ongoing connections and abandonments to the sewer infrastructure.
2. There are approximately 209 catch basins blocked by long-term construction projects, of these, 84 flow to the Anacostia River. There are approximately 239 catch basins obstructed by either a parked car or security restrictions instituted by Capitol Police, of these, 75 flow to the Anacostia River.

4.2 BMP Demonstration for Solid and Floatable Control

DC WATER operates the following demonstration projects designed to remove solids and floatables from CSO prior to discharge.

- Netting system at CSO 018 to Anacostia River
- Bar Rack at CSO 040 and 041 to Rock Creek

**Table 4-2
BMP Demonstration Projects – Report**

<i>Facility</i>	<i>Date Inspected</i>	<i>Condition</i>	<i>Work Needed</i>	<i>Work performed</i>	<i>Material Removed (LB)</i>
Netting System CSO 018	12/3/2018	Good	None	Routine cleaning	None
Bar Rack CSO 040	12/11/18	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	12/24/18	Good	None	Routine Cleaning	(1)

Notes:

(1) System was designed so that captured solids and floatable are conveyed to Blue Plains for treatment.

4.3 Anacostia River Floating Debris Removal Program

This program was initiated in October 1992 to remove floating debris from Anacostia and Potomac Rivers on a routine basis. The program has continued from that time and is now under the auspices of DC WATER, Department of Sewer Services. The floating debris removal program utilizes a skimmer boat and support boats to remove floatable debris from the Rivers as well as trash, which accumulates on the riverbanks and in the mud flats at low tides. Work for the most part is directed toward the Anacostia River. The boats pick up debris five days a week. Operations are summarized as follows:

**Table 4-3
Anacostia River Floating Debris Removal Program – Summary**

<i>Program Operation</i>	5-day work week, excluding holidays, weather permitting
<i>Work Days this month:</i>	20
<i>Days not Operating</i>	7
<i>Reason not Operating</i>	Maintenance, wind, low water levels, lightning.
<i># Skimmer in Fleet</i>	4 Skimmers
<i># Skimmers Out of Service</i>	1 Skimmer (on the last day of the month).
<i>Dates</i>	B33: 12/11 - 12/31
<i>Reason</i>	B33: hyd oil leak and metal fatigue fractures.
<i>Plan to Restore to Service</i>	B33: troubleshooting in process, ETR unknown.
<i>Amount Material Collected</i>	100 tons this month. Calendar year to date 900 tons.
<i>Nature of Material</i>	Bottles, cans, natural debris and plastics.

4.4 CSS Litter Control

This section describes DC WATER’s efforts to coordinate litter control efforts with the National Park Service and D.C. Department of Public Works to maximize litter control efforts in the combined sewer system.

No Activity this month.

5. MONITORING

5.1 Condition Report Bar Racks at Main and O Street Storm Pumps

DC Water performs visual surveys of the bar racks at Main and O Street Pumping Stations to characterize the quantity and nature of floatable discharge. The physical condition of the bar racks and any maintenance requirements are also noted.

**Table 5-1
Bar Racks at Main & O Street Pumping Stations**

Inspector: Keith Watts

Pumping Station	Inspector	Date Inspected	Condition		Work Order Number	Work Needed	Work Performed or Schedule for Completion
			Good	Needs Work			
Bar Racks at O Street Storm Pumps (CSO 010)	KW	12/28/18	X		19-152214		
Bar Racks at Main Storm Pumps (CSO 011)	KW	12/28/18	X		19-152207		

5.2 Rain Data

Rain data from National Airport and from the rain gauges installed in the CSS are summarized below.

National Airport rain data for the month of December 2018 is not available due to the Federal Government Shutdown.

Date	Brentwood Pumping Station	Bryant Street Pumping Station	Main Pumping Station	Rock Creek Pumping Station	National Airport
12/1/2018	0.21	0.19	0.18	0.20	
12/2/2018	0.09	0.10	0.08	0.10	
12/3/2018	0	0	0	0	
12/4/2018	0	0	0	0	
12/5/2018	0	0	0	0	
12/6/2018	0	0	0	0	
12/7/2018	0	0	0	0	
12/8/2018	0	0	0	0	
12/9/2018	0	0	0	0	
12/10/2018	0	0	0	0	
12/11/2018	0	0	0	0	
12/12/2018	0	0	0	0	
12/13/2018	0	0	0	0	
12/14/2018	0.27	0.25	0.25	0.27	
12/15/2018	2.71	2.63	2.53	2.47	
12/16/2018	0.58	0.42	0.46	0.31	
12/17/2018	0	0	0	0.01	
12/18/2018	0	0	0	0	
12/19/2018	0	0	0	0	
12/20/2018	0.40	0.37	0.34	0.35	
12/21/2018	0.12	0.11	0.15	0.11	
12/22/2018	0.01	0.02	0.01	0.02	
12/23/2018	0.01	0.01	0.01	0.01	
12/24/2018	0	0	0	0	
12/25/2018	0	0	0	0	
12/26/2018	0	0	0	0	
12/27/2018	0.01	0.01	0	0	
12/28/2018	1.02	1.05	0.92	1.06	
12/29/2018	0	0.01	0	0.01	
12/30/2018	0	0	0	0	
12/31/2018	0.53	0.47	0.43	0.47	
TOTAL	5.96	5.64	5.36	5.39	0

5.3 Wet Weather Overflows

Combined Sewer System Model Results are summarized below.

District of Columbia Water and Sewer Authority

Combined Sewer System Model Results
Period: October, November, December 2018

SCENARIO: QuarterlyReport_2018Q4, created January 10, 2018

NPDES No.	Description	Data Source	Number of Overflows (Occurrences)	CSO Overflow Volume (mg)	Total Duration of Overflow (hrs)	Avg Duration of Overflow (hrs)	Maximum Duration of Overflow (hrs)	Minimum Duration of Overflow (hrs)	
Anacostia CSOs									
005	Chicago St and Railroad Station SE	Modeled	0	0.00	0.00	0.00	0.00	0.00	
006	Good Hope Road, West of Nichols Ave. SE	separated							
007	13 th Street and Ridge Place SE	Metered	2	2.26	6.42	3.21	6.25	0.17	
009	2nd Street, 300 feet North of N Place, SE	Metered	0	0.00	0.00	0.00	0.00	0.00	
010	O Street Sewage Pumping Station, SE (pumped overflow)	Metered	2	10.42	6.67	3.34	5.42	1.25	
011	South of Main Sewage Pumping Station, SE (pumped overflow)	Metered	0	0.00	0.00	0.00	0.00	0.00	
011a	South of Main Sewage Pumping Station, SE (gravity overflow)	Metered	0	0.00	0.00	0.00	0.00	0.00	
012	North of Main Sewage Pumping Station, SE (Tiber Creek)	Metered	3	3.01	1.16	0.39	1.00	0.08	
013	4th and N Streets, SE	Modeled	1	0.17	1.25	1.25	1.25	1.25	
014	6th and M Streets, SE	Modeled	2	0.37	1.25	0.63	1.00	0.25	
015	9th and M Streets, SE	consolidated to tunnel system							
016	12th and M Streets, SE	consolidated to tunnel system							
017	14th and M Streets, SE	consolidated to tunnel system							
018	Barney Circle and Pennsylvania Ave. SE	consolidated to tunnel system							
019	Northeast Boundary	Metered	1	67.77	6.92	6.92	6.92	6.92	
019A	Northeast Boundary - Tunnel OF	Metered	2	11.90	3.58	1.79	2.75	0.83	
	SUBTOTAL			95.90					
Potomac CSOs									
003A	JBAB Tunnel OF	Metered	1	10.11	4.58	4.58	4.58	4.58	
020	23rd Street, North of Constitution Ave. NW (Easby Point)	Modeled	10	39.08	39.50	3.95	11.25	0.25	
021	Northeast of Roosevelt Bridge, NW	Modeled	13	214.41	50.75	3.90	13.50	0.50	
022	27th and K Streets, NW	Modeled	12	2.17	44.75	3.73	11.50	0.25	
024	30th and K Streets, NW	Modeled	10	20.18	40.75	4.08	13.75	0.25	
025	31st & K St NW	Modeled	3	0.05	2.50	0.83	1.25	0.25	
026	Wisconsin Avenue and K St., NW	Modeled	0	0.00	0.00	0.00	0.00	0.00	
027	Water Street West of Street, NW	Modeled	13	9.13	63.00	4.85	15.00	1.50	
028	36th and M Streets, NW	Modeled	79	10.62	614.75	7.78	43.75	5.00	
029	Canal Road 1000 feet east of Rock Creek NW	Modeled	14	11.69	67.75	4.84	15.50	0.50	
	SUBTOTAL			317.65					
Rock Creek									
031	Pennsylvania Avenue, East Rock Creek, NW	separated							
032	26th and M Streets, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00	
033	N Street extended west of 25th Street NW	Modeled	0	0.00	0.00	0.00	0.00	0.00	
034	23rd and O Streets, SW	Modeled	0	0.00	0.00	0.00	0.00	0.00	
035	22nd Street south of Q Street, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00	
036	22nd Street South of Q Street, NW	Modeled	13	0.474	40.75	3.13	11.00	0.50	
037	Northwest of Belmont and Rock Creek and Potomac Parkway	separated							
038	North of Belmont Road, east of Kalorama Circle, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00	
039	Connecticut Avenue east of Rock Creek, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00	
040	Biltmore Street extended east of Rock Creek, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00	
041	Ontano extended and Rock Creek Parkway	Modeled	0	0.00	0.00	0.00	0.00	0.00	
042	Harvard Street and Rock Creek Parkway, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00	
043	Adams Mill Road South of Irving Street, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00	
044	Kenyon Street and Adams Mill Road, NW	Modeled	0	0.000	0.00	0.00	0.00	0.00	
045	Adams Mill Road and Lamont Street, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00	
046	Park Road south of Piney Branch Parkway, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00	
047	Ingleside Terrace extended and Piney Branch Parkway	Modeled	0	0.000	0.00	0.00	0.00	0.00	
048	Mt. Pleasant Street extended and Piney Branch Parkway	Modeled	0	0.00	0.00	0.00	0.00	0.00	
049	Piney Branch and Lamont Street, NW	Modeled	13	22.10	52.25	4.02	11.75	1.00	
050	28th Street west of 16th Street, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00	
051	Olive Street extended and Rock Creek Parkway, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00	
052	O Street extended and Rock Creek Parkway, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00	
053	O Street west of Rock Creek Parkway, NW	separated							
054	West Side of Rock Creek 300 ft. south of Mass Ave, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00	
056	Normanstone Drive extended west of Rock Creek, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00	
057	28th Street extended west of Rock Creek, NW	separated							
058	Connecticut Avenue and Rock Creek Parkway, NW	separated							
060	P St and 26 th St, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00	
	SUBTOTAL			22.57					
	TOTAL			436.11					

District of Columbia Water and Sewer Authority

Combined Sewer System Model Results

Period: October, November, December 2018

SCENARIO: QuarterlyReport_2018Q4, created January 10, 2018

NPDES No.	Description	Data Source	Number of Overflows (Occurrences)	CSO Overflow Volume (mg)	Total Duration of Overflow (hrs)	Avg Duration of Overflow (hrs)	Maximum Duration of Overflow (hrs)	Minimum Duration of Overflow (hrs)
I:\SEWER\CSO QUARTERLY REPORT\CSO 4th Quarter Report 2018\COPY of Y2018Q4_Report_10Jan2019_DRAFT.XLSX\Q4Y2018								

Prepared by: Greeley and Hansen LLC and Limno-Tech, Inc.