

QUARTERLY OPERATIONS REPORT

DISTRICT OF COLUMBIA

COMBINED SEWER OVERFLOW FACILITIES

THIRD QUARTER, FY 2019

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***

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Monthly Operations Report for Combined Sewer System
Month: July 2019

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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	07/02/19	*			
7	W Street and Railroad Ave, SE	005	07/02/19	*			
8 ¹	Good Hope Rd, west of Nichols Ave, SE	006	N/A				
9	13 th Street and Ridge Place, SE (Diversion Structure)	007	07/02/19	*			
9a	13 th Street and Ridge Place, SE (Regulator Structure)	007	07/02/19	*			
9b	11 th Street Bridge and DC 295 SB (CSO-007 Diversion Chamber)	007	07/24/19	*			
11	"O" Street Pumping Station	011(a)	07/24/19	*			
12	Storm Pump Discharge at Main Pumping Station	011	07/22/19	*			
13	2 nd Street, 300 ft. north of N Place, SE	009	07/24/19	*			
14	2 nd Street, 250 ft. north of N Place, SE	011(a)	07/11/19	*			
15	South Capitol and E Streets	010	07/11/19	*			
15a	Half and L Streets, SE	010	07/11/19	*			
15b	South Capitol and I Streets	010	07/08/19	*			
15c	South Capitol and I Streets	010	07/08/19	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
16	North of Main Sewage Pumping Station	012	07/11/19	*			
17	4 th and N Streets, SE, Both Extended	013	07/09/19	*			
17a	K Street between 6 th Street and 7 th Street, SE (Side Overflow Weir)	013	07/15/19	*			
17b	4 th and N Streets, SE, Both Extended (CSO-013 Diversion Chamber)	013	07/09/19	*			
18	6 th and M Streets, SE (Diversion and Overflow Structure)	014	07/11/19	*			
18a	Tingey Street SE and 5 1 / 2 Street SE (CSO-014 Diversion Chamber)	014	07/10/19	*			
19	9 th and M Streets, SE	015	07/17/19	*			
19a	9 th and M Streets, SE	015	07/17/19	*			
19b	9 th and M Streets, SE (Diversion Chamber)	015	07/17/19	*			
19c	9 th and M Streets, SE (Diversion Chamber)	015	07/17/19	*			
20	12 th and M Streets, SE	016	07/17/19	*			
20a	12 th and M Streets, SE	016	07/17/19	*			
20b	12 th and M Streets, SE (CSO-016 Diversion Chamber)	016	07/17/19	*			
21	14 th and M Streets, SE	017	07/17/19	*			
21a	14 th and M Streets, SE (CSO-017 Diversion Chamber)	017	07/17/19	*			
22a	Barney Circle and Pennsylvania Ave, SE	018	07/10/19	*			
22b	Barney Circle and Pennsylvania Ave, SE	018	07/10/19	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	07/10/19	*			
22d	Kentucky Ave and Potomac Street, SE	018	07/01/19	*			
22e	14 th Street and Kentucky Ave, SE	018	07/01/19	*			
23	Independence Ave, 21 st Street, SE, Extended	019	07/09/19	*			
24a	East Capitol St, west of RFK stadium	019	07/09/19	*			
28	21 st and Constitution Ave, NW	020	07/02/19	*			
29	22 nd Street, between Constitution Ave and C St, NW	020	07/02/19	*			
30	17 th and D Streets, NW	020	07/02/19	*			
31	15 th Street and Pennsylvania Ave, NW	020	07/02/19	*			
33	10 th and F Streets, NW	020	07/02/19	*			
34	23 rd Street, north of Constitution Ave, NW	020	07/16/19	*		See July CSO report, table 2-6, note 1.	
34a	23 rd Street near C Street, NW	020	07/02/19	*			
35	Northeast of Roosevelt Bridge, NW	021	07/16/19	*			
35c ²	Kennedy Center Rock Creek and Potomac Pkwy Northeast of Roosevelt Bridge, NW	021	07/30/19	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
36	27 th and I Streets, NW	022	07/02/19	*			
36a	New Hampshire Ave and Eye Street, NW	022	07/02/19	*			
36b	19 th and L Streets, NW	022, 034	07/02/19	*			
36d	17 th and L Streets, NW	022, 034	07/02/19	*			
36g	18 th and M Streets, NW	022, 034	07/02/19	*			
36h	18 th and M Streets, NW	022, 034	07/02/19	*			
37	27 th and Eye Streets, NW	022	07/02/19	*			
38	29 th and K Streets, NW	024	07/08/19	*			
38a	30 th Street, south of K Street, NW	024	07/08/19	*			
39a	30 th and K Streets, NW	024	07/08/19	*			
39b	30 th and K Streets, NW	024	07/08/19	*			
41b	31 st and K Streets, NW	025	07/08/19	*			
41c	31 st and K Streets, NW	025	07/08/19	*			
42	Wisconsin Ave and K Street, NW	026	07/08/19	*			
43	Potomac and Water Streets, NW	027	07/08/19	*			
43a	Potomac and Water Streets, NW	027	07/08/19	*			
44	Water Street, west of Potomac St, NW	027	07/08/19	*			
45	36 th and M Streets, NW	028	07/01/19	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	07/01/19	*			
47	38 th Street and Reservoir Road, NW	029	07/01/19	*			
47a	37 th and T Streets, NW	029	07/01/19	*			
47b	37 th and T Streets, NW	029	07/01/19	*			
47c	38 th and W Streets, NW	029	07/01/19	*			
49 ^l	Pennsylvania Ave, east side of Rock Creek, NW	031	N/A				
50	26 and M Streets, NW	032	07/15/19	*			
51	N Street Extended, west of 25 th Street, NW	033	07/15/19	*			
52	22 nd Street between M and N Streets, NW	034	07/18/19	*			
52a	N Street between 22 nd and 23 rd Streets, NW	034	07/18/19	*			
53	22 nd and M Streets, NW	022, 034	07/16/19	*			
53a	22 nd and M Streets, NW	022, 034	07/16/19	*			
53b	L Street between 21 st Street and New Hampshire Ave, NW	022, 034	07/15/19	*			
53c	L and 22 nd Streets, NW	022	07/15/19	*			
54	23 rd and O Streets, NW	034	07/09/19	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
55	22 nd Street, south of Q Street, NW	035	07/09/19	*			
55a	22 nd Street, south of Q Street, NW	035	07/09/19	*			
56	23 rd and Massachusetts Ave, NW	036	07/09/19	*			
57	23 rd Street, south of Q Street, NW	036	07/09/19	*			
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	07/12/19	*			
60	Connecticut Ave, east of Rock Creek, NW	039	07/12/19	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	07/12/19	*			
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	07/10/19	*			
63	Harvard Street and Rock Creek Parkway, NW	042	07/10/19	*			
64	Adams Mill Road, south of Irving Street, NW	043	07/10/19	*			
65	Kenyon Street and Adams Mill Road, NW	044	07/10/19	*			
65a	Kenyon Street and Adams Mill Road, NW	044	07/10/19	*			
66	Adams Mill Road and Lamont Street, NW	045	07/10/19	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	07/10/19	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	07/10/19	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	07/10/19	*			
70	Piney Branch Parkway, west of 16 th Street, NW	049	07/10/19	*			
70i	5 th and Quackenbos Streets, NW	049	07/01/19	*			
71	28 th Street, west of Rock Creek Parkway, NW	050	07/01/19	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	07/09/19	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	07/09/19	*			
73	O Street Extended and Rock Creek Parkway, NW	052	07/09/19	*			
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	07/12/19	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	07/12/19	*			
77a	Normanstone Dr and Normanstone Lane, NW	056	07/12/19	*			
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	07/09/19	*			
84a	26 th and P Streets, NW	060	07/09/19	*			
86	Diversion Chamber and Vortex Drop at First and Channing St, NW (First St Tunnel)	019	07/16/19	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
88	Flagler and Adams St. NW (First St Tunnel)	019	07/16/19	*			
89	First and V St, NW (First St Tunnel)	019	07/16/19	*			
90	First and V St, NW (First St Tunnel)	019	07/16/19	*			
91	First and V St, NW (First St Tunnel)	019	07/16/19	*			
92	CSO 019 Diversion Near Eastside PS (Anacostia River Tunnel)	019	07/24/19	*			
93	CSO 018 Diversion Near Barney Circle (Anacostia River Tunnel)	018	07/24/19	*			
95	M Street Approach Channel M and Water St SE (Anacostia River Tunnel)	015, 016, 017	07/17/19	*			
96	CSO 007 Shaft at 11 th St Bridge and DC I-295 SB Diversion Facilities (Anacostia River Tunnel)	007	07/24/19	*			
97	CSO 005 Diversion at Chicago St Trunk Sewer, I295 SB (Anacostia River Tunnel)	005	07/24/19	*			
98	Main Pumping Station Diversions (Anacostia River Tunnel)	009 - 012	07/24/19	*			
99	CSO 009 and 011a Diversion Facilities (Anacostia River Tunnel)	009, 011a	07/11/19	*			
100	CSO 012 Diversion Facilities (Anacostia River Tunnel)	012	07/11/19		*	One Missing Stop Log	On 07/11/19 5 stop logs were reported missing. On 07/31/19 4 were replaced.
101	Main Outfall Sewer Diversion Chamber (Anacostia River Tunnel)	N/A	07/24/19	*			
102	Anacostia Main Interceptor Diversion Chamber	N/A	07/24/19	*			
103	Poplar Point PS Emergency Overflow Chamber (Anacostia River Tunnel)	N/A	07/24/19	*			
104	Poplar Point PS Discharge Chamber	N/A	07/24/19	*			
105	Potomac Outfall Sewer Diversion Chamber (Anacostia River Tunnel)	003A	07/24/19	*			

Notes:

1. Noted structures no longer function as a combined sewer overflow regulator structure.
2. Structure 35c is a new regulator structure. Third party construction activities in the area impeded access. Upon construction completion the structure was added to the inspection cycle.

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	07/24/19	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	07/25/19	*		*		*		*		
006 ¹	Good Hope Road and Welsh Memorial Bridge	N/A									
007	Between 11 th St. and Anacostia Bridges, SE	07/25/19	*		*		*		*		
009	O St. Sewage Pumping Station, SE	07/22/19	*		*		*		*		
010	O St. Sewage Pumping Station, SE	07/22/19	*			*			*		
011	Main Sewage Pumping Station, SE	07/22/19	*			*			*		
011(a)	Main Sewage Pumping Station, SE	07/22/19	*		*		*		*		
012	Main Sewage Pumping Station, SE	07/22/19	*		*		*		*		
013	Southeast Federal Center, aligned with 4 th St.	07/22/19	*		*		*		*		
014	Navy Yard, aligned with 6 th St., SE	07/22/19	*		*		*		*		
015	Navy Yard, aligned with 9th Street, SE	07/22/19	*			*			*		
016	12th and O Streets, SE	07/18/19	*		*		*		*		
017	M and Water Street, SE	07/18/19	*		*		*		*		
018	East of Barney Circle & South of Pennsylvania Avenue Bridge, SE	07/18/19	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility & D.C. General Hospital	07/24/19	*		*		*		*		
019a	Adjacent to Service Drive behind swirl facility & D.C. General Hospital (Tunnel Overflow Structure)	07/24/19	*		*		*		*		
020	Rock Creek Parkway and Independence, NW	07/23/19	*		*		*		*		
021	Rock Creek Parkway and C St., NW	07/23/19	*		*		*		*		
022	Rock Creek Parkway and G St., NW	07/23/19	*		*		*		*		
024	South of 30 th and K Streets, NW ¹	07/23/19	*		*		*		*		
025	South of 31st and K Streets, NW	07/23/19	*		*		*		*		
026	Wisconsin Avenue and Water Street, NW	07/23/19	*		*		*		*		
027	33 rd and Water Sts., NW	07/23/19	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	07/23/19	*			*			*		
029	Adjacent to C&O Canal, aligned with 38 th St. NW	07/23/19	*			*			*		
031 ¹	Rock Creek Pkwy & Pennsylvania Avenue, NW	N/A									

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	
032	26th and M Street, NW.	07/15/19	*			*			*		
033	Across street from St. Francis Jr. High and aligned with N St., NW.	07/15/19	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	07/09/19	*			*			*		
035	P St. Bridge and Rock Creek Parkway	07/09/19	*			*			*		
036	22nd Street, South of Q Street NW.	07/22/19	*		*		*		*		
037 ¹	Waterside Dr. and Rock Creek Parkway	N/A									
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	07/12/19	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	07/12/19	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	07/12/19	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	07/22/19	*		*		*		*		
042	Harvard St. and Beach Dr NW.	07/22/19	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	07/22/19	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	07/22/19	*		*		*		*		
045	North of Beach Dr. and Walbridge Pl, NW.	07/22/19	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	07/10/19	*			*			*		
047	Piney Branch Parkway and Ingleside Terrace	07/10/19	*		*		*		*		
048	South of Piney Branch Parkway and 17 th St.	07/10/19	*		*		*		*		
049	North of Piney Branch Parkway and 17 th St.	07/10/19	*		*		*		*		
050	Rock Creek Parkway and L St., NW	07/01/19	*		*		*		*		
051	Across Rock Creek Pkwy, aligned with Olive St., NW.	07/25/19	*		*		*		*		
052	Between P & Penna. Ave Bridges, aligned with O Street, NW.	07/25/19	*		*		*		*		
053 ¹	Q St. Bridge and Rock Creek Parkway, NW.	N/A									
054	Massachusetts Ave & Rock Creek Parkway, NW.	07/12/19	*		*		*		*		
056	Normanstone Dr. and Rock Creek Parkway, NW.	07/12/19	*		*		*		*		
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	07/22/19	*		*		*		*		

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	31	3	4	Pump #1	07/01/19 – 07/11/19	Cracked Coupling on Shaft	19-486292	Returned to service on 07/11/19.
Eastside	1	2	4	None	-	-	-	-
Poplar Point	1	2	4	None	-	-	-	-
Potomac	31	4	5	None	-	-	-	-

Notes:

**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	7/10/19	Group A	19-462969	Add oil, grease bearings and replace packing if needed.
O St	7/10/19	Group A	19-479403	Add oil, grease bearings and replace packing if needed.
Eastside	7/21/19	Group A	19-470354	Add oil, grease bearings and replace packing if needed.
Poplar Point	7/06/19	Group A	19-460546	Add oil, grease bearings and replace packing if needed.
Potomac	7/23/19	Group A	19-470754	Add oil, grease bearings and replace packing if needed.
Rock Creek	7/21/19	Group A	19-479417	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	7/6/19	Group A	19-462983	Add oil, grease bearings and replace packing if needed.
Earl Place	7/21/19	Group A	19-478590	Add oil, grease bearings and replace packing if needed.
1 st Street Tunnel Dewatering	7/18/19	Group B	19-597916	

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 Vactor 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

**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}	1479.84	47.74	N/A	N/A	N/A
O St ^{1,2}	155.15	5.17	N/A	N/A	N/A
Eastside	126.80	4.09	N/A	N/A	N/A
Poplar Point	350.28	11.30	N/A	N/A	N/A
Potomac	4236.36	136.66	N/A	N/A	N/A
Rock Creek	190.90	6.16	N/A	N/A	N/A
Upper Anacostia	40.97	1.32	N/A	N/A	N/A
Earl Place	0.461	0.015	N/A	N/A	N/A
1 st Street Tunnel Dewatering	N/A	N/A	N/A	7/06/19	0.23
				7/07/19	0.13
				7/08/19	0.36
				7/21/19	0.15

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.

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	7/11/19	No	N/A	N/A	N/A
14 - West	7/11/19	No	N/A	N/A	N/A
15	7/11/19	No	N/A	N/A	N/A
15A	7/11/19	No	N/A	N/A	N/A
16 - East	7/11/19	No	N/A	N/A	N/A
16 - West	7/11/19	No	N/A	N/A	N/A
34 ¹	7/16/19	No	N/A	N/A	N/A
35	7/16/19	No	N/A	N/A	N/A
52	7/18/19	No	N/A	N/A	N/A

Notes:

- DC Water conducted a review of the Structure 34 inflatable dam for the period July 2018 through September 2019. The data indicate the Structure 34 dam failed to fully deflate during the September 7 and September 18, 2018 rain events and during the July 2, July 6, July 8 and August 20, 2019 storm events. While this provided for greater capture of combined sewage prior to the occurrence of CSOs, it also caused high water levels in the sewer system upstream of the dam. These high water levels appear to have caused wet weather overflows from manholes at 17th and D Street NW and at the intersection of F Street and Virginia Ave NW during these events. DC Water is revising the controls to improve the operation of the facility and we anticipate the facility will remain in service during the revisions.

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)	<i>None</i>	<i>N/A</i>
15	<i>None</i>	<i>N/A</i>
15A	<i>None</i>	<i>N/A</i>
16 (E & W)	<i>07/4/19</i>	<i>0 hrs. 38 mins</i>
	<i>07/8/19</i>	<i>2 hrs. 57 mins</i>
	<i>07/12/19</i>	<i>0 hrs. 29 mins</i>
34	<i>None</i>	<i>N/A</i>
35	<i>07/6/19</i>	<i>0 hrs. 36 mins</i>
	<i>07/8/19</i>	<i>1 hrs. 37 mins</i>
	<i>07/11/19</i>	<i>0 hrs. 17 mins</i>
52	<i>07/8/19</i>	<i>8 hrs. 31 mins</i>
	<i>07/9/19</i>	<i>3 hrs. 6 mins</i>
<hr/>		
<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 July 2019.

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	1449	1426	650	650	48	708	694	41	41	749	735
2	2792	2642	471	468	65	605	544	354	350	959	894
3	3687	187	0	0	0	2470	134	76	27	2546	161
4	3495	1723	0	0	0	2936	1516	216	3	3152	1519
5	4007	1769	1678	1672	95	282	242	959	40	1241	282
6	3323	2673	2669	2661	215	636	203	73	72	709	275
7	3785	43	42	41	3	1985	8	4	0	1989	8
8	2832	212	210	209	8	1758	10	13	1	1771	11
Grand Total	25370¹	10675¹	5720¹	5701	434	11380	3351	1736	534	13116	3885
% Cleaned/Inspected to Date				99.7%	8%					52%	36%

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	7/9/2019	Good	Routine cleaning	Routine cleaning	None
Bar Rack CSO 040	7/12/2019	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	7/22/2019	Good	None	Routine Cleaning	(1)

Notes:

(1) System was designed so that captured solids and floatables 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>	6
<i>Reason not Operating</i>	Maintenance, wind, low water levels, lightning.
<i># Skimmer in Fleet</i>	3 Skimmers
<i># Skimmers Out of Service</i>	3 Skimmers
<i>Dates</i>	B32: 7/11 - 7/31. B33: 7/26 - 7/31. B34: 7/1 - 7/30
<i>Reason</i>	B32: #1 screen not working. B33: Hydraulic oil leaking from hose. B34: #1 screen not working.
<i>Plan to Restore to Service</i>	B32: waiting for parts ETR unknown. B33: troubleshooting ETR unknown. B34: returned to operations on 7/30.
<i>Amount Material Collected</i>	80 tons this month. Calendar year to date 270 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	7/28/19	X		19-556648		
Bar Racks at Main Storm Pumps (CSO 011)	KW	7/28/19	X		19-556641		

5.2 Rain Data

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

Date	Brentwood Pumping Station	Bryant Street Pumping Station	Main Pumping Station	Rock Creek Pumping Station	National Airport
7/1/2019	0	0	0.01	0.01	0
7/2/2019	0.66	0.85	0.48	1.48	0.42
7/3/2019	0	0	0	0	0
7/4/2019	0.16	0.08	0.20	0.25	0.23
7/5/2019	0.09	0.03	0.15	0.01	0.01
7/6/2019	0.90	1.00	0.65	0.97	0.72
7/7/2019	0	0	0	0	0
7/8/2019	1.82	2.07	2.61	2.34	3.44
7/9/2019	0	0	0	0	0
7/10/2019	0	0	0	0	0
7/11/2019	0.55	0.56	0.76	0.55	0.88
7/12/2019	0	0	0	0	0
7/13/2019	0	0	0	0	0
7/14/2019	0	0	0	0	0
7/15/2019	0	0	0	0	0
7/16/2019	0	0	0	0	0
7/17/2019	0.04	0.08	0.07	0.06	0.29
7/18/2019	0	0	0	0	0
7/19/2019	0	0	0	0	0
7/20/2019	0.02	0.06	0	0	0
7/21/2019	0	0	0	0	0
7/22/2019	0.06	0.02	0.01	0.08	0.03
7/23/2019	0.05	0.09	0.06	0.10	0.08
7/24/2019	0.27	0.17	0.52	0.01	0.37
7/25/2019	0	0	0	0	0.01
7/26/2019	0	0	0	0	0
7/27/2019	0	0	0	0	0
7/28/2019	0	0	0	0	0
7/29/2019	0	0	0	0	0
7/30/2019	0	0	0	0	0
7/31/2019	0	0	0	0	0.01
TOTAL	4.62	5.01	5.52	5.86	6.49

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: July, August, September 2019

SCENARIO: QuarterlyReport_2019Q3, revised 18 October 2019

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	5	2.73	2.92	0.58	1.58	0.17
009	2nd Street, 300 feet North of N Place, SE	Modeled*	3	0.49	1.75	0.58	0.75	0.25
010	O Street Sewage Pumping Station, SE (pumped overflow)	Metered	2	24.95	7.33	3.67	4.17	3.17
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	1	1.61	0.58	0.58	0.58	0.58
012	North of Main Sewage Pumping Station, SE (Tiber Creek)	Metered	4	26.01	3.67	0.92	1.92	0.50
013	4th and N Streets, SE	Modeled	1	0.40	0.75	0.75	0.75	0.75
014	6th and M Streets, SE	Modeled	2	0.84	1.00	0.50	0.75	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	4	28.07	3.83	0.96	3.08	0.17
019A	Northeast Boundary - Tunnel OF	Metered	1	8.48	2.33	2.33	2.33	2.33
	SUBTOTAL			93.58				
Potomac CSOs								
003A	JBAB Tunnel OF	Metered	1	7.93	2.08	2.08	2.08	2.08
020	23rd Street, North of Constitution Ave, NW (Easby Point)	Modeled	7	37.82	12.00	1.71	4.00	0.50
021	Northeast of Roosevelt Bridge, NW	Modeled	7	116.24	16.00	2.29	5.25	0.75
022	27th and K Streets, NW	Modeled	10	50.58	15.25	1.53	3.00	0.25
024	30th and K Streets, NW	Modeled	7	15.74	19.00	2.71	9.00	0.25
025	31st & K St NW	Modeled	4	0.50	3.00	0.75	1.50	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	7	10.74	13.75	1.96	3.00	1.25
028	36th and M Streets, NW	Modeled	12	2.71	29.00	2.42	4.50	0.25
029	Canal Road 1000 feet east of Rock Creek NW	Modeled	8	18.09	13.25	1.66	2.75	0.25
	SUBTOTAL			260.34				
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	1	0.65	1.50	1.50	1.50	1.50
034	23rd and O Streets, SW	Modeled	1	0.24	0.25	0.25	0.25	0.25
035	22nd Street south of Q Street, NW	Modeled	1	3.72	0.75	0.75	0.75	0.75
036	22nd Street South of Q Street, NW	Modeled	7	0.933	11.50	1.64	2.50	1.00
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	1	0.23	0.75	0.75	0.75	0.75
040	Biltmore Street extended east of Rock Creek, NW	Modeled	1	0.32	1.00	1.00	1.00	1.00
041	Ontario extended and Rock Creek Parkway	Modeled	1	0.00	0.25	0.25	0.25	0.25
042	Harvard Street and Rock Creek Parkway, NW	Modeled	3	0.54	1.75	0.58	1.00	0.25
043	Adams Mill Road South of Irving Street, NW	Modeled	3	2.96	2.75	0.92	1.50	0.50
044	Kenyon Street and Adams Mill Road, NW	Modeled	2	0.3447	1.50	0.75	1.25	0.25
045	Adams Mill Road and Lamont Street, NW	Modeled	5	0.32	2.50	0.50	1.25	0.25
046	Park Road south of Piney Branch Parkway, NW	Modeled	3	0.14	2.00	0.67	1.25	0.25
047	Ingliside Terrace extended and Piney Branch Parkway	Modeled	2	0.34	1.75	0.88	1.50	0.25
048	Mt. Pleasant Street extended and Piney Branch Parkway	Modeled	4	0.72	2.25	0.56	1.25	0.25
049	Piney Branch and Lamont Street, NW	Modeled	7	50.40	13.50	1.93	3.25	1.25
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	1	0.17	0.25	0.25	0.25	0.25
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			62.04				
	TOTAL			415.96				

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

*The CSO 009 outfall meter was damaged by adjacent construction and was out of service for a portion of the quarter. Model output has been utilized for reporting overflow from CSO 009.



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

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

Month: August 2019

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: August 2019

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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	08/09/19	*			
7	W Street and Railroad Ave, SE	005	08/09/19	*			
8 ¹	Good Hope Rd, west of Nichols Ave, SE	006	N/A				
9	13 th Street and Ridge Place, SE (Diversion Structure)	007	08/09/19	*			
9a	13 th Street and Ridge Place, SE (Regulator Structure)	007	08/09/19	*			
9b	11 th Street Bridge and DC 295 SB (CSO-007 Diversion Chamber)	007	08/12/19	*			
11	"O" Street Pumping Station	011(a)	08/19/19	*			
12	Storm Pump Discharge at Main Pumping Station	011	08/21/19	*			
13	2 nd Street, 300 ft. north of N Place, SE	009	08/21/19	*			
14	2 nd Street, 250 ft. north of N Place, SE	011(a)	08/08/19	*			
15	South Capitol and E Streets	010	08/08/19	*			
15a	Half and L Streets, SE	010	08/08/19	*			
15b	South Capitol and I Streets	010	08/12/19	*			
15c	South Capitol and I Streets	010	08/12/19	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
16	North of Main Sewage Pumping Station	012	08/08/19	*			
17	4 th and N Streets, SE, Both Extended	013	08/05/19	*			
17a	K Street between 6 th Street and 7 th Street, SE (Side Overflow Weir)	013	08/19/19	*			
17b	4 th and N Streets, SE, Both Extended (CSO-013 Diversion Chamber)	013	08/06/19	*			
18	6 th and M Streets, SE (Diversion and Overflow Structure)	014	08/05/19	*			
18a	Tingey Street SE and 5 1 / 2 Street SE (CSO-014 Diversion Chamber)	014	08/07/19	*			
19	9 th and M Streets, SE	015	08/16/19	*			
19a	9 th and M Streets, SE	015	08/16/19	*			
19b	9 th and M Streets, SE (Diversion Chamber)	015	08/16/19		*	DSS is in contact with contractors to install(s) that do not displace due to vehicular vibration. Expected install, Dec 2019.	
19c	9 th and M Streets, SE (Diversion Chamber)	015	08/16/19		*	DSS is in contact with contractors to install(s) that do not displace due to vehicular vibration. Expected install, Dec 2019.	
20	12 th and M Streets, SE	016	08/12/19	*			
20a	12 th and M Streets, SE	016	08/12/19	*			
20b	12 th and M Streets, SE (CSO-016 Diversion Chamber)	016	08/12/19	*			
21	14 th and M Streets, SE	017	08/12/19	*			
21a	14 th and M Streets, SE (CSO-017 Diversion Chamber)	017	08/12/19	*			
22a	Barney Circle and Pennsylvania Ave, SE	018	08/09/19	*			
22b	Barney Circle and Pennsylvania Ave, SE	018	08/09/19	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	08/09/19	*			
22d	Kentucky Ave and Potomac Street, SE	018	08/14/19	*			
22e	14 th Street and Kentucky Ave, SE	018	08/14/19	*			
23	Independence Ave, 21 st Street, SE, Extended	019	08/09/19	*			
24a	East Capitol St, west of RFK stadium	019	08/09/19	*			
28	21 st and Constitution Ave, NW	020	08/06/19	*			
29	22 nd Street, between Constitution Ave and C St, NW	020	08/06/19	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
30	17 th and D Streets, NW	020	08/06/19	*			
31	15 th Street and Pennsylvania Ave, NW	020	08/06/19	*			
33	10 th and F Streets, NW	020	08/06/19	*			
34	23 rd Street, north of Constitution Ave, NW	020	08/13/19	*		See August CSO report, table 2-6, note 1.	
34a	23 rd Street near C Street, NW	020	08/06/19	*			
35	Northeast of Roosevelt Bridge, NW	021	08/13/19		*	See August CSO report, table 2-6, note 2.	
35c	Kennedy Center Rock Creek and Potomac Pkwy Northeast of Roosevelt Bridge, NW	021	08/13/19	*			
36	27 th and I Streets, NW	022	08/06/19	*			
36a	New Hampshire Ave and Eye Street, NW	022	08/06/19	*			
36b	19 th and L Streets, NW	022, 034	08/02/19	*			
36d	17 th and L Streets, NW	022, 034	08/02/19	*			
36g	18 th and M Streets, NW	022, 034	08/02/19	*			
36h	18 th and M Streets, NW	022, 034	08/02/19	*			
37	27 th and Eye Streets, NW	022	08/06/19	*			
38	29 th and K Streets, NW	024	08/05/19	*			
38a	30 th Street, south of K Street, NW	024	08/05/19	*			
39a	30 th and K Streets, NW	024	08/05/19	*			
39b	30 th and K Streets, NW	024	08/05/19	*			
41b	31 st and K Streets, NW	025	08/05/19	*			
41c	31 st and K Streets, NW	025	08/05/19	*			
42	Wisconsin Ave and K Street, NW	026	08/05/19	*			
43	Potomac and Water Streets, NW	027	08/05/19	*			
43a	Potomac and Water Streets, NW	027	08/05/19	*			
44	Water Street, west of Potomac St, NW	027	08/05/19	*			
45	36 th and M Streets, NW	028	08/02/19	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	08/02/19	*			
47	38 th Street and Reservoir Road, NW	029	08/02/19	*			
47a	37 th and T Streets, NW	029	08/02/19	*			
47b	37 th and T Streets, NW	029	08/02/19	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
47c	38 th and W Streets, NW	029	08/02/19	*			
49 ^l	Pennsylvania Ave, east side of Rock Creek, NW	031	N/A				
50	26 and M Streets, NW	032	08/09/19	*			
51	N Street Extended, west of 25 th Street, NW	033	08/09/19	*			
52	22 nd Street between M and N Streets, NW	034	08/13/19	*			
52a	N Street between 22 nd and 23 rd Streets, NW	034	08/13/19	*			
53	22 nd and M Streets, NW	022, 034	08/13/19	*			
53a	22 nd and M Streets, NW	022, 034	08/13/19	*			
53b	L Street between 21 st Street and New Hampshire Ave, NW	022, 034	08/05/19	*			
53c	L and 22 nd Streets, NW	022	08/05/19	*			
54	23 rd and O Streets, NW	034	08/07/19	*			
55	22 nd Street, south of Q Street, NW	035	08/07/19	*			
55a	22 nd Street, south of Q Street, NW	035	08/07/19	*			
56	23 rd and Massachusetts Ave, NW	036	08/07/19	*			
57	23 rd Street, south of Q Street, NW	036	08/07/19	*			
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	08/06/19	*			
60	Connecticut Ave, east of Rock Creek, NW	039	08/06/19	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	08/06/19	*			
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	08/14/19	*			
63	Harvard Street and Rock Creek Parkway, NW	042	08/14/19	*			
64	Adams Mill Road, south of Irving Street, NW	043	08/14/19	*			
65	Kenyon Street and Adams Mill Road, NW	044	08/14/19	*			
65a	Kenyon Street and Adams Mill Road, NW	044	08/14/19	*			
66	Adams Mill Road and Lamont Street, NW	045	08/14/19	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	08/14/19	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	08/14/19	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	08/14/19	*			
70	Piney Branch Parkway, west of 16 th Street, NW	049	08/14/19	*			
70i	5 th and Quackenbos Streets, NW	049	08/05/19	*			
71	28 th Street, west of Rock Creek Parkway, NW	050	08/02/19	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	08/07/19	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	08/07/19	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
73	O Street Extended and Rock Creek Parkway, NW	052	08/07/19	*			
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	08/09/19	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	08/09/19	*			
77a	Normanstone Dr and Normanstone Lane, NW	056	08/09/19	*			
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	08/07/19	*			
84a	26 th and P Streets, NW	060	08/07/19	*			
86	Diversion Chamber and Vortex Drop at First and Channing St, NW (First St Tunnel)	019	08/22/19	*			
88	Flagler and Adams St. NW (First St Tunnel)	019	08/22/19	*			
89	First and V St, NW (First St Tunnel)	019	08/22/19	*			
90	First and V St, NW (First St Tunnel)	019	08/22/19	*			
91	First and V St, NW (First St Tunnel)	019	08/22/19	*			
92	CSO 019 Diversion Near Eastside PS (Anacostia River Tunnel)	019	08/12/19	*			
93	CSO 018 Diversion Near Barney Circle (Anacostia River Tunnel)	018	08/12/19	*			
95	M Street Approach Channel M and Water St SE (Anacostia River Tunnel)	015, 016, 017	08/12/19	*			
96	CSO 007 Shaft at 11 th St Bridge and DC I-295 SB Diversion Facilities (Anacostia River Tunnel)	007	08/12/19	*			
97	CSO 005 Diversion at Chicago St Trunk Sewer, I295 SB (Anacostia River Tunnel)	005	08/12/19	*			
98	Main Pumping Station Diversions (Anacostia River Tunnel)	009 - 012	08/21/19	*			
99	CSO 009 and 011a Diversion Facilities (Anacostia River Tunnel)	009, 011a	08/08/19	*			
100	CSO 012 Diversion Facilities (Anacostia River Tunnel)	012	08/08/19	*			On 08/08/19 DSS inspector reports one stop log remain missing. Wedges were installed to anchor existing stop logs to prevent dislodging.
101	Main Outfall Sewer Diversion Chamber (Anacostia River Tunnel)	N/A	08/19/19	*			
102	Anacostia Main Interceptor Diversion Chamber	N/A	08/19/19	*			
103	Poplar Point PS Emergency Overflow Chamber (Anacostia River Tunnel)	N/A	08/19/19	*			
104	Poplar Point PS Discharge Chamber	N/A	08/19/19	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
105	Potomac Outfall Sewer Diversion Chamber (Anacostia River Tunnel)	003A	08/19/19	*			

Notes:

1. Noted structures no longer function as a combined sewer overflow regulator structure.

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	08/19/19	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	08/15/19	*		*		*		*		
006 ¹	Good Hope Road and Welsh Memorial Bridge	N/A									
007	Between 11 th St. and Anacostia Bridges, SE	08/15/19	*		*		*		*		
009	O St. Sewage Pumping Station, SE	08/21/19	*		*		*		*		
010	O St. Sewage Pumping Station, SE	08/21/19	*			*			*		
011	Main Sewage Pumping Station, SE	08/21/19	*			*			*		
011(a)	Main Sewage Pumping Station, SE	08/21/19	*		*		*		*		
012	Main Sewage Pumping Station, SE	08/21/19	*		*		*		*		
013	Southeast Federal Center, aligned with 4 th St.	08/21/19	*		*		*		*		
014	Navy Yard, aligned with 6 th St., SE	08/21/19	*		*		*		*		
015	Navy Yard, aligned with 9th Street, SE	08/21/19	*			*			*		
016	12th and O Streets, SE	08/20/19	*		*		*		*		
017	M and Water Street, SE	08/21/19	*		*		*		*		
018	East of Barney Circle & South of Pennsylvania Avenue Bridge, SE	08/20/19	*		*		*		*		

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	
			019	Adjacent to Service Drive behind swirl facility & D.C. General Hospital	08/12/19	*		*		*	
019a	Adjacent to Service Drive behind swirl facility & D.C. General Hospital (Tunnel Overflow Structure)	08/12/19	*		*		*		*		
020	Rock Creek Parkway and Independence, NW	08/15/19	*		*		*		*		
021	Rock Creek Parkway and C St., NW	08/15/19	*		*		*		*		
022	Rock Creek Parkway and G St., NW	08/15/19	*		*		*		*		
024	South of 30 th and K Streets, NW ¹	08/15/19	*		*		*		*		
025	South of 31st and K Streets, NW	08/15/19	*		*		*		*		
026	Wisconsin Avenue and Water Street, NW	08/15/19	*		*		*		*		
027	33 rd and Water Sts., NW	08/15/19	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	08/15/19	*			*			*		
029	Adjacent to C&O Canal, aligned with 38 th St. NW	08/15/19	*			*			*		
031 ¹	Rock Creek Pkwy & Pennsylvania Avenue, NW	N/A									
032	26th and M Street, NW.	08/09/19	*			*			*		
033	Across street from St. Francis Jr. High and aligned with N St., NW.	08/09/19	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	08/07/19	*			*			*		
035	P St. Bridge and Rock Creek Parkway	08/07/19	*			*			*		
036	22nd Street, South of Q Street NW.	08/15/19	*		*		*		*		
037 ¹	Waterside Dr. and Rock Creek Parkway	N/A									
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	08/06/19	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	08/06/19	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	08/06/19	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	08/20/19	*		*		*		*		
042	Harvard St. and Beach Dr NW.	08/20/19	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	08/20/19	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	08/20/19	*		*		*		*		
045	North of Beach Dr. and Walbridge Pl, NW.	08/20/19	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	08/14/19	*			*			*		
047	Piney Branch Parkway and Ingleside Terrace	08/14/19	*		*		*		*		
048	South of Piney Branch Parkway and 17 th St.	08/14/19	*		*		*		*		

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	
049	North of Piney Branch Parkway and 17 th St.	08/14/19	*		*		*		*		
050	Rock Creek Parkway and L St., NW	08/02/19	*		*		*		*		
051	Across Rock Creek Pkwy, aligned with Olive St., NW.	08/20/19	*		*		*		*		
052	Between P & Penna. Ave Bridges, aligned with O Street, NW.	08/20/19	*		*		*		*		
053 ¹	Q St. Bridge and Rock Creek Parkway, NW.	N/A									
054	Massachusetts Ave & Rock Creek Parkway, NW.	08/09/19	*		*		*		*		
056	Normanstone Dr. and Rock Creek Parkway, NW.	08/09/19	*		*		*		*		
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	08/15/19	*		*		*		*		

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**

Pumping Station	No. of Inspections	No. Screens	No. Pumps	Screens or Pumps Out of Service	Dates	Reason	Work Order Number	Schedule to Restore to Service
Main	31	3	4	None	-	-	-	-
Eastside	1	2	4	None	-	-	-	-
Poplar Point	1	2	4	None	-	-	-	-
Potomac	31	4	5	Screen #4	08/15/19 – 08/31/19	Bearing and Rake Issue, Screen Not Running	19-617966	Anticipated 10/30/19. The rake motor is being replaced. Awaiting delivery of parts.

Notes:

**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	8/12/19	Group A	19-523692	Add oil, grease bearings and replace packing if needed.
O St	8/22/19	Group A	19-555379	Add oil, grease bearings and replace packing if needed.
Eastside	8/19/19	Group A	19-532279	Add oil, grease bearings and replace packing if needed.
Poplar Point	8/31/19	Group A	19-521701	Add oil, grease bearings and replace packing if needed.
Potomac	8/22/19	Group A	19-532566	Add oil, grease bearings and replace packing if needed.
Rock Creek	8/31/19	Group A	19-555393	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	8/31/19	Group A	19-523707	Add oil, grease bearings and replace packing if needed.
Earl Place	8/31/19	Group A	19-567835	Add oil, grease bearings and replace packing if needed.
1 st Street Tunnel Dewatering	8/30/19	Group B	19-651266	

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 Vactor 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

**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}	1298.22	41.88	N/A	N/A	N/A
O St ^{1,2}	145.15	4.68	N/A	N/A	N/A
Eastside	121.48	3.92	N/A	N/A	N/A
Poplar Point	305.04	9.84	N/A	N/A	N/A
Potomac	4106.09	132.45	N/A	N/A	N/A
Rock Creek	131.43	4.24	N/A	N/A	N/A
Upper Anacostia	39.11	1.26	N/A	N/A	N/A
Earl Place	0.42023	0.014	N/A	N/A	N/A
1 st Street Tunnel Dewatering	N/A	N/A	N/A	8/06/19	0.18

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.

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	8/08/19	No	N/A	N/A	N/A
14 - West	8/08/19	No	N/A	N/A	N/A
15	8/08/19	No	N/A	N/A	N/A
15A	8/08/19	No	N/A	N/A	N/A
16 - East	8/08/19	No	N/A	N/A	N/A
16 - West	8/08/19	No	N/A	N/A	N/A
34 ¹	8/13/19	No	N/A	N/A	N/A
35 ²	8/13/19	Yes	8/23/19 to 8/31/19	See Note 2	10/31/19
52	8/13/19	No	N/A	N/A	N/A

Notes:

- DC Water conducted a review of the Structure 34 inflatable dam for the period July 2018 through September 2019. The data indicate the Structure 34 dam failed to fully deflate during the September 7 and September 18, 2018 rain events and during the July 2, July 6, July 8 and August 20, 2019 storm events. While this provided for greater capture of combined sewage prior to the occurrence of CSOs, it also caused high water levels in the sewer system upstream of the dam. These high water levels appear to have caused wet weather overflows from manholes at 17th and D Street NW and at the intersection of F Street and Virginia Ave NW during these events. DC Water is revising the controls to improve the operation of the facility and we anticipate the facility will remain in service during the revisions.
- Structure 35 was taken out of service on 8/23/19 due to a pending investigation regarding the venting of trapped air and dislodging of a manhole cover during a significant rain event on 8/20/19. DC Water is investigating the cause of the occurrence, including reviewing the operation of the dam, the dam set points and other factors that may have contributed to the event.

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)	<i>None</i>	<i>N/A</i>
15	<i>08/20/19</i>	<i>0 hrs. 9 mins</i>
15A	<i>08/20/19</i>	<i>0 hrs. 27 mins</i>
16 (E & W)	<i>08/7/19</i> <i>08/20/19</i>	<i>0 hrs. 20 mins</i> <i>0 hrs. 12 mins</i>
34	<i>None</i>	<i>N/A</i>
35	<i>08/20/19</i>	<i>1 hrs. 22 mins</i>
52	<i>08/23/19</i>	<i>8 hrs. 22 mins</i>
<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 August 2019.

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	1449	1426	650	650	75	749	735	56	50	805	785
2	2792	2642	471	468	67	959	894	269	236	1228	1130
3	3687	187	0	0	0	2546	161	739	3	3285	164
4	3495	1723	0	0	0	3152	1519	12	8	3164	1527
5	4007	1769	1678	1672	143	1241	282	959	53	2200	335
6	3323	2673	2669	2661	329	709	275	127	127	836	402
7	3785	43	42	41	3	1989	8	5	0	1994	8
8	2832	212	210	209	8	1771	11	9	0	1780	11
Grand Total	25370¹	10675¹	5720¹	5701	625	13116	3885	2176	477	15292	4362
% Cleaned/Inspected to Date				99.7%	11%					60%	41%

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	8/8/2019	Good	None	None	None
Bar Rack CSO 040	8/06/2019	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	8/20/2019	Good	None	Routine Cleaning	(1)

Notes:

(1) System was designed so that captured solids and floatables 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>	1
<i>Reason not Operating</i>	Maintenance, wind, low water levels, lightning.
<i># Skimmer in Fleet</i>	3 Skimmers
<i># Skimmers Out of Service</i>	3 Skimmers
<i>Dates</i>	B32: 8/1 - 8/31. B33: 8/1 - 8/24. B34: 8/27 - 8/29
<i>Reason</i>	B32: #1 screen not working. B33: hyd oil leak. B34: hyd oil leak and loose wing screens.
<i>Plan to Restore to Service</i>	B32: waiting for parts ETR unknown. B33: returned to operations on 8/28. B34: returned to operations on 8/30.
<i>Amount Material Collected</i>	40 tons this month. Calendar year to date 310 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	8/28/19	X		19-624218		
Bar Racks at Main Storm Pumps (CSO 011)	KW	8/28/19	X		19-624211		

5.2 Rain Data

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

Date	Brentwood Pumping Station	Bryant Street Pumping Station	Main Pumping Station	Rock Creek Pumping Station	National Airport
8/1/2019	0	0	0	0	0
8/2/2019	0	0	0	0	0
8/3/2019	0	0	0.10	0	0
8/4/2019	0	0	0	0	0
8/5/2019	0	0	0	0	0
8/6/2019	0	0	0	0	0
8/7/2019	0.96	0.42	1.02	0.36	0.90
8/8/2019	0	0	0	0	0
8/9/2019	0	0	0	0	0
8/10/2019	0	0	0	0	0
8/11/2019	0	0	0	0	0
8/12/2019	0	0	0	0	0
8/13/2019	0.04	0.07	0.11	0.07	0.12
8/14/2019	0	0	0	0	0
8/15/2019	0	0.01	0.03	0.03	0.20
8/16/2019	0	0.01	0	0	0
8/17/2019	0.01	0	0	0	0
8/18/2019	0	0.01	0	0	0
8/19/2019	0	0	0	0	0
8/20/2019	1.00	1.29	1.02	0.08	0.36
8/21/2019	0	0	0.23	0	0.01
8/22/2019	0	0	0	0	0
8/23/2019	0.59	0.56	0.39	0.70	0.38
8/24/2019	0	0	0	0	0
8/25/2019	0	0	0	0	0
8/26/2019	0	0	0	0	0
8/27/2019	0	0	0	0	0
8/28/2019	0	0.01	0	0.03	0.02
8/29/2019	0	0	0	0	0
8/30/2019	0	0	0	0	0
8/31/2019	0	0	0	0	0
TOTAL	2.60	2.38	2.90	1.27	1.99

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: July, August, September 2019

SCENARIO: QuarterlyReport_2019Q3, revised 18 October 2019

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	5	2.73	2.92	0.58	1.58	0.17
009	2nd Street, 300 feet North of N Place, SE	Modeled*	3	0.49	1.75	0.58	0.75	0.25
010	O Street Sewage Pumping Station, SE (pumped overflow)	Metered	2	24.95	7.33	3.67	4.17	3.17
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	1	1.61	0.58	0.58	0.58	0.58
012	North of Main Sewage Pumping Station, SE (Tiber Creek)	Metered	4	26.01	3.67	0.92	1.92	0.50
013	4th and N Streets, SE	Modeled	1	0.40	0.75	0.75	0.75	0.75
014	6th and M Streets, SE	Modeled	2	0.84	1.00	0.50	0.75	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	4	28.07	3.83	0.96	3.08	0.17
019A	Northeast Boundary - Tunnel OF	Metered	1	8.48	2.33	2.33	2.33	2.33
	SUBTOTAL			93.58				
Potomac CSOs								
003A	JBAB Tunnel OF	Metered	1	7.93	2.08	2.08	2.08	2.08
020	23rd Street, North of Constitution Ave, NW (Easby Point)	Modeled	7	37.82	12.00	1.71	4.00	0.50
021	Northeast of Roosevelt Bridge, NW	Modeled	7	116.24	16.00	2.29	5.25	0.75
022	27th and K Streets, NW	Modeled	10	50.58	15.25	1.53	3.00	0.25
024	30th and K Streets, NW	Modeled	7	15.74	19.00	2.71	9.00	0.25
025	31st & K St NW	Modeled	4	0.50	3.00	0.75	1.50	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	7	10.74	13.75	1.96	3.00	1.25
028	36th and M Streets, NW	Modeled	12	2.71	29.00	2.42	4.50	0.25
029	Canal Road 1000 feet east of Rock Creek NW	Modeled	8	18.09	13.25	1.66	2.75	0.25
	SUBTOTAL			260.34				
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	1	0.65	1.50	1.50	1.50	1.50
034	23rd and O Streets, SW	Modeled	1	0.24	0.25	0.25	0.25	0.25
035	22nd Street south of Q Street, NW	Modeled	1	3.72	0.75	0.75	0.75	0.75
036	22nd Street South of Q Street, NW	Modeled	7	0.933	11.50	1.64	2.50	1.00
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	1	0.23	0.75	0.75	0.75	0.75
040	Biltmore Street extended east of Rock Creek, NW	Modeled	1	0.32	1.00	1.00	1.00	1.00
041	Ontario extended and Rock Creek Parkway	Modeled	1	0.00	0.25	0.25	0.25	0.25
042	Harvard Street and Rock Creek Parkway, NW	Modeled	3	0.54	1.75	0.58	1.00	0.25
043	Adams Mill Road South of Irving Street, NW	Modeled	3	2.96	2.75	0.92	1.50	0.50
044	Kenyon Street and Adams Mill Road, NW	Modeled	2	0.3447	1.50	0.75	1.25	0.25
045	Adams Mill Road and Lamont Street, NW	Modeled	5	0.32	2.50	0.50	1.25	0.25
046	Park Road south of Piney Branch Parkway, NW	Modeled	3	0.14	2.00	0.67	1.25	0.25
047	Ingliside Terrace extended and Piney Branch Parkway	Modeled	2	0.34	1.75	0.88	1.50	0.25
048	Mt. Pleasant Street extended and Piney Branch Parkway	Modeled	4	0.72	2.25	0.56	1.25	0.25
049	Piney Branch and Lamont Street, NW	Modeled	7	50.40	13.50	1.93	3.25	1.25
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	1	0.17	0.25	0.25	0.25	0.25
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			62.04				
	TOTAL			415.96				

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

*The CSO 009 outfall meter was damaged by adjacent construction and was out of service for a portion of the quarter. Model output has been utilized for reporting overflow from CSO 009.



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

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

Month: September 2019

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: September 2019

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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	09/03/19	*			
7	W Street and Railroad Ave, SE	005	09/03/19	*			
8 ¹	Good Hope Rd, west of Nichols Ave, SE	006	N/A				
9	13 th Street and Ridge Place, SE (Diversion Structure)	007	09/03/19	*			
9a	13 th Street and Ridge Place, SE (Regulator Structure)	007	09/03/19	*			
9b	11 th Street Bridge and DC 295 SB (CSO-007 Diversion Chamber)	007	09/17/19	*			
11	"O" Street Pumping Station	011(a)	09/24/19	*			
12	Storm Pump Discharge at Main Pumping Station	011	09/26/19	*			
13	2 nd Street, 300 ft. north of N Place, SE	009	09/24/19	*			
14	2 nd Street, 250 ft. north of N Place, SE	011(a)	09/12/19	*			
15	South Capitol and E Streets	010	09/12/19	*			
15a	Half and L Streets, SE	010	09/12/19	*			
15b	South Capitol and I Streets	010	09/04/19	*			
15c	South Capitol and I Streets	010	09/04/19	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
16	North of Main Sewage Pumping Station	012	09/12/19	*			
17	4 th and N Streets, SE, Both Extended	013	09/06/19	*			
17a	K Street between 6 th Street and 7 th Street, SE (Side Overflow Weir)	013	09/20/19	*			
17b	4 th and N Streets, SE, Both Extended (CSO-013 Diversion Chamber)	013	09/06/19	*			
18	6 th and M Streets, SE (Diversion and Overflow Structure)	014	09/06/19	*			
18a	Tingey Street SE and 5 1 / 2 Street SE (CSO-014 Diversion Chamber)	014	09/17/19	*			
19	9 th and M Streets, SE	015	09/17/19	*			
19a	9 th and M Streets, SE	015	09/17/19	*			
19b	9 th and M Streets, SE (Diversion Chamber)	015	09/17/19	*			
19c	9 th and M Streets, SE (Diversion Chamber)	015	09/17/19	*			
20	12 th and M Streets, SE	016	09/16/19	*			
20a	12 th and M Streets, SE	016	09/16/19	*			
20b	12 th and M Streets, SE (CSO-016 Diversion Chamber)	016	09/16/19	*			
21	14 th and M Streets, SE	017	09/16/19	*			
21a	14 th and M Streets, SE (CSO-017 Diversion Chamber)	017	09/16/19	*			
22a	Barney Circle and Pennsylvania Ave, SE	018	09/17/19	*			
22b	Barney Circle and Pennsylvania Ave, SE	018	09/17/19	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	09/17/19	*			
22d	Kentucky Ave and Potomac Street, SE	018	09/13/19	*			
22e	14 th Street and Kentucky Ave, SE	018	09/13/19	*			
23	Independence Ave, 21 st Street, SE, Extended	019	09/13/19	*			
24a	East Capitol St, west of RFK stadium	019	09/13/19	*			
28	21 st and Constitution Ave, NW	020	09/04/19	*			
29	22 nd Street, between Constitution Ave and C St, NW	020	09/04/19	*			
30	17 th and D Streets, NW	020	09/04/19	*			
31	15 th Street and Pennsylvania Ave, NW	020	09/04/19	*			
33	10 th and F Streets, NW	020	09/04/19	*			
34	23 rd Street, north of Constitution Ave, NW	020	09/27/19		*	See September CSO report, table 2-6, note 1.	
34a	23 rd Street near C Street, NW	020	09/04/19	*			
35	Northeast of Roosevelt Bridge, NW	021	09/27/19		*	See September CSO report, table 2-6, note 2.	
35c	Kennedy Center Rock Creek and Potomac Pkwy Northeast of Roosevelt	021	09/19/19	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
	Bridge, NW						
36	27 th and I Streets, NW	022	09/04/19	*			
36a	New Hampshire Ave and Eye Street, NW	022	09/04/19	*			
36b	19 th and L Streets, NW	022, 034	09/06/19	*			
36d	17 th and L Streets, NW	022, 034	09/06/19	*			
36g	18 th and M Streets, NW	022, 034	09/06/19	*			
36h	18 th and M Streets, NW	022, 034	09/06/19	*			
37	27 th and Eye Streets, NW	022	09/04/19	*			
38	29 th and K Streets, NW	024	09/06/19	*			
38a	30 th Street, south of K Street, NW	024	09/06/19	*			
39a	30 th and K Streets, NW	024	09/06/19	*			
39b	30 th and K Streets, NW	024	09/06/19	*			
41b	31 st and K Streets, NW	025	09/06/19	*			
41c	31 st and K Streets, NW	025	09/06/19	*			
42	Wisconsin Ave and K Street, NW	026	09/06/19	*			
43	Potomac and Water Streets, NW	027	09/06/19	*			
43a	Potomac and Water Streets, NW	027	09/06/19	*			
44	Water Street, west of Potomac St, NW	027	09/06/19	*			
45	36 th and M Streets, NW	028	09/03/19	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	09/03/19	*			
47	38 th Street and Reservoir Road, NW	029	09/03/19	*			
47a	37 th and T Streets, NW	029	09/03/19	*			
47b	37 th and T Streets, NW	029	09/03/19	*			
47c	38 th and W Streets, NW	029	09/03/19	*			
49 ^l	Pennsylvania Ave, east side of Rock Creek, NW	031	N/A				
50	26 and M Streets, NW	032	09/20/19	*			
51	N Street Extended, west of 25 th Street, NW	033	09/20/19	*			
52	22 nd Street between M and N Streets, NW	034	09/24/19	*			
52a	N Street between 22 nd and 23 rd Streets, NW	034	09/19/19	*			
53	22 nd and M Streets, NW	022, 034	09/19/19	*			
53a	22 nd and M Streets, NW	022, 034	09/19/19	*			
53b	L Street between 21 st Street and New Hampshire Ave, NW	022, 034	09/10/19	*			
53c	L and 22 nd Streets, NW	022	09/10/19	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
54	23 rd and O Streets, NW	034	09/10/19	*			
55	22 nd Street, south of Q Street, NW	035	09/10/19	*			
55a	22 nd Street, south of Q Street, NW	035	09/10/19	*			
56	23 rd and Massachusetts Ave, NW	036	09/10/19	*			
57	23 rd Street, south of Q Street, NW	036	09/10/19	*			
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	09/13/19	*			
60	Connecticut Ave, east of Rock Creek, NW	039	09/13/19	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	09/13/19	*			
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	09/11/19	*			
63	Harvard Street and Rock Creek Parkway, NW	042	09/11/19	*			
64	Adams Mill Road, south of Irving Street, NW	043	09/11/19	*			
65	Kenyon Street and Adams Mill Road, NW	044	09/11/19	*			
65a	Kenyon Street and Adams Mill Road, NW	044	09/11/19	*			
66	Adams Mill Road and Lamont Street, NW	045	09/11/19	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	09/11/19	*			
68	Ingleside Terrace, Extended and Piney Branch Parkway, NW	047	09/11/19	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	09/11/19	*			
70	Piney Branch Parkway, west of 16 th Street, NW	049	09/11/19	*			
70i	5 th and Quackenbos Streets, NW	049	09/03/19	*			
71	28 th Street, west of Rock Creek Parkway, NW	050	09/16/19	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	09/10/19	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	09/10/19	*			
73	O Street Extended and Rock Creek Parkway, NW	052	09/10/19	*			
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	09/13/19	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	09/13/19	*			
77a	Normanstone Dr and Normanstone Lane, NW	056	09/13/19	*			
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	09/10/19	*			
84a	26 th and P Streets, NW	060	09/10/19	*			
86	Diversion Chamber and Vortex Drop at First and Channing St, NW (First St Tunnel)	019	09/20/19	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
88	Flagler and Adams St. NW (First St Tunnel)	019	09/20/19	*			
89	First and V St, NW (First St Tunnel)	019	09/20/19	*			
90	First and V St, NW (First St Tunnel)	019	09/20/19	*			
91	First and V St, NW (First St Tunnel)	019	09/20/19	*			
92	CSO 019 Diversion Near Eastside PS (Anacostia River Tunnel)	019	09/26/19	*			
93	CSO 018 Diversion Near Barney Circle (Anacostia River Tunnel)	018	09/18/19	*			
95	M Street Approach Channel M and Water St SE (Anacostia River Tunnel)	015, 016, 017	09/16/19	*			
96	CSO 007 Shaft at 11 th St Bridge and DC I-295 SB Diversion Facilities (Anacostia River Tunnel)	007	09/17/19	*			
97	CSO 005 Diversion at Chicago St Trunk Sewer, I295 SB (Anacostia River Tunnel)	005	09/17/19	*			
98	Main Pumping Station Diversions (Anacostia River Tunnel)	009 - 012	09/26/19	*			
99	CSO 009 and 011a Diversion Facilities (Anacostia River Tunnel)	009, 011a	09/12/19	*			
100	CSO 012 Diversion Facilities (Anacostia River Tunnel)	012	09/12/19	*			On 09/12/19 Routine check at this location. One stop log is missing at this location. DSS is in the process of finding appropriate vendor to purchase stop logs.
101	Main Outfall Sewer Diversion Chamber (Anacostia River Tunnel)	N/A	09/18/19	*			
102	Anacostia Main Interceptor Diversion Chamber	N/A	09/18/19	*			
103	Poplar Point PS Emergency Overflow Chamber (Anacostia River Tunnel)	N/A	09/18/19	*			
104	Poplar Point PS Discharge Chamber	N/A	09/18/19	*			
105	Potomac Outfall Sewer Diversion Chamber (Anacostia River Tunnel)	003A	09/20/19	*			

Notes:

1. Noted structures no longer function as a combined sewer overflow regulator structure.

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	09/20/19	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	09/05/19	*		*		*		*		
006 ¹	Good Hope Road and Welsh Memorial Bridge	N/A									
007	Between 11 th St. and Anacostia Bridges, SE	09/05/19	*		*		*		*		
009	O St. Sewage Pumping Station, SE	09/26/19	*		*		*		*		
010	O St. Sewage Pumping Station, SE	09/26/19	*			*			*		
011	Main Sewage Pumping Station, SE	09/26/19	*			*			*		
011(a)	Main Sewage Pumping Station, SE	09/26/19	*		*		*		*		
012	Main Sewage Pumping Station, SE	09/26/19	*		*		*		*		
013	Southeast Federal Center, aligned with 4 th St.	09/26/19	*		*		*		*		
014	Navy Yard, aligned with 6 th St., SE	09/26/19	*		*		*		*		
015	Navy Yard, aligned with 9th Street, SE	09/26/19	*			*			*		
016	12th and O Streets, SE	09/19/19	*		*		*		*		
017	M and Water Street, SE	09/19/19	*		*		*		*		
018	East of Barney Circle & South of Pennsylvania Avenue Bridge, SE	09/19/19	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility & D.C. General Hospital	09/18/19	*		*		*		*		
019a	Adjacent to Service Drive behind swirl facility & D.C. General Hospital (Tunnel Overflow Structure)	09/18/19	*		*		*		*		
020	Rock Creek Parkway and Independence, NW	09/05/19	*		*		*		*		
021	Rock Creek Parkway and C St., NW	09/05/19	*		*		*		*		
022	Rock Creek Parkway and G St., NW	09/05/19	*		*		*		*		
024	South of 30 th and K Streets, NW ¹	09/05/19	*		*		*		*		
025	South of 31st and K Streets, NW	09/05/19	*		*		*		*		
026	Wisconsin Avenue and Water Street, NW	09/05/19	*		*		*		*		
027	33 rd and Water Sts., NW	09/05/19	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	09/05/19	*			*			*		
029	Adjacent to C&O Canal, aligned with 38 th St. NW	09/05/19	*			*			*		
031 ¹	Rock Creek Pkwy & Pennsylvania Avenue, NW	N/A									
032	26th and M Street, NW	09/20/19	*			*			*		

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	
033	Across street from St. Francis Jr. High and aligned with N St., NW.	09/20/19	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	09/10/19	*			*			*		
035	P St. Bridge and Rock Creek Parkway	09/10/19	*			*			*		
036	22nd Street, South of Q Street NW.	09/26/19	*		*		*		*		
037 ¹	Waterside Dr. and Rock Creek Parkway	N/A									
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	09/13/19	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	09/13/19	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	09/13/19	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	09/26/19	*		*		*		*		
042	Harvard St. and Beach Dr NW.	09/26/19	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	09/26/19	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	09/26/19	*		*		*		*		
045	North of Beach Dr. and Walbridge Pl, NW.	09/26/19	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	09/11/19	*			*			*		
047	Piney Branch Parkway and Ingleside Terrace	09/11/19	*		*		*		*		
048	South of Piney Branch Parkway and 17 th St.	09/11/19	*		*		*		*		
049	North of Piney Branch Parkway and 17 th St.	09/11/19	*		*		*		*		
050	Rock Creek Parkway and L St., NW	09/16/19	*		*		*		*		
051	Across Rock Creek Pkwy, aligned with Olive St., NW.	09/26/19	*		*		*		*		
052	Between P & Penna. Ave Bridges, aligned with O Street, NW.	09/26/19	*		*		*		*		
053 ¹	Q St. Bridge and Rock Creek Parkway, NW.	N/A									
054	Massachusetts Ave & Rock Creek Parkway, NW.	09/13/19	*		*		*		*		
056	Normanstone Dr. and Rock Creek Parkway, NW.	09/13/19	*		*		*		*		
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	09/26/19	*		*		*		*		

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	None	-	-	-	-
Eastside	1	2	4	None	-	-	-	-
Poplar Point	1	2	4	None	-	-	-	-
Potomac	30	4	5	Screen #4	09/01/19 – 09/30/19	Bearing and Rake Issue, Screen Not Running	19-617966	Anticipated 10/30/19. The rake motor is being replaced. Awaiting delivery of parts.

Notes:

**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	9/12/19	Group A	19-604668	Add oil, grease bearings and replace packing if needed.
O St	9/02/19	Group A	19-620855	Add oil, grease bearings and replace packing if needed.
Eastside	9/28/19	Group A	19-600452	Add oil, grease bearings and replace packing if needed.
Poplar Point	9/28/19	Group A	19-596410	Add oil, grease bearings and replace packing if needed.
Potomac	9/19/19	Group A	19-600961	Add oil, grease bearings and replace packing if needed.
Rock Creek	9/28/19	Group A	19-604682	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	9/28/19	Group A	19-604696	Add oil, grease bearings and replace packing if needed.
Earl Place	9/28/19	Group A	19-619149	Add oil, grease bearings and replace packing if needed.
1 st Street Tunnel Dewatering	9/27/19	Group B	20-39191	

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 Vactor 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

**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}	1141.52	38.05	N/A	N/A	N/A
O St ^{1,2}	127.42	4.25	N/A	N/A	N/A
Eastside	119.76	3.99	N/A	N/A	N/A
Poplar Point	280.32	9.34	N/A	N/A	N/A
Potomac	3789.13	126.30	N/A	N/A	N/A
Rock Creek	135.30	4.51	N/A	N/A	N/A
Upper Anacostia	35.84	1.19	N/A	N/A	N/A
Earl Place	0.14127	0.005	N/A	N/A	N/A
1 st Street Tunnel Dewatering	N/A	N/A	N/A	9/05/19 9/20/19	0.15 0.18

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.

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	9/27/19	No	N/A	N/A	N/A
14 - West	9/27/19	No	N/A	N/A	N/A
15	9/12/19	No	N/A	N/A	N/A
15A	9/12/19	No	N/A	N/A	N/A
16 - East	9/27/19	No	N/A	N/A	N/A
16 - West	9/27/19	No	N/A	N/A	N/A
34 ¹	9/30/19	No	N/A	N/A	N/A
35 ²	9/30/19	Yes	9/01/19 to 9/30/19	See Note 2	10/31/19
52	9/24/19	No	N/A	N/A	N/A

Notes:

1. See attached DMR letter, dated October 29, 2019.
2. Structure 35 was taken out of service on 8/23/19 due to a pending investigation regarding the venting of trapped air and dislodging of a manhole cover during a significant rain event on 8/20/19. DC Water is investigating the cause of the occurrence, including reviewing the operation of the dam, the dam set points and other factors that may have contributed to the event.

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)	<i>None</i>	<i>N/A</i>
15	<i>None</i>	<i>N/A</i>
15A	<i>None</i>	<i>N/A</i>
16 (E & W)	<i>None</i>	<i>N/A</i>
34	<i>None</i>	<i>N/A</i>
35	<i>None</i>	<i>N/A</i>
52	<i>None</i>	<i>N/A</i>
<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 September 2019.

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	1449	1426	650	650	364	805	785	289	289	1094	1074
2	2792	2642	471	468	208	1228	1130	919	878	2147	2008
3	3687	187	0	0	0	3285	164	176	0	3461	164
4	3495	1723	0	0	0	3164	1527	1	1	3164	1528
5	4007	1769	1678	1672	675	2200	335	577	535	2777	870
6	3323	2673	2669	2661	518	836	402	194	194	1030	596
7	3785	43	42	41	40	1994	8	269	37	2263	45
8	2832	212	210	209	12	1780	11	249	4	2029	15
Grand Total	25370¹	10675¹	5720¹	5701	1817	15292	4362	2674	1938	17965	6300
% Cleaned/Inspected to Date				99.7%	32%					71%	59%

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	9/9/2019	Good	None	None	None
Bar Rack CSO 040	9/13/2019	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	9/26/2019	Good	None	Routine Cleaning	(1)

Notes:

(1) System was designed so that captured solids and floatables 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>	1
<i>Reason not Operating</i>	Maintenance, wind, low water levels, lightning.
<i># Skimmer in Fleet</i>	3 Skimmers
<i># Skimmers Out of Service</i>	2 Skimmers
<i>Dates</i>	B32: 9/1 - 9/30. B34: 9/13 - 9/30.
<i>Reason</i>	B32: #1 screen not working. B34: hydraulic oil leak.
<i>Plan to Restore to Service</i>	B32: waiting for parts ETR unknown. B34: waiting for parts ETR October.
<i>Amount Material Collected</i>	20 tons this month. Calendar year to date 330 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	9/29/19	X		19-682671		
Bar Racks at Main Storm Pumps (CSO 011)	KW	9/29/19	X		19-682664		

5.2 Rain Data

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

Date	Brentwood Pumping Station	Bryant Street Pumping Station	Main Pumping Station	Rock Creek Pumping Station	National Airport
9/1/2019	0	0	0	0	0
9/2/2019	0	0	0	0	0.05
9/3/2019	0	0	0	0	0
9/4/2019	0	0.04	0.28	0.17	0.02
9/5/2019	0	0	0	0	0
9/6/2019	0	0	0	0	0
9/7/2019	0	0	0	0	0
9/8/2019	0	0	0	0	0
9/9/2019	0	0	0.01	0	0
9/10/2019	0	0	0	0	0
9/11/2019	0	0	0	0	0.01
9/12/2019	0	0.01	0	0	0.03
9/13/2019	0	0	0	0	0
9/14/2019	0	0	0	0	0
9/15/2019	0	0	0	0	0
9/16/2019	0	0	0	0	0
9/17/2019	0	0	0	0	0
9/18/2019	0	0	0	0	0
9/19/2019	0	0	0	0	0
9/20/2019	0	0	0	0	0
9/21/2019	0	0	0	0	0
9/22/2019	0	0	0	0	0
9/23/2019	0	0	0	0	0
9/24/2019	0	0	0	0	0
9/25/2019	0	0	0	0	0
9/26/2019	0	0	0	0	0
9/27/2019	0	0	0	0	0
9/28/2019	0	0	0	0	0
9/29/2019	0	0	0	0	0
9/30/2019	0.15	0.19	0.17	0.24	0.14
TOTAL	0.15	0.24	0.46	0.41	0.25

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: July, August, September 2019

SCENARIO: QuarterlyReport_2019Q3, revised 18 October 2019

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	5	2.73	2.92	0.58	1.58	0.17
009	2nd Street, 300 feet North of N Place, SE	Modeled*	3	0.49	1.75	0.58	0.75	0.25
010	O Street Sewage Pumping Station, SE (pumped overflow)	Metered	2	24.95	7.33	3.67	4.17	3.17
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	1	1.61	0.58	0.58	0.58	0.58
012	North of Main Sewage Pumping Station, SE (Tiber Creek)	Metered	4	26.01	3.67	0.92	1.92	0.50
013	4th and N Streets, SE	Modeled	1	0.40	0.75	0.75	0.75	0.75
014	6th and M Streets, SE	Modeled	2	0.84	1.00	0.50	0.75	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	4	28.07	3.83	0.96	3.08	0.17
019A	Northeast Boundary - Tunnel OF	Metered	1	8.48	2.33	2.33	2.33	2.33
	SUBTOTAL			93.58				
Potomac CSOs								
003A	JBAB Tunnel OF	Metered	1	7.93	2.08	2.08	2.08	2.08
020	23rd Street, North of Constitution Ave, NW (Easby Point)	Modeled	7	37.82	12.00	1.71	4.00	0.50
021	Northeast of Roosevelt Bridge, NW	Modeled	7	116.24	16.00	2.29	5.25	0.75
022	27th and K Streets, NW	Modeled	10	50.58	15.25	1.53	3.00	0.25
024	30th and K Streets, NW	Modeled	7	15.74	19.00	2.71	9.00	0.25
025	31st & K St NW	Modeled	4	0.50	3.00	0.75	1.50	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	7	10.74	13.75	1.96	3.00	1.25
028	36th and M Streets, NW	Modeled	12	2.71	29.00	2.42	4.50	0.25
029	Canal Road 1000 feet east of Rock Creek NW	Modeled	8	18.09	13.25	1.66	2.75	0.25
	SUBTOTAL			260.34				
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	1	0.65	1.50	1.50	1.50	1.50
034	23rd and O Streets, SW	Modeled	1	0.24	0.25	0.25	0.25	0.25
035	22nd Street south of Q Street, NW	Modeled	1	3.72	0.75	0.75	0.75	0.75
036	22nd Street South of Q Street, NW	Modeled	7	0.933	11.50	1.64	2.50	1.00
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	1	0.23	0.75	0.75	0.75	0.75
040	Biltmore Street extended east of Rock Creek, NW	Modeled	1	0.32	1.00	1.00	1.00	1.00
041	Ontario extended and Rock Creek Parkway	Modeled	1	0.00	0.25	0.25	0.25	0.25
042	Harvard Street and Rock Creek Parkway, NW	Modeled	3	0.54	1.75	0.58	1.00	0.25
043	Adams Mill Road South of Irving Street, NW	Modeled	3	2.96	2.75	0.92	1.50	0.50
044	Kenyon Street and Adams Mill Road, NW	Modeled	2	0.3447	1.50	0.75	1.25	0.25
045	Adams Mill Road and Lamont Street, NW	Modeled	5	0.32	2.50	0.50	1.25	0.25
046	Park Road south of Piney Branch Parkway, NW	Modeled	3	0.14	2.00	0.67	1.25	0.25
047	Ingliside Terrace extended and Piney Branch Parkway	Modeled	2	0.34	1.75	0.88	1.50	0.25
048	Mt. Pleasant Street extended and Piney Branch Parkway	Modeled	4	0.72	2.25	0.56	1.25	0.25
049	Piney Branch and Lamont Street, NW	Modeled	7	50.40	13.50	1.93	3.25	1.25
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	1	0.17	0.25	0.25	0.25	0.25
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			62.04				
	TOTAL			415.96				

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

*The CSO 009 outfall meter was damaged by adjacent construction and was out of service for a portion of the quarter. Model output has been utilized for reporting overflow from CSO 009.