QUARTERLY OPERATIONS REPORT

DISTRICT OF COLUMBIA

COMBINED SEWER OVERFLOW FACILITIES

FOURTH QUARTER, FY 2019

Prepared By:

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



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

Monthly Operations Report For Combined Sewer System

Month: October 2019

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

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

Monthly Operations Report for Combined Sewer System Month: October 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.

				Со	ndition		
Structure		Associated NPDES	Date		Needs	-	
Number	Location	Outfall	Inspected	Good	Work	Work Needed	Work performed
2^{1}	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	N/A				
41	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	N/A				
51	Poplar Point Pumping Station	004	N/A				
6	Chicago Street and Railroad Ave, SE	005	10/02/19	*			
7	W Street and Railroad Ave, SE	005	10/02/19	*			
81	Good Hope Rd, west of Nichols Ave, SE	006	N/A				
9	13th Street and Ridge Place, SE (Diversion Structure)	007	10/02/19	*			
9a	13 th Street and Ridge Place, SE (Regulator Structure)	007	10/02/19	*			
9b	11th Street Bridge and DC 295 SB (CSO-007 Diversion Chamber)	007	10/21/19	*			
11	"O" Street Pumping Station	011(a)	10/28/19	*			
12	Storm Pump Discharge at Main Pumping Station	011	10/10/19	*			
13	2 nd Street, 300 ft. north of N Place, SE	009	10/28/19	*			
14	2 nd Street, 250 ft. north of N Place, SE	011(a)	10/15/19	*			
15	South Capitol and E Streets	010	10/15/19	*			
15a	Half and L Streets, SE	010	10/15/19	*			
15b	South Capitol and I Streets	010	10/08/19	*			
15c	South Capitol and I Streets	010	10/08/19	*			

Table 2-1Regulator Structures

				Co	ndition		
Structure		Associated NPDES	Date		Needs		
Number	Location	Outfall	Inspected	Good	Work	Work Needed	Work performed
16	North of Main Sewage Pumping Station	012	10/15/19	*			
17	4 th and N Streets, SE, Both Extended	013	10/11/19	*			
17a	K Street between 6 th Street and 7 th Street, SE (Side Overflow Weir)	013	10/28/19	*			
17b	4 th and N Streets, SE, Both Extended (CSO-013 Diversion Chamber)	013	10/11/19	*			
18	6 th and M Streets, SE (Diversion and Overflow Structure)	014	10/08/19	*			
18a	Tingey Street SE and 5 1 / 2 Street SE (CSO-014 Diversion Chamber)	014	10/11/19	*			
19	9 th and M Streets, SE	015	10/11/19	*			
19a	9 th and M Streets, SE	015	10/11/19	*			
19b	9 th and M Streets, SE (Diversion Chamber)	015	10/11/19		*	Routine check at this location. The roadway cast iron plates are unstable and will be replaced with steel traffic rated plates by November 2019	
19c	9 th and M Streets, SE (Diversion Chamber)	015	10/11/19		*	Routine check at this location. The roadway cast iron plates are unstable and will be replaced with steel traffic rated plates by January 2020	
20	12 th and M Streets, SE	016	10/11/19	*		·	
20a	12 th and M Streets, SE	016	10/11/19	*			
20b	12 th and M Streets, SE (CSO-016 Diversion Chamber)	016	10/11/19	*			
21	14 th and M Streets, SE	017	10/11/19	*			
21a	14 th and M Streets, SE (CSO-017 Diversion Chamber)	017	10/11/19	*			
22a	Barney Circle and Pennsylvania Ave, SE	018	10/28/19	*			
22b	Barney Circle and Pennsylvania Ave, SE	018	10/28/19	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	10/28/19	*			
22d	Kentucky Ave and Potomac Street, SE	018	10/07/19	*			
22e	14 th Street and Kentucky Ave, SE	018	10/07/19	*			
23	Independence Ave, 21st Street, SE, Extended	019	10/17/19	*			
24a	East Capitol St, west of RFK stadium	019	10/17/19	*			
28	21 st and Constitution Ave, NW	020	10/02/19	*			
29	22 nd Street, between Constitution Ave and C St, NW	020	10/02/19	*			
30	17 th and D Streets, NW	020	10/02/19	*			
31	15 th Street and Pennsylvania Ave, NW	020	10/02/19	*			

				Co	ndition		
Structure		Associated NPDES	Date		Needs		
Number	Location	Outfall	Inspected	Good	Work	Work Needed	Work performed
33	10 th and F Streets, NW	020	10/02/19	*			
34	23 rd Street, north of Constitution Ave, NW	020	10/17/19	*			
34a	23 rd Street near C Street, NW	020	10/02/19	*			
35	Northeast of Roosevelt Bridge, NW		10/17/19		*	See October CSO	
		021				report, table 2-6, note 1	
35c	Kennedy Center Rock Creek and Potomac Pkwy Northeast of Roosevelt		10/17/19	*			
	Bridge, NW	021					
36	27 th and I Streets, NW	022	10/02/19	*			
36a	New Hampshire Ave and Eye Street, NW	022	10/02/19	*			
36b	19th and L Streets, NW	022, 034	10/04/19	*			
36d	17 th and L Streets, NW	022, 034	10/04/19	*			
36g	18 th and M Streets, NW	022, 034	10/04/19	*			
36h	18 th and M Streets, NW	022, 034	10/04/19	*			
37	27 th and Eye Streets, NW	022	10/02/19	*			
38	29 th and K Streets, NW	024	10/04/19	*			
38a	30 th Street, south of K Street, NW	024	10/04/19	*			
39a	30 th and K Streets, NW	024	10/04/19	*			
39b	30 th and K Streets, NW	024	10/04/19	*			
41b	31 st and K Streets, NW	025	10/04/19	*			
41c	31 st and K Streets, NW	025	10/04/19	*			
42	Wisconsin Ave and K Street, NW	026	10/04/19	*			
43	Potomac and Water Streets, NW	027	10/04/19	*			
43a	Potomac and Water Streets, NW	027	10/04/19	*			
44	Water Street, west of Potomac St, NW	027	10/04/19	*			
45	36 th and M Streets, NW	028	10/01/19	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	10/01/19	*			
47	38 th Street and Reservoir Road, NW	029	10/01/19	*			
47a	37 th and T Streets, NW	029	10/01/19	*			
47b	37 th and T Streets, NW	029	10/01/19	*			
47c	38 th and W Streets, NW	029	10/01/19	*			
49 ¹	Pennsylvania Ave, east side of Rock Creek, NW	031	N/A			1	
50	26 and M Streets, NW	032	10/07/19	*			
51	N Street Extended, west of 25 th Street, NW	033	10/07/19	*		1	

				Co	ndition		
Structure		Associated NPDES	Date		Needs		
Number	Location	Outfall	Inspected	Good	Work	Work Needed	Work performed
52	22 nd Street between M and N Streets, NW	034	10/22/19	*			
52a	N Street between 22 nd and 23 rd Streets, NW	034	10/22/19	*			
53	22 nd and M Streets, NW	022, 034	10/22/19	*			
53a	22 nd and M Streets, NW	022, 034	10/22/19	*			
53b	L Street between 21st Street and New Hampshire Ave, NW	022, 034	10/28/19	*			
53c	L and 22 nd Streets, NW	022	10/28/19	*			
54	23 rd and O Streets, NW	034	10/08/19	*			
55	22 nd Street, south of Q Street, NW	035	10/08/19	*			
55a	22 nd Street, south of Q Street, NW	035	10/08/19	*			
56	23 rd and Massachusetts Ave, NW	036	10/08/19	*			
57	23 rd Street, south of Q Street, NW	036	10/08/19	*			
58 ¹	Northwest of Belmont Road and Rock Creek and Potomac Parkway, NW	037	N/A				
59	North of Belmont Rd, east of Kalorama Cir, NW	038	10/01/19	*			
60	Connecticut Ave, east of Rock Creek, NW	039	10/01/19	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	10/01/19	*			
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	10/09/19	*			
63	Harvard Street and Rock Creek Parkway, NW	042	10/09/19	*			
64	Adams Mill Road, south of Irving Street, NW	043	10/09/19	*			
65	Kenyon Street and Adams Mill Road, NW	044	10/09/19	*			
65a	Kenyon Street and Adams Mill Road, NW	044	10/09/19	*			
66	Adams Mill Road and Lamont Street, NW	045	10/09/19	*			
67	Park Rd, south of Piney Branch Pkwy, NW	046	10/09/19	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	10/09/19	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	10/09/19	*			
70	Piney Branch Parkway, west of 16 th Street, NW	049	10/09/19	*			
70i	5 th and Quackenbos Streets, NW	049	10/02/19	*			
71	28th Street, west of Rock Creek Parkway, NW	050	10/01/19	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	10/08/19	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	10/08/19	*			
73	O Street Extended and Rock Creek Parkway, NW	052	10/08/19	*			
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	10/07/19	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	10/07/19	*			

				Co	ondition		
Structure		Associated NPDES	Date		Needs		
Number	Location	Outfall	Inspected	Good	Work	Work Needed	Work performed
77a	Normanstone Dr and Normanstone Lane, NW	056	10/07/19	*			
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	10/08/19	*			
84a	26 th and P Streets, NW	060	10/08/19	*			
86	Diversion Chamber and Vortex Drop at First and Channing St, NW (First St Tunnel)	019	10/29/19	*			
88	Flagler and Adams St. NW (First St Tunnel)	019	10/29/19	*			
89	First and V St, NW (First St Tunnel)	019	10/29/19	*			
90	First and V St, NW (First St Tunnel)	019	10/29/19	*			
91	First and V St, NW (First St Tunnel)	019	10/29/19	*			
92	CSO 019 Diversion Near Eastside PS (Anacostia River Tunnel)	019	10/21/19	*			
93	CSO 018 Diversion Near Barney Circle (Anacostia River Tunnel)	018	10/21/19	*			
95	M Street Approach Channel M and Water St SE (Anacostia River Tunnel)	015, 016, 017	10/11/19	*			
96	CSO 007 Shaft at 11 th St Bridge and DC I-295 SB Diversion Facilities (Anacostia River Tunnel)	007	10/21/19	*			
97	CSO 005 Diversion at Chicago St Trunk Sewer, I295 SB (Anacostia River Tunnel)	005	10/21/19	*			
98	Main Pumping Station Diversions (Anacostia River Tunnel)	009 - 012	10/28/19	*			
99	CSO 009 and 011a Diversion Facilities (Anacostia River Tunnel)	009, 011a	10/15/19	*			
100	CSO 012 Diversion Facilities (Anacostia River Tunnel)	012	10/15/19		*	Replacement stop log is on-going at this location. DSS is working with contractor.	
101	Main Outfall Sewer Diversion Chamber (Anacostia River Tunnel)	N/A	10/23/19	*			
102	Anacostia Main Interceptor Diversion Chamber	N/A	10/23/19	*			
103	Poplar Point PS Emergency Overflow Chamber (Anacostia River Tunnel)	N/A	10/01/19	*			
104	Poplar Point PS Discharge Chamber	N/A	10/23/19	*			
105	Potomac Outfall Sewer Diversion Chamber (Anacostia River Tunnel)	003A	10/23/19	*			

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.

	0	utfalls and '	liae	Gales							
			Tide								
				utfall	Ga			le Gate			
			Co	ndition	Prese	ent?	Co	ndition	CS	O Sign	
NPDES		Date	0.11	Needs	• •		0.11	Needs	0.17	Needs	
Outfall	Location	1	OK	Work	Yes	No	OK	Work	OK	Work	Notes, Work Needed or Performed
-	Bolling Air Force Base, at Giavanolli and Chanute, SW	N/A									
003a	Joint Base Anacostia Bolling, Macdill and Arnold Ave SW	10/23/19	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	10/17/19	*		*		*		*		
0061	Good Hope Road and Welsh Memorial Bridge	N/A									
007	Between 11 th St. and Anacostia Bridges, SE	10/17/19	*		*		*		*		
009	O St. Sewage Pumping Station, SE	10/10/19	*		*		*		*		
010	O St. Sewage Pumping Station, SE	10/10/19	*			*			*		
011	Main Sewage Pumping Station, SE	10/10/19	*			*			*		
011a	Main Sewage Pumping Station, SE	10/10/19	*		*		*		*		
012	Main Sewage Pumping Station, SE	10/10/19	*		*		*		*		
013	Southeast Federal Center, aligned with 4 th St.	10/10/19	*		*		*		*		
014	Navy Yard, aligned with 6 th St., SE	10/10/19	*		*		*		*		
015	Navy Yard, aligned with 9th Street, SE	10/10/19	*			*			*		
016	12th and O Streets, SE	10/10/19	*		*		*		*		
017	M and Water Street, SE	10/10/19	*		*		*		*		
018	East of Barney Circle & South of Pennsylvania Avenue Bridge, SE	10/10/19	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility & D.C. General Hospital	10/21/19	*		*		*		*		
019a	Adjacent to Service Drive behind swirl facility & D.C. General Hospital (Tunnel Overflow Structure)	10/21/19	*		*		*		*		
020	Rock Creek Parkway and Independence, NW	10/03/19	*		*		*		*		
021	Rock Creek Parkway and C St., NW	10/03/19	*		*		*		*		
022	Rock Creek Parkway and G St., NW	10/03/19	*		*		*		*		
024	South of 30 th and K Streets, NW ¹	10/03/19	*		*		*		*		
025	South of 31st and K Streets, NW	10/03/19	*		*		*		*		
026	Wisconsin Avenue and Water Street, NW	10/03/19	*		*		*		*		
027	33 rd and Water Sts., NW	10/03/19	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	10/03/19	*			*			*		
029	Adjacent to C&O Canal, aligned with 38th St. NW	10/03/19	*			*			*		
031 ¹	Rock Creek Pkwy & Pennsylvania Avenue, NW	N/A									
032	26th and M Street, NW	10/07/19	*			*			*		

Table 2-2Outfalls and Tide Gates

					Tia	de					
				Dutfall	Ga			le Gate			
			Co	ndition	Pres	ent?	Co	ndition	CS	O Sign	
NPDES		Date		Needs				Needs		Needs	
Outfall	Location	Inspected	OK	Work		No	OK	Work	OK	Work	Notes, Work Needed or Performed
033	Across street from St. Francis Jr. High and aligned with N St., NW.	10/07/19	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	10/08/19	*			*			*		
035	P St. Bridge and Rock Creek Parkway	10/08/19	*			*			*		
036	22nd Street, South of Q Street NW.	10/17/19	*		*		*		*		
0371	Waterside Dr. and Rock Creek Parkway	N/A									
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	10/01/19	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	10/01/19	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	10/01/19	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	10/03/19	*		*		*		*		
042	Harvard St. and Beach Dr NW.	10/03/19	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	10/03/19	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	10/03/19	*		*		*		*		
045	North of Beach Dr. and Walbridge Pl, NW.	10/03/19	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	10/09/19	*			*			*		
047	Piney Branch Parkway and Ingleside Terrace	10/09/19	*		*		*		*		
048	South of Piney Branch Parkway and 17 th St.	10/09/19	*		*		*		*		
049	North of Piney Branch Parkway and 17 th St.	10/09/19	*		*			*	*		On 10/09/19 DSS inspectors report, far left gate the eye hole to lift the gate is loose and needs to be replaced. Contractors repaired eye hole, on a later date in October 2019.
050	Rock Creek Parkway and L St., NW	10/01/19	*		*		*		*		
051	Across Rock Creek Pkwy, aligned with Olive St., NW.	10/17/19	*		*		*		*		
052	Between P & Penna. Ave Bridges, aligned with O Street, NW.	10/17/19	*		*		*		*		
053 ¹	Q St. Bridge and Rock Creek Parkway, NW.	N/A									
054	Massachusetts Ave & Rock Creek Parkway, NW.	10/07/19	*		*		*		*		
056	Normanstone Dr. and Rock Creek Parkway, NW.	10/07/19	*		*		*		*		
0571	28th Street and Rock Creek Parkway, NW	N/A									
058 ¹	Connecticut Ave & Rock Creek Parkway, NW.	N/A									
060	North of P St. Bridge & Rock Creek Pkwy, NW	10/17/19	*		*		*		*		

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	No. of	No.	No.	Screens or Pumps			Work Order	
Station	Inspections	Screens	Pumps		Dates	Reason	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		Bearing and Rake Issue, Screen Not Running		Defective rake motor was replaced. Screen returned to service on 10/24/19.

Notes:

Tumping Stations – Treventive Maintenance								
	Date		Work Order					
Pumping Station	Performed	<i>Type of Preventive Maintenance Performed</i> ^{1,2}	Number	Comments				
Main	10/16/19	Group A	19-653829	Add oil, grease bearings and replace packing if needed.				
O St	10/04/19	Group A	19-680539	Add oil, grease bearings and replace packing if needed.				
Eastside	10/12/19	Group A	19-668371	Add oil, grease bearings and replace packing if needed.				
Poplar Point	10/26/19	Group A	19-651371	Add oil, grease bearings and replace packing if needed.				
Potomac	10/24/19	Group A	19-668763	Add oil, grease bearings and replace packing if needed.				
Rock Creek	10/12/19	Group A	19-680553	Add oil, grease bearings and replace packing if needed.				
Upper Anacostia	10/26/19	Group A	19-653843	Add oil, grease bearings and replace packing if needed.				
Earl Place	10/26/19	Group A	19-689926	Add oil, grease bearings and replace packing if needed.				
1 st Street Tunnel Dewatering	10/28/19	Group B	20-102466					

 Table 2-4

 Pumping Stations – Preventive Maintenance

Notes:

1. Group A consists of:

a. Exercise bar screens

b. Exercise all sump pumps

c. Drain condensation from air compressor storage tank

d. Check depth of screening in the screen room and schedule Vactor truck as required

e. Check all safety equipment

f. 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

		i umpi	ng Stations – I umpage			
	Sanitary Pumpage		Screenings Collected (tons) ¹	Pumpage of CSO from First Street Tunnel back to Sewer System		
Pumping	Total Wastewater	Daily Average Wastewater		Date	Volume (mg)	
Station	(mg)	(mg)				
Main ^{1,2}	1457.56	47.02	N/A	N/A	N/A	
O St ^{1,2}	148.09	4.78	N/A	N/A	N/A	
Eastside	130.39	4.21	N/A	N/A	N/A	
Poplar Point	308.65	9.96	N/A	N/A	N/A	
Potomac	4200.44	135.50	N/A	N/A	N/A	
Rock Creek	151.73	4.89	N/A	N/A	N/A	
Upper Anacostia	17.66	0.57	N/A	N/A	N/A	
Earl Place	2.478	0.080	N/A	N/A	N/A	
1st Street Tunnel	N/A	N/A	N/A	10/6/19	0.17	
Dewatering				10/21/19	0.17	
				10/31/19	0.16	

Table 2-5 Pumping Stations – Pumpage

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:

Inflatable Dam		Was Dam Out of Service			
Structure No	Date Inspected	During the Month?	Dates out of Service	Reason	Schedule to Restore to Service
14 - East	10/15/19	No	N/A	N/A	N/A
14 - West	10/15/19	No	N/A	N/A	N/A
15	10/15/19	No	N/A	N/A	N/A
15A	10/15/19	No	N/A	N/A	N/A
16 - East	10/15/19	No	N/A	N/A	N/A
16 - West	10/15/19	No	N/A	N/A	N/A
34	10/22/19	No	N/A	N/A	N/A
351	10/22/19	Yes	10/01/19 to 10/23/19	See Note 1	10/23/19
52	10/22/19	No	N/A	N/A	N/A

 Table 2-6

 Inflatable Dams – Inspections and Equipment in Service

Notes:

1. 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 has investigated 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. Standard Operating Procedures (SOPs) were reviewed in conjunction with the programming language to ensure proper consistency with documented protocols and operating function. The operation of Structure #35 is in accordance with the SOPs, with the exception of the backup float switch and downstream level instrument. The backup float was found to only stop inflation/deflation, not provide full emergency deflation and the downstream flow instrument was not replaced/connected as anticipated after the installation of the venting structure #35. Tide gates were installed to prevent river water from entering the combined sewer, however in the event the tide gates get stuck open the downstream flow instrument and level sensor could provide direction to Structure #35 to remain inflated due to high downstream levels. These corrections are in progress of being implemented and will be completed by November 2019. As of October 23, 2019, Structure #35 was placed back in automatic operation with the corrective action in place as stated above.

Table 2-7

Inflatable Dam Structure No.	Overflow Dates	Estimated Duration of Overflow						
14 (E & W)	10/28/19	0 hrs. 19 mins						
	10/31/19	1 hrs. 52 mins						
15	None	N/A						
15A	None	N/A						
16 (E & W)	10/31/19	0 hrs. 28 mins						
34	None	N/A						
35	10/27/19	1 hr. 12 mins						
	10/31/19	0 hrs. 46 mins						
52	10/31/19	0 hrs. 2 mins						
Structures on Outfall Sewers	Overflow Dates	Estimated Duration of Overflow						
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						
Outfall Sewer Control Gates	Operational Status	Position						
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						

Inflatable Dams & SCADA Sites - Wet Weather Operations

Notes:

3. DRY WEATHER OVERFLOWS

There was no dry weather combined sewer overflow during October 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

				Inspections	1			Clea	ning			
				Total	Total							
				Anacostia	Anacostia	CBs Cleaned Thru		ru CB's Clea		Total CBs	Total CBs Cleaned	
			CD a in	CBs	CBs In master d	Last M	Ionth	This Month		This Year to Date		
		CBs in	CBs in Anacostia	Inspected Once this	Inspected Twice this							
Ward	Total CBs	CSS	CSS	Year	Year	Total	In CSS	Total	In CSS	Total	In CSS	
1	1449	1426	652	650	590	1094	1074	240	240	1334	1314	
2	2792	2642	476	476	395	2147	2008	268	253	2415	2261	
3	3687	187	0	0	0	3461	164	45	0	3506	164	
4	3495	1723	0	0	0	3164	1528	5	3	3169	1531	
5	4007	1769	1692	1692	1573	2777	870	916	904	3693	1774	
6	3316	2666	2647	2644	1906	1030	596	1418	1412	2448	2008	
7	3785	43	41	41	41	2263	45	186	2	2449	47	
8	2832	212	209	208	187	2029	15	418	175	2447	190	
Grand Total	25363 ¹	10668 ¹	5717 ¹	5711	4692	17965	6300	3496	2989	21461	9289	
% Cleaned/Inspected				100%	82%					85%	87%	
to Date					0270					2270	0	

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 4-2BMP Demonstration Projects – Report

<i>Facility</i> Netting System CSO 018	Date Inspected 10/4/2019	<i>Condition</i> Good	Work Needed None	Work performed None	Material Removed (LB) None
Bar Rack CSO 040	10/01/19	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	10/03/19	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:

Program Operation	5-day work week, excluding holidays, weather permitting
Work Days this month:	21
Days not Operating	7
Reason not Operating	Maintenance, wind, low water levels, lightning.
# Skimmer in Fleet	3 Skimmers
# Skimmers Out of Service	3 Skimmers
Dates	B32: 10/1 - 10/31. B33: 10/7 - 10/30. B34: 10/7 - 10/9.
Reason	B32: #1 screen not working. B33 and B34: hydraulic oil leaks.
Plan to Restore to Service	B32: waiting for parts ETR unknown. B33 returned to
	operations on 10/30. B34 returned to operations on 10/9.
Amount Material Collected	10 tons this month. Calendar year to date 340 tons.
Nature of Material	Bottles, cans, natural debris and plastics.

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

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

Inspector: Keith Watts

		Date	Condition		Work Order		Work Performed or
Pumping Station	Inspector	Inspected	Good	Needs Work	Number	Work Needed	Schedule for Completion
Bar Racks at O Street Storm Pumps (CSO 010)	KW	10/26/19	Х		20-44752		
Bar Racks at Main Storm Pumps (CSO 011)	KW	10/26/19	Х		20-44745		

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
10/1/2019	0	0	0	0	0
10/2/2019	0	0	0	0	0
10/3/2019	0	0	0	0	0
10/4/2019	0	0	0	0	0
10/5/2019	0	0	0	0	0
10/6/2019	0	0	0	0	0
10/7/2019	0	0	0	0.01	0.02
10/8/2019	0	0	0	0	0
10/9/2019	0.02	0.03	0.03	0.03	0
10/10/2019	0	0	0	0	0
10/11/2019	0	0	0	0	0
10/12/2019	0	0	0	0	0
10/13/2019	0	0	0.09	0	0.12
10/14/2019	0	0	0	0	0
10/15/2019	0	0	0	0	0
10/16/2019	1.27	1.08	1.30	1.30	1.35
10/17/2019	0	0	0	0	0
10/18/2019	0	0	0	0	0
10/19/2019	0	0	0	0	0
10/20/2019	1.35	1.56	1.68	1.91	1.60
10/21/2019	0	0	0	0	0
10/22/2019	0.58	0.56	0.58	0.56	0.58
10/23/2019	0.01	0	0	0.01	0
10/24/2019	0	0	0	0	0
10/25/2019	0	0	0	0	0
10/26/2019	0	0	0	0	0
10/27/2019	0.98	1.24	1.36	1.33	1.48
10/28/2019	0	0	0	0	0
10/29/2019	0	0	0	0	0
10/30/2019	0.21	0.29	0.24	0.29	0.26
10/31/2019	1.54	1.06	1.25	1.31	1.25
TOTAL	5.96	5.82	6.53	6.75	6.66

5.3 Wet Weather Overflows

Combined Sewer System Model Results are summarized below.

District of Columbia Water and Sewer Authority

Combined Sewer System Model Results Period: October, Novermber, & December 2020 SCENARIO: QuarterlyReport_2019Q4, January 8, 2020

			Number of Overflows	CSO Overflow	Total Duration of Overflow	Avg Duration of Overflow	Maximum Duration of Overflow	Minimum Duration of Overflow
NPDES No.	Description	Data Source	(Occurrences)	Volume (mg)	(hrs)	(hrs)	(hrs)	(hrs)
005	Chicago St and Railroad Station SE	Modeled	0	0.00	0.00	0.00	0.00	0.00
	Good Hope Road, West of Nichols			s	eparated			
006	Ave.,SE 13 th Street and Ridge Place,SE	Metered	2	0.49	0.50	0.25	0.42	0.08
007	2nd Street, 300 feet North of N Place,	Metered				0.20	0.42	0.00
009	SE	Metered	0	0.00	0.00	0.00	0.00	0.00
010	O Street SewagePumping Station, SE (pumped Overflow)	Metered	1	16.17	6.42	6.42	6.42	6.42
	South of Main Sewage Pumping							
011	Station, SE (pumped overflow)	Metered	0	0.00	0.00	0.00	0.00	0.00
011a	South of Main SewagePumping Station, SE (gravity overflow)	Metered	0	0.00	0.00	0.00	0.00	0.00
	North of Main SewagePumping							
012 013	Station, SE (Tiber Creek) 4th and N Streets, SE	Metered Modeled	1 0	0.94	0.67	0.67	0.67	0.67
014	6th and M Streets, SE	Modeled	0	0.00	0.00	0.00	0.00	0.00
015	9th and M Streets, SE				ed to tunnel s			
016 017	12th and M Streets, SE 14th and M Streets, SE				ed to tunnel sy ed to tunnel sy			
017	Barney Circle and Pennsylvania Ave,			consolidate		Jotem		
018	SE				ed to tunnel sy			
019 019A	Northeast Boundary Northeast Boundary - Tunnel OF	Metered Metered	0	0.00	0.00	0.00	0.00	0.00
	SUBTOTAL		Ľ.	17.60	2.00	2.00	2.00	
Potomac CSOs	·							
003A	BAB Tunnel OF	Metered	0	0.00	0.00	0.00	0.00	0.00
	23rd Street, North of Constitution Ave,							
020	NW (Easby Point) Northeast ofRoosevelt Bridge, NW	Modeled Modeled	7	24.10	20.00	2.86	8.25 7.75	0.25
021	27th and K Streets, NW	Modeled	11	115.34 9.44	22.75 29.50	3.25 2.68	8.25	0.25
024	30th and K Streets, NW	Modeled	7	6.57	13.25	1.89	5.50	0.50
025 026	31st & K St NW Wisconsin Avenue andK St., NW	Modeled Modeled	3	0.10 0.00	2.25	0.75	1.25	0.25
020	Water Street West of Street, NW	Modeled	10	6.83	30.75	3.08	10.00	0.00
028	36th and M Streets, NW	Modeled	16	4.10	112.75	7.05	16.50	0.75
029	Canal Road 1000 feet east of Rock Creek,NW	Modeled	12	9.87	35.50	2.96	10.50	0.75
023	SUBTOTAL	Modeled	12	176.35	33.30	2.30	10.50	0.75
Deels Creek								
Rock Creek	Pennsylvania Avenue, East Rock				an avaita d			
031	Creek, NW				eparated	-		-
032	26th and M Streets, NW N Street extendedwest of 25th	Modeled	0	0.00	0.00	0.00	0.00	0.00
033	Street,NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
034	23rd and O Streets, SW	Modeled	0	0.00	0.00	0.00	0.00	0.00
035 036	22nd Street south of Q Street, NW 22nd Street South of Q Street, NW	Modeled Modeled	0 7	0.00 0.370	0.00 21.50	0.00 3.07	0.00 8.00	0.00
030	Northwest of Belmontand Rock Creek	Widdeled	1			3.07	8.00	1.20
037	and Potomac Parkway		1	3	eparated			
038	North of Belmont Road,east of Kalorama Circle, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
000	Connecticut Avenue east of Rock	Modeled	0	0.00	0.00	0.00	0.00	0.00
039	Creek, NW	Modeled	1	0.01	0.25	0.25	0.25	0.25
040	Biltmore Street extended east of RockCreek, NW	Modeled	1	0.03	0.25	0.25	0.25	0.25
	Ontario extended and Rock Creek							
041	Parkway	Modeled	0	0.00	0.00	0.00	0.00	0.00
042	Harvard Street and RockCreek Parkway, NW	Modeled	1	0.09	0.25	0.25	0.25	0.25
	Adams Mill Road South of Irving							
043	Street, NW Kenyon Street and Adams Mill Road,	Modeled	1	0.46	0.50	0.50	0.50	0.50
044	NW	Modeled	1	0.0330	0.25	0.25	0.25	0.25
	Adams Mill Road and Lamont Street,							
045	NW Park Road south of Piney Branch	Modeled	1	0.06	0.25	0.25	0.25	0.25
046	Parkway, NW	Modeled	1	0.03	0.25	0.25	0.25	0.25
047	Ingleside Terrace extended and Piney Branch Parkway	Modelard	4	0.00	0.25	0.25	0.25	0.25
047	Branch Parkway Mt. Pleasant Street extended and	Modeled	1	0.00	0.25	0.25	0.25	0.25
048	Piney Branch Parkway	Modeled	1	0.11	0.25	0.25	0.25	0.25
049	Piney Branch and LamontStreet, NW	Modeled	7	17.00	24.75	2 5 4	0 75	1.75
049	28th Street west of 16th Street, NW	Modeled	0	17.82 0.00	24.75 0.00	3.54 0.00	8.75 0.00	0.00
	Olive Street extended and Rock Creek							
051	Parkway, NW O Street extended and Rock Creek	Modeled	0	0.00	0.00	0.00	0.00	0.00
052	Parkway, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
	O Street west of Rock Creek Parkway,				eparated			
053	NW West Side of Rock Creek300 ft. south			-				
054	of Mass. Ave, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
050	Normanstone Drive extended west of	Madal	0	0.00	0.00	0.00	0.00	0.00
056	Rock Creek, NW 28th Street extended west of Rock	Modeled	0	0.00	0.00	0.00	0.00	0.00
057	Creek, NW	separateu						
059	Connecticut Avenue and Rock Creek			s	eparated			
058	Parkway, NW P St and 26 th St, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
	SUBTOTAL	modeled		19.01	0.00	0.00	0.00	0.00
	TOTAL			040.00				
l	TOTAL		1	212.96	1	1	1	l

District of Columbia Water and Sewer Authority

Combined Sewer System Model Results Period: October, Novermber, & December 2020 SCENARIO: QuarterlyReport_2019Q4, January 8, 2020

					Total		Maximum	Minimum
			Number of	CSO	Duration of	Avg Duration	Duration of	Duration of
			Overflows	Overflow	Overflow	of Overflow	Overflow	Overflow
NPDES No.	Description	Data Source	(Occurrences)	Volume (mg)	(hrs)	(hrs)	(hrs)	(hrs)
I:\SEWER\CSO	QUARTERLY REPORT\CSO 4th Quarter	er FY 19\[Copy of `	Y2019Q4_Report	_8Jan2020_D	RAFT.XLSX]	Q4Y2019		

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



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

Monthly Operations Report For Combined Sewer System

Month: November 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: November 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.

				Co	ondition		
Structure		Associated NPDES	Date		Needs		
Number	Location	Outfall	Inspected	Good	Work	Work Needed	Work performed
2^{1}	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	N/A				
41	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	N/A				
51	Poplar Point Pumping Station	004	N/A				
6	Chicago Street and Railroad Ave, SE	005	11/26/19	*			
7	W Street and Railroad Ave, SE	005	11/26/19	*			
8^{1}	Good Hope Rd, west of Nichols Ave, SE	006	N/A				
9	13 th Street and Ridge Place, SE (Diversion Structure)	007	11/26/19	*			
9a	13 th Street and Ridge Place, SE (Regulator Structure)	007	11/26/19	*			
9b	11 th Street Bridge and DC 295 SB (CSO-007 Diversion Chamber)	007	11/25/19		*	Structure is operating as normal Plates are in need of adjustments and additional bolts. Anticipated date of completion in January 2020.	
11	"O" Street Pumping Station	011(a)	11/27/19	*			
12	Storm Pump Discharge at Main Pumping Station	011	11/07/19	*			
13	2 nd Street, 300 ft. north of N Place, SE	009	11/27/19	*			

Table 2-1Regulator Structures

				Со	ndition		
Structure		Associated NPDES	Date		Needs		
Number	Location	Outfall	Inspected	Good	Work	Work Needed	Work performed
14	2 nd Street, 250 ft. north of N Place, SE	011(a)	11/19/19	*			
15	South Capitol and E Streets	010	11/19/19	*			
15a	Half and L Streets, SE	010	11/19/19	*			
15b	South Capitol and I Streets	010	11/27/19	*			
15c	South Capitol and I Streets	010	11/27/19	*			
16	North of Main Sewage Pumping Station	012	11/19/19	*			
17	4 th and N Streets, SE, Both Extended	013	11/22/19	*			
17a	K Street between 6 th Street and 7 th Street, SE (Side Overflow Weir)	013	11/22/19	*			
17b	4 th and N Streets, SE, Both Extended (CSO-013 Diversion Chamber)	013	11/22/19	*			
18	6 th and M Streets, SE (Diversion and Overflow Structure)	014	11/08/19	*			
18a	Tingey Street SE and 5 1 / 2 Street SE (CSO-014 Diversion Chamber)	014	11/22/19	*			
19	9 th and M Streets, SE	015	11/25/19	*			
19a	9 th and M Streets, SE	015	11/25/19	*			
19b	9 th and M Streets, SE (Diversion Chamber)	015	11/25/19	*			Structure operating as normal. Traffic rated plates were redesigned and replaced to withstand vehicular vibration.
19c	9 th and M Streets, SE (Diversion Chamber)	015	11/25/19		*	Structure operating as normal. Traffic rated plates redesigned to fit securely on top of pour concrete lip. Expected replacement Jan. 2020.	
20	12 th and M Streets, SE	016	11/25/19	*			
20a	12 th and M Streets, SE	016	11/25/19	*			
20b	12 th and M Streets, SE (CSO-016 Diversion Chamber)	016	11/25/19	*			
21	14 th and M Streets, SE	017	11/25/19	*			
21a	14 th and M Streets, SE (CSO-017 Diversion Chamber)	017	11/25/19	*			
22a	Barney Circle and Pennsylvania Ave, SE	018	11/22/19	*			
22b	Barney Circle and Pennsylvania Ave, SE	018	11/22/19	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	11/22/19	*			

				Co	ndition		
Structure		Associated NPDES	Date		Needs		
Number	Location	Outfall	Inspected	Good	Work	Work Needed	Work performed
22d	Kentucky Ave and Potomac Street, SE	018	11/22/19	*			
22e	14th Street and Kentucky Ave, SE	018	11/22/19	*			
23	Independence Ave, 21 st Street, SE, Extended	019	11/22/19	*			
24a	East Capitol St, west of RFK stadium	019	11/22/19	*			
28	21 st and Constitution Ave, NW	020	11/06/19	*			
29	22 nd Street, between Constitution Ave and C St, NW	020	11/06/19	*			
30	17 th and D Streets, NW	020	11/06/19	*			
31	15th Street and Pennsylvania Ave, NW	020	11/06/19	*			
33	10 th and F Streets, NW	020	11/05/19	*			
34	23 rd Street, north of Constitution Ave, NW	020	11/26/19	*			
34a	23 rd Street near C Street, NW	020	11/06/19	*			
35	Northeast of Roosevelt Bridge, NW	021	11/21/19	*			
35c	Kennedy Center Rock Creek and Potomac Pkwy Northeast of Roosevelt Bridge, NW	021	11/21/19	*			
36	27 th and I Streets, NW	022	11/06/19	*			
36a	New Hampshire Ave and Eye Street, NW	022	11/06/19	*			
36b	19 th and L Streets, NW	022, 034	11/08/19	*			
36d	17 th and L Streets, NW	022, 034	11/08/19	*			
36g	18 th and M Streets, NW	022, 034	11/08/19	*			
36h	18 th and M Streets, NW	022, 034	11/13/19	*			
37	27 th and Eye Streets, NW	022	11/06/19	*			
38	29 th and K Streets, NW	024	11/08/19	*			
38a	30 th Street, south of K Street, NW	024	11/08/19	*			
39a	30 th and K Streets, NW	024	11/08/19	*			
39b	30 th and K Streets, NW	024	11/08/19	*			
41b	31 st and K Streets, NW	025	11/08/19	*			
41c	31 st and K Streets, NW	025	11/08/19	*			
42	Wisconsin Ave and K Street, NW	026	11/08/19	*			
43	Potomac and Water Streets, NW	027	11/08/19	*			
43a	Potomac and Water Streets, NW	027	11/08/19	*			
44	Water Street, west of Potomac St, NW	027	11/08/19	*			
45	36 th and M Streets, NW	028	11/01/19	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	11/01/19	*			
47	38th Street and Reservoir Road, NW	029	11/01/19	*			

				Co	ndition		
Structure		Associated NPDES	Date		Needs		
Number	Location	Outfall	Inspected	Good	Work	Work Needed	Work performed
47a	37 th and T Streets, NW	029	11/01/19	*			
47b	37 th and T Streets, NW	029	11/01/19	*			
47c	38 th and W Streets, NW	029	11/01/19	*			
49 ¹	Pennsylvania Ave, east side of Rock Creek, NW	031	N/A				
50	26 and M Streets, NW	032	11/27/19	*			
51	N Street Extended, west of 25 th Street, NW	033	11/27/19	*			
52	22 nd Street between M and N Streets, NW	034	11/21/19	*			
52a	N Street between 22 nd and 23 rd Streets, NW	034	11/21/19	*			
53	22 nd and M Streets, NW	022, 034	11/21/19	*			
53a	22 nd and M Streets, NW	022, 034	11/21/19	*			
53b	L Street between 21st Street and New Hampshire Ave, NW	022, 034	11/18/19	*			
53c	L and 22 nd Streets, NW	022	11/18/19	*			
54	23 rd and O Streets, NW	034	11/12/19	*			
55	22 nd Street, south of Q Street, NW	035	11/12/19	*			
55a	22 nd Street, south of Q Street, NW	035	11/12/19	*			
56	23 rd and Massachusetts Ave, NW	036	11/12/19	*			
57	23 rd Street, south of Q Street, NW	036	11/12/19	*			
58 ¹	Northwest of Belmont Road and Rock Creek and Potomac Parkway, NW	037	N/A				
59	North of Belmont Rd, east of Kalorama Cir, NW	038	11/20/19	*			
60	Connecticut Ave, east of Rock Creek, NW	039	11/20/19	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	11/20/19	*			
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	11/13/19	*			
63	Harvard Street and Rock Creek Parkway, NW	042	11/13/19	*			
64	Adams Mill Road, south of Irving Street, NW	043	11/13/19	*			
65	Kenyon Street and Adams Mill Road, NW	044	11/13/19	*			
65a	Kenyon Street and Adams Mill Road, NW	044	11/13/19	*			
66	Adams Mill Road and Lamont Street, NW	045	11/13/19	*			
67	Park Rd, south of Piney Branch Pkwy, NW	046	11/13/19	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	11/13/19	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	11/13/19	*			
70	Piney Branch Parkway, west of 16 th Street, NW	049	11/13/19	*			
70i	5 th and Quackenbos Streets, NW	049	11/18/19	*			
71	28 th Street, west of Rock Creek Parkway, NW	050	11/14/19	*			

				Co	ndition		
Structure		Associated NPDES	Date		Needs	-	
Number	Location	Outfall	Inspected	Good	Work	Work Needed	Work performed
72	Olive Street Extended and Rock Creek Pkwy, NW	051	11/12/19	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	11/12/19	*			
73	O Street Extended and Rock Creek Parkway, NW	052	11/12/19	*			
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	11/26/19	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	11/26/19	*			
77a	Normanstone Dr and Normanstone Lane, NW	056	11/26/19	*			
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	11/12/19	*			
84a	26 th and P Streets, NW	060	11/12/19	*			
86	Diversion Chamber and Vortex Drop at First and Channing St, NW (First St Tunnel)	019	11/14/19	*			
88	Flagler and Adams St. NW (First St Tunnel)	019	11/14/19	*			
89	First and V St, NW (First St Tunnel)	019	11/14/19	*			
90	First and V St, NW (First St Tunnel)	019	11/14/19	*			
91	First and V St, NW (First St Tunnel)	019	11/14/19	*			
92	CSO 019 Diversion Near Eastside PS (Anacostia River Tunnel)	019	11/18/19	*			
93	CSO 018 Diversion Near Barney Circle (Anacostia River Tunnel)	018	11/26/19	*			
95	M Street Approach Channel M and Water St SE (Anacostia River Tunnel)	015, 016, 017	11/25/19	*			
96	CSO 007 Shaft at 11 th St Bridge and DC I-295 SB Diversion Facilities (Anacostia River Tunnel)	007	11/25/19	*			
97	CSO 005 Diversion at Chicago St Trunk Sewer, I295 SB (Anacostia River Tunnel)	005	11/25/19		*	11/25/19 Routine check at this location. Heavy debris inside the line at this location, cleaning recommended. First cleaning scheduled in 12/21/19.	
98	Main Pumping Station Diversions (Anacostia River Tunnel)	009 - 012	11/27/19	*			
99	CSO 009 and 011a Diversion Facilities (Anacostia River Tunnel)	009, 011a	11/19/19	*			
100	CSO 012 Diversion Facilities (Anacostia River Tunnel)	012	11/19/19		*	Replacement stop log is on-going at this location. DSS is working with contractor.	

				Condition			
Structure		Associated NPDES	Date		Needs		
Number	Location	Outfall	Inspected	Good	Work	Work Needed	Work performed
101	Main Outfall Sewer Diversion Chamber (Anacostia River Tunnel)	N/A	11/25/19	*			
102	Anacostia Main Interceptor Diversion Chamber	N/A	11/25/19	*			
103	Poplar Point PS Emergency Overflow Chamber (Anacostia River		11/25/19	*			
	Tunnel)	N/A					
104	Poplar Point PS Discharge Chamber	N/A	11/25/19	*			
105	Potomac Outfall Sewer Diversion Chamber (Anacostia River Tunnel)	003A	11/25/19	*			

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.

	U	utfalls and	Tide	Gates							
			0	Dutfall	Tide Gate T		Tide Gate				
				ndition	Pres				CS	O Sign	
NPDES		Date		Needs				Needs		Needs	
Outfall	Location		ОК	Work	Yes	No		Work	OK	Work	Notes, Work Needed or Performed
0031	Bolling Air Force Base, at Giavanolli and Chanute, SW	N/A									
003a	Joint Base Anacostia Bolling Macdill and Arnold Ave SW	11/25/19	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	11/14/19	*		*		*		*		
006 ¹	Good Hope Road and Welsh Memorial Bridge	N/A									
007	Between 11th St. and Anacostia Bridges, SE	11/14/19	*		*		*		*		
009	O St. Sewage Pumping Station, SE	11/07/19	*		*		*		*		
010	O St. Sewage Pumping Station, SE	11/07/19	*			*			*		
011	Main Sewage Pumping Station, SE	11/07/19	*			*			*		
011a	Main Sewage Pumping Station, SE	11/07/19	*		*		*		*		
012	Main Sewage Pumping Station, SE	11/07/19	*		*		*		*		
013	Southeast Federal Center, aligned with 4 th St.	11/07/19	*		*		*		*		
014	Navy Yard, aligned with 6 th St., SE	11/07/19	*		*		*		*		
015	Navy Yard, aligned with 9th Street, SE	11/07/19	*			*			*		
016	12th and O Streets, SE	11/27/19	*		*		*		*		
017	M and Water Street, SE	11/27/19	*		*		*		*		
018	East of Barney Circle & South of Pennsylvania Avenue Bridge, SE	11/27/19	*		*		*		*		

Table 2-2Outfalls and Tide Gates

				Outfall ndition	Ga	resent? Condition		Tide Gate Condition		Condition		O Sign	
NPDES	· · ·	Date		Needs	•••		.	Needs	ow	Needs			
Outfall	Location	Inspected	OK	Work	Yes	No	OK	Work	OK	Work	Notes, Work Needed or Performed		
019	Adjacent to Service Drive behind swirl facility & D.C. General Hospital	11/18/19	*		*		*		*				
019a	Adjacent to Service Drive behind swirl facility & D.C. General Hospital (Tunnel Overflow Structure)	11/18/19	*		*		*		*				
020	Rock Creek Parkway and Independence, NW	11/08/19	*		*		*		*				
021	Rock Creek Parkway and C St., NW	11/07/19	*		*		*		*				
022	Rock Creek Parkway and G St., NW	11/07/19	*		*		*		*				
024	South of 30 th and K Streets, NW ¹	11/07/19	*		*		*		*				
025	South of 31st and K Streets, NW	11/07/19	*		*		*		*				
026	Wisconsin Avenue and Water Street, NW	11/07/19	*		*		*		*				
027	33 rd and Water Sts., NW	11/07/19	*			*			*				
028	Key Bridge and Whitehurst Freeway, NW	11/07/19	*			*			*				
029	Adjacent to C&O Canal, aligned with 38 th St. NW	11/07/19	*			*			*				
0311	Rock Creek Pkwy & Pennsylvania Avenue, NW	N/A											
032	26th and M Street, NW	11/27/19	*			*			*				
033	Across street from St. Francis Jr. High and aligned with N St., NW.	11/27/19	*		*		*		*				
034	Just west of St. Francis Jr. High and north of N St., NW	11/12/19	*			*			*				
035	P St. Bridge and Rock Creek Parkway	11/12/19	*			*			*				
036	22nd Street, South of Q Street NW.	11/26/19	*		*		*		*				
0371	Waterside Dr. and Rock Creek Parkway	N/A											
	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	11/20/19	*		*		*		*				
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	11/20/19	*		*		*		*				
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	11/20/19	*		*		*		*				
041	Beach Dr. and Ontario Pl., NW	11/14/19	*		*		*		*				
042	Harvard St. and Beach Dr NW.	11/14/19	*		*		*		*				
043	Upstream of Harvard St. and Beach Dr NW.	11/14/19	*		*		*		*				
044	Kenyon Street and Beach Dr., NW.	11/14/19	*		*		*		*				
045	North of Beach Dr. and Walbridge Pl, NW.	11/14/19	*		*		*		*				
046	Piney Branch Parkway and Park Road, NW.	11/13/19	*			*			*				
047	Piney Branch Parkway and Ingleside Terrace	11/13/19	*		*		*		*				
048	South of Piney Branch Parkway and 17th St.	11/13/19	*		*		*		*				

				utfall			Tide Gate				
			Co	ndition	Pres	ent?	Co	ndition	CSO Sign		
NPDES		Date		Needs				Needs		Needs	
Outfall	Location	Inspected	OK	Work	Yes	No	OK	Work	OK	Work	Notes, Work Needed or Performed
049	North of Piney Branch Parkway and 17th St.	11/13/19	*		*		*		*		
050	Rock Creek Parkway and L St., NW	11/14/19	*		*		*		*		
051	Across Rock Creek Pkwy, aligned with Olive St., NW.	11/14/19	*		*		*		*		
052	Between P & Penna. Ave Bridges, aligned with O Street, NW.	11/14/19	*		*		*		*		
053 ¹	Q St. Bridge and Rock Creek Parkway, NW.	N/A									
054	Massachusetts Ave & Rock Creek Parkway, NW.	11/26/19	*		*		*		*		
056	Normanstone Dr. and Rock Creek Parkway, NW.	11/26/19	*		*		*		*		
0571	28th Street and Rock Creek Parkway, NW	N/A									
058 ¹	Connecticut Ave & Rock Creek Parkway, NW.	N/A									
060	North of P St. Bridge & Rock Creek Pkwy, NW	11/26/19	*		*		*		*		

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.

Pumping Stations – Inspections and Equipment in Service								
Pumping	No. of	No.	No.	Screens or Pumps			Work Order	
Station	Inspections	Screens	Pumps	Out of Service	Dates	Reason	Number	Schedule to Restore to Service
Main	30	3	4	Screen #1	11/18/19 - 11/30/19	Screen #1 is being removed	20-173320	Installation of the new screen is
						and replaced with a new		currently ongoing and is expected
						screen as part of a facilities		to return to service by $01/31/20$.
						upgrade CIP.		
						-		
Eastside	1	2	4	None				
					-	-	-	-
Poplar Point	1	2	4	None				
_					-	-	-	-
Potomac	30	4	5	Pump #4	11/16/19 - 11/21/19	DPO personnel supported	20-118236	Pump was returned to service on
				-		ACE contractor in program		11/21/19.
						and instrumentation changes		
						to the seal water system for		
						Pump #4.		

 Table 2-3

 Pumping Stations – Inspections and Equipment in Service

Notes:

Tumping Stations – Treventive Maintenance								
	Date		Work Order					
Pumping Station	Performed	<i>Type of Preventive Maintenance Performed</i> ^{1,2}	Number	Comments				
Main	11/14/19	Group A	20-15547	Add oil, grease bearings and replace packing if needed.				
O St	11/4/19	Group A	20-55802	Add oil, grease bearings and replace packing if needed.				
Eastside	11/24/19	Group A	20-41371	Add oil, grease bearings and replace packing if needed.				
Poplar Point	11/24/19	Group A	20-13638	Add oil, grease bearings and replace packing if needed.				
Potomac	11/21/19	Group A	20-41608	Add oil, grease bearings and replace packing if needed.				
Rock Creek	11/16/19	Group A	20-42673	Add oil, grease bearings and replace packing if needed.				
Upper Anacostia	11/24/19	Group A	20-15561	Add oil, grease bearings and replace packing if needed.				
Earl Place	11/16/19	Group A	20-154250	Add oil, grease bearings and replace packing if needed.				
1 st Street Tunnel Dewatering	11/23/19	Group B	20-153601					

 Table 2-4

 Pumping Stations – Preventive Maintenance

Notes:

1. Group A consists of:

- a. Exercise bar screens
- b. Exercise all sump pumps
- c. Drain condensation from air compressor storage tank
- d. Check depth of screening in the screen room and schedule Vactor truck as required
- e. Check all safety equipment
- f. 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

		i umpi	ng Stations – i umpage			
		nitary npage	Screenings Collected (tons) ¹	Pumpage of CSO from First Street Tunnel back to Sewer System		
	Total	Daily Average		Date	Volume (mg)	
Pumping Station	Wastewater (mg)	Wastewater (mg)				
Main ^{1,2}	1208.95	40.30	N/A	N/A	N/A	
O St ^{1,2}	115.71	3.86	N/A	N/A	N/A	
Eastside	100.08	3.34	N/A	N/A	N/A	
Poplar Point	298.63	9.95	N/A	N/A	N/A	
Potomac	4089.15	136.30	N/A	N/A	N/A	
Rock Creek	229.84	7.66	N/A	N/A	N/A	
Upper Anacostia	37.25	1.24	N/A	N/A	N/A	
Earl Place	0.1359	0.005	N/A	N/A	N/A	
1 st Street Tunnel	N/A	N/A	N/A	11/1/19	0.48	
Dewatering				11/15/19	0.14	
				11/27/19	0.12	

Table 2-5 Pumping Stations – Pumpage

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:

Inflatable Dam		Was Dam Out of Service			
Structure No	Date Inspected	During the Month?	Dates out of Service	Reason	Schedule to Restore to Service
14 - East	11/19/19	No	N/A	N/A	N/A
14 - West	11/19/19	No	N/A	N/A	N/A
15	11/19/19	No	N/A	N/A	N/A
15A	11/19/19	No	N/A	N/A	N/A
16 - East	11/19/19	No	N/A	N/A	N/A
16 - West	11/19/19	No	N/A	N/A	N/A
34	11/26/19	No	N/A	N/A	N/A
35	11/21/19	No	N/A	N/A	N/A
52	11/21/19	No	N/A	N/A	N/A

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

Notes:

Table 2-7

Inflatable Dam Structure No.	Overflow Dates	Estimated Duration of Overflow
14 (E & W)	11/1/19	0 hrs. 5 mins
	11/3/19	1 hrs. 12 mins
15	None	N/A
15A	None	N/A
16 (E & W)	11/4/19	3 hrs. 48 mins
34	11/1/19	1 hrs. 50 mins
	11/13/19	1 hrs. 59 mins
35	None	N/A
52	None	N/A
Structures on Outfall Sewers	Overflow Dates	Estimated Duration of Overflow
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
Outfall Sewer Control Gates	Operational Status	Position
Outfall Sewer Control Gate No.1	Operational	Open
Outfall Sewer Control Gate No.2	Operational	This structure has been bulk headed. Overflows are no longer possible
Outfall Sewer Control Gate No.2	Operational	This structure has been bulk headed. Overflows are no longer possible

Notes:

3. DRY WEATHER OVERFLOWS

There was no dry weather combined sewer overflow during November 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

			Inspections			Cleaning					
				Total	Total						
				Anacostia	Anacostia	CBs Clea	ned Thru	CB's C	leaned	Total CBs	Cleaned
			CPa in	CBs Increased	CBs Increated	Last M	<i>lonth</i>	This Month		This Year to Date	
		CBs in	CBs in Anacostia	Inspected Once this	Inspected Twice this						
Ward	Total CBs	CSS	CSS	Year	Year	Total	In CSS	Total	In CSS	Total	In CSS
1	1449	1426	652	650	641	1334	1314	56	53	1390	1367
2	2792	2642	476	476	453	2415	2261	129	107	2544	2368
3	3687	187	0	0	0	3506	164	58	0	3564	164
4	3495	1723	0	0	0	3169	1531	227	142	3396	1673
5	4007	1769	1692	1692	1665	3693	1774	231	94	3924	1868
6	3316	2666	2647	2644	2570	2448	2008	785	688	3233	2696
7	3785	43	41	41	41	2449	47	550	0	2999	47
8	2832	212	209	208	207	2447	190	194	21	2641	211
Grand Total	25363 ¹	10668 ¹	5717 ¹	5711	5577	21461	9289	2230	1105	23691	10394
% Cleaned/Inspected				100%	98%					93%	97%
to Date										2270	01.70

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 4-2BMP Demonstration Projects – Report

<i>Facility</i> Netting System CSO 018	Date Inspected 11/01/2019	<i>Condition</i> Good	Work Needed None	Work performed None	Material Removed (LB) None
Bar Rack CSO 040	11/20/2019	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	11/14/2019	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:

Program Operation	5-day work week, excluding holidays, weather permitting
Work Days this month:	19
Days not Operating	7
Reason not Operating	Maintenance, wind, low water levels, lightning.
# Skimmer in Fleet	3 Skimmers
# Skimmers Out of Service	2 Skimmers
Dates	B32: 11/1 - 11/30. B34: 11/21 - 11/30.
Reason	B32: #1 screen not working. B34: hydraulic oil leak.
Plan to Restore to Service	B32: waiting for parts ETR unknown. B34 waiting for parts.
	ETR December 2019.
Amount Material Collected	20 tons this month. Calendar year to date 360 tons.
Nature of Material	Bottles, cans, natural debris and plastics.

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

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

Inspector: Keith Watts

		Date	Condition		Work Order		Work Performed or
Pumping Station	Inspector	Inspected	Good	Needs Work	Number	Work Needed	Schedule for Completion
Bar Racks at O							
Street Storm	KW	11/24/19	Х		20-122089		
Pumps (CSO 010)							
Bar Racks at Main							
Storm Pumps	KW	11/24/19	Х		20-122082		
(CSO 011)							

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		
11/1/2019	0.02	0.06	0.03	0.03	0
11/2/2019	0	0	0	0	0
11/3/2019	0	0	0	0	0
11/4/2019	0	0	0	0	0
11/5/2019	0	0	0	0	0
11/6/2019	0	0	0	0	0
11/7/2019	0.05	0.05	0.05	0.06	0.06
11/8/2019	0	0	0	0	0
11/9/2019	0	0	0	0	0
11/10/2019	0	0	0	0	0
11/11/2019	0	0	0	0	0
11/12/2019	0.06	0.06	0.07	0.07	0.07
11/13/2019	0	0	0	0	0
11/14/2019	0	0	0	0	0
11/15/2019	0	0	0	0	0
11/16/2019	0	0	0	0	0
11/17/2019	0	0	0	0	0
11/18/2019	0.27	0.29	0.25	0.29	0.29
11/19/2019	0.02	0.01	0.02	0.02	0.02
11/20/2019	0	0	0	0	0
11/21/2019	0	0	0	0	0
11/22/2019	0.11	0.08	0.17	0.10	0.22
11/23/2019	0.30	0.30	0.37	0.32	0.42
11/24/2019	0.34	0.28	0.29	0.30	0.28
11/25/2019	0	0	0	0	0
11/26/2019	0	0	0	0	0
11/27/2019	0	0	0	0	0.01
11/28/2019	0	0	0	0	0
11/29/2019	0	0	0	0	0
11/30/2019	0	0	0	0	0
TOTAL	1.17	1.13	1.25	1.19	1.37

5.3 Wet Weather Overflows

Combined Sewer System Model Results are summarized below.

District of Columbia Water and Sewer Authority

Combined Sewer System Model Results Period: October, Novermber, & December 2020 SCENARIO: QuarterlyReport_2019Q4, January 8, 2020

			Number of Overflows	CSO Overflow	Total Duration of Overflow	Avg Duration of Overflow	Maximum Duration of Overflow	Minimum Duration of Overflow
NPDES No.	Description	Data Source	(Occurrences)	Volume (mg)	(hrs)	(hrs)	(hrs)	(hrs)
005	Chicago St and Railroad Station SE	Modeled	0	0.00	0.00	0.00	0.00	0.00
	Good Hope Road, West of Nichols			s	eparated			
006	Ave.,SE 13 th Street and Ridge Place,SE	Metered	2	0.49	0.50	0.25	0.42	0.08
007	2nd Street, 300 feet North of N Place,	Metered				0.20	0.42	0.00
009	SE	Metered	0	0.00	0.00	0.00	0.00	0.00
010	O Street SewagePumping Station, SE (pumped Overflow)	Metered	1	16.17	6.42	6.42	6.42	6.42
	South of Main Sewage Pumping							
011	Station, SE (pumped overflow)	Metered	0	0.00	0.00	0.00	0.00	0.00
011a	South of Main SewagePumping Station, SE (gravity overflow)	Metered	0	0.00	0.00	0.00	0.00	0.00
	North of Main SewagePumping							
012 013	Station, SE (Tiber Creek) 4th and N Streets, SE	Metered Modeled	1 0	0.94	0.67	0.67	0.67	0.67
014	6th and M Streets, SE	Modeled	0	0.00	0.00	0.00	0.00	0.00
015	9th and M Streets, SE				ed to tunnel s			
016 017	12th and M Streets, SE 14th and M Streets, SE				ed to tunnel sy ed to tunnel sy			
017	Barney Circle and Pennsylvania Ave,			consolidate		Jotem		
018	SE				ed to tunnel sy			
019 019A	Northeast Boundary Northeast Boundary - Tunnel OF	Metered Metered	0	0.00	0.00	0.00	0.00	0.00
	SUBTOTAL		Ľ.	17.60	2.00	2.00	2.00	
Potomac CSOs	·							
003A	BAB Tunnel OF	Metered	0	0.00	0.00	0.00	0.00	0.00
	23rd Street, North of Constitution Ave,							
020	NW (Easby Point) Northeast ofRoosevelt Bridge, NW	Modeled Modeled	7	24.10	20.00	2.86	8.25 7.75	0.25
021	27th and K Streets, NW	Modeled	11	115.34 9.44	22.75 29.50	3.25 2.68	8.25	0.25
024	30th and K Streets, NW	Modeled	7	6.57	13.25	1.89	5.50	0.50
025 026	31st & K St NW Wisconsin Avenue andK St., NW	Modeled Modeled	3	0.10	2.25	0.75	1.25	0.25
020	Water Street West of Street, NW	Modeled	10	6.83	30.75	3.08	10.00	0.00
028	36th and M Streets, NW	Modeled	16	4.10	112.75	7.05	16.50	0.75
029	Canal Road 1000 feet east of Rock Creek,NW	Modeled	12	9.87	35.50	2.96	10.50	0.75
023	SUBTOTAL	Modeled	12	176.35	33.30	2.30	10.50	0.75
Deels Creek								
Rock Creek	Pennsylvania Avenue, East Rock				an avaita d			
031	Creek, NW				eparated	-		-
032	26th and M Streets, NW N Street extendedwest of 25th	Modeled	0	0.00	0.00	0.00	0.00	0.00
033	Street,NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
034	23rd and O Streets, SW	Modeled	0	0.00	0.00	0.00	0.00	0.00
035 036	22nd Street south of Q Street, NW 22nd Street South of Q Street, NW	Modeled Modeled	0 7	0.00 0.370	0.00 21.50	0.00 3.07	0.00 8.00	0.00
030	Northwest of Belmontand Rock Creek	Widdeled	1			3.07	8.00	1.20
037	and Potomac Parkway		1	3	eparated			
038	North of Belmont Road,east of Kalorama Circle, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
000	Connecticut Avenue east of Rock	Modeled	0	0.00	0.00	0.00	0.00	0.00
039	Creek, NW	Modeled	1	0.01	0.25	0.25	0.25	0.25
040	Biltmore Street extended east of RockCreek, NW	Modeled	1	0.03	0.25	0.25	0.25	0.25
	Ontario extended and Rock Creek							
041	Parkway	Modeled	0	0.00	0.00	0.00	0.00	0.00
042	Harvard Street and RockCreek Parkway, NW	Modeled	1	0.09	0.25	0.25	0.25	0.25
	Adams Mill Road South of Irving							
043	Street, NW Kenyon Street and Adams Mill Road,	Modeled	1	0.46	0.50	0.50	0.50	0.50
044	NW	Modeled	1	0.0330	0.25	0.25	0.25	0.25
	Adams Mill Road and Lamont Street,							
045	NW Park Road south of Piney Branch	Modeled	1	0.06	0.25	0.25	0.25	0.25
046	Parkway, NW	Modeled	1	0.03	0.25	0.25	0.25	0.25
047	Ingleside Terrace extended and Piney Branch Parkway	Modelard	4	0.00	0.25	0.25	0.25	0.25
047	Branch Parkway Mt. Pleasant Street extended and	Modeled	1	0.00	0.25	0.25	0.25	0.25
048	Piney Branch Parkway	Modeled	1	0.11	0.25	0.25	0.25	0.25
049	Piney Branch and LamontStreet, NW	Modeled	7	17.00	24.75	2 5 4	0 75	1.75
049	28th Street west of 16th Street, NW	Modeled	0	17.82 0.00	24.75 0.00	3.54 0.00	8.75 0.00	0.00
	Olive Street extended and Rock Creek							
051	Parkway, NW O Street extended and Rock Creek	Modeled	0	0.00	0.00	0.00	0.00	0.00
052	Parkway, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
	O Street west of Rock Creek Parkway,	vay, separated						
053	NW West Side of Rock Creek300 ft. south			-				
054	of Mass. Ave, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
050	Normanstone Drive extended west of	Madal	0	0.00	0.00	0.00	0.00	0.00
056	Rock Creek, NW 28th Street extended west of Rock	Modeled	0	0.00	0.00	0.00	0.00	0.00
057	Creek, NW			s	eparated			
059	Connecticut Avenue and Rock Creek			s	eparated			
058	Parkway, NW P St and 26 th St, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
	SUBTOTAL	modeled		19.01	0.00	0.00	0.00	0.00
	TOTAL			040.00				
l	TOTAL		1	212.96	1	1	1	l

District of Columbia Water and Sewer Authority

Combined Sewer System Model Results Period: October, Novermber, & December 2020 SCENARIO: QuarterlyReport_2019Q4, January 8, 2020

					Total		Maximum	Minimum
			Number of	CSO	Duration of	Avg Duration	Duration of	Duration of
			Overflows	Overflow	Overflow	of Overflow	Overflow	Overflow
NPDES No.	Description	Data Source	(Occurrences)	Volume (mg)	(hrs)	(hrs)	(hrs)	(hrs)
I:\SEWER\CSO	QUARTERLY REPORT\CSO 4th Quarter	er FY 19\[Copy of `	Y2019Q4_Report	_8Jan2020_D	RAFT.XLSX]	Q4Y2019		

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



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

Monthly Operations Report For Combined Sewer System

Month: December 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: December 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.

				Co	ndition		
Structure		Associated NPDES	Date		Needs		
Number	Location	Outfall	Inspected	Good	Work	Work Needed	Work performed
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				
51	Poplar Point Pumping Station	004	N/A				
6	Chicago Street and Railroad Ave, SE	005	12/02/19	*			
7	W Street and Railroad Ave, SE	005	12/02/19	*			
8^{1}	Good Hope Rd, west of Nichols Ave, SE	006	N/A				
9	13th Street and Ridge Place, SE (Diversion Structure)	007	12/02/19	*			
9a	13 th Street and Ridge Place, SE (Regulator Structure)	007	12/02/19	*			
9b	11 th Street Bridge and DC 295 SB (CSO-007 Diversion Chamber)	007	12/10/19		*	Structure is operating as normal Plates are in need of adjustments and additional bolts. Anticipated date of completion in January 2020.	
11	"O" Street Pumping Station	011(a)	12/18/19	*			
12	Storm Pump Discharge at Main Pumping Station	011	12/12/19	*			
13	2 nd Street, 300 ft. north of N Place, SE	009	12/18/19	*			

Table 2-1Regulator Structures

				Co	ndition		
Structure		Associated NPDES	Date		Needs	-	
Number	Location	Outfall	Inspected	Good	Work	Work Needed	Work performed
14	2 nd Street, 250 ft. north of N Place, SE	011(a)	12/19/19	*			
15	South Capitol and E Streets	010	12/19/19	*			
15a	Half and L Streets, SE	010	12/19/19	*			
15b	South Capitol and I Streets	010	12/17/19	*			
15c	South Capitol and I Streets	010	12/17/19	*			
16	North of Main Sewage Pumping Station	012	12/19/19	*			
17	4 th and N Streets, SE, Both Extended	013	12/03/19	*			
17a	K Street between 6 th Street and 7 th Street, SE (Side Overflow Weir)	013	12/10/19	*			
17b	4 th and N Streets, SE, Both Extended (CSO-013 Diversion Chamber)	013	12/03/19	*			
18	6 th and M Streets, SE (Diversion and Overflow Structure)	014	12/03/19	*			
18a	Tingey Street SE and 5 1 / 2 Street SE (CSO-014 Diversion Chamber)	014	12/10/19	*			
19	9 th and M Streets, SE	015	12/09/19	*			
19a	9 th and M Streets, SE	015	12/09/19	*			
19b	9 th and M Streets, SE (Diversion Chamber)	015	12/09/19	*			
19c	9 th and M Streets, SE (Diversion Chamber)	015	12/09/19	*			
20	12 th and M Streets, SE	016	12/09/19	*			
20a	12 th and M Streets, SE	016	12/09/19	*			
20b	12th and M Streets, SE (CSO-016 Diversion Chamber)	016	12/09/19	*			
21	14 th and M Streets, SE	017	12/09/19	*			
21a	14 th and M Streets, SE (CSO-017 Diversion Chamber)	017	12/09/19	*			
22a	Barney Circle and Pennsylvania Ave, SE	018	12/16/19	*			
22b	Barney Circle and Pennsylvania Ave, SE	018	12/16/19	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	12/16/19	*			
22d	Kentucky Ave and Potomac Street, SE	018	12/04/19	*			
22e	14 th Street and Kentucky Ave, SE	018	12/04/19	*			
23	Independence Ave, 21st Street, SE, Extended	019	12/16/19	*			
24a	East Capitol St, west of RFK stadium	019	12/16/19	*			
28	21 st and Constitution Ave, NW	020	12/03/19	*			
29	22 nd Street, between Constitution Ave and C St, NW	020	12/03/19	*			
30	17 th and D Streets, NW	020	12/06/19	*			
31	15th Street and Pennsylvania Ave, NW	020	12/06/19	*			
33	10 th and F Streets, NW	020	12/06/19	*			
34	23 rd Street, north of Constitution Ave, NW	020	12/26/19	*			

				Co	ndition		
Structure		Associated NPDES	Date		Needs		
Number	Location	Outfall	Inspected	Good	Work	Work Needed	Work performed
34a	23 rd Street near C Street, NW	020	12/03/19	*			
35	Northeast of Roosevelt Bridge, NW	021	12/26/19	*			
35c	Kennedy Center Rock Creek and Potomac Pkwy Northeast of Roosevelt Bridge, NW	021	12/26/19	*			
36	27 th and I Streets, NW	022	12/03/19	*			
36a	New Hampshire Ave and Eye Street, NW	022	12/03/19	*			
36b	19 th and L Streets, NW	022, 034	12/03/19	*			
36d	17 th and L Streets, NW	022, 034	12/03/19	*			
36g	18 th and M Streets, NW	022, 034	12/03/19	*			
36h	18 th and M Streets, NW	022, 034	12/03/19	*			
37	27 th and Eye Streets, NW	022	12/03/19	*			
38	29 th and K Streets, NW	024	12/04/19	*			
38a	30 th Street, south of K Street, NW	024	12/04/19	*			
39a	30 th and K Streets, NW	024	12/04/19	*			
39b	30 th and K Streets, NW	024	12/04/19	*			
41b	31 st and K Streets, NW	025	12/04/19	*			
41c	31 st and K Streets, NW	025	12/04/19	*			
42	Wisconsin Ave and K Street, NW	026	12/04/19	*			
43	Potomac and Water Streets, NW	027	12/04/19	*			
43a	Potomac and Water Streets, NW	027	12/04/19	*			
44	Water Street, west of Potomac St, NW	027	12/04/19	*			
45	36 th and M Streets, NW	028	12/02/19	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	12/02/19	*			
47	38th Street and Reservoir Road, NW	029	12/02/19	*			
47a	37 th and T Streets, NW	029	12/02/19	*			
47b	37 th and T Streets, NW	029	12/02/19	*			
47c	38 th and W Streets, NW	029	12/02/19	*			
49 ¹	Pennsylvania Ave, east side of Rock Creek, NW	031	N/A				
50	26 and M Streets, NW	032	12/17/19	*			
51	N Street Extended, west of 25th Street, NW	033	12/17/19	*			
52	22 nd Street between M and N Streets, NW	034	12/26/19	*			
52a	N Street between 22 nd and 23 rd Streets, NW	034	12/17/19	*			
53	22 nd and M Streets, NW	022, 034	12/17/19	*			

				Co	ndition		
Structure		Associated NPDES	Date		Needs		
Number	Location	Outfall	Inspected	Good	Work	Work Needed	Work performed
53a	22 nd and M Streets, NW	022, 034	12/17/19	*			
53b	L Street between 21st Street and New Hampshire Ave, NW	022, 034	12/02/19	*			
53c	L and 22 nd Streets, NW	022	12/02/19	*			
54	23 rd and O Streets, NW	034	12/09/19	*			
55	22 nd Street, south of Q Street, NW	035	12/09/19	*			
55a	22 nd Street, south of Q Street, NW	035	12/09/19	*			
56	23 rd and Massachusetts Ave, NW	036	12/09/19	*			
57	23 rd Street, south of Q Street, NW	036	12/09/19	*			
58 ¹	Northwest of Belmont Road and Rock Creek and Potomac Parkway, NW	037	N/A				
59	North of Belmont Rd, east of Kalorama Cir, NW	038	12/06/19	*			
60	Connecticut Ave, east of Rock Creek, NW	039	12/06/19	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	12/06/19	*			
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	12/11/19	*			
63	Harvard Street and Rock Creek Parkway, NW	042	12/11/19	*			
64	Adams Mill Road, south of Irving Street, NW	043	12/11/19	*			
65	Kenyon Street and Adams Mill Road, NW	044	12/11/19	*			
65a	Kenyon Street and Adams Mill Road, NW	044	12/11/19	*			
66	Adams Mill Road and Lamont Street, NW	045	12/11/19	*			
67	Park Rd, south of Piney Branch Pkwy, NW	046	12/11/19	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	12/11/19	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	12/11/19	*			
70	Piney Branch Parkway, west of 16 th Street, NW	049	12/11/19	*			
70i	5 th and Quackenbos Streets, NW	049	12/02/19	*			
71	28th Street, west of Rock Creek Parkway, NW	050	12/06/19	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	12/09/19	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	12/09/19	*			
73	O Street Extended and Rock Creek Parkway, NW	052	12/09/19	*			
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	12/17/19	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	12/17/19	*			
77a	Normanstone Dr and Normanstone Lane, NW	056	12/17/19	*			
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				

				Co	ndition		
Structure		Associated NPDES	Date		Needs		
Number	Location	Outfall	Inspected	Good	Work	Work Needed	Work performed
84	26 th and P Streets, NW	060	12/09/19	*			
84a	26 th and P Streets, NW	060	12/09/19	*			
86	Diversion Chamber and Vortex Drop at First and Channing St, NW (First St Tunnel)	019	12/26/19	*			
88	Flagler and Adams St. NW (First St Tunnel)	019	12/26/19	*			
89	First and V St, NW (First St Tunnel)	019	12/26/19	*			
90	First and V St, NW (First St Tunnel)	019	12/26/19	*			
91	First and V St, NW (First St Tunnel)	019	12/26/19	*			
92	CSO 019 Diversion Near Eastside PS (Anacostia River Tunnel)	019	12/18/19	*			
93	CSO 018 Diversion Near Barney Circle (Anacostia River Tunnel)	018	12/10/19	*			
95	M Street Approach Channel M and Water St SE (Anacostia River Tunnel)	015, 016, 017	12/09/19	*			
96	CSO 007 Shaft at 11 th St Bridge and DC I-295 SB Diversion Facilities (Anacostia River Tunnel)	007	12/10/19	*			
97	CSO 005 Diversion at Chicago St Trunk Sewer, I295 SB (Anacostia River Tunnel)	005	12/10/19		*	Routine check at this location. Cleaned on 12/21/19	
98	Main Pumping Station Diversions (Anacostia River Tunnel)	009 - 012	12/18/19	*			
99	CSO 009 and 011a Diversion Facilities (Anacostia River Tunnel)	009, 011a	12/19/19	*			
100	CSO 012 Diversion Facilities (Anacostia River Tunnel)	012	12/19/19		*	Replacement stop log is on-going at this location. DSS is working with contractor.	
101	Main Outfall Sewer Diversion Chamber (Anacostia River Tunnel)	N/A	12/10/19	*			
102	Anacostia Main Interceptor Diversion Chamber	N/A	12/10/19	*			
103	Poplar Point PS Emergency Overflow Chamber (Anacostia River Tunnel)	N/A	12/10/19	*			
104	Poplar Point PS Discharge Chamber	N/A	12/10/19	*			
105	Potomac Outfall Sewer Diversion Chamber (Anacostia River Tunnel)	003A	12/04/19	*			

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

				Outfall ndition	Tia Ga Prese	te		le Gate ndition	CS	O Sign	
NPDES		Date	00	Needs	1.05		00	Needs	0.0	Needs	
Outfall	Location	Inspected	ОК	Work	Yes	No	OK	Work	OK	Work	Notes, Work Needed or Performed
0031	Bolling Air Force Base, at Giavanolli and Chanute, SW	N/A									
003a	Joint Base Anacostia Bolling Macdill and Arnold Ave SW	12/04/19	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	12/05/19	*		*		*		*		
006 ¹	Good Hope Road and Welsh Memorial Bridge	N/A									
007	Between 11 th St. and Anacostia Bridges, SE	12/05/19	*		*		*		*		
009	O St. Sewage Pumping Station, SE	12/12/19	*		*		*		*		
010	O St. Sewage Pumping Station, SE	12/12/19	*			*			*		
011	Main Sewage Pumping Station, SE	12/12/19	*			*			*		
011a	Main Sewage Pumping Station, SE	12/12/19	*		*		*		*		
012	Main Sewage Pumping Station, SE	12/12/19	*		*		*		*		
013	Southeast Federal Center, aligned with 4 th St.	12/12/19	*		*		*		*		
014	Navy Yard, aligned with 6 th St., SE	12/12/19	*		*		*		*		
015	Navy Yard, aligned with 9th Street, SE	12/12/19	*			*			*		
016	12th and O Streets, SE	12/05/19	*		*		*		*		
017	M and Water Street, SE	12/05/19	*		*		*		*		
018	East of Barney Circle & South of Pennsylvania Avenue Bridge, SE	12/05/19	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility & D.C. General Hospital	12/18/19	*		*		*		*		
019a	Adjacent to Service Drive behind swirl facility & D.C. General Hospital (Tunnel Overflow Structure)	12/18/19	*		*		*		*		
020	Rock Creek Parkway and Independence, NW	12/05/19	*		*		*		*		
021	Rock Creek Parkway and C St., NW	12/05/19	*		*		*		*		
022	Rock Creek Parkway and G St., NW	12/05/19	*		*		*		*		
024	South of 30 th and K Streets, NW ¹	12/05/19	*		*		*		*		
025	South of 31st and K Streets, NW	12/05/19	*		*		*		*		
026	Wisconsin Avenue and Water Street, NW	12/05/19	*		*		*		*		
027	33 rd and Water Sts., NW	12/05/19	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	12/05/19	*			*		1	*		
029	Adjacent to C&O Canal, aligned with 38 th St. NW	12/05/19	*			*			*		
0311	Rock Creek Pkwy & Pennsylvania Avenue, NW	N/A			1						
	26th and M Street, NW	12/17/19	*			*		1	*		
033	Across street from St. Francis Jr. High and aligned with N St., NW.	12/17/19	*		*		*		*		

					Tia	de					
			0	outfall	Ga	ite	Tid	le Gate			
			Co	ndition	Pres	ent?	Co	ndition	CS	O Sign	
NPDES		Date		Needs				Needs		Needs	
Outfall	Location	Inspected	OK	Work	Yes	No	OK	Work	OK	Work	Notes, Work Needed or Performed
034	Just west of St. Francis Jr. High and north of N St., NW	12/18/19	*			*			*		
	P St. Bridge and Rock Creek Parkway	12/18/19	*			*			*		
	22nd Street, South of Q Street NW.	12/18/19	*		*		*		*		
	Waterside Dr. and Rock Creek Parkway	N/A									
	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	12/06/19	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	12/06/19	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	12/16/19	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	12/12/19	*		*		*		*		
042	Harvard St. and Beach Dr NW.	12/12/19	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	12/12/19	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	12/12/19	*		*		*		*		
045	North of Beach Dr. and Walbridge Pl, NW.	12/12/19	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	12/11/19	*			*			*		
047	Piney Branch Parkway and Ingleside Terrace	12/11/19	*		*		*		*		
048	South of Piney Branch Parkway and 17th St.	12/11/19	*		*		*		*		
049	North of Piney Branch Parkway and 17th St.	12/11/19	*		*		*		*		
050	Rock Creek Parkway and L St., NW	12/06/19	*		*		*		*		
051	Across Rock Creek Pkwy, aligned with Olive St., NW.	12/18/19	*		*		*		*		
052	Between P & Penna. Ave Bridges, aligned with O Street, NW.	12/18/19	*		*		*		*		
	Q St. Bridge and Rock Creek Parkway, NW.	N/A									
-	Massachusetts Ave & Rock Creek Parkway, NW.	12/17/19	*		*		*		*		
-	Normanstone Dr. and Rock Creek Parkway, NW.	12/17/19	*		*		*		*		
	28th Street and Rock Creek Parkway, NW	N/A									
058 ¹	Connecticut Ave & Rock Creek Parkway, NW.	N/A									
060	North of P St. Bridge & Rock Creek Pkwy, NW	12/18/19	*		*		*		*		

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.

				i uniping Sta	nons – mspections	and Equipment in Service	<i>,</i>	
Pumping	No. of	No.	No.	Screens or Pumps			Work Order	
Station	Inspections	Screens	Pumps	Out of Service	Dates	Reason	Number	Schedule to Restore to Service
Main	30	3	4	Screen #1		Screen #1 was removed in November 2019 and replaced with a new screen as part of a facilities upgrade CIP.	20-173320	Installation and User Acceptance Testing of the new screen is currently ongoing and is expected to return to service by 01/31/20.
Eastside	1	2	4	None	-	-	-	-
Poplar Point	1	2	4	Pump #1		The discharge valve for Pump #1 was stuck in transition due to a SCADA miscommunication, which prevented Pump #1 from running.	20-185817	Anticipated 01/31/20. Awaiting repair by contractor as this is a warranty item.
Potomac	30	4	5	None	-	-	-	-

 Table 2-3

 Pumping Stations – Inspections and Equipment in Service

Notes:

		T uniping Stations – Trevenuve		
	Date		Work Order	
Pumping Station	Performed	<i>Type of Preventive Maintenance Performed</i> ^{1,2}	Number	Comments
Main	12/16/19	Group A	20-92566	Add oil, grease bearings and replace packing if needed.
O St	12/4/19	Group A	20-119737	Add oil, grease bearings and replace packing if needed.
Eastside	12/21/19	Group A	20-103371	Add oil, grease bearings and replace packing if needed.
Poplar Point	12/8/19	Group A	20-89002	Add oil, grease bearings and replace packing if needed.
Potomac	12/23/19	Group A	20-104977	Add oil, grease bearings and replace packing if needed.
Rock Creek	12/21/19	Group A	20-106796	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	12/8/19	Group A	20-92580	Add oil, grease bearings and replace packing if needed.
Earl Place	12/8/19	Group A	20-53885	Add oil, grease bearings and replace packing if needed.
1 st Street Tunnel Dewatering	12/22/19	Group B	20-206979	

 Table 2-4

 Pumping Stations – Preventive Maintenance

Notes:

1. Group A consists of:

a. Exercise bar screens

b. Exercise all sump pumps

c. Drain condensation from air compressor storage tank

d. Check depth of screening in the screen room and schedule Vactor truck as required

- e. Check all safety equipment
- f. 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

		i umpi	ng Stations – i umpage			
		nitary npage	Screenings Collected (tons) ¹	Pumpage of CSO from First Street Tunnel back to Sewer System		
	Total	Daily Average		Date	Volume (mg)	
Pumping Station	Wastewater (mg)	Wastewater (mg)				
Main ^{1,2}	1208.95	40.30	N/A	N/A	N/A	
O St ^{1,2}	115.71	3.86	N/A	N/A	N/A	
Eastside	100.08	3.34	N/A	N/A	N/A	
Poplar Point	298.63	9.95	N/A	N/A	N/A	
Potomac	4089.15	136.30	N/A	N/A	N/A	
Rock Creek	229.84	7.66	N/A	N/A	N/A	
Upper Anacostia	37.25	1.24	N/A	N/A	N/A	
Earl Place	0.1359	0.005	N/A	N/A	N/A	
1 st Street Tunnel	N/A	N/A	N/A	12/8/19	0.00	
Dewatering ³				12/19/19	0.00	
				12/30/19	0.00	

Table 2-5Pumping Stations – Pumpage

Notes:

1. Screenings collected from the Main and O Street Pumping Stations are combined from the sanitary flow and combined sewer overflows, due to the design of the screening system that consists of vertical trash racks, with no mechanical cleaning. Therefore, quantification of captured screening materials, specifically from combined sewer overflows, is not feasible.

2. Flow meters have been installed in accordance with NPDES Permit No. DC002199 to record CSO discharges from Main and O Street Pumping Stations. This data is reported via Discharge Monitoring Reports submitted to the EPA on a monthly basis. A summary of metered and modeled CSO discharges is included in Section 5.

3. Pump data indicate activity on three occurrences in the month of December: 40 minutes on 12/8/2019, 50 minutes on 12/19/2019, and 45 minutes 12/30/2019. The flow meter for the pumping station did not record discharges and is being assessed.

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:

Inflatable Dam		Was Dam Out of Service			
Structure No	Date Inspected	During the Month?	Dates out of Service	Reason	Schedule to Restore to Service
14 - East	12/19/19	No	N/A	N/A	N/A
14 - West	12/19/19	No	N/A	N/A	N/A
15	12/19/19	No	N/A	N/A	N/A
15A	12/19/19	No	N/A	N/A	N/A
16 - East	12/19/19	No	N/A	N/A	N/A
16 - West	12/19/19	No	N/A	N/A	N/A
34	12/26/19	No	N/A	N/A	N/A
35	12/26/19	No	N/A	N/A	N/A
52	12/26/19	No	N/A	N/A	N/A

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

Notes:

Table 2-7

Inflatable Dam Structure No.	Overflow Dates	Estimated Duration of Overflow				
14 (E & W)	None	N/A				
15 None		N/A				
15A	None	N/A				
16 (E & W)	None	N/A				
34	None	N/A				
35 None		N/A				
52 None		N/A				
Structures on Outfall Sewers Overflow Dates		Estimated Duration of Overflow				
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				
Outfall Sewer Control Gates	Operational Status	Position				
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				

Inflatable Dams & SCADA Sites - Wet Weather Operations

Notes:

3. DRY WEATHER OVERFLOWS

There was no dry weather combined sewer overflow during December 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

				Inspections			Clea	ning			
				Total	Total						
				Anacostia	Anacostia	CBs Clea	ned Thru	CB's C	Cleaned	Total CBs	Cleaned
			CD in	CBs	CBs	Last M	Ionth	This N	Month	This Year	r to Date
		CBs in	CBs in Anacostia	Inspected Once this	Inspected Twice this						
Ward	Total CBs	CSS	CSS	Year	Year	Total	In CSS	Total	In CSS	Total	In CSS
1	1449	1426	652	651	651	1390	1367	53	53	1443	1420
2	2792	2642	476	476	473	2544	2368	208	198	2752	2566
3	3687	187	0	0	0	3564	164	91	9	3655	182
4	3495	1723	0	0	0	3396	1673	50	21	3446	1694
5	4007	1769	1692	1692	1691	3924	1868	176	70	4100	1938
6	3316	2666	2647	2646	2643	3233	2696	224	130	3457	2826
7	3785	43	41	41	41	2999	47	809	1	3808	48
8	2832	212	209	209	209	2641	211	204	6	2845	217
Grand Total	25363 ¹	10668 ¹	5717 ¹	5715	5708	23691	10394	1815	488	25506 ²	10884 ²
% Cleaned/Inspected				100%	100%					101%	102%
to Date					10070						. 32 /0

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

2. There are approximately 171 catch basins blocked by long-term construction projects, of these, 65 flow to the Anacostia River. There are approximately 120 catch basins obstructed by either a parked car or security restrictions instituted by Capitol Police, of these, 78 flow to the Anacostia River.

4.2 BMP Demonstration for Solid and Floatable Control

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

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

Table 4-2BMP Demonstration Projects – Report

Facility Netting System CSO 018	Date Inspected 12/05/2019	<i>Condition</i> Good	Work Needed None	Work performed None	Material Removed (LB) None
Bar Rack CSO 040	12/16/2019	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	12/12/2019	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:

Program Operation	5-day work week, excluding holidays, weather permitting
Work Days this month:	21
Days not Operating	7
Reason not Operating	Maintenance, wind, low water levels, lightning.
# Skimmer in Fleet	3 Skimmers
# Skimmers Out of Service	2 Skimmers
Dates	B32: 12/1 - 12/31. B34: 12/1 - 12/5.
Reason	B32: #1 screen not working. B34: hydraulic oil leak.
Plan to Restore to Service	B32: waiting for parts ETR unknown. B34: Returned to
	operations on 12/6.
Amount Material Collected	10 tons this month. Calendar year to date 370 tons.
Nature of Material	Bottles, cans, natural debris and plastics.

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

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

Inspector: Keith Watts

		Date	Condition		Work Order		Work Performed or
Pumping Station	Inspector	Inspected	Good	Needs Work	Number	Work Needed	Schedule for Completion
Bar Racks at O							
Street Storm	KW	12/22/19	Х		20-168298		
Pumps (CSO 010)							
Bar Racks at Main							
Storm Pumps	KW	12/22/19	Х		20-168291		
(CSO 011)							

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			National Airport	
12/1/2019	0.37	0.41	0.44	0.38	0.50
12/2/2019	0.04	0.05	0.03	0.02	0.01
12/3/2019	0	0	0	0	0
12/4/2019	0	0	0.02	0	0.01
12/5/2019	0	0	0	0	0
12/6/2019	0	0	0	0	0
12/7/2019	0	0	0	0	0
12/8/2019	0	0	0	0	0
12/9/2019	0.57	0.61	0.74	0.61	0.75
12/10/2019	0.09	0.10	0.13	0.11	0.13
12/11/2019	0.05	0.05	0.06	0.06	0.09
12/12/2019	0	0	0 0		0
12/13/2019	0.18	0.17	0.21 0.20		0.27
12/14/2019	0.13	0.10	0.13	0.13	0.12
12/15/2019	0	0	0	0	0
12/16/2019	0.36	0.39	0.38	0.41	0.41
12/17/2019	0.10	0.08	0.11	0.09	0.13
12/18/2019	0	0	0 0		0
12/19/2019	0	0	0 0		0
12/20/2019	0	0	0	0	0
12/21/2019	0	0	0	0	0
12/22/2019	0	0	0 0		0
12/23/2019	0	0	0	0	0
12/24/2019	0	0	0	0	0
12/25/2019	0	0	0	0	0
12/26/2019	0	0	0	0	0
12/27/2019	0	0	0	0	0
12/28/2019	0	0	0	0	0
12/29/2019	0.56	0.59	0.58	0.55	0.70
12/30/2019	0.20	0.18	0.20	0.18	0.23
12/31/2019	0	0	0	0	0
TOTAL	2.65	2.73	3.03	2.74	3.35

5.3 Wet Weather Overflows

Combined Sewer System Model Results are summarized below.

District of Columbia Water and Sewer Authority

Combined Sewer System Model Results Period: October, Novermber, & December 2020 SCENARIO: QuarterlyReport_2019Q4, January 8, 2020

			Number of Overflows	CSO Overflow	Total Duration of Overflow	Avg Duration of Overflow	Maximum Duration of Overflow	Minimum Duration of Overflow
NPDES No.	Description	Data Source	(Occurrences)	Volume (mg)	(hrs)	(hrs)	(hrs)	(hrs)
005	Chicago St and Railroad Station SE	Modeled	0	0.00	0.00	0.00	0.00	0.00
	Good Hope Road, West of Nichols			s	eparated			
006	Ave.,SE 13 th Street and Ridge Place,SE	Metered	2	0.49	0.50	0.25	0.42	0.08
007	2nd Street, 300 feet North of N Place,	Wetered	2	0.45	0.00	0.20	0.42	0.00
009	SE	Metered	0	0.00	0.00	0.00	0.00	0.00
010	O Street SewagePumping Station, SE (pumped Overflow)	Metered	1	16.17	6.42	6.42	6.42	6.42
	South of Main Sewage Pumping							
011	Station, SE (pumped overflow) South of Main SewagePumping	Metered	0	0.00	0.00	0.00	0.00	0.00
011a	Station, SE (gravity overflow) North of Main SewagePumping	Metered	0	0.00	0.00	0.00	0.00	0.00
012	Station, SE (Tiber Creek)	Metered	1	0.94	0.67	0.67	0.67	0.67
013	4th and N Streets, SE 6th and M Streets, SE	Modeled Modeled	0	0.00	0.00	0.00	0.00	0.00
014	9th and M Streets, SE	Modeled	0	0.00 consolidate	0.00 ed to tunnel sy	0.00 /stem	0.00	0.00
016	12th and M Streets, SE				ed to tunnel s			
017	14th and M Streets, SE			consolidate	ed to tunnel sy	/stem		
018	Barney Circle andPennsylvania Ave, SE			consolidate	ed to tunnel sy	/stem		
019	Northeast Boundary	Metered	0	0.00	0.00	0.00	0.00	0.00
019A	Northeast Boundary - Tunnel OF SUBTOTAL	Metered	0	0.00	0.00	0.00	0.00	0.00
	SOBIOTAL			17.60				1
Potomac CSOs								
003A	JBAB Tunnel OF 23rd Street, North ofConstitution Ave,	Metered	0	0.00	0.00	0.00	0.00	0.00
020	NW (Easby Point)	Modeled	7	24.10	20.00	2.86	8.25	0.25
021	Northeast ofRoosevelt Bridge, NW	Modeled	7	115.34	22.75	3.25	7.75	1.75
022 024	27th and K Streets, NW 30th and K Streets, NW	Modeled Modeled	11 7	9.44	29.50	2.68 1.89	8.25	0.25
024	31st & K St NW	Modeled	3	6.57 0.10	13.25 2.25	0.75	5.50 1.25	0.50
026	Wisconsin Avenue andK St., NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
027	Water Street West of Street, NW 36th and M Streets, NW	Modeled	10	6.83	30.75	3.08	10.00	0.25
028	Canal Road 1000 feet east of Rock	Modeled	16	4.10	112.75	7.05	16.50	0.75
029	Creek,NW	Modeled	12	9.87	35.50	2.96	10.50	0.75
	SUBTOTAL			176.35				
Rock Creek								
	Pennsylvania Avenue, East Rock			s	eparated			
031 032	Creek, NW 26th and M Streets, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
002	N Street extendedwest of 25th	modolod	Ű	0.00	0.00	0.00	0.00	0.00
033	Street,NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
034 035	23rd and O Streets, SW 22nd Street south of Q Street, NW	Modeled Modeled	0	0.00	0.00	0.00	0.00	0.00
036	22nd Street South of Q Street, NW	Modeled	7	0.370	21.50	3.07	8.00	1.25
037	Northwest of Belmontand Rock Creek and Potomac Parkway		-	s	eparated		-	
029	North of Belmont Road,east of Kalorama Circle, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
038	Connecticut Avenue east of Rock	wodeled	0	0.00	0.00	0.00	0.00	0.00
039	Creek, NW	Modeled	1	0.01	0.25	0.25	0.25	0.25
040	Biltmore Street extended east of RockCreek, NW	Modeled	1	0.03	0.25	0.25	0.25	0.25
040	Ontario extended and Rock Creek	Modeled	· · ·	0.03	0.25	0.25	0.25	0.25
041	Parkway Harvard Street and RockCreek	Modeled	0	0.00	0.00	0.00	0.00	0.00
042	Parkway, NW Adams Mill Road South of Irving	Modeled	1	0.09	0.25	0.25	0.25	0.25
043	Street, NW Kenyon Street and Adams Mill Road,	Modeled	1	0.46	0.50	0.50	0.50	0.50
044	NW Adams Mill Road and Lamont Street,	Modeled	1	0.0330	0.25	0.25	0.25	0.25
045	NW Park Road south of Piney Branch	Modeled	1	0.06	0.25	0.25	0.25	0.25
046	Parkway, NW	Modeled	1	0.03	0.25	0.25	0.25	0.25
047	Ingleside Terrace extended and Piney Branch Parkway	Modeled	1	0.00	0.25	0.25	0.25	0.25
047	Mt. Pleasant Street extended and Piney Branch Parkway	Modeled	1	0.00		0.25	0.25	0.25
040		MODEIEU		0.11	0.25	0.20	0.20	0.25
049	Piney Branch and LamontStreet, NW	Modeled	7	17.82	24.75	3.54	8.75	1.75
050	28th Street west of 16th Street, NW Olive Street extended and Rock Creek	Modeled	0	0.00	0.00	0.00	0.00	0.00
051	Parkway, NW O Street extended and Rock Creek	Modeled	0	0.00	0.00	0.00	0.00	0.00
052	Parkway, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
053	O Street west of Rock Creek Parkway, NW			s	eparated			
054	West Side of Rock Creek300 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				eparated			
058	Connecticut Avenue and Rock Creek Parkway, NW			s	eparated			
060	P St and 26 th St, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
	SUBTOTAL			19.01				
	TOTAL			212.96				

District of Columbia Water and Sewer Authority

Combined Sewer System Model Results Period: October, Novermber, & December 2020 SCENARIO: QuarterlyReport_2019Q4, January 8, 2020

					Total		Maximum	Minimum
			Number of	CSO	Duration of	Avg Duration	Duration of	Duration of
			Overflows	Overflow	Overflow	of Overflow	Overflow	Overflow
NPDES No.	Description	Data Source	(Occurrences)	Volume (mg)	(hrs)	(hrs)	(hrs)	(hrs)
I:\SEWER\CSO	QUARTERLY REPORT\CSO 4th Quarter	er FY 19\[Copy of `	Y2019Q4_Report	_8Jan2020_D	RAFT.XLSX]	Q4Y2019		

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