

QUARTERLY OPERATIONS REPORT

DISTRICT OF COLUMBIA

COMBINED SEWER OVERFLOW FACILITIES

FIRST QUARTER, 2020

Prepared By:

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



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

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

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Month: January 2020
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1. INTRODUCTION

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

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

2. OPERATION AND MAINTENANCE

2.1 Regulators

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

**Table 2-1
Regulator Structures**

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
2 ¹	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	N/A				
4 ¹	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	N/A				
5 ¹	Poplar Point Pumping Station	004	N/A				
6	Chicago Street and Railroad Ave, SE	005	1/15/20	*			
7	W Street and Railroad Ave, SE	005	1/15/20	*			
8 ¹	Good Hope Rd, west of Nichols Ave, SE	006	N/A				
9	13 th Street and Ridge Place, SE (Diversion Structure)	007	1/06/20	*			
9a	13 th Street and Ridge Place, SE (Regulator Structure)	007	1/06/20	*			
9b	11 th Street Bridge and DC 295 SB (CSO-007 Diversion Chamber)	007	1/24/20		*	Structure is operating as normal Plates adjustments and additional bolts were completed on 1/27/2020.	
11	"O" Street Pumping Station	011(a)	1/21/20	*			
12	Storm Pump Discharge at Main Pumping Station	011	1/23/20	*			
13	2 nd Street, 300 ft. north of N Place, SE	009	1/21/20	*			
14	2 nd Street, 250 ft. north of N Place, SE	011(a)	1/14/20	*			
15	South Capitol and E Streets	010	1/14/20	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
15a	Half and L Streets, SE	010	1/14/20	*			
15b	South Capitol and I Streets	010	1/10/20	*			
15c	South Capitol and I Streets	010	1/10/20	*			
16	North of Main Sewage Pumping Station	012	1/14/20	*			
17	4 th and N Streets, SE, Both Extended	013	1/08/20	*			
17a	K Street between 6 th Street and 7 th Street, SE (Side Overflow Weir)	013	1/21/20	*			
17b	4 th and N Streets, SE, Both Extended (CSO-013 Diversion Chamber)	013	1/10/20	*			
18	6 th and M Streets, SE (Diversion and Overflow Structure)	014	1/08/20	*			
18a	Tingey Street SE and 5 1 / 2 Street SE (CSO-014 Diversion Chamber)	014	1/08/20	*			
19	9 th and M Streets, SE	015	1/24/20	*			
19a	9 th and M Streets, SE	015	1/24/20	*			
19b	9 th and M Streets, SE (Diversion Chamber)	015	1/24/20	*			
19c	9 th and M Streets, SE (Diversion Chamber)	015	1/24/20	*			
20	12 th and M Streets, SE	016	1/21/20	*			
20a	12 th and M Streets, SE	016	1/21/20	*			
20b	12 th and M Streets, SE (CSO-016 Diversion Chamber)	016	1/21/20	*			
21	14 th and M Streets, SE	017	1/21/20	*			
21a	14 th and M Streets, SE (CSO-017 Diversion Chamber)	017	1/21/20	*			
22a	Barney Circle and Pennsylvania Ave, SE	018	1/10/20	*			
22b	Barney Circle and Pennsylvania Ave, SE	018	1/10/20	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	1/10/20	*			
22d	Kentucky Ave and Potomac Street, SE	018	1/03/20	*			
22e	14 th Street and Kentucky Ave, SE	018	1/03/20	*			
23	Independence Ave, 21 st Street, SE, Extended	019	1/15/20	*			
24a	East Capitol St, west of RFK stadium	019	1/15/20	*			
28	21 st and Constitution Ave, NW	020	1/07/20	*			
29	22 nd Street, between Constitution Ave and C St, NW	020	1/07/20	*			
30	17 th and D Streets, NW	020	1/07/20	*			
31	15 th Street and Pennsylvania Ave, NW	020	1/07/20	*			
33	10 th and F Streets, NW	020	1/07/20	*			
34	23 rd Street, north of Constitution Ave, NW	020	1/16/20	*			
34a	23 rd Street near C Street, NW	020	1/07/20	*			
35	Northeast of Roosevelt Bridge, NW	021	1/16/20	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
35c	Kennedy Center Rock Creek and Potomac Pkwy Northeast of Roosevelt Bridge, NW	021	1/16/20	*			
36	27 th and I Streets, NW	022	1/07/20	*			
36a	New Hampshire Ave and Eye Street, NW	022	1/07/20	*			
36b	19 th and L Streets, NW	022, 034	1/06/20	*			
36d	17 th and L Streets, NW	022, 034	1/06/20	*			
36g	18 th and M Streets, NW	022, 034	1/06/20	*			
36h	18 th and M Streets, NW	022, 034	1/06/20	*			
37	27 th and Eye Streets, NW	022	1/07/20	*			
38	29 th and K Streets, NW	024	1/08/20	*			
38a	30 th Street, south of K Street, NW	024	1/08/20	*			
39a	30 th and K Streets, NW	024	1/08/20	*			
39b	30 th and K Streets, NW	024	1/08/20	*			
41b	31 st and K Streets, NW	025	1/08/20	*			
41c	31 st and K Streets, NW	025	1/08/20	*			
42	Wisconsin Ave and K Street, NW	026	1/08/20	*			
43	Potomac and Water Streets, NW	027	1/08/20	*			
43a	Potomac and Water Streets, NW	027	1/08/20	*			
44	Water Street, west of Potomac St, NW	027	1/08/20	*			
45	36 th and M Streets, NW	028	1/06/20	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	1/06/20	*			
47	38 th Street and Reservoir Road, NW	029	1/06/20	*			
47a	37 th and T Streets, NW	029	1/06/20	*			
47b	37 th and T Streets, NW	029	1/06/20	*			
47c	38 th and W Streets, NW	029	1/06/20	*			
49 ^l	Pennsylvania Ave, east side of Rock Creek, NW	031	N/A				
50	26 and M Streets, NW	032	1/17/20	*			
51	N Street Extended, west of 25 th Street, NW	033	1/17/20	*			
52	22 nd Street between M and N Streets, NW	034	1/16/20	*			
52a	N Street between 22 nd and 23 rd Streets, NW	034	1/16/20	*			
53	22 nd and M Streets, NW	022, 034	1/16/20	*			
53a	22 nd and M Streets, NW	022, 034	1/16/20	*			
53b	L Street between 21 st Street and New Hampshire Ave, NW	022, 034	1/10/20	*			
53c	L and 22 nd Streets, NW	022	1/10/20	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
54	23 rd and O Streets, NW	034	1/10/20	*			
55	22 nd Street, south of Q Street, NW	035	1/10/20	*			
55a	22 nd Street, south of Q Street, NW	035	1/10/20	*			
56	23 rd and Massachusetts Ave, NW	036	1/10/20	*			
57	23 rd Street, south of Q Street, NW	036	1/10/20	*			
58 ^l	Northwest of Belmont Road and Rock Creek and Potomac Parkway, NW	037	N/A				
59	North of Belmont Rd, east of Kalorama Cir, NW	038	1/03/20	*			
60	Connecticut Ave, east of Rock Creek, NW	039	1/03/20	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	1/03/20	*			
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	1/15/20	*			
63	Harvard Street and Rock Creek Parkway, NW	042	1/15/20	*			
64	Adams Mill Road, south of Irving Street, NW	043	1/15/20	*			
65	Kenyon Street and Adams Mill Road, NW	044	1/15/20	*			
65a	Kenyon Street and Adams Mill Road, NW	044	1/15/20	*			
66	Adams Mill Road and Lamont Street, NW	045	1/15/20	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	1/15/20	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	1/15/20	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	1/15/20	*			
70	Piney Branch Parkway, west of 16 th Street, NW	049	1/15/20	*			
70i	5 th and Quackenbos Streets, NW	049	1/06/20	*			
71	28 th Street, west of Rock Creek Parkway, NW	050	1/03/20	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	1/10/20	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	1/10/20	*			
73	O Street Extended and Rock Creek Parkway, NW	052	1/10/20	*			
74 ^l	Q Street, west of Rock Creek, NW	053	N/A				
75	West side of Rock Creek, 300 ft. south of Massachusetts Ave, NW	054	1/03/20	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	1/03/20	*			
77a	Normanstone Dr and Normanstone Lane, NW	056	1/03/20	*			
78 ^l	28th Street Extended, west of Rock Creek, NW	057	N/A				
79 ^l	Connecticut Ave and Rock Creek Parkway, NW	058	N/A				
84	26 th and P Streets, NW	060	1/10/20	*			
84a	26 th and P Streets, NW	060	1/10/20	*			
86	Diversion Chamber and Vortex Drop at First and Channing St, NW (First St Tunnel)	019	1/15/20	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
88	Flagler and Adams St. NW (First St Tunnel)	019	1/15/20	*			
89	First and V St, NW (First St Tunnel)	019	1/15/20	*			
90	First and V St, NW (First St Tunnel)	019	1/15/20	*			
91	First and V St, NW (First St Tunnel)	019	1/15/20	*			
92	CSO 019 Diversion Near Eastside PS (Anacostia River Tunnel)	019	1/21/20	*			
93	CSO 018 Diversion Near Barney Circle (Anacostia River Tunnel)	018	1/21/20	*			
95	M Street Approach Channel M and Water St SE (Anacostia River Tunnel)	015, 016, 017	1/21/20	*			
96	CSO 007 Shaft at 11 th St Bridge and DC I-295 SB Diversion Facilities (Anacostia River Tunnel)	007	1/24/20	*			
97	CSO 005 Diversion at Chicago St Trunk Sewer, I295 SB (Anacostia River Tunnel)	005	1/24/20	*			
98	Main Pumping Station Diversions (Anacostia River Tunnel)	009 - 012	1/21/20	*			
99	CSO 009 and 011a Diversion Facilities (Anacostia River Tunnel)	009, 011a	1/14/20	*			
100	CSO 012 Diversion Facilities (Anacostia River Tunnel)	012	1/14/20		*	Replacement stop log is on-going at this location. DSS is working with contractor. No additional flow to the river due to missing stop log.	
101	Main Outfall Sewer Diversion Chamber (Anacostia River Tunnel)	N/A	1/23/20	*			
102	Anacostia Main Interceptor Diversion Chamber	N/A	1/23/20	*			
103	Poplar Point PS Emergency Overflow Chamber (Anacostia River Tunnel)	N/A	1/23/20	*			
104	Poplar Point PS Discharge Chamber	N/A	1/23/20	*			
105	Potomac Outfall Sewer Diversion Chamber (Anacostia River Tunnel)	003A	1/27/20	*			

Notes:

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

2.2 Outfalls, Tide Gates and CSO Signs

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

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

NPDES Outfall	Location	Date Inspected	Outfall Condition		Tide Gate Present?		Tide Gate Condition		CSO Sign		Notes, Work Needed or Performed
			OK	Needs Work	Yes	No	OK	Needs Work	OK	Needs Work	
003 ¹	Bolling Air Force Base, at Giavanolli and Chanute, SW	N/A									
003a	Joint Base Anacostia Bolling Macdill and Arnold Ave SW	1/27/20	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	1/02/20	*		*		*		*		
006 ¹	Good Hope Road and Welsh Memorial Bridge	N/A									
007	Between 11 th St. and Anacostia Bridges, SE	1/02/20	*		*		*		*		
009	O St. Sewage Pumping Station, SE	1/23/20	*		*		*		*		
010	O St. Sewage Pumping Station, SE	1/23/20	*			*			*		
011	Main Sewage Pumping Station, SE	1/23/20	*			*			*		
011a	Main Sewage Pumping Station, SE	1/23/20	*		*		*		*		
012	Main Sewage Pumping Station, SE	1/23/20	*		*		*		*		
013	Southeast Federal Center, aligned with 4 th St.	1/23/20	*		*		*		*		
014	Navy Yard, aligned with 6 th St., SE	1/23/20	*		*		*		*		
015	Navy Yard, aligned with 9th Street, SE	1/23/20	*			*			*		
016	12th and O Streets, SE	1/23/20	*		*		*		*		
017	M and Water Street, SE	1/23/20	*		*		*		*		
018	East of Barney Circle & South of Pennsylvania Avenue Bridge, SE	1/23/20	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility & D.C. General Hospital	1/21/20	*		*		*		*		
019a	Adjacent to Service Drive behind swirl facility & D.C. General Hospital (Tunnel Overflow Structure)	1/21/20	*		*		*		*		
020	Rock Creek Parkway and Independence, NW	1/02/20	*		*		*		*		
021	Rock Creek Parkway and C St., NW	1/02/20	*		*		*		*		
022	Rock Creek Parkway and G St., NW	1/02/20	*		*		*		*		
024	South of 30 th and K Streets, NW ¹	1/02/20	*		*		*		*		
025	South of 31st and K Streets, NW	1/02/20	*		*		*		*		
026	Wisconsin Avenue and Water Street, NW	1/02/20	*		*		*		*		
027	33 rd and Water Sts., NW	1/02/20	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	1/02/20	*			*			*		
029	Adjacent to C&O Canal, aligned with 38 th St. NW	1/02/20	*			*			*		
031 ¹	Rock Creek Pkwy & Pennsylvania Avenue, NW	N/A									
032	26th and M Street, NW	1/17/20	*			*			*		
033	Across street from St. Francis Jr. High and aligned with N St., NW.	1/17/20	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	1/10/20	*			*			*		

NPDES Outfall	Location	Date Inspected	Outfall Condition		Tide Gate Present?		Tide Gate Condition		CSO Sign		Notes, Work Needed or Performed
			OK	Needs Work	Yes	No	OK	Needs Work	OK	Needs Work	
035	P St. Bridge and Rock Creek Parkway	1/10/20	*			*			*		
036	22nd Street, South of Q Street NW.	1/23/20	*		*		*		*		
037 ¹	Waterside Dr. and Rock Creek Parkway	N/A									
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	1/03/20	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	1/03/20	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	1/03/20	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	1/02/20	*		*		*		*		
042	Harvard St. and Beach Dr NW.	1/02/20	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	1/02/20	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	1/02/20	*		*		*		*		
045	North of Beach Dr. and Walbridge Pl, NW.	1/02/20	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	1/15/20	*			*			*		
047	Piney Branch Parkway and Ingleside Terrace	1/15/20	*		*		*		*		
048	South of Piney Branch Parkway and 17 th St.	1/15/20	*		*		*		*		
049	North of Piney Branch Parkway and 17 th St.	1/15/20	*		*		*		*		
050	Rock Creek Parkway and L St., NW	1/03/20	*		*		*		*		
051	Across Rock Creek Pkwy, aligned with Olive St., NW.	1/23/20	*		*		*		*		
052	Between P & Penna. Ave Bridges, aligned with O Street, NW.	1/23/20	*		*		*		*		
053 ¹	Q St. Bridge and Rock Creek Parkway, NW.	N/A									
054	Massachusetts Ave & Rock Creek Parkway, NW.	1/03/20	*		*		*		*		
056	Normanstone Dr. and Rock Creek Parkway, NW.	1/03/20	*		*		*		*		
057 ¹	28th Street and Rock Creek Parkway, NW	N/A									
058 ¹	Connecticut Ave & Rock Creek Parkway, NW.	N/A									
060	North of P St. Bridge & Rock Creek Pkwy, NW	1/23/20	*		*		*		*		

Notes:

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

2.3.1 Pumping Stations

Pumping station operations are summarized in the table below.

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

<i>Pumping Station</i>	<i>No. of Inspections</i>	<i>No. Screens</i>	<i>No. Pumps</i>	<i>Screens or Pumps Out of Service</i>	<i>Dates</i>	<i>Reason</i>	<i>Work Order Number</i>	<i>Schedule to Restore to Service</i>
Main	31	3	4	Screen #1	01/01/20 – 01/08/20	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 complete. Screen returned to service on 01/08/2020.
				Screen #2	01/08/20 – 01/31/20	Screen #2 was removed in January 2020 and replaced with a new screen as part of a facilities upgrade CIP.	20-268779	Installation and User Acceptance Testing of the new screen is currently ongoing and is expected to return to service by 02/29/2020.
Eastside	1	2	4	None	-	-	-	-
Poplar Point	1	2	4	Pump #1	01/01/20 – 01/16/20	The discharge valve for Pump #1 was stuck in transition due to a SCADA miscommunication, which prevented Pump #1 from running.	20-185817	Discharge valve was repaired. Pump returned to service on 01/16/20.
Potomac	31	4	5	Screen #2	01/07/20 – 01/16/20	Broken rake, screen not running.	20-207247	Rake repaired. Returned to service on 01/16/20.

Notes:

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

<i>Pumping Station</i>	<i>Date Performed</i>	<i>Type of Preventive Maintenance Performed^{1,2}</i>	<i>Work Order Number</i>	<i>Comments</i>
Main	1/17/20	Group A	20-157143	Add oil, grease bearings and replace packing if needed.
O St	1/6/20	Group A	20-177721	Add oil, grease bearings and replace packing if needed.
Eastside	1/4/20	Group A	20-165199	Add oil, grease bearings and replace packing if needed.
Poplar Point	1/4/20	Group A	20-154465	Add oil, grease bearings and replace packing if needed.
Potomac	1/23/20	Group A	20-165495	Add oil, grease bearings and replace packing if needed.
Rock Creek	1/4/20	Group A	20-157157	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	1/4/20	Group A	20-157171	Add oil, grease bearings and replace packing if needed.
Earl Place	1/4/20	Group A	20-129295	Add oil, grease bearings and replace packing if needed.
1 st Street Tunnel Dewatering	1/31/20	Group B	20-267838	

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

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

<i>Pumping Station</i>	<i>Sanitary Pumpage</i>		<i>Screenings Collected (tons)¹</i>	<i>Pumpage of CSO from First Street Tunnel back to Sewer System</i>	
	<i>Total Wastewater (mg)</i>	<i>Daily Average Wastewater (mg)</i>		<i>Date</i>	<i>Volume (mg)</i>
Main ^{1,2}	1376.83	44.41	N/A	N/A	N/A
O St ^{1,2}	121.04	3.90	N/A	N/A	N/A
Eastside	121.68	3.93	N/A	N/A	N/A
Poplar Point	328.34	10.59	N/A	N/A	N/A
Potomac	4149.38	133.85	N/A	N/A	N/A
Rock Creek	173.14	5.59	N/A	N/A	N/A
Upper Anacostia	41.62	1.34	N/A	N/A	N/A
Earl Place	0.238	0.008	N/A	N/A	N/A
1 st Street Tunnel Dewatering ³	N/A	N/A	N/A	00/00/00	0.31

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 four occurrences in the month of January: 52 minutes on 1/12/2020, 57 minutes on 1/23/2020, 25 minutes on 1/25/2020, and 5 minutes on 1/31/2020. After further investigation, the flow meter for the pumping station was found to be defective and did not record discharges. DC Water is in the process of replacing the defective flow meter. In the interim, the flow will be estimated based on pump run times and pump capacity.
**The estimated volume is 0.31 MG for the month of January 2020.

2.4 Inflatable Dams and SCADA System

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

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

<i>Inflatable Dam Structure No</i>	<i>Date Inspected</i>	<i>Was Dam Out of Service During the Month?</i>	<i>Dates out of Service</i>	<i>Reason</i>	<i>Schedule to Restore to Service</i>
14 - East	1/14/20	No	N/A	N/A	N/A
14 - West	1/14/20	No	N/A	N/A	N/A
15	1/14/20	No	N/A	N/A	N/A
15A	1/14/20	No	N/A	N/A	N/A
16 - East	1/14/20	No	N/A	N/A	N/A
16 - West	1/14/20	No	N/A	N/A	N/A
34	1/16/20	No	N/A	N/A	N/A
35	1/16/20	No	N/A	N/A	N/A
52	1/16/20	No	N/A	N/A	N/A

Notes:

Table 2-7

Inflatable Dams & SCADA Sites - Wet Weather Operations

<i>Inflatable Dam Structure No.</i>	<i>Overflow Dates</i>	<i>Estimated Duration of Overflow</i>
14 (E & W) ¹	1/6/20	0 hrs. 21 mins
15	None	N/A
15A ²	1/11/20 1/16/20	1 hr. 21 mins 0 hrs. 7 mins
16 (E & W) ³	1/6/20	1 hr. 36 mins
34	None	N/A
35	None	N/A
52 ⁴	1/21/20	0 hrs. 8 mins
<i>Structures on Outfall Sewers</i>	<i>Overflow Dates</i>	<i>Estimated Duration of Overflow</i>
Outfall Structure 1	None	This structure has been bulk headed. Overflows are no longer possible.
Outfall Structure 1A	None	This structure has been bulk headed. Overflows are no longer possible.
Outfall Structure 2	None	N/A
<i>Outfall Sewer Control Gates</i>	<i>Operational Status</i>	<i>Position</i>
Outfall Sewer Control Gate No.1	Operational	Open
Outfall Sewer Control Gate No.2	Operational	This structure has been bulk headed. Overflows are no longer possible
Outfall Sewer Control Gate No.2	Operational	This structure has been bulk headed. Overflows are no longer possible

Notes:

1. Structure 14(E &W) had scheduled preventive maintenance performed on the pressure sensors which resulted in a pressure drop. This was not an overflow to the river as the downstream levels were higher than the upstream levels.
2. Structure 15A manually deflated due to testing of the new PLC program. High upstream levels were simulated to cause the deflation. This was not an overflow to the river as the sewer level was below the crest of the weir for the dam and all flow from Structure 15A is diverted to the O Street Pumping Station and pumped to Blue Plains.
3. Structure 16 (E & W) had scheduled preventive maintenance performed on the pressure sensors which resulted in a pressure drop. This was not an overflow to the river as the downstream levels were higher than the upstream levels.
4. Structure 52 deflated due to testing of the new PLC program. High upstream levels were simulated to cause the deflation.

3. DRY WEATHER OVERFLOWS

There was no dry weather combined sewer overflow during January 2020.

4. SOLIDS AND FLOATABLES CONTROL

4.1 Catch Basin Cleaning

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

**Table 4-1
Catch Basin Cleaning**

Ward	Total CBs	CBs in CSS	Inspections			Cleaning					
			CBs in Anacostia CSS	Total Anacostia CBs Inspected Once this Year	Total Anacostia CBs Inspected Twice this Year	CBs Cleaned Thru Last Month		CB's Cleaned This Month		Total CBs Cleaned This Year to Date	
						Total	In CSS	Total	In CSS	Total	In CSS
1	1449	1426	652	601	0	1443	1420	605	605	605	605
2	2792	2642	476	2	0	2752	2566	10	6	10	6
3	3687	187	0	0	0	3655	182	8	0	8	0
4	3495	1723	0	0	0	3446	1694	10	7	10	7
5	4007	1769	1692	2	0	4100	1938	8	4	8	4
6	3316	2666	2647	6	0	3457	2826	8	6	8	6
7	3785	43	41	0	0	3808	48	1119	0	1119	0
8	2832	212	209	0	0	2845	217	7	0	7	0
Grand Total	25363¹	10668¹	5717¹	611²	0	25506	10884	1775²	628²	1775²	628²
% Cleaned/Inspected to Date				11%	0%					7%	6%

1. The number of catch basins in our service area changes with the ongoing connections and abandonments to the sewer infrastructure.
2. These are estimated counts from sewer maps until the existing Sewer Mobile APP for field data is updated and reprogrammed for use.

4.2 BMP Demonstration for Solid and Floatable Control

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

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

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

<i>Facility</i>	<i>Date Inspected</i>	<i>Condition</i>	<i>Work Needed</i>	<i>Work performed</i>	<i>Material Removed (LB)</i>
Netting System CSO 018	1/9/2020	Good	None	None	None
Bar Rack CSO 040	1/3/2020	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	1/2/2020	Good	None	Routine Cleaning	(1)

Notes:

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

4.3 Anacostia River Floating Debris Removal Program

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

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

<i>Program Operation</i>	5-day work week, excluding holidays, weather permitting
<i>Work Days this month:</i>	21
<i>Days not Operating</i>	6
<i>Reason not Operating</i>	Maintenance, wind, low water levels, lightning.
<i># Skimmer in Fleet</i>	3 Skimmers
<i># Skimmers Out of Service</i>	2 Skimmers
<i>Dates</i>	B32: 1/1 - 1/31. B34: 1/10.
<i>Reason</i>	B32: #1 screen not working. B34: No start.
<i>Plan to Restore to Service</i>	B32: waiting for parts ETR unknown. B34: Returned to operations on 1/13.
<i>Amount Material Collected</i>	10 tons this month. Calendar year to date 10 tons.
<i>Nature of Material</i>	Bottles, cans, natural debris and plastics.

4.4 CSS Litter Control

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

No Activity this month.

5. MONITORING

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

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

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

Inspector: Keith Watts

Pumping Station	Inspector	Date Inspected	Condition		Work Order Number	Work Needed	Work Performed or Schedule for Completion
			Good	Needs Work			
Bar Racks at O Street Storm Pumps (CSO 010)	KW	1/28/20	X		20-232761		
Bar Racks at Main Storm Pumps (CSO 011)	KW	1/28/20	X		20-232754		

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
1/1/2020	0	0	0	0	0
1/2/2020	0	0	0	0	0
1/3/2020	0.25	0.23	0.21	0.25	0.25
1/4/2020	0.31	0.22	0.22	0.27	0.31
1/5/2020	0.01	0	0	0	0
1/6/2020	0	0	0	0	0
1/7/2020	0.35	0.28	0.28	0.32	0.32
1/8/2020	0	0	0	0	0
1/9/2020	0	0	0	0	0
1/10/2020	0	0	0	0	0
1/11/2020	0	0	0	0	0
1/12/2020	0.43	0.30	0.25	0.38	0.38
1/13/2020	0	0	0	0	0
1/14/2020	0.02	0.02	0.01	0.02	0.04
1/15/2020	0	0	0	0	0
1/16/2020	0	0	0.01	0	0
1/17/2020	0	0	0	0	0
1/18/2020	0.24	0.21	0.13	0.18	0.25
1/19/2020	0	0	0	0.01	0
1/20/2020	0	0	0	0	0
1/21/2020	0	0	0	0	0
1/22/2020	0	0	0	0	0
1/23/2020	0	0	0	0	0
1/24/2020	0	0	0	0	0
1/25/2020	1.18	1.17	1.13	1.33	1.23
1/26/2020	0	0	0	0	0
1/27/2020	0	0	0	0	0
1/28/2020	0	0	0	0	0
1/29/2020	0	0	0	0	0
1/30/2020	0	0	0	0	0
1/31/2020	0	0	0	0	0.01
TOTAL	2.79	2.43	2.24	2.76	2.79

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: January, February, and March 2020
 SCENARIO: QuarterlyReport_2020Q1, April 6, 2020

NPDES No.	Description	Data Source	Number of Overflows (Occurrences)	CSO Overflow Volume (mg)	Total Duration of Overflow (hrs)	Avg Duration of Overflow (hrs)	Maximum Duration of Overflow (hrs)	Minimum Duration of Overflow (hrs)
Anacostia CSOs								
005	Chicago St and Railroad Station SE	Modeled	0	0.00	0.00	0.00	0.00	0.00
006	Good Hope Road, West of Nichols Ave., SE	separated						
007	13 th Street and Ridge Place, SE	Metered	0	0.00	0.00	0.00	0.00	0.00
009	2nd Street, 300 feet North of N Place, SE	Metered	0	0.00	0.00	0.00	0.00	0.00
010	O Street Sewage Pumping Station, SE (pumped Overflow)	Metered	0	0.00	0.00	0.00	0.00	0.00
011	South of Main Sewage Pumping Station, SE (pumped overflow)	Metered	0	0.00	0.00	0.00	0.00	0.00
011a	South of Main Sewage Pumping Station, SE (gravity overflow)	Metered	0	0.00	0.00	0.00	0.00	0.00
012	North of Main Sewage Pumping Station, SE (Tiber Creek)	Metered	1	0.64	1.25	1.25	1.25	1.25
013	4th and N Streets, SE	Modeled	0	0.00	0.00	0.00	0.00	0.00
014	6th and M Streets, SE	Modeled	0	0.00	0.00	0.00	0.00	0.00
015	9th and M Streets, SE	consolidated to tunnel system						
016	12th and M Streets, SE	consolidated to tunnel system						
017	14th and M Streets, SE	consolidated to tunnel system						
018	Bamey Circle and Pennsylvania Ave, SE	consolidated to tunnel system						
019	Northeast Boundary	Metered	0	0.00	0.00	0.00	0.00	0.00
019A	Northeast Boundary - Tunnel OF	Metered	0	0.00	0.00	0.00	0.00	0.00
	SUBTOTAL			0.64				
Potomac CSOs								
003A	JBAB Tunnel OF	Metered	0	0.00	0.00	0.00	0.00	0.00
020	23rd Street, North of Constitution Ave, NW (Easby Point)	Modeled	3	7.66	8.25	2.75	4.25	1.75
021	Northeast of Roosevelt Bridge, NW	Modeled	5	49.81	9.00	1.80	4.00	0.50
022	27th and K Streets, NW	Modeled	11	0.72	12.75	1.16	5.00	0.25
024	30th and K Streets, NW	Modeled	3	1.94	6.00	2.00	3.75	0.25
025	31st & K St NW	Modeled	2	0.04	1.00	0.50	0.50	0.50
026	Wisconsin Avenue and K St., NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
027	Water Street West of Street, NW	Modeled	8	2.52	14.75	1.84	5.00	0.25
028	36th and M Streets, NW	Modeled	17	2.76	99.75	5.87	21.75	0.25
029	Canal Road 1000 feet east of Rock Creek, NW	Modeled	15	3.71	18.75	1.25	4.50	0.25
	SUBTOTAL			69.16				
Rock Creek								
031	Pennsylvania Avenue, East Rock Creek, NW	separated						
032	26th and M Streets, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
033	N Street extended west of 25th Street, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
034	23rd and O Streets, SW	Modeled	0	0.00	0.00	0.00	0.00	0.00
035	22nd Street south of Q Street, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
036	22nd Street South of Q Street, NW	Modeled	5	0.114	8.00	1.60	3.75	0.25
037	Northwest of Belmont and Rock Creek and Potomac Parkway	separated						
038	North of Belmont Road, east of Kalorama Circle, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
039	Connecticut Avenue east of Rock Creek, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
040	Biltmore Street extended east of Rock Creek, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
041	Ontario extended and Rock Creek Parkway	Modeled	0	0.00	0.00	0.00	0.00	0.00
042	Harvard Street and Rock Creek Parkway, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
043	Adams Mill Road South of Irving Street, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
044	Kenyon Street and Adams Mill Road, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
045	Adams Mill Road and Lamont Street, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
046	Park Road south of Piney Branch Parkway, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
047	Ingleside Terrace extended and Piney Branch Parkway	Modeled	0	0.00	0.00	0.00	0.00	0.00
048	Mt. Pleasant Street extended and Piney Branch Parkway	Modeled	0	0.00	0.00	0.00	0.00	0.00
049	Piney Branch and Lamont Street, NW	Modeled	2	1.03	1.00	0.50	0.75	0.25
050	28th Street west of 16th Street, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
051	Olive Street extended and Rock Creek Parkway, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
052	O Street extended and Rock Creek Parkway, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
053	O Street west of Rock Creek Parkway, NW	separated						
054	West Side of Rock Creek 300 ft. south of Mass. Ave, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
056	Normanstone Drive extended west of Rock Creek, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
057	28th Street extended west of Rock Creek, NW	separated						
058	Connecticut Avenue and Rock Creek Parkway, NW	separated						
060	P St and 26 th St, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
	SUBTOTAL			1.15				
	TOTAL			70.95				

District of Columbia Water and Sewer Authority

Combined Sewer System Model Results
Period: January, February, and March 2020

SCENARIO: QuarterlyReport_2020Q1, April 6, 2020

NPDES No.	Description	Data Source	Number of Overflows (Occurrences)	CSO Overflow Volume (mg)	Total Duration of Overflow (hrs)	Avg Duration of Overflow (hrs)	Maximum Duration of Overflow (hrs)	Minimum Duration of Overflow (hrs)
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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: February 2020

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: February 2020
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1. INTRODUCTION

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

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

2. OPERATION AND MAINTENANCE

2.1 Regulators

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

**Table 2-1
Regulator Structures**

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
2 ¹	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	N/A				
4 ¹	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	N/A				
5 ¹	Poplar Point Pumping Station	004	N/A				
6	Chicago Street and Railroad Ave, SE	005	2/10/20	*			
7	W Street and Railroad Ave, SE	005	2/10/20	*			
8 ¹	Good Hope Rd, west of Nichols Ave, SE	006	N/A				
9	13 th Street and Ridge Place, SE (Diversion Structure)	007	2/10/20	*			
9a	13 th Street and Ridge Place, SE (Regulator Structure)	007	2/10/20	*			
9b	11 th Street Bridge and DC 295 SB (CSO-007 Diversion Chamber)	007	2/24/20	*			
11	"O" Street Pumping Station	011(a)	2/26/20	*			
12	Storm Pump Discharge at Main Pumping Station	011	2/20/20	*			
13	2 nd Street, 300 ft. north of N Place, SE	009	2/26/20	*			
14	2 nd Street, 250 ft. north of N Place, SE	011(a)	2/18/20	*			
15	South Capitol and E Streets	010	2/18/20	*			
15a	Half and L Streets, SE	010	2/18/20	*			
15b	South Capitol and I Streets	010	2/24/20	*			
15c	South Capitol and I Streets	010	2/24/20	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
16	North of Main Sewage Pumping Station	012	2/18/20	*			
17	4 th and N Streets, SE, Both Extended	013	2/12/20	*			
17a	K Street between 6 th Street and 7 th Street, SE (Side Overflow Weir)	013	2/26/20	*			
17b	4 th and N Streets, SE, Both Extended (CSO-013 Diversion Chamber)	013	2/12/20	*			
18	6 th and M Streets, SE (Diversion and Overflow Structure)	014	2/24/20	*			
18a	Tingey Street SE and 5 1 / 2 Street SE (CSO-014 Diversion Chamber)	014	2/12/20	*			
19	9 th and M Streets, SE	015	2/11/20	*			
19a	9 th and M Streets, SE	015	2/11/20	*			
19b	9 th and M Streets, SE (Diversion Chamber)	015	2/11/20	*			
19c	9 th and M Streets, SE (Diversion Chamber)	015	2/11/20	*			
20	12 th and M Streets, SE	016	2/11/20	*			
20a	12 th and M Streets, SE	016	2/11/20	*			
20b	12 th and M Streets, SE (CSO-016 Diversion Chamber)	016	2/11/20	*			
21	14 th and M Streets, SE	017	2/11/20	*			
21a	14 th and M Streets, SE (CSO-017 Diversion Chamber)	017	2/11/20	*			
22a	Barney Circle and Pennsylvania Ave, SE	018	2/11/20	*			
22b	Barney Circle and Pennsylvania Ave, SE	018	2/11/20	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	2/11/20	*			
22d	Kentucky Ave and Potomac Street, SE	018	2/7/20	*			
22e	14 th Street and Kentucky Ave, SE	018	2/7/20	*			
23	Independence Ave, 21 st Street, SE, Extended	019	2/4/20	*			
24a	East Capitol St, west of RFK stadium	019	2/4/20	*			
28	21 st and Constitution Ave, NW	020	2/4/20	*			
29	22 nd Street, between Constitution Ave and C St, NW	020	2/4/20	*			
30	17 th and D Streets, NW	020	2/4/20	*			
31	15 th Street and Pennsylvania Ave, NW	020	2/4/20	*			
33	10 th and F Streets, NW	020	2/4/20	*			
34	23 rd Street, north of Constitution Ave, NW	020	2/20/20	*			
34a	23 rd Street near C Street, NW	020	2/4/20	*			
35	Northeast of Roosevelt Bridge, NW	021	2/4/20	*			
35c	Kennedy Center Rock Creek and Potomac Pkwy Northeast of Roosevelt Bridge, NW	021	2/20/20	*			
36	27 th and I Streets, NW	022	2/4/20	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
36a	New Hampshire Ave and Eye Street, NW	022	2/4/20	*			
36b	19 th and L Streets, NW	022, 034	2/10/20	*			
36d	17 th and L Streets, NW	022, 034	2/10/20	*			
36g	18 th and M Streets, NW	022, 034	2/10/20	*			
36h	18 th and M Streets, NW	022, 034	2/10/20	*			
37	27 th and Eye Streets, NW	022	2/4/20	*			
38	29 th and K Streets, NW	024	2/5/20	*			
38a	30 th Street, south of K Street, NW	024	2/5/20	*			
39a	30 th and K Streets, NW	024	2/5/20	*			
39b	30 th and K Streets, NW	024	2/5/20	*			
41b	31 st and K Streets, NW	025	2/5/20	*			
41c	31 st and K Streets, NW	025	2/5/20	*			
42	Wisconsin Ave and K Street, NW	026	2/5/20	*			
43	Potomac and Water Streets, NW	027	2/5/20	*			
43a	Potomac and Water Streets, NW	027	2/5/20	*			
44	Water Street, west of Potomac St, NW	027	2/5/20	*			
45	36 th and M Streets, NW	028	2/3/20	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	2/3/20	*			
47	38 th Street and Reservoir Road, NW	029	2/3/20	*			
47a	37 th and T Streets, NW	029	2/3/20	*			
47b	37 th and T Streets, NW	029	2/3/20	*			
47c	38 th and W Streets, NW	029	2/3/20	*			
49 ^l	Pennsylvania Ave, east side of Rock Creek, NW	031	N/A				
50	26 and M Streets, NW	032	2/14/20	*			
51	N Street Extended, west of 25 th Street, NW	033	2/14/20	*			
52	22 nd Street between M and N Streets, NW	034	2/20/20	*			
52a	N Street between 22 nd and 23 rd Streets, NW	034	2/13/20	*			
53	22 nd and M Streets, NW	022, 034	2/13/20	*			
53a	22 nd and M Streets, NW	022, 034	2/13/20	*			
53b	L Street between 21 st Street and New Hampshire Ave, NW	022, 034	2/10/20	*			
53c	L and 22 nd Streets, NW	022	2/10/20	*			
54	23 rd and O Streets, NW	034	2/7/20	*			
55	22 nd Street, south of Q Street, NW	035	2/7/20	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
55a	22 nd Street, south of Q Street, NW	035	2/7/20	*			
56	23 rd and Massachusetts Ave, NW	036	2/7/20	*			
57	23 rd Street, south of Q Street, NW	036	2/7/20	*			
58 ^l	Northwest of Belmont Road and Rock Creek and Potomac Parkway, NW	037	N/A				
59	North of Belmont Rd, east of Kalorama Cir, NW	038	2/3/20	*			
60	Connecticut Ave, east of Rock Creek, NW	039	2/3/20	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	2/3/20	*			
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	2/12/20	*			
63	Harvard Street and Rock Creek Parkway, NW	042	2/12/20	*			
64	Adams Mill Road, south of Irving Street, NW	043	2/12/20	*			
65	Kenyon Street and Adams Mill Road, NW	044	2/12/20	*			
65a	Kenyon Street and Adams Mill Road, NW	044	2/12/20	*			
66	Adams Mill Road and Lamont Street, NW	045	2/12/20	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	2/12/20	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	2/12/20	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	2/12/20	*			
70	Piney Branch Parkway, west of 16 th Street, NW	049	2/12/20	*			
70i	5 th and Quackenbos Streets, NW	049	2/10/20	*			
71	28 th Street, west of Rock Creek Parkway, NW	050	2/10/20	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	2/7/20	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	2/7/20	*			
73	O Street Extended and Rock Creek Parkway, NW	052	2/7/20	*			
74 ^l	Q Street, west of Rock Creek, NW	053	N/A				
75	West side of Rock Creek, 300 ft. south of Massachusetts Ave, NW	054	2/14/20	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	2/14/20	*			
77a	Normanstone Dr and Normanstone Lane, NW	056	2/14/20	*			
78 ^l	28th Street Extended, west of Rock Creek, NW	057	N/A				
79 ^l	Connecticut Ave and Rock Creek Parkway, NW	058	N/A				
84	26 th and P Streets, NW	060	2/7/20	*			
84a	26 th and P Streets, NW	060	2/7/20	*			
86	Diversion Chamber and Vortex Drop at First and Channing St, NW (First St Tunnel)	019	2/25/20	*			
88	Flagler and Adams St. NW (First St Tunnel)	019	2/25/20	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
89	First and V St, NW (First St Tunnel)	019	2/25/20	*			
90	First and V St, NW (First St Tunnel)	019	2/25/20	*			
91	First and V St, NW (First St Tunnel)	019	2/25/20	*			
92	CSO 019 Diversion Near Eastside PS (Anacostia River Tunnel)	019	2/24/20	*			
93	CSO 018 Diversion Near Barney Circle (Anacostia River Tunnel)	018	2/24/20	*			
95	M Street Approach Channel M and Water St SE (Anacostia River Tunnel)	015, 016, 017	2/11/20	*			
96	CSO 007 Shaft at 11 th St Bridge and DC I-295 SB Diversion Facilities (Anacostia River Tunnel)	007	2/24/20		*	Routine check at this location. Some debris inside the channel, needs cleaning.	
97	CSO 005 Diversion at Chicago St Trunk Sewer, I295 SB (Anacostia River Tunnel)	005	2/24/20	*			
98	Main Pumping Station Diversions (Anacostia River Tunnel)	009 - 012	2/26/20	*			
99	CSO 009 and 011a Diversion Facilities (Anacostia River Tunnel)	009, 011a	2/18/20	*			
100	CSO 012 Diversion Facilities (Anacostia River Tunnel)	012	2/18/20		*	Replacement stop log is on-going at this location. DSS is working with contractor. No additional flow to the river due to missing stop log.	
101	Main Outfall Sewer Diversion Chamber (Anacostia River Tunnel)	N/A	2/24/20	*			
102	Anacostia Main Interceptor Diversion Chamber	N/A	2/24/20	*			
103	Poplar Point PS Emergency Overflow Chamber (Anacostia River Tunnel)	N/A	2/24/20	*			
104	Poplar Point PS Discharge Chamber	N/A	2/24/20	*			
105	Potomac Outfall Sewer Diversion Chamber (Anacostia River Tunnel)	003A	2/25/20	*			

Notes:

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

2.2 Outfalls, Tide Gates and CSO Signs

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

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

NPDES Outfall	Location	Date Inspected	Outfall Condition		Tide Gate Present?		Tide Gate Condition		CSO Sign		Notes, Work Needed or Performed
			OK	Needs Work	Yes	No	OK	Needs Work	OK	Needs Work	
003 ¹	Bolling Air Force Base, at Giavanolli and Chanute, SW	N/A									
003a	Joint Base Anacostia Bolling Macdill and Arnold Ave SW	2/25/20	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	2/26/20	*		*		*		*		
006 ¹	Good Hope Road and Welsh Memorial Bridge	N/A									
007	Between 11 th St. and Anacostia Bridges, SE	2/26/20	*		*		*		*		
009	O St. Sewage Pumping Station, SE	2/20/20	*		*		*		*		
010	O St. Sewage Pumping Station, SE	2/20/20	*			*			*		
011	Main Sewage Pumping Station, SE	2/20/20	*			*			*		
011a	Main Sewage Pumping Station, SE	2/20/20	*		*		*		*		
012	Main Sewage Pumping Station, SE	2/20/20	*		*		*		*		
013	Southeast Federal Center, aligned with 4 th St.	2/20/20	*		*		*		*		
014	Navy Yard, aligned with 6 th St., SE	2/20/20	*		*		*		*		
015	Navy Yard, aligned with 9th Street, SE	2/20/20	*			*			*		
016	12th and O Streets, SE	2/13/20	*		*		*		*		
017	M and Water Street, SE	2/13/20	*		*		*		*		
018	East of Barney Circle & South of Pennsylvania Avenue Bridge, SE	2/13/20	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility & D.C. General Hospital	2/24/20	*		*		*		*		
019a	Adjacent to Service Drive behind swirl facility & D.C. General Hospital (Tunnel Overflow Structure)	2/24/20	*		*		*		*		
020	Rock Creek Parkway and Independence, NW	2/6/20	*		*		*		*		
021	Rock Creek Parkway and C St., NW	2/6/20	*		*		*		*		
022	Rock Creek Parkway and G St., NW	2/6/20	*		*		*		*		
024	South of 30 th and K Streets, NW ¹	2/6/20	*		*		*		*		
025	South of 31st and K Streets, NW	2/6/20	*		*		*		*		
026	Wisconsin Avenue and Water Street, NW	2/6/20	*		*		*		*		
027	33 rd and Water Sts., NW	2/6/20	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	2/6/20	*			*			*		
029	Adjacent to C&O Canal, aligned with 38 th St. NW	2/6/20	*			*			*		
031 ¹	Rock Creek Pkwy & Pennsylvania Avenue, NW	N/A									
032	26th and M Street, NW	2/14/20	*			*			*		
033	Across street from St. Francis Jr. High and aligned with N St., NW.	2/14/20	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	2/7/20	*			*			*		

NPDES Outfall	Location	Date Inspected	Outfall Condition		Tide Gate Present?		Tide Gate Condition		CSO Sign		Notes, Work Needed or Performed
			OK	Needs Work	Yes	No	OK	Needs Work	OK	Needs Work	
035	P St. Bridge and Rock Creek Parkway	2/3/20	*			*			*		
036	22nd Street, South of Q Street NW.	2/25/20	*		*		*		*		
037 ¹	Waterside Dr. and Rock Creek Parkway	N/A									
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	2/3/20	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	2/3/20	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	2/3/20	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	2/25/20	*		*		*		*		
042	Harvard St. and Beach Dr NW.	2/25/20	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	2/25/20	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	2/25/20	*		*		*		*		
045	North of Beach Dr. and Walbridge Pl, NW.	2/25/20	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	2/12/20	*			*			*		
047	Piney Branch Parkway and Ingleside Terrace	2/12/20	*		*		*		*		
048	South of Piney Branch Parkway and 17 th St.	2/12/20	*		*		*		*		
049	North of Piney Branch Parkway and 17 th St.	2/12/20	*		*		*		*		
050	Rock Creek Parkway and L St., NW	2/10/20	*		*		*		*		
051	Across Rock Creek Pkwy, aligned with Olive St., NW.	2/25/20	*		*		*		*		
052	Between P & Penna. Ave Bridges, aligned with O Street, NW.	2/25/20	*		*		*		*		
053 ¹	Q St. Bridge and Rock Creek Parkway, NW.	N/A									
054	Massachusetts Ave & Rock Creek Parkway, NW.	2/14/20	*		*		*		*		
056	Normanstone Dr. and Rock Creek Parkway, NW.	2/14/20	*		*		*		*		
057 ¹	28th Street and Rock Creek Parkway, NW	N/A									
058 ¹	Connecticut Ave & Rock Creek Parkway, NW.	N/A									
060	North of P St. Bridge & Rock Creek Pkwy, NW	2/25/20	*		*		*		*		

Notes:

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

2.3.1 Pumping Stations

Pumping station operations are summarized in the table below.

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

<i>Pumping Station</i>	<i>No. of Inspections</i>	<i>No. Screens</i>	<i>No. Pumps</i>	<i>Screens or Pumps Out of Service</i>	<i>Dates</i>	<i>Reason</i>	<i>Work Order Number</i>	<i>Schedule to Restore to Service</i>
Main	29	3	4	Screen #2	02/01/20 – 02/05/20	Screen #2 was removed in January 2020 and replaced with a new screen as part of a facilities upgrade CIP.	20-268779	Installation and User Acceptance Testing of the new screen is complete. Screen returned to service on 02/05/2020.
Eastside	1	2	4	None	-	-	-	-
Poplar Point	1	2	4	None	-	-	-	-
Potomac	29	4	5	None	-	-	-	-

Notes:

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

<i>Pumping Station</i>	<i>Date Performed</i>	<i>Type of Preventive Maintenance Performed^{1,2}</i>	<i>Work Order Number</i>	<i>Comments</i>
Main	2/17/20	Group A	20-201880	Add oil, grease bearings and replace packing if needed.
O St	2/6/20	Group A	20-236425	Add oil, grease bearings and replace packing if needed.
Eastside	2/15/20	Group A	20-211512	Add oil, grease bearings and replace packing if needed.
Poplar Point	2/15/20	Group A	20-199812	Add oil, grease bearings and replace packing if needed.
Potomac	2/18/20	Group A	20-211894	Add oil, grease bearings and replace packing if needed.
Rock Creek	2/15/20	Group A	20-212731	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	2/15/20	Group A	20-201894	Add oil, grease bearings and replace packing if needed.
Earl Place	2/15/20	Group A	20-174815	Add oil, grease bearings and replace packing if needed.
1 st Street Tunnel Dewatering	2/12/20	Group B	20-314674	

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 Vector 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

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

<i>Pumping Station</i>	<i>Sanitary Pumpage</i>		<i>Screenings Collected (tons)¹</i>	<i>Pumpage of CSO from First Street Tunnel back to Sewer System</i>	
	<i>Total Wastewater (mg)</i>	<i>Daily Average Wastewater (mg)</i>		<i>Date</i>	<i>Volume (mg)</i>
Main ^{1,2}	1410.05	48.62	N/A	N/A	N/A
O St ^{1,2}	118.27	4.08	N/A	N/A	N/A
Eastside	126.50	4.36	N/A	N/A	N/A
Poplar Point	332.16	11.45	N/A	N/A	N/A
Potomac	3942.78	135.96	N/A	N/A	N/A
Rock Creek	142.12	4.90	N/A	N/A	N/A
Upper Anacostia	41.68	1.44	N/A	N/A	N/A
Earl Place	0.330	0.011	N/A	N/A	N/A
1 st Street Tunnel Dewatering ³	N/A	N/A	N/A	02/07/20 02/20/20	0.26 0.12

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 two occurrences in the month of February: 115 minutes on 2/7/2020 and 57 minutes on 2/20/2020. The flow meter for the pumping station was found to be defective and did not record discharges. DC Water is in the process of replacing the defective flow meter. In the interim, the flow will be estimated based on pump run times and pump capacity. **The estimated volume is 0.38 MG for the month of February 2020.

2.4 Inflatable Dams and SCADA System

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

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

<i>Inflatable Dam Structure No</i>	<i>Date Inspected</i>	<i>Was Dam Out of Service During the Month?</i>	<i>Dates out of Service</i>	<i>Reason</i>	<i>Schedule to Restore to Service</i>
14 - East	2/18/20	No	N/A	N/A	N/A
14 - West	2/18/20	No	N/A	N/A	N/A
15	2/18/20	No	N/A	N/A	N/A
15A	2/18/20	No	N/A	N/A	N/A
16 - East	2/18/20	No	N/A	N/A	N/A
16 - West	2/18/20	No	N/A	N/A	N/A
34	2/20/20	No	N/A	N/A	N/A
35	2/20/20	No	N/A	N/A	N/A
52	2/20/20	No	N/A	N/A	N/A

Notes:

Table 2-7

Inflatable Dams & SCADA Sites - Wet Weather Operations

<i>Inflatable Dam Structure No.</i>	<i>Overflow Dates</i>	<i>Estimated Duration of Overflow</i>
14 (E & W) ¹	2/19/20	0 hrs. 43 mins
15 ²	2/14/20	0 hrs. 1 mins
15A ²	2/14/20	1 hr. 21 mins
16 (E & W) ³	2/14/20	0 hrs. 15 mins
	2/26/20	0 hrs. 30 mins
34 ⁴	2/5/20	0 hrs. 21 mins
	2/18/20	0 hrs. 29 mins
35	2/7/20	0 hrs. 27 mins
52	2/5/20	0 hrs. 20 mins
Structures on Outfall Sewers		
<i>Structures on Outfall Sewers</i>	<i>Overflow Dates</i>	<i>Estimated Duration of Overflow</i>
Outfall Structure 1	None	This structure has been bulk headed. Overflows are no longer possible.
Outfall Structure 1A	None	This structure has been bulk headed. Overflows are no longer possible.
Outfall Structure 2	None	N/A
<i>Outfall Sewer Control Gates</i>	<i>Operational Status</i>	<i>Position</i>
Outfall Sewer Control Gate No.1	Operational	Open
Outfall Sewer Control Gate No.2	Operational	This structure has been bulk headed. Overflows are no longer possible
Outfall Sewer Control Gate No.2	Operational	This structure has been bulk headed. Overflows are no longer possible

Notes:

1. On 2/19/20, Structure 14(E & W) deflated due to testing of the new PLC program. High upstream levels were simulated to cause the deflation. This was not an overflow to the river as the downstream levels were higher than the upstream levels.
2. On 2/14/20, Structure 15 and 15A manually deflated due to testing of the new PLC program. High upstream levels were simulated to cause the deflation. This was not an overflow to the river as the downstream levels were higher than the upstream levels.
3. On 2/14/20 and 2/26/20, Structure 16(E & W) manually deflated due to testing of the new PLC program. High upstream levels were simulated to cause the deflation. This was not an overflow to the river as the downstream levels were higher than the upstream levels.
4. On 2/5/20 and 2/18/20, Structure 34 had scheduled preventive maintenance performed on the level and pressure sensors which resulted in a pressure drop. This was not an overflow to the river as the downstream levels were higher than the upstream levels.

3. DRY WEATHER OVERFLOWS

There was no dry weather combined sewer overflow during February 2020.

4. SOLIDS AND FLOATABLES CONTROL

4.1 Catch Basin Cleaning

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

**Table 4-1
Catch Basin Cleaning**

Ward	Total CBs	CBs in CSS	Inspections			Cleaning					
			CBs in Anacostia CSS	Total Anacostia CBs Inspected Once this Year	Total Anacostia CBs Inspected Twice this Year	CBs Cleaned Thru Last Month		CB's Cleaned This Month		Total CBs Cleaned This Year to Date	
						Total	In CSS	Total	In CSS	Total	In CSS
1	1449	1426	652	601	0	605	605	0	0	605	605
2	2792	2642	476	2	0	10	6	0	0	10	6
3	3687	187	0	0	0	8	0	0	0	8	0
4	3495	1723	0	0	0	10	7	1000	0	1010	7
5	4007	1769	1692	2	0	8	4	0	0	8	4
6	3316	2666	2647	6	0	8	6	0	0	8	6
7	3785	43	41	0	0	1119	0	230	0	1349	0
8	2832	212	209	0	0	7	0	1650	0	1657	0
Grand Total	25363¹	10668¹	5717¹	611²	0	1775²	628²	2880²	0²	4655²	628²
% Cleaned/Inspected to Date				11%	0%					18%	6%

Notes:

1. The number of catch basins in our service area changes with the ongoing connections and abandonments to the sewer infrastructure.
2. These are estimated counts from sewer maps until the existing Sewer Mobile APP for field data is updated and reprogrammed for use.

4.2 BMP Demonstration for Solid and Floatable Control

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

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

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

<i>Facility</i>	<i>Date Inspected</i>	<i>Condition</i>	<i>Work Needed</i>	<i>Work performed</i>	<i>Material Removed (LB)</i>
Netting System CSO 018	2/3/2020	Good	None	None	None
Bar Rack CSO 040	2/3/2020	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	2/25/2020	Good	None	Routine Cleaning	(1)

Notes:

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

4.3 Anacostia River Floating Debris Removal Program

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

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

<i>Program Operation</i>	5-day work week, excluding holidays, weather permitting
<i>Work Days this month:</i>	19
<i>Days not Operating</i>	5
<i>Reason not Operating</i>	Maintenance, wind, low water levels.
<i># Skimmer in Fleet</i>	3 Skimmers
<i># Skimmers Out of Service</i>	2 Skimmers
<i>Dates</i>	B32: 2/1 - 2/29. B33: 2/12 - 2/24.
<i>Reason</i>	B32: Number one screen not working. B33: Starboard prop not operating in reverse.
<i>Plan to Restore to Service</i>	B32: waiting for parts ETR unknown. B33: returned to operations on 2/25.
<i>Amount Material Collected</i>	30 tons this month. Calendar year to date 40 tons.
<i>Nature of Material</i>	Bottles, cans, natural debris and plastics.

4.4 CSS Litter Control

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

No Activity this month.

5. MONITORING

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

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

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

Inspector: Keith Watts

Pumping Station	Inspector	Date Inspected	Condition		Work Order Number	Work Needed	Work Performed or Schedule for Completion
			Good	Needs Work			
Bar Racks at O Street Storm Pumps (CSO 010)	KW	2/29/20	X		20-282588		
Bar Racks at Main Storm Pumps (CSO 011)	KW	2/29/20	X		20-282581		

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
2/1/2020	0.06	0.06	0.06	0.05	0.06
2/2/2020	0	0.01	0	0	0.01
2/3/2020	0	0	0	0	0
2/4/2020	0.02	0.02	0.01	0.03	0.02
2/5/2020	0.09	0.08	0.06	0.06	0.13
2/6/2020	0.73	0.72	0.67	0.73	0.79
2/7/2020	0.45	0.66	0.69	0.80	0.42
2/8/2020	0	0	0	0	0
2/9/2020	0	0	0	0	0
2/10/2020	0.41	0.36	0.30	0.38	0.43
2/11/2020	0.54	0.48	0.48	0.49	0.50
2/12/2020	0.07	0.08	0.04	0.05	0.09
2/13/2020	0.27	0.21	0.20	0.24	0.30
2/14/2020	0	0	0	0	0
2/15/2020	0	0	0	0	0
2/16/2020	0	0	0	0	0
2/17/2020	0	0	0	0	0
2/18/2020	0	0	0	0	0
2/19/2020	0	0.01	0.01	0.01	0.01
2/20/2020	0	0	0	0	0
2/21/2020	0	0	0	0	0
2/22/2020	0	0	0	0	0
2/23/2020	0	0	0	0	0
2/24/2020	0	0	0	0	0
2/25/2020	0.24	0.23	0.18	0.23	0.23
2/26/2020	0.16	0.11	0.18	0.16	0.17
2/27/2020	0.05	0.05	0.05	0.04	0.05
2/28/2020	0	0	0	0	0
2/29/2020	0	0	0	0	0
TOTAL	3.09	3.08	2.93	3.27	3.21

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: January, February, and March 2020
 SCENARIO: QuarterlyReport_2020Q1, April 6, 2020

NPDES No.	Description	Data Source	Number of Overflows (Occurrences)	CSO Overflow Volume (mg)	Total Duration of Overflow (hrs)	Avg Duration of Overflow (hrs)	Maximum Duration of Overflow (hrs)	Minimum Duration of Overflow (hrs)
Anacostia CSOs								
005	Chicago St and Railroad Station SE	Modeled	0	0.00	0.00	0.00	0.00	0.00
006	Good Hope Road, West of Nichols Ave., SE	separated						
007	13 th Street and Ridge Place, SE	Metered	0	0.00	0.00	0.00	0.00	0.00
009	2nd Street, 300 feet North of N Place, SE	Metered	0	0.00	0.00	0.00	0.00	0.00
010	O Street Sewage Pumping Station, SE (pumped Overflow)	Metered	0	0.00	0.00	0.00	0.00	0.00
011	South of Main Sewage Pumping Station, SE (pumped overflow)	Metered	0	0.00	0.00	0.00	0.00	0.00
011a	South of Main Sewage Pumping Station, SE (gravity overflow)	Metered	0	0.00	0.00	0.00	0.00	0.00
012	North of Main Sewage Pumping Station, SE (Tiber Creek)	Metered	1	0.64	1.25	1.25	1.25	1.25
013	4th and N Streets, SE	Modeled	0	0.00	0.00	0.00	0.00	0.00
014	6th and M Streets, SE	Modeled	0	0.00	0.00	0.00	0.00	0.00
015	9th and M Streets, SE	consolidated to tunnel system						
016	12th and M Streets, SE	consolidated to tunnel system						
017	14th and M Streets, SE	consolidated to tunnel system						
018	Bamey Circle and Pennsylvania Ave, SE	consolidated to tunnel system						
019	Northeast Boundary	Metered	0	0.00	0.00	0.00	0.00	0.00
019A	Northeast Boundary - Tunnel OF	Metered	0	0.00	0.00	0.00	0.00	0.00
	SUBTOTAL			0.64				
Potomac CSOs								
003A	JBAB Tunnel OF	Metered	0	0.00	0.00	0.00	0.00	0.00
020	23rd Street, North of Constitution Ave, NW (Easby Point)	Modeled	3	7.66	8.25	2.75	4.25	1.75
021	Northeast of Roosevelt Bridge, NW	Modeled	5	49.81	9.00	1.80	4.00	0.50
022	27th and K Streets, NW	Modeled	11	0.72	12.75	1.16	5.00	0.25
024	30th and K Streets, NW	Modeled	3	1.94	6.00	2.00	3.75	0.25
025	31st & K St NW	Modeled	2	0.04	1.00	0.50	0.50	0.50
026	Wisconsin Avenue and K St., NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
027	Water Street West of Street, NW	Modeled	8	2.52	14.75	1.84	5.00	0.25
028	36th and M Streets, NW	Modeled	17	2.76	99.75	5.87	21.75	0.25
029	Canal Road 1000 feet east of Rock Creek, NW	Modeled	15	3.71	18.75	1.25	4.50	0.25
	SUBTOTAL			69.16				
Rock Creek								
031	Pennsylvania Avenue, East Rock Creek, NW	separated						
032	26th and M Streets, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
033	N Street extended west of 25th Street, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
034	23rd and O Streets, SW	Modeled	0	0.00	0.00	0.00	0.00	0.00
035	22nd Street south of Q Street, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
036	22nd Street South of Q Street, NW	Modeled	5	0.114	8.00	1.60	3.75	0.25
037	Northwest of Belmont and Rock Creek and Potomac Parkway	separated						
038	North of Belmont Road, east of Kalorama Circle, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
039	Connecticut Avenue east of Rock Creek, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
040	Biltmore Street extended east of Rock Creek, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
041	Ontario extended and Rock Creek Parkway	Modeled	0	0.00	0.00	0.00	0.00	0.00
042	Harvard Street and Rock Creek Parkway, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
043	Adams Mill Road South of Irving Street, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
044	Kenyon Street and Adams Mill Road, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
045	Adams Mill Road and Lamont Street, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
046	Park Road south of Piney Branch Parkway, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
047	Ingleside Terrace extended and Piney Branch Parkway	Modeled	0	0.00	0.00	0.00	0.00	0.00
048	Mt. Pleasant Street extended and Piney Branch Parkway	Modeled	0	0.00	0.00	0.00	0.00	0.00
049	Piney Branch and Lamont Street, NW	Modeled	2	1.03	1.00	0.50	0.75	0.25
050	28th Street west of 16th Street, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
051	Olive Street extended and Rock Creek Parkway, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
052	O Street extended and Rock Creek Parkway, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
053	O Street west of Rock Creek Parkway, NW	separated						
054	West Side of Rock Creek 300 ft. south of Mass. Ave, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
056	Normanstone Drive extended west of Rock Creek, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
057	28th Street extended west of Rock Creek, NW	separated						
058	Connecticut Avenue and Rock Creek Parkway, NW	separated						
060	P St and 26 th St, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
	SUBTOTAL			1.15				
	TOTAL			70.95				

District of Columbia Water and Sewer Authority

Combined Sewer System Model Results
Period: January, February, and March 2020

SCENARIO: QuarterlyReport_2020Q1, April 6, 2020

NPDES No.	Description	Data Source	Number of Overflows (Occurrences)	CSO Overflow Volume (mg)	Total Duration of Overflow (hrs)	Avg Duration of Overflow (hrs)	Maximum Duration of Overflow (hrs)	Minimum Duration of Overflow (hrs)
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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: March 2020

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: March 2020
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1. INTRODUCTION

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

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

2. OPERATION AND MAINTENANCE

2.1 Regulators

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

**Table 2-1
Regulator Structures**

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
2 ¹	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	N/A				
4 ¹	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	N/A				
5 ¹	Poplar Point Pumping Station	004	N/A				
6	Chicago Street and Railroad Ave, SE	005	03/05/20	*			
7	W Street and Railroad Ave, SE	005	03/09/20	*			
8 ¹	Good Hope Rd, west of Nichols Ave, SE	006	N/A				
9	13 th Street and Ridge Place, SE (Diversion Structure)	007	03/05/20	*			
9a	13 th Street and Ridge Place, SE (Regulator Structure)	007	03/05/20	*			
9b	11 th Street Bridge and DC 295 SB (CSO-007 Diversion Chamber)	007	03/05/20	*			
11	"O" Street Pumping Station	011(a)	03/27/20	*			
12	Storm Pump Discharge at Main Pumping Station	011	03/19/20	*			
13	2 nd Street, 300 ft. north of N Place, SE	009	03/13/20	*			
14	2 nd Street, 250 ft. north of N Place, SE	011(a)	03/27/20	*			
15	South Capitol and E Streets	010	03/27/20	*			
15a	Half and L Streets, SE	010	03/27/20	*			
15b	South Capitol and I Streets	010	03/16/20	*			
15c	South Capitol and I Streets	010	03/16/20	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
16	North of Main Sewage Pumping Station	012	03/12/20	*			
17	4 th and N Streets, SE, Both Extended	013	03/13/20	*			
17a	K Street between 6 th Street and 7 th Street, SE (Side Overflow Weir)	013	03/18/20	*			
17b	4 th and N Streets, SE, Both Extended (CSO-013 Diversion Chamber)	013	03/20/20	*			
18	6 th and M Streets, SE (Diversion and Overflow Structure)	014	03/13/20	*			
18a	Tingey Street SE and 5 1 / 2 Street SE (CSO-014 Diversion Chamber)	014	03/11/20	*			
19	9 th and M Streets, SE	015	03/11/20	*			
19a	9 th and M Streets, SE	015	03/11/20	*			
19b	9 th and M Streets, SE (Diversion Chamber)	015	03/11/20	*			
19c	9 th and M Streets, SE (Diversion Chamber)	015	03/11/20	*			
20	12 th and M Streets, SE	016	03/05/20	*			
20a	12 th and M Streets, SE	016	03/05/20	*			
20b	12 th and M Streets, SE (CSO-016 Diversion Chamber)	016	03/05/20	*			
21	14 th and M Streets, SE	017	03/05/20	*			
21a	14 th and M Streets, SE (CSO-017 Diversion Chamber)	017	03/05/20	*			
22a	Barney Circle and Pennsylvania Ave, SE	018	03/05/20	*			
22b	Barney Circle and Pennsylvania Ave, SE	018	03/05/20	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	03/05/20	*			
22d	Kentucky Ave and Potomac Street, SE	018	03/13/20	*			
22e	14 th Street and Kentucky Ave, SE	018	03/13/20	*			
23	Independence Ave, 21 st Street, SE, Extended	019	03/13/20	*			
24a	East Capitol St, west of RFK stadium	019	03/23/20	*			
28	21 st and Constitution Ave, NW	020	03/05/20	*			
29	22 nd Street, between Constitution Ave and C St, NW	020	03/10/20	*			
30	17 th and D Streets, NW	020	03/10/20	*			
31	15 th Street and Pennsylvania Ave, NW	020	03/10/20	*			
33	10 th and F Streets, NW	020	03/10/20	*			
34	23 rd Street, north of Constitution Ave, NW	020	03/26/20	*			
34a	23 rd Street near C Street, NW	020	03/10/20	*			
35	Northeast of Roosevelt Bridge, NW	021	03/26/20	*			
35c	Kennedy Center Rock Creek and Potomac Pkwy Northeast of Roosevelt Bridge, NW	021	03/27/20	*			
36	27 th and I Streets, NW	022	03/10/20	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
36a	New Hampshire Ave and Eye Street, NW	022	03/10/20	*			
36b	19 th and L Streets, NW	022, 034	03/11/20	*			
36d	17 th and L Streets, NW	022, 034	03/11/20	*			
36g	18 th and M Streets, NW	022, 034	03/11/20	*			
36h	18 th and M Streets, NW	022, 034	03/11/20	*			
37	27 th and Eye Streets, NW	022	03/10/20	*			
38	29 th and K Streets, NW	024	03/17/20	*			
38a	30 th Street, south of K Street, NW	024	03/17/20	*			
39a	30 th and K Streets, NW	024	03/17/20	*			
39b	30 th and K Streets, NW	024	03/17/20	*			
41b	31 st and K Streets, NW	025	03/17/20	*			
41c	31 st and K Streets, NW	025	03/17/20	*			
42	Wisconsin Ave and K Street, NW	026	03/17/20	*			
43	Potomac and Water Streets, NW	027	03/17/20	*			
43a	Potomac and Water Streets, NW	027	03/17/20	*			
44	Water Street, west of Potomac St, NW	027	03/17/20	*			
45	36 th and M Streets, NW	028	03/16/20	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	03/16/20	*			
47	38 th Street and Reservoir Road, NW	029	03/16/20	*			
47a	37 th and T Streets, NW	029	03/16/20	*			
47b	37 th and T Streets, NW	029	03/16/20	*			
47c	38 th and W Streets, NW	029	03/16/20	*			
49 ^l	Pennsylvania Ave, east side of Rock Creek, NW	031	N/A				
50	26 and M Streets, NW	032	03/27/20	*			
51	N Street Extended, west of 25 th Street, NW	033	03/27/20	*			
52	22 nd Street between M and N Streets, NW	034	03/26/20	*			
52a	N Street between 22 nd and 23 rd Streets, NW	034	03/26/20	*			
53	22 nd and M Streets, NW	022, 034	03/27/20	*			
53a	22 nd and M Streets, NW	022, 034	03/27/20	*			
53b	L Street between 21 st Street and New Hampshire Ave, NW	022, 034	03/17/20	*			
53c	L and 22 nd Streets, NW	022	03/17/20	*			
54	23 rd and O Streets, NW	034	03/20/20	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
55	22 nd Street, south of Q Street, NW	035	03/20/20	*			
55a	22 nd Street, south of Q Street, NW	035	03/20/20	*			
56	23 rd and Massachusetts Ave, NW	036	03/20/20	*			
57	23 rd Street, south of Q Street, NW	036	03/20/20	*			
58 ^l	Northwest of Belmont Road and Rock Creek and Potomac Parkway, NW	037	N/A				
59	North of Belmont Rd, east of Kalorama Cir, NW	038	03/27/20	*			
60	Connecticut Ave, east of Rock Creek, NW	039	03/27/20	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	03/27/20	*			
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	03/18/20	*			
63	Harvard Street and Rock Creek Parkway, NW	042	03/18/20	*			
64	Adams Mill Road, south of Irving Street, NW	043	03/18/20	*			
65	Kenyon Street and Adams Mill Road, NW	044	03/18/20	*			
65a	Kenyon Street and Adams Mill Road, NW	044	03/18/20	*			
66	Adams Mill Road and Lamont Street, NW	045	03/18/20	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	03/18/20	*			
68	Ingleside Terrace, Extended and Piney Branch Parkway, NW	047	03/18/20	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	03/18/20	*			
70	Piney Branch Parkway, west of 16 th Street, NW	049	03/18/20	*			
70i	5 th and Quackenbos Streets, NW	049	03/25/20	*			
71	28 th Street, west of Rock Creek Parkway, NW	050	03/19/20	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	03/20/20	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	03/20/20	*			
73	O Street Extended and Rock Creek Parkway, NW	052	03/20/20	*			
74 ^l	Q Street, west of Rock Creek, NW	053	N/A				
75	West side of Rock Creek, 300 ft. south of Massachusetts Ave, NW	054	03/25/20	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	03/25/20	*			
77a	Normanstone Dr and Normanstone Lane, NW	056	03/25/20	*			
78 ^l	28th Street Extended, west of Rock Creek, NW	057	N/A				
79 ^l	Connecticut Ave and Rock Creek Parkway, NW	058	N/A				
84	26 th and P Streets, NW	060	03/20/20	*			
84a	26 th and P Streets, NW	060	03/20/20	*			
86	Diversion Chamber and Vortex Drop at First and Channing St, NW (First St Tunnel)	019	03/17/20	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
88	Flagler and Adams St. NW (First St Tunnel)	019	03/17/20	*			
89	First and V St, NW (First St Tunnel)	019	03/17/20	*			
90	First and V St, NW (First St Tunnel)	019	03/17/20	*			
91	First and V St, NW (First St Tunnel)	019	03/17/20	*			
92	CSO 019 Diversion Near Eastside PS (Anacostia River Tunnel)	019	03/27/20	*			
93	CSO 018 Diversion Near Barney Circle (Anacostia River Tunnel)	018	03/27/20	*			
95	M Street Approach Channel M and Water St SE (Anacostia River Tunnel)	015, 016, 017	03/05/20	*			
96	CSO 007 Shaft at 11 th St Bridge and DC I-295 SB Diversion Facilities (Anacostia River Tunnel)	007	03/23/20		*	Routine check at this location. Some debris inside the channel, needs cleaning. Line operating properly.	
97	CSO 005 Diversion at Chicago St Trunk Sewer, I295 SB (Anacostia River Tunnel)	005	03/23/20	*			
98	Main Pumping Station Diversions (Anacostia River Tunnel)	009 - 012	03/13/20	*			
99	CSO 009 and 011a Diversion Facilities (Anacostia River Tunnel)	009, 011a	03/27/20	*			
100	CSO 012 Diversion Facilities (Anacostia River Tunnel)	012	03/12/20		*	Replacement stop log is on-going at this location. DSS is working with contractor. No additional flow to the river due to missing stop log.	
101	Main Outfall Sewer Diversion Chamber (Anacostia River Tunnel)	N/A	03/23/20	*			
102	Anacostia Main Interceptor Diversion Chamber	N/A	03/23/20	*			
103	Poplar Point PS Emergency Overflow Chamber (Anacostia River Tunnel)	N/A	03/23/20	*			
104	Poplar Point PS Discharge Chamber	N/A	03/23/20	*			
105	Potomac Outfall Sewer Diversion Chamber (Anacostia River Tunnel)	003A	03/23/20	*			

Notes:

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

2.2 Outfalls, Tide Gates and CSO Signs

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

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

NPDES Outfall	Location	Date Inspected	Outfall Condition		Tide Gate Present?		Tide Gate Condition		CSO Sign		Notes, Work Needed or Performed
			OK	Needs Work	Yes	No	OK	Needs Work	OK	Needs Work	
003 ¹	Bolling Air Force Base, at Giavanolli and Chanute, SW	N/A									
003a	Joint Base Anacostia Bolling Macdill and Arnold Ave SW	03/23/20	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	03/29/20	*		*		*		*		
006 ¹	Good Hope Road and Welsh Memorial Bridge	N/A									
007	Between 11 th St. and Anacostia Bridges, SE	03/29/20	*		*		*		*		
009	O St. Sewage Pumping Station, SE	03/19/20	*		*		*		*		
010	O St. Sewage Pumping Station, SE	03/19/20	*			*			*		
011	Main Sewage Pumping Station, SE	03/19/20	*			*			*		
011a	Main Sewage Pumping Station, SE	03/19/20	*		*		*		*		
012	Main Sewage Pumping Station, SE	03/19/20	*		*		*		*		
013	Southeast Federal Center, aligned with 4 th St.	03/19/20	*		*		*		*		
014	Navy Yard, aligned with 6 th St., SE	03/19/20	*		*		*		*		
015	Navy Yard, aligned with 9th Street, SE	03/19/20	*			*			*		
016	12th and O Streets, SE	03/17/20	*		*		*		*		
017	M and Water Street, SE	03/17/20	*		*		*		*		
018	East of Barney Circle & South of Pennsylvania Avenue Bridge, SE	03/17/20	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility & D.C. General Hospital	03/27/20	*		*		*		*		
019a	Adjacent to Service Drive behind swirl facility & D.C. General Hospital (Tunnel Overflow Structure)	03/27/20	*		*		*		*		
020	Rock Creek Parkway and Independence, NW	03/25/20	*		*		*		*		
021	Rock Creek Parkway and C St., NW	03/25/20	*		*		*		*		
022	Rock Creek Parkway and G St., NW	03/25/20	*		*		*		*		
024	South of 30 th and K Streets, NW ¹	03/25/20	*		*		*		*		
025	South of 31st and K Streets, NW	03/25/20	*		*		*		*		
026	Wisconsin Avenue and Water Street, NW	03/25/20	*		*		*		*		
027	33 rd and Water Sts., NW	03/25/20	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	03/25/20	*			*			*		
029	Adjacent to C&O Canal, aligned with 38 th St. NW	03/25/20	*			*			*		
031 ¹	Rock Creek Pkwy & Pennsylvania Avenue, NW	N/A									

NPDES Outfall	Location	Date Inspected	Outfall Condition		Tide Gate Present?		Tide Gate Condition		CSO Sign		Notes, Work Needed or Performed
			OK	Needs Work	Yes	No	OK	Needs Work	OK	Needs Work	
032	26th and M Street, NW	03/27/20	*			*			*		
033	Across street from St. Francis Jr. High and aligned with N St., NW.	03/27/20	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	03/20/20	*			*			*		
035	P St. Bridge and Rock Creek Parkway	03/20/20	*			*			*		
036	22nd Street, South of Q Street NW.	03/19/20	*		*		*		*		
037 ¹	Waterside Dr. and Rock Creek Parkway	N/A									
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	03/27/20	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	03/27/20	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	03/27/20	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	03/19/20	*		*		*		*		
042	Harvard St. and Beach Dr NW.	03/19/20	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	03/19/20	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	03/19/20	*		*		*		*		
045	North of Beach Dr. and Walbridge Pl, NW.	03/19/20	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	03/18/20	*			*			*		
047	Piney Branch Parkway and Ingleside Terrace	03/18/20	*		*		*		*		
048	South of Piney Branch Parkway and 17 th St.	03/18/20	*		*		*		*		
049	North of Piney Branch Parkway and 17 th St.	03/18/20	*		*		*		*		
050	Rock Creek Parkway and L St., NW	03/19/20	*		*		*		*		
051	Across Rock Creek Pkwy, aligned with Olive St., NW.	03/19/20	*		*		*		*		
052	Between P & Penna. Ave Bridges, aligned with O Street, NW.	03/19/20	*		*		*		*		
053 ¹	Q St. Bridge and Rock Creek Parkway, NW.	N/A									
054	Massachusetts Ave & Rock Creek Parkway, NW.	03/25/20	*		*		*		*		
056	Normanstone Dr. and Rock Creek Parkway, NW.	03/25/20	*		*		*		*		
057 ¹	28th Street and Rock Creek Parkway, NW	N/A									
058 ¹	Connecticut Ave & Rock Creek Parkway, NW.	N/A									
060	North of P St. Bridge & Rock Creek Pkwy, NW	03/19/20	*		*		*		*		

Notes:

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

2.3.1 Pumping Stations

Pumping station operations are summarized in the table below.

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

<i>Pumping Station</i>	<i>No. of Inspections</i>	<i>No. Screens</i>	<i>No. Pumps</i>	<i>Screens or Pumps Out of Service</i>	<i>Dates</i>	<i>Reason</i>	<i>Work Order Number</i>	<i>Schedule to Restore to Service</i>
Main	31	3	4	None	-	-	-	-
Eastside	1	2	4	None	-	-	-	-
Poplar Point	1	2	4	None	-	-	-	-
Potomac	31	4	5	None	-	-	-	-

Notes:

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

<i>Pumping Station</i>	<i>Date Performed</i>	<i>Type of Preventive Maintenance Performed^{1,2}</i>	<i>Work Order Number</i>	<i>Comments</i>
Main	3/17/20	Group A	20-270218	Add oil, grease bearings and replace packing if needed.
O St	3/6/20	Group A	20-296732	Add oil, grease bearings and replace packing if needed.
Eastside	3/28/20	Group A	20-282795	Add oil, grease bearings and replace packing if needed.
Poplar Point	3/28/20	Group A	20-272792	Add oil, grease bearings and replace packing if needed.
Potomac	3/24/20	Group A	20-287298	Add oil, grease bearings and replace packing if needed.
Rock Creek	3/28/20	Group A	20-272806	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	3/28/20	Group A	20-272820	Add oil, grease bearings and replace packing if needed.
Earl Place	3/28/20	Group A	20-242168	Add oil, grease bearings and replace packing if needed.
1 st Street Tunnel Dewatering	3/29/20	Group B	20-361861	

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 Vector 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

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

<i>Pumping Station</i>	<i>Sanitary Pumpage</i>		<i>Screenings Collected (tons)¹</i>	<i>Pumpage of CSO from First Street Tunnel back to Sewer System</i>	
	<i>Total Wastewater (mg)</i>	<i>Daily Average Wastewater (mg)</i>		<i>Date</i>	<i>Volume (mg)</i>
Main ^{1,2}	1172.74	37.83	N/A	N/A	N/A
O St ^{1,2}	106.13	3.42	N/A	N/A	N/A
Eastside	111.68	3.60	N/A	N/A	N/A
Poplar Point	315.43	10.18	N/A	N/A	N/A
Potomac	3855.63	124.38	N/A	N/A	N/A
Rock Creek	109.38	3.53	N/A	N/A	N/A
Upper Anacostia	42.89	1.38	N/A	N/A	N/A
Earl Place	1.810	0.058	N/A	N/A	N/A
1 st Street Tunnel Dewatering ³	N/A	N/A	N/A	00/00/00	0.53

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 four occurrences in the month of March: 70 minutes on 3/13/2020, 62 minutes on 3/26/2020, 19 minutes on 3/29/20 and 24 minutes on 3/30/20. The flow meter for the pumping station was found to be defective and did not record discharges. DC Water is in the process of replacing the defective flow meter. In the interim, the flow will be estimated based on pump run times and pump capacity. **The estimated volume is 0.53 MG for the month of March 2020.

2.4 Inflatable Dams and SCADA System

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

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

<i>Inflatable Dam Structure No</i>	<i>Date Inspected</i>	<i>Was Dam Out of Service During the Month?</i>	<i>Dates out of Service</i>	<i>Reason</i>	<i>Schedule to Restore to Service</i>
14 - East	3/12/20	No	N/A	N/A	N/A
14 - West	3/12/20	No	N/A	N/A	N/A
15	3/27/20	No	N/A	N/A	N/A
15A	3/27/20	No	N/A	N/A	N/A
16 - East	3/12/20	No	N/A	N/A	N/A
16 - West	3/12/20	No	N/A	N/A	N/A
34	3/26/20	No	N/A	N/A	N/A
35	3/26/20	No	N/A	N/A	N/A
52	3/26/20	No	N/A	N/A	N/A

Notes:

Table 2-7

Inflatable Dams & SCADA Sites - Wet Weather Operations

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

Notes:

3. DRY WEATHER OVERFLOWS

There was no dry weather combined sewer overflow during March 2020.

4. SOLIDS AND FLOATABLES CONTROL

4.1 Catch Basin Cleaning

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

**Table 4-1
Catch Basin Cleaning**

Ward	Total CBs	CBs in CSS	Inspections			Cleaning					
			CBs in Anacostia CSS	Total Anacostia CBs Inspected Once this Year	Total Anacostia CBs Inspected Twice this Year	CBs Cleaned Thru Last Month		CB's Cleaned This Month		Total CBs Cleaned This Year to Date	
						Total	In CSS	Total	In CSS	Total	In CSS
1	1449	1426	652	601	0	605	605	0	0	605	605
2	2792	2642	476	2	0	10	6	170	170	180	176
3	3687	187	0	0	0	8	0	2200	0	2208	0
4	3495	1723	0	0	0	1010	7	0	0	1010	7
5	4007	1769	1692	2	0	8	4	0	0	8	4
6	3316	2666	2647	6	0	8	6	0	0	8	6
7	3785	43	41	0	0	1349	0	0	0	1349	0
8	2832	212	209	0	0	1657	0	120	0	1777	0
Grand Total	25363¹	10668¹	5717¹	611²	0	4655²	628²	2490²	170²	7145²	798²
% Cleaned/Inspected to Date				11%	0%					28%	7%

Notes:

1. The number of catch basins in our service area changes with the ongoing connections and abandonments to the sewer infrastructure.
2. These are estimated counts from sewer maps until the existing Sewer Mobile APP for field data is updated and reprogrammed for use.

4.2 BMP Demonstration for Solid and Floatable Control

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

- Netting system at CSO 018 to Anacostia River

- Bar Rack at CSO 040 and 041 to Rock Creek

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

<i>Facility</i>	<i>Date Inspected</i>	<i>Condition</i>	<i>Work Needed</i>	<i>Work performed</i>	<i>Material Removed (LB)</i>
Netting System CSO 018	NA (2)	NA	NA	NA	NA
Bar Rack CSO 040	3/27/2020	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	3/19/2020	Good	None	Routine Cleaning	(1)

Notes:

- (1) System was designed so that captured solids and floatables are conveyed to Blue Plains for treatment.
 (2) As reported in the letter dated, February 10, 2020, the CSO Demonstration end of pipe netting at CSO Outfall 018 has been terminated, effective March 31, 2020.

4.3 Anacostia River Floating Debris Removal Program

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

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

<i>Program Operation</i>	5-day work week, excluding holidays, weather permitting
<i>Work Days this month:</i>	22
<i>Days not Operating</i>	9
<i>Reason not Operating</i>	Maintenance, wind, low water levels.
<i># Skimmer in Fleet</i>	3 Skimmers
<i># Skimmers Out of Service</i>	2 Skimmers
<i>Dates</i>	B32: 3/1 - 3/31. B33: 3/4 - 3/17
<i>Reason</i>	B32: Number one screen not working. B33: Starboard prop not operating in reverse.
<i>Plan to Restore to Service</i>	B32: waiting for parts ETR unknown. B33: returned to operations on 3/18.
<i>Amount Material Collected</i>	5 tons this month. Calendar year to date 45 tons.
<i>Nature of Material</i>	Bottles, cans, natural debris and plastics.

4.4 CSS Litter Control

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

No Activity this month.

5. MONITORING

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

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

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

Inspector: Keith Watts

Pumping Station	Inspector	Date Inspected	Condition		Work Order Number	Work Needed	Work Performed or Schedule for Completion
			Good	Needs Work			
Bar Racks at O Street Storm Pumps (CSO 010)	KW	3/28/20	X		20-328149		
Bar Racks at Main Storm Pumps (CSO 011)	KW	3/28/20	X		20-328142		

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
3/1/2020	0	0	0	0	0
3/2/2020	0.06	0.04	0.06	0.05	0.09
3/3/2020	0.05	0.06	0.03	0.03	0.07
3/4/2020	0	0	0	0	0
3/5/2020	0	0	0	0	0
3/6/2020	0	0	0	0	0
3/7/2020	0	0	0	0	0
3/8/2020	0	0	0	0	0
3/9/2020	0	0	0	0	0
3/10/2020	0	0	0	0	0.01
3/11/2020	0	0	0	0	0
3/12/2020	0	0	0	0	0
3/13/2020	0.21	0.21	0.21	0.20	0.22
3/14/2020	0.07	0.07	0.04	0.07	0.12
3/15/2020	0.05	0.07	0.06	0.06	0.04
3/16/2020	0	0	0	0	0
3/17/2020	0	0	0	0	0.01
3/18/2020	0.02	0.02	0	0.01	0.08
3/19/2020	0.44	0.42	0.40	0.38	0.33
3/20/2020	0.01	0.01	0	0.01	0.02
3/21/2020	0.07	0.03	0.03	0.04	0.08
3/22/2020	0	0	0	0	0
3/23/2020	0.33	0.28	0.22	0.31	0.36
3/24/2020	0	0	0	0	0
3/25/2020	0.26	0.22	0.19	0.22	0.29
3/26/2020	0	0	0	0	0
3/27/2020	0	0	0	0	0.01
3/28/2020	0.45	0.35	0.33	0.39	0.46
3/29/2020	0	0	0	0	0
3/30/2020	0	0	0	0	0
3/31/2020	0.09	0.09	0.06	0.09	0.12
TOTAL	2.02	1.78	1.57	1.77	2.31

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: January, February, and March 2020
 SCENARIO: QuarterlyReport_2020Q1, April 6, 2020

NPDES No.	Description	Data Source	Number of Overflows (Occurrences)	CSO Overflow Volume (mg)	Total Duration of Overflow (hrs)	Avg Duration of Overflow (hrs)	Maximum Duration of Overflow (hrs)	Minimum Duration of Overflow (hrs)
Anacostia CSOs								
005	Chicago St and Railroad Station SE	Modeled	0	0.00	0.00	0.00	0.00	0.00
006	Good Hope Road, West of Nichols Ave., SE	separated						
007	13 th Street and Ridge Place, SE	Metered	0	0.00	0.00	0.00	0.00	0.00
009	2nd Street, 300 feet North of N Place, SE	Metered	0	0.00	0.00	0.00	0.00	0.00
010	O Street Sewage Pumping Station, SE (pumped Overflow)	Metered	0	0.00	0.00	0.00	0.00	0.00
011	South of Main Sewage Pumping Station, SE (pumped overflow)	Metered	0	0.00	0.00	0.00	0.00	0.00
011a	South of Main Sewage Pumping Station, SE (gravity overflow)	Metered	0	0.00	0.00	0.00	0.00	0.00
012	North of Main Sewage Pumping Station, SE (Tiber Creek)	Metered	1	0.64	1.25	1.25	1.25	1.25
013	4th and N Streets, SE	Modeled	0	0.00	0.00	0.00	0.00	0.00
014	6th and M Streets, SE	Modeled	0	0.00	0.00	0.00	0.00	0.00
015	9th and M Streets, SE	consolidated to tunnel system						
016	12th and M Streets, SE	consolidated to tunnel system						
017	14th and M Streets, SE	consolidated to tunnel system						
018	Bamey Circle and Pennsylvania Ave, SE	consolidated to tunnel system						
019	Northeast Boundary	Metered	0	0.00	0.00	0.00	0.00	0.00
019A	Northeast Boundary - Tunnel OF	Metered	0	0.00	0.00	0.00	0.00	0.00
	SUBTOTAL			0.64				
Potomac CSOs								
003A	JBAB Tunnel OF	Metered	0	0.00	0.00	0.00	0.00	0.00
020	23rd Street, North of Constitution Ave, NW (Easby Point)	Modeled	3	7.66	8.25	2.75	4.25	1.75
021	Northeast of Roosevelt Bridge, NW	Modeled	5	49.81	9.00	1.80	4.00	0.50
022	27th and K Streets, NW	Modeled	11	0.72	12.75	1.16	5.00	0.25
024	30th and K Streets, NW	Modeled	3	1.94	6.00	2.00	3.75	0.25
025	31st & K St NW	Modeled	2	0.04	1.00	0.50	0.50	0.50
026	Wisconsin Avenue and K St., NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
027	Water Street West of Street, NW	Modeled	8	2.52	14.75	1.84	5.00	0.25
028	36th and M Streets, NW	Modeled	17	2.76	99.75	5.87	21.75	0.25
029	Canal Road 1000 feet east of Rock Creek, NW	Modeled	15	3.71	18.75	1.25	4.50	0.25
	SUBTOTAL			69.16				
Rock Creek								
031	Pennsylvania Avenue, East Rock Creek, NW	separated						
032	26th and M Streets, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
033	N Street extended west of 25th Street, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
034	23rd and O Streets, SW	Modeled	0	0.00	0.00	0.00	0.00	0.00
035	22nd Street south of Q Street, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
036	22nd Street South of Q Street, NW	Modeled	5	0.114	8.00	1.60	3.75	0.25
037	Northwest of Belmont and Rock Creek and Potomac Parkway	separated						
038	North of Belmont Road, east of Kalorama Circle, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
039	Connecticut Avenue east of Rock Creek, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
040	Biltmore Street extended east of Rock Creek, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
041	Ontario extended and Rock Creek Parkway	Modeled	0	0.00	0.00	0.00	0.00	0.00
042	Harvard Street and Rock Creek Parkway, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
043	Adams Mill Road South of Irving Street, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
044	Kenyon Street and Adams Mill Road, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
045	Adams Mill Road and Lamont Street, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
046	Park Road south of Piney Branch Parkway, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
047	Ingleside Terrace extended and Piney Branch Parkway	Modeled	0	0.00	0.00	0.00	0.00	0.00
048	Mt. Pleasant Street extended and Piney Branch Parkway	Modeled	0	0.00	0.00	0.00	0.00	0.00
049	Piney Branch and Lamont Street, NW	Modeled	2	1.03	1.00	0.50	0.75	0.25
050	28th Street west of 16th Street, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
051	Olive Street extended and Rock Creek Parkway, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
052	O Street extended and Rock Creek Parkway, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
053	O Street west of Rock Creek Parkway, NW	separated						
054	West Side of Rock Creek 300 ft. south of Mass. Ave, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
056	Normanstone Drive extended west of Rock Creek, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
057	28th Street extended west of Rock Creek, NW	separated						
058	Connecticut Avenue and Rock Creek Parkway, NW	separated						
060	P St and 26 th St, NW	Modeled	0	0.00	0.00	0.00	0.00	0.00
	SUBTOTAL			1.15				
	TOTAL			70.95				

District of Columbia Water and Sewer Authority

Combined Sewer System Model Results
Period: January, February, and March 2020

SCENARIO: QuarterlyReport_2020Q1, April 6, 2020

NPDES No.	Description	Data Source	Number of Overflows (Occurrences)	CSO Overflow Volume (mg)	Total Duration of Overflow (hrs)	Avg Duration of Overflow (hrs)	Maximum Duration of Overflow (hrs)	Minimum Duration of Overflow (hrs)
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Prepared by: Greeley and Hansen LLC and Limno-Tech, Inc.