QUARTERLY OPERATIONS REPORT

DISTRICT OF COLUMBIA

COMBINED SEWER OVERFLOW FACILITIES

FIRST QUARTER, 2018

Prepared By:

D.C. Water and Sewer Authority
Department of Sewer Services
2nd & N Streets, SE
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DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY
Serving the Public • Protecting the Environment

Monthly Operations Report
For
Combined Sewer System
Month: January 2018

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WATER AND SEWER AUTHORITY
Washington, D.C.

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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 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	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	01/19/18	*			
4	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	01/19/18	*			
5	Poplar Point Pumping Station	004	01/25/18	*			
6	Chicago Street and Railroad Ave, SE	005	01/12/18	*			
7	W Street and Railroad Ave, SE	005	01/12/18	*			
8[1]	Good Hope Rd, west of Nichols Ave, SE	006	N/A				
9	13th Street and Ridge Place, SE	007	01/10/18	*			
11	"O" Street Pumping Station	011(a)	01/25/18	*			
12	Storm Pump Discharge at Main Pumping Station	011	01/24/18	*			
13	2nd Street, 300 ft. north of N Place, SE	009	01/22/18	*			
14	2nd Street, 250 ft. north of N Place, SE	011(a)	01/22/18	*			
15	South Capitol and E Streets	010	01/11/18	*			
15a	Half and L Streets, SE	010	01/11/18	*			
15b	South Capitol and I Streets	010	01/16/18	*			
15c	South Capitol and I Streets	010	01/16/18	*			
16	North of Main Sewage Pumping Station	012	01/22/18	*			

Structure Number	*Location*	*Associated NPDES Outfall*	*Date Inspected*	*Condition*		*Work Needed*	*Work performed*
				Good	Needs Work		
17	4th and N Streets, SE, Both Extended	013	01/12/18	*			
17a	K Street between 6th Street and 7th Street, SE	013	01/24/18	*			
18	6th and M Streets, SE	014	01/08/18	*			
19	9th and M Streets, SE	015	01/10/18	*			
19a	9th and M Streets, SE	015	01/10/18	*			
20	12th and M Streets, SE	016	01/10/18	*			
20a	12th and M Streets, SE	016	01/10/18	*			
21	14th and M Streets, SE	017	01/10/18	*			
22a	Barney Circle and Pennsylvania Ave, SE	018	01/09/18	*			
22b	Barney Circle and Pennsylvania Ave, SE	018	01/09/18	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	01/09/18	*			
22d	Kentucky Ave and Potomac Street, SE	018	01/09/18	*			
22e	14th Street and Kentucky Ave, SE	018	01/09/18	*			
23	Independence Ave, 21st Street, SE, Extended	019	01/17/18	*			
24a	East Capitol St, west of RFK stadium	019	01/17/18	*			
28	21st and Constitution Ave, NW	020	01/08/18	*			
29	22nd Street, between Constitution Ave and C St, NW	020	01/08/18	*			
30	17th and D Streets, NW	020	01/08/18	*			
31	15th Street and Pennsylvania Ave, NW	020	01/08/18	*			
33	10th and F Streets, NW	020	01/08/18	*			
34	23rd Street, north of Constitution Ave, NW	020	01/11/18	*			
34a	23rd Street near C Street, NW	020	01/08/18	*			
35	Northeast of Roosevelt Bridge, NW	021	01/11/18	*			
36	27th and I Streets, NW	022	01/08/18	*			
36a	New Hampshire Ave and Eye Street, NW	022	01/08/18	*			
36b	19th and L Streets, NW	022, 034	01/09/18	*			
36d	17th and L Streets, NW	022, 034	01/09/18	*			
36g	18th and M Streets, NW	022, 034	01/09/18	*			
36h	18th and M Streets, NW	022, 034	01/09/18	*			
37	27th and Eye Streets, NW	022	01/08/18	*			
38	29th and K Streets, NW	024	01/10/18	*			
38a	30th Street, south of K Street, NW	024	01/10/18	*			
39a	30th and K Streets, NW	024	01/10/18	*			
39b	30th and K Streets, NW	024	01/10/18	*			

Structure Number	*Location*	*Associated NPDES Outfall*	*Date Inspected*	*Condition*		*Work Needed*	*Work performed*
				Good	Needs Work		
41b	31st and K Streets, NW	025	01/10/18	*			
41c	31st and K Streets, NW	025	01/10/18	*			
42	Wisconsin Ave and K Street, NW	026	01/17/18	*			
43	Potomac and Water Streets, NW	027	01/17/18	*			
43a	Potomac and Water Streets, NW	027	01/17/18	*			
44	Water Street, west of Potomac St, NW	027	01/17/18	*			
45	36th and M Streets, NW	028	01/09/18	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	01/09/18	*			
47	38th Street and Reservoir Road, NW	029	01/09/18	*			
47a	37th and T Streets, NW	029	01/09/18	*			
47b	37th and T Streets, NW	029	01/09/18	*			
47c	38th and W Streets, NW	029	01/09/18	*			
49[1]	Pennsylvania Ave, east side of Rock Creek, NW	031	N/A				
50	26 and M Streets, NW	032	01/16/18	*			
51	N Street Extended, west of 25th Street, NW	033	01/16/18	*			
52	22nd Street between M and N Streets, NW	034	01/16/18	*			
52a	N Street between 22nd and 23rd Streets, NW	034	01/16/18	*			
53	22nd and M Streets, NW	022, 034	01/16/18	*			
53a	22nd and M Streets, NW	022, 034	01/16/18	*			
53b	L Street between 21st Street and New Hampshire Ave, NW	022, 034	01/10/18	*			
53c	L and 22nd Streets, NW	022	01/10/18	*			
54	23rd and O Streets, NW	034	01/12/18	*			
55	22nd Street, south of Q Street, NW	035	01/12/18	*			
55a	22nd Street, south of Q Street, NW	035	01/12/18	*			
56	23rd and Massachusetts Ave, NW	036	01/12/18	*			
57	23rd Street, south of Q Street, NW	036	01/12/18	*			
58[1]	Northwest of Belmont Road and Rock Creek and Potomac Parkway, NW	037	N/A				
59	North of Belmont Rd, east of Kalorama Cir, NW	038	01/19/18	*			
60	Connecticut Ave, east of Rock Creek, NW	039	01/19/18	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	01/19/18	*			
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	01/02/18	*			
63	Harvard Street and Rock Creek Parkway, NW	042	01/02/18	*			
64	Adams Mill Road, south of Irving Street, NW	043	01/02/18	*			

Structure Number	*Location*	*Associated NPDES Outfall*	*Date Inspected*	*Condition*		*Work Needed*	*Work performed*
				Good	Needs Work		
65	Kenyon Street and Adams Mill Road, NW	044	01/02/18	*			
65a	Kenyon Street and Adams Mill Road, NW	044	01/02/18	*			
66	Adams Mill Road and Lamont Street, NW	045	01/02/18	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	01/02/18	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	01/02/18	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	01/02/18	*			
70	Piney Branch Parkway, west of 16th Street, NW	049	01/02/18	*			
70i	5th and Quackenbos Streets, NW	049	01/22/18	*			
71	28th Street, west of Rock Creek Parkway, NW	050	01/22/18	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	01/12/18	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	01/12/18	*			
73	O Street Extended and Rock Creek Parkway, NW	052	01/12/18	*			
74[1]	Q Street, west of Rock Creek, NW	053	N/A				
75	West side of Rock Creek, 300 ft. south of Massachusetts Ave, NW	054	01/22/18	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	01/22/18	*			
77a	Normanstone Dr and Normanstone Lane, NW	056	01/22/18	*			
78[1]	28th Street Extended, west of Rock Creek, NW	057	N/A				
79[1]	Connecticut Ave and Rock Creek Parkway, NW	058	N/A				
84	26th and P Streets, NW	060	01/12/18	*			
84a	26th and P Streets, NW	060	01/12/18	*			
86[2]	Diversion Chamber at First and Channing St, NW	019	01/24/18	*			
87[2]	Vortex Drop at Shaft at First and Channing St, NW	019	01/24/18	*			
88[2]	Flagler and Adams St. NW	019	01/24/18	*			
89[2]	First and V St, NW	019	01/24/18	*			
90[2]	First and V St, NW	019	01/24/18	*			
91[2]	First and V St, NW	019	01/24/18	*			

Notes:

1. Structure no longer functions as a combined sewer overflow regulator structure.
2. Newly acquired First Street Tunnel regulator structures.

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	Bolling Air Force Base, at Giavanolli and Chanute, SW	01/19/18	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	01/23/18	*		*		*		*		
006[1]	Good Hope Road and Welsh Memorial Bridge	N/A									
007	Between 11th St. and Anacostia Bridges, SE	01/23/18	*		*		*		*		
009	O St. Sewage Pumping Station, SE	01/24/18	*		*		*		*		
010	O St. Sewage Pumping Station, SE	01/24/18	*			*			*		
011	Main Sewage Pumping Station, SE	01/24/18	*			*			*		
011(a)	Main Sewage Pumping Station, SE	01/24/18	*		*		*		*		
012	Main Sewage Pumping Station, SE	01/24/18	*		*		*		*		
013	Southeast Federal Center, aligned with 4th St.	01/24/18	*		*		*		*		
014	Navy Yard, aligned with 6th St., SE	01/24/18	*		*			*	*		The 7'x7'x4' tidegate is currently being fabricated with an expected installation date, March 2018.
015	Navy Yard, aligned with 9th Street, SE	01/24/18	*			*			*		
016	12th and O Streets, SE	01/24/18	*		*		*		*		
017	M and Water Street, SE	01/24/18	*		*		*		*		
018	East of Barney Circle & South of Pennsylvania Avenue Bridge, SE	01/24/18	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility & D.C. General Hospital	01/24/18	*		*		*		*		
020	Rock Creek Parkway and Independence, NW	01/18/18	*		*		*		*		
021	Rock Creek Parkway and C St., NW	01/18/18	*		*		*		*		
022	Rock Creek Parkway and G St., NW	01/18/18	*		*		*		*		
024	South of 30th and K Streets, NW[1]	01/18/18	*		*		*		*		
025	South of 31st and K Streets, NW	01/18/18	*		*		*		*		
026	Wisconsin Avenue and Water Street, NW	01/18/18	*		*		*		*		
027	33rd and Water Sts., NW	01/18/18	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	01/18/18	*			*			*		
029	Adjacent to C&O Canal, aligned with 38th St. NW	01/18/18	*			*			*		

NPDES Outfall	*Location*	*Date Inspected*	*Outfall Condition*		*Tide Gate Present?*		*Tide Gate Condition*		*CSO Sign*		*Notes, Work Needed or Performed*
			OK	Needs Work	Yes	No	OK	Needs Work	OK	Needs Work	
031[1]	Rock Creek Pkwy & Pennsylvania Avenue, NW	N/A									
032	26th and M Street, NW.	01/16/18	*			*			*		
033	Across street from St. Francis Jr. High and aligned with N St., NW.	01/16/18	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	01/12/18	*			*			*		
035	P St. Bridge and Rock Creek Parkway	01/12/18	*			*			*		
036	22nd Street, South of Q Street NW.	01/23/18	*		*		*		*		
037[1]	Waterside Dr. and Rock Creek Parkway	N/A									
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	01/19/18	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	01/19/18	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	01/19/18	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	01/23/18	*		*		*		*		
042	Harvard St. and Beach Dr NW.	01/23/18	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	01/23/18	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	01/23/18	*		*		*		*		
045	North of Beach Dr. and Walbridge Pl, NW.	01/23/18	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	01/02/18	*			*			*		
047	Piney Branch Parkway and Ingleside Terrace	01/02/18	*		*		*		*		
048	South of Piney Branch Parkway and 17th St.	01/02/18	*		*		*		*		
049	North of Piney Branch Parkway and 17th St.	01/02/18	*		*		*		*		
050	Rock Creek Parkway and L St., NW	01/22/18	*		*		*		*		
051	Across Rock Creek Pkwy, aligned with Olive St., NW.	01/23/18	*		*		*		*		
052	Between P & Penna. Ave Bridges, aligned with O Street, NW.	01/23/18	*		*		*		*		
053[1]	Q St. Bridge and Rock Creek Parkway, NW.	N/A									
054	Massachusetts Ave & Rock Creek Parkway, NW.	01/22/18	*		*		*		*		
056	Normanstone Dr. and Rock Creek Parkway, NW.	01/22/18	*		*		*		*		
057[1]	28th Street and Rock Creek Parkway, NW	N/A									
058[1]	Connecticut Ave & Rock Creek Parkway, NW.	N/A									
060	North of P St. Bridge & Rock Creek Pkwy, NW	01/23/18	*		*		*		*		

Notes:

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

2.3.1 Pumping Stations

Pumping station operations are summarized in the table below.

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

Pumping Station	*No. of Inspections*	*No. Screens*	*No. Pumps*	*Screens or Pumps Out of Service*	*Dates*	*Reason*	*Work Order Number*	*Schedule to Restore to Service*[1]
Main	31	3	4	Pump # 1 Screen #1	01/01/18-01/31/18 01/01/18-01/11/18	Motor Rehab Bent bars	17-686275 17-643853	Anticipated 03/10/18 Returned to Service 01/11/18
Eastside	3	2	4	Screen # 1	01/01/18 -01/31/18	Screen not running	18-208694	Anticipated 02/28/18
Poplar Point	1	2	3	Screen #2	01/01/18 -01/31/18	Rake to be realigned	18-129876	Anticipated 03/31/18
Potomac	31	4	5	Pump #5 Screen #4 Pump # 4	01/01/18-01/31/18 01/01/18-01/11/18 01/15/18- 01/31/18	Phase 3 upgrade Project Phase 3 Upgrade Project Phase 3 Upgrade Project	Contractor Contractor Contractor	Available if needed[2] Returned 1/11/18[1] Anticipated 03/31/18[3]

Notes:

1. The age and type of equipment has an impact on the return to service schedule. In some cases, the condition of the equipment and the lack of availability of replacement parts necessitate complete replacement of the unit or element or custom fabrication of needed parts to return the units to service. For these and other reasons, projects are underway for the rehabilitation of the pumping stations, including replacement of mechanical screens. The Potomac Pumping Station Phase 3 upgrade project is currently ongoing and replacement of the mechanical screens, sluice gates, and discharge isolations valves began in September 2016 scheduled for completion in April 2018.
2. Pump # 5 – No work on equipment but was out of service due to work in wet well # 5.
3. Pump # 4 – No work on equipment but was out of service due to work in the wet well # 4

Table 2-4
Pumping Stations – Preventive Maintenance

Pumping Station	*Date Performed*	*Type of Preventive Maintenance Performed*[1]	*Work Order Number*	*Comments*
Main	01/20/18	Group A	18-131756	Add oil, grease bearings and replace packing if needed.
O St	01/20/18	Group A	18-153413	Add oil, grease bearings and replace packing if needed.
Eastside	01/06/18	Group A	18-95995	Add oil, grease bearings and replace packing if needed.
Poplar Point	01/20/18	Group A	18-130339	Add oil, grease bearings and replace packing if needed.
Potomac	01/04/18	Group A	18-96565	Add oil, grease bearings and replace packing if needed.
Rock Creek	01/06/18	Group A	18-100204	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	01/06/18	Group A	18-131770	Add oil, grease bearings and replace packing if needed.
Earl Place	01/20/18	Group A	18-113179	Add oil, grease bearings and replace packing if needed.
1st Street Tunnel Dewatering	01/06/18	Group B	N/A	

Notes:

1. Group A consists of:

Exercise bar screens
Exercise all sump pumps
Drain condensation from air compressor storage tank
Check depth of screening in the screen room and schedule Vactor truck as required
Check all safety equipment
Issue work order requests as required

2. Group B consists of:
   a. Inspect and manually run CSO Pumps
   b. Generator:
      i. Inspection operation and test, inspect oil level, inspect coolant level
   c. MCC:
      i. Test gas monitoring system
      ii. Inspect and test level indicators
   d. Valve Vault
      i. Lubricate knife gate valve stem and stem nut
      ii. Flush air and vacuum release valve

Table 2-5
Pumping Stations – Pumpage

Pumping Station	*Sanitary Pumpage*		*Storm Water/CSO Pumped To Anacostia River*			*Pumpage of CSO from First Street Tunnel back to Sewer System*	
	Total Wastewater (mg)	*Daily Average Wastewater (mg)*	*Date*	*Volume (mg)*	*Screenings Collected (units)*[1]	*Date*	*Volume (mg)*
Main	1601.85	51.67	N/A	N/A	N/A	N/A	N/A
O St	122.39	3.95	N/A	N/A	N/A	N/A	N/A
			N/A	N/A	N/A		
			N/A	N/A	N/A		
			N/A	N/A	N/A		
Eastside	118.32	3.82	N/A	N/A	N/A	N/A	N/A
Poplar Point[2]	503.61	16.25	N/A	N/A	N/A	N/A	N/A
Potomac	2979.86	96.12	N/A	N/A	N/A	N/A	N/A
Rock Creek	184.66	5.96	N/A	N/A	N/A	N/A	N/A
Upper Anacostia	38.60	1.25	N/A	N/A	N/A	N/A	N/A
Earl Place	0.137	0.004	N/A	N/A	N/A	N/A	N/A
1st Street Tunnel Dewatering	0.27	0.008	N/A	N/A	N/A	01/04/18	0.17
						01/13/18	0.10
						01/31/18	0.15

Notes:
1. Screening consists of vertical trash racks, with no mechanical cleaning. Quantification of captured materials is not possible on monthly basis.
2. On July 14 2017, bypass pumping began at Poplar Point Pumping Station, in connection with the replacement of this station. Use is made of historical flows to estimate the Pumping totals.

2.4 Northeast Boundary Swirl Facility

The Northeast Boundary Swirl Facility provides screening, swirl concentration, chlorination and dechlorination of CSO overflow from CSO 019. The capacity of the facility is 400 MGD. Facility operations are summarized below:

Table 2-6
Northeast Boundary Swirl Facility – Inspections and Equipment in Service

Date Inspected	*No. Screens*	*No. Swirls*	*Screens or Swirls Out of Service*	*Dates*	*Reason*	*Schedule to Restore to Service*
01/06/18	3	3	Screen #3	01/01/18-01/31/18	Bent bars & back plate	Anticipated 03/31/18

Table 2-7
Northeast Boundary Swirl Facility – Preventive Maintenance

Date Performed	*Type of Preventive Maintenance Performed*[1]	*Work Order Number*	*Comments*
01/06/18	Group A	18-100322	

Notes:
1. Group A consists of:
Exercise bar screens
Exercise wash down system
Exercise knife gates full travel both directions
Check depth of grit in grit channel and schedule Vactor truck as required
Change chart paper on strip chart recorders at the end of each month
Thoroughly clean each Swirl tank and channels
Issue work order requests as required
Drain condensation from air compress
Check all safety equipment

Table 2-8
Northeast Boundary Swirl Facility – Wet Weather Operations

Date	*Approx. Storm Duration (hrs)*[1]	*Total Influent Volume (mg)*	*Total Foul Sewer Volume (mg)*	*Total Effluent Volume (mg)*	*Approx. Screenings Volume (Cu. ft)*
-	-	-	-	-	-

Notes:

1. Approx. length of time influent flow rate was above the 15 mgd threshold but does not reflect the discharge duration through outfall 019.

Chlorination/Dechlorination Systems.

The table below summarizes the information about operation of Swirl Facility chlorination and dechlorination systems during storm events. Chemical feed systems were activated during the storms in which flows were substantial enough to overflow the mix chamber weir. Included in the table are results of residual chlorine and fecal coliform testing for samples taken in the Swirl Facility mix chamber and at the facility effluent outfall to the Anacostia River.

A grab sample is collected and immediately tested with an AutoCat 9000 chlorine residual titrator to obtain test results for residual chlorine. Samples for fecal coliform are taken from the designated sample point, treated with sodium bisulfite to remove any residual chlorine, and conveyed to the Blue Plains Wastewater Treatment Plant Laboratory for testing.

Table 2-9
Northeast Boundary Swirl Facility – Disinfection Performance

Date	*Chlor/ Dechlor System Used?*	*Dosage*		*Residual Chlorine Test Results*		*E. Coli Test Results*	
		NaOCl (mg/l)	*$NaHSO_3$ (mg/l)*	*Location*	*Conc. (mg/l)*	*Site*	*Count Per 100ml*
N/A	-	-	-	Mix Chamber	-	Mix Chamber	-
				Anacostia River[1]	-	Anacostia River[1]	-

Notes:
1. River: River Outfall
2. Sample results marked as N/A are for discharge events lasting less than two hours.

Table 2-10
Northeast Boundary Swirl Facility – Effluent Sampling Results

	Flow Composited Sample Results						
Date	*Total suspended solids (mg/L)*	*Nitrite (NO2-N) mg/L*	*Nitrate (NO3-N)) mg/L*	*Total Kjeldahl Nitrogen (mg/L as N)*	*Total Nitrogen (mg/L)*	*Total Phosphorus (mg/L)*	*Carbonaceous Biological Oxygen Demand (mg/L)*
N/A	-	-	-	-	-	-	-

Notes:
1. Effluent samples taken every two hours and flow composited for a maximum of 24 hours per storm.

2.5 Inflatable Dams and SCADA System

DC Water operates and maintains twelve inflatable dams at eight different locations. The structure number, location and number of dams per site are presented in Table 2-11. 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 2-11
Inflatable Dams – Inspections and Equipment in Service

Inflatable Dam Structure No	*Date Inspected*	*Was Dam Out of Service During the Month?*	*Dates out of Service*	*Reason*	*Schedule to Restore to Service*
14 - East	01/11/18	**No**	**N/A**	**N/A**	**N/A**
14 - West	01/11/18	**No**	**N/A**	**N/A**	**N/A**
15	01/11/18	**No**	**N/A**	**N/A**	**N/A**
15A	01/11/18	**No**	**N/A**	**N/A**	**N/A**
16 - East	01/23/18	**No**	**N/A**	**N/A**	**N/A**
16 - West	01/23/18	**No**	**N/A**	**N/A**	**N/A**
24 - North	01/12/18	**No**	**N/A**	**N/A**	**N/A**
24 - Middle	01/12/18	**No**	**N/A**	**N/A**	**N/A**
24 - South	01/12/18	**No**	**N/A**	**N/A**	**N/A**
34	01/11/18	**No**	**N/A**	**N/A**	**N/A**
35	01/11/18	**No**	**N/A**	**N/A**	**N/A**
52	01/11/18	**No**	**N/A**	**N/A**	**N/A**

Notes:

Table 2-12
Inflatable Dams & SCADA Sites - Wet Weather Operations

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

3. DRY WEATHER OVERFLOWS

There were no dry weather combined sewer overflow during January 2018.

4. SOLIDS AND FLOATABLES CONTROL

4.1 Catch Basin Cleaning

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

Table 4-1
Catch Basin Cleaning

			Inspections			*Cleaning*					
						CBs Cleaned Thru Last Month		*CB's Cleaned This Month*		*Total CBs Cleaned This Year to Date*	
Ward	*Total CBs*	*CBs in CSS*	*CBs in Anacostia CSS*	*Total Anacostia CBs Inspected Once this Year*	*Total Anacostia CBs Inspected Twice this Year*	Total	In CSS	Total	In CSS	Total	In CSS
1	1428	1401	595	1	0	1954	1931	9	9	9	9
2	2807	2637	479	2	0	3210	3050	19	18	19	18
3	3651	189	0	0	0	3687	174	8	1	8	1
4	3428	1708	0	0	0	3453	1700	5	1	5	1
5	3859	1756	1694	16	2	4414	2268	22	18	22	18
6	3324	2715	2705	111	2	3875	3319	119	114	119	114
7	3494	38	32	3	0	3702	62	1197	5	1197	5
8	2716	204	198	0	0	2964	415	33	0	33	0
Grand Total	**24707[1]**	10648[1]	5703[1]	**133**	**4**	**27259**	**12919**	**1412**	**166**	**1412**	**166**
% Cleaned/Inspected to Date				**2%**	**0%**	**110%**	**121%**			**6%**	**2%**

1. The totals have changed due to information that is more accurate.

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

Facility	*Date Inspected*	*Condition*	*Work Needed*	*Work performed*	*Material Removed (LB)*
Netting System CSO 018	1/30/2018	Damaged	Deck grating – needs repair and/or replacement.	Purchase order issued for repairs. Waiting for vender to schedule repairs.	None (2)
Bar Rack CSO 040	01/23/18	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	01/23/18	Good	None	Routine Cleaning	(1)

Notes:
(1) System was designed so that captured solids and floatable are conveyed to Blue Plains for treatment.
(2) CSO 018 netting system is currently unsafe to access to replace the nets so no material was removed. The skimmer program continues to function collecting the floating debris that comes through the CSO unto the river.

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

Program Operation	5-day work week, excluding holidays, weather permitting
Work Days this month:	21
Days not Operating	17
Reason not Operating	Maintenance, wind, low water levels, lightning, ice.
# Skimmer in Fleet	4 Skimmers
# Skimmers Out of Service	None (on the last day of the month)
Dates	N/A
Reason	N/A
Plan to Restore to Service	N/A
Amount Material Collected	10 tons this month. Calendar year to date 10 tons.
Nature of Material	Bottles, cans, natural debris and plastics.

4.4 CSS Litter Control

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

Status: no activities 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 Needed	Work Performed or Schedule for Completion
			Good	Needs Work		
Bar Racks at O Street Storm Pumps (CSO 010)	KW	01/20/18	X			
Bar Racks at Main Storm Pumps (CSO 011)	KW	01/20/18	X			

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
1/1/2018	0	0	0	0	0
1/2/2018	0	0	0	0	0
1/3/2018	0	0	0	0	0
1/4/2018	0	0	0	0	0.10
1/5/2018	0	0	0	0	0
1/6/2018	0	0	0	0	0
1/7/2018	0	0	0	0	0
1/8/2018	0.04	0.03	0.04	0.04	0.06
1/9/2018	0	0.01	0.01	0	0
1/10/2018	0	0	0	0	0
1/11/2018	0	0	0.02	0	0
1/12/2018	0.31	0.25	0.27	0.29	0.37
1/13/2018	0.10	0.12	0.13	0.19	0.11
1/14/2018	0	0	0	0	0
1/15/2018	0	0	0	0	0
1/16/2018	0	0	0	0	0
1/17/2018	0	0	0	0	0.03
1/18/2018	0	0	0	0	0
1/19/2018	0	0	0	0	0
1/20/2018	0	0	0	0	0
1/21/2018	0	0	0	0	0
1/22/2018	0	0	0	0	0
1/23/2018	0.04	0.04	0.07	0.05	0.11
1/24/2018	0	0	0	0	0
1/25/2018	0	0	0	0	0
1/26/2018	0	0	0	0	0
1/27/2018	0	0	0	0	0
1/28/2018	0.15	0.16	0.16	0.16	0.16
1/29/2018	0	0	0	0	0
1/30/2018	0	0	0	0.01	0
1/31/2018	0	0	0	0	0
TOTAL	0.64	0.61	0.70	0.74	0.94

5.3 Wet Weather Overflows

Combined Sewer System Model Results are summarized below.

Combined Sewer System Model Results
Period: January, February, March 2018
SCENARIO: PCM_QuarterlyReport_2018Q1, produced April 11, 2018

NPDES No.	Description	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	10	1.89	43.50	4.35	17.00	0.25
006	Good Hope Road, West of Nichols Ave.,SE	separated					
007	13th Street and Ridge Place,SE	3	0.65	5.00	1.67	2.50	1.00
009	2nd Street, 300 feet North of N Place, SE	4	0.71	9.50	2.38	4.25	1.25
010	O Street SewagePumping Station, SE (pumped Overflow)	6	9.38	3.00	0.50	1.25	0.25
011	South of Main Sewage Pumping Station, SE (pumped overflow)	0	0.00	0.00	0.00	0.00	0.00
011a	South of Main SewagePumping Station, SE (gravity overflow)	0	0.00	0.00	0.00	0.00	0.00
012	North of Main SewagePumping Station, SE (Tiber Creek)	0	0.00	0.00	0.00	0.00	0.00
013	4th and N Streets, SE	5	0.86	7.75	1.55	5.00	0.25
014	6th and M Streets, SE	3	1.11	8.25	2.75	4.00	2.00
015	9th and M Streets, SE	3	0.05	4.25	1.42	2.00	0.75
016	12th and M Streets, SE	3	0.55	3.75	1.25	2.25	0.50
017	14th and M Streets, SE	6	3.56	24.50	4.08	11.25	0.50
018	Barney Circle andPennsylvania Ave, SE	3	1.61	8.75	2.92	3.50	2.25
019	Northeast Boundary - Swirl Effluent	3	75.26	21.00	7.00	13.75	2.75
019	Northeast Bound. - Swirl Bypass	1	1.74	0.75	0.75	0.75	0.75
	SUBTOTAL		**97.37**				

Potomac CSOs							
003	Bolling AFB	0	0.00	0.00	0.00	0.00	0.00
020	23rd Street, North ofConstitution Ave, NW (Easby Point)	3	0.08	4.00	1.33	2.50	0.25
021	Northeast ofRoosevelt Bridge, NW	3	56.19	19.25	6.42	11.25	3.00
022	27th and K Streets, NW	4	0.25	10.50	2.63	4.00	0.50
024	30th and K Streets, NW	2	1.64	11.25	5.63	8.25	3.00
025	31st & K St NW	0	0.00	0.00	0.00	0.00	0.00
026	Wisconsin Avenue andK St., NW	0	0.00	0.00	0.00	0.00	0.00
027	Water Street West ofStreet, NW	3	0.33	3.50	1.17	2.00	0.25
028	36th and M Streets, NW	7	0.35	9.75	1.39	3.50	0.25
029	Canal Road 1000 feet east of Rock Creek,NW	3	0.19	3.50	1.17	1.75	0.75
	SUBTOTAL		**59.03**				
Rock Creek							
031	Pennsylvania Avenue, East Rock Creek, NW	separated					
032	26th and M Streets, NW	0	0.00	0.00	0.00	0.00	0.00
033	N Street extendedwest of 25th Street,NW	0	0.00	0.00	0.00	0.00	0.00
034	23rd and O Streets, SW	0	0.00	0.00	0.00	0.00	0.00
035	22nd Street south of Q Street, NW	0	0.00	0.00	0.00	0.00	0.00
036	22nd Street South of Q Street, NW	3	0.023	4.25	1.42	2.25	0.75
037	Northwest of Belmontand Rock Creek and Potomac Parkway	separated					
038	North of Belmont Road,east of Kalorama Circle, NW	0	0.00	0.00	0.00	0.00	0.00
039	Connecticut Avenue east of Rock Creek, NW	0	0.00	0.00	0.00	0.00	0.00
040	Biltmore Street extended east of RockCreek, NW	0	0.00	0.00	0.00	0.00	0.00
041	Ontario extended and Rock Creek Parkway	0	0.00	0.00	0.00	0.00	0.00
042	Harvard Street and RockCreek Parkway, NW	0	0.00	0.00	0.00	0.00	0.00

043	Adams Mill Road South of Irving Street, NW	0	0.00	0.00	0.00	0.00	0.00
044	Kenyon Street and Adams Mill Road, NW	0	0.000	0.00	0.00	0.00	0.00
045	Adams Mill Road and Lamont Street, NW	0	0.00	0.00	0.00	0.00	0.00
046	Park Road south of Piney Branch Parkway, NW	0	0.00	0.00	0.00	0.00	0.00
047	Ingleside Terrace extended and Piney Branch Parkway	0	0.000	0.00	0.00	0.00	0.00
048	Mt. Pleasant Street extended and Piney Branch Parkway	0	0.00	0.00	0.00	0.00	0.00
049	Piney Branch and LamontStreet, NW	3	2.19	8.00	2.67	3.50	2.00
050	28th Street west of 16th Street, NW	0	0.00	0.00	0.00	0.00	0.00
051	Olive Street extended and Rock Creek Parkway, NW	0	0.00	0.00	0.00	0.00	0.00
052	O Street extended and Rock Creek Parkway, NW	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 Creek300 ft. south of Mass. Ave, NW	0	0.00	0.00	0.00	0.00	0.00
056	Normanstone Drive extended west of Rock Creek, NW	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 26th St, NW	0	0.00	0.00	0.00	0.00	0.00
	SUBTOTAL		**2.21**				
	TOTAL		**158.62**				

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

Monthly Operations Report
For
Combined Sewer System
Month: February 2018

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

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

Monthly Operations Report for Combined Sewer System
Month: February 2018

Table of Contents

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 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	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	02/20/18	*			
4	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	02/20/18	*			
5	Poplar Point Pumping Station	004	02/20/18	*			
6	Chicago Street and Railroad Ave, SE	005	02/02/18	*			
7	W Street and Railroad Ave, SE	005	02/02/18	*			
8[1]	Good Hope Rd, west of Nichols Ave, SE	006	N/A				
9	13th Street and Ridge Place, SE	007	02/02/18	*			
11	"O" Street Pumping Station	011(a)	02/20/18	*			
12	Storm Pump Discharge at Main Pumping Station	011	02/21/18	*			
13	2nd Street, 300 ft. north of N Place, SE	009	02/16/18	*			
14	2nd Street, 250 ft. north of N Place, SE	011(a)	02/16/18	*			
15	South Capitol and E Streets	010	02/13/18	*			
15a	Half and L Streets, SE	010	02/13/18	*			
15b	South Capitol and I Streets	010	02/09/18	*			
15c	South Capitol and I Streets	010	02/09/18	*			
16	North of Main Sewage Pumping Station	012	02/16/18	*			

Structure Number	*Location*	*Associated NPDES Outfall*	*Date Inspected*	*Condition*		*Work Needed*	*Work performed*
				Good	Needs Work		
17	4th and N Streets, SE, Both Extended	013	02/12/18	*			
17a	K Street between 6th Street and 7th Street, SE	013	02/21/18	*			
18	6th and M Streets, SE	014	02/05/18	*			
19	9th and M Streets, SE	015	02/06/18	*			
19a	9th and M Streets, SE	015	02/06/18	*			
20	12th and M Streets, SE	016	02/06/18	*			
20a	12th and M Streets, SE	016	02/06/18	*			
21	14th and M Streets, SE	017	02/06/18	*			
22a	Barney Circle and Pennsylvania Ave, SE	018	02/12/18	*			
22b	Barney Circle and Pennsylvania Ave, SE	018	02/12/18	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	02/12/18	*			
22d	Kentucky Ave and Potomac Street, SE	018	02/09/18	*			
22e	14th Street and Kentucky Ave, SE	018	02/09/18	*			
23	Independence Ave, 21st Street, SE, Extended	019	02/05/18	*			
24a	East Capitol St, west of RFK stadium	019	02/05/18	*			
28	21st and Constitution Ave, NW	020	02/16/18	*			
29	22nd Street, between Constitution Ave and C St, NW	020	02/16/18	*			
30	17th and D Streets, NW	020	02/16/18	*			
31	15th Street and Pennsylvania Ave, NW	020	02/16/18	*			
33	10th and F Streets, NW	020	02/16/18	*			
34	23rd Street, north of Constitution Ave, NW	020	02/13/18	*			
34a	23rd Street near C Street, NW	020	02/16/18	*			
35	Northeast of Roosevelt Bridge, NW	021	02/13/18	*			
36	27th and I Streets, NW	022	02/16/18	*			
36a	New Hampshire Ave and Eye Street, NW	022	02/16/18	*			
36b	19th and L Streets, NW	022, 034	02/09/18	*			
36d	17th and L Streets, NW	022, 034	02/09/18	*			
36g	18th and M Streets, NW	022, 034	02/09/18	*			
36h	18th and M Streets, NW	022, 034	02/09/18	*			
37	27th and Eye Streets, NW	022	02/16/18	*			
38	29th and K Streets, NW	024	02/02/18	*			
38a	30th Street, south of K Street, NW	024	02/02/18	*			
39a	30th and K Streets, NW	024	02/02/18	*			
39b	30th and K Streets, NW	024	02/02/18	*			

Structure Number	*Location*	*Associated NPDES Outfall*	*Date Inspected*	*Condition*		*Work Needed*	*Work performed*
				Good	Needs Work		
41b	31st and K Streets, NW	025	02/02/18	*			
41c	31st and K Streets, NW	025	02/02/18	*			
42	Wisconsin Ave and K Street, NW	026	02/09/18	*			
43	Potomac and Water Streets, NW	027	02/09/18	*			
43a	Potomac and Water Streets, NW	027	02/09/18	*			
44	Water Street, west of Potomac St, NW	027	02/09/18	*			
45	36th and M Streets, NW	028	02/05/18	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	02/05/18	*			
47	38th Street and Reservoir Road, NW	029	02/05/18	*			
47a	37th and T Streets, NW	029	02/05/18	*			
47b	37th and T Streets, NW	029	02/05/18	*			
47c	38th and W Streets, NW	029	02/05/18	*			
49[1]	Pennsylvania Ave, east side of Rock Creek, NW	031	N/A				
50	26 and M Streets, NW	032	02/09/18	*			
51	N Street Extended, west of 25th Street, NW	033	02/09/18	*			
52	22nd Street between M and N Streets, NW	034	02/13/18	*			
52a	N Street between 22nd and 23rd Streets, NW	034	02/13/18	*			
53	22nd and M Streets, NW	022, 034	02/14/18	*			
53a	22nd and M Streets, NW	022, 034	02/14/18	*			
53b	L Street between 21st Street and New Hampshire Ave, NW	022, 034	02/14/18	*			
53c	L and 22nd Streets, NW	022	02/14/18	*			
54	23rd and O Streets, NW	034	02/12/18	*			
55	22nd Street, south of Q Street, NW	035	02/12/18	*			
55a	22nd Street, south of Q Street, NW	035	02/12/18	*			
56	23rd and Massachusetts Ave, NW	036	02/12/18	*			
57	23rd Street, south of Q Street, NW	036	02/12/18	*			
58[1]	Northwest of Belmont Road and Rock Creek and Potomac Parkway, NW	037	N/A				
59	North of Belmont Rd, east of Kalorama Cir, NW	038	02/02/18	*			
60	Connecticut Ave, east of Rock Creek, NW	039	02/02/18	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	02/02/18	*			
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	02/07/18	*			
63	Harvard Street and Rock Creek Parkway, NW	042	02/07/18	*			
64	Adams Mill Road, south of Irving Street, NW	043	02/08/18	*			

Structure Number	*Location*	*Associated NPDES Outfall*	*Date Inspected*	*Condition*		*Work Needed*	*Work performed*
				Good	Needs Work		
65	Kenyon Street and Adams Mill Road, NW	044	02/07/18	*			
65a	Kenyon Street and Adams Mill Road, NW	044	02/07/18	*			
66	Adams Mill Road and Lamont Street, NW	045	02/07/18	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	02/07/18	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	02/07/18	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	02/08/18	*			
70	Piney Branch Parkway, west of 16th Street, NW	049	02/08/18	*			
70i	5th and Quackenbos Streets, NW	049	02/05/18	*			
71	28th Street, west of Rock Creek Parkway, NW	050	02/14/18	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	02/12/18	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	02/12/18	*			
73	O Street Extended and Rock Creek Parkway, NW	052	02/12/18	*			
74[1]	Q Street, west of Rock Creek, NW	053	N/A				
75	West side of Rock Creek, 300 ft. south of Massachusetts Ave, NW	054	02/14/18	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	02/14/18	*			
77a	Normanstone Dr and Normanstone Lane, NW	056	02/14/18	*			
78[1]	28th Street Extended, west of Rock Creek, NW	057	N/A				
79[1]	Connecticut Ave and Rock Creek Parkway, NW	058	N/A				
84	26th and P Streets, NW	060	02/12/18	*			
84a	26th and P Streets, NW	060	02/12/18	*			
86[2]	Diversion Chamber at First and Channing St, NW	019	02/14/18	*			
87[2]	Vortex Drop at Shaft at First and Channing St, NW	019	02/14/18	*			
88[2]	Flagler and Adams St. NW	019	02/14/18	*			
89[2]	First and V St, NW	019	02/14/18	*			
90[2]	First and V St, NW	019	02/14/18	*			
91[2]	First and V St, NW	019	02/14/18	*			

Notes:

1. Structure no longer functions as a combined sewer overflow regulator structure.
2. Newly acquired First Street Tunnel regulator structures.

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	Bolling Air Force Base, at Giavanolli and Chanute, SW	02/20/18	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	02/08/18	*		*		*		*		
006[1]	Good Hope Road and Welsh Memorial Bridge	N/A									
007	Between 11th St. and Anacostia Bridges, SE	02/08/18	*		*		*		*		
009	O St. Sewage Pumping Station, SE	02/21/18	*		*		*		*		
010	O St. Sewage Pumping Station, SE	02/21/18	*			*			*		
011	Main Sewage Pumping Station, SE	02/21/18	*			*			*		
011(a)	Main Sewage Pumping Station, SE	02/21/18	*		*		*		*		
012	Main Sewage Pumping Station, SE	02/21/18	*		*		*		*		
013	Southeast Federal Center, aligned with 4th St.	02/21/18	*		*		*		*		
014	Navy Yard, aligned with 6th St., SE	02/21/18	*		*			*	*		The 7'x7'x4' tidegate is currently being fabricated. We are awaiting construction permit approval from base officials.
015	Navy Yard, aligned with 9th Street, SE	02/21/18	*			*			*		
016	12th and O Streets, SE	02/21/18	*		*		*		*		
017	M and Water Street, SE	02/21/18	*		*		*		*		
018	East of Barney Circle & South of Pennsylvania Avenue Bridge, SE	02/21/18	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility & D.C. General Hospital	02/23/18	*		*		*		*		
020	Rock Creek Parkway and Independence, NW	02/15/18	*		*		*		*		
021	Rock Creek Parkway and C St., NW	02/15/18	*		*		*		*		
022	Rock Creek Parkway and G St., NW	02/15/18	*		*		*		*		
024	South of 30th and K Streets, NW[1]	02/15/18	*		*		*		*		
025	South of 31st and K Streets, NW	02/15/18	*		*		*		*		
026	Wisconsin Avenue and Water Street, NW	02/15/18	*		*		*		*		
027	33rd and Water Sts., NW	02/15/18	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	02/15/18	*			*			*		
029	Adjacent to C&O Canal, aligned with 38th St. NW	02/15/18	*			*			*		
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.	02/09/18	*			*			*		
033	Across street from St. Francis Jr. High and aligned with N St., NW.	02/09/18	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	02/12/18	*			*			*		
035	P St. Bridge and Rock Creek Parkway	02/12/18	*			*			*		
036	22nd Street, South of Q Street NW.	02/08/18	*		*		*		*		
037[1]	Waterside Dr. and Rock Creek Parkway	N/A									
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	02/02/18	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	02/02/18	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	02/02/18	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	02/23/18	*		*		*		*		
042	Harvard St. and Beach Dr NW.	02/23/18	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	02/23/18	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	02/23/18	*		*		*		*		
045	North of Beach Dr. and Walbridge Pl, NW.	02/23/18	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	02/07/18	*			*			*		
047	Piney Branch Parkway and Ingleside Terrace	02/07/18	*		*		*		*		
048	South of Piney Branch Parkway and 17th St.	02/08/18	*		*		*		*		
049	North of Piney Branch Parkway and 17th St.	02/08/18	*		*		*		*		
050	Rock Creek Parkway and L St., NW	02/14/18	*		*		*		*		
051	Across Rock Creek Pkwy, aligned with Olive St., NW.	02/23/18	*		*		*		*		
052	Between P & Penna. Ave Bridges, aligned with O Street, NW.	02/23/18	*		*		*		*		
053[1]	Q St. Bridge and Rock Creek Parkway, NW.	N/A									
054	Massachusetts Ave & Rock Creek Parkway, NW.	02/14/18	*		*		*		*		
056	Normanstone Dr. and Rock Creek Parkway, NW.	02/14/18	*		*		*		*		
057[1]	28th Street and Rock Creek Parkway, NW	N/A									
058[1]	Connecticut Ave & Rock Creek Parkway, NW.	N/A									
060	North of P St. Bridge & Rock Creek Pkwy, NW	02/08/18	*		*		*		*		

Notes:

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

2.3.1 Pumping Stations

Pumping station operations are summarized in the table below.

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

Pumping Station	*No. of Inspections*	*No. Screens*	*No. Pumps*	*Screens or Pumps Out of Service*	*Dates*	*Reason*	*Work Order Number*	*Schedule to Restore to Service[1]*
Main	31	3	4	Pump # 1	02/01/18-02/28/18	Motor Rehab	17-686275	Anticipated 03/01/18
Eastside	3	2	4	Screen # 1	02/01/18 -02/28/18	Screen not running	18-208694	Anticipated 03/31/18
Poplar Point (old)[2]	1	2	3	Screen # 2	03/01/18 – 03/20/18	Rake to be realigned	18-129876	Pump Station should be officially decommissioned in 2018[2]
Poplar Point (new)[2]	1	2	4	None	-	-	-	DC Clean Rivers/EEC Cruz (Contractor) executing operational Demonstration)
Potomac[1]	31	4	5	Pump #5 Screen #4 Pump # 4	02/01/18-02/28/18 02/01/18-02/28/18 02/01/18-02/28/18	Phase 3 upgrade Project Phase 3 Upgrade Project Phase 3 Project Upgrade	Contractor Contractor Contractor	Available if needed[3] Anticipated 3/31/18 Available if needed[4]

Notes:

1. The age and type of equipment has an impact on the return to service schedule. In some cases, the condition of the equipment and the lack of availability of replacement parts necessitate complete replacement of the unit or element or custom fabrication of needed parts to return the units to service. For these and other reasons, projects are underway for the rehabilitation of the pumping stations, including replacement of mechanical screens. The Potomac Pumping Station Phase 3 upgrade project is currently ongoing and replacement of the mechanical screens, sluice gates, and discharge isolations valves began in September 2016 scheduled for completion in April 2018.
2. The flow through "old" Poplar Point station is being by-passed to facilitate construction activities. Effective February 10th, 2018 to ensure the contractor hands over to DC Water a station that is fully functional waste water flow was introduced into the "new" Poplar Point pumping station to perform operational demonstration for all wet stream equipment. For the "new" Poplar Point Pumping Station, single pump capacity is approximately 19 MGD, with total station capacity (firm capacity) equal to approximately 57 mgd. The old station is officially offline as of 03/20/18.
3. Pump # 5 – No work on equipment but was out of service due to work in wet well # 5.
4. Pump # 4 – No work on equipment but was out of service due to work in the wet well # 4.

Table 2-4
Pumping Stations – Preventive Maintenance

Pumping Station	*Date Performed*	*Type of Preventive Maintenance Performed*[1]	*Work Order Number*	*Comments*
Main	02/27/18	Group A	18-131756	Add oil, grease bearings and replace packing if needed.
O St	02/21/18	Group A	18-153413	Add oil, grease bearings and replace packing if needed.
Eastside	02/03/18	Group A	18-95995	Add oil, grease bearings and replace packing if needed.
Poplar Point	02/03/18	Group A	18-130339	Add oil, grease bearings and replace packing if needed.
Potomac	02/05/18	Group A	18-96565	Add oil, grease bearings and replace packing if needed.
Rock Creek	02/03/18	Group A	18-100204	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	02/03/18	Group A	18-131770	Add oil, grease bearings and replace packing if needed.
Earl Place	02/03/18	Group A	18-113179	Add oil, grease bearings and replace packing if needed.
1st Street Tunnel Dewatering	02/18/18	Group B	N/A	

Notes:

1. Group A consists of:

Exercise bar screens
Exercise all sump pumps
Drain condensation from air compressor storage tank
Check depth of screening in the screen room and schedule Vactor truck as required
Check all safety equipment
Issue work order requests as required

2. Group B consists of:
   a. Inspect and manually run CSO Pumps
   b. Generator:
      i. Inspection operation and test, inspect oil level, inspect coolant level
   c. MCC:
      i. Test gas monitoring system
      ii. Inspect and test level indicators
   d. Valve Vault
      i. Lubricate knife gate valve stem and stem nut
      ii. Flush air and vacuum release valve

Table 2-5
Pumping Stations – Pumpage

Pumping Station	*Sanitary Pumpage*		*Storm Water/CSO Pumped To Anacostia River*			*Pumpage of CSO from First Street Tunnel back to Sewer System*	
	Total Wastewater (mg)	*Daily Average Wastewater (mg)*	*Date*	*Volume (mg)*	*Screenings Collected (units)*[1]	*Date*	*Volume (mg)*
Main	1643.81	58.68	2/04/18	39.76	Normal	N/A	N/A
O St	116.9	4.18	2/10/18	34.93	Normal	N/A	N/A
			2/11/18	41.72	Normal		
Eastside	209.23	7.47	N/A	N/A	N/A	N/A	N/A
Poplar Point[2]	278.91	9.96	N/A	N/A	N/A	N/A	N/A
Potomac	3106.36	110.94	N/A	N/A	N/A	N/A	N/A
Rock Creek	195.95	7.0	N/A	N/A	N/A	N/A	N/A
Upper Anacostia	37.70	1.31	N/A	N/A	N/A	N/A	N/A
Earl Place	0.129	0.005	N/A	N/A	N/A	N/A	N/A
1st Street Tunnel Dewatering	N/A	N/A	N/A	N/A	N/A	2/11/18	1.0
						2/12/18	0.43
						2/13/18	0.25
						2/14/18	0.17
						2/15/18	0.19
						2/25/18	0.10

Notes:
1. Screening consists of vertical trash racks, with no mechanical cleaning. Quantification of captured materials is not possible on monthly basis.
2. On July 14 2017, bypass pumping began at Poplar Point Pumping Station, in connection with the replacement of this station. Use is made of historical flows to estimate the Pumping totals.
   Effective February 10th, 2018 to ensure the contractor hands over to DC Water a station that is fully functional waste water flow was introduced into the "new" Poplar Point pumping station to perform operational demonstration for all wet stream equipment. For the "new" Poplar Point Pumping Station, single pump capacity is approximately 19 MGD, with total station capacity (firm capacity) equal to approximately 57 mgd.

2.4 Northeast Boundary Swirl Facility

The Northeast Boundary Swirl Facility provides screening, swirl concentration, chlorination and dechlorination of CSO overflow from CSO 019. The capacity of the facility is 400 MGD. Facility operations are summarized below:

Table 2-6
Northeast Boundary Swirl Facility – Inspections and Equipment in Service

Date Inspected	*No. Screens*	*No. Swirls*	*Screens or Swirls Out of Service*	*Dates*	*Reason*	*Schedule to Restore to Service*
02/03/18	3	3	Screen #3	02/01/18-02/28/18	Bent bars & back plate	NEB Swirl to be Decommissioned 03/23/18

Table 2-7
Northeast Boundary Swirl Facility – Preventive Maintenance

Date Performed	*Type of Preventive Maintenance Performed*[1]	*Work Order Number*	*Comments*
02/03/18	Group A	18-140251	

Notes:
1. Group A consists of:
Exercise bar screens
Exercise wash down system
Exercise knife gates full travel both directions
Check depth of grit in grit channel and schedule Vactor truck as required
Change chart paper on strip chart recorders at the end of each month
Thoroughly clean each Swirl tank and channels
Issue work order requests as required
Drain condensation from air compress
Check all safety equipment

Table 2-8
Northeast Boundary Swirl Facility – Wet Weather Operations

Date	*Approx. Storm Duration (hrs)*[1]	*Total Influent Volume (mg)*	*Total Foul Sewer Volume (mg)*	*Total Effluent Volume (mg)*	*Approx. Screenings Volume (Cu. ft)*
2/04/18	5.0	29.74	2.71	27.03	148
2/07/18	7.5	5.50	5.49	0.01	160
2/10/18	9.0	27.46	13.82	13.64	104
2/11/18	7.58	27.74	13.86	13.88	72
2/17/18	5.0	2.01	2.01	0.0	96

1. Approx. length of time influent flow rate was above the 15 mgd threshold but does not reflect the discharge duration through outfall 019.

Chlorination/Dechlorination Systems.

The table below summarizes the information about operation of Swirl Facility chlorination and dechlorination systems during storm events. Chemical feed systems were activated during the storms in which flows were substantial enough to overflow the mix chamber weir. Included in the table are results of residual chlorine and fecal coliform testing for samples taken in the Swirl Facility mix chamber and at the facility effluent outfall to the Anacostia River.

A grab sample is collected and immediately tested with an AutoCat 9000 chlorine residual titrator to obtain test results for residual chlorine. Samples for fecal coliform are taken from the designated sample point, treated with sodium bisulfite to remove any residual chlorine, and conveyed to the Blue Plains Wastewater Treatment Plant Laboratory for testing.

Table 2-9
Northeast Boundary Swirl Facility – Disinfection Performance

Date	*Chlor/ Dechlor System Used?*	*Dosage*		*Residual Chlorine Test Results*		*E. Coli Test Results*	
		NaOCl (mg/l)	*$NaHSO_3$ (mg/l)*	*Location*	*Conc. (mg/l)*	*Site*	*Count Per 100ml*
2/04/18	Yes	1.6	10.7	Mix Chamber	0.18	Mix Chamber	310,000
				Anacostia River[1]	0.01	Anacostia River[1]	30,000
2/07/18	Yes	1.3	0.9	Mix Chamber	N/A	Mix Chamber	N/A
				Anacostia River[1]	N/A	Anacostia River[1]	N/A
2/10/18	Yes	4.0	9.2	Mix Chamber	0.53	Mix Chamber	2,800
				Anacostia River	0.01	Anacostia River	26,000
2/11/18	Yes	4.7	11.0	Mix Chamber	0.56	Mix Chamber	320
				Anacostia River	0	Anacostia River	23,000

Notes:
1. River: River Outfall
2. Sample results marked as N/A are for discharge events lasting less than two hours.

Table 2-10
Northeast Boundary Swirl Facility – Effluent Sampling Results

	Flow Composited Sample Results						
Date	*Total suspended solids (mg/L)*	*Nitrite (NO2-N) mg/L*	*Nitrate (NO3-N)) mg/L*	*Total Kjeldahl Nitrogen (mg/L as N)*	*Total Nitrogen (mg/L)*	*Total Phosphorus (mg/L)*	*Carbonaceous Biological Oxygen Demand (mg/L)*
2/04/18	67.0	0.00	0.53	2.75	3.28	0.56	22.7
2/10/18	97.0	0.00	0.46	2.40	2.86	0.53	21.7
2/11/18	34.0	0.00	1.13	3.20	4.33	0.52	16.0

Notes:
1. Effluent samples taken every two hours and flow composited for a maximum of 24 hours per storm.

2.5 Inflatable Dams and SCADA System

DC Water operates and maintains twelve inflatable dams at eight different locations. The structure number, location and number of dams per site are presented in Table 2-11. 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 2-11
Inflatable Dams – Inspections and Equipment in Service

Inflatable Dam Structure No	*Date Inspected*	*Was Dam Out of Service During the Month?*	*Dates out of Service*	*Reason*	*Schedule to Restore to Service*
14 - East	02/22/18	**No**	**N/A**	**N/A**	**N/A**
14 - West	02/22/18	**No**	**N/A**	**N/A**	**N/A**
15	02/13/18	**No**	**N/A**	**N/A**	**N/A**
15A	02/13/18	**No**	**N/A**	**N/A**	**N/A**
16 - East	02/22/18	**No**	**N/A**	**N/A**	**N/A**
16 - West	02/22/18	**No**	**N/A**	**N/A**	**N/A**
24 - North	02/15/18	**No**	**N/A**	**N/A**	**N/A**
24 - Middle	02/15/18	**No**	**N/A**	**N/A**	**N/A**
24 - South	02/15/18	**No**	**N/A**	**N/A**	**N/A**
34	02/13/18	**No**	**N/A**	**N/A**	**N/A**
35	02/13/18	**No**	**N/A**	**N/A**	**N/A**
52	02/13/18	**No**	**N/A**	**N/A**	**N/A**

Notes:

Table 2-12
Inflatable Dams & SCADA Sites - Wet Weather Operations

Inflatable Dam Structure No.	*Overflow Dates*	*Estimated Duration of Overflow*
14 (E & W)	*None*	*N/A*
15	*02/04/18* *02/10/18* *02/11/18*	*3 hrs. 25 mins.* *4 hrs. 5 mins.* *6 hrs. 20 mins*
15A	*None*	*N/A*
16 (E & W)	*02/04/18* *02/11/18*	*1 hr. 1 min* *0 hrs. 52 mins*
24	*02/04/18* *02/11/18*	*1 hr. 1 min.* *1 hr. 8 mins.*
34	*None*	*N/A*
35	*02/04/18* *02/10/18* *02/11/18*	*2hrs. 12 min.* *0 hrs. 58 min.* *1 hr. 29 mins.*
52	*None*	*N/A*
Structures on Outfall Sewers	*Overflow Dates*	*Estimated Duration of Overflow*
Outfall Structure 1	None	This structure has been bulk headed. Overflows are no longer possible.
Outfall Structure 1A	None	This structure has been bulk headed. Overflows are no longer possible.
Outfall Structure 2	None	N/A
Outfall Sewer Control Gates	*Operational Status*	*Position*
Outfall Sewer Control Gate No.1	Operational	Open
Outfall Sewer Control Gate No.2	Operational	This structure has been bulk headed. Overflows are no longer possible
Outfall Sewer Control Gate No.2	Operational	This structure has been bulk headed. Overflows are no longer possible

Notes:

3. DRY WEATHER OVERFLOWS

There were no dry weather combined sewer overflow during February 2018.

4. SOLIDS AND FLOATABLES CONTROL

4.1 Catch Basin Cleaning

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

Table 4-1
Catch Basin Cleaning

			Inspections			*Cleaning*					
						CBs Cleaned Thru Last Month		*CB's Cleaned This Month*		*Total CBs Cleaned This Year to Date*	
Ward	*Total CBs*	*CBs in CSS*	*CBs in Anacostia CSS*	*Total Anacostia CBs Inspected Once this Year*	*Total Anacostia CBs Inspected Twice this Year*	Total	In CSS	Total	In CSS	Total	In CSS
1	1428	1401	595	2	0	9	9	1	1	10	10
2	2807	2637	479	85	1	19	18	142	103	161	121
3	3651	189	0	0	0	8	1	1	0	9	1
4	3428	1708	0	0	0	5	1	0	0	5	1
5	3859	1756	1694	19	2	22	18	4	3	26	21
6	3324	2715	2705	450	10	119	114	644	347	763	461
7	3494	38	32	3	0	1197	5	1255	1	2452	6
8	2716	204	198	0	0	33	0	1	0	34	0
Grand Total	**24707[1]**	10648[1]	5703[1]	**559**	13	1412	166	2048	455	3460	621
% Cleaned/Inspected to Date				**10%**	**0%**	6%	**2%**			**14%**	**6%**

1. The totals have changed due to information that is more accurate.

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

Facility	*Date Inspected*	*Condition*	*Work Needed*	*Work performed*	*Material Removed (LB)*
Netting System CSO 018	2/26/2018	Damaged	Deck grating – needs repair and/or replacement.	Purchase order issued for repairs. Waiting for vender to schedule repairs.	None (2)
Bar Rack CSO 040	2/02/2018	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	2/23/2018	Good	None	Routine Cleaning	(1)

Notes:
(1) System was designed so that captured solids and floatable are conveyed to Blue Plains for treatment.
(2) CSO 018 netting system is currently unsafe to access to replace the nets so no material was removed. The skimmer program continues to function collecting the floating debris that comes through the CSO unto the river.

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

Program Operation	5-day work week, excluding holidays, weather permitting
Work Days this month:	19
Days not Operating	4
Reason not Operating	Maintenance, wind, low water levels, lightning.
# Skimmer in Fleet	4 Skimmers
# Skimmers Out of Service	None (on the last day of the month)
Dates	N/A
Reason	N/A
Plan to Restore to Service	N/A
Amount Material Collected	60 tons this month. Calendar year to date 70 tons.
Nature of Material	Bottles, cans, natural debris and plastics.

4.4 CSS Litter Control

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

Status: no activities 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 Needed	Work Performed or Schedule for Completion
			Good	Needs Work		
Bar Racks at O Street Storm Pumps (CSO 010)	KW	02/18/18	X			
Bar Racks at Main Storm Pumps (CSO 011)	KW	02/18/18	X			

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
2/1/2018	0.01	0.06	0	0.02	0.02
2/2/2018	0.04	0.04	0.04	0.05	0.04
2/3/2018	0	0	0	0	0
2/4/2018	1.26	1.08	1.08	1.12	1.12
2/5/2018	0	0	0	0	0
2/6/2018	0.01	0	0	0	0
2/7/2018	0.50	0.46	0.43	0.44	0.49
2/8/2018	0	0	0	0	0
2/9/2018	0	0	0	0	0
2/10/2018	0.95	0.95	0.96	0.98	1.06
2/11/2018	0.96	0.94	0.95	0.96	1.05
2/12/2018	0.09	0.09	0.10	0.11	0.09
2/13/2018	0	0	0	0	0
2/14/2018	0.03	0.03	0.03	0.04	0.03
2/15/2018	0.02	0.02	0.01	0.01	0.01
2/16/2018	0.05	0.07	0.05	0.09	0.05
2/17/2018	0.14	0.10	0.35	0.40	0.42
2/18/2018	0.39	0.41	0.07	0.07	0
2/19/2018	0.01	0.02	0.02	0.01	0.02
2/20/2018	0	0	0	0	0
2/21/2018	0	0	0	0.01	0
2/22/2018	0.07	0.07	0.06	0.07	0.06
2/23/2018	0.05	0.03	0.01	0.02	0
2/24/2018	0.11	0.12	0.12	0.12	0.16
2/25/2018	0.16	0.13	0.16	0.11	0.17
2/26/2018	0	0	0	0	0
2/27/2018	0	0	0	0	0
2/28/2018	0	0	0	0	0
TOTAL	4.85	4.62	4.44	4.63	4.79

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, March 2018
SCENARIO: PCM_QuarterlyReport_2018Q1, produced April 11, 2018

NPDES No.	Description	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	10	1.89	43.50	4.35	17.00	0.25
006	Good Hope Road, West of Nichols Ave.,SE	separated					
007	13th Street and Ridge Place,SE	3	0.65	5.00	1.67	2.50	1.00
009	2nd Street, 300 feet North of N Place, SE	4	0.71	9.50	2.38	4.25	1.25
010	O Street SewagePumping Station, SE (pumped Overflow)	6	9.38	3.00	0.50	1.25	0.25
011	South of Main Sewage Pumping Station, SE (pumped overflow)	0	0.00	0.00	0.00	0.00	0.00
011a	South of Main SewagePumping Station, SE (gravity overflow)	0	0.00	0.00	0.00	0.00	0.00
012	North of Main SewagePumping Station, SE (Tiber Creek)	0	0.00	0.00	0.00	0.00	0.00
013	4th and N Streets, SE	5	0.86	7.75	1.55	5.00	0.25
014	6th and M Streets, SE	3	1.11	8.25	2.75	4.00	2.00
015	9th and M Streets, SE	3	0.05	4.25	1.42	2.00	0.75
016	12th and M Streets, SE	3	0.55	3.75	1.25	2.25	0.50
017	14th and M Streets, SE	6	3.56	24.50	4.08	11.25	0.50
018	Barney Circle and Pennsylvania Ave, SE	3	1.61	8.75	2.92	3.50	2.25
019	Northeast Boundary - Swirl Effluent	3	75.26	21.00	7.00	13.75	2.75
019	Northeast Bound. - Swirl Bypass	1	1.74	0.75	0.75	0.75	0.75
	SUBTOTAL		**97.37**				

Potomac CSOs							
003	Bolling AFB	0	0.00	0.00	0.00	0.00	0.00
020	23rd Street, North ofConstitution Ave, NW (Easby Point)	3	0.08	4.00	1.33	2.50	0.25
021	Northeast ofRoosevelt Bridge, NW	3	56.19	19.25	6.42	11.25	3.00
022	27th and K Streets, NW	4	0.25	10.50	2.63	4.00	0.50
024	30th and K Streets, NW	2	1.64	11.25	5.63	8.25	3.00
025	31st & K St NW	0	0.00	0.00	0.00	0.00	0.00
026	Wisconsin Avenue andK St., NW	0	0.00	0.00	0.00	0.00	0.00
027	Water Street West ofStreet, NW	3	0.33	3.50	1.17	2.00	0.25
028	36th and M Streets, NW	7	0.35	9.75	1.39	3.50	0.25
029	Canal Road 1000 feet east of Rock Creek,NW	3	0.19	3.50	1.17	1.75	0.75
	SUBTOTAL		**59.03**				
Rock Creek							
031	Pennsylvania Avenue, East Rock Creek, NW	separated					
032	26th and M Streets, NW	0	0.00	0.00	0.00	0.00	0.00
033	N Street extendedwest of 25th Street,NW	0	0.00	0.00	0.00	0.00	0.00
034	23rd and O Streets, SW	0	0.00	0.00	0.00	0.00	0.00
035	22nd Street south of Q Street, NW	0	0.00	0.00	0.00	0.00	0.00
036	22nd Street South of Q Street, NW	3	0.023	4.25	1.42	2.25	0.75
037	Northwest of Belmontand Rock Creek and Potomac Parkway	separated					
038	North of Belmont Road,east of Kalorama Circle, NW	0	0.00	0.00	0.00	0.00	0.00
039	Connecticut Avenue east of Rock Creek, NW	0	0.00	0.00	0.00	0.00	0.00
040	Biltmore Street extended east of RockCreek, NW	0	0.00	0.00	0.00	0.00	0.00
041	Ontario extended and Rock Creek Parkway	0	0.00	0.00	0.00	0.00	0.00
042	Harvard Street and RockCreek Parkway, NW	0	0.00	0.00	0.00	0.00	0.00

043	Adams Mill Road South of Irving Street, NW	0	0.00	0.00	0.00	0.00	0.00
044	Kenyon Street and Adams Mill Road, NW	0	0.000	0.00	0.00	0.00	0.00
045	Adams Mill Road and Lamont Street, NW	0	0.00	0.00	0.00	0.00	0.00
046	Park Road south of Piney Branch Parkway, NW	0	0.00	0.00	0.00	0.00	0.00
047	Ingleside Terrace extended and Piney Branch Parkway	0	0.000	0.00	0.00	0.00	0.00
048	Mt. Pleasant Street extended and Piney Branch Parkway	0	0.00	0.00	0.00	0.00	0.00
049	Piney Branch and LamontStreet, NW	3	2.19	8.00	2.67	3.50	2.00
050	28th Street west of 16th Street, NW	0	0.00	0.00	0.00	0.00	0.00
051	Olive Street extended and Rock Creek Parkway, NW	0	0.00	0.00	0.00	0.00	0.00
052	O Street extended and Rock Creek Parkway, NW	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 Creek300 ft. south of Mass. Ave, NW	0	0.00	0.00	0.00	0.00	0.00
056	Normanstone Drive extended west of Rock Creek, NW	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 26th St, NW	0	0.00	0.00	0.00	0.00	0.00
	SUBTOTAL		**2.21**				
	TOTAL		**158.62**				

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

Monthly Operations Report
For
Combined Sewer System
Month: March 2018

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

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

Monthly Operations Report for Combined Sewer System
Month: March 2018

Table of Contents

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 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	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	03/19/18	*			
4	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	03/19/18	*			
5	Poplar Point Pumping Station	004	03/29/18	*			
6	Chicago Street and Railroad Ave, SE	005	03/19/18	*			
7	W Street and Railroad Ave, SE	005	03/19/18	*			
8[1]	Good Hope Rd, west of Nichols Ave, SE	006	N/A				
9	13th Street and Ridge Place, SE	007	03/19/18	*			
11	"O" Street Pumping Station	011(a)	03/29/18	*			
12	Storm Pump Discharge at Main Pumping Station	011	03/08/18	*			
13	2nd Street, 300 ft. north of N Place, SE	009	03/28/18	*			
14	2nd Street, 250 ft. north of N Place, SE	011(a)	03/28/18	*			
15	South Capitol and E Streets	010	03/27/18	*			
15a	Half and L Streets, SE	010	03/27/18	*			
15b	South Capitol and I Streets	010	03/28/18	*			
15c	South Capitol and I Streets	010	03/28/18	*			
16	North of Main Sewage Pumping Station	012	03/28/18	*			

Structure Number	*Location*	*Associated NPDES Outfall*	*Date Inspected*	*Condition*		*Work Needed*	*Work performed*
				Good	Needs Work		
17	4th and N Streets, SE, Both Extended	013	03/28/18	*			
17a	K Street between 6th Street and 7th Street, SE	013	03/29/18	*			
18	6th and M Streets, SE	014	03/15/18	*			
19	9th and M Streets, SE	015	03/26/18	*			
19a	9th and M Streets, SE	015	03/26/18	*			
20	12th and M Streets, SE	016	03/05/18	*			
20a	12th and M Streets, SE	016	03/26/18	*			
21	14th and M Streets, SE	017	03/05/18	*			
22a	Barney Circle and Pennsylvania Ave, SE	018	03/28/18	*			
22b	Barney Circle and Pennsylvania Ave, SE	018	03/28/18	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	03/28/18	*			
22d	Kentucky Ave and Potomac Street, SE	018	03/12/18	*			
22e	14th Street and Kentucky Ave, SE	018	03/12/18	*			
23	Independence Ave, 21st Street, SE, Extended	019	03/28/18	*			
24a	East Capitol St, west of RFK stadium	019	03/28/18	*			
28	21st and Constitution Ave, NW	020	03/12/18	*			
29	22nd Street, between Constitution Ave and C St, NW	020	03/12/18	*			
30	17th and D Streets, NW	020	03/12/18	*			
31	15th Street and Pennsylvania Ave, NW	020	03/12/18	*			
33	10th and F Streets, NW	020	03/12/18	*			
34	23rd Street, north of Constitution Ave, NW	020	03/27/18	*			
34a	23rd Street near C Street, NW	020	03/12/18	*			
35	Northeast of Roosevelt Bridge, NW	021	03/27/18	*			
36	27th and I Streets, NW	022	03/12/18	*			
36a	New Hampshire Ave and Eye Street, NW	022	03/12/18	*			
36b	19th and L Streets, NW	022, 034	03/16/18	*			
36d	17th and L Streets, NW	022, 034	03/16/18	*			
36g	18th and M Streets, NW	022, 034	03/16/18	*			
36h	18th and M Streets, NW	022, 034	03/16/18	*			
37	27th and Eye Streets, NW	022	03/12/18	*			
38	29th and K Streets, NW	024	03/13/18	*			
38a	30th Street, south of K Street, NW	024	03/13/18	*			
39a	30th and K Streets, NW	024	03/13/18	*			
39b	30th and K Streets, NW	024	03/13/18	*			

Structure Number	*Location*	*Associated NPDES Outfall*	*Date Inspected*	*Condition*		*Work Needed*	*Work performed*
				Good	Needs Work		
41b	31st and K Streets, NW	025	03/13/18	*			
41c	31st and K Streets, NW	025	03/13/18	*			
42	Wisconsin Ave and K Street, NW	026	03/19/18	*			
43	Potomac and Water Streets, NW	027	03/19/18	*			
43a	Potomac and Water Streets, NW	027	03/19/18	*			
44	Water Street, west of Potomac St, NW	027	03/19/18	*			
45	36th and M Streets, NW	028	03/20/18	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	03/20/18	*			
47	38th Street and Reservoir Road, NW	029	03/20/18	*			
47a	37th and T Streets, NW	029	03/20/18	*			
47b	37th and T Streets, NW	029	03/20/18	*			
47c	38th and W Streets, NW	029	03/20/18	*			
49[1]	Pennsylvania Ave, east side of Rock Creek, NW	031	N/A				
50	26 and M Streets, NW	032	03/26/18	*			
51	N Street Extended, west of 25th Street, NW	033	03/26/18	*			
52	22nd Street between M and N Streets, NW	034	03/29/18	*			
52a	N Street between 22nd and 23rd Streets, NW	034	03/29/18	*			
53	22nd and M Streets, NW	022, 034	03/29/18	*			
53a	22nd and M Streets, NW	022, 034	03/29/18	*			
53b	L Street between 21st Street and New Hampshire Ave, NW	022, 034	03/26/18	*			
53c	L and 22nd Streets, NW	022	03/26/18	*			
54	23rd and O Streets, NW	034	03/16/18	*			
55	22nd Street, south of Q Street, NW	035	03/16/18	*			
55a	22nd Street, south of Q Street, NW	035	03/16/18	*			
56	23rd and Massachusetts Ave, NW	036	03/16/18	*			
57	23rd Street, south of Q Street, NW	036	03/16/18	*			
58[1]	Northwest of Belmont Road and Rock Creek and Potomac Parkway, NW	037	N/A				
59	North of Belmont Rd, east of Kalorama Cir, NW	038	03/26/18	*			
60	Connecticut Ave, east of Rock Creek, NW	039	03/26/18	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	03/26/18	*			
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	03/14/18	*			
63	Harvard Street and Rock Creek Parkway, NW	042	03/14/18	*			
64	Adams Mill Road, south of Irving Street, NW	043	03/14/18	*			

Structure Number	*Location*	*Associated NPDES Outfall*	*Date Inspected*	*Condition*		*Work Needed*	*Work performed*
				Good	Needs Work		
65	Kenyon Street and Adams Mill Road, NW	044	03/14/18	*			
65a	Kenyon Street and Adams Mill Road, NW	044	03/14/18	*			
66	Adams Mill Road and Lamont Street, NW	045	03/14/18	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	03/14/18	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	03/14/18	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	03/14/18	*			
70	Piney Branch Parkway, west of 16th Street, NW	049	03/14/18	*			
70i	5th and Quackenbos Streets, NW	049	03/12/18	*			
71	28th Street, west of Rock Creek Parkway, NW	050	03/20/18	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	03/16/18	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	03/16/18	*			
73	O Street Extended and Rock Creek Parkway, NW	052	03/16/18	*			
74[1]	Q Street, west of Rock Creek, NW	053	N/A				
75	West side of Rock Creek, 300 ft. south of Massachusetts Ave, NW	054	03/15/18	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	03/15/18	*			
77a	Normanstone Dr and Normanstone Lane, NW	056	03/15/18	*			
78[1]	28th Street Extended, west of Rock Creek, NW	057	N/A				
79[1]	Connecticut Ave and Rock Creek Parkway, NW	058	N/A				
84	26th and P Streets, NW	060	03/16/18	*			
84a	26th and P Streets, NW	060	03/16/18	*			
86[2]	Diversion Chamber at First and Channing St, NW	019	03/30/18	*			
87[2]	Vortex Drop at Shaft at First and Channing St, NW	019	03/30/18	*			
88[2]	Flagler and Adams St. NW	019	03/30/18	*			
89[2]	First and V St, NW	019	03/30/18	*			
90[2]	First and V St, NW	019	03/30/18	*			
91[2]	First and V St, NW	019	03/30/18	*			

Notes:

1. Structure no longer functions as a combined sewer overflow regulator structure.
2. Newly acquired First Street Tunnel regulator structures.

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	Bolling Air Force Base, at Giavanolli and Chanute, SW	03/19/18	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	03/05/18	*		*		*		*		
006[1]	Good Hope Road and Welsh Memorial Bridge	N/A									
007	Between 11th St. and Anacostia Bridges, SE	03/05/18	*		*		*		*		
009	O St. Sewage Pumping Station, SE	03/08/18	*		*		*		*		
010	O St. Sewage Pumping Station, SE	03/08/18	*			*			*		
011	Main Sewage Pumping Station, SE	03/08/18	*			*			*		
011(a)	Main Sewage Pumping Station, SE	03/08/18	*		*		*		*		
012	Main Sewage Pumping Station, SE	03/08/18	*		*		*		*		
013	Southeast Federal Center, aligned with 4th St.	03/08/18	*		*		*		*		
014	Navy Yard, aligned with 6th St., SE	03/08/18	*		*			*	*		The 7'x7'x4' tidegate is currently being fabricated. We are awaiting construction permit approval from base officials.
015	Navy Yard, aligned with 9th Street, SE	03/08/18	*			*			*		
016	12th and O Streets, SE	03/05/18	*		*		*		*		
017	M and Water Street, SE	03/05/18	*		*		*		*		
018	East of Barney Circle & South of Pennsylvania Avenue Bridge, SE	03/05/18	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility & D.C. General Hospital	03/07/18	*		*		*		*		
020	Rock Creek Parkway and Independence, NW	03/02/18	*		*		*		*		
021	Rock Creek Parkway and C St., NW	03/02/18	*		*		*		*		
022	Rock Creek Parkway and G St., NW	03/02/18	*		*		*		*		
024	South of 30th and K Streets, NW[1]	03/02/18	*		*		*		*		
025	South of 31st and K Streets, NW	03/02/18	*		*		*		*		
026	Wisconsin Avenue and Water Street, NW	03/02/18	*		*		*		*		
027	33rd and Water Sts., NW	03/02/18	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	03/02/18	*			*			*		
029	Adjacent to C&O Canal, aligned with 38th St. NW	03/02/18	*			*			*		
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.	03/26/18	*			*			*		
033	Across street from St. Francis Jr. High and aligned with N St., NW.	03/26/18	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	03/07/18	*			*			*		
035	P St. Bridge and Rock Creek Parkway	03/07/18	*			*			*		
036	22nd Street, South of Q Street NW.	03/06/18	*		*		*		*		
037[1]	Waterside Dr. and Rock Creek Parkway	N/A									
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	03/26/18	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	03/26/18	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	03/26/18	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	03/06/18	*		*		*		*		
042	Harvard St. and Beach Dr NW.	03/06/18	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	03/06/18	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	03/06/18	*		*		*		*		
045	North of Beach Dr. and Walbridge Pl, NW.	03/06/18	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	03/14/18	*			*			*		
047	Piney Branch Parkway and Ingleside Terrace	03/14/18	*		*		*		*		
048	South of Piney Branch Parkway and 17th St.	03/14/18	*		*			*	*		Technician reports a broken tidegate due to fallen tree. Repair assistance requested.
049	North of Piney Branch Parkway and 17th St.	03/14/18	*		*		*		*		
050	Rock Creek Parkway and L St., NW	03/20/18	*		*		*		*		
051	Across Rock Creek Pkwy, aligned with Olive St., NW.	03/07/18	*		*		*		*		
052	Between P & Penna. Ave Bridges, aligned with O Street, NW.	03/07/18	*		*		*		*		
053[1]	Q St. Bridge and Rock Creek Parkway, NW.	N/A									
054	Massachusetts Ave & Rock Creek Parkway, NW.	03/15/18	*		*		*		*		
056	Normanstone Dr. and Rock Creek Parkway, NW.	03/15/18	*		*		*		*		
057[1]	28th Street and Rock Creek Parkway, NW	N/A									
058[1]	Connecticut Ave & Rock Creek Parkway, NW.	N/A									
060	North of P St. Bridge & Rock Creek Pkwy, NW	03/06/18	*		*		*		*		

Notes:

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

2.3.1 Pumping Stations

Pumping station operations are summarized in the table below.

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

Pumping Station	*No. of Inspections*	*No. Screens*	*No. Pumps*	*Screens or Pumps Out of Service*	*Dates*	*Reason*	*Work Order Number*	*Schedule to Restore to Service[1]*
Main	31	3	4	Pump # 1	03/01/18-03/10/18	Motor Rehab	17-686275	Returned to service 03/10/18
Eastside	3	2	4	Screen # 1	03/01/18 -03/31/18	Screen not running	18-208694	Anticipated 05/31/18. Capital improvement project being developed to replace screen.
Poplar Point (old)[2]	1	2	3	Screen # 2	03/01/18 – 03/20/18	Rake to be realigned	18-129876	Pump Station to be officially taken decommissioned in 2018[2]
Poplar Point (new)[2]	1	2	4	None	-	-	-	DC Clean Rivers/EEC Cruz (Contractor) executing operational Demonstration
Potomac[1]	31	4	5	Pump #5 Screen #4 Pump # 4	03/01/18-03/12/18 03/01/18-03/12/18 03/01/18-03/31/18	Phase 3 upgrade Project Phase 3 Upgrade Project Phase 3 Project Upgrade	Contractor Contractor Contractor	Returned to full service 03/12/18[1] Returned to service 03/12/18 Available if needed[3]

Notes:

1. The age and type of equipment has an impact on the return to service schedule. In some cases, the condition of the equipment and the lack of availability of replacement parts necessitate complete replacement of the unit or element or custom fabrication of needed parts to return the units to service. For these and other reasons, projects are underway for the rehabilitation of the pumping stations, including replacement of mechanical screens. The Potomac Pumping Station Phase 3 upgrade project is currently ongoing and replacement of the mechanical screens, sluice gates, and discharge isolations valves began in September 2016 scheduled for completion in April 2018.
2. On March 20, 2018, the "old" Poplar Point Pumping Station was taken offline, and its flow was by-passed to a "new" Poplar Point Pumping Station. The new station is being managed by DC Water's contractor, who is performing an operational demonstration.
3. Pump # 4 – No work on equipment but was out of service due to work in wet well # 4.

Table 2-4
Pumping Stations – Preventive Maintenance

Pumping Station	*Date Performed*	*Type of Preventive Maintenance Performed*[1]	*Work Order Number*	*Comments*
Main	03/28/18	Group A	18-179819	Add oil, grease bearings and replace packing if needed.
O St	03/28/18	Group A	18-260844	Add oil, grease bearings and replace packing if needed.
Eastside	03/03/18	Group A	18-177065	Add oil, grease bearings and replace packing if needed.
Poplar Point	03/17/18	Group A	18-234429	Add oil, grease bearings and replace packing if needed.
Potomac	03/15/18	Group A	18-177363	Add oil, grease bearings and replace packing if needed.
Rock Creek	03/31/18	Group A	18-190278	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	03/31/18	Group A	18-237306	Add oil, grease bearings and replace packing if needed.
Earl Place	03/31/18	Group A	18-200370	Add oil, grease bearings and replace packing if needed.
1st Street Tunnel Dewatering	03/18/18	Group B	N/A	

Notes:

1. Group A consists of:

Exercise bar screens
Exercise all sump pumps
Drain condensation from air compressor storage tank
Check depth of screening in the screen room and schedule Vactor truck as required
Check all safety equipment
Issue work order requests as required

2. Group B consists of:
   a. Inspect and manually run CSO Pumps
   b. Generator:
      i. Inspection operation and test, inspect oil level, inspect coolant level
   c. MCC:
      i. Test gas monitoring system
      ii. Inspect and test level indicators
   d. Valve Vault
      i. Lubricate knife gate valve stem and stem nut
      ii. Flush air and vacuum release valve

Table 2-5
Pumping Stations – Pumpage

Pumping Station	*Sanitary Pumpage*		*Storm Water/CSO Pumped To Anacostia River*			*Pumpage of CSO from First Street Tunnel back to Sewer System*	
	Total Wastewater (mg)	*Daily Average Wastewater (mg)*	*Date*	*Volume (mg)*	*Screenings Collected (units)*[1]	*Date*	*Volume (mg)*
Main	1686.81	54.39	N/A	N/A	N/A	N/A	N/A
O St	111.03	3.58	N/A	N/A	N/A	N/A	N/A
			N/A	N/A	N/A		
Eastside	140.75	4.54	N/A	N/A	N/A	N/A	N/A
Poplar Point[2]	391.6	12.64	N/A	N/A	N/A	N/A	N/A
Potomac	2979.78	96.12	N/A	N/A	N/A	N/A	N/A
Rock Creek	175.22	5.65	N/A	N/A	N/A	N/A	N/A
Upper Anacostia	39.59	1.28	N/A	N/A	N/A	N/A	N/A
Earl Place	0.168	0.005	N/A	N/A	N/A	N/A	N/A
1st Street Tunnel Dewatering	N/A	N/A	N/A	N/A	N/A	03/21/18	0.1

Notes:
1. Screening consists of vertical trash racks, with no mechanical cleaning. Quantification of captured materials is not possible on monthly basis.
2. On July 14th 2017, bypass pumping began at Poplar Point Pumping Station, in connection with the replacement of this station. Use is made of historical flows to estimate the Pumping totals.
   Effective February 10th, 2018 to ensure the contractor hands over to DC Water a station that is fully functional waste water flow was introduced into the "new" Poplar Point pumping station to perform operational demonstration for all wet stream equipment. For the "new" Poplar Point Pumping Station, single pump capacity is approximately 19 MGD, with total station capacity (firm capacity) equal to approximately 57 mgd.

2.4 Northeast Boundary Swirl Facility

The Northeast Boundary Swirl Facility provides screening, swirl concentration, chlorination and dechlorination of CSO overflow from CSO 019. The capacity of the facility is 400 MGD. Facility operations are summarized below:

Table 2-6
Northeast Boundary Swirl Facility – Inspections and Equipment in Service

Date Inspected	*No. Screens*	*No. Swirls*	*Screens or Swirls Out of Service*	*Dates*	*Reason*	*Schedule to Restore to Service*
03/03/18	3	3	N/A	03/01/18-03/20/18		In preparation for decommissioning facility isolated from the system on March 20th , 2018

Table 2-7
Northeast Boundary Swirl Facility – Preventive Maintenance

Date Performed	*Type of Preventive Maintenance Performed*[1]	*Work Order Number*	*Comments*
03/03/18	Group A	18-179861	In preparation for decommissioning facility isolated from the system on March 20th , 2018

Notes:
1. Group A consists of:
Exercise bar screens
Exercise wash down system
Exercise knife gates full travel both directions
Check depth of grit in grit channel and schedule Vactor truck as required
Change chart paper on strip chart recorders at the end of each month
Thoroughly clean each Swirl tank and channels
Issue work order requests as required
Drain condensation from air compress
Check all safety equipment

Table 2-8
Northeast Boundary Swirl Facility – Wet Weather Operations

Date	*Approx. Storm Duration (hrs)*[1]	*Total Influent Volume (mg)*	*Total Foul Sewer Volume (mg)*	*Total Effluent Volume (mg)*	*Approx. Screenings Volume (Cu. ft)*
N/A[1]	-	-	-	-	-

1. No events to report. In preparation for decommissioning facility isolated from the system on March 20th , 2018

Chlorination/Dechlorination Systems.

The table below summarizes the information about operation of Swirl Facility chlorination and dechlorination systems during storm events. Chemical feed systems were activated during the storms in which flows were substantial enough to overflow the mix chamber weir. Included in the table are results of residual chlorine and fecal coliform testing for samples taken in the Swirl Facility mix chamber and at the facility effluent outfall to the Anacostia River.

A grab sample is collected and immediately tested with an AutoCat 9000 chlorine residual titrator to obtain test results for residual chlorine. Samples for fecal coliform are taken from the designated sample point, treated with sodium bisulfite to remove any residual chlorine, and conveyed to the Blue Plains Wastewater Treatment Plant Laboratory for testing.

Table 2-9
Northeast Boundary Swirl Facility – Disinfection Performance

Date	*Chlor/ Dechlor System Used?*	*Dosage*		*Residual Chlorine Test Results*		*E. Coli Test Results*	
		NaOCl (mg/l)	*$NaHSO_3$ (mg/l)*	*Location*	*Conc. (mg/l)*	*Site*	*Count Per 100ml*
N/A[2]	-	-	-	Mix Chamber	-	Mix Chamber	-
				Anacostia River[1]	-	Anacostia River[1]	-
	-	-	-	Mix Chamber	-	Mix Chamber	-
				Anacostia River[1]	-	Anacostia River[1]	-
	-	-	-	Mix Chamber	-	Mix Chamber	-
				Anacostia River	-	Anacostia River	-
	-	-	-	Mix Chamber	-	Mix Chamber	-
				Anacostia River	-	Anacostia River	-

Notes:
1. River: River Outfall
2. In preparation for decommissioning facility isolated from the system on March 20th , 2018

Table 2-10
Northeast Boundary Swirl Facility – Effluent Sampling Results

	Flow Composited Sample Results						
Date	*Total suspended solids (mg/L)*	*Nitrite (NO2-N) mg/L*	*Nitrate (NO3-N)) mg/L*	*Total Kjeldahl Nitrogen (mg/L as N)*	*Total Nitrogen (mg/L)*	*Total Phosphorus (mg/L)*	*Carbonaceous Biological Oxygen Demand (mg/L)*
N/A[1]	-	-	--	-	-	-	-

Notes:
1. In preparation for decommissioning facility isolated from the system on March 20th , 2018

2.5 Inflatable Dams and SCADA System

DC Water operates and maintains twelve inflatable dams at eight different locations. The structure number, location and number of dams per site are presented in Table 2-11. 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 2-11
Inflatable Dams – Inspections and Equipment in Service

Inflatable Dam Structure No	*Date Inspected*	*Was Dam Out of Service During the Month?*	*Dates out of Service*	*Reason*	*Schedule to Restore to Service*
14 - East	03/27/18	**No**	**N/A**	**N/A**	**N/A**
14 - West	03/27/18	**No**	**N/A**	**N/A**	**N/A**
15	03/27/18	**No**	**N/A**	**N/A**	**N/A**
15A	03/27/18	**No**	**N/A**	**N/A**	**N/A**
16 - East	03/27/18	**No**	**N/A**	**N/A**	**N/A**
16 - West	03/27/18	**No**	**N/A**	**N/A**	**N/A**
24 – North[1]	N/A	**No**	**N/A**	**N/A**	**N/A**
24 – Middle[1]	N/A	**No**	**N/A**	**N/A**	**N/A**
24 - South[1]	N/A	**No**	**N/A**	**N/A**	**N/A**
34	03/28/18	**No**	**N/A**	**N/A**	**N/A**
35	03/28/18	**No**	**N/A**	**N/A**	**N/A**
52	03/27/18	**No**	**N/A**	**N/A**	**N/A**

Notes:
1. Dams decommissioned on March 20th, 2018. The inspections were scheduled for March 27th and 28th, 2018.

Table 2-12

Inflatable Dams & SCADA Sites - Wet Weather Operations

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

Notes:

3. DRY WEATHER OVERFLOWS

There were no dry weather combined sewer overflow during March 2018.

4. SOLIDS AND FLOATABLES CONTROL

4.1 Catch Basin Cleaning

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

Table 4-1
Catch Basin Cleaning

			Inspections			*Cleaning*					
						CBs Cleaned Thru Last Month		*CB's Cleaned This Month*		*Total CBs Cleaned This Year to Date*	
Ward	*Total CBs*	*CBs in CSS*	*CBs in Anacostia CSS*	*Total Anacostia CBs Inspected Once this Year*	*Total Anacostia CBs Inspected Twice this Year*	Total	In CSS	Total	In CSS	Total	In CSS
1	1447	1422	651	2	0	10	10	0	0	10	10
2	2774	2622	453	122	1	161	121	97	73	258	194
3	3630	181	0	0	0	9	1	15	0	24	1
4	3459	1713	0	0	0	5	1	466	227	471	228
5	3928	1738	1680	22	2	26	21	5	5	31	26
6	3269	2654	2646	706	32	763	461	446	275	1209	736
7	3700	35	35	3	0	2452	6	173	0	2625	6
8	2801	209	209	173	0	34	0	1844	173	1878	173
Grand Total	**25008[1]**	**10574[1]**	**5674[1]**	**1028**	35	**3460**	**621**	**3046**	**753**	**6506**	**1374**
% Cleaned/Inspected to Date				**18%**	**1%**	14%	**6%**			**26%**	**13%**

1. The totals have changed due to information that is more accurate.

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

Facility	*Date Inspected*	*Condition*	*Work Needed*	*Work performed*	*Material Removed (LB)*
Netting System CSO 018	3/14/2018	Good	None	Vender completed repairs and installed new nets.	None
Bar Rack CSO 040	03/26/18	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	03/06/18	Good	None	Routine Cleaning	(1)

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

4.3 Anacostia River Floating Debris Removal Program

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

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

Program Operation	5-day work week, excluding holidays, weather permitting
Work Days this month:	22
Days not Operating	12
Reason not Operating	Maintenance, wind, low water levels, lightning.
# Skimmer in Fleet	4 Skimmers
# Skimmers Out of Service	None (on the last day of the month)
Dates	N/A
Reason	N/A
Plan to Restore to Service	N/A
Amount Material Collected	50 tons this month. Calendar year to date 120 tons.
Nature of Material	Bottles, cans, natural debris and plastics.

4.4 CSS Litter Control

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

Status: no activities 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 Needed	Work Performed or Schedule for Completion
			Good	Needs Work		
Bar Racks at O Street Storm Pumps (CSO 010)	KW	03/28/18	X			
Bar Racks at Main Storm Pumps (CSO 011)	KW	03/28/18	X			

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
3/1/2018	0.17	0.14	0.10	0.14	0.09
3/2/2018	0.02	0.02	0.02	0.02	0.01
3/3/2018	0	0	0	0	0
3/4/2018	0	0	0	0	0
3/5/2018	0	0	0	0	0
3/6/2018	0.10	0.07	0.17	0.12	0.30
3/7/2018	0.16	0.19	0.15	0.15	0.03
3/8/2018	0	0.01	0	0	0
3/9/2018	0	0	0	0	0
3/10/2018	0	0	0	0	0
3/11/2018	0	0	0	0	0
3/12/2018	0.01	0.01	0.01	0.01	0.01
3/13/2018	0	0	0	0	0
3/14/2018	0	0	0	0	0
3/15/2018	0	0	0	0	0
3/16/2018	0	0	0	0	0
3/17/2018	0	0	0	0	0
3/18/2018	0	0	0	0	0
3/19/2018	0	0	0	0	0
3/20/2018	0.76	0.72	0.82	0.73	0.87
3/21/2018	0.30	0.39	0.36	0.38	0.49
3/22/2018	0.28	0.22	0.26	0.28	0
3/23/2018	0	0	0	0	0
3/24/2018	0	0	0	0	0
3/25/2018	0	0	0	0	0
3/26/2018	0	0	0	0	0
3/27/2018	0	0	0	0	0.02
3/28/2018	0.17	0.11	0.09	0.09	0.10
3/29/2018	0	0	0	0	0
3/30/2018	0	0	0	0.01	0
3/31/2018	0	0	0	0	0
TOTAL	1.97	1.88	1.98	1.93	1.92

5.3 Wet Weather Overflows

Combined Sewer System Model Results are summarized below.

Combined Sewer System Model Results
Period: January, February, March 2018
SCENARIO: PCM_QuarterlyReport_2018Q1, produced April 11, 2018

NPDES No.	Description	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	10	1.89	43.50	4.35	17.00	0.25
006	Good Hope Road, West of Nichols Ave.,SE	separated					
007	13th Street and Ridge Place,SE	3	0.65	5.00	1.67	2.50	1.00
009	2nd Street, 300 feet North of N Place, SE	4	0.71	9.50	2.38	4.25	1.25
010	O Street SewagePumping Station, SE (pumped Overflow)	6	9.38	3.00	0.50	1.25	0.25
011	South of Main Sewage Pumping Station, SE (pumped overflow)	0	0.00	0.00	0.00	0.00	0.00
011a	South of Main SewagePumping Station, SE (gravity overflow)	0	0.00	0.00	0.00	0.00	0.00
012	North of Main SewagePumping Station, SE (Tiber Creek)	0	0.00	0.00	0.00	0.00	0.00
013	4th and N Streets, SE	5	0.86	7.75	1.55	5.00	0.25
014	6th and M Streets, SE	3	1.11	8.25	2.75	4.00	2.00
015	9th and M Streets, SE	3	0.05	4.25	1.42	2.00	0.75
016	12th and M Streets, SE	3	0.55	3.75	1.25	2.25	0.50
017	14th and M Streets, SE	6	3.56	24.50	4.08	11.25	0.50
018	Barney Circle andPennsylvania Ave, SE	3	1.61	8.75	2.92	3.50	2.25
019	Northeast Boundary - Swirl Effluent	3	75.26	21.00	7.00	13.75	2.75
019	Northeast Bound. - Swirl Bypass	1	1.74	0.75	0.75	0.75	0.75
	SUBTOTAL		**97.37**				

Potomac CSOs							
003	Bolling AFB	0	0.00	0.00	0.00	0.00	0.00
020	23rd Street, North ofConstitution Ave, NW (Easby Point)	3	0.08	4.00	1.33	2.50	0.25
021	Northeast ofRoosevelt Bridge, NW	3	56.19	19.25	6.42	11.25	3.00
022	27th and K Streets, NW	4	0.25	10.50	2.63	4.00	0.50
024	30th and K Streets, NW	2	1.64	11.25	5.63	8.25	3.00
025	31st & K St NW	0	0.00	0.00	0.00	0.00	0.00
026	Wisconsin Avenue andK St., NW	0	0.00	0.00	0.00	0.00	0.00
027	Water Street West ofStreet, NW	3	0.33	3.50	1.17	2.00	0.25
028	36th and M Streets, NW	7	0.35	9.75	1.39	3.50	0.25
029	Canal Road 1000 feet east of Rock Creek,NW	3	0.19	3.50	1.17	1.75	0.75
	SUBTOTAL		**59.03**				
Rock Creek							
031	Pennsylvania Avenue, East Rock Creek, NW	separated					
032	26th and M Streets, NW	0	0.00	0.00	0.00	0.00	0.00
033	N Street extendedwest of 25th Street,NW	0	0.00	0.00	0.00	0.00	0.00
034	23rd and O Streets, SW	0	0.00	0.00	0.00	0.00	0.00
035	22nd Street south of Q Street, NW	0	0.00	0.00	0.00	0.00	0.00
036	22nd Street South of Q Street, NW	3	0.023	4.25	1.42	2.25	0.75
037	Northwest of Belmontand Rock Creek and Potomac Parkway	separated					
038	North of Belmont Road,east of Kalorama Circle, NW	0	0.00	0.00	0.00	0.00	0.00
039	Connecticut Avenue east of Rock Creek, NW	0	0.00	0.00	0.00	0.00	0.00
040	Biltmore Street extended east of RockCreek, NW	0	0.00	0.00	0.00	0.00	0.00
041	Ontario extended and Rock Creek Parkway	0	0.00	0.00	0.00	0.00	0.00
042	Harvard Street and RockCreek Parkway, NW	0	0.00	0.00	0.00	0.00	0.00

043	Adams Mill Road South of Irving Street, NW	0	0.00	0.00	0.00	0.00	0.00
044	Kenyon Street and Adams Mill Road, NW	0	0.000	0.00	0.00	0.00	0.00
045	Adams Mill Road and Lamont Street, NW	0	0.00	0.00	0.00	0.00	0.00
046	Park Road south of Piney Branch Parkway, NW	0	0.00	0.00	0.00	0.00	0.00
047	Ingleside Terrace extended and Piney Branch Parkway	0	0.000	0.00	0.00	0.00	0.00
048	Mt. Pleasant Street extended and Piney Branch Parkway	0	0.00	0.00	0.00	0.00	0.00
049	Piney Branch and LamontStreet, NW	3	2.19	8.00	2.67	3.50	2.00
050	28th Street west of 16th Street, NW	0	0.00	0.00	0.00	0.00	0.00
051	Olive Street extended and Rock Creek Parkway, NW	0	0.00	0.00	0.00	0.00	0.00
052	O Street extended and Rock Creek Parkway, NW	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 Creek300 ft. south of Mass. Ave, NW	0	0.00	0.00	0.00	0.00	0.00
056	Normanstone Drive extended west of Rock Creek, NW	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 26th St, NW	0	0.00	0.00	0.00	0.00	0.00
	SUBTOTAL		**2.21**				
	TOTAL		**158.62**				