

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

**Monthly Operations Report
For
Combined Sewer System
Month: April 2017**

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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	04/10/17	*			
4	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	04/10/17	*			
5	Poplar Point Pumping Station	004	04/10/17	*			
6	Chicago Street and Railroad Ave, SE	005	04/17/17	*			
7	W Street and Railroad Ave, SE	005	04/17/17	*			
8 ¹	Good Hope Rd, west of Nichols Ave, SE	006	N/A				
9	13 th Street and Ridge Place, SE	007	04/11/17	*			
11	"O" Street Pumping Station	011(a)	04/21/17	*			
12	Storm Pump Discharge at Main Pumping Station	011	04/20/17	*			
13	2 nd Street, 300 ft. north of N Place, SE	009	04/19/17	*			
14	2 nd Street, 250 ft. north of N Place, SE	011(a)	04/19/17	*			
15	South Capitol and E Streets	010	04/13/17	*			
15a	Half and L Streets, SE	010	04/13/17	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
15b	South Capitol and I Streets	010	04/18/17	*			
15c	South Capitol and I Streets	010	04/18/17	*			
16	North of Main Sewage Pumping Station	012	04/19/17	*			
17	4 th and N Streets, SE, Both Extended	013	04/19/17	*			
17a	K Street between 6 th Street and 7 th Street, SE	013	04/20/17	*			
18	6 th and M Streets, SE	014	04/03/17	*			
19	9 th and M Streets, SE	015	04/03/17	*			
19a	9 th and M Streets, SE	015	04/03/17	*			
20	12 th and M Streets, SE	016	04/03/17	*			
20a	12 th and M Streets, SE	016	04/03/17	*			
21	14 th and M Streets, SE	017	04/03/17	*			
22a	Barney Circle and Pennsylvania Ave, SE	018	04/10/17	*			
22b	Barney Circle and Pennsylvania Ave, SE	018	04/10/17	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	04/10/17	*			
22d	Kentucky Ave and Potomac Street, SE	018	04/04/17	*			
22e	14 th Street and Kentucky Ave, SE	018	04/04/17	*			
23	Independence Ave, 21 st Street, SE, Extended	019	04/10/17	*			
24a	East Capitol St, west of RFK stadium	019	04/10/17	*			
28	21 st and Constitution Ave, NW	020	04/07/17	*			
29	22 nd Street, between Constitution Ave and C St, NW	020	04/07/17	*			
30	17 th and D Streets, NW	020	04/05/17	*			
31	15 th Street and Pennsylvania Ave, NW	020	04/05/17	*			
33	10 th and F Streets, NW	020	04/05/17	*			
34	23 rd Street, north of Constitution Ave, NW	020	04/13/17	*			
34a	23 rd Street near C Street, NW	020	04/07/17	*			
35	Northeast of Roosevelt Bridge, NW	021	04/13/17	*			
36	27 th and I Streets, NW	022	04/05/17	*			
36a	New Hampshire Ave and Eye Street, NW	022	04/05/17	*			
36b	19 th and L Streets, NW	022, 034	04/04/17	*			
36d	17 th and L Streets, NW	022, 034	04/04/17	*			
36g	18 th and M Streets, NW	022, 034	04/04/17	*			
36h	18 th and M Streets, NW	022, 034	04/04/17	*			
37	27 th and Eye Streets, NW	022	04/05/17	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
38	29 th and K Streets, NW	024	04/04/17	*			
38a	30 th Street, south of K Street, NW	024	04/04/17	*			
39a	30 th and K Streets, NW	024	04/04/17	*			
39b	30 th and K Streets, NW	024	04/04/17	*			
41b	31 st and K Streets, NW	025	04/04/17	*			
41c	31 st and K Streets, NW	025	04/04/17	*			
42	Wisconsin Ave and K Street, NW	026	04/10/17	*			
43	Potomac and Water Streets, NW	027	04/10/17	*			
43a	Potomac and Water Streets, NW	027	04/10/17	*			
44	Water Street, west of Potomac St, NW	027	04/10/17	*			
45	36 th and M Streets, NW	028	04/03/17	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	04/03/17	*			
47	38 th Street and Reservoir Road, NW	029	04/03/17	*			
47a	37 th and T Streets, NW	029	04/03/17	*			
47b	37 th and T Streets, NW	029	04/03/17	*			
47c	38 th and W Streets, NW	029	04/03/17	*			
49 ^l	Pennsylvania Ave, east side of Rock Creek, NW	031	N/A				
50	26 and M Streets, NW	032	04/11/17	*			
51	N Street Extended, west of 25 th Street, NW	033	04/11/17	*			
52	22 nd Street between M and N Streets, NW	034	04/18/17	*			
52a	N Street between 22 nd and 23 rd Streets, NW	034	04/18/17	*			
53	22 nd and M Streets, NW	022, 034	04/07/17	*			
53a	22 nd and M Streets, NW	022, 034	04/07/17	*			
53b	L Street between 21 st Street and New Hampshire Ave, NW	022, 034	04/10/17	*			
53c	L and 22 nd Streets, NW	022	04/10/17	*			
54	23 rd and O Streets, NW	034	04/11/17	*			
55	22 nd Street, south of Q Street, NW	035	04/11/17	*			
55a	22 nd Street, south of Q Street, NW	035	04/11/17	*			
56	23 rd and Massachusetts Ave, NW	036	04/11/17	*			
57	23 rd Street, south of Q Street, NW	036	04/11/17	*			
58 ^l	Northwest of Belmont Road and Rock Creek and Potomac Parkway, NW	037	N/A				
59	North of Belmont Rd, east of Kalorama Cir, NW	038	04/17/17	*			
60	Connecticut Ave, east of Rock Creek, NW	039	04/17/17	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	04/17/17	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	04/12/17	*			
63	Harvard Street and Rock Creek Parkway, NW	042	04/12/17	*			
64	Adams Mill Road, south of Irving Street, NW	043	04/12/17	*			
65	Kenyon Street and Adams Mill Road, NW	044	04/12/17	*			
65a	Kenyon Street and Adams Mill Road, NW	044	04/12/17	*			
66	Adams Mill Road and Lamont Street, NW	045	04/12/17	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	04/12/17	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	04/12/17	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	04/12/17	*			
70	Piney Branch Parkway, west of 16 th Street, NW	049	04/12/17	*			
70i	5 th and Quackenbos Streets, NW	049	04/03/17	*			
71	28 th Street, west of Rock Creek Parkway, NW	050	04/18/17	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	04/11/17	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	04/11/17	*			
73	O Street Extended and Rock Creek Parkway, NW	052	04/11/17	*			
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	4/17/17	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	04/17/17	*			
77a	Normanstone Dr and Normanstone Lane, NW	056	04/17/17	*			
78 ¹	28th Street Extended, west of Rock Creek, NW	057	N/A				
79 ¹	Connecticut Ave and Rock Creek Parkway, NW	058	N/A				
84	26 th and P Streets, NW	060	04/11/17	*			
84a	26 th and P Streets, NW	060	04/11/17	*			

Notes:

1. Structure no longer functions as a combined sewer overflow regulator structure.

2.2 Outfalls, Tide Gates and CSO Signs

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

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

NPDES Outfall	Location	Date Inspected	Outfall Condition		Tide Gate Present?		Tide Gate Condition		CSO Sign		Notes, Work Needed or Performed
			OK	Needs Work	Yes	No	OK	Needs Work	OK	Needs Work	
003	Bolling Air Force Base, at Giavanolli and Chanute, SW	04/10/17	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	4/19/17	*		*		*		*		
006 ¹	Good Hope Road and Welsh Memorial Bridge	N/A									
007	Between 11 th St. and Anacostia Bridges, SE	04/19/17	*		*		*		*		
009	O St. Sewage Pumping Station, SE	04/20/17	*		*		*		*		
010	O St. Sewage Pumping Station, SE	04/20/17	*			*			*		
011	Main Sewage Pumping Station, SE	04/20/17	*			*			*		
011(a)	Main Sewage Pumping Station, SE	04/20/17	*		*		*		*		
012	Main Sewage Pumping Station, SE	04/20/17	*		*		*		*		
013	Southeast Federal Center, aligned with 4 th St.	04/20/17	*		*		*		*		
014	Navy Yard, aligned with 6 th St., SE	04/20/17	*		*		*		*		
015	Navy Yard, aligned with 9th Street, SE	04/20/17	*			*			*		
016	12th and O Streets, SE	04/20/17	*		*		*		*		
017	M and Water Street, SE	04/20/17	*		*		*		*		
018	East of Barney Circle & South of Pennsylvania Avenue Bridge, SE	04/20/17	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility & D.C. General Hospital	04/19/17	*		*		*		*		
020	Rock Creek Parkway and Independence, NW	04/06/17	*		*		*		*		
021	Rock Creek Parkway and C St., NW	04/06/17	*		*		*		*		
022	Rock Creek Parkway and G St., NW	04/06/17	*		*		*		*		
024	South of 30 th and K Streets, NW ¹	04/06/17	*		*		*		*		
025	South of 31st and K Streets, NW	04/06/17	*		*		*		*		
026	Wisconsin Avenue and Water Street, NW	04/06/17	*		*		*		*		
027	33 rd and Water Sts., NW	04/06/17	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	04/06/17	*			*			*		
029	Adjacent to C&O Canal, aligned with 38 th St. NW	04/06/17	*			*			*		
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.	04/11/17	*			*			*		
033	Across street from St. Francis Jr. High and aligned with N St., NW.	04/11/17	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	04/11/17	*			*			*		
035	P St. Bridge and Rock Creek Parkway	04/11/17	*			*			*		
036	22nd Street, South of Q Street NW.	04/19/17	*		*		*		*		
037 ¹	Waterside Dr. and Rock Creek Parkway	N/A									
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	04/17/17	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	04/17/17	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	4/17/17	*			*		*	*		SAM 101 reports Gate Missing 4/17/17. SAM 101 Foreman and contractors will scope location to plan and schedule repair. 17-354491
041	Beach Dr. and Ontario Pl., NW	04/19/17	*		*		*		*		
042	Harvard St. and Beach Dr NW.	4/19/17	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	04/19/17	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	04/19/17	*		*		*		*		
045	North of Beach Dr. and Walbridge Pl, NW.	04/19/17	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	04/12/17	*			*			*		
047	Piney Branch Parkway and Ingleside Terrace	04/12/17	*		*		*		*		
048	South of Piney Branch Parkway and 17 th St.	04/12/17	*		*		*		*		
049	North of Piney Branch Parkway and 17 th St.	04/12/17	*		*		*		*		
050	Rock Creek Parkway and L St., NW	04/18/17	*		*		*		*		
051	Across Rock Creek Pkwy, aligned with Olive St., NW.	04/20/17	*		*		*		*		
052	Between P & Penna. Ave Bridges, aligned with O Street, NW.	04/20/17	*		*		*		*		
053 ¹	Q St. Bridge and Rock Creek Parkway, NW.	N/A									
054	Massachusetts Ave & Rock Creek Parkway, NW.	04/17/17	*		*		*		*		
056	Normanstone Dr. and Rock Creek Parkway, NW.	04/17/17	*		*		*		*		
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	04/19/17	*		*		*		*		

Notes:

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

2.3.1 Pumping Stations

Pumping station operations are summarized in the table below.

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

<i>Pumping Station</i>	<i>No. of Inspections</i>	<i>No. Screens</i>	<i>No. Pumps</i>	<i>Screens or Pumps Out of Service</i>	<i>Dates</i>	<i>Reason</i>	<i>Work Order Number</i>	<i>Schedule to Restore to Service¹</i>
Main	30	3	4	Pump #2	04/01/17-04/30/17	Motor problem	17-359642	Anticipated 07/21/17
Eastside	3	2	4	Screen #2	04/01/17-04/05/17	Motor issue	17-345548	Returned to service on 04/05/17
				Pump #2	04/25/17-04/30/17	Pump pulled for repair	17-396296	Anticipated 05/04/17
Poplar Point	3	2	3	None	N/A	N/A	N/A	N/A
Potomac	30	4	5	Screen #2	04/01/17-04/30/17	Phase 3 upgrade work ²	Contractor	Anticipated 05/25/17
				Pump #2	04/01/17-04/30/17	Phase 3 upgrade work ²	Contractor	Anticipated 07/08/17
				Screen #4	04/01/17-04/03/17	Rakes fell into channel	17-346610	Returned to service on 04/03/17
				Screen #3	04/01/17-04/03/17	Chain link came apart	17-360850	Returned to service on 04/03/17

Notes:

1. The schedule to restore to service is impacted by the type and age of equipment. In some cases, the condition of 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 and is anticipated to be completed by December 2017.
2. This is part of the Potomac Pump Station Phase 3 upgrade project.

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

<i>Pumping Station</i>	<i>Date Performed</i>	<i>Type of Preventive Maintenance Performed¹</i>	<i>Work Order Number</i>	<i>Comments</i>
Main	04/01/17	Group A	17-335657	Add oil, grease bearings and replace packing if needed.
O St	04/01/17	Group A	17-349848	Add oil, grease bearings and replace packing if needed.
Eastside	04/01/17	Group A	17-339713	Add oil, grease bearings and replace packing if needed.
Poplar Point	04/01/17	Group A	17-333869	Add oil, grease bearings and replace packing if needed.
Potomac	04/01/17	Group A	17-339847	Add oil, grease bearings and replace packing if needed.
Rock Creek	04/01/17	Group A	17-257961	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	04/01/17	Group A	17-335671	Add oil, grease bearings and replace packing if needed.
Earl Place	04/01/17	Group A	17-238912	Add oil, grease bearings and replace packing if needed.

Notes:

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

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

<i>Pumping Station</i>	<i>Sanitary Pumpage</i>		<i>Storm Water/CSO Pumped To Anacostia River</i>		
	<i>Total Wastewater (mg)</i>	<i>Daily Average Wastewater (mg)</i>	<i>Date</i>	<i>Volume (mg)</i>	<i>Screenings Collected (units)¹</i>
Main	1795.69	59.86	N/A	N/A	N/A
O St	119.64	3.99	04/06/17	71.82	Normal
Eastside	139.92	4.66	N/A	N/A	N/A
Poplar Point	508.89	16.94	N/A	N/A	N/A
Potomac	2973.74	99.12	N/A	N/A	N/A
Rock Creek	118.57	3.95	N/A	N/A	N/A
Upper Anacostia	39.09	1.30	N/A	N/A	N/A
Earl Place	0.123	0.004	N/A	N/A	N/A

Notes:

- Screening consists of vertical trash racks, with no mechanical cleaning. Quantification of captured materials is not possible on monthly basis.

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**

<i>Date Inspected</i>	<i>No. Screens</i>	<i>No. Swirls</i>	<i>Screens or Swirls Out of Service</i>	<i>Dates</i>	<i>Reason</i>	<i>Schedule to Restore to Service</i>
04/01/17	3	3	Screen #3	04/01/17-04/30/17	Bent bars & back plate	Anticipated 05/31/17

**Table 2-7
Northeast Boundary Swirl Facility – Preventive Maintenance**

<i>Date Performed</i>	<i>Type of Preventive Maintenance Performed¹</i>	<i>Work Order Number</i>	<i>Comments</i>
04/01/17	Group A	17-341891	

Notes:

- 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 Vector 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**

<i>Date</i>	<i>Approx. Storm Duration (hrs)¹</i>	<i>Total Influent Volume (mg)</i>	<i>Total Foul Sewer Volume (mg)</i>	<i>Total Effluent Volume (mg)</i>	<i>Approx. Screenings Volume (Cu. ft)</i>
04/06/17	15.5	32.16	6.89	25.27	16

Notes:

- 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**

<i>Date</i>	<i>Chlor/ Dechlor System Used?</i>	<i>Dosage</i>		<i>Residual Chlorine Test Results</i>		<i>E. Coli Test Results</i>	
		<i>NaOCl (mg/l)</i>	<i>NaHSO₃ (mg/l)</i>	<i>Location</i>	<i>Conc. (mg/l)</i>	<i>Site</i>	<i>Count Per 100ml</i>
04/06/17	Yes	6.4	53.4	Mix Chamber	1.82	Mix Chamber	3,100
				Anacostia River ¹	0.0	Anacostia River ¹	240,000
04/06/17	Yes	6.4	53.4	Mix Chamber	0.0	Mix Chamber	< 10
				Anacostia River ¹	0.0	Anacostia River ¹	3,200

Notes:

1. River: River Outfall

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

<i>Date</i>	<i>Flow Composited Sample Results</i>						
	<i>Total suspended solids (mg/L)</i>	<i>Nitrite (NO₂-N) mg/L</i>	<i>Nitrate (NO₃-N) mg/L</i>	<i>Total Kjeldahl Nitrogen (mg/L as N)</i>	<i>Total Nitrogen (mg/L)</i>	<i>Total Phosphorus (mg/L)</i>	<i>Carbonaceous Biological Oxygen Demand (mg/L)</i>
4/6/17	45.0	0.03	0.55	3.32	3.90	0.83	9.90

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**

<i>Inflatable Dam Structure No</i>	<i>Date Inspected</i>	<i>Was Dam Out of Service During the Month?</i>	<i>Dates out of Service</i>	<i>Reason</i>	<i>Schedule to Restore to Service</i>
14 - East	04/13/17	No	N/A	N/A	N/A
14 - West	04/13/17	No	N/A	N/A	N/A
15	04/13/17	No	N/A	N/A	N/A
15A	04/13/17	No	N/A	N/A	N/A
16 - East	04/13/17	No	N/A	N/A	N/A
16 - West	04/13/17	No	N/A	N/A	N/A
24 - North	04/19/17	No	N/A	N/A	N/A
24 - Middle	04/19/17	No	N/A	N/A	N/A
24 - South	04/19/17	No	N/A	N/A	N/A
34	04/13/17	No	N/A	N/A	N/A
35	04/13/17	No	N/A	N/A	N/A
52	04/13/17	No	N/A	N/A	N/A

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

<i>Inflatable Dam Structure No.</i>	<i>Overflow Dates</i>	<i>Estimated Duration of Overflow</i>
14 (E & W)	None	N/A
15	04/06/17	6 hrs 22 mins
15A	04/06/17	1 hr 28 mins
16 (E & W)	04/06/17	38 mins
24	04/06/17	2 hrs 41 mins
34	None	N/A
35	04/06/17 04/20/17	2 hrs 11 mins 29 mins
52	None	N/A
<i>Structures on Outfall Sewers</i>	<i>Overflow Dates</i>	<i>Estimated Duration of Overflow</i>
Outfall Structure 1	None	This structure has been bulk headed. Overflows are no longer possible.
Outfall Structure 1A	None	This structure has been bulk headed. Overflows are no longer possible.
Outfall Structure 2	None	None
<i>Outfall Sewer Control Gates</i>	<i>Operational Status</i>	<i>Position</i>
Outfall Sewer Control Gate No.1	Operational	Open
Outfall Sewer Control Gate No.2	Operational	This structure has been bulk headed. Overflows are no longer possible

3. DRY WEATHER OVERFLOWS

There were no dry weather combined sewer overflow during April 2017.

4. **SOLIDS AND FLOATABLES CONTROL**

4.1 **Catch Basin Cleaning**

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

**Table 4-1
Catch Basin Cleaning**

Ward	Total CBs	CBs in CSS	Inspections			Cleaning					
			CBs in Anacostia CSS	Total Anacostia CBs Inspected Once this Year	Total Anacostia CBs Inspected Twice this Year	CBs Cleaned Thru Last Month		CB's Cleaned This Month		Total CBs Cleaned This Year to Date	
						Total	In CSS	Total	In CSS	Total	In CSS
1	1457	1430	608	49	2	72	71	58	58	130	129
2	2937	2742	558	27	1	297	290	82	78	379	368
3	3678	184	0	0	0	69	8	64	4	133	12
4	3453	1709	0	0	0	48	34	57	51	105	85
5	3892	1782	1724	111	3	651	85	96	41	747	126
6	3516	2902	2894	1080	9	1029	934	179	157	1208	1091
7	3456	36	33	0	0	3046	4	123	0	3169	4
8	2672	203	202	149	3	1577	138	184	15	1761	153
Grand Total	25061	10988	6019	1416	18	6789	1564	843	404	7632	1968
% Cleaned/Inspected to Date				24%	<1%	27%	14%			30%	18%

Note: The totals have changed due to information that is more accurate. The Catch Basin Application was deployed in May 2016. We are now just completing a full cleaning cycle of the entire city using the Catch Basin Application. The Engineering/GIS process verifying the information regarding catch basins identified as being removed and new catch basins identified in the field may take a few weeks.

4.2 BMP Demonstration for Solid and Floatable Control

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

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

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

<i>Facility</i>	<i>Date Inspected</i>	<i>Condition</i>	<i>Work Needed</i>	<i>Work performed</i>	<i>Material Removed (LB)</i>
Netting System CSO 018	4/4/2017	Good	Routine Cleaning	Routine Cleaning	5 pounds
Bar Rack CSO 040	4/17/2017	Needs Work	Tide Gate Missing	Routine Cleaning	(1)
Bar Rack CSO 041	4/19/2017	Good	None	Routine Cleaning	(1)

Notes:

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

4.3 Anacostia River Floating Debris Removal Program

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

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

<i>Program Operation</i>	5-day work week, excluding holidays, weather permitting
<i>Work Days this month:</i>	21
<i>Days not Operating</i>	4
<i>Reason not Operating</i>	Maintenance, rain, wind, low water levels, lightning.
<i># Skimmer in Fleet</i>	5 Skimmers
<i># Skimmers Out of Service</i>	2 Skimmer (on the last day of the month)
<i>Dates</i>	B28: 4/1 - 4/30 B34: 4/13 - 4/30
<i>Reason</i>	B28: Front assembly catching on hull. B34: Hydraulic oil leak.
<i>Plan to Restore to Service</i>	B28: Sent to contractors for repair, ETR unknown. B34: Waiting for vender to repair (under warranty) ETR unknown.
<i>Amount Material Collected</i>	80 tons this month. Calendar year to date 130 tons.
<i>Nature of Material</i>	Bottles, cans, natural debris and plastics.

4.4 CSS Litter Control

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

Status: 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**

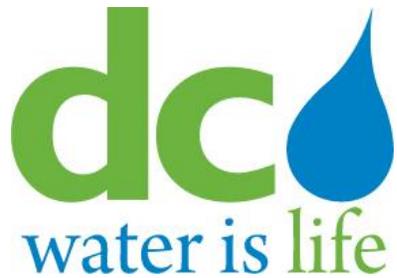
Inspector: Keith Watts

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	04/30/17	X			
Bar Racks at Main Storm Pumps (CSO 011)	KW	04/30/17	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
4/1/2017	0.01	0.02	0.01	0.01	0.01
4/2/2017	0	0	0	0	0
4/3/2017	0.10	0.11	0.08	0.10	0.11
4/4/2017	0	0	0.01	0.01	0
4/5/2017	0	0	0.01	0	0
4/6/2017	1.46	1.42	1.42	1.28	1.57
4/7/2017	0	0	0	0	0
4/8/2017	0	0	0	0	0
4/9/2017	0	0	0	0	0
4/10/2017	0	0	0	0	0
4/11/2017	0	0	0	0	0
4/12/2017	0	0	0	0	0
4/13/2017	0	0	0	0	0
4/14/2017	0	0	0	0	0
4/15/2017	0	0	0	0	0
4/16/2017	0	0	0	0	0
4/17/2017	0.10	0.08	0.08	0.10	0.07
4/18/2017	0	0	0	0	0
4/19/2017	0	0	0	0	0
4/20/2017	0.06	0.07	0.07	0.05	0.11
4/21/2017	0.01	0	0.01	0	0.12
4/22/2017	0.27	0.30	0.25	0.31	0.31
4/23/2017	0	0	0	0	0
4/24/2017	0.19	0.20	0.16	0.21	0.23
4/25/2017	0.10	0.10	0.10	0.08	0.08
4/26/2017	0.01	0.02	0	0.01	0.01
4/27/2017	0	0	0	0	0
4/28/2017	0	0	0	0	0
4/29/2017	0	0	0	0	0
4/30/2017	0	0	0	0	0
TOTAL	2.31	2.32	2.20	2.16	2.62



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

**Monthly Operations Report
For
Combined Sewer System
Month: May 2017**

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: May 2017

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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	05/12/17	*			
4	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	05/12/17	*			
5	Poplar Point Pumping Station	004	05/12/17	*			
6	Chicago Street and Railroad Ave, SE	005	05/09/17	*			
7	W Street and Railroad Ave, SE	005	05/09/17	*			
8 ¹	Good Hope Rd, west of Nichols Ave, SE	006	N/A				
9	13 th Street and Ridge Place, SE	007	05/09/17	*			
11	"O" Street Pumping Station	011(a)	05/12/17	*			
12	Storm Pump Discharge at Main Pumping Station	011	05/16/17	*			
13	2 nd Street, 300 ft. north of N Place, SE	009	05/18/17	*			
14	2 nd Street, 250 ft. north of N Place, SE	011(a)	05/18/17	*			
15	South Capitol and E Streets	010	05/23/17	*			
15a	Half and L Streets, SE	010	05/23/17	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
15b	South Capitol and I Streets	010	05/18/17	*			
15c	South Capitol and I Streets	010	05/18/17	*			
16	North of Main Sewage Pumping Station	012	05/18/17	*			
17	4 th and N Streets, SE, Both Extended	013	05/15/17	*			
17a	K Street between 6 th Street and 7 th Street, SE	013	05/19/17	*			
18	6 th and M Streets, SE	014	05/05/17	*			
19	9 th and M Streets, SE	015	05/09/17	*			
19a	9 th and M Streets, SE	015	05/09/17	*			
20	12 th and M Streets, SE	016	05/09/17	*			
20a	12 th and M Streets, SE	016	05/09/17	*			
21	14 th and M Streets, SE	017	05/09/17	*			
22a	Barney Circle and Pennsylvania Ave, SE	018	05/15/17	*			
22b	Barney Circle and Pennsylvania Ave, SE	018	05/15/17	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	05/15/17	*			
22d	Kentucky Ave and Potomac Street, SE	018	05/08/17	*			
22e	14 th Street and Kentucky Ave, SE	018	05/08/17	*			
23	Independence Ave, 21 st Street, SE, Extended	019	05/12/17	*			
24a	East Capitol St, west of RFK stadium	019	05/12/17	*			
28	21 st and Constitution Ave, NW	020	05/08/17	*			
29	22 nd Street, between Constitution Ave and C St, NW	020	05/08/17	*			
30	17 th and D Streets, NW	020	05/09/17	*			
31	15 th Street and Pennsylvania Ave, NW	020	05/09/17	*			
33	10 th and F Streets, NW	020	05/09/17	*			
34	23 rd Street, north of Constitution Ave, NW	020	05/23/17	*			
34a	23 rd Street near C Street, NW	020	05/08/17	*			
35	Northeast of Roosevelt Bridge, NW	021	05/30/17	*			
36	27 th and I Streets, NW	022	05/08/17	*			
36a	New Hampshire Ave and Eye Street, NW	022	05/08/17	*			
36b	19 th and L Streets, NW	022, 034	05/02/17	*			
36d	17 th and L Streets, NW	022, 034	05/02/17	*			
36g	18 th and M Streets, NW	022, 034	05/02/17	*			
36h	18 th and M Streets, NW	022, 034	05/02/17	*			
37	27 th and Eye Streets, NW	022	05/08/17	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
38	29 th and K Streets, NW	024	05/02/17	*			
38a	30 th Street, south of K Street, NW	024	05/02/17	*			
39a	30 th and K Streets, NW	024	05/02/17	*			
39b	30 th and K Streets, NW	024	05/02/17	*			
41b	31 st and K Streets, NW	025	05/02/17	*			
41c	31 st and K Streets, NW	025	05/02/17	*			
42	Wisconsin Ave and K Street, NW	026	05/05/17	*			
43	Potomac and Water Streets, NW	027	05/05/17	*			
43a	Potomac and Water Streets, NW	027	05/05/17	*			
44	Water Street, west of Potomac St, NW	027	05/05/17	*			
45	36 th and M Streets, NW	028	05/05/17	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	05/05/17	*			
47	38 th Street and Reservoir Road, NW	029	05/05/17	*			
47a	37 th and T Streets, NW	029	05/05/17	*			
47b	37 th and T Streets, NW	029	05/05/17	*			
47c	38 th and W Streets, NW	029	05/05/17	*			
49 ^l	Pennsylvania Ave, east side of Rock Creek, NW	031	N/A				
50	26 and M Streets, NW	032	05/12/17	*			
51	N Street Extended, west of 25 th Street, NW	033	05/12/17	*			
52	22 nd Street between M and N Streets, NW	034	05/23/17	*			
52a	N Street between 22 nd and 23 rd Streets, NW	034	05/23/17	*			
53	22 nd and M Streets, NW	022, 034	05/18/17	*			
53a	22 nd and M Streets, NW	022, 034	05/18/17	*			
53b	L Street between 21 st Street and New Hampshire Ave, NW	022, 034	05/15/17	*			
53c	L and 22 nd Streets, NW	022	05/15/17	*			
54	23 rd and O Streets, NW	034	05/10/17	*			
55	22 nd Street, south of Q Street, NW	035	05/10/17	*			
55a	22 nd Street, south of Q Street, NW	035	05/10/17	*			
56	23 rd and Massachusetts Ave, NW	036	05/10/17	*			
57	23 rd Street, south of Q Street, NW	036	05/10/17	*			
58 ^l	Northwest of Belmont Road and Rock Creek and Potomac Parkway, NW	037	N/A				
59	North of Belmont Rd, east of Kalorama Cir, NW	038	05/01/07	*			
60	Connecticut Ave, east of Rock Creek, NW	039	05/01/07	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
61	Biltmore St, Extended, east of Rock Creek, NW	040	05/01/07	*			
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	05/03/17	*			
63	Harvard Street and Rock Creek Parkway, NW	042	05/03/17	*			
64	Adams Mill Road, south of Irving Street, NW	043	05/03/17	*			
65	Kenyon Street and Adams Mill Road, NW	044	05/03/17	*			
65a	Kenyon Street and Adams Mill Road, NW	044	05/03/17	*			
66	Adams Mill Road and Lamont Street, NW	045	05/03/17	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	05/03/17	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	05/03/17	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	05/03/17	*			
70	Piney Branch Parkway, west of 16 th Street, NW	049	05/03/17	*			
70i	5 th and Quackenbos Streets, NW	049	05/08/17	*			
71	28 th Street, west of Rock Creek Parkway, NW	050	05/15/17	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	05/10/17	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	05/10/17	*			
73	O Street Extended and Rock Creek Parkway, NW	052	05/10/17	*			
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	05/01/17	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	05/01/17	*			
77a	Normanstone Dr and Normanstone Lane, NW	056	05/01/17	*			
78 ¹	28th Street Extended, west of Rock Creek, NW	057	N/A				
79 ¹	Connecticut Ave and Rock Creek Parkway, NW	058	N/A				
84	26 th and P Streets, NW	060	05/10/17	*			
84a	26 th and P Streets, NW	060	05/10/17	*			
86 ²	Diversion Chamber at First and Channing St, NW	019	05/31/17	*			
87 ²	Vortex Drop at Shaft at First and Channing St, NW	019	05/31/17	*			
88 ²	Flagler and Adams St. NW	019	05/31/17	*			
89 ²	First and V St, NW	019	05/31/17	*			
90 ²	First and V St, NW	019	05/31/17	*			
91 ²	First and V St, NW	019	05/31/17	*			

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	05/12/17	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	05/18/17	*		*		*		*		
006 ¹	Good Hope Road and Welsh Memorial Bridge	N/A									
007	Between 11 th St. and Anacostia Bridges, SE	05/18/17	*		*		*		*		
009	O St. Sewage Pumping Station, SE	05/16/17	*		*		*		*		
010	O St. Sewage Pumping Station, SE	05/16/17	*			*			*		
011	Main Sewage Pumping Station, SE	05/16/17	*			*			*		
011(a)	Main Sewage Pumping Station, SE	05/16/17	*		*		*		*		
012	Main Sewage Pumping Station, SE	05/16/17	*		*		*		*		
013	Southeast Federal Center, aligned with 4 th St.	05/16/17	*		*		*		*		
014	Navy Yard, aligned with 6 th St., SE	05/16/17	*		*		*		*		
015	Navy Yard, aligned with 9th Street, SE	05/16/17	*			*			*		
016	12th and O Streets, SE	05/16/17	*		*		*		*		
017	M and Water Street, SE	05/16/17	*		*		*		*		
018	East of Barney Circle & South of Pennsylvania Avenue Bridge, SE	05/16/17	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility & D.C. General Hospital	05/04/17	*		*		*		*		
020	Rock Creek Parkway and Independence, NW	05/04/17	*		*		*		*		
021	Rock Creek Parkway and C St., NW	05/04/17	*		*		*		*		
022	Rock Creek Parkway and G St., NW	05/04/17	*		*		*		*		
024	South of 30 th and K Streets, NW ¹	05/04/17	*		*		*		*		
025	South of 31st and K Streets, NW	05/04/17	*		*		*		*		
026	Wisconsin Avenue and Water Street, NW	05/04/17	*		*		*		*		
027	33 rd and Water Sts., NW	05/04/17	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	05/04/17	*			*			*		
029	Adjacent to C&O Canal, aligned with 38 th St. NW	05/04/17	*			*			*		
031 ¹	Rock Creek Pkwy & Pennsylvania Avenue, NW	N/A									
032	26th and M Street, NW.	05/12/17	*			*			*		

NPDES Outfall	Location	Date Inspected	Outfall Condition		Tide Gate Present?		Tide Gate Condition		CSO Sign		Notes, Work Needed or Performed
			OK	Needs Work	Yes	No	OK	Needs Work	OK	Needs Work	
033	Across street from St. Francis Jr. High and aligned with N St., NW.	05/12/17	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	05/10/17	*			*			*		
035	P St. Bridge and Rock Creek Parkway	05/10/17	*			*			*		
036	22nd Street, South of Q Street NW.	05/16/17	*		*		*		*		
037 ¹	Waterside Dr. and Rock Creek Parkway	N/A									
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	05/01/17	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	05/01/17	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	05/01/17	*		*		*		*		DSS contractors repaired tidegate on 05/23/17. See w/o 17-391754. Scheduled inspections continued as normal in June.
041	Beach Dr. and Ontario Pl., NW	05/15/17	*		*		*		*		
042	Harvard St. and Beach Dr NW.	05/15/17	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	05/15/17	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	05/15/17	*		*		*		*		
045	North of Beach Dr. and Walbridge Pl, NW.	05/15/17	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	05/03/17	*			*			*		
047	Piney Branch Parkway and Ingleside Terrace	05/03/17	*		*		*		*		
048	South of Piney Branch Parkway and 17 th St.	05/03/17	*		*		*		*		
049	North of Piney Branch Parkway and 17 th St.	05/03/17	*		*		*		*		
050	Rock Creek Parkway and L St., NW	05/15/17	*		*		*		*		
051	Across Rock Creek Pkwy, aligned with Olive St., NW.	05/18/17	*		*		*		*		
052	Between P & Penna. Ave Bridges, aligned with O Street, NW.	05/18/17	*		*		*		*		
053 ¹	Q St. Bridge and Rock Creek Parkway, NW.	N/A									
054	Massachusetts Ave & Rock Creek Parkway, NW.	05/01/17	*		*		*		*		
056	Normanstone Dr. and Rock Creek Parkway, NW.	05/01/17	*		*		*		*		
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	05/16/17	*		*		*		*		

Notes:

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

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2.3.1 Pumping Stations

Pumping station operations are summarized in the table below.

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

<i>Pumping Station</i>	<i>No. of Inspections</i>	<i>No. Screens</i>	<i>No. Pumps</i>	<i>Screens or Pumps Out of Service</i>	<i>Dates</i>	<i>Reason</i>	<i>Work Order Number</i>	<i>Schedule to Restore to Service¹</i>
Main	31	3	4	Pump #2	05/01/17-05/31/17	Motor problem	17-359642	Anticipated 07/21/17
Eastside	3	2	4	Screen #2	05/19/17-05/26/17	Sensor replacement	17-434186	Returned to service on 05/26/17
				Pump #2	05/01/17-05/04/17	Pump pulled for repair	17-396296	Returned to service on 05/04/17
				Pump #3	05/06/17-05/31/17	Failed to start	17-408253	Anticipated 06/02/17
Poplar Point	3	2	3	Screen #2	05/03/17-05/30/17	Motor retrofit	17-360108	Returned to service on 05/30/17
Potomac	31	4	5	Screen #2	05/01/17-05/25/17	Phase 3 upgrade work ²	Contractor	New screen in service on 05/25/17
				Pump #2	05/01/17-05/31/17	Phase 3 upgrade work ²	Contractor	Anticipated 07/08/17

Notes:

1. The schedule to restore to service is impacted by the type and age of equipment. In some cases, the condition of 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 and is anticipated to be completed by December 2017.
2. This is part of the Potomac Pump Station Phase 3 upgrade project.

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

<i>Pumping Station</i>	<i>Date Performed</i>	<i>Type of Preventive Maintenance Performed¹</i>	<i>Work Order Number</i>	<i>Comments</i>
Main	05/01/17	Group A	17-373902	Add oil, grease bearings and replace packing if needed.
O St	05/01/17	Group A	17-387167	Add oil, grease bearings and replace packing if needed.
Eastside	05/15/17	Group A	17-377760	Add oil, grease bearings and replace packing if needed.
Poplar Point	05/15/17	Group A	17-370165	Add oil, grease bearings and replace packing if needed.
Potomac	05/01/17	Group A	17-377880	Add oil, grease bearings and replace packing if needed.
Rock Creek	05/15/17	Group A	17-365394	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	05/15/17	Group A	17-373916	Add oil, grease bearings and replace packing if needed.
Earl Place	05/15/17	Group A	17-346753	Add oil, grease bearings and replace packing if needed.
1 st Street Tunnel Dewatering	05/31/17	Visual inspection of above ground structure	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. New station information – The First Street Tunnel will provide storage during rain events to mitigate flooding in the Bloomingdale area of Washington D.C. The 1st Street Tunnel Dewatering Pumping Station is required to dewater the First Street Tunnel into the existing sewer system after a rain event. In 2023, the First Street Tunnel will connect to the Northeast Boundary Tunnel allowing flow to drain by gravity to Blue Plains AWWTP, at this time the Pumping Station will be decommissioned.

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

<i>Pumping Station</i>	<i>Sanitary Pumpage</i>		<i>Storm Water/CSO Pumped To Anacostia River</i>			<i>Pumpage of CSO from First Street Tunnel back to Sewer System</i>	
	<i>Total Wastewater (mg)</i>	<i>Daily Average Wastewater (mg)</i>	<i>Date</i>	<i>Volume (mg)</i>	<i>Screenings Collected (units)¹</i>	<i>Date</i>	<i>Volume (mg)</i>
Main	1811.48	58.43	N/A	N/A	N/A	N/A	N/A
O St	132.96	4.29	05/05/17	63.14	Normal	N/A	N/A
			05/11/17	22.68	Normal	N/A	N/A
			05/13/17	11.34	Normal	N/A	N/A
			05/25/17	0.84	Normal	N/A	N/A
Eastside	223.04	7.19	N/A	N/A	N/A	N/A	N/A
Poplar Point	535.80	17.28	N/A	N/A	N/A	N/A	N/A
Potomac	3380.73	109.06	N/A	N/A	N/A	N/A	N/A
Rock Creek	176.47	5.69	N/A	N/A	N/A	N/A	N/A
Upper Anacostia	41.25	1.33	N/A	N/A	N/A	N/A	N/A
Earl Place	0.139	0.004	N/A	N/A	N/A	N/A	N/A
1 st Street Tunnel Dewatering	N/A	N/A	N/A	N/A	N/A	05/05/17	0.22

Notes:

1. Screening consists of vertical trash racks, with no mechanical cleaning. Quantification of captured materials is not possible on monthly basis.

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**

<i>Date Inspected</i>	<i>No. Screens</i>	<i>No. Swirls</i>	<i>Screens or Swirls Out of Service</i>	<i>Dates</i>	<i>Reason</i>	<i>Schedule to Restore to Service</i>
05/15/17	3	3	Screen #3	05/01/17-05/31/17	Bent bars & back plate	Anticipated 08/25/17

**Table 2-7
Northeast Boundary Swirl Facility – Preventive Maintenance**

<i>Date Performed</i>	<i>Type of Preventive Maintenance Performed¹</i>	<i>Work Order Number</i>	<i>Comments</i>
05/15/17	Group A	17-379487	

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**

<i>Date</i>	<i>Approx. Storm Duration (hrs)¹</i>	<i>Total Influent Volume (mg)</i>	<i>Total Foul Sewer Volume (mg)</i>	<i>Total Effluent Volume (mg)</i>	<i>Approx. Screenings Volume (Cu. ft)</i>
05/05/17	10	27.39	6.95	20.44	124
05/05/17	5.4	10.80	5.38	5.42	36
05/11/17	14.5	17.56	8.56	9.00	160
05/13/17	13	15.55	8.18	7.37	88
05/19/19	2.4	3.62	3.62	0	16
05/25/17	5	3.92	3.52	0.40	20
05/25/17	5.5	13.38	3.98	9.40	68
05/25/17	6	4.84	3.87	0.97	32
05/28/17	5	6.97	4.08	2.89	128
05/30/17	2.3	0.33	0.33	0	12

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
05/05/17	Yes	4.1	31.7	Mix Chamber	1.6	Mix Chamber	5,000
				Anacostia River ¹	0.0	Anacostia River ¹	540
05/05/17	Yes	2.7	11.0	Mix Chamber	N/A	Mix Chamber	N/A
				Anacostia River ¹	N/A	Anacostia River ¹	N/A
05/11/17	Yes	9.5	42.3	Mix Chamber	2.0	Mix Chamber	<10
				Anacostia River ¹	0.0	Anacostia River ¹	340,000
05/11/17	Yes	9.5	42.3	Mix Chamber	0.0	Mix Chamber	64,000
				Anacostia River ¹	0.0	Anacostia River ¹	7,800
05/13/17	Yes	16.1	38.8	Mix Chamber	1.4	Mix Chamber	<10
				Anacostia River ¹	0.0	Anacostia River ¹	21,000
05/25/17	Yes	7.3	35.5	Mix Chamber	N/A	Mix Chamber	N/A
				Anacostia River ¹	N/A	Anacostia River ¹	N/A
05/25/17	Yes	7.3	35.5	Mix Chamber	0.03	Mix Chamber	270,000
				Anacostia River ¹	0.0	Anacostia River ¹	3,800
05/25/17	Yes	36.2	298.8	Mix Chamber	0.4	Mix Chamber	63
				Anacostia River ¹	0.0	Anacostia River ¹	490
05/28/17	Yes	2.6	5.7	Mix Chamber	N/A	Mix Chamber	N/A
				Anacostia River ¹	N/A	Anacostia River ¹	N/A

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

<i>Date</i>	<i>Flow Composited Sample Results</i>						
	<i>Total suspended solids (mg/L)</i>	<i>Nitrite (NO₂-N) mg/L</i>	<i>Nitrate (NO₃-N) mg/L</i>	<i>Total Kjeldahl Nitrogen (mg/L as N)</i>	<i>Total Nitrogen (mg/L)</i>	<i>Total Phosphorus (mg/L)</i>	<i>Carbonaceous Biological Oxygen Demand (mg/L)</i>
5/5/17	55.0	0.00	0.52	4.34	4.86	0.28	5.58
5/11/17	20.0	0.00	0.51	2.90	3.41	0.40	12.9
5/13/17	20.0	0.00	0.48	1.91	2.39	0.32	11.0
5/25/17	8.0	0.05	0.55	0.92	1.52	0.05	6.24

Notes:

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**

<i>Inflatable Dam Structure No</i>	<i>Date Inspected</i>	<i>Was Dam Out of Service During the Month?</i>	<i>Dates out of Service</i>	<i>Reason</i>	<i>Schedule to Restore to Service</i>
14 - East	05/23/17	No	N/A	N/A	N/A
14 - West	05/23/17	No	N/A	N/A	N/A
15	05/23/17	No	N/A	N/A	N/A
15A	05/23/17	No	N/A	N/A	N/A
16 - East	05/23/17	No	N/A	N/A	N/A
16 - West	05/23/17	No	N/A	N/A	N/A
24 - North	05/30/17	No	N/A	N/A	N/A
24 - Middle	05/30/17	No	N/A	N/A	N/A
24 - South	05/30/17	No	N/A	N/A	N/A
34	05/23/17	No	N/A	N/A	N/A
35	05/30/17	No	N/A	N/A	N/A
52	05/23/17	No	N/A	N/A	N/A

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

<i>Inflatable Dam Structure No.</i>	<i>Overflow Dates</i>	<i>Estimated Duration of Overflow</i>
14 (E & W)	None	N/A
15	05/05/17 05/11/17 05/25/17	4 hrs 52 mins 12 mins 19 mins
15A	05/05/17 05/11/17 05/13/17	4 hrs 53 mins 5 hrs 58 mins 3 hrs 13 mins
16 (E & W)	05/05/17	3 hrs 12 mins ¹
24	05/05/17	4 hrs 52 mins
34	None	N/A
35	05/05/17 05/25/17 05/28/17	3 hrs 48 mins 10 mins 19 mins
52	None	N/A
<i>Structures on Outfall Sewers</i>	<i>Overflow Dates</i>	<i>Estimated Duration of Overflow</i>
Outfall Structure 1	None	This structure has been bulk headed. Overflows are no longer possible.
Outfall Structure 1A	None	This structure has been bulk headed. Overflows are no longer possible.
Outfall Structure 2	None	None
<i>Outfall Sewer Control Gates</i>	<i>Operational Status</i>	<i>Position</i>
Outfall Sewer Control Gate No.1	Operational	Open
Outfall Sewer Control Gate No.2	Operational	This structure has been bulk headed. Overflows are no longer possible

Notes

1. Overflow occurred due to equipment malfunction. See letter to EPA dated 5/10/17.

3. DRY WEATHER OVERFLOWS

There were no dry weather combined sewer overflow during May 2017.

4. **SOLIDS AND FLOATABLES CONTROL**

4.1 **Catch Basin Cleaning**

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

**Table 4-1
Catch Basin Cleaning**

Ward	Total CBs	CBs in CSS	Inspections			Cleaning					
			CBs in Anacostia CSS	Total Anacostia CBs Inspected Once this Year	Total Anacostia CBs Inspected Twice this Year	CBs Cleaned Thru Last Month		CB's Cleaned This Month		Total CBs Cleaned This Year to Date	
						Total	In CSS	Total	In CSS	Total	In CSS
1	1457	1430	608	50	2	130	129	2	2	132	131
2	2937	2742	558	30	1	379	368	34	32	413	400
3	3678	185	0	0	0	133	12	574	0	707	12
4	3453	1709	0	0	0	105	85	2630	1430	2735	1515
5	3892	1782	1724	120	3	747	126	39	30	786	156
6	3516	2902	2894	1090	11	1208	1091	16	13	1224	1104
7	3456	36	33	0	0	3169	4	10	0	3179	4
8	2672	203	202	149	3	1761	153	15	0	1776	153
Grand Total	25061	10988	6019	1439	20	7632	1968	3320	1507	10952	3475
% Cleaned/Inspected to Date				24%	<1%	30%	18%			44%	32%

Note: The totals have changed due to information that is more accurate. The Catch Basin Application was deployed in May 2016. We are now just completing a full cleaning cycle of the entire city using the Catch Basin Application. The Engineering/GIS process verifying the information regarding catch basins identified as being removed and new catch basins identified in the field may take a few weeks.

4.2 BMP Demonstration for Solid and Floatable Control

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

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

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

<i>Facility</i>	<i>Date Inspected</i>	<i>Condition</i>	<i>Work Needed</i>	<i>Work performed</i>	<i>Material Removed (LB)</i>
Netting System CSO 018	5/4/2017	Good	None	None	None
Bar Rack CSO 040	5/1/2017	Good	Tide Gate repaired 5/23/17	Routine Cleaning	(1)
Bar Rack CSO 041	5/15/2017	Good	None	Routine Cleaning	(1)

Notes:

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

4.3 Anacostia River Floating Debris Removal Program

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

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

<i>Program Operation</i>	5-day work week, excluding holidays, weather permitting
<i>Work Days this month:</i>	22
<i>Days not Operating</i>	14
<i>Reason not Operating</i>	Maintenance, wind, low water levels, lightning.
<i># Skimmer in Fleet</i>	5 Skimmers
<i># Skimmers Out of Service</i>	1 Skimmer (on the last day of the month)
<i>Dates</i>	B28: 5/1 - 5/31
<i>Reason</i>	B28: Front assembly catching on hull.
<i>Plan to Restore to Service</i>	B28: Sent to contractors for repair, ETR unknown.
<i>Amount Material Collected</i>	100 tons this month. Calendar year to date 230 tons.
<i>Nature of Material</i>	Bottles, cans, natural debris and plastics.

4.4 CSS Litter Control

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

Status: 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**

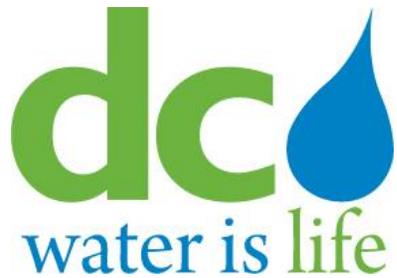
Inspector: Keith Watts

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	05/27/17	X			
Bar Racks at Main Storm Pumps (CSO 011)	KW	05/27/17	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
5/1/2017	0	0	0	0	0
5/2/2017	0	0	0	0.01	0
5/3/2017	0	0	0	0	0
5/4/2017	0.12	0.12	0.11	0.15	0.13
5/5/2017	2.17	1.96	1.91	2.12	1.75
5/6/2017	0.03	0.06	0.12	0.07	0.07
5/7/2017	0	0	0	0	0
5/8/2017	0	0	0	0	0
5/9/2017	0	0	0	0	0
5/10/2017	0	0	0	0	0
5/11/2017	1.07	1.07	1.04	1.09	1.04
5/12/2017	0.39	0.35	0.32	0.30	0.31
5/13/2017	0.62	0.57	0.57	0.55	0.51
5/14/2017	0	0	0	0	0
5/15/2017	0	0	0	0	0
5/16/2017	0	0	0	0	0
5/17/2017	0	0	0	0	0
5/18/2017	0	0	0.01	0.01	0.03
5/19/2017	0.45	0.31	0	0	0
5/20/2017	0	0	0	0	0
5/21/2017	0	0	0	0	0
5/22/2017	0.29	0.22	0.29	0.26	0.34
5/23/2017	0.06	0.06	0.07	0.07	0.06
5/24/2017	0.35	0.38	0.27	0.37	0.26
5/25/2017	0.80	0.73	0.74	0.70	0.75
5/26/2017	0	0	0	0	0
5/27/2017	0	0.02	0	0.02	0.03
5/28/2017	0.41	0.40	0.42	0.30	0.08
5/29/2017	0	0	0	0	0
5/30/2017	0.19	0.15	0.27	0.25	0.17
5/31/2017	0.05	0.08	0.04	0.03	0.02
TOTAL	7.00	6.48	6.18	6.30	5.55



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

**Monthly Operations Report
For
Combined Sewer System
Month: June 2017**

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: June 2017*

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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	06/12/17	*			
4	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	06/12/17	*			
5	Poplar Point Pumping Station	004	06/21/17	*			
6	Chicago Street and Railroad Ave, SE	005	06/07/17	*			
7	W Street and Railroad Ave, SE	005	06/07/17	*			
8 ¹	Good Hope Rd, west of Nichols Ave, SE	006	N/A				
9	13 th Street and Ridge Place, SE	007	06/07/17	*			
11	"O" Street Pumping Station	011(a)	06/21/17	*			
12	Storm Pump Discharge at Main Pumping Station	011	06/20/17	*			
13	2 nd Street, 300 ft. north of N Place, SE	009	06/20/17	*			
14	2 nd Street, 250 ft. north of N Place, SE	011(a)	06/20/17	*			
15	South Capitol and E Streets	010	06/13/17	*			
15a	Half and L Streets, SE	010	06/13/17	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
15b	South Capitol and I Streets	010	06/19/17	*			
15c	South Capitol and I Streets	010	06/19/17	*			
16	North of Main Sewage Pumping Station	012	06/20/17	*			
17	4 th and N Streets, SE, Both Extended	013	06/19/17	*			
17a	K Street between 6 th Street and 7 th Street, SE	013	06/21/17	*			
18	6 th and M Streets, SE	014	06/14/17	*			
19	9 th and M Streets, SE	015	06/09/17	*			
19a	9 th and M Streets, SE	015	06/09/17	*			
20	12 th and M Streets, SE	016	06/09/17	*			
20a	12 th and M Streets, SE	016	06/09/17	*			
21	14 th and M Streets, SE	017	06/09/17	*			
22a	Barney Circle and Pennsylvania Ave, SE	018	06/12/17	*			
22b	Barney Circle and Pennsylvania Ave, SE	018	06/12/17	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	06/12/17	*			
22d	Kentucky Ave and Potomac Street, SE	018	06/09/17	*			
22e	14 th Street and Kentucky Ave, SE	018	06/09/17	*			
23	Independence Ave, 21 st Street, SE, Extended	019	06/15/17	*			
24a	East Capitol St, west of RFK stadium	019	06/15/17	*			
28	21 st and Constitution Ave, NW	020	06/16/17	*			
29	22 nd Street, between Constitution Ave and C St, NW	020	06/16/17	*			
30	17 th and D Streets, NW	020	06/09/17	*			
31	15 th Street and Pennsylvania Ave, NW	020	06/09/17	*			
33	10 th and F Streets, NW	020	06/09/17	*			
34	23 rd Street, north of Constitution Ave, NW	020	06/13/17	*			
34a	23 rd Street near C Street, NW	020	06/16/17	*			
35	Northeast of Roosevelt Bridge, NW	021	06/13/17	*			
36	27 th and I Streets, NW	022	06/16/17	*			
36a	New Hampshire Ave and Eye Street, NW	022	06/16/17	*			
36b	19 th and L Streets, NW	022, 034	06/09/17	*			
36d	17 th and L Streets, NW	022, 034	06/09/17	*			
36g	18 th and M Streets, NW	022, 034	06/09/17	*			
36h	18 th and M Streets, NW	022, 034	06/09/17	*			
37	27 th and Eye Streets, NW	022	06/16/17	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
38	29 th and K Streets, NW	024	06/02/17	*			
38a	30 th Street, south of K Street, NW	024	06/02/17	*			
39a	30 th and K Streets, NW	024	06/02/17	*			
39b	30 th and K Streets, NW	024	06/02/17	*			
41b	31 st and K Streets, NW	025	06/02/17	*			
41c	31 st and K Streets, NW	025	06/02/17	*			
42	Wisconsin Ave and K Street, NW	026	06/02/17	*			
43	Potomac and Water Streets, NW	027	06/02/17	*			
43a	Potomac and Water Streets, NW	027	06/02/17	*			
44	Water Street, west of Potomac St, NW	027	06/02/17	*			
45	36 th and M Streets, NW	028	06/07/17	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	06/07/17	*			
47	38 th Street and Reservoir Road, NW	029	06/07/17	*			
47a	37 th and T Streets, NW	029	06/07/17	*			
47b	37 th and T Streets, NW	029	06/07/17	*			
47c	38 th and W Streets, NW	029	06/07/17	*			
49 ^l	Pennsylvania Ave, east side of Rock Creek, NW	031	N/A				
50	26 and M Streets, NW	032	06/06/17	*			
51	N Street Extended, west of 25 th Street, NW	033	06/06/17	*			
52	22 nd Street between M and N Streets, NW	034	06/13/17	*			
52a	N Street between 22 nd and 23 rd Streets, NW	034	06/13/17	*			
53	22 nd and M Streets, NW	022, 034	06/19/17	*			
53a	22 nd and M Streets, NW	022, 034	06/19/17	*			
53b	L Street between 21 st Street and New Hampshire Ave, NW	022, 034	06/16/17	*			
53c	L and 22 nd Streets, NW	022	06/16/17	*			
54	23 rd and O Streets, NW	034	06/12/17	*			
55	22 nd Street, south of Q Street, NW	035	06/12/17	*			
55a	22 nd Street, south of Q Street, NW	035	06/12/17	*			
56	23 rd and Massachusetts Ave, NW	036	06/12/17	*			
57	23 rd Street, south of Q Street, NW	036	06/12/17	*			
58 ^l	Northwest of Belmont Road and Rock Creek and Potomac Parkway, NW	037	N/A				
59	North of Belmont Rd, east of Kalorama Cir, NW	038	06/06/17	*			
60	Connecticut Ave, east of Rock Creek, NW	039	06/06/17	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
61	Biltmore St, Extended, east of Rock Creek, NW	040	06/06/17	*			
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	06/14/17	*			
63	Harvard Street and Rock Creek Parkway, NW	042	06/14/17	*			
64	Adams Mill Road, south of Irving Street, NW	043	06/14/17	*			
65	Kenyon Street and Adams Mill Road, NW	044	06/14/17	*			
65a	Kenyon Street and Adams Mill Road, NW	044	06/14/17	*			
66	Adams Mill Road and Lamont Street, NW	045	06/14/17	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	06/14/17	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	06/14/17	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	06/14/17	*			
70	Piney Branch Parkway, west of 16 th Street, NW	049	06/14/17	*			
70i	5 th and Quackenbos Streets, NW	049	06/19/17	*			
71	28 th Street, west of Rock Creek Parkway, NW	050	06/06/17	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	06/12/17	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	06/12/17	*			
73	O Street Extended and Rock Creek Parkway, NW	052	06/12/17	*			
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	06/15/17	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	06/15/17	*			
77a	Normanstone Dr and Normanstone Lane, NW	056	06/15/17	*			
78 ¹	28th Street Extended, west of Rock Creek, NW	057	N/A				
79 ¹	Connecticut Ave and Rock Creek Parkway, NW	058	N/A				
84	26 th and P Streets, NW	060	06/12/17	*			
84a	26 th and P Streets, NW	060	06/12/17	*			
86 ²	Diversion Chamber at First and Channing St, NW	019	06/30/17	*			
87 ²	Vortex Drop at Shaft at First and Channing St, NW	019	06/30/17	*			
88 ²	Flagler and Adams St. NW	019	06/30/17	*			
89 ²	First and V St, NW	019	06/30/17	*			
90 ²	First and V St, NW	019	06/30/17	*			
91 ²	First and V St, NW	019	06/30/17	*			

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	06/12/17	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	06/01/17	*		*		*		*		
006 ¹	Good Hope Road and Welsh Memorial Bridge	N/A									
007	Between 11 th St. and Anacostia Bridges, SE	06/01/17	*		*		*		*		
009	O St. Sewage Pumping Station, SE	06/20/17	*		*		*		*		
010	O St. Sewage Pumping Station, SE	06/20/17	*			*			*		
011	Main Sewage Pumping Station, SE	06/20/17	*			*			*		
011(a)	Main Sewage Pumping Station, SE	06/20/17	*		*		*		*		
012	Main Sewage Pumping Station, SE	06/20/17	*		*		*		*		
013	Southeast Federal Center, aligned with 4 th St.	06/20/17	*		*		*		*		
014	Navy Yard, aligned with 6 th St., SE	06/20/17	*		*		*		*		
015	Navy Yard, aligned with 9th Street, SE	06/20/17	*			*			*		
016	12th and O Streets, SE	06/19/17	*		*		*		*		
017	M and Water Street, SE	06/20/17	*		*		*		*		
018	East of Barney Circle & South of Pennsylvania Avenue Bridge, SE	06/19/17	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility & D.C. General Hospital	06/01/17	*		*		*		*		
020	Rock Creek Parkway and Independence, NW	06/01/17	*		*		*		*		
021	Rock Creek Parkway and C St., NW	06/01/17	*		*		*		*		
022	Rock Creek Parkway and G St., NW	06/01/17	*		*		*		*		
024	South of 30 th and K Streets, NW ¹	06/01/17	*		*		*		*		
025	South of 31st and K Streets, NW	06/01/17	*		*		*		*		
026	Wisconsin Avenue and Water Street, NW	06/01/17	*		*		*		*		
027	33 rd and Water Sts., NW	06/01/17	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	06/01/17	*			*			*		
029	Adjacent to C&O Canal, aligned with 38 th St. NW	06/01/17	*			*			*		
031 ¹	Rock Creek Pkwy & Pennsylvania Avenue, NW	N/A									
032	26th and M Street, NW.	06/06/17	*			*			*		

NPDES Outfall	Location	Date Inspected	Outfall Condition		Tide Gate Present?		Tide Gate Condition		CSO Sign		Notes, Work Needed or Performed
			OK	Needs Work	Yes	No	OK	Needs Work	OK	Needs Work	
033	Across street from St. Francis Jr. High and aligned with N St., NW.	06/06/17	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	06/12/17	*			*			*		
035	P St. Bridge and Rock Creek Parkway	06/12/17	*			*			*		
036	22nd Street, South of Q Street NW.	06/08/17	*		*		*		*		
037 ¹	Waterside Dr. and Rock Creek Parkway	N/A									
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	06/06/17	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	06/06/17	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	06/06/17	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	06/08/17	*		*		*		*		
042	Harvard St. and Beach Dr NW.	06/08/17	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	06/08/17	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	06/08/17	*		*		*		*		
045	North of Beach Dr. and Walbridge Pl, NW.	06/08/17	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	06/14/17	*			*			*		
047	Piney Branch Parkway and Ingleside Terrace	06/14/17	*		*		*		*		
048	South of Piney Branch Parkway and 17 th St.	06/14/17	*		*		*		*		
049	North of Piney Branch Parkway and 17 th St.	06/14/17	*		*		*		*		
050	Rock Creek Parkway and L St., NW	06/06/17	*		*		*		*		
051	Across Rock Creek Pkwy, aligned with Olive St., NW.	06/15/17	*		*		*		*		
052	Between P & Penna. Ave Bridges, aligned with O Street, NW.	06/15/17	*		*		*		*		
053 ¹	Q St. Bridge and Rock Creek Parkway, NW.	N/A									
054	Massachusetts Ave & Rock Creek Parkway, NW.	06/15/17	*		*		*		*		
056	Normanstone Dr. and Rock Creek Parkway, NW.	06/15/17	*		*		*		*		
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	06/08/17	*		*		*		*		

Notes:

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

2.3.1 Pumping Stations

Pumping station operations are summarized in the table below.

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

<i>Pumping Station</i>	<i>No. of Inspections</i>	<i>No. Screens</i>	<i>No. Pumps</i>	<i>Screens or Pumps Out of Service</i>	<i>Dates</i>	<i>Reason</i>	<i>Work Order Number</i>	<i>Schedule to Restore to Service¹</i>
Main	30	3	4	Pump #2	06/01/17-06/30/17	Motor problem	17-359642	Anticipated 07/21/17
Eastside	3	2	4	Pump #3	06/01/17-06/02/17	Failed to start	17-408253	Returned to service on 06/02/17
Poplar Point	3	2	3	None	N/A	N/A	N/A	N/A
Potomac	30	4	5	Pump #2 Screen #3	06/01/17-06/30/17 06/05/17-06/06/17	Phase 3 upgrade work ² Rake repair	Contractor 17-453923	Anticipated 07/08/17 Returned to service on 06/06/17

Notes:

1. The schedule to restore to service is impacted by the type and age of equipment. In some cases, the condition of 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 and is anticipated to be completed by December 2017.
2. This is part of the Potomac Pump Station Phase 3 upgrade project.

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

<i>Pumping Station</i>	<i>Date Performed</i>	<i>Type of Preventive Maintenance Performed¹</i>	<i>Work Order Number</i>	<i>Comments</i>
Main	06/01/17	Group A	17-420477	Add oil, grease bearings and replace packing if needed.
O St	06/01/17	Group A	17-443612	Add oil, grease bearings and replace packing if needed.
Eastside	06/10/17	Group A	17-426502	Add oil, grease bearings and replace packing if needed.
Poplar Point	06/10/17	Group A	17-418604	Add oil, grease bearings and replace packing if needed.
Potomac	06/01/17	Group A	17-426684	Add oil, grease bearings and replace packing if needed.
Rock Creek	06/11/17	Group A	17-403819	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	06/10/17	Group A	17-420491	Add oil, grease bearings and replace packing if needed.
Earl Place	06/10/17	Group A	17-400452	Add oil, grease bearings and replace packing if needed.
1 st Street Tunnel Dewatering	06/01/17	Visual inspection of above ground structure	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. New station information – The First Street Tunnel will provide storage during rain events to mitigate flooding in the Bloomingdale area of Washington D.C. The 1st Street Tunnel Dewatering Pumping Station is required to dewater the First Street Tunnel into the existing sewer system after a rain event. In 2023, the First Street Tunnel will connect to the Northeast Boundary Tunnel allowing flow to drain by gravity to Blue Plains AWWTP, at this time the Pumping Station will be decommissioned.

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

<i>Pumping Station</i>	<i>Sanitary Pumpage</i>		<i>Storm Water/CSO Pumped To Anacostia River</i>			<i>Pumpage of CSO from First Street Tunnel back to Sewer System</i>	
	<i>Total Wastewater (mg)</i>	<i>Daily Average Wastewater (mg)</i>	<i>Date</i>	<i>Volume (mg)</i>	<i>Screenings Collected (units)¹</i>	<i>Date</i>	<i>Volume (mg)</i>
Main	1610.97	53.70	N/A	N/A	N/A	N/A	N/A
O St	117.42	3.91	N/A	N/A	N/A	N/A	N/A
Eastside	115.20	3.84	N/A	N/A	N/A	N/A	N/A
Poplar Point	515.15	17.17	N/A	N/A	N/A	N/A	N/A
Potomac	2890.95	96.37	N/A	N/A	N/A	N/A	N/A
Rock Creek	140.79	4.69	N/A	N/A	N/A	N/A	N/A
Upper Anacostia	37.58	1.25	N/A	N/A	N/A	N/A	N/A
Earl Place	0.105	0.004	N/A	N/A	N/A	N/A	N/A
1 st Street Tunnel Dewatering	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1. Screening consists of vertical trash racks, with no mechanical cleaning. Quantification of captured materials is not possible on monthly basis.

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**

<i>Date Inspected</i>	<i>No. Screens</i>	<i>No. Swirls</i>	<i>Screens or Swirls Out of Service</i>	<i>Dates</i>	<i>Reason</i>	<i>Schedule to Restore to Service</i>
06/10/17	3	3	Screen #3	06/01/17-06/30/17	Bent bars & back plate	Anticipated 08/25/17

**Table 2-7
Northeast Boundary Swirl Facility – Preventive Maintenance**

<i>Date Performed</i>	<i>Type of Preventive Maintenance Performed¹</i>	<i>Work Order Number</i>	<i>Comments</i>
06/10/17	Group A	17-429681	

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**

<i>Date</i>	<i>Approx. Storm Duration (hrs)¹</i>	<i>Total Influent Volume (mg)</i>	<i>Total Foul Sewer Volume (mg)</i>	<i>Total Effluent Volume (mg)</i>	<i>Approx. Screenings Volume (Cu. ft)</i>
06/19/17	4.4	10.01	5.13	4.88	116

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
06/19/17	Yes	2.24	13.4	Mix Chamber	1.52	Mix Chamber	63
				Anacostia River ¹	0.0	Anacostia River ¹	280

Notes:

1. River: River Outfall

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

Date	Flow Compositied Sample Results						
	Total suspended solids (mg/L)	Nitrite (NO ₂ -N) mg/L	Nitrate (NO ₃ -N) mg/L	Total Kjeldahl Nitrogen (mg/L as N)	Total Nitrogen (mg/L)	Total Phosphorus (mg/L)	Carbonaceous Biological Oxygen Demand (mg/L)
6/19/17	40.0	0.09	0.34	1.26	1.69	0.04	4.08

Notes:

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**

<i>Inflatable Dam Structure No</i>	<i>Date Inspected</i>	<i>Was Dam Out of Service During the Month?</i>	<i>Dates out of Service</i>	<i>Reason</i>	<i>Schedule to Restore to Service</i>
14 - East	06/16/17	No	N/A	N/A	N/A
14 - West	06/16/17	No	N/A	N/A	N/A
15	06/13/17	No	N/A	N/A	N/A
15A	06/13/17	No	N/A	N/A	N/A
16 - East	06/16/17	No	N/A	N/A	N/A
16 - West	06/16/17	No	N/A	N/A	N/A
24 - North	06/15/17	No	N/A	N/A	N/A
24 - Middle	06/15/17	No	N/A	N/A	N/A
24 - South	06/15/17	No	N/A	N/A	N/A
34	06/13/17	No	N/A	N/A	N/A
35	06/13/17	No	N/A	N/A	N/A
52	06/13/17	No	N/A	N/A	N/A

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

<i>Inflatable Dam Structure No.</i>	<i>Overflow Dates</i>	<i>Estimated Duration of Overflow</i>
14 (E & W)	<i>None</i>	<i>N/A</i>
15	<i>None</i>	<i>N/A</i>
15A	<i>6/19/17</i>	<i>1 hr 15 mins</i>
16 (E & W)	<i>None</i>	<i>N/A</i>
24	<i>6/19/17</i>	<i>21 mins</i>
34	<i>None</i>	<i>N/A</i>
35	<i>6/19/17</i>	<i>29 mins</i>
52	<i>None</i>	<i>N/A</i>
<i>Structures on Outfall Sewers</i>	<i>Overflow Dates</i>	<i>Estimated Duration of Overflow</i>
Outfall Structure 1	None	This structure has been bulk headed. Overflows are no longer possible.
Outfall Structure 1A	None	This structure has been bulk headed. Overflows are no longer possible.
Outfall Structure 2	None	None
<i>Outfall Sewer Control Gates</i>	<i>Operational Status</i>	<i>Position</i>
Outfall Sewer Control Gate No.1	Operational	Open
Outfall Sewer Control Gate No.2	Operational	This structure has been bulk headed. Overflows are no longer possible
Outfall Sewer Control Gate No.2	Operational	This structure has been bulk headed. Overflows are no longer possible

3. DRY WEATHER OVERFLOWS

There were no dry weather combined sewer overflow during June 2017.

4. SOLIDS AND FLOATABLES CONTROL

4.1 Catch Basin Cleaning

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

**Table 4-1
Catch Basin Cleaning**

Ward	Total CBs	CBs in CSS	Inspections			Cleaning					
			CBs in Anacostia CSS	Total Anacostia CBs Inspected Once this Year	Total Anacostia CBs Inspected Twice this Year	CBs Cleaned Thru Last Month		CB's Cleaned This Month		Total CBs Cleaned This Year to Date	
						Total	In CSS	Total	In CSS	Total	In CSS
1	1457	1430	608	279	2	132	131	570	560	702	691
2	2937	2742	558	191	2	413	400	274	274	687	674
3	3677	186	0	0	0	707	12	1570	2	2277	14
4	3453	1710	0	0	0	2735	1516	255	117	2990	1633
5	3892	1782	1724	618	3	786	156	503	501	1289	657
6	3516	2902	2894	1258	14	1224	1104	174	171	1398	1275
7	3456	37	33	0	0	3179	5	7	1	3186	6
8	2672	204	202	149	3	1776	154	9	2	1785	156
Grand Total	25060	10993	6019	2495	24	10952	3478	3362	1628	14314	5106
% Cleaned/Inspected to Date				41%	<1%	43%	32%			57%	46%

Note: The totals have changed due to information that is more accurate. The Catch Basin Application was deployed in May 2016. We are now just completing a full cleaning cycle of the entire city using the Catch Basin Application. The Engineering/GIS process verifying the information regarding catch basins identified as being removed and new catch basins identified in the field may take a few weeks.

4.2 BMP Demonstration for Solid and Floatable Control

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

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

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

<i>Facility</i>	<i>Date Inspected</i>	<i>Condition</i>	<i>Work Needed</i>	<i>Work performed</i>	<i>Material Removed (LB)</i>
Netting System CSO 018	6/1/2017	Good	Routine cleaning	Routine cleaning	None
	6/22/2017	Good	Change nets	Nets replaced	300 pounds
Bar Rack CSO 040	6/6/2017	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	6/8/2017	Good	None	Routine Cleaning	(1)

Notes:

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

4.3 Anacostia River Floating Debris Removal Program

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

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

<i>Program Operation</i>	5-day work week, excluding holidays, weather permitting
<i>Work Days this month:</i>	22
<i>Days not Operating</i>	5
<i>Reason not Operating</i>	Maintenance, wind, low water levels, lightning.
<i># Skimmer in Fleet</i>	5 Skimmers
<i># Skimmers Out of Service</i>	1 Skimmer (on the last day of the month)
<i>Dates</i>	B28: 6/1 - 6/30
<i>Reason</i>	B28: Front assembly catching on hull.
<i>Plan to Restore to Service</i>	B28: Sent to contractors for repair, ETR unknown.
<i>Amount Material Collected</i>	40 tons this month. Calendar year to date 270 tons.
<i>Nature of Material</i>	Bottles, cans, natural debris and plastics.

4.4 CSS Litter Control

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

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	06/21/17	X			
Bar Racks at Main Storm Pumps (CSO 011)	KW	06/21/17	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
6/1/2017	0	0	0	0	0
6/2/2017	0	0	0	0	0
6/3/2017	0	0	0	0	0
6/4/2017	0	0	0	0	0
6/5/2017	0	0.01	0.01	0	0
6/6/2017	0	0	0	0	0
6/7/2017	0	0	0	0	0
6/8/2017	0	0	0	0	0
6/9/2017	0	0	0	0	0
6/10/2017	0	0	0	0	0
6/11/2017	0	0	0	0	0
6/12/2017	0	0	0	0	0
6/13/2017	0	0	0	0	0
6/14/2017	0	0	0	0	0
6/15/2017	0	0	0	0	0
6/16/2017	0.09	0.07	0.15	0.12	0.36
6/17/2017	0	0.01	0	0	0
6/18/2017	0	0	0	0	0
6/19/2017	0.35	0.58	0.54	0.48	0.53
6/20/2017	0	0	0	0	0
6/21/2017	0	0	0	0	0
6/22/2017	0	0	0	0	0
6/23/2017	0.09	0.10	0.12	0.09	0.10
6/24/2017	0.11	0.11	0.15	0.16	0.07
6/25/2017	0	0	0	0	0
6/26/2017	0	0	0	0	0
6/27/2017	0	0	0.07	0	0.07
6/28/2017	0	0	0	0	0
6/29/2017	0	0	0	0	0
6/30/2017	0	0	0	0	0
TOTAL	0.64	0.88	1.04	0.85	1.13

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: April, May, June 2017

SCENARIO: PCCM_QuarterlyReport_2017Q2, produced July 11, 2017

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	11	3.64	42.50	3.86	9.50	0.25
006	Good Hope Road, West of Nichols Ave., SE	separated					
007	13 th Street and Ridge Place, SE	6	3.04	9.25	1.54	4.25	0.25
009	2nd Street, 300 feet North of N Place, SE	7	1.83	14.25	2.04	5.25	0.75
010	O Street Sewage Pumping Station, SE (pumped Overflow)	8	34.93	8.00	1.00	3.75	0.25
011	South of Main Sewage Pumping Station, SE (pumped overflow)	1	0.83	0.25	0.25	0.25	0.25
011a	South of Main Sewage Pumping Station, SE (gravity overflow)	0	0.00	0.00	0.00	0.00	0.00
012	North of Main Sewage Pumping Station, SE (Tiber Creek)	2	7.41	2.00	1.00	1.25	0.75
013	4th and N Streets, SE	4	1.50	8.50	2.13	5.25	0.25
014	6th and M Streets, SE	7	5.47	16.25	2.32	6.75	0.25
015	9th and M Streets, SE	6	0.64	8.25	1.38	4.25	0.25
016	12th and M Streets, SE	4	2.88	8.75	2.19	5.25	0.25
017	14th and M Streets, SE	7	8.79	37.75	5.39	8.50	1.75
018	Barney Circle and Pennsylvania Ave, SE	7	4.83	17.00	2.43	6.75	0.50
019	Northeast Boundary - Swirl Effluent	12	153.62	76.00	6.33	21.75	0.25
019	Northeast Bound. - Swirl Bypass	2	46.13	3.25	1.63	1.75	1.50
	SUBTOTAL		275.54				
Potomac CSOs							
003	Bolling AFB	0	0.00	0.00	0.00	0.00	0.00
020	23rd Street, North of Constitution Ave, NW (Easby Point)	3	0.47	9.25	3.08	5.75	0.50
021	Northeast of Roosevelt Bridge, NW	7	119.86	29.25	4.18	7.75	1.00
022	27th and K Streets, NW	7	6.15	18.50	2.64	7.50	0.25
024	30th and K Streets, NW	6	5.13	17.00	2.83	6.00	0.25
025	31st & K St NW	4	0.13	2.50	0.63	1.25	0.25
026	Wisconsin Avenue and K St., NW	0	0.00	0.00	0.00	0.00	0.00
027	Water Street West of Street, NW	5	2.30	7.00	1.40	3.75	0.25
028	36th and M Streets, NW	9	0.95	16.25	1.81	4.75	0.25
029	Canal Road 1000 feet east of Rock Creek, NW	7	2.47	8.25	1.18	4.00	0.25
	SUBTOTAL		137.47				
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 extended west 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	7	0.135	8.75	1.25	4.50	0.25
037	Northwest of Belmont and 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	Billmore Street extended east of Rock Creek, 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 Rock Creek Parkway, NW	0	0.00	0.00	0.00	0.00	0.00
043	Adams Mill Road South of Irving Street, NW	1	0.20	0.25	0.25	0.25	0.25
044	Kenyon Street and Adams Mill Road, NW	1	0.0001	0.25	0.25	0.25	0.25
045	Adams Mill Road and Lamont Street, NW	1	0.03	0.25	0.25	0.25	0.25
046	Park Road south of Piney Branch Parkway, NW	1	0.01	0.25	0.25	0.25	0.25
047	Ingleside Terrace extended and Piney Branch Parkway	1	0.00005	0.25	0.25	0.25	0.25
048	Mt. Pleasant Street extended and Piney Branch Parkway	1	0.06	0.25	0.25	0.25	0.25

District of Columbia Water and Sewer Authority

Combined Sewer System Model Results

Period: April, May, June 2017

SCENARIO: PCCM_QuarterlyReport_2017Q2, produced July 11, 2017

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)	
049	Piney Branch and Lamont Street, NW	8	9.58	14.75	1.84	5.75	0.25	
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 Creek 300 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 26 th St, NW	0	0.00	0.00	0.00	0.00	0.00	
	SUBTOTAL		10.00					
	TOTAL		423.02					

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