



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

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

**Prepared By:**  
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Water and Sewer Authority  
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Washington, D.C. 20003

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*Monthly Operations Report for Combined Sewer System  
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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	10/18/17	*			
4	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	10/18/17	*			
5	Poplar Point Pumping Station	004	10/18/17	*			
6	Chicago Street and Railroad Ave, SE	005	10/02/17	*			
7	W Street and Railroad Ave, SE	005	10/02/17	*			
8 <sup>1</sup>	Good Hope Rd, west of Nichols Ave, SE	006	N/A				
9	13 <sup>th</sup> Street and Ridge Place, SE	007	10/02/17	*			
11	"O" Street Pumping Station	011(a)	10/18/17	*			
12	Storm Pump Discharge at Main Pumping Station	011	10/24/17	*			
13	2 <sup>nd</sup> Street, 300 ft. north of N Place, SE	009	10/20/17	*			
14	2 <sup>nd</sup> Street, 250 ft. north of N Place, SE	011(a)	10/20/17	*			
15	South Capitol and E Streets	010	10/12/17	*			
15a	Half and L Streets, SE	010	10/12/17	*			
15b	South Capitol and I Streets	010	10/03/17	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
15c	South Capitol and I Streets	010	10/03/17	*			
16	North of Main Sewage Pumping Station	012	10/20/17	*			
17	4 <sup>th</sup> and N Streets, SE, Both Extended	013	10/20/17	*			
17a	K Street between 6 <sup>th</sup> Street and 7 <sup>th</sup> Street, SE	013	10/24/17	*			
18	6 <sup>th</sup> and M Streets, SE	014	10/03/17	*			
19	9 <sup>th</sup> and M Streets, SE	015	10/20/17	*			
19a	9 <sup>th</sup> and M Streets, SE	015	10/20/17	*			
20	12 <sup>th</sup> and M Streets, SE	016	10/20/17	*			
20a	12 <sup>th</sup> and M Streets, SE	016	10/20/17	*			
21	14 <sup>th</sup> and M Streets, SE	017	10/20/17	*			
22a	Barney Circle and Pennsylvania Ave, SE	018	10/23/17	*			
22b	Barney Circle and Pennsylvania Ave, SE	018	10/23/17	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	10/23/17	*			
22d	Kentucky Ave and Potomac Street, SE	018	10/06/17	*			
22e	14 <sup>th</sup> Street and Kentucky Ave, SE	018	10/06/17	*			
23	Independence Ave, 21 <sup>st</sup> Street, SE, Extended	019	10/04/17	*			
24a	East Capitol St, west of RFK stadium	019	10/04/17	*			
28	21 <sup>st</sup> and Constitution Ave, NW	020	10/03/17	*			
29	22 <sup>nd</sup> Street, between Constitution Ave and C St, NW	020	10/03/17	*			
30	17 <sup>th</sup> and D Streets, NW	020	10/02/17	*			
31	15 <sup>th</sup> Street and Pennsylvania Ave, NW	020	10/02/17	*			
33	10 <sup>th</sup> and F Streets, NW	020	10/02/17	*			
34	23 <sup>rd</sup> Street, north of Constitution Ave, NW	020	10/12/17	*			
34a	23 <sup>rd</sup> Street near C Street, NW	020	10/03/17	*			
35	Northeast of Roosevelt Bridge, NW	021	10/17/17	*			
36	27 <sup>th</sup> and I Streets, NW	022	10/03/17	*			
36a	New Hampshire Ave and Eye Street, NW	022	10/03/17	*			
36b	19 <sup>th</sup> and L Streets, NW	022, 034	10/04/17	*			
36d	17 <sup>th</sup> and L Streets, NW	022, 034	10/04/17	*			
36g	18 <sup>th</sup> and M Streets, NW	022, 034	10/04/17	*			
36h	18 <sup>th</sup> and M Streets, NW	022, 034	10/04/17	*			
37	27 <sup>th</sup> and Eye Streets, NW	022	10/03/17	*			
38	29 <sup>th</sup> and K Streets, NW	024	10/02/17	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
38a	30 <sup>th</sup> Street, south of K Street, NW	024	10/02/17	*			
39a	30 <sup>th</sup> and K Streets, NW	024	10/02/17	*			
39b	30 <sup>th</sup> and K Streets, NW	024	10/02/17	*			
41b	31 <sup>st</sup> and K Streets, NW	025	10/02/17	*			
41c	31 <sup>st</sup> and K Streets, NW	025	10/02/17	*			
42	Wisconsin Ave and K Street, NW	026	10/20/17	*			
43	Potomac and Water Streets, NW	027	10/10/17	*			
43a	Potomac and Water Streets, NW	027	10/10/17	*			
44	Water Street, west of Potomac St, NW	027	10/10/17	*			
45	36 <sup>th</sup> and M Streets, NW	028	10/06/17	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	10/06/17	*			
47	38 <sup>th</sup> Street and Reservoir Road, NW	029	10/06/17	*			
47a	37 <sup>th</sup> and T Streets, NW	029	10/06/17	*			
47b	37 <sup>th</sup> and T Streets, NW	029	10/06/17	*			
47c	38 <sup>th</sup> and W Streets, NW	029	10/06/17	*			
49 <sup>l</sup>	Pennsylvania Ave, east side of Rock Creek, NW	031	N/A				
50	26 and M Streets, NW	032	10/23/17	*			
51	N Street Extended, west of 25 <sup>th</sup> Street, NW	033	10/23/17	*			
52	22 <sup>nd</sup> Street between M and N Streets, NW	034	10/17/17	*			
52a	N Street between 22 <sup>nd</sup> and 23 <sup>rd</sup> Streets, NW	034	10/17/17	*			
53	22 <sup>nd</sup> and M Streets, NW	022, 034	10/23/17	*			
53a	22 <sup>nd</sup> and M Streets, NW	022, 034	10/23/17	*			
53b	L Street between 21 <sup>st</sup> Street and New Hampshire Ave, NW	022, 034	10/06/17	*			
53c	L and 22 <sup>nd</sup> Streets, NW	022	10/06/17	*			
54	23 <sup>rd</sup> and O Streets, NW	034	10/20/17	*			
55	22 <sup>nd</sup> Street, south of Q Street, NW	035	10/20/17	*			
55a	22 <sup>nd</sup> Street, south of Q Street, NW	035	10/20/17	*			
56	23 <sup>rd</sup> and Massachusetts Ave, NW	036	10/20/17	*			
57	23 <sup>rd</sup> Street, south of Q Street, NW	036	10/20/17	*			
58 <sup>l</sup>	Northwest of Belmont Road and Rock Creek and Potomac Parkway, NW	037	N/A				
59	North of Belmont Rd, east of Kalorama Cir, NW	038	10/10/17	*			
60	Connecticut Ave, east of Rock Creek, NW	039	10/10/17	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	10/10/17	*			

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	10/11/17	*			
63	Harvard Street and Rock Creek Parkway, NW	042	10/11/17	*			
64	Adams Mill Road, south of Irving Street, NW	043	10/11/17	*			
65	Kenyon Street and Adams Mill Road, NW	044	10/11/17	*			
65a	Kenyon Street and Adams Mill Road, NW	044	10/11/17	*			
66	Adams Mill Road and Lamont Street, NW	045	10/11/17	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	10/11/17	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	10/11/17	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	10/11/17	*			
70	Piney Branch Parkway, west of 16 <sup>th</sup> Street, NW	049	10/11/17	*			
70i	5 <sup>th</sup> and Quackenbos Streets, NW	049	10/03/17	*			
71	28 <sup>th</sup> Street, west of Rock Creek Parkway, NW	050	10/10/17	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	10/18/17	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	10/18/17	*			
73	O Street Extended and Rock Creek Parkway, NW	052	10/18/17	*			
74 <sup>1</sup>	Q Street, west of Rock Creek, NW	053	N/A				
75	West side of Rock Creek, 300 ft. south of Massachusetts Ave, NW	054	10/04/17	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	10/04/17	*			
77a	Normanstone Dr and Normanstone Lane, NW	056	10/04/17	*			
78 <sup>1</sup>	28th Street Extended, west of Rock Creek, NW	057	N/A				
79 <sup>1</sup>	Connecticut Ave and Rock Creek Parkway, NW	058	N/A				
84	26 <sup>th</sup> and P Streets, NW	060	10/18/17	*			
84a	26 <sup>th</sup> and P Streets, NW	060	10/18/17	*			
86 <sup>2</sup>	Diversion Chamber at First and Channing St, NW	019	10/25/17	*			
87 <sup>2</sup>	Vortex Drop at Shaft at First and Channing St, NW	019	10/25/17	*			
88 <sup>2</sup>	Flagler and Adams St. NW	019	10/25/17	*			
89 <sup>2</sup>	First and V St, NW	019	10/25/17	*			
90 <sup>2</sup>	First and V St, NW	019	10/25/17	*			
91 <sup>2</sup>	First and V St, NW	019	10/25/17	*			

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	10/18/17	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	10/05/17	*		*		*		*		
006 <sup>1</sup>	Good Hope Road and Welsh Memorial Bridge	N/A									
007	Between 11 <sup>th</sup> St. and Anacostia Bridges, SE	10/05/17	*		*		*		*		
009	O St. Sewage Pumping Station, SE	10/24/17	*		*		*		*		
010	O St. Sewage Pumping Station, SE	10/25/17	*			*			*		
011	Main Sewage Pumping Station, SE	10/24/17	*			*			*		
011(a)	Main Sewage Pumping Station, SE	10/24/17	*		*		*		*		
012	Main Sewage Pumping Station, SE	10/24/17	*		*		*		*		
013	Southeast Federal Center, aligned with 4 <sup>th</sup> St.	10/24/17	*		*		*		*		
014	Navy Yard, aligned with 6 <sup>th</sup> St., SE	10/24/17	*		*		*		*		
015	Navy Yard, aligned with 9th Street, SE	10/24/17	*			*			*		
016	12th and O Streets, SE	10/19/17	*		*		*		*		
017	M and Water Street, SE	10/19/17	*		*		*		*		
018	East of Barney Circle & South of Pennsylvania Avenue Bridge, SE	10/19/17	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility & D.C. General Hospital	10/19/17	*		*		*		*		
020	Rock Creek Parkway and Independence, NW	10/05/17	*		*		*		*		
021	Rock Creek Parkway and C St., NW	10/05/17	*		*		*		*		
022	Rock Creek Parkway and G St., NW	10/05/17	*		*		*		*		
024	South of 30 <sup>th</sup> and K Streets, NW <sup>1</sup>	10/05/17	*		*		*		*		
025	South of 31st and K Streets, NW	10/05/17	*		*		*		*		
026	Wisconsin Avenue and Water Street, NW	10/05/17	*		*		*		*		
027	33 <sup>rd</sup> and Water Sts., NW	10/05/17	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	10/05/17	*			*			*		
029	Adjacent to C&O Canal, aligned with 38 <sup>th</sup> St. NW	10/05/17	*			*			*		
031 <sup>1</sup>	Rock Creek Pkwy & Pennsylvania Avenue, NW	N/A									
032	26th and M Street, NW.	10/23/17	*			*			*		

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.	10/23/17	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	10/20/17	*			*			*		
035	P St. Bridge and Rock Creek Parkway	10/20/17	*			*			*		
036	22nd Street, South of Q Street NW.	10/19/17	*		*		*		*		
037 <sup>1</sup>	Waterside Dr. and Rock Creek Parkway	N/A									
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	10/10/17	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	10/10/17	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	10/10/17	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	10/19/17	*		*		*		*		
042	Harvard St. and Beach Dr NW.	10/19/17	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	10/19/17	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	10/19/17	*		*		*		*		
045	North of Beach Dr. and Walbridge Pl, NW.	10/19/17	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	10/11/17	*			*			*		
047	Piney Branch Parkway and Ingleside Terrace	10/11/17	*		*		*		*		
048	South of Piney Branch Parkway and 17 <sup>th</sup> St.	10/11/17	*		*		*		*		
049	North of Piney Branch Parkway and 17 <sup>th</sup> St.	10/11/17	*		*		*		*		
050	Rock Creek Parkway and L St., NW	10/10/17	*		*		*		*		
051	Across Rock Creek Pkwy, aligned with Olive St., NW.	10/19/17	*		*		*		*		
052	Between P & Penna. Ave Bridges, aligned with O Street, NW.	10/19/17	*		*		*		*		
053 <sup>1</sup>	Q St. Bridge and Rock Creek Parkway, NW.	N/A									
054	Massachusetts Ave & Rock Creek Parkway, NW.	10/04/17	*		*		*		*		
056	Normanstone Dr. and Rock Creek Parkway, NW.	10/04/17	*		*		*		*		
057 <sup>1</sup>	28th Street and Rock Creek Parkway, NW	N/A									
058 <sup>1</sup>	Connecticut Ave & Rock Creek Parkway, NW.	N/A									
060	North of P St. Bridge & Rock Creek Pkwy, NW	10/19/17	*		*		*		*		

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 Service<sup>1</sup></i>
Main	31	3	4	Pump #1	10/01/17-10/31/17	Motor Rehab	17-686275	Anticipated 12/22/17
				Screen #1	10/01/17-10/31/17	Bent bars	17-643853	Anticipated 11/30/17
Eastside	2	2	4	Screen #2	10/01/17-10/31/17	Bent bars	17-566510	Anticipated 11/30/17 <sup>2</sup>
				Pump #1	10/30/17-10/31/17	Check valve failure	18-54272	Anticipated 11/7/17
Poplar Point	2	2	3	None	N/A	N/A	N/A	N/A
Potomac	31	4	5	Pump #5	10/11/17-10/31/17 <sup>3</sup>	Phase 3 upgrade Project	Contractor	Anticipated 01/29/18
				Screen #4	10/12/17-10/12/17	Phase 3 Upgrade Project	Contractor	Anticipated 01/29/18
				Pump # 3	10/14/17- 10/31/17	Phase 3 Upgrade Project	Contractor	Anticipated 11/03/17

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 January 2018.
2. Due to repeat failures on Screen #2 at Eastside Pumping Station, the screen is being upgraded.
3. Pump available if needed.

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

<i>Pumping Station</i>	<i>Date Performed</i>	<i>Type of Preventive Maintenance Performed<sup>1</sup></i>	<i>Work Order Number</i>	<i>Comments</i>
Main	10/01/17	Group A	17-683969	Add oil, grease bearings and replace packing if needed.
O St	10/01/17	Group A	18-14044	Add oil, grease bearings and replace packing if needed.
Eastside	10/03/17	Group A	17-618325	Add oil, grease bearings and replace packing if needed.
Poplar Point	10/03/17	Group A	17-618360	Add oil, grease bearings and replace packing if needed.
Potomac	10/01/17	Group A	17-618670	Add oil, grease bearings and replace packing if needed.
Rock Creek	10/03/17	Group A	17-648053	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	10/15/17	Group A	17-683983	Add oil, grease bearings and replace packing if needed.
Earl Place	10/14/17	Group A	17-622778	Add oil, grease bearings and replace packing if needed.
1 <sup>st</sup> Street Tunnel Dewatering	10/28/17	Group B	N/A	

Notes:

1. Group A consists of:
  - Exercise bar screens
  - Exercise all sump pumps
  - Drain condensation from air compressor storage tank
  - Check depth of screening in the screen room and schedule Vector truck as required
  - Check all safety equipment
  - Issue work order requests as required
2. Group B consists of:
  - a. Inspect and manually run CSO Pumps
  - b. Generator:
    - i. Inspection operation and test, inspect oil level, inspect coolant level
  - c. MCC:
    - i. Test gas monitoring system
    - ii. Inspect and test level indicators
  - d. Valve Vault
    - i. Lubricate knife gate valve stem and stem nut
    - ii. Flush air and vacuum release valve

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

<i>Pumping Station</i>	<i>Sanitary Pumpage</i>		<i>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)<sup>1</sup></i>	<i>Date</i>	<i>Volume (mg)</i>
Main	1603.14	51.71	N/A	N/A	N/A	N/A	N/A
O St	124.00	4.00	10/09/17	18.9	Normal	N/A	N/A
			10/29/17	49.63	Normal		
			10/30/17	19.53	Normal		
Eastside	133.04	4.29	N/A	N/A	N/A	N/A	N/A
Poplar Point <sup>2</sup>	523.99	16.90	N/A	N/A	N/A	N/A	N/A
Potomac	2993.14	96.55	N/A	N/A	N/A	N/A	N/A
Rock Creek	270.30	8.72	N/A	N/A	N/A	N/A	N/A
Upper Anacostia	40.73	1.32	N/A	N/A	N/A	N/A	N/A
Earl Place	0.142	0.005	N/A	N/A	N/A	N/A	N/A
1 <sup>st</sup> Street Tunnel Dewatering	N/A	N/A	N/A	N/A	N/A	10/02/17	0.15
	N/A	N/A	N/A	N/A	N/A	10/12/17	0.10
	N/A	N/A	N/A	N/A	N/A	10/25/17	0.17

Notes:

1. Screening consists of vertical trash racks, with no mechanical cleaning. Quantification of captured materials is not possible on monthly basis.
2. On July 14<sup>th</sup> 2017, bypass pumping began at Poplar Point Pumping Station, in connection with the replacement of this station. Pumping totals are estimated for this station based on typical flows.

**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>
10/03/17	3	3	Screen #3	10/01/17-10/31/17	Bent bars & back plate	Anticipated 12/30/17

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

<i>Date Performed</i>	<i>Type of Preventive Maintenance Performed<sup>1</sup></i>	<i>Work Order Number</i>	<i>Comments</i>
10/03/17	Group A	17-622778	

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)<sup>1</sup></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>
10/29/17	4.5	5.02	4.13	0.89	16
10/30/17	8.0	2.84	2.83	0.01	8

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.
2. Structure 24 was taken out of service on 08/28/17 for upgrades to the control system and instrumentation in response to flash flooding at the Structure and the Swirl Facility on 08/03/17 and 08/12/17. During this time, the Swirl Facility is being bypassed. See separate letter to EPA dated August 28<sup>th</sup> 2017.

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>NaHSO<sub>3</sub> (mg/l)</i>	<i>Location</i>	<i>Conc. (mg/l)</i>	<i>Site</i>	<i>Count Per 100ml</i>
10/29/17	Yes	79.5	609.8	Mix Chamber	0.68	Mix Chamber	< 10
				Anacostia River <sup>1</sup>	0.0	Anacostia River <sup>1</sup>	31000
10/30/17	Yes	79.5	609.8	Mix Chamber	N/A	Mix Chamber	N/A
				Anacostia River <sup>1</sup>	N/A	Anacostia River <sup>1</sup>	N/A

Notes:

1. River: River Outfall
2. Sample results marked as N/A are for discharge events lasting less than two hours.
3. Structure 24 was taken out of service on 08/28/17 for upgrades to the control system and instrumentation in response to flash flooding at the Structure and the Swirl Facility on 08/03/17 and 08/12/17. The Structure and the Swirl Facility were returned to service on 10/20/17. Prior to this, the Swirl Facility was being bypassed. See separate letter to EPA dated August 28<sup>th</sup> 2017.

**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 (NO<sub>2</sub>-N) mg/L</i>	<i>Nitrate (NO<sub>3</sub>-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>
10/29/17	212	0.0	0.46	4.55	5.01	1.11	42.3

Notes:

1. Effluent samples taken every two hours and flow composited for a maximum of 24 hours per storm.
2. Structure 24 was taken out of service on 08/28/17 for upgrades to the control system and instrumentation in response to flash flooding at the Structure and the Swirl Facility on 08/03/17 and 08/12/17. The Structure and the Swirl Facility were returned to service on 10/20/17. Prior to this, the Swirl Facility was being bypassed. See separate letter to EPA dated August 28<sup>th</sup> 2017.

## 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	10/12/17	<b>No</b>	N/A	N/A	N/A
14 - West	10/12/17	<b>No</b>	N/A	N/A	N/A
15	10/12/17	<b>No</b>	N/A	N/A	N/A
15A	10/12/17	<b>No</b>	N/A	N/A	N/A
16 - East	10/12/17	<b>No</b>	N/A	N/A	N/A
16 - West	10/12/17	<b>No</b>	N/A	N/A	N/A
24 - North	10/17/17	<b>Yes</b>	<b>10/01/17-10/20/17</b>	<b>Control System Upgrades<sup>1</sup></b>	<b>Returned to service on 10/20/17</b>
24 - Middle	10/17/17	<b>Yes</b>	<b>10/01/17-10/20/17</b>	<b>Control System Upgrades<sup>1</sup></b>	<b>Returned to service on 10/20/17</b>
24 - South	10/17/17	<b>Yes</b>	<b>10/01/17-10/20/17</b>	<b>Control System Upgrades<sup>1</sup></b>	<b>Returned to service on 10/20/17</b>
34	10/12/17	<b>No</b>	N/A	N/A	N/A
35	10/17/17	<b>No</b>	N/A	N/A	N/A
52	10/17/17	<b>No</b>	N/A	N/A	N/A

Notes:

1. Structure 24 was taken out of service on 08/28/17 for upgrades to the control system and instrumentation in response to flash flooding at the Structure and the Swirl Facility on 08/03/17 and 08/12/17. The Structure was returned to service on 10/20/17. See separate letter to EPA dated August 28<sup>th</sup> 2017.



**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	10/09/17 10/29/17 10/30/17	3 hrs. 5 mins 3 hrs. 27 mins 1 hrs. 37 mins
15A	10/09/17 10/12/17 10/29/17 10/30/17	7 hrs. 54 mins 3 hrs. 50 mins 3 hrs. 29 mins 7 hrs. 41 mins
16 (E & W)	10/29/17	19 mins
24	10/09/17 10/12/17 10/29/17	3 hrs. 4 mins <sup>1</sup> 1 hr. 30 mins <sup>1</sup> 2 hrs. 27 mins
34	None	N/A
35	10/09/17	52 mins.
35	10/12/17	36 mins.
35	10/29/17	14 mins
35	10/29/17	10 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	N/A
<i>Outfall Sewer Control Gates</i>	<i>Operational Status</i>	<i>Position</i>
Outfall Sewer Control Gate No.1	Operational	Open
Outfall Sewer Control Gate No.2	Operational	This structure has been bulk headed. Overflows are no longer possible
Outfall Sewer Control Gate No.2	Operational	This structure has been bulk headed. Overflows are no longer possible

Notes:

1. Structure 24 was taken out of service on 08/28/17 for upgrades to the control system and instrumentation in response to flash flooding at the Structure and the Swirl Facility on 08/03/17 and 08/12/17. The overflows listed occurred while the site was out of service. The Structure and the Swirl Facility were returned to service on 10/20/17. See separate letter to EPA dated August 28<sup>th</sup> 2017.

### **3. DRY WEATHER OVERFLOWS**

There were no dry weather combined sewer overflow during October 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	1460	1433	606	590	106	1434	1412	103	103	1537	1515
2	2920	2721	546	467	20	1916	1852	637	591	2553	2443
3	3668	189	0	0	0	3309	169	68	2	3377	171
4	3450	1711	0	0	0	3283	1685	6	4	3289	1689
5	3866	1766	1705	1601	168	3615	1631	41	30	3656	1661
6	3469	2860	2850	2637	345	2673	2472	387	175	3060	2647
7	3482	36	32	32	18	3405	48	39	0	3444	48
8	2726	202	198	198	5	1929	212	450	2	2379	214
<b>Grand Total</b>	<b>25041<sup>1</sup></b>	10918	5937	<b>5529<sup>2</sup></b>	<b>662</b>	<b>21564</b>	<b>9481</b>	<b>1731</b>	<b>907</b>	<b>23295</b>	<b>10388</b>
% Cleaned/Inspected to Date				<b>93%</b>	<b>11%</b>	<b>86%</b>	<b>87%</b>			<b>93%</b>	<b>95%</b>

1. 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 will change as required.
2. There are approximately 171 catch basins blocked by long-term construction projects, of these, 39 flow to the Anacostia River. There are approximately 297 catch basins obstructed by either a parked car or security restrictions instituted by Capitol Police, of these, 105 flow to the Anacostia River.

#### 4.2 BMP Demonstration for Solid and Floatable Control

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

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

**Table 4-2  
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	10/30/2017	Damaged	Deck grating – needs repair and/or replacement.	Purchase order issued for repairs. Repairs expected to start Nov/Dec 2017.	None.(2)
Bar Rack CSO 040	10/10/17	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	10/19/17	Good	None	Routine Cleaning	(1)

Notes:

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

(2) CSO 018 netting system is currently unsafe to access to replace the nets so no material was removed. The skimmer program continues to function collecting the floating debris that comes through the CSO unto the river.

**4.3 Anacostia River Floating Debris Removal Program**

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

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

<i>Program Operation</i>	5-day work week, excluding holidays, weather permitting
<i>Work Days this month:</i>	21
<i>Days not Operating</i>	6
<i>Reason not Operating</i>	Maintenance, wind, low water levels, lightning.
<i># Skimmer in Fleet</i>	4 Skimmers
<i># Skimmers Out of Service</i>	None (on the last day of the month)
<i>Dates</i>	B33: 10/1 - 10/3.
<i>Reason</i>	B33: waiting for hydraulic oil change out and tank seal replacement.
<i>Plan to Restore to Service</i>	B33: Returned to operations 10/4.
<i>Amount Material Collected</i>	30 tons this month. Calendar year to date 520 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	10/14/17	X			
Bar Racks at Main Storm Pumps (CSO 011)	KW	10/14/17	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
10/1/2017	0	0	0	0	0
10/2/2017	0	0	0	0	0
10/3/2017	0	0	0	0	0
10/4/2017	0	0	0	0	0
10/5/2017	0	0	0	0	0
10/6/2017	0	0	0	0	0
10/7/2017	0	0	0	0	0
10/8/2017	0.06	0.05	0.04	0.07	0.06
10/9/2017	0.58	0.56	0.39	0.58	0.56
10/10/2017	0	0	0.01	0	0
10/11/2017	0.03	0.03	0.01	0.02	0.06
10/12/2017	0.63	0.20	0.16	0.36	0.05
10/13/2017	0	0	0	0	0
10/14/2017	0	0	0	0	0
10/15/2017	0.01	0	0	0	0
10/16/2017	0.11	0.10	0.10	0.07	0.10
10/17/2017	0	0	0	0	0
10/18/2017	0	0	0	0	0
10/19/2017	0	0	0	0	0
10/20/2017	0	0	0	0	0
10/21/2017	0	0	0	0	0
10/22/2017	0	0	0	0	0
10/23/2017	0	0.01	0	0.06	0.03
10/24/2017	0.11	0.10	0.06	0.08	0.10
10/25/2017	0	0	0	0	0
10/26/2017	0	0	0	0	0
10/27/2017	0	0	0	0	0
10/28/2017	0	0	0	0	0
10/29/2017	0.95	0.99	0.88	0.86	0.97
10/30/2017	0.12	0.18	0.14	0.19	0.09
10/31/2017	0	0	0	0	0
TOTAL	2.60	2.22	1.79	2.29	2.02



### **5.3 Wet Weather Overflows**

Combined Sewer System Model Results are summarized below.

District of Columbia Water and Sewer Authority

**Combined Sewer System Model Results**  
**Period: October, November, December 2017**

**SCENARIO: PCCM\_QuarterlyReport\_2017Q4, produced January 10, 2018**

NPDES No.	Description	Number of Overflows (Occurrences)	CSO Overflow Volume (mg)	Total Duration of Overflow (hrs)	Avg Duration of Overflow (hrs)	Maximum Duration of Overflow (hrs)	Minimum Duration of Overflow (hrs)
<b>Anacostia CSOs</b>							
005	Chicago St and Railroad Station SE	7	1.13	22.75	3.25	7.75	0.50
006	Good Hope Road, West of Nichols Ave.,SE	separated					
007	13 <sup>th</sup> Street and Ridge Place,SE	4	0.26	3.50	0.88	1.50	0.50
009	2nd Street, 300 feet North of N Place, SE	4	0.25	6.00	1.50	3.25	0.50
010	O Street SewagePumping Station, SE (pumped Overflow)	4	5.21	1.25	0.31	0.50	0.25
011	South of Main Sewage Pumping Station, SE (pumped overflow)	0	0.00	0.00	0.00	0.00	0.00
011a	South of Main SewagePumping Station, SE (gravity overflow)	0	0.00	0.00	0.00	0.00	0.00
012	North of Main SewagePumping Station, SE (Tiber Creek)	0	0.00	0.00	0.00	0.00	0.00
013	4th and N Streets, SE	5	0.11	5.00	1.00	3.25	0.25
014	6th and M Streets, SE	4	0.40	7.00	1.75	3.00	1.00
015	9th and M Streets, SE	4	0.02	2.50	0.63	1.00	0.25
016	12th and M Streets, SE	2	0.10	1.00	0.50	0.75	0.25
017	14th and M Streets, SE	4	2.82	18.75	4.69	7.75	2.50
018	Barney Circle andPennsylvania Ave, SE	4	1.13	9.25	2.31	4.25	1.00
019	Northeast Boundary - Swirl Effluent	4	62.70	27.75	6.94	11.25	3.25
019	Northeast Bound. - Swirl Bypass	0	0.00	0.00	0.00	0.00	0.00
	<b>SUBTOTAL</b>		<b>74.12</b>				
<b>Potomac CSOs</b>							
003	Bolling AFB	0	0.00	0.00	0.00	0.00	0.00
020	23rd Street, North ofConstitution Ave, NW (Easby Point)	2	0.01	1.75	0.88	1.00	0.75
021	Northeast ofRoosevelt Bridge, NW	4	43.48	17.00	4.25	7.25	2.25
022	27th and K Streets, NW	6	0.09	7.00	1.17	2.75	0.25
024	30th and K Streets, NW	4	0.51	8.00	2.00	4.25	0.25
025	31st & K St NW	1	0.00	0.25	0.25	0.25	0.25
026	Wisconsin Avenue andK St., NW	0	0.00	0.00	0.00	0.00	0.00
027	Water Street West ofStreet, NW	2	0.10	1.25	0.63	0.75	0.50
028	36th and M Streets, NW	6	0.26	8.25	1.38	2.75	0.50
029	Canal Road 1000 feet east of Rock Creek,NW	3	0.08	2.00	0.67	0.75	0.50
	<b>SUBTOTAL</b>		<b>44.53</b>				
<b>Rock Creek</b>							
031	Pennsylvania Avenue, East Rock Creek, NW	separated					
032	26th and M Streets, NW	0	0.00	0.00	0.00	0.00	0.00
033	N Street extendedwest of 25th Street,NW	0	0.00	0.00	0.00	0.00	0.00
034	23rd and O Streets, SW	0	0.00	0.00	0.00	0.00	0.00
035	22nd Street south of Q Street, NW	0	0.00	0.00	0.00	0.00	0.00
036	22nd Street South of Q Street, NW	2	0.009	2.50	1.25	1.50	1.00
037	Northwest of Belmontand Rock Creek and Potomac Parkway	separated					
038	North of Belmont Road,east of Kalorama Circle, NW	0	0.00	0.00	0.00	0.00	0.00
039	Connecticut Avenue east of Rock Creek, NW	0	0.00	0.00	0.00	0.00	0.00
040	Biltmore Street extended east of RockCreek, NW	0	0.00	0.00	0.00	0.00	0.00
041	Ontario extended and Rock Creek Parkway	0	0.00	0.00	0.00	0.00	0.00
042	Harvard Street and RockCreek Parkway, NW	0	0.00	0.00	0.00	0.00	0.00

District of Columbia Water and Sewer Authority

**Combined Sewer System Model Results**  
**Period: October, November, December 2017**

**SCENARIO: PCCM\_QuarterlyReport\_2017Q4, produced January 10, 2018**

NPDES No.	Description	Number of Overflows (Occurrences)	CSO Overflow Volume (mg)	Total Duration of Overflow (hrs)	Avg Duration of Overflow (hrs)	Maximum Duration of Overflow (hrs)	Minimum Duration of Overflow (hrs)
043	Adams Mill Road South of Irving Street, NW	0	0.00	0.00	0.00	0.00	0.00
044	Kenyon Street and Adams Mill Road, NW	0	0.000	0.00	0.00	0.00	0.00
045	Adams Mill Road and Lamont Street, NW	0	0.00	0.00	0.00	0.00	0.00
046	Park Road south of Piney Branch Parkway, NW	0	0.00	0.00	0.00	0.00	0.00
047	Ingleside Terrace extended and Piney Branch Parkway	0	0.000	0.00	0.00	0.00	0.00
048	Mt. Pleasant Street extended and Piney Branch Parkway	0	0.00	0.00	0.00	0.00	0.00
049	Piney Branch and Lamont Street, NW	4	0.97	7.25	1.81	3.00	0.50
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 <sup>th</sup> St, NW	0	0.00	0.00	0.00	0.00	0.00
	<b>SUBTOTAL</b>		<b>0.98</b>				
	<b>TOTAL</b>		<b>119.63</b>				

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



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

**Monthly Operations Report  
For  
*Combined Sewer System*  
Month: November 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: November 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	11/14/17	*			
4	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	11/14/17	*			
5	Poplar Point Pumping Station	004	11/14/17	*			
6	Chicago Street and Railroad Ave, SE	005	11/08/17	*			
7	W Street and Railroad Ave, SE	005	11/08/17	*			
8 <sup>1</sup>	Good Hope Rd, west of Nichols Ave, SE	006	N/A				
9	13 <sup>th</sup> Street and Ridge Place, SE	007	11/08/17	*			
11	"O" Street Pumping Station	011(a)	11/22/17	*			
12	Storm Pump Discharge at Main Pumping Station	011	11/22/17	*			
13	2 <sup>nd</sup> Street, 300 ft. north of N Place, SE	009	11/13/17	*			
14	2 <sup>nd</sup> Street, 250 ft. north of N Place, SE	011(a)	11/13/17	*			
15	South Capitol and E Streets	010	11/16/17	*			
15a	Half and L Streets, SE	010	11/16/17	*			
15b	South Capitol and I Streets	010	11/13/17	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
15c	South Capitol and I Streets	010	11/13/17	*			
16	North of Main Sewage Pumping Station	012	11/13/17	*			
17	4 <sup>th</sup> and N Streets, SE, Both Extended	013	11/01/17	*			
17a	K Street between 6 <sup>th</sup> Street and 7 <sup>th</sup> Street, SE	013	11/21/17	*			
18	6 <sup>th</sup> and M Streets, SE	014	11/09/17	*			
19	9 <sup>th</sup> and M Streets, SE	015	11/20/17	*			
19a	9 <sup>th</sup> and M Streets, SE	015	11/20/17	*			
20	12 <sup>th</sup> and M Streets, SE	016	11/20/17	*			
20a	12 <sup>th</sup> and M Streets, SE	016	11/03/17	*			
21	14 <sup>th</sup> and M Streets, SE	017	11/03/17	*			
22a	Barney Circle and Pennsylvania Ave, SE	018	11/20/17	*			
22b	Barney Circle and Pennsylvania Ave, SE	018	11/20/17	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	11/20/17	*			
22d	Kentucky Ave and Potomac Street, SE	018	11/07/17	*			
22e	14 <sup>th</sup> Street and Kentucky Ave, SE	018	11/07/17	*			
23	Independence Ave, 21 <sup>st</sup> Street, SE, Extended	019	11/01/17	*			
24a	East Capitol St, west of RFK stadium	019	11/20/17	*			
28	21 <sup>st</sup> and Constitution Ave, NW	020	11/01/17	*			
29	22 <sup>nd</sup> Street, between Constitution Ave and C St, NW	020	11/01/17	*			
30	17 <sup>th</sup> and D Streets, NW	020	11/07/17	*			
31	15 <sup>th</sup> Street and Pennsylvania Ave, NW	020	11/07/17	*			
33	10 <sup>th</sup> and F Streets, NW	020	11/07/17	*			
34	23 <sup>rd</sup> Street, north of Constitution Ave, NW	020	11/16/17	*			
34a	23 <sup>rd</sup> Street near C Street, NW	020	11/20/17	*			
35	Northeast of Roosevelt Bridge, NW	021	11/16/17	*			
36	27 <sup>th</sup> and I Streets, NW	022	11/07/17	*			
36a	New Hampshire Ave and Eye Street, NW	022	11/01/17	*			
36b	19 <sup>th</sup> and L Streets, NW	022, 034	11/09/17	*			
36d	17 <sup>th</sup> and L Streets, NW	022, 034	11/09/17	*			
36g	18 <sup>th</sup> and M Streets, NW	022, 034	11/09/17	*			
36h	18 <sup>th</sup> and M Streets, NW	022, 034	11/09/17	*			
37	27 <sup>th</sup> and Eye Streets, NW	022	11/07/17	*			
38	29 <sup>th</sup> and K Streets, NW	024	11/01/17	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
38a	30 <sup>th</sup> Street, south of K Street, NW	024	11/07/17	*			
39a	30 <sup>th</sup> and K Streets, NW	024	11/07/17	*			
39b	30 <sup>th</sup> and K Streets, NW	024	11/07/17	*			
41b	31 <sup>st</sup> and K Streets, NW	025	11/07/17	*			
41c	31 <sup>st</sup> and K Streets, NW	025	11/07/17	*			
42	Wisconsin Ave and K Street, NW	026	11/07/17	*			
43	Potomac and Water Streets, NW	027	11/07/17	*			
43a	Potomac and Water Streets, NW	027	11/07/17	*			
44	Water Street, west of Potomac St, NW	027	11/07/17	*			
45	36 <sup>th</sup> and M Streets, NW	028	11/13/17	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	11/13/17	*			
47	38 <sup>th</sup> Street and Reservoir Road, NW	029	11/13/17	*			
47a	37 <sup>th</sup> and T Streets, NW	029	11/13/17	*			
47b	37 <sup>th</sup> and T Streets, NW	029	11/13/17	*			
47c	38 <sup>th</sup> and W Streets, NW	029	11/13/17	*			
49 <sup>l</sup>	Pennsylvania Ave, east side of Rock Creek, NW	031	N/A				
50	26 and M Streets, NW	032	11/01/17	*			
51	N Street Extended, west of 25 <sup>th</sup> Street, NW	033	11/01/17	*			
52	22 <sup>nd</sup> Street between M and N Streets, NW	034	11/21/17	*			
52a	N Street between 22 <sup>nd</sup> and 23 <sup>rd</sup> Streets, NW	034	11/21/17	*			
53	22 <sup>nd</sup> and M Streets, NW	022, 034	11/17/17	*			
53a	22 <sup>nd</sup> and M Streets, NW	022, 034	11/17/17	*			
53b	L Street between 21 <sup>st</sup> Street and New Hampshire Ave, NW	022, 034	11/17/17	*			
53c	L and 22 <sup>nd</sup> Streets, NW	022	11/17/17	*			
54	23 <sup>rd</sup> and O Streets, NW	034	11/15/17	*			
55	22 <sup>nd</sup> Street, south of Q Street, NW	035	11/15/17	*			
55a	22 <sup>nd</sup> Street, south of Q Street, NW	035	11/15/17	*			
56	23 <sup>rd</sup> and Massachusetts Ave, NW	036	11/15/17	*			
57	23 <sup>rd</sup> Street, south of Q Street, NW	036	11/15/17	*			
58 <sup>l</sup>	Northwest of Belmont Road and Rock Creek and Potomac Parkway, NW	037	N/A				
59	North of Belmont Rd, east of Kalorama Cir, NW	038	11/03/17	*			
60	Connecticut Ave, east of Rock Creek, NW	039	11/03/17	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	11/17/17	*			



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	11/08/17	*			
63	Harvard Street and Rock Creek Parkway, NW	042	11/03/17	*			
64	Adams Mill Road, south of Irving Street, NW	043	11/03/17	*			
65	Kenyon Street and Adams Mill Road, NW	044	11/03/17	*			
65a	Kenyon Street and Adams Mill Road, NW	044	11/03/17	*			
66	Adams Mill Road and Lamont Street, NW	045	11/03/17	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	11/08/17	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	11/08/17	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	11/08/17	*			
70	Piney Branch Parkway, west of 16 <sup>th</sup> Street, NW	049	11/08/17	*			
70i	5 <sup>th</sup> and Quackenbos Streets, NW	049	11/13/17	*			
71	28 <sup>th</sup> Street, west of Rock Creek Parkway, NW	050	11/17/17	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	11/14/17	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	11/14/17	*			
73	O Street Extended and Rock Creek Parkway, NW	052	11/14/17	*			
74 <sup>1</sup>	Q Street, west of Rock Creek, NW	053	N/A				
75	West side of Rock Creek, 300 ft. south of Massachusetts Ave, NW	054	11/09/17	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	11/09/17	*			
77a	Normanstone Dr and Normanstone Lane, NW	056	11/09/17	*			
78 <sup>1</sup>	28th Street Extended, west of Rock Creek, NW	057	N/A				
79 <sup>1</sup>	Connecticut Ave and Rock Creek Parkway, NW	058	N/A				
84	26 <sup>th</sup> and P Streets, NW	060	11/14/17	*			
84a	26 <sup>th</sup> and P Streets, NW	060	11/14/17	*			
86 <sup>2</sup>	Diversion Chamber at First and Channing St, NW	019	11/20/17	*			
87 <sup>2</sup>	Vortex Drop at Shaft at First and Channing St, NW	019	11/20/17	*			
88 <sup>2</sup>	Flagler and Adams St. NW	019	11/20/17	*			
89 <sup>2</sup>	First and V St, NW	019	11/20/17	*			
90 <sup>2</sup>	First and V St, NW	019	11/20/17	*			
91 <sup>2</sup>	First and V St, NW	019	11/20/17	*			

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	11/14/17	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	11/24/17	*		*		*		*		
006 <sup>1</sup>	Good Hope Road and Welsh Memorial Bridge	N/A									
007	Between 11 <sup>th</sup> St. and Anacostia Bridges, SE	11/24/17	*		*		*		*		
009	O St. Sewage Pumping Station, SE	11/22/17	*		*		*		*		
010	O St. Sewage Pumping Station, SE	11/22/17	*			*			*		
011	Main Sewage Pumping Station, SE	11/22/17	*			*			*		
011(a)	Main Sewage Pumping Station, SE	11/22/17	*		*		*		*		
012	Main Sewage Pumping Station, SE	11/22/17	*		*		*		*		
013	Southeast Federal Center, aligned with 4 <sup>th</sup> St.	11/22/17	*		*		*		*		
014	Navy Yard, aligned with 6 <sup>th</sup> St., SE	11/22/17	*		*		*		*		
015	Navy Yard, aligned with 9th Street, SE	11/22/17	*			*			*		
016	12th and O Streets, SE	11/22/17	*		*		*		*		
017	M and Water Street, SE	11/22/17	*		*		*		*		
018	East of Barney Circle & South of Pennsylvania Avenue Bridge, SE	11/22/17	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility & D.C. General Hospital	11/20/17	*		*		*		*		
020	Rock Creek Parkway and Independence, NW	11/02/17	*		*		*		*		
021	Rock Creek Parkway and C St., NW	11/02/17	*		*		*		*		
022	Rock Creek Parkway and G St., NW	11/02/17	*		*		*		*		
024	South of 30 <sup>th</sup> and K Streets, NW <sup>1</sup>	11/02/17	*		*		*		*		
025	South of 31st and K Streets, NW	11/02/17	*		*		*		*		
026	Wisconsin Avenue and Water Street, NW	11/02/17	*		*		*		*		
027	33 <sup>rd</sup> and Water Sts., NW	11/02/17	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	11/02/17	*			*			*		
029	Adjacent to C&O Canal, aligned with 38 <sup>th</sup> St. NW	11/02/17	*			*			*		
031 <sup>1</sup>	Rock Creek Pkwy & Pennsylvania Avenue, NW	N/A									
032	26th and M Street, NW.	11/01/17	*			*			*		

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.	11/01/17	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	11/15/17	*			*			*		
035	P St. Bridge and Rock Creek Parkway	11/15/17	*			*			*		
036	22nd Street, South of Q Street NW.	11/09/17	*		*		*		*		
037 <sup>1</sup>	Waterside Dr. and Rock Creek Parkway	N/A									
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	11/03/17	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	11/03/17	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	11/17/17	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	11/06/17	*		*		*		*		
042	Harvard St. and Beach Dr NW.	11/06/17	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	11/06/17	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	11/06/17	*		*		*		*		
045	North of Beach Dr. and Walbridge Pl, NW.	11/06/17	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	11/08/17	*			*			*		
047	Piney Branch Parkway and Ingleside Terrace	11/08/17	*		*		*		*		
048	South of Piney Branch Parkway and 17 <sup>th</sup> St.	11/08/17	*		*		*		*		
049	North of Piney Branch Parkway and 17 <sup>th</sup> St.	11/08/17	*		*		*		*		
050	Rock Creek Parkway and L St., NW	11/17/17	*		*		*		*		
051	Across Rock Creek Pkwy, aligned with Olive St., NW.	11/06/17	*		*		*		*		
052	Between P & Penna. Ave Bridges, aligned with O Street, NW.	11/06/17	*		*		*		*		
053 <sup>1</sup>	Q St. Bridge and Rock Creek Parkway, NW.	N/A									
054	Massachusetts Ave & Rock Creek Parkway, NW.	11/09/17	*		*		*		*		
056	Normanstone Dr. and Rock Creek Parkway, NW.	11/09/17	*		*		*		*		
057 <sup>1</sup>	28th Street and Rock Creek Parkway, NW	N/A									
058 <sup>1</sup>	Connecticut Ave & Rock Creek Parkway, NW.	N/A									
060	North of P St. Bridge & Rock Creek Pkwy, NW	11/09/17	*		*		*		*		

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 Service<sup>1</sup></i>
Main	30	3	4	Pump #1	11/01/17-11/30/17	Motor Rehab	17-686275	Anticipated 12/22/17
				Screen #1	11/01/17-11/30/17	Bent bars	17-643853	Anticipated 12/31/17
Eastside	2	2	4	Screen #2	11/01/17-11/30/17	Bent bars	17-566510	Anticipated 12/31/17 <sup>2</sup>
Poplar Point	2	2	3	None	N/A	N/A	N/A	N/A
Potomac	30	4	5	Pump #5	11/01/17-11/30/17 <sup>3</sup>	Phase 3 upgrade Project	Contractor	Anticipated 01/29/18
				Screen #4	11/01/17-11/30/17	Phase 3 Upgrade Project	Contractor	Anticipated 01/29/18
				Pump # 4	11/01/17- 11/09/17	Phase 3 Upgrade Project	Contractor	Returned to Service 11/09/17
				Pump #3	11/13/17 -11/17/17	Phase 3 Upgrade Project	Contractor	Returned to Service 11/17/17

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 January 2018.
2. Due to repeat failures on Screen #2 at Eastside Pumping Station, the screen is being upgraded.
3. Pump available if needed

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

<i>Pumping Station</i>	<i>Date Performed</i>	<i>Type of Preventive Maintenance Performed<sup>1</sup></i>	<i>Work Order Number</i>	<i>Comments</i>
Main	11/01/17	Group A	18-28817	Add oil, grease bearings and replace packing if needed.
O St	11/01/17	Group A	18-46329	Add oil, grease bearings and replace packing if needed.
Eastside	11/11/17	Group A	17-689001	Add oil, grease bearings and replace packing if needed.
Poplar Point	11/11/17	Group A	17-27167	Add oil, grease bearings and replace packing if needed.
Potomac	11/01/17	Group A	17-689560	Add oil, grease bearings and replace packing if needed.
Rock Creek	11/11/17	Group A	18-14058	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	11/11/17	Group A	18-28831	Add oil, grease bearings and replace packing if needed.
Earl Place	11/11/17	Group A	18-10217	Add oil, grease bearings and replace packing if needed.
1 <sup>st</sup> Street Tunnel Dewatering	11/24/17	Group B	N/A	

Notes:

1. Group A consists of:
  - Exercise bar screens
  - Exercise all sump pumps
  - Drain condensation from air compressor storage tank
  - Check depth of screening in the screen room and schedule Vactor truck as required
  - Check all safety equipment
  - Issue work order requests as required
2. Group B consists of:
  - a. Inspect and manually run CSO Pumps
  - b. Generator:
    - i. Inspection operation and test, inspect oil level, inspect coolant level
  - c. MCC:
    - i. Test gas monitoring system
    - ii. Inspect and test level indicators
  - d. Valve Vault
    - i. Lubricate knife gate valve stem and stem nut
    - ii. Flush air and vacuum release valve

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

<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)<sup>1</sup></i>	<i>Date</i>	<i>Volume (mg)</i>
Main	1545.57	51.52	N/A	N/A	N/A	N/A	N/A
O St	118.74	3.96	11/04/17	17.36	Normal	N/A	N/A
			11/05/17	16.94	Normal		
			11/07/17	81.06	Normal		
			11/08/17	2.38	Normal		
Eastside	150.44	5.09	N/A	N/A	N/A	N/A	N/A
Poplar Point <sup>2</sup>	503.32	16.78	N/A	N/A	N/A	N/A	N/A
Potomac	2876.56	95.89	N/A	N/A	N/A	N/A	N/A
Rock Creek	232.56	7.75	N/A	N/A	N/A	N/A	N/A
Upper Anacostia	38.42	1.28	N/A	N/A	N/A	N/A	N/A
Earl Place	0.134	0.004	N/A	N/A	N/A	N/A	N/A
1 <sup>st</sup> Street Tunnel Dewatering	N/A	N/A	N/A	N/A	N/A	11/07/17	0.10

Notes:

1. Screening consists of vertical trash racks, with no mechanical cleaning. Quantification of captured materials is not possible on monthly basis.
2. On July 14<sup>th</sup> 2017, bypass pumping began at Poplar Point Pumping Station, in connection with the replacement of this station. Pumping totals are estimated for this station based on typical flows.

**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>
11/11/17	3	3	Screen #3	11/01/17-11/30/17	Bent bars & back plate	Anticipated 12/30/17

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

<i>Date Performed</i>	<i>Type of Preventive Maintenance Performed<sup>1</sup></i>	<i>Work Order Number</i>	<i>Comments</i>
11/11/17	Group A	17-692370	

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)<sup>1</sup></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>
11/04/17	4.46	2.89	1.28	1.61	154.4
11/07/17	8.5	23.27	16.55	6.72	40

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**

<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>NaHSO<sub>3</sub> (mg/l)</i>	<i>Location</i>	<i>Conc. (mg/l)</i>	<i>Site</i>	<i>Count Per 100ml</i>
11/04/17	Yes	21.2	56.1	Mix Chamber	N/A	Mix Chamber	N/A
				Anacostia River <sup>1</sup>	N/A	Anacostia River <sup>1</sup>	N/A
11/07/17	Yes	12.7	45.0	Mix Chamber	1.1	Mix Chamber	210
				Anacostia River <sup>1</sup>	0.0	Anacostia River <sup>1</sup>	43000

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 (NO<sub>2</sub>-N) (mg/L)</i>	<i>Nitrate (NO<sub>3</sub>-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>
11/07/17	51.0	0.03	0.57	4.05	4.65	1.09	32.7

Notes:

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

## 2.5 Inflatable Dams and SCADA System

DC Water operates and maintains twelve inflatable dams at eight different locations. The structure number, location and number of dams per site are presented in Table 2-11. The inflatable dams consist of multi-ply elastomeric (i.e., “rubber”) fabric dams installed in major overflow conduits within the combined sewer system. The objective of the inflatable dam installation is to increase the effective depth to which the sewage must rise in the combined sewer before overflows occur. The effect of the installation is to retain a greater volume of combined sewage flow resulting from low to moderate intensity storms by maximizing storage within the CSS. During higher intensity storms, when the full carrying capacity of the overflow conduit is required to prevent upstream flooding, the dam is deflated automatically. Inflatable dam operations are summarized below:

**Table 2-11  
Inflatable Dams – Inspections and Equipment in Service**

<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	11/16/17	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
14 - West	11/16/17	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
15	11/16/17	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
15A	11/16/17	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
16 - East	11/16/17	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
16 - West	11/16/17	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
24 - North	11/21/17	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
24 - Middle	11/21/17	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
24 - South	11/21/17	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
34	11/16/17	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
35	11/16/17	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
52	11/16/17	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

Notes:

**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	11/04/17	1 hrs. 47 mins
	11/05/17	0 hrs. 15 mins
	11/07/17	3 hrs. 55 mins
15A	11/04/17	2 hrs. 25 mins
	11/05/17	2 hrs. 05 mins
	11/07/17	10 hrs.33 mins
	11/08/17	0 hrs. 26 mins
16 (E & W)	None	N/A
24	None	N/A
34	None	N/A
35	None	N/A
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	N/A
<i>Outfall Sewer Control Gates</i>	<i>Operational Status</i>	<i>Position</i>
Outfall Sewer Control Gate No.1	Operational	Open
Outfall Sewer Control Gate No.2	Operational	This structure has been bulk headed. Overflows are no longer possible
Outfall Sewer Control Gate No.2	Operational	This structure has been bulk headed. Overflows are no longer possible

Notes:

### **3. DRY WEATHER OVERFLOWS**

There were no dry weather combined sewer overflow during November 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	1428	1401	595	595	469	1538	1516	371	371	1909	1887
2	2807	2637	479	479	444	2556	2446	612	565	3168	3011
3	3651	189	0	0	0	3377	171	95	2	3472	173
4	3428	1708	0	0	0	3290	1692	54	2	3344	1694
5	3859	1756	1694	1694	876	3664	1662	136	84	3800	1746
6	3324	2715	2705	2705	2372	3060	2648	522	389	3582	3037
7	3494	38	32	32	24	3461	50	182	2	3643	52
8	2716	204	198	198	198	2383	216	424	198	2807	414
<b>Grand Total</b>	<b>24707<sup>1</sup></b>	10648	5703	<b>5703<sup>2</sup></b>	<b>4383</b>	<b>23329</b>	<b>10401</b>	<b>2396</b>	<b>1613</b>	<b>25725</b>	<b>12014</b>
% Cleaned/Inspected to Date				<b>100%</b>	<b>77%</b>	<b>94%</b>	<b>98%</b>			<b>104%</b>	<b>113%</b>

1. The totals have changed due to information that is more accurate. In November, we focused on confirming and processing the catch basins that the crews identified as not located in the field due to redevelopment or mapping inaccuracies, which has resulted in a lower overall total.
2. There are approximately 171 catch basins blocked by long-term construction projects, of these, 39 flow to the Anacostia River. There are approximately 297 catch basins obstructed by either a parked car or security restrictions instituted by Capitol Police, of these, 105 flow to the Anacostia River.

#### 4.2 BMP Demonstration for Solid and Floatable Control

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

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

**Table 4-2  
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	11/30/2017	Damaged	Deck grating – needs repair and/or replacement.	Purchase order issued for repairs. Repairs expected to start Dec 2017.	None.(2)
Bar Rack CSO 040	11/17/17	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	11/06/17	Good	None	Routine Cleaning	(1)

Notes:

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

(2) CSO 018 netting system is currently unsafe to access to replace the nets so no material was removed. The skimmer program continues to function collecting the floating debris that comes through the CSO unto the river.

#### 4.3 Anacostia River Floating Debris Removal Program

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

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

<i>Program Operation</i>	5-day work week, excluding holidays, weather permitting
<i>Work Days this month:</i>	20
<i>Days not Operating</i>	6
<i>Reason not Operating</i>	Maintenance, wind, low water levels, lightning.
<i># Skimmer in Fleet</i>	4 Skimmers
<i># Skimmers Out of Service</i>	None (on the last day of the month)
<i>Dates</i>	B32: 11/7 - 11/8, B33: 11/2 - 11/6, B34: 11/2 - 11/6.
<i>Reason</i>	B32: Engine losing power when operating. B33: Possible engine oil leak. B34: Possible engine oil leak.
<i>Plan to Restore to Service</i>	B32: Returned to operations on 11/9. B33: Returned to operations on 11/7. B34: Returned to operations on 11/7
<i>Amount Material Collected</i>	10 tons this month. Calendar year to date 530 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	11/25/17	X			
Bar Racks at Main Storm Pumps (CSO 011)	KW	11/25/17	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
11/1/2017	0	0	0	0	0
11/2/2017	0	0	0	0	0
11/3/2017	0	0	0	0	0
11/4/2017	0.52	0.51	0.54	0.52	0.58
11/5/2017	0.10	0.10	0.08	0.10	0.09
11/6/2017	0.04	0.05	0	0	0
11/7/2017	1.14	1.03	1.11	0.96	1.07
11/8/2017	0	0	0	0	0
11/9/2017	0.04	0.03	0.03	0.04	0.03
11/10/2017	0	0	0	0	0
11/11/2017	0	0	0	0	0
11/12/2017	0	0	0	0	0.01
11/13/2017	0.11	0.13	0.13	0.11	0.13
11/14/2017	0	0	0	0	0
11/15/2017	0	0	0	0	0
11/16/2017	0	0	0	0	0
11/17/2017	0	0	0	0	0
11/18/2017	0	0	0	0	0
11/19/2017	0.06	0.08	0.06	0.09	0.07
11/20/2017	0	0	0	0	0
11/21/2017	0	0	0	0	0
11/22/2017	0.01	0	0.01	0.01	0.01
11/23/2017	0	0	0	0	0
11/24/2017	0	0	0	0	0
11/25/2017	0	0	0	0	0
11/26/2017	0	0	0	0	0
11/27/2017	0	0	0	0	0
11/28/2017	0	0	0	0	0
11/29/2017	0	0	0	0	0
11/30/2017	0.01	0.01	0.01	0.02	0.01
TOTAL	2.03	1.94	1.97	1.85	2.00

### **5.3 Wet Weather Overflows**

Combined Sewer System Model Results are summarized below.

District of Columbia Water and Sewer Authority

**Combined Sewer System Model Results**  
**Period: October, November, December 2017**

**SCENARIO: PCCM\_QuarterlyReport\_2017Q4, produced January 10, 2018**

NPDES No.	Description	Number of Overflows (Occurrences)	CSO Overflow Volume (mg)	Total Duration of Overflow (hrs)	Avg Duration of Overflow (hrs)	Maximum Duration of Overflow (hrs)	Minimum Duration of Overflow (hrs)
<b>Anacostia CSOs</b>							
005	Chicago St and Railroad Station SE	7	1.13	22.75	3.25	7.75	0.50
006	Good Hope Road, West of Nichols Ave.,SE	separated					
007	13 <sup>th</sup> Street and Ridge Place,SE	4	0.26	3.50	0.88	1.50	0.50
009	2nd Street, 300 feet North of N Place, SE	4	0.25	6.00	1.50	3.25	0.50
010	O Street SewagePumping Station, SE (pumped Overflow)	4	5.21	1.25	0.31	0.50	0.25
011	South of Main Sewage Pumping Station, SE (pumped overflow)	0	0.00	0.00	0.00	0.00	0.00
011a	South of Main SewagePumping Station, SE (gravity overflow)	0	0.00	0.00	0.00	0.00	0.00
012	North of Main SewagePumping Station, SE (Tiber Creek)	0	0.00	0.00	0.00	0.00	0.00
013	4th and N Streets, SE	5	0.11	5.00	1.00	3.25	0.25
014	6th and M Streets, SE	4	0.40	7.00	1.75	3.00	1.00
015	9th and M Streets, SE	4	0.02	2.50	0.63	1.00	0.25
016	12th and M Streets, SE	2	0.10	1.00	0.50	0.75	0.25
017	14th and M Streets, SE	4	2.82	18.75	4.69	7.75	2.50
018	Barney Circle andPennsylvania Ave, SE	4	1.13	9.25	2.31	4.25	1.00
019	Northeast Boundary - Swirl Effluent	4	62.70	27.75	6.94	11.25	3.25
019	Northeast Bound. - Swirl Bypass	0	0.00	0.00	0.00	0.00	0.00
	<b>SUBTOTAL</b>		<b>74.12</b>				
<b>Potomac CSOs</b>							
003	Bolling AFB	0	0.00	0.00	0.00	0.00	0.00
020	23rd Street, North ofConstitution Ave, NW (Easby Point)	2	0.01	1.75	0.88	1.00	0.75
021	Northeast ofRoosevelt Bridge, NW	4	43.48	17.00	4.25	7.25	2.25
022	27th and K Streets, NW	6	0.09	7.00	1.17	2.75	0.25
024	30th and K Streets, NW	4	0.51	8.00	2.00	4.25	0.25
025	31st & K St NW	1	0.00	0.25	0.25	0.25	0.25
026	Wisconsin Avenue andK St., NW	0	0.00	0.00	0.00	0.00	0.00
027	Water Street West ofStreet, NW	2	0.10	1.25	0.63	0.75	0.50
028	36th and M Streets, NW	6	0.26	8.25	1.38	2.75	0.50
029	Canal Road 1000 feet east of Rock Creek,NW	3	0.08	2.00	0.67	0.75	0.50
	<b>SUBTOTAL</b>		<b>44.53</b>				
<b>Rock Creek</b>							
031	Pennsylvania Avenue, East Rock Creek, NW	separated					
032	26th and M Streets, NW	0	0.00	0.00	0.00	0.00	0.00
033	N Street extendedwest of 25th Street,NW	0	0.00	0.00	0.00	0.00	0.00
034	23rd and O Streets, SW	0	0.00	0.00	0.00	0.00	0.00
035	22nd Street south of Q Street, NW	0	0.00	0.00	0.00	0.00	0.00
036	22nd Street South of Q Street, NW	2	0.009	2.50	1.25	1.50	1.00
037	Northwest of Belmontand Rock Creek and Potomac Parkway	separated					
038	North of Belmont Road,east of Kalorama Circle, NW	0	0.00	0.00	0.00	0.00	0.00
039	Connecticut Avenue east of Rock Creek, NW	0	0.00	0.00	0.00	0.00	0.00
040	Biltmore Street extended east of RockCreek, NW	0	0.00	0.00	0.00	0.00	0.00
041	Ontario extended and Rock Creek Parkway	0	0.00	0.00	0.00	0.00	0.00
042	Harvard Street and RockCreek Parkway, NW	0	0.00	0.00	0.00	0.00	0.00

District of Columbia Water and Sewer Authority

**Combined Sewer System Model Results**  
**Period: October, November, December 2017**

**SCENARIO: PCCM\_QuarterlyReport\_2017Q4, produced January 10, 2018**

NPDES No.	Description	Number of Overflows (Occurrences)	CSO Overflow Volume (mg)	Total Duration of Overflow (hrs)	Avg Duration of Overflow (hrs)	Maximum Duration of Overflow (hrs)	Minimum Duration of Overflow (hrs)	
043	Adams Mill Road South of Irving Street, NW	0	0.00	0.00	0.00	0.00	0.00	
044	Kenyon Street and Adams Mill Road, NW	0	0.000	0.00	0.00	0.00	0.00	
045	Adams Mill Road and Lamont Street, NW	0	0.00	0.00	0.00	0.00	0.00	
046	Park Road south of Piney Branch Parkway, NW	0	0.00	0.00	0.00	0.00	0.00	
047	Ingleside Terrace extended and Piney Branch Parkway	0	0.000	0.00	0.00	0.00	0.00	
048	Mt. Pleasant Street extended and Piney Branch Parkway	0	0.00	0.00	0.00	0.00	0.00	
049	Piney Branch and Lamont Street, NW	4	0.97	7.25	1.81	3.00	0.50	
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 <sup>th</sup> St, NW	0	0.00	0.00	0.00	0.00	0.00	
	<b>SUBTOTAL</b>		<b>0.98</b>					
	<b>TOTAL</b>		<b>119.63</b>					

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



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

**Monthly Operations Report  
For  
*Combined Sewer System*  
Month: December 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: December 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	12/06/17	*			
4	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	12/06/17	*			
5	Poplar Point Pumping Station	004	12/21/17	*			
6	Chicago Street and Railroad Ave, SE	005	12/06/17	*			
7	W Street and Railroad Ave, SE	005	12/06/17	*			
8 <sup>1</sup>	Good Hope Rd, west of Nichols Ave, SE	006	N/A				
9	13 <sup>th</sup> Street and Ridge Place, SE	007	12/06/17	*			
11	"O" Street Pumping Station	011(a)	12/21/17	*			
12	Storm Pump Discharge at Main Pumping Station	011	12/14/17	*			
13	2 <sup>nd</sup> Street, 300 ft. north of N Place, SE	009	12/11/17	*			
14	2 <sup>nd</sup> Street, 250 ft. north of N Place, SE	011(a)	12/11/17	*			
15	South Capitol and E Streets	010	12/19/17	*			
15a	Half and L Streets, SE	010	12/19/17	*			
15b	South Capitol and I Streets	010	12/04/17	*			
15c	South Capitol and I Streets	010	12/04/17	*			
16	North of Main Sewage Pumping Station	012	12/11/17	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
17	4 <sup>th</sup> and N Streets, SE, Both Extended	013	12/04/17	*			
17a	K Street between 6 <sup>th</sup> Street and 7 <sup>th</sup> Street, SE	013	12/21/17	*			
18	6 <sup>th</sup> and M Streets, SE	014	12/08/17	*			
19	9 <sup>th</sup> and M Streets, SE	015	12/21/17	*			
19a	9 <sup>th</sup> and M Streets, SE	015	12/21/17	*			
20	12 <sup>th</sup> and M Streets, SE	016	12/18/17	*			
20a	12 <sup>th</sup> and M Streets, SE	016	12/18/17	*			
21	14 <sup>th</sup> and M Streets, SE	017	12/18/17	*			
22a	Barney Circle and Pennsylvania Ave, SE	018	12/06/17	*			
22b	Barney Circle and Pennsylvania Ave, SE	018	12/06/17	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	12/06/17	*			
22d	Kentucky Ave and Potomac Street, SE	018	12/01/17	*			
22e	14 <sup>th</sup> Street and Kentucky Ave, SE	018	12/01/17	*			
23	Independence Ave, 21 <sup>st</sup> Street, SE, Extended	019	12/06/17	*			
24a	East Capitol St, west of RFK stadium	019	12/06/17	*			
28	21 <sup>st</sup> and Constitution Ave, NW	020	12/08/17	*			
29	22 <sup>nd</sup> Street, between Constitution Ave and C St, NW	020	12/08/17	*			
30	17 <sup>th</sup> and D Streets, NW	020	12/04/17	*			
31	15 <sup>th</sup> Street and Pennsylvania Ave, NW	020	12/04/17	*			
33	10 <sup>th</sup> and F Streets, NW	020	12/04/17	*			
34	23 <sup>rd</sup> Street, north of Constitution Ave, NW	020	12/19/17	*			
34a	23 <sup>rd</sup> Street near C Street, NW	020	12/08/17	*			
35	Northeast of Roosevelt Bridge, NW	021	12/19/17	*			
36	27 <sup>th</sup> and I Streets, NW	022	12/04/17	*			
36a	New Hampshire Ave and Eye Street, NW	022	12/04/17	*			
36b	19 <sup>th</sup> and L Streets, NW	022, 034	12/04/17	*			
36d	17 <sup>th</sup> and L Streets, NW	022, 034	12/04/17	*			
36g	18 <sup>th</sup> and M Streets, NW	022, 034	12/04/17	*			
36h	18 <sup>th</sup> and M Streets, NW	022, 034	12/04/17	*			
37	27 <sup>th</sup> and Eye Streets, NW	022	12/04/17	*			
38	29 <sup>th</sup> and K Streets, NW	024	12/05/17	*			
38a	30 <sup>th</sup> Street, south of K Street, NW	024	12/05/17	*			
39a	30 <sup>th</sup> and K Streets, NW	024	12/05/17	*			
39b	30 <sup>th</sup> and K Streets, NW	024	12/05/17	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
41b	31 <sup>st</sup> and K Streets, NW	025	12/05/17	*			
41c	31 <sup>st</sup> and K Streets, NW	025	12/05/17	*			
42	Wisconsin Ave and K Street, NW	026	12/05/17	*			
43	Potomac and Water Streets, NW	027	12/05/17	*			
43a	Potomac and Water Streets, NW	027	12/05/17	*			
44	Water Street, west of Potomac St, NW	027	12/05/17	*			
45	36 <sup>th</sup> and M Streets, NW	028	12/01/17	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	12/01/17	*			
47	38 <sup>th</sup> Street and Reservoir Road, NW	029	12/01/17	*			
47a	37 <sup>th</sup> and T Streets, NW	029	12/01/17	*			
47b	37 <sup>th</sup> and T Streets, NW	029	12/01/17	*			
47c	38 <sup>th</sup> and W Streets, NW	029	12/01/17	*			
49 <sup>l</sup>	Pennsylvania Ave, east side of Rock Creek, NW	031	N/A				
50	26 and M Streets, NW	032	12/15/17	*			
51	N Street Extended, west of 25 <sup>th</sup> Street, NW	033	12/15/17	*			
52	22 <sup>nd</sup> Street between M and N Streets, NW	034	12/20/17	*			
52a	N Street between 22 <sup>nd</sup> and 23 <sup>rd</sup> Streets, NW	034	12/18/17	*			
53	22 <sup>nd</sup> and M Streets, NW	022, 034	12/11/17	*			
53a	22 <sup>nd</sup> and M Streets, NW	022, 034	12/11/17	*			
53b	L Street between 21 <sup>st</sup> Street and New Hampshire Ave, NW	022, 034	12/11/17	*			
53c	L and 22 <sup>nd</sup> Streets, NW	022	12/11/17	*			
54	23 <sup>rd</sup> and O Streets, NW	034	12/08/17	*			
55	22 <sup>nd</sup> Street, south of Q Street, NW	035	12/08/17	*			
55a	22 <sup>nd</sup> Street, south of Q Street, NW	035	12/08/17	*			
56	23 <sup>rd</sup> and Massachusetts Ave, NW	036	12/08/17	*			
57	23 <sup>rd</sup> Street, south of Q Street, NW	036	12/08/17	*			
58 <sup>l</sup>	Northwest of Belmont Road and Rock Creek and Potomac Parkway, NW	037	N/A				
59	North of Belmont Rd, east of Kalorama Cir, NW	038	12/01/17	*			
60	Connecticut Ave, east of Rock Creek, NW	039	12/01/17	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	12/01/17	*			
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	12/12/17	*			
63	Harvard Street and Rock Creek Parkway, NW	042	12/12/17	*			
64	Adams Mill Road, south of Irving Street, NW	043	12/12/17	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
65	Kenyon Street and Adams Mill Road, NW	044	12/12/17	*			
65a	Kenyon Street and Adams Mill Road, NW	044	12/12/17	*			
66	Adams Mill Road and Lamont Street, NW	045	12/12/17	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	12/12/17	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	12/12/17	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	12/12/17	*			
70	Piney Branch Parkway, west of 16 <sup>th</sup> Street, NW	049	12/12/17	*			
70i	5 <sup>th</sup> and Quackenbos Streets, NW	049	12/04/17	*			
71	28 <sup>th</sup> Street, west of Rock Creek Parkway, NW	050	12/04/17	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	12/08/17	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	12/08/17	*			
73	O Street Extended and Rock Creek Parkway, NW	052	12/08/17	*			
74 <sup>1</sup>	Q Street, west of Rock Creek, NW	053	N/A				
75	West side of Rock Creek, 300 ft. south of Massachusetts Ave, NW	054	12/11/17	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	12/11/17	*			
77a	Normanstone Dr and Normanstone Lane, NW	056	12/11/17	*			
78 <sup>1</sup>	28th Street Extended, west of Rock Creek, NW	057	N/A				
79 <sup>1</sup>	Connecticut Ave and Rock Creek Parkway, NW	058	N/A				
84	26 <sup>th</sup> and P Streets, NW	060	12/08/17	*			
84a	26 <sup>th</sup> and P Streets, NW	060	12/08/17	*			
86 <sup>2</sup>	Diversion Chamber at First and Channing St, NW	019	12/26/17	*			
87 <sup>2</sup>	Vortex Drop at Shaft at First and Channing St, NW	019	12/26/17	*			
88 <sup>2</sup>	Flagler and Adams St. NW	019	12/26/17	*			
89 <sup>2</sup>	First and V St, NW	019	12/26/17	*			
90 <sup>2</sup>	First and V St, NW	019	12/26/17	*			
91 <sup>2</sup>	First and V St, NW	019	12/26/17	*			

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	12/06/17	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	12/14/17	*		*		*		*		
006 <sup>1</sup>	Good Hope Road and Welsh Memorial Bridge	N/A									
007	Between 11 <sup>th</sup> St. and Anacostia Bridges, SE	12/14/17	*		*		*		*		
009	O St. Sewage Pumping Station, SE	12/14/17	*		*		*		*		
010	O St. Sewage Pumping Station, SE	12/14/17	*			*			*		
011	Main Sewage Pumping Station, SE	12/14/17	*			*			*		
011(a)	Main Sewage Pumping Station, SE	12/14/17	*		*		*		*		
012	Main Sewage Pumping Station, SE	12/14/17	*		*		*		*		
013	Southeast Federal Center, aligned with 4 <sup>th</sup> St.	12/14/17	*		*		*		*		
014	Navy Yard, aligned with 6 <sup>th</sup> St., SE	12/14/17	*		*			*	*		Crew Reports missing plank (tidegate). Referred for repair 1/16/18. 18-172766
015	Navy Yard, aligned with 9th Street, SE	12/14/17	*			*			*		
016	12th and O Streets, SE	12/14/17	*		*		*		*		
017	M and Water Street, SE	12/14/17	*		*		*		*		
018	East of Barney Circle & South of Pennsylvania Avenue Bridge, SE	12/14/17	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility & D.C. General Hospital	12/14/17	*		*		*		*		
020	Rock Creek Parkway and Independence, NW	12/15/17	*		*		*		*		
021	Rock Creek Parkway and C St., NW	12/15/17	*		*		*		*		
022	Rock Creek Parkway and G St., NW	12/15/17	*		*		*		*		
024	South of 30 <sup>th</sup> and K Streets, NW <sup>1</sup>	12/15/17	*		*		*		*		
025	South of 31st and K Streets, NW	12/15/17	*		*		*		*		
026	Wisconsin Avenue and Water Street, NW	12/15/17	*		*		*		*		
027	33 <sup>rd</sup> and Water Sts., NW	12/15/17	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	12/15/17	*			*			*		
029	Adjacent to C&O Canal, aligned with 38 <sup>th</sup> St. NW	12/15/17	*			*			*		
031 <sup>1</sup>	Rock Creek Pkwy & Pennsylvania Avenue, NW	N/A									
032	26th and M Street, NW.	12/15/17	*			*			*		

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.	12/15/17	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	12/08/17	*			*			*		
035	P St. Bridge and Rock Creek Parkway	12/08/17	*			*			*		
036	22nd Street, South of Q Street NW.	12/18/17	*		*		*		*		
037 <sup>1</sup>	Waterside Dr. and Rock Creek Parkway	N/A									
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	12/07/17	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	12/01/17	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	12/01/17	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	12/07/17	*		*		*		*		
042	Harvard St. and Beach Dr NW.	12/07/17	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	12/07/17	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	12/07/17	*		*		*		*		
045	North of Beach Dr. and Walbridge Pl, NW.	12/07/17	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	12/12/17	*			*			*		
047	Piney Branch Parkway and Ingleside Terrace	12/12/17	*		*		*		*		
048	South of Piney Branch Parkway and 17 <sup>th</sup> St.	12/12/17	*		*		*		*		
049	North of Piney Branch Parkway and 17 <sup>th</sup> St.	12/12/17	*		*		*		*		
050	Rock Creek Parkway and L St., NW	12/04/17	*		*		*		*		
051	Across Rock Creek Pkwy, aligned with Olive St., NW.	12/18/17	*		*		*		*		
052	Between P & Penna. Ave Bridges, aligned with O Street, NW.	12/18/17	*		*		*		*		
053 <sup>1</sup>	Q St. Bridge and Rock Creek Parkway, NW.	N/A									
054	Massachusetts Ave & Rock Creek Parkway, NW.	12/11/17	*		*		*		*		
056	Normanstone Dr. and Rock Creek Parkway, NW.	12/11/17	*		*		*		*		
057 <sup>1</sup>	28th Street and Rock Creek Parkway, NW	N/A									
058 <sup>1</sup>	Connecticut Ave & Rock Creek Parkway, NW.	N/A									
060	North of P St. Bridge & Rock Creek Pkwy, NW	12/18/17	*		*		*		*		

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 Service<sup>1</sup></i>
Main	31	3	4	Pump # 1	12/01/17-12/31/17	Motor Rehab	17-686275	Anticipated 01/31/18
				Screen #1	12/01/17-12/31/17	Bent bars	17-643853	Anticipated 01/10/18
				Screen # 2	12/04/17-12/08/17	Broken Chain Link	18-119910	Returned to Service on 12/08/17
Eastside	3	2	4	Screen #2	12/01/17-12/13/17	Bent bars- Screen Replaced	17-566510	New Screen in Service 12/13/17
Poplar Point	1	2	3	Screen # 2	12/15/17-12/31/17	Rake to be realigned	18-129876	Anticipated 01/31/18
Potomac	31	4	5	Pump #5	12/01/17-12/31/17 <sup>3</sup>	Phase 3 upgrade Project	Contractor	Anticipated 1/29/18
				Screen #4	12/01/17-12/31/17	Phase 3 Upgrade Project	Contractor	Anticipated 1/29/18
				Pump # 4	12/01/17-12/08/17	Phase 3 Upgrade Project	Contractor	Returned to Service 12/08/17

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 January 2018.
2. Due to repeat failures on Screen #2 at Eastside Pumping Station, the screen is being upgraded.
3. Pump available if needed.

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

<i>Pumping Station</i>	<i>Date Performed</i>	<i>Type of Preventive Maintenance Performed<sup>1</sup></i>	<i>Work Order Number</i>	<i>Comments</i>
Main	12/01/17	Group A	18-82564	Add oil, grease bearings and replace packing if needed.
O St	12/01/17	Group A	18-116923	Add oil, grease bearings and replace packing if needed.
Eastside	12/19/17	Group A	18-33770	Add oil, grease bearings and replace packing if needed.
Poplar Point	12/23/17	Group A	18-80983	Add oil, grease bearings and replace packing if needed.
Potomac	12/01/17	Group A	18-33985	Add oil, grease bearings and replace packing if needed.
Rock Creek	12/19/17	Group A	18-46343	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	12/23/17	Group A	18-82598	Add oil, grease bearings and replace packing if needed.
Earl Place	12/09/17	Group A	18-10217	Add oil, grease bearings and replace packing if needed.
1 <sup>st</sup> Street Tunnel Dewatering	12/08/17	Group B	N/A	

Notes:

1. Group A consists of:
  - Exercise bar screens
  - Exercise all sump pumps
  - Drain condensation from air compressor storage tank
  - Check depth of screening in the screen room and schedule Vactor truck as required
  - Check all safety equipment
  - Issue work order requests as required
2. Group B consists of:
  - a. Inspect and manually run CSO Pumps
  - b. Generator:
    - i. Inspection operation and test, inspect oil level, inspect coolant level
  - c. MCC:
    - i. Test gas monitoring system
    - ii. Inspect and test level indicators
  - d. Valve Vault
    - i. Lubricate knife gate valve stem and stem nut
    - ii. Flush air and vacuum release valve



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

<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)<sup>1</sup></i>	<i>Date</i>	<i>Volume (mg)</i>
Main	1459.59	49.09	N/A	N/A	N/A	N/A	N/A
O St	110.58	3.57	N/A	N/A	N/A	N/A	N/A
Eastside	103.95	3.35	N/A	N/A	N/A	N/A	N/A
Poplar Point <sup>2</sup>	512.25	16.52	N/A	N/A	N/A	N/A	N/A
Potomac	2479.78	88.70	N/A	N/A	N/A	N/A	N/A
Rock Creek	192.61	6.21	N/A	N/A	N/A	N/A	N/A
Upper Anacostia	38.85	1.25	N/A	N/A	N/A	N/A	N/A
Earl Place	0.111	0.004	N/A	N/A	N/A	N/A	N/A
1 <sup>st</sup> Street Tunnel Dewatering	N/A	N/A	N/A	N/A	N/A	12/17	0.17

Notes:

1. Screening consists of vertical trash racks, with no mechanical cleaning. Quantification of captured materials is not possible on monthly basis.
2. On July 14<sup>th</sup> 2017, bypass pumping began at Poplar Point Pumping Station, in connection with the replacement of this station. Pumping totals are estimated for this station based on typical flows.

**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>
12/09/17	3	3	Screen #3	12/01/17-12/31/17	Bent bars & back plate	Anticipated 03/31/18

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

<i>Date Performed</i>	<i>Type of Preventive Maintenance Performed<sup>1</sup></i>	<i>Work Order Number</i>	<i>Comments</i>
12/09/17	Group A	18-36509	

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)<sup>1</sup></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>
12/23/17	2	4.29	4.29	0.0	80

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**

<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>NaHSO<sub>3</sub> (mg/l)</i>	<i>Location</i>	<i>Conc. (mg/l)</i>	<i>Site</i>	<i>Count Per 100ml</i>
N/A	-	-	-	Mix Chamber	-	Mix Chamber	-
				Anacostia River <sup>1</sup>	-	Anacostia River <sup>1</sup>	-

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 (NO<sub>2</sub>-N) (mg/L)</i>	<i>Nitrate (NO<sub>3</sub>-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>
N/A	-	-	-	-	-	-	-

Notes:

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

## 2.5 Inflatable Dams and SCADA System

DC Water operates and maintains twelve inflatable dams at eight different locations. The structure number, location and number of dams per site are presented in Table 2-11. The inflatable dams consist of multi-ply elastomeric (i.e., “rubber”) fabric dams installed in major overflow conduits within the combined sewer system. The objective of the inflatable dam installation is to increase the effective depth to which the sewage must rise in the combined sewer before overflows occur. The effect of the installation is to retain a greater volume of combined sewage flow resulting from low to moderate intensity storms by maximizing storage within the CSS. During higher intensity storms, when the full carrying capacity of the overflow conduit is required to prevent upstream flooding, the dam is deflated automatically. Inflatable dam operations are summarized below:

**Table 2-11  
Inflatable Dams – Inspections and Equipment in Service**

<i>Inflatable Dam Structure No</i>	<i>Date Inspected</i>	<i>Was Dam Out of Service</i>		<i>Reason</i>	<i>Schedule to Restore to Service</i>
		<i>During the Month?</i>	<i>Dates out of Service</i>		
14 - East	12/19/17	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
14 - West	12/19/17	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
15	12/19/17	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
15A	12/19/17	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
16 - East	12/19/17	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
16 - West	12/19/17	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
24 - North	12/19/17	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
24 - Middle	12/19/17	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
24 - South	12/19/17	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
34	12/19/17	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
35	12/28/17	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
52	12/19/17	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

Notes:

**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>12/23/17</i> <i>12/24/17</i>	<i>4 hrs.25 mins</i> <i>2hrs. 29 mins</i>
16 (E & W)	<i>None</i>	<i>N/A</i>
24	<i>None</i>	<i>N/A</i>
34	<i>None</i>	<i>N/A</i>
35	<i>None</i>	<i>N/A</i>
52	<i>None</i>	<i>N/A</i>
<i>Structures on Outfall Sewers</i>	<i>Overflow Dates</i>	<i>Estimated Duration of Overflow</i>
Outfall Structure 1	<i>None</i>	This structure has been bulk headed. Overflows are no longer possible.
Outfall Structure 1A	<i>None</i>	This structure has been bulk headed. Overflows are no longer possible.
Outfall Structure 2	<i>None</i>	<i>N/A</i>
<i>Outfall Sewer Control Gates</i>	<i>Operational Status</i>	<i>Position</i>
Outfall Sewer Control Gate No.1	<i>Operational</i>	<i>Open</i>
Outfall Sewer Control Gate No.2	<i>Operational</i>	This structure has been bulk headed. Overflows are no longer possible
Outfall Sewer Control Gate No.2	<i>Operational</i>	This structure has been bulk headed. Overflows are no longer possible

### **3. DRY WEATHER OVERFLOWS**

There were no dry weather combined sewer overflow during December 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	1428	1401	595	595	595	1909	1887	45	44	1954	1931
2	2807	2637	479	479	479	3168	3011	42	39	3210	3050
3	3651	189	0	0	0	3472	173	215	1	3687	174
4	3428	1708	0	0	0	3344	1694	109	6	3453	1700
5	3859	1756	1694	1694	1694	3800	1746	614	522	4414	2268
6	3324	2715	2705	2705	2705	3582	3037	293	282	3875	3319
7	3494	38	32	32	32	3643	52	59	10	3702	62
8	2716	204	198	198	198	2807	414	157	1	2964	415
<b>Grand Total</b>	<b>24707<sup>1</sup></b>	10648	5703	<b>5703<sup>2</sup></b>	<b>5703</b>	<b>25725</b>	<b>12014</b>	<b>1534</b>	<b>905</b>	<b>27259</b>	<b>12919</b>
% Cleaned/Inspected to Date				<b>100%</b>	<b>100%</b>	<b>104%</b>	<b>113%</b>			<b>110%</b>	<b>121%</b>

1. The totals have changed due to information that is more accurate. In November, we focused on confirming and processing the catch basins that the crews identified as not located in the field due to redevelopment or mapping inaccuracies, which has resulted in a lower overall total.
2. There are approximately 171 catch basins blocked by long-term construction projects, of these, 39 flow to the Anacostia River. There are approximately 297 catch basins obstructed by either a parked car or security restrictions instituted by Capitol Police, of these, 105 flow to the Anacostia River.

#### 4.2 BMP Demonstration for Solid and Floatable Control

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

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

**Table 4-2  
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	12/22/2017	Damaged	Deck grating – needs repair and/or replacement.	Purchase order issued for repairs. Waiting for vender to schedule repairs.	None (2)
Bar Rack CSO 040	12/1/2017	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	12/7/2017	Good	None	Routine Cleaning	(1)

Notes:

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

(2) CSO 018 netting system is currently unsafe to access to replace the nets so no material was removed. The skimmer program continues to function collecting the floating debris that comes through the CSO unto the river.

**4.3 Anacostia River Floating Debris Removal Program**

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

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

<i>Program Operation</i>	5-day work week, excluding holidays, weather permitting
<i>Work Days this month:</i>	20
<i>Days not Operating</i>	11
<i>Reason not Operating</i>	Maintenance, wind, low water levels.
<i># Skimmer in Fleet</i>	4 Skimmers
<i># Skimmers Out of Service</i>	None (on the last day of the month)
<i>Dates</i>	NA
<i>Reason</i>	NA
<i>Plan to Restore to Service</i>	NA
<i>Amount Material Collected</i>	10 tons this month. Calendar year to date 540 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	12/23/17	X			
Bar Racks at Main Storm Pumps (CSO 011)	KW	12/23/17	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
12/1/2017	0	0	0	0	0
12/2/2017	0	0	0	0	0
12/3/2017	0.04	0.03	0.04	0.04	0.03
12/4/2017	0	0	0	0	0
12/5/2017	0.08	0.08	0.06	0.08	0.07
12/6/2017	0	0	0	0	0
12/7/2017	0	0	0	0	0
12/8/2017	0	0.01	0	0	0
12/9/2017	0	0	0	0	0.18
12/10/2017	0.15	0.15	0.16	0.15	0
12/11/2017	0	0	0	0	0
12/12/2017	0	0	0	0	0
12/13/2017	0	0	0	0	0
12/14/2017	0	0	0	0	0
12/15/2017	0	0	0	0	0.01
12/16/2017	0.02	0.02	0.02	0.02	0
12/17/2017	0	0	0	0	0
12/18/2017	0	0	0	0	0
12/19/2017	0	0	0	0	0
12/20/2017	0	0	0	0	0
12/21/2017	0	0	0	0	0
12/22/2017	0	0	0	0	0
12/23/2017	0.21	0.21	0.18	0.29	0.18
12/24/2017	0	0	0	0	0
12/25/2017	0	0	0	0	0
12/26/2017	0	0	0	0	0
12/27/2017	0	0	0	0	0
12/28/2017	0	0	0	0	0
12/29/2017	0	0	0	0	0
12/30/2017	0.02	0.01	0.01	0.01	0.03
12/31/2017	0	0	0	0	0
TOTAL	0.52	0.51	0.47	0.59	0.50

### **5.3 Wet Weather Overflows**

Combined Sewer System Model Results are summarized below.

District of Columbia Water and Sewer Authority

**Combined Sewer System Model Results**  
**Period: October, November, December 2017**

**SCENARIO: PCCM\_QuarterlyReport\_2017Q4, produced January 10, 2018**

NPDES No.	Description	Number of Overflows (Occurrences)	CSO Overflow Volume (mg)	Total Duration of Overflow (hrs)	Avg Duration of Overflow (hrs)	Maximum Duration of Overflow (hrs)	Minimum Duration of Overflow (hrs)
<b>Anacostia CSOs</b>							
005	Chicago St and Railroad Station SE	7	1.13	22.75	3.25	7.75	0.50
006	Good Hope Road, West of Nichols Ave.,SE	separated					
007	13 <sup>th</sup> Street and Ridge Place,SE	4	0.26	3.50	0.88	1.50	0.50
009	2nd Street, 300 feet North of N Place, SE	4	0.25	6.00	1.50	3.25	0.50
010	O Street SewagePumping Station, SE (pumped Overflow)	4	5.21	1.25	0.31	0.50	0.25
011	South of Main Sewage Pumping Station, SE (pumped overflow)	0	0.00	0.00	0.00	0.00	0.00
011a	South of Main SewagePumping Station, SE (gravity overflow)	0	0.00	0.00	0.00	0.00	0.00
012	North of Main SewagePumping Station, SE (Tiber Creek)	0	0.00	0.00	0.00	0.00	0.00
013	4th and N Streets, SE	5	0.11	5.00	1.00	3.25	0.25
014	6th and M Streets, SE	4	0.40	7.00	1.75	3.00	1.00
015	9th and M Streets, SE	4	0.02	2.50	0.63	1.00	0.25
016	12th and M Streets, SE	2	0.10	1.00	0.50	0.75	0.25
017	14th and M Streets, SE	4	2.82	18.75	4.69	7.75	2.50
018	Barney Circle andPennsylvania Ave, SE	4	1.13	9.25	2.31	4.25	1.00
019	Northeast Boundary - Swirl Effluent	4	62.70	27.75	6.94	11.25	3.25
019	Northeast Bound. - Swirl Bypass	0	0.00	0.00	0.00	0.00	0.00
	<b>SUBTOTAL</b>		<b>74.12</b>				
<b>Potomac CSOs</b>							
003	Bolling AFB	0	0.00	0.00	0.00	0.00	0.00
020	23rd Street, North ofConstitution Ave, NW (Easby Point)	2	0.01	1.75	0.88	1.00	0.75
021	Northeast ofRoosevelt Bridge, NW	4	43.48	17.00	4.25	7.25	2.25
022	27th and K Streets, NW	6	0.09	7.00	1.17	2.75	0.25
024	30th and K Streets, NW	4	0.51	8.00	2.00	4.25	0.25
025	31st & K St NW	1	0.00	0.25	0.25	0.25	0.25
026	Wisconsin Avenue andK St., NW	0	0.00	0.00	0.00	0.00	0.00
027	Water Street West ofStreet, NW	2	0.10	1.25	0.63	0.75	0.50
028	36th and M Streets, NW	6	0.26	8.25	1.38	2.75	0.50
029	Canal Road 1000 feet east of Rock Creek,NW	3	0.08	2.00	0.67	0.75	0.50
	<b>SUBTOTAL</b>		<b>44.53</b>				
<b>Rock Creek</b>							
031	Pennsylvania Avenue, East Rock Creek, NW	separated					
032	26th and M Streets, NW	0	0.00	0.00	0.00	0.00	0.00
033	N Street extendedwest of 25th Street,NW	0	0.00	0.00	0.00	0.00	0.00
034	23rd and O Streets, SW	0	0.00	0.00	0.00	0.00	0.00
035	22nd Street south of Q Street, NW	0	0.00	0.00	0.00	0.00	0.00
036	22nd Street South of Q Street, NW	2	0.009	2.50	1.25	1.50	1.00
037	Northwest of Belmontand Rock Creek and Potomac Parkway	separated					
038	North of Belmont Road,east of Kalorama Circle, NW	0	0.00	0.00	0.00	0.00	0.00
039	Connecticut Avenue east of Rock Creek, NW	0	0.00	0.00	0.00	0.00	0.00
040	Biltmore Street extended east of RockCreek, NW	0	0.00	0.00	0.00	0.00	0.00
041	Ontario extended and Rock Creek Parkway	0	0.00	0.00	0.00	0.00	0.00
042	Harvard Street and RockCreek Parkway, NW	0	0.00	0.00	0.00	0.00	0.00



District of Columbia Water and Sewer Authority

**Combined Sewer System Model Results**  
**Period: October, November, December 2017**

**SCENARIO: PCCM\_QuarterlyReport\_2017Q4, produced January 10, 2018**

NPDES No.	Description	Number of Overflows (Occurrences)	CSO Overflow Volume (mg)	Total Duration of Overflow (hrs)	Avg Duration of Overflow (hrs)	Maximum Duration of Overflow (hrs)	Minimum Duration of Overflow (hrs)
043	Adams Mill Road South of Irving Street, NW	0	0.00	0.00	0.00	0.00	0.00
044	Kenyon Street and Adams Mill Road, NW	0	0.000	0.00	0.00	0.00	0.00
045	Adams Mill Road and Lamont Street, NW	0	0.00	0.00	0.00	0.00	0.00
046	Park Road south of Piney Branch Parkway, NW	0	0.00	0.00	0.00	0.00	0.00
047	Ingleside Terrace extended and Piney Branch Parkway	0	0.000	0.00	0.00	0.00	0.00
048	Mt. Pleasant Street extended and Piney Branch Parkway	0	0.00	0.00	0.00	0.00	0.00
049	Piney Branch and Lamont Street, NW	4	0.97	7.25	1.81	3.00	0.50
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 <sup>th</sup> St, NW	0	0.00	0.00	0.00	0.00	0.00
	<b>SUBTOTAL</b>		<b>0.98</b>				
	<b>TOTAL</b>		<b>119.63</b>				

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