

# QUARTERLY OPERATIONS REPORT

DISTRICT OF COLUMBIA

COMBINED SEWER OVERFLOW FACILITIES

SECOND QUARTER, 2014

Prepared By:

D.C. Water and Sewer Authority  
Department of Sewer Services  
Sewer Pumping Division  
2<sup>nd</sup> & N Streets, SE  
Washington, D.C. 20003



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

**Monthly Operations Report  
For  
*Combined Sewer System*  
Month: April 2014**

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WATER AND SEWER AUTHORITY  
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*Monthly Operations Report for Combined Sewer System*  
*Month: April 2014*

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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 parts 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 wastewater treatment plant at Blue Plains (BPWWTP or the Blue Plains WWTP). 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 operations of the combined sewer system for the month indicated.

## 2. OPERATION AND MAINTENACE

### 2.1 Regulators

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

**Table 2-1  
Regulator Structures**

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
2	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	04/18/14	*			
4	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	04/18/14	*			
5	Poplar Point Pumping Station	004	04/28/14	*			
6	Chicago Street and Railroad Ave, SE	005	04/08/14	*			
7	W Street and Railroad Ave, SE	005	04/08/14	*			
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	04/08/14	*			
11	"O" Street Pumping Station	011(a)	04/25/14	*			
12	Storm Pump Discharge at Main Pumping Station	011	04/25/14	*			
13	2 <sup>nd</sup> Street, 300 ft. north of N Place, SE	009	04/04/14	*			
14	2 <sup>nd</sup> Street, 250 ft. north of N Place, SE	011(a)	04/28/14	*			
15	South Capitol and E Streets	010	04/28/14	*			
15a	Half and L Streets, SE	010	04/28/14	*			
15b	South Capitol and I Streets	010	04/09/14	*			
15c	South Capitol and I Streets	010	04/09/14	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
16	North of Main Sewage Pumping Station	012	04/28/14	*			
17	4 <sup>th</sup> and N Streets, SE, Both Extended	013	N/A				Construction for Clean Rivers Project
17a	K Street between 6 <sup>th</sup> Street and 7 <sup>th</sup> Street, SE	013	04/09/14	*			
18	6 <sup>th</sup> and M Streets, SE	014	04/02/14	*			
19	9 <sup>th</sup> and M Streets, SE	015	04/14/14	*			
19a	9 <sup>th</sup> and M Streets, SE	015	04/14/14	*			
20	12 <sup>th</sup> and M Streets, SE	016	N/A				Construction for Clean Rivers Project
20a	12 <sup>th</sup> and M Streets, SE	016	04/16/14	*			
21	14 <sup>th</sup> and M Streets, SE	017	N/A				Construction for Clean Rivers Project
22a	Barney Circle and Pennsylvania Ave, SE	018	04/02/14	*			
22b	Barney Circle and Pennsylvania Ave, SE	018	04/02/14	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	04/02/14	*			
22d	Kentucky Ave and Potomac Street, SE	018	04/04/14	*			
22e	14 <sup>th</sup> Street and Kentucky Ave, SE	018	04/04/14	*			
23	Independence Ave, 21 <sup>st</sup> Street, SE, Extended	019	04/04/14	*			
24a	East Capitol St, west of RFK stadium	019	04/04/14	*			
28	21 <sup>st</sup> and Constitution Ave, NW	020	04/11/14	*			
29	22 <sup>nd</sup> Street, between Constitution Ave and C St, NW	020	04/11/14	*			
30	17 <sup>th</sup> and D Streets, NW	020	04/11/14	*			
31	15 <sup>th</sup> Street and Pennsylvania Ave, NW	020	04/11/14	*			
33	10 <sup>th</sup> and F Streets, NW	020	04/11/14	*			
34	23 <sup>rd</sup> Street, north of Constitution Ave, NW	020	04/28/14	*			
34a	23 <sup>rd</sup> Street near C Street, NW	020	04/11/14	*			
35	Northeast of Roosevelt Bridge, NW	021	04/28/14	*			
36	27 <sup>th</sup> and I Streets, NW	022	04/16/14	*			
36a	New Hampshire Ave and Eye Street, NW	022	04/16/14	*			
36b	19 <sup>th</sup> and L Streets, NW	022, 034	04/29/14	*			
36d	17 <sup>th</sup> and L Streets, NW	022, 034	04/29/14	*			
36g	18 <sup>th</sup> and M Streets, NW	022, 034	04/29/14	*			
36h	18 <sup>th</sup> and M Streets, NW	022, 034	04/29/14	*			
37	27 <sup>th</sup> and Eye Streets, NW	022	04/16/14	*			
38	29 <sup>th</sup> and K Streets, NW	024	04/02/14	*			

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	04/02/14	*			
39a	30 <sup>th</sup> and K Streets, NW	024	04/02/14	*			
39b	30 <sup>th</sup> and K Streets, NW	024	04/02/14	*			
41b	31 <sup>st</sup> and K Streets, NW	025	04/02/14	*			
41c	31 <sup>st</sup> and K Streets, NW	025	04/02/14	*			
42	Wisconsin Ave and K Street, NW	026	04/14/14	*			
43	Potomac and Water Streets, NW	027	04/14/14	*			
43a	Potomac and Water Streets, NW	027	04/14/14	*			
44	Water Street, west of Potomac St, NW	027	04/14/14	*			
45	36 <sup>th</sup> and M Streets, NW	028	04/04/14	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	04/04/14	*			
47	38 <sup>th</sup> Street and Reservoir Road, NW	029	04/04/14	*			
47a	37 <sup>th</sup> and T Streets, NW	029	04/04/14	*			
47b	37 <sup>th</sup> and T Streets, NW	029	04/04/14	*			
47c	38 <sup>th</sup> and W Streets, NW	029	04/04/14	*			
49 <sup>1</sup>	Pennsylvania Ave, east side of Rock Creek, NW	031	N/A				
50	26 and M Streets, NW	032	04/03/14	*			
51	N Street Extended, west of 25 <sup>th</sup> Street, NW	033	04/03/14	*			
52	22 <sup>nd</sup> Street between M and N Streets, NW	034	04/28/14	*			
52a	N Street between 22 <sup>nd</sup> and 23 <sup>rd</sup> Streets, NW	034	04/14/14	*			
53	22 <sup>nd</sup> and M Streets, NW	022, 034	04/14/14	*			
53a	22 <sup>nd</sup> and M Streets, NW	022, 034	04/14/14	*			
53b	L Street between 21 <sup>st</sup> Street and New Hampshire Ave, NW	022, 034	04/18/14	*			
53c	L and 22 <sup>nd</sup> Streets, NW	022	04/18/14	*			
54	23 <sup>rd</sup> and O Streets, NW	034	04/16/14	*			
55	22 <sup>nd</sup> Street, south of Q Street, NW	035	04/16/14	*			
55a	22 <sup>nd</sup> Street, south of Q Street, NW	035	04/16/14	*			
56	23 <sup>rd</sup> and Massachusetts Ave, NW	036	04/16/14	*			
57	23 <sup>rd</sup> Street, south of Q Street, NW	036	04/16/14	*			
58 <sup>1</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	04/14/14	*			
60	Connecticut Ave, east of Rock Creek, NW	039	04/02/14	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	04/02/14	*			
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	04/28/14	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
63	Harvard Street and Rock Creek Parkway, NW	042	04/28/14	*			
64	Adams Mill Road, south of Irving Street, NW	043	04/28/14	*			
65	Kenyon Street and Adams Mill Road, NW	044	04/28/14	*			
65a	Kenyon Street and Adams Mill Road, NW	044	04/28/14	*			
66	Adams Mill Road and Lamont Street, NW	045	04/28/14	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	04/28/14	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	04/28/14	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	04/28/14	*			
70	Piney Branch Parkway, west of 16 <sup>th</sup> Street, NW	049	04/28/14	*			
70i	5 <sup>th</sup> and Quackenbos Streets, NW	049	04/02/14	*			
71	28 <sup>th</sup> Street, west of Rock Creek Parkway, NW	050	04/18/14	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	04/16/14	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	04/16/14	*			
73	O Street Extended and Rock Creek Parkway, NW	052	04/16/14	*			
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	04/03/14	*			
77 <sup>1</sup>	Normanstone Dr Extended, west of Rock Creek, NW	056	N/A				
77a <sup>1</sup>	Normanstone Dr and Normanstone Lane, NW	056	N/A				
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	04/25/14	*			
84a	26 <sup>th</sup> and P Streets, NW	060	04/25/14	*			

Notes:

1. Structure no longer functions as a combined sewer overflow regulator structure.
2. Where construction is indicated to be in progress at a regulator, the contractor maintains flow (i.e. prevents DWO) during construction by flow diversion, bypass pumping, fluming, sandbagging or other means.

## 2.2 Outfalls, Tide Gates and CSO Signs

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

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

NPDES Outfall	Location	Date Inspected	Outfall Condition		Tide Gate Present?		Tide Gate Condition		CSO Sign		Notes, Work Needed or Performed
			OK	Needs Work	Yes	No	OK	Needs Work	OK	Needs Work	
003	Bolling Air Force Base, at Giavanolli and Chanute, SW	04/18/14	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	04/17/14	*		*		*		*		
006 <sup>1</sup>	Good Hope Road and Welsh Memorial Bridge	N/A									
007	Between 11 <sup>th</sup> St. and Anacostia Bridges, SE	04/17/14	*		*		*		*		
009	O St. Sewage Pumping Station, SE	04/05/14	*		*		*		*		
010	O St. Sewage Pumping Station, SE	04/05/14	*			*			*		
011	Main Sewage Pumping Station, SE	04/05/14	*			*			*		
011(a)	Main Sewage Pumping Station, SE	04/05/14	*		*		*		*		
012	Main Sewage Pumping Station, SE	04/05/14	*		*		*		*		
013	Southeast Federal Center, aligned with 4 <sup>th</sup> St.	N/A									Construction for Clean Rivers Project
014	Navy Yard, aligned with 6 <sup>th</sup> St., SE	04/17/14	*		*		*		*		
015	Navy Yard, aligned with 9th Street, SE	04/17/14	*			*			*		
016	12th and O Streets, SE	04/03/14	*		*		*		*		
017	M and Water Street, SE	04/03/14	*		*		*		*		
018	East of Barney Circle & South of Pennsylvania Avenue Bridge, SE	04/03/14	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility & D.C. General Hospital	04/17/14	*			*			*		
020	Rock Creek Parkway and Independence, NW	04/24/14	*		*		*		*		
021	Rock Creek Parkway and C St., NW	04/24/14	*			*			*		
022	Rock Creek Parkway and G St., NW	04/24/14	*		*		*		*		
024	South of 30 <sup>th</sup> and K Streets, NW <sup>1</sup>	04/24/14	*		*		*		*		
025	South of 31st and K Streets, NW	04/24/14	*		*		*		*		
026	Wisconsin Avenue and Water Street, NW	04/24/14	*		*		*		*		
027	33 <sup>rd</sup> and Water Sts., NW	04/24/14	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	04/24/14	*			*			*		
029	Adjacent to C&O Canal, aligned with 38 <sup>th</sup> St. NW	04/24/14	*		*		*		*		
031 <sup>1</sup>	Rock Creek Pkwy & Pennsylvania Avenue, NW	N/A									



NPDES Outfall	Location	Date Inspected	Outfall Condition		Tide Gate Present?		Tide Gate Condition		CSO Sign		Notes, Work Needed or Performed
			OK	Needs Work	Yes	No	OK	Needs Work	OK	Needs Work	
032	26th and M Street, NW.	04/03/14	*			*			*		
033	Across street from St. Francis Jr. High and aligned with N St., NW.	04/03/14	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	04/16/14	*		*		*		*		
035	P St. Bridge and Rock Creek Parkway	04/16/14	*		*		*		*		
036	22nd Street, South of Q Street NW.	04/03/14	*		*		*		*		
037 <sup>1</sup>	Waterside Dr. and Rock Creek Parkway	N/A									
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	04/14/14	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	04/02/14	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	04/02/14	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	04/25/14	*		*		*		*		
042	Harvard St. and Beach Dr NW.	04/25/14	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	04/25/14	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	04/25/14	*		*		*		*		
045	North of Beach Dr. and Walbridge Pl, NW.	04/25/14	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	04/28/14	*		*		*		*		
047	Piney Branch Parkway and Ingleside Terrace	04/28/14	*		*		*		*		
048	South of Piney Branch Parkway and 17 <sup>th</sup> St.	04/28/14	*		*		*		*		
049	North of Piney Branch Parkway and 17 <sup>th</sup> St.	04/18/14	*		*		*		*		
050	Rock Creek Parkway and L St., NW	04/25/14	*		*		*		*		
051	Across Rock Creek Pkwy, aligned with Olive St., NW.	04/25/14	*		*		*		*		
052	Between P & Penna. Ave Bridges, aligned with O Street, NW.	04/25/14	*		*		*		*		
053 <sup>1</sup>	Q St. Bridge and Rock Creek Parkway, NW.	N/A									
054	Massachusetts Ave & Rock Creek Parkway, NW.	04/03/14	*		*		*		*		
056 <sup>1</sup>	Normanstone Dr. and Rock Creek Parkway, NW.	N/A									
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	04/03/14	*		*		*		*		

Notes:

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

### 2.3 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>Schedule to Restore to Service<sup>1</sup></i>
Main	30	4	10	#1 Sanitary Pump #1 Screen #4 Screen	April 1-16 April 1-9 April 1-30	Pump being rehabbed Screen being rehabbed Screen being rehabbed	Restored April 17, 2014 Restored April 10, 2014 July 2014
Eastside	22	2	4	#1 Screen	April 1-30	Screen being rehabbed	July 2014
Poplar Point	22	2	3	#1 Screen	April 1-30	Screen being rehabbed	July 2014
Potomac	30	4	5	#2 Sanitary Pump #3 Screen #2 Screen #4 Screen	April 1-30 April 1-30 April 1-30 April 1-2	Pump being rehabbed Screen being rehabbed Screen being rehabbed Screen being rehabbed	May 2014 May 2014 May 2014 Restored April 3, 2014

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.

**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>Comments</i>
Main	4/15/14	Group A	Add oil, grease bearings and replace packing if needed.
O St	4/15/14	Group A	Add oil, grease bearings and replace packing if needed.
Eastside	4/15/14	Group A	Add oil, grease bearings and replace packing if needed.
Poplar Point	4/15/14	Group A	Add oil, grease bearings and replace packing if needed.
Potomac	4/15/14	Group A	Add oil, grease bearings and replace packing if needed.
Rock Creek	4/15/14	Group A	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	4/15/14	Group A	Add oil, grease bearings and replace packing if needed.
Earle Place	4/15/14	Group A	Add oil, grease bearings and replace packing if needed.

Notes:

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

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

<i>Pumping Station</i>	<i>Sanitary Pumpage</i>		<i>Storm Water/CSO Pumped To Anacostia River</i>		
	<i>Total Wastewater (mg)</i>	<i>Daily Average Wastewater (mg)</i>	<i>Date</i>	<i>Volume (mg)</i>	<i>Screenings Collected (units)<sup>1</sup></i>
Main	2,275.70	75.86	N/A	N/A	N/A
O St	170.91	5.70	4/15/2014	75.18	Normal
			4/25/2014	2.10	Normal
			4/29/2014	8.82	Normal
			4/30/2014	147.40	Normal
Eastside	298.19	9.94	N/A	N/A	N/A
Poplar Point	647.08	21.56	N/A	N/A	N/A
Potomac	3,891.10	129.70	N/A	N/A	N/A
Rock Creek	240.00	8.0	N/A	N/A	N/A
Upper Anacostia	151.30	5.06	N/A	N/A	N/A
Earle Place	0.27	0.01	N/A	N/A	N/A

Notes:

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

**2.4 Northeast Boundary Swirl Facility**

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

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

<i>Date Inspected</i>	<i># of Screens</i>	<i># of Swirls</i>	<i>Screens or Swirls Out of Service</i>	<i>Dates</i>	<i>Reason</i>	<i>Schedule to Restore to Service</i>
4/17	1, 2 & 3	1, 2 & 3	N/A	N/A		

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

<i>Date Performed</i>	<i>Type of Preventive Maintenance Performed<sup>1</sup></i>	<i>Comments</i>
4/17	Group A	

Notes:

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

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

<i>Date</i>	<i>Approx. Storm Duration (hrs)<sup>1</sup></i>	<i>Total Influent Volume (mg)</i>	<i>Total Foul Sewer Volume (mg)</i>	<i>Total Effluent Volume (mg)<sup>2</sup></i>	<i>Approx. Screenings Volume (Cu. ft)</i>
4/7/2014	3.75	6.3	6.3	0.0	92
4/15/2014	6.75	30.4	30.4	0.0	148
4/15/2014	8	33.0	4.1	29.0	150
4/16/2014	4	1.8	1.8	0.0	4
4/25/2014	4.5	9.6	9.6	0.0	11
4/29/2014	6.5	2.4	2.4	0.0	6
4/29/2014	8	15.5	3.6	12.0	111
4/30/2014	7.5	15.4	15.4	0.0	112
4/30/2014	8.5	44.1	4.7	39.4	128
4/30/2014	8	38.9	3.1	35.8	135

Notes:

1. Approx. length of time influent flow rate was above the 15 mgd threshold for allowing flow through the facility.
2. Volume approximated due malfunction of ESIRS meter.

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, enterococcus and fecal coliform testing for samples taken in the Swirl Facility mix chamber and at the facility effluent outfall to the Anacostia River.

Taking a grab sample and immediately testing it with a portable analyzing kit obtain test results for residual chlorine. Samples for fecal coliform and enterococcus are taken from the designated sample point, treated with sodium bisulfate 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>Dosages</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>
4/15	Yes	5	2	Mix Chamber	0.1	Mix Chamber	<10
				Anacostia River <sup>1</sup>	0.0	Anacostia River <sup>1</sup>	<10

Notes:

1. River: River Outfall

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

<i>Date</i>	<i>Flow Compositied 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>
4/15/14	37.5	0.00	0.85	2.51	3.36	0.42	13.3

## 2.5 Inflatable Dams

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 2-10. 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	4/28	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
14 - West	4/28	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
15	4/28	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
15A	4/28	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
16 - East	4/28	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
16 - West	4/28	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
24 - North	4/28	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
24 - Middle	4/28	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
24 - South	4/28	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
34	4/28	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
35	4/28	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
52	4/28	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

**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	4/7	2 mins
	4/15	6 hrs, 12 mins
	4/16	2 mins
	4/25	2 mins
	4/29	3 mins
	4/30	2 hrs, 51 mins
15A	4/7	10 mins
	4/15	6 hrs, 38 mins
	4/16	51 mins
	4/25	26 mins
	4/29	48 mins
	4/30	2 hrs, 17 mins
16 (E & W)	4/15	27 mins
	4/29	2 mins
24	4/15	1 hr, 3 mins
	4/29	23 mins
	4/30	2 hrs, 22 mins
34	4/15	8 mins
	4/30	1 hr, 24 mins
35	4/7	19 mins
	4/15	2 hrs, 12 mins
	4/25	3 mins
	4/29	39 mins
	4/30	3 hrs, 48 mins
52	None	N/A
<i>Structures on Outfall Sewers</i>		
<i>Outfall Structure 1</i>	<i>Overflow Dates</i>	<i>Estimated Duration of Overflow</i>
Outfall Structure 1	None	This structure has been bulk headed. Overflows are no longer possible.
Outfall Structure 1A	None	This structure has been bulk headed. Overflows are no longer possible.
Outfall Structure 2	None	None
<i>Outfall Sewer Control Gates</i>		
<i>Outfall Sewer Control Gate No. 1</i>	<i>Operational Status</i>	<i>Position</i>
Outfall Sewer Control Gate No. 1	Operational	Open
Outfall Sewer Control Gate No.2	Operational	Open



### 3. DRY WEATHER OVERFLOWS

There was no dry weather combined sewer discharges during April 2014

#### Sanitary Sewer Overflows:

Location	Capital Crescent Trail, NW.
Cause	DC Water received a report from our Sewer Program consultants of a leak from an out-of-service section of the Upper Potomac Interceptor 48-inch sanitary sewer (UPI). It was discovered that a large quantity of water had entered the UPI from the Potomac Interceptor (PI). The duration and intensity of the rainfall over the last few days surcharged the PI and spilled a large volume of sewerage. During the rain event, the Fabridam on Structure #35 stayed inflated, causing a backup in the PI that surcharged to higher elevation along the PI and UPI. The Fabridam is programmed to deflate to allow elevated flows in the PI to discharge through Structure #35 and out to the Potomac River through CSO Outfall #021.
Date/ Time Discovered	April 30, 2014 at approximately 3:30 PM.
Action Taken	Once the situation was recognized, the Fabridam was manually deflated at 5:40pm to prevent further damage to the system. The deflation allowed the large backup in the PI to flow to the Potomac River. Staff immediately directed Corinthian Construction to set up a by-pass pumping system to take the flow away from the defective portion pipe.
Date/Time Discharge Ceased	May 1, 2014 at 4:15 pm.
Estimated Volume	Approximately 5 million gallons.
Did Overflow Reach Receiving water?	Yes. The Potomac River
Action taken to prevent reoccurrence	DC Water is rebuilding bulkheads at the diversion structure. We are working to develop plans and secure the appropriate permits for the permanent sewer rehabilitation that will extend the service life of the PI/UPI. DC Water is also proceeding with an analysis of Fabridam 35 operations to determine what further actions need to be taken.

## SOLIDS AND FLOATABLES CONTROL

### 3.1 Catch Basin Cleaning

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

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	1,591	1,568	734	86	0	113	82	134	102	247	184
2	4,714	4,112	2,316	585	0	969	870	220	170	1189	1040
3	3,555	461	-	0	0	271	48	264	139	535	187
4	2,782	1,985	159	70	0	159	107	1656	772	1815	879
5	2,167	1,035	1,035	293	0	132	106	212	187	344	293
6	1,783	1,594	1,594	993	0	1016	917	147	76	1163	993
7	2,313	-	-	0	0	545	0	37	0	582	0
8	1,278	116	116	116	0	1848	423	116	57	1964	480
Subtotal	<b>20,183</b>	<b>10,871</b>	<b>5,954</b>	<b>2,143</b>	<b>0</b>	<b>5,053</b>	<b>2,553</b>	<b>2,786</b>	<b>1,503</b>	<b>7,839</b>	<b>4,056</b>
DDOT (via VMS) Subtotal											
Grand Total	<b>20,183</b>	<b>10,871</b>	<b>5,954</b>							<b>7,839</b>	<b>4,056</b>
% Cleaned/Inspected to Date				<b>36%</b>	<b>0%</b>					<b>39%</b>	<b>37%</b>

### 3.2 BMP Demonstration Projects

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 3-2**  
**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 (CY)</i>
Netting System CSO 018	4/24/2014	Good	None	None	None
Bar Rack CSO 040	4/2/2014	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	4/25/2014	Good	None	Routine Cleaning	(1)

Notes:

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

### 3.3 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 3-3  
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>	23
<i>Days not Operating</i>	16
<i>Reason not Operating</i>	High winds, low tide, and PM/repair service.
<i># Skimmer in Fleet</i>	3 Skimmers
<i># Skimmers Out of Service</i>	2 Skimmers
<i>Dates</i>	B28: 4/21 - 4/22 B29: 4/1 - 4/30 B32: 4/1 - 4/22 & 4/29 - 4/30
<i>Reason</i>	B28: Leaking hydraulic fluid under skimmer. B29: Front assembly catching on hull. B32: Leaking Hydraulic fluid from propulsion pods.
<i>Plan to Restore to Service</i>	B28: Returned to service 4/23. B29: Sent to contractor for repair. ETR unknown. B32: Port Propulsion pod removed for repair. ETR May 2014.
<i>Volume Material Collected</i>	40 Tons.
<i>Nature of Material</i>	Bottles, cans, natural debris and plastics.

### 3.4 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.

#### 4. MONITORING

##### 4.1 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 4-1  
Bar Racks at Main & O Street Pumping Stations**

Inspector: Gregory Stephens

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)	GS	4/23	X			
Bar Racks at Main Storm Pumps (CSO 011)	GS	4/23	X			

## **4.2 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
4/1/2014	0.00	0	0	0
4/2/2014	0.00	0	0	0
4/3/2014	0.00	0	0	0
4/4/2014	0.01	0.01	0.03	0.02
4/5/2014	0.00	0	0	0
4/6/2014	0.00	0	0	0
4/7/2014	0.43	0.46	0.33	0.51
4/8/2014	0.04	0.02	0.05	0.03
4/9/2014	0.00	0	0	0
4/10/2014	0.00	0	0	0
4/11/2014	0.00	0	0	0
4/12/2014	0.00	0	0	0
4/13/2014	0.00	0	0	0
4/14/2014	0.00	0	0	0
4/15/2014	2.15	2.2	1.32	2.78
4/16/2014	0.00	0	0	0
4/17/2014	0.00	0	0.04	0
4/18/2014	0.00	0	0	0
4/19/2014	0.00	0	0	0
4/20/2014	0.00	0	0	0
4/21/2014	0.00	0	0	0
4/22/2014	0.03	0.03	0.01	0.03
4/23/2014	0.00	0	0	0
4/24/2014	0.00	0	0	0
4/25/2014	0.34	0.38	0.35	0.37
4/26/2014	0.00	0	0.03	0
4/27/2014	0.00	0	0	0
4/28/2014	0.13	0.13	0.13	0.15
4/29/2014	1.06	0.96	1	0.9
4/30/2014	2.32	2.55	2.19	2.5
TOTAL	6.51	6.74	5.48	7.29



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

**Monthly Operations Report  
For  
*Combined Sewer System*  
Month: May 2014**

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



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

*Monthly Operations Report for Combined Sewer System*  
*Month: May 2014*

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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 parts 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 wastewater treatment plant at Blue Plains (BPWWTP or the Blue Plains WWTP). 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 operations of the combined sewer system for the month indicated.

## 2. OPERATION AND MAINTENACE

### 2.1 Regulators

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

**Table 2-1  
Regulator Structures**

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
2	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	05/20/14	*			
4	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	05/20/14	*			
5	Poplar Point Pumping Station	004	05/12/14	*			
6	Chicago Street and Railroad Ave, SE	005	05/12/14	*			
7	W Street and Railroad Ave, SE	005	05/12/14	*			
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	05/09/14	*			
11	"O" Street Pumping Station	011(a)	05/26/14	*			
12	Storm Pump Discharge at Main Pumping Station	011	05/26/14	*			
13	2 <sup>nd</sup> Street, 300 ft. north of N Place, SE	009	05/12/14	*			
14	2 <sup>nd</sup> Street, 250 ft. north of N Place, SE	011(a)	05/12/14	*			
15	South Capitol and E Streets	010	05/26/14	*			
15a	Half and L Streets, SE	010	05/26/14	*			
15b	South Capitol and I Streets	010	05/21/14	*			
15c	South Capitol and I Streets	010	05/21/14	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
16	North of Main Sewage Pumping Station	012	05/26/14	*			
17	4 <sup>th</sup> and N Streets, SE, Both Extended	013	N/A				Construction for Clean Rivers Project
17a	K Street between 6 <sup>th</sup> Street and 7 <sup>th</sup> Street, SE	013	05/21/14	*			
18	6 <sup>th</sup> and M Streets, SE	014	05/19/14	*			
19	9 <sup>th</sup> and M Streets, SE	015	05/14/14	*			
19a	9 <sup>th</sup> and M Streets, SE	015	05/14/14	*			
20	12 <sup>th</sup> and M Streets, SE	016	N/A				Construction for Clean Rivers Project
20a	12 <sup>th</sup> and M Streets, SE	016	05/14/14	*			
21	14 <sup>th</sup> and M Streets, SE	017	N/A				Construction for Clean Rivers Project
22a	Barney Circle and Pennsylvania Ave, SE	018	05/08/14	*			
22b	Barney Circle and Pennsylvania Ave, SE	018	05/08/14	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	05/08/14	*			
22d	Kentucky Ave and Potomac Street, SE	018	05/08/14	*			
22e	14 <sup>th</sup> Street and Kentucky Ave, SE	018	05/08/14	*			
23	Independence Ave, 21 <sup>st</sup> Street, SE, Extended	019	05/21/14	*			
24a	East Capitol St, west of RFK stadium	019	05/12/14	*			
28	21 <sup>st</sup> and Constitution Ave, NW	020	05/13/14	*			
29	22 <sup>nd</sup> Street, between Constitution Ave and C St, NW	020	05/13/14	*			
30	17 <sup>th</sup> and D Streets, NW	020	05/09/14	*			
31	15 <sup>th</sup> Street and Pennsylvania Ave, NW	020	05/09/14	*			
33	10 <sup>th</sup> and F Streets, NW	020	05/09/14	*			
34	23 <sup>rd</sup> Street, north of Constitution Ave, NW	020	05/26/14	*			
34a	23 <sup>rd</sup> Street near C Street, NW	020	05/13/14	*			
35	Northeast of Roosevelt Bridge, NW	021	05/19/14	*			
36	27 <sup>th</sup> and I Streets, NW	022	05/13/14	*			
36a	New Hampshire Ave and Eye Street, NW	022	05/13/14	*			
36b	19 <sup>th</sup> and L Streets, NW	022, 034	05/09/14	*			
36d	17 <sup>th</sup> and L Streets, NW	022, 034	05/09/14	*			
36g	18 <sup>th</sup> and M Streets, NW	022, 034	05/09/14	*			
36h	18 <sup>th</sup> and M Streets, NW	022, 034	05/09/14	*			
37	27 <sup>th</sup> and Eye Streets, NW	022	05/13/14	*			
38	29 <sup>th</sup> and K Streets, NW	024	05/12/14	*			

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	05/12/14	*			
39a	30 <sup>th</sup> and K Streets, NW	024	05/12/14	*			
39b	30 <sup>th</sup> and K Streets, NW	024	05/12/14	*			
41b	31 <sup>st</sup> and K Streets, NW	025	05/30/14	*			
41c	31 <sup>st</sup> and K Streets, NW	025	05/30/14	*			
42	Wisconsin Ave and K Street, NW	026	05/13/14	*			
43	Potomac and Water Streets, NW	027	05/13/14	*			
43a	Potomac and Water Streets, NW	027	05/13/14	*			
44	Water Street, west of Potomac St, NW	027	05/13/14	*			
45	36 <sup>th</sup> and M Streets, NW	028	05/09/14	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	05/09/14	*			
47	38 <sup>th</sup> Street and Reservoir Road, NW	029	05/09/14	*			
47a	37 <sup>th</sup> and T Streets, NW	029	05/09/14	*			
47b	37 <sup>th</sup> and T Streets, NW	029	05/09/14	*			
47c	38 <sup>th</sup> and W Streets, NW	029	05/09/14	*			
49 <sup>1</sup>	Pennsylvania Ave, east side of Rock Creek, NW	031	N/A				
50	26 and M Streets, NW	032	05/13/14	*			
51	N Street Extended, west of 25 <sup>th</sup> Street, NW	033	05/30/14	*			
52	22 <sup>nd</sup> Street between M and N Streets, NW	034	05/30/14	*			
52a	N Street between 22 <sup>nd</sup> and 23 <sup>rd</sup> Streets, NW	034	05/30/14	*			
53	22 <sup>nd</sup> and M Streets, NW	022, 034	05/30/14	*			
53a	22 <sup>nd</sup> and M Streets, NW	022, 034	05/30/14	*			
53b	L Street between 21 <sup>st</sup> Street and New Hampshire Ave, NW	022, 034	05/13/14	*			
53c	L and 22 <sup>nd</sup> Streets, NW	022	05/13/14	*			
54	23 <sup>rd</sup> and O Streets, NW	034	05/23/14	*			
55	22 <sup>nd</sup> Street, south of Q Street, NW	035	05/23/14	*			
55a	22 <sup>nd</sup> Street, south of Q Street, NW	035	05/23/14	*			
56	23 <sup>rd</sup> and Massachusetts Ave, NW	036	05/23/14	*			
57	23 <sup>rd</sup> Street, south of Q Street, NW	036	05/23/14	*			
58 <sup>1</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	05/12/14	*			
60	Connecticut Ave, east of Rock Creek, NW	039	05/12/14	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	05/12/14	*			
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	05/14/14	*			
63	Harvard Street and Rock Creek Parkway, NW	042	05/14/14	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
64	Adams Mill Road, south of Irving Street, NW	043	05/14/14	*			
65	Kenyon Street and Adams Mill Road, NW	044	05/14/14	*			
65a	Kenyon Street and Adams Mill Road, NW	044	05/14/14	*			
66	Adams Mill Road and Lamont Street, NW	045	05/14/14	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	05/14/14	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	05/14/14	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	05/14/14	*			
70	Piney Branch Parkway, west of 16 <sup>th</sup> Street, NW	049	05/14/14	*			
70i	5 <sup>th</sup> and Quackenbos Streets, NW	049	05/23/14	*			
71	28 <sup>th</sup> Street, west of Rock Creek Parkway, NW	050	05/14/14	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	05/21/14	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	05/21/14	*			
73	O Street Extended and Rock Creek Parkway, NW	052	05/12/14	*			
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	05/30/14	*			
77 <sup>1</sup>	Normanstone Dr Extended, west of Rock Creek, NW	056	N/A				
77a <sup>1</sup>	Normanstone Dr and Normanstone Lane, NW	056	N/A				
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	05/21/14	*			
84a	26 <sup>th</sup> and P Streets, NW	060	05/12/14	*			

Notes:

1. Structure no longer functions as a combined sewer overflow regulator structure.
2. Where construction is indicated to be in progress at a regulator, the contractor maintains flow (i.e. prevents DWO) during construction by flow diversion, bypass pumping, fluming, sandbagging or other means.

## 2.2 Outfalls, Tide Gates and CSO Signs

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

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

NPDES Outfall	Location	Date Inspected	Outfall Condition		Tide Gate Present?		Tide Gate Condition		CSO Sign		Notes, Work Needed or Performed
			OK	Needs Work	Yes	No	OK	Needs Work	OK	Needs Work	
003	Bolling Air Force Base, at Giavanolli and Chanute, SW	05/20/14	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	05/01/14	*		*		*		*		
006 <sup>1</sup>	Good Hope Road and Welsh Memorial Bridge	N/A									
007	Between 11 <sup>th</sup> St. and Anacostia Bridges, SE	05/01/14	*		*		*		*		
009	O St. Sewage Pumping Station, SE	05/22/14	*		*		*		*		
010	O St. Sewage Pumping Station, SE	05/22/14	*			*			*		
011	Main Sewage Pumping Station, SE	05/22/14	*			*			*		
011(a)	Main Sewage Pumping Station, SE	05/22/14	*		*		*		*		
012	Main Sewage Pumping Station, SE	05/22/14	*		*		*		*		
013	Southeast Federal Center, aligned with 4 <sup>th</sup> St.	N/A									Construction for Clean Rivers Project
014	Navy Yard, aligned with 6 <sup>th</sup> St., SE	05/22/14	*		*		*		*		
015	Navy Yard, aligned with 9th Street, SE	05/22/14	*			*			*		
016	12th and O Streets, SE	05/22/14	*		*		*		*		
017	M and Water Street, SE	05/22/14	*		*		*		*		
018	East of Barney Circle & South of Pennsylvania Avenue Bridge, SE	05/22/14	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility & D.C. General Hospital	05/20/14	*			*			*		
020	Rock Creek Parkway and Independence, NW	05/15/14	*		*		*		*		
021	Rock Creek Parkway and C St., NW	05/15/14	*			*			*		
022	Rock Creek Parkway and G St., NW	05/15/14	*		*		*		*		
024	South of 30 <sup>th</sup> and K Streets, NW <sup>1</sup>	05/15/14	*		*		*		*		
025	South of 31st and K Streets, NW	05/15/14	*		*		*		*		
026	Wisconsin Avenue and Water Street, NW	05/15/14	*		*		*		*		
027	33 <sup>rd</sup> and Water Sts., NW	05/15/14	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	05/15/14	*			*			*		
029	Adjacent to C&O Canal, aligned with 38 <sup>th</sup> St. NW	05/15/14	*		*		*		*		
031 <sup>1</sup>	Rock Creek Pkwy & Pennsylvania Avenue, NW	N/A									

NPDES Outfall	Location	Date Inspected	Outfall Condition		Tide Gate Present?		Tide Gate Condition		CSO Sign		Notes, Work Needed or Performed
			OK	Needs Work	Yes	No	OK	Needs Work	OK	Needs Work	
032	26th and M Street, NW.	05/30/14	*			*			*		
033	Across street from St. Francis Jr. High and aligned with N St., NW.	05/30/14	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	05/23/14	*		*		*		*		
035	P St. Bridge and Rock Creek Parkway	05/23/14	*		*		*		*		
036	22nd Street, South of Q Street NW.	05/30/14	*		*		*		*		
037 <sup>1</sup>	Waterside Dr. and Rock Creek Parkway	N/A									
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	05/12/14	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	05/12/14	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	05/01/14	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	05/01/14	*		*		*		*		
042	Harvard St. and Beach Dr NW.	05/01/14	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	05/01/14	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	05/01/14	*		*		*		*		
045	North of Beach Dr. and Walbridge Pl, NW.	05/14/14	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	05/14/14	*		*		*		*		
047	Piney Branch Parkway and Ingleside Terrace	05/14/14	*		*		*		*		
048	South of Piney Branch Parkway and 17 <sup>th</sup> St.	05/14/14	*		*		*		*		
049	North of Piney Branch Parkway and 17 <sup>th</sup> St.	05/14/14	*		*		*		*		
050	Rock Creek Parkway and L St., NW	05/14/14	*		*		*		*		
051	Across Rock Creek Pkwy, aligned with Olive St., NW.	05/30/14	*		*		*		*		
052	Between P & Penna. Ave Bridges, aligned with O Street, NW.	05/30/14	*		*		*		*		
053 <sup>1</sup>	Q St. Bridge and Rock Creek Parkway, NW.	N/A									
054	Massachusetts Ave & Rock Creek Parkway, NW.	05/30/14	*		*		*		*		
056 <sup>1</sup>	Normanstone Dr. and Rock Creek Parkway, NW.	N/A									
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	05/30/14	*		*		*		*		

Notes:

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

### 2.3 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>Schedule to Restore to Service<sup>1</sup></i>
Main	31	4	10	#4 Screen	May 1-31	Screen being rehabbed	July 2014
Eastside	30	2	4	#1 Screen	May 1-31	Screen being rehabbed	July 2014
Poplar Point	30	2	3	#1 Screen	May 1-31	Screen being rehabbed	July 2014
Potomac	31	4	5	#2 Sanitary Pump	May 1-2	Pump being rehabbed	Restored May 3, 2014
				#3 Screen	May 1	Screen being rehabbed	Restored May 2, 2014
				#2 Screen	May 1-2	Screen being rehabbed	Restored May 3, 2014

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.



**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>Comments</i>
Main	5/15	Group A	Add oil, grease bearings and replace packing if needed.
O St	5/15	Group A	Add oil, grease bearings and replace packing if needed.
Eastside	5/15	Group A	Add oil, grease bearings and replace packing if needed.
Poplar Point	5/15	Group A	Add oil, grease bearings and replace packing if needed.
Potomac	5/15	Group A	Add oil, grease bearings and replace packing if needed.
Rock Creek	5/15	Group A	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	5/15	Group A	Add oil, grease bearings and replace packing if needed.
Earle Place	5/15	Group A	Add oil, grease bearings and replace packing if needed.

Notes:

- Group A consists of:

Exercise bar screens

Exercise all sump pumps

Drain condensation from air compressor storage tank

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

Check all safety equipment

Issue work order requests as required

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

<i>Pumping Station</i>	<i>Sanitary Pumpage</i>		<i>Storm Water/CSO Pumped To Anacostia River</i>		
	<i>Total Wastewater (mg)</i>	<i>Daily Average Wastewater (mg)</i>	<i>Date</i>	<i>Volume (mg)</i>	<i>Screenings Collected (units)<sup>1</sup></i>
Main	1,870.40	60.34	N/A	N/A	N/A
O St	149.18	4.81	5/16/2014	94.50	Normal
			5/27/2014	18.06	Normal
Eastside	336.06	10.84	N/A	N/A	N/A
Poplar Point	687.78	22.19	N/A	N/A	N/A
Potomac	4,692.00	151.35	N/A	N/A	N/A
Rock Creek	320.00	10.32	N/A	N/A	N/A
Upper Anacostia	181.88	5.87	N/A	N/A	N/A
Earle Place	0.35	0.01	N/A	N/A	N/A

Notes:

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

**2.4 Northeast Boundary Swirl Facility**

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

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

<i>Date Inspected</i>	<i># of Screens</i>	<i># of Swirls</i>	<i>Screens or Swirls Out of Service</i>	<i>Dates</i>	<i>Reason</i>	<i>Schedule to Restore to Service</i>
5/12	1, 2 & 3	1, 2 & 3	N/A	N/A		

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

<i>Date Performed</i>	<i>Type of Preventive Maintenance Performed<sup>1</sup></i>	<i>Comments</i>
5/12	Group A	

Notes:

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

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

<i>Date</i>	<i>Approx. Storm Duration (hrs)<sup>1</sup></i>	<i>Total Influent Volume (mg)</i>	<i>Total Foul Sewer Volume (mg)</i>	<i>Total Effluent Volume (mg)<sup>2</sup></i>	<i>Approx. Screenings Volume (Cu. ft)</i>
5/1/2014	8	5.9	5.9	0	0
5/6/2014	1	9.2	9.2	0	32
5/6/2014	3	1.5	1.5	0	16
5/7/2014	2.5	3.0	3.0	0	16
5/16/2014	8	13.8	13.8	0	28
5/17/2014	8	24.9	24.9	0	76
5/21/2014	3.5	4.9	4.9	0	80
5/27/2014	4.5	8.2	8.2	0	20
5/28/2014	4	1.1	1.1	0	28

Notes:

1. Approx. length of time influent flow rate was above the 15 mgd threshold for allowing flow through the facility.
2. Volume approximated due malfunction of ESIRS meter.

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, enterococcus and fecal coliform testing for samples taken in the Swirl Facility mix chamber and at the facility effluent outfall to the Anacostia River.

Taking a grab sample and immediately testing it with a portable analyzing kit obtain test results for residual chlorine. Samples for fecal coliform and enterococcus are taken from the designated sample point, treated with sodium bisulfate 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>Dosages</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

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

<i>Date</i>	<i>Flow Compositied 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							

## 2.5 Inflatable Dams

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 2-10. 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	5/26	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
14 - West	5/26	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
15	5/26	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
15A	5/26	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
16 - East	5/26	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
16 - West	5/26	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
24 - North	5/26	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
24 - Middle	5/26	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
24 - South	5/26	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
34	5/27	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
35	5/26	<b>Yes</b>	<b>5/21-5/31</b>	<b>Testing &amp; Evaluation</b>	<b>July 2014</b>
52	5/27	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

**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	5/1 5/16 5/27	3 mins 1 hr, 44 mins 2 mins
15A	5/16 5/27	2 hrs, 37 mins 1 hr, 8 mins
16 (E & W)	5/16 5/27	2 hrs, 7 mins 23 mins
24	5/1 5/6 5/16 5/27	2 mins 2 mins 1 hr, 10 mins 13 mins
34	5/16 5/27	19 mins 15 mins
35	5/2 5/15 5/16 5/19 5/20 5/30	10 mins 4 mins 1hr, 25 mins 21 mins 11 mins 5 mins
52	None	N/A
<i>Structures on Outfall Sewers</i>	<i>Overflow Dates</i>	<i>Estimated Duration of Overflow</i>
Outfall Structure 1	None	This structure has been bulk headed. Overflows are no longer possible.
Outfall Structure 1A	None	This structure has been bulk headed. Overflows are no longer possible.
Outfall Structure 2	None	None
<i>Outfall Sewer Control Gates</i>	<i>Operational Status</i>	<i>Position</i>
Outfall Sewer Control Gate No. 1	Operational	Open
Outfall Sewer Control Gate No.2	Operational	Open

### 3. DRY WEATHER OVERFLOWS

There was no dry weather combined sewer discharges during May 2014

#### Sanitary Sewer Overflows:

Location	16 <sup>th</sup> St & Whittier Pl. NW
Cause	The District of Columbia Water and Sewer Authority (DC Water) received a call from our Sewer Program consultants concerning leaks from a 12 inch sanitary sewer that crosses a creek in the vicinity of 16 <sup>th</sup> Street and Whittier Pl., NW. A sewer maintenance crew from the Department of Sewer Services (DSS) was dispatched to investigate the report. The crew found that waste from a joint in the concrete encasement of the pipe near the creek crossing was seeping into the creek.
Date/ Time Discovered	May 5, 2014 at approximately 2:50 PM
Action Taken	The crew cleaned the area near the leak and applied quick setting concrete to seal the leak.
Date/Time Discharge Ceased	May 5, 2014 at approximately 7:30 PM
Estimated Volume	One gallon per day
Did Overflow Reach Receiving water?	Yes. An unnamed creek that flow into Rock Creek.
Action taken to prevent reoccurrence	We are currently developing plans to rehabilitate all sections of that pipe near the creek crossing with a CIPP product and trenchless method.

Location	Capital Crescent Trail
Cause	Excessive rainfall during the night and early morning hours surcharged the Potomac Interceptor sewer and also backed up the 18-inch intercepting pipe from diversion structure #46 to the Potomac Interceptor spilling a large quantity of sewerage. Most of the sewerage traveled overland and into the Potomac River; Later that day, when the rain stopped, the surcharge condition subsided and all overflows ceased.
Date/ Time Discovered	May 16, 2014 at approximately 7:30 AM
Action Taken	We then directed our contractor Corinthians Construction to install sandbags around overflow areas to contain the flow. All surface areas were cleaned-up and decontaminated.
Date/Time Discharge Ceased	May 16, 2014 at approximately 1:30 PM
Estimated Volume	100,000 gallons
Did Overflow Reach Receiving water?	Yes, the Potomac River
Action taken to prevent reoccurrence	DC Water will be conducting regular inspection of the PI, especially after heavy rain events for possible overflows. We are working on expediting plans to re-line the 18-inch intercepting pipe and rehabilitating the Upper Potomac Interceptor sewer. This will enable us to restore flow to the out of service portion of pipe and provide some relief during surcharge conditions on the PI throughout peak flow rates.

Location	Glover Archbold Park, NW
Cause	The District of Columbia Water and Sewer Authority (DC Water) received an email regarding a probable sewer overflow in the park. A sewer maintenance crew was dispatched to the site to investigate the report. The crew found that there was no ongoing overflow, but they observed signs of a sewage spill. They indicate that possibly during the heavy rain event of May 16, 2014, the 27-inch sanitary sewer surcharged and dislodged the manhole frame and cover allowing sewerage from the sanitary line enter a nearby storm grate that discharges into a 108-inch storm sewer.
Date/ Time Discovered	May 20, 2014 at approximately 3:45 PM
Action Taken	The crew secured the manhole top in place.
Date/Time Discharge Ceased	Unknown.
Estimated Volume	Unknown.
Did Overflow Reach Receiving water?	Yes. The Potomac River.
Action taken to prevent reoccurrence	DC Water Engineering Services is assessing the condition of the 27-inch sewer and determining what additional steps may be needed to prevent recurrence at this location.

Location	Suitland Parkway near 18 <sup>th</sup> St. SE
Cause	The District of Columbia Water and Sewer Authority (DC Water) received a service call regarding an overflowing sewer manhole. A sewer maintenance crew was dispatched to the site to investigate the report. The crew found an overflowing manhole in the embankment off the roadway at Suitland Parkway near 18 <sup>th</sup> St. SE.
Date/ Time Discovered	May 26, 2014 at approximately 12:30 PM
Action Taken	They removed a buildup of grease and debris in the manhole to clear the obstruction in the sewer and closed circuit television camera inspection performed at the time showed that the pipe was fully open.
Date/Time Discharge Ceased	May 26, 2014 at approximately 4:00 PM,
Estimated Volume	1,000 gallons.
Did Overflow Reach Receiving water?	Yes. The Anacostia River
Action taken to prevent reoccurrence	The DC Water Department of Engineering- Planning Section will prioritize the planned inspection and evaluation of this sewer in the overall system assessment program.



## SOLIDS AND FLOATABLES CONTROL

### 3.1 Catch Basin Cleaning

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

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	1,591	1,568	734	110	0	247	184	78	51	325	235
2	4,714	4,112	2,316	728	0	1189	1040	288	253	1477	1293
3	3,555	461	-	0	0	535	187	757	45	1292	232
4	2,782	1,985	159	159	0	1815	879	1286	910	3101	1789
5	2,167	1,035	1,035	327	0	344	293	34	34	378	327
6	1,783	1,594	1,594	1069	0	1163	993	86	76	1249	1069
7	2,313	-	-	0	0	582	0	143	0	725	0
8	1,278	116	116	116	35	1964	480	202	65	2166	545
Subtotal	<b>20,183</b>	<b>10,871</b>	<b>5,954</b>	<b>2,509</b>	<b>35</b>	<b>7,839</b>	<b>4,056</b>	<b>2,874</b>	<b>1,434</b>	<b>10,713</b>	<b>5,490</b>
DDOT (via VMS) Subtotal											
Grand Total	<b>20,183</b>	<b>10,871</b>	<b>5,954</b>							<b>10,713</b>	<b>5,490</b>
% Cleaned/Inspected to Date				<b>42%</b>	<b>0.6%</b>					<b>53%</b>	<b>50%</b>

### 3.2 BMP Demonstration Projects

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 3-2**  
**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 (CY)</i>
Netting System CSO 018	5/28/2014	Good	None	None	None
Bar Rack CSO 040	5/1/2014	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	5/1/2014	Good	None	Routine Cleaning	(1)

Notes:

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

### 3.3 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 3-3  
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>	0
<i>Reason not Operating</i>	
<i># Skimmer in Fleet</i>	3 Skimmers
<i># Skimmers Out of Service</i>	1 Skimmers
<i>Dates</i>	B28: 5/27 B29: 5/1 - 5/31 B32: 5/1 - 5/5
<i>Reason</i>	B28: Hydraulic oil alarm sounding. B29: Front assembly catching on hull. B32: Hydraulic leak in starboard propulsion pod.
<i>Plan to Restore to Service</i>	B28: Hydraulic oil added. Returned to service on 5/28. B29: At contractor for troubleshooting and repairs. ETR unknown. B32: Propulsion pod reinstalled. Returned to service on 5/5.
<i>Volume Material Collected</i>	200 Tons.
<i>Nature of Material</i>	Bottles, cans, natural debris and plastics.

### 3.4 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.

#### 4. MONITORING

##### 4.1 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 4-1  
Bar Racks at Main & O Street Pumping Stations**

Inspector: Clarence McCray

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)	CM	5/30	X			
Bar Racks at Main Storm Pumps (CSO 011)	CM	5/30	X			

## **4.2 Rain Data**

Rain data from National Airport and from the rain gauges installed in the CSS are summarized below.

Date	Brentwood Pumping	Bryant Street Pumping Station	Main Pumping Station	Rock Creek Pumping Station
5/1/2014	0.12	0.17	0.1	0.15
5/2/2014	0.00	0	0	0
5/3/2014	0.00	0	0	0
5/4/2014	0.00	0	0	0
5/5/2014	0.42	0.46	0.42	0.43
5/6/2014	0.00	0	0	0.01
5/7/2014	0.22	0.21	0.17	0.15
5/8/2014	0.00	0	0	0
5/9/2014	0.00	0	0	0
5/10/2014	0.08	0.11	0.05	0.09
5/11/2014	0.00	0	0	0
5/12/2014	0.01	0.01	0.04	0.04
5/13/2014	0.00	0	0	0
5/14/2014	0.00	0	0	0
5/15/2014	0.00	0.14	0.02	0.43
5/16/2014	2.16	1.82	2.02	0.48
5/17/2014	0.00	0	0	0.01
5/18/2014	0.00	0	0	0.01
5/19/2014	0.01	0.03	0	0.05
5/20/2014	0.00	0	0	0
5/21/2014	0.31	0.21	0.32	0.17
5/22/2014	0.09	0.05	0	0.01
5/23/2014	0.00	0	0	0
5/24/2014	0.00	0	0	0
5/25/2014	0.00	0	0	0
5/26/2014	0.00	0	0	0
5/27/2014	0.70	0.54	0.64	0.61
5/28/2014	0.00	0	0.11	0
5/29/2014	0.29	0.34	0.29	0.28
5/30/2014	0.02	0.01	0.01	0.01
5/31/2014	0.00	0	0	0
TOTAL	4.43	4.1	4.19	2.93



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

**Monthly Operations Report  
For  
*Combined Sewer System*  
Month: June 2014**

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

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

*Monthly Operations Report for Combined Sewer System*  
*Month: June 2014*

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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 parts 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 wastewater treatment plant at Blue Plains (BPWWTP or the Blue Plains WWTP). 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 operations of the combined sewer system for the month indicated.

## 2. OPERATION AND MAINTENACE

### 2.1 Regulators

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

**Table 2-1  
Regulator Structures**

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
2	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	06/20/14	*			
4	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	06/20/14	*			
5	Poplar Point Pumping Station	004	06/03/14	*			
6	Chicago Street and Railroad Ave, SE	005	06/02/14	*			
7	W Street and Railroad Ave, SE	005	06/02/14	*			
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	06/02/14	*			
11	"O" Street Pumping Station	011(a)	06/02/14	*			
12	Storm Pump Discharge at Main Pumping Station	011	06/02/14	*			
13	2 <sup>nd</sup> Street, 300 ft. north of N Place, SE	009	06/02/14	*			
14	2 <sup>nd</sup> Street, 250 ft. north of N Place, SE	011(a)	06/02/14	*			
15	South Capitol and E Streets	010	06/02/14	*			
15a	Half and L Streets, SE	010	06/02/14	*			
15b	South Capitol and I Streets	010	06/18/14	*			
15c	South Capitol and I Streets	010	06/18/14	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
16	North of Main Sewage Pumping Station	012	06/13/14	*			
17	4 <sup>th</sup> and N Streets, SE, Both Extended	013	N/A				Construction for Clean Rivers Project
17a	K Street between 6 <sup>th</sup> Street and 7 <sup>th</sup> Street, SE	013	06/20/14	*			
18	6 <sup>th</sup> and M Streets, SE	014	06/11/14	*			
19	9 <sup>th</sup> and M Streets, SE	015	06/04/14	*			
19a	9 <sup>th</sup> and M Streets, SE	015	06/04/14	*			
20	12 <sup>th</sup> and M Streets, SE	016	N/A				Construction for Clean Rivers Project
20a	12 <sup>th</sup> and M Streets, SE	016	06/04/14	*			
21	14 <sup>th</sup> and M Streets, SE	017	N/A				Construction for Clean Rivers Project
22a	Barney Circle and Pennsylvania Ave, SE	018	06/14/14	*			
22b	Barney Circle and Pennsylvania Ave, SE	018	06/14/14	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	06/14/14	*			
22d	Kentucky Ave and Potomac Street, SE	018	06/10/14	*			
22e	14 <sup>th</sup> Street and Kentucky Ave, SE	018	06/10/14	*			
23	Independence Ave, 21 <sup>st</sup> Street, SE, Extended	019	06/14/14	*			
24a	East Capitol St, west of RFK stadium	019	06/04/14	*			
28	21 <sup>st</sup> and Constitution Ave, NW	020	06/02/14	*			
29	22 <sup>nd</sup> Street, between Constitution Ave and C St, NW	020	06/02/14	*			
30	17 <sup>th</sup> and D Streets, NW	020	06/02/14	*			
31	15 <sup>th</sup> Street and Pennsylvania Ave, NW	020	06/02/14	*			
33	10 <sup>th</sup> and F Streets, NW	020	06/02/14	*			
34	23 <sup>rd</sup> Street, north of Constitution Ave, NW	020	06/02/14	*			
34a	23 <sup>rd</sup> Street near C Street, NW	020	06/16/14	*			
35	Northeast of Roosevelt Bridge, NW	021	06/16/14	*			
36	27 <sup>th</sup> and I Streets, NW	022	06/18/14	*			
36a	New Hampshire Ave and Eye Street, NW	022	06/18/14	*			
36b	19 <sup>th</sup> and L Streets, NW	022, 034	06/18/14	*			
36d	17 <sup>th</sup> and L Streets, NW	022, 034	06/18/14	*			
36g	18 <sup>th</sup> and M Streets, NW	022, 034	06/16/14	*			
36h	18 <sup>th</sup> and M Streets, NW	022, 034	06/13/14	*			
37	27 <sup>th</sup> and Eye Streets, NW	022	06/13/14	*			

Structure Number	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
38	29 <sup>th</sup> and K Streets, NW	024	06/13/14	*			
38a	30 <sup>th</sup> Street, south of K Street, NW	024	06/13/14	*			
39a	30 <sup>th</sup> and K Streets, NW	024	06/13/14	*			
39b	30 <sup>th</sup> and K Streets, NW	024	06/13/14	*			
41b	31 <sup>st</sup> and K Streets, NW	025	06/13/14	*			
41c	31 <sup>st</sup> and K Streets, NW	025	06/13/14	*			
42	Wisconsin Ave and K Street, NW	026	06/13/14	*			
43	Potomac and Water Streets, NW	027	06/13/14	*			
43a	Potomac and Water Streets, NW	027	06/13/14	*			
44	Water Street, west of Potomac St, NW	027	06/13/14	*			
45	36 <sup>th</sup> and M Streets, NW	028	06/10/14	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	06/10/14	*			
47	38 <sup>th</sup> Street and Reservoir Road, NW	029	06/10/14	*			
47a	37 <sup>th</sup> and T Streets, NW	029	06/10/14	*			
47b	37 <sup>th</sup> and T Streets, NW	029	06/10/14	*			
47c	38 <sup>th</sup> and W Streets, NW	029	06/10/14	*			
49 <sup>l</sup>	Pennsylvania Ave, east side of Rock Creek, NW	031	N/A				
50	26 and M Streets, NW	032	06/17/14	*			
51	N Street Extended, west of 25 <sup>th</sup> Street, NW	033	06/17/14	*			
52	22 <sup>nd</sup> Street between M and N Streets, NW	034	06/04/14	*			
52a	N Street between 22 <sup>nd</sup> and 23 <sup>rd</sup> Streets, NW	034	06/04/14	*			
53	22 <sup>nd</sup> and M Streets, NW	022, 034	06/19/14	*			
53a	22 <sup>nd</sup> and M Streets, NW	022, 034	06/19/14	*			
53b	L Street between 21 <sup>st</sup> Street and New Hampshire Ave, NW	022, 034	06/19/14	*			
53c	L and 22 <sup>nd</sup> Streets, NW	022	06/19/14	*			
54	23 <sup>rd</sup> and O Streets, NW	034	06/18/14	*			
55	22 <sup>nd</sup> Street, south of Q Street, NW	035	06/18/14	*			
55a	22 <sup>nd</sup> Street, south of Q Street, NW	035	06/18/14	*			
56	23 <sup>rd</sup> and Massachusetts Ave, NW	036	06/18/14	*			
57	23 <sup>rd</sup> Street, south of Q Street, NW	036	06/18/14	*			
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	06/19/14	*			
60	Connecticut Ave, east of Rock Creek, NW	039	06/05/14	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	06/05/14	*			

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	06/11/14	*			
63	Harvard Street and Rock Creek Parkway, NW	042	06/11/14	*			
64	Adams Mill Road, south of Irving Street, NW	043	06/11/14	*			
65	Kenyon Street and Adams Mill Road, NW	044	06/11/14	*			
65a	Kenyon Street and Adams Mill Road, NW	044	06/11/14	*			
66	Adams Mill Road and Lamont Street, NW	045	06/11/14	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	06/11/14	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	06/11/14	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	06/11/14	*			
70	Piney Branch Parkway, west of 16 <sup>th</sup> Street, NW	049	06/11/14	*			
70i	5 <sup>th</sup> and Quackenbos Streets, NW	049	06/09/14	*			
71	28 <sup>th</sup> Street, west of Rock Creek Parkway, NW	050	06/09/14	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	06/18/14	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	06/18/14	*			
73	O Street Extended and Rock Creek Parkway, NW	052	06/18/14	*			
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	06/18/14	*			
77 <sup>1</sup>	Normanstone Dr Extended, west of Rock Creek, NW	056	N/A				
77a <sup>1</sup>	Normanstone Dr and Normanstone Lane, NW	056	N/A				
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	06/18/14	*			
84a	26 <sup>th</sup> and P Streets, NW	060	06/18/14	*			

Notes:

1. Structure no longer functions as a combined sewer overflow regulator structure.
2. Where construction is indicated to be in progress at a regulator, the contractor maintains flow (i.e. prevents DWO) during construction by flow diversion, bypass pumping, fluming, sandbagging or other means.

## 2.2 Outfalls, Tide Gates and CSO Signs

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

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

NPDES Outfall	Location	Date Inspected	Outfall Condition		Tide Gate Present?		Tide Gate Condition		CSO Sign		Notes, Work Needed or Performed
			OK	Needs Work	Yes	No	OK	Needs Work	OK	Needs Work	
003	Bolling Air Force Base, at Giavanolli and Chanute, SW	06/02/14	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	06/02/14	*		*		*		*		
006 <sup>1</sup>	Good Hope Road and Welsh Memorial Bridge	N/A									
007	Between 11 <sup>th</sup> St. and Anacostia Bridges, SE	06/02/14	*		*		*		*		
009	O St. Sewage Pumping Station, SE	06/19/14	*		*		*		*		
010	O St. Sewage Pumping Station, SE	06/19/14	*			*			*		
011	Main Sewage Pumping Station, SE	06/19/14	*			*			*		
011(a)	Main Sewage Pumping Station, SE	06/19/14	*		*		*		*		
012	Main Sewage Pumping Station, SE	06/02/14	*		*		*		*		
013	Southeast Federal Center, aligned with 4 <sup>th</sup> St.	N/A									Construction for Clean Rivers Project
014	Navy Yard, aligned with 6 <sup>th</sup> St., SE	06/02/14	*		*		*		*		
015	Navy Yard, aligned with 9th Street, SE	06/18/14	*			*			*		
016	12th and O Streets, SE	06/12/14	* *		*		*		*		
017	M and Water Street, SE	06/19/14	*		*		*		*		Need to secure key for regular access.
018	East of Barney Circle & South of Pennsylvania Avenue Bridge, SE	06/12/14	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility & D.C. General Hospital	06/02/14	*			*			*		
020	Rock Creek Parkway and Independence, NW	06/12/14	*		*		*		*		
021	Rock Creek Parkway and C St., NW	06/12/14	*			*			*		
022	Rock Creek Parkway and G St., NW	06/12/14	*		*		*		*		
024	South of 30 <sup>th</sup> and K Streets, NW <sup>1</sup>	06/12/14	*		*		*		*		
025	South of 31st and K Streets, NW	06/12/14	*		*		*		*		
026	Wisconsin Avenue and Water Street, NW	06/12/14	*		*			*	*		Need DMS to weld part of the gate.
027	33 <sup>rd</sup> and Water Sts., NW	06/12/14	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	06/12/14	*			*			*		
029	Adjacent to C&O Canal, aligned with 38 <sup>th</sup> St. NW	06/12/14	*		*		*		*		

NPDES Outfall	Location	Date Inspected	Outfall Condition		Tide Gate Present?		Tide Gate Condition		CSO Sign		Notes, Work Needed or Performed
			OK	Needs Work	Yes	No	OK	Needs Work	OK	Needs Work	
031 <sup>1</sup>	Rock Creek Pkwy & Pennsylvania Avenue, NW	N/A									
032	26th and M Street, NW.	06/17/14	*			*			*		
033	Across street from St. Francis Jr. High and aligned with N St., NW.	06/17/14	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	06/18/14	*		*		*		*		
035	P St. Bridge and Rock Creek Parkway	06/18/14	*		*		*		*		
036	22nd Street, South of Q Street NW.	06/19/14	*		*		*		*		
037 <sup>1</sup>	Waterside Dr. and Rock Creek Parkway	N/A									
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	06/19/14	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	06/05/14	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	06/05/14	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	06/05/14	*		*		*		*		
042	Harvard St. and Beach Dr NW.	06/05/14	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	06/05/14	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	06/05/14	*		*		*		*		
045	North of Beach Dr. and Walbridge Pl, NW.	06/05/14	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	06/05/14	*		*		*		*		
047	Piney Branch Parkway and Ingleside Terrace	06/05/14	*		*		*		*		
048	South of Piney Branch Parkway and 17 <sup>th</sup> St.	06/05/14	*		*		*		*		
049	North of Piney Branch Parkway and 17 <sup>th</sup> St.	06/05/14	*		*		*		*		
050	Rock Creek Parkway and L St., NW	06/09/14	*		*		*		*		
051	Across Rock Creek Pkwy, aligned with Olive St., NW.	06/19/14	*		*		*		*		
052	Between P & Penna. Ave Bridges, aligned with O Street, NW.	06/19/14	*		*		*		*		
053 <sup>1</sup>	Q St. Bridge and Rock Creek Parkway, NW.	N/A									
054	Massachusetts Ave & Rock Creek Parkway, NW.	06/05/14	*		*		*		*		
056 <sup>1</sup>	Normanstone Dr. and Rock Creek Parkway, NW.	N/A									
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	06/19/14	*		*		*		*		

Notes:

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

### 2.3 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>Schedule to Restore to Service<sup>1</sup></i>
Main	30	4	10	#4 Screen	June 1-30	Screen being rehabbed	July 2014
Eastside	19	2	4	#1 Screen	June 1-30	Screen being rehabbed	July 2014
Poplar Point	19	2	3	#1 Screen	June 1-30	Screen being rehabbed	July 2014
Potomac	30	4	5	None			

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.

**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>Comments</i>
Main	6/9	Group A	Add oil, grease bearings and replace packing if needed.
O St	6/9	Group A	Add oil, grease bearings and replace packing if needed.
Eastside	6/9	Group A	Add oil, grease bearings and replace packing if needed.
Poplar Point	6/9	Group A	Add oil, grease bearings and replace packing if needed.
Potomac	6/9	Group A	Add oil, grease bearings and replace packing if needed.
Rock Creek	6/9	Group A	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	6/9	Group A	Add oil, grease bearings and replace packing if needed.
Earle Place	6/9	Group A	Add oil, grease bearings and replace packing if needed.

Notes:

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

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

<i>Pumping Station</i>	<i>Sanitary Pumpage</i>		<i>Storm Water/CSO Pumped To Anacostia River</i>		
	<i>Total Wastewater (mg)</i>	<i>Daily Average Wastewater (mg)</i>	<i>Date</i>	<i>Volume (mg)</i>	<i>Screenings Collected (units)<sup>1</sup></i>
Main	1,623.30	54.11	N/A	N/A	N/A
O St	126.00	4.20	6/10/14	67.20	Normal
			6/11/14	26.40	Normal
			6/25/14	18.48	Normal
Eastside	270.81	9.03	N/A	N/A	N/A
Poplar Point	637.47	21.25	N/A	N/A	N/A
Potomac	4,013.10	133.77	N/A	N/A	N/A
Rock Creek	178.33	5.94	N/A	N/A	N/A
Upper Anacostia	111.67	3.72	N/A	N/A	N/A
Earle Place	0.28	0.01	N/A	N/A	N/A

Notes:

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



**2.4 Northeast Boundary Swirl Facility**

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

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

<i>Date Inspected</i>	<i># of Screens</i>	<i># of Swirls</i>	<i>Screens or Swirls Out of Service</i>	<i>Dates</i>	<i>Reason</i>	<i>Schedule to Restore to Service</i>
6/6	1, 2 & 3	1, 2 & 3	N/A	N/A		

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

<i>Date Performed</i>	<i>Type of Preventive Maintenance Performed<sup>1</sup></i>	<i>Comments</i>
6/6	Group A	

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)<sup>2</sup></i>	<i>Approx. Screenings Volume (Cu. ft)</i>
6/3/2014	6	11.3	11.3	0.0	40
6/5/2014	6	6.6	6.6	0.0	111
6/9/2014	5.5	4.9	4.9	0.0	95
6/10/2014	5	5.7	5.7	0.0	100
6/11/2014	5	11.4	11.4	0.0	200
6/13/2014	6	10.9	10.9	0.0	200
6/25/2014	2	6.5	6.5	0.0	112
6/26/2014	2	1.1	1.1	0.0	48

Notes:

1. Approx. length of time influent flow rate was above the 15 mgd threshold for allowing flow through the facility.
2. Volume approximated due malfunction of ESIRS meter.

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, enterococcus and fecal coliform testing for samples taken in the Swirl Facility mix chamber and at the facility effluent outfall to the Anacostia River.

Taking a grab sample and immediately testing it with a portable analyzing kit obtain test results for residual chlorine. Samples for fecal coliform and enterococcus are taken from the designated sample point, treated with sodium bisulfate 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>Dosages</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

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

<i>Date</i>	<i>Flow Compositied 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							

## 2.5 Inflatable Dams

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 2-10. 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	6/10	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
14 - West	6/10	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
15	6/10	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
15A	6/10	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
16 - East	6/10	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
16 - West	6/10	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
24 - North	6/10	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
24 - Middle	6/10	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
24 - South	6/10	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
34	6/10	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
35	6/10	<b>Yes</b>	<b>6/1-6/30</b>	<b>Testing &amp; Evaluation</b>	<b>July 2014</b>
52	6/10	<b>No</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

**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	6/11 6/12 6/13 6/26	16 mins 3 mins 3 mins 3 mins
15A	6/11 6/12 6/13 6/25 6/26	1 hr, 20 mins 1 hr, 20 mins 22 mins 1 hr, 18 mins 48 mins
16 (E & W)	6/3 6/10 6/11 6/25	14 mins 5 mins 26 mins 26 mins
24	6/3 6/10 6/11 6/12 6/13 6/25 6/26	25 mins 8 mins 17 mins 2 mins 14 mins 6 mins 2 mins
34	6/11 6/13	11 mins 2 mins
35	6/11 6/12 6/25	6 mins 4 mins 6 mins
52	None	N/A
<i>Structures on Outfall Sewers</i>	<i>Overflow Dates</i>	<i>Estimated Duration of Overflow</i>
Outfall Structure 1	None	This structure has been bulk headed. Overflows are no longer possible.
Outfall Structure 1A	None	This structure has been bulk headed. Overflows are no longer possible.
Outfall Structure 2	None	None
<i>Outfall Sewer Control Gates</i>	<i>Operational Status</i>	<i>Position</i>
Outfall Sewer Control Gate No. 1	Operational	Open
Outfall Sewer Control Gate No.2	Operational	Open

### 3. DRY WEATHER OVERFLOWS

There was no dry weather combined sewer discharges during June 2014

#### Sanitary Sewer Overflows:

Location	Anacostia Ave. and Douglas Street, NE
Cause	The District of Columbia Water and Sewer Authority (DC Water) sewer maintenance crew was dispatched to investigate a report of a sewer overflow. The crew found the sewer was in good operating condition with no ongoing sanitary overflow, but they observed signs of a prior sewage spill. They indicated that possibly during a previous rainfall event, an 18-inch sanitary sewer along Anacostia Ave., NE surcharged, displaced the manhole covers at two separate locations allowing waste from the same sanitary line to enter a nearby catch basin on the storm sewer that discharged into the Anacostia River.
Date/ Time Discovered	June 13, 2014 at approximately 9:45 AM
Action Taken	Discharged had already ceased.
Date/Time Discharge Ceased	Unknown
Estimated Volume	4,500 gallons
Did Overflow Reach Receiving water?	Yes. The Anacostia River.
Action taken to prevent reoccurrence	We will coordinate with our Engineering Department to conduct close circuit television (CCTV) inspection to assess the condition of the line and determine what additional steps may be needed to prevent a reoccurrence at the location.

## SOLIDS AND FLOATABLES CONTROL

### 3.1 Catch Basin Cleaning

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

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	1,591	1,568	734	133	0	325	235	58	51	383	286
2	4,714	4,112	2,316	922	66	1477	1293	403	371	1880	1664
3	3,555	461	-	0	0	1292	232	1603	458	2895	690
4	2,782	1,985	159	159	63	3101	1789	89	63	3190	1852
5	2,167	1,035	1,035	373	0	378	327	69	46	447	373
6	1,783	1,594	1,594	1147	211	1249	1069	88	78	1337	1147
7	2,313	-	-	0	0	725	0	190	0	915	0
8	1,278	116	116	116	75	2166	545	149	46	2315	591
Subtotal	<b>20,183</b>	<b>10,871</b>	<b>5,954</b>	<b>2,850</b>	<b>415</b>	<b>10,713</b>	<b>5,490</b>	<b>2,649</b>	<b>1,113</b>	<b>13,362</b>	<b>6,603</b>
DDOT (via VMS) Subtotal											
Grand Total	<b>20,183</b>	<b>10,871</b>	<b>5,954</b>	<b>48%</b>	<b>7%</b>					<b>13,362</b>	<b>6,603</b>
% Cleaned/Inspected to Date										<b>66%</b>	<b>61%</b>

### 3.2 BMP Demonstration Projects

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 3-2**  
**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 (CY)</i>
Netting System CSO 018	6/10/2014	Good	Replace nets	Replaced nets	200 pounds
Bar Rack CSO 040	6/5/2014	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	6/5/2014	Good	None	Routine Cleaning	(1)

Notes:

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



### 3.3 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 3-3  
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>	16
<i>Reason not Operating</i>	Offloading conveyor removed for repairs (15). High winds (1).
<i># Skimmer in Fleet</i>	3 Skimmers
<i># Skimmers Out of Service</i>	1 Skimmer
<i>Dates</i>	B28: 6/1 - 6/3 B29: 6/1 - 6/30 B32: 6/4 -6/5
<i>Reason</i>	B28: Loading screen chain broken. B29: Front assembly catching on hull. B32: Engine bogging down at operating RPM.
<i>Plan to Restore to Service</i>	B28: Cleared by Fleet for operation on 6/3. B29: At contractor for troubleshooting and repairs. ETR unknown. B32: Cleared by Fleet for operation on 6/6.
<i>Volume Material Collected</i>	50 tons.
<i>Nature of Material</i>	Bottles, cans, natural debris and plastics.

### 3.4 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.

#### 4. MONITORING

##### 4.1 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 4-1  
Bar Racks at Main & O Street Pumping Stations**

Inspector: Gregory Stephens

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)	GS	6/25	X			
Bar Racks at Main Storm Pumps (CSO 011)	GS	6/25	X			

## **4.2 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
6/1/2014	0.00	0	0	0
6/2/2014	0.00	0	0	0
6/3/2014	1.08	0.58	0.03	0.1
6/4/2014	0.33	0.25	0.33	0.25
6/5/2014	0.07	0.1	0.08	0.07
6/6/2014	0.00	0	0	0
6/7/2014	0.00	0	0	0
6/8/2014	0.09	0.07	0.11	0.14
6/9/2014	0.22	0.25	0.28	0.22
6/10/2014	0.18	0.01	1.09	0.04
6/11/2014	0.44	1.13	0.37	0.55
6/12/2014	0.03	0.06	0.01	0.02
6/13/2014	0.28	0.45	0.12	0.75
6/14/2014	0.00	0.01	0	0
6/15/2014	0.00	0	0	0
6/16/2014	0.00	0	0	0
6/17/2014	0.00	0	0	0
6/18/2014	0.00	0	0	0
6/19/2014	0.00	0	0	0.05
6/20/2014	0.00	0	0	0
6/21/2014	0.03	0.03	0	0
6/22/2014	0.01	0	0.05	0
6/23/2014	0.00	0	0	0
6/24/2014	0.00	0	0	0
6/25/2014	0.80	0.16	0.78	0.15
6/26/2014	0.00	0.06	0	0
6/27/2014	0.00	0	0	0
6/28/2014	0.00	0	0	0
6/29/2014	0.00	0	0	0
6/30/2014	0.00	0	0	0
TOTAL	3.56	3.16	3.25	2.34

District of Columbia Water and Sewer Authority

**Combined Sewer System Model Results**

Period: April, May, and June 2014

SCENARIO: Y2014\_Q2, produced July 9, 2014

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	18	4.72	53.50	2.97	14.25	0.25
006	Good Hope Road, West of Nichols Ave., SE	separated					
007	13 <sup>th</sup> Street and Ridge Place, SE	12	5.02	18.25	1.52	7.25	0.25
009	2nd Street, 300 feet North of N Place, SE	11	3.27	21.25	1.93	7.00	0.50
010	O Street Sewage Pumping Station, SE (pumped Overflow)	8	47.19	11.75	1.47	6.25	0.25
011	South of Main Sewage Pumping Station, SE (pumped overflow)	0	0.00	0.00	0.00	0.00	0.00
011a	South of Main Sewage Pumping Station, SE (gravity overflow)	0	0.00	0.00	0.00	0.00	0.00
012	North of Main Sewage Pumping Station, SE (Tiber Creek)	3	2.37	4.75	1.58	3.25	0.50
013	4th and N Streets, SE	13	2.43	25.00	1.92	7.50	0.25
014	6th and M Streets, SE	11	8.31	33.50	3.05	11.75	0.25
015	9th and M Streets, SE	12	1.73	14.75	1.23	5.25	0.25
016	12th and M Streets, SE	7	5.77	16.00	2.29	6.50	0.75
017	14th and M Streets, SE	16	15.34	63.00	3.94	20.25	0.25
018	Barney Circle and Pennsylvania Ave, SE	12	7.59	28.50	2.38	11.50	0.25
019	Northeast Boundary - Swirl Effluent	17	287.81	116.50	6.85	35.25	0.50
019	Northeast Bound. - Swirl Bypass	4	33.02	5.25	1.31	2.25	0.25
	<b>SUBTOTAL</b>		<b>424.57</b>				
<b>Potomac CSOs</b>							
003	Bolling AFB	0	0.00	0.00	0.00	0.00	0.00
020	23rd Street, North of Constitution Ave, NW (Easby Point)	6	10.93	18.75	3.13	8.00	0.75
021	Northeast of Roosevelt Bridge, NW	8	115.74	28.75	3.59	11.50	0.50
022	27th and K Streets, NW	16	1.51	31.75	1.98	14.25	0.25
024	30th and K Streets, NW	7	14.07	33.25	4.75	14.00	0.25
025	31st & K St NW	5	0.17	4.25	0.85	2.25	0.25
026	Wisconsin Avenue and K St., NW	0	0.00	0.00	0.00	0.00	0.00
027	Water Street West of Street, NW	18	13.16	100.25	5.57	31.25	1.00
028	36th and M Streets, NW	18	1.90	34.75	1.93	11.50	0.25
029	Canal Road 1000 feet east of Rock Creek, NW	4	2.22	8.00	2.00	3.25	0.75
	<b>SUBTOTAL</b>		<b>159.72</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 extended west of 25th Street, NW	0	0.00	0.00	0.00	0.00	0.00
034	23rd and O Streets, SW	0	0.00	0.00	0.00	0.00	0.00
035	22nd Street south of Q Street, NW	0	0.00	0.00	0.00	0.00	0.00
036	22nd Street South of Q Street, NW	7	0.204	15.50	2.21	7.25	0.25
037	Northwest of Belmont and Rock Creek and Potomac Parkway	separated					
038	North of Belmont Road, east of Kalorama Circle, NW	0	0.00	0.00	0.00	0.00	0.00
039	Connecticut Avenue east of Rock Creek, NW	0	0.00	0.00	0.00	0.00	0.00
040	Biltmore Street extended east of Rock Creek, NW	0	0.00	0.00	0.00	0.00	0.00
041	Ontario extended and Rock Creek Parkway	0	0.00	0.00	0.00	0.00	0.00

District of Columbia Water and Sewer Authority

**Combined Sewer System Model Results**  
**Period: April, May, and June 2014**

**SCENARIO: Y2014\_Q2, produced July 9, 2014**

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)
042	Harvard Street and RockCreek Parkway, NW	0	0.00	0.00	0.00	0.00	0.00
043	Adams Mill Road South of Irving Street, NW	1	0.03	0.25	0.25	0.25	0.25
044	Kenyon Street and Adams Mill Road, NW	0	0.00	0.00	0.00	0.00	0.00
045	Adams Mill Road and Lamont Street, NW	1	0.01	0.25	0.25	0.25	0.25
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	0.00	0.00	0.00	0.00	0.00
048	Mt. Pleasant Street extended and Piney Branch Parkway	1	0.004	0.25	0.25	0.25	0.25
049	Piney Branch and LamontStreet, NW	10	11.318	25.50	2.55	11.00	0.25
050	28th Street west of 16th Street, NW	0	0.00	0.00	0.00	0.00	0.00
051	Olive Street extended and Rock Creek Parkway, NW	0	0.00	0.00	0.00	0.00	0.00
052	O Street extended and Rock Creek Parkway, NW	0	0.00	0.00	0.00	0.00	0.00
053	O Street west of Rock Creek Parkway, NW	separated					
054	West Side of Rock Creek300 ft. south of Mass. Ave, NW	0	0.00	0.00	0.00	0.00	0.00
056	Normanstone Drive extended west of Rock Creek, NW	0	0.00	0.00	0.00	0.00	0.00
057	28th Street extended west of Rock Creek, NW	5	3.77	33.50	6.70	17.25	0.75
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>15.34</b>				
	<b>TOTAL</b>		<b>599.63</b>				

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