

QUARTERLY OPERATIONS REPORT

DISTRICT OF COLUMBIA

COMBINED SEWER OVERFLOW FACILITIES

THIRD QUARTER, 2009

Prepared By:

D.C. Water and Sewer Authority
Department of Sewer Services
Sewer Pumping Division
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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: July 2009**

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DISTRICT OF COLUMBIA
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*Monthly Operations Report for Combined Sewer System
Month: July 2009*

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1. INTRODUCTION

The District of Columbia Water and Sewer Authority (WASA or Authority) 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 Authority'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 MAINTENANCE

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**

<i>Struct No.</i>	<i>Location</i>	<i>Associated NPDES Outfall</i>	<i>Date Inspected</i>	<i>Condition</i>		<i>Work Needed</i>	<i>Work performed</i>
				Good	Needs Work		
2	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	07/10/09	*			
4	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	07/10/09	*			
5	Poplar Point Pumping Station	004	07/16/09	*			
6	Chicago Street and Railroad Ave, SE	005	07/06/09	*			
7	W Street and Railroad Ave, SE	005	07/06/09	*			
8	Good Hope Rd, west of Nichols Ave, SE	006	07/06/09	*			
9	13 th Street and Ridge Place, SE	007	07/06/09	*			
11	"O" Street Pumping Station	011(a)	07/16/09	*			
12	Storm Pump Discharge at Main Pumping Station	011	07/16/09	*			
13	2 nd Street, 300 ft. north of N Place, SE	009	07/08/09	*			
14	2 nd Street, 250 ft. north of N Place, SE	011(a)	07/16/09	*			
15	South Capitol and E Streets	010	07/16/09	*			
15a	Half and L Streets, SE	010	07/16/09	*			
15b	South Capitol and I Streets	010	07/14/09	*			
15c	South Capitol and I Streets	010	07/14/09	*			
16	North of Main Sewage Pumping Station	012	07/07/09	*			
17	4 th and N Streets, SE, Both Extended	013	07/07/09	*			
17a	K Street between 6 th Street and 7 th Street, SE	013	07/31/09	*			
18	6 th and M Streets, SE	014	07/07/09	*			
19	9 th and M Streets, SE	015	07/02/09	*			
19a	9 th and M Streets, SE	015	07/02/09	*			
20	12 th and M Streets, SE	016	07/02/09	*			
20a	12 th and M Streets, SE	016	07/02/09	*			
21	14 th and M Streets, SE	017	07/20/09	*			
22a	Barney Circle and Pennsylvania Ave, SE	018	07/20/09	*			

Struct No.	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
22b	Barney Circle and Pennsylvania Ave, SE	018	07/06/09	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	07/06/09	*			
22d	Kentucky Ave and Potomac Street, SE	018	07/20/09	*			
22e	14 th Street and Kentucky Ave, SE	018	07/20/09	*			
23	Independence Ave, 21 st Street, SE, Extended	019	07/27/09	*			
24a	East Capitol St, west of RFK stadium	019	07/27/09	*			
28	21 st and Constitution Ave, NW	020	07/21/09	*			
29	22 nd Street, between Constitution Ave and C St, NW	020	07/21/09	*			
30	17 th and D Streets, NW	020	07/06/09	*			
31	15 th Street and Pennsylvania Ave, NW	020	07/06/09	*			
33	10 th and F Streets, NW	020	07/06/09	*			
34	23 rd Street, north of Constitution Ave, NW	020	07/21/09	*			
34a	23 rd Street near C Street, NW	020	07/21/09	*			
35	Northeast of Roosevelt Bridge, NW	021	07/21/09	*			
36	27 th and I Streets, NW	022	07/20/09	*			
36a	New Hampshire Ave and Eye Street, NW	022	07/20/09	*			
36b	19 th and L Streets, NW	022, 034	07/17/09	*			
36d	17 th and L Streets, NW	022, 034	07/17/09	*			
36g	18 th and M Streets, NW	022, 034	07/17/09	*			
36h	18 th and M Streets, NW	022, 034	07/17/09	*			
37	27 th and Eye Streets, NW	022	07/20/09	*			
38	29 th and K Streets, NW	024	07/06/09	*			
38a	30 th Street, south of K Street, NW	024	07/06/09	*			
39a	30 th and K Streets, NW	024	07/06/09	*			
39b	30 th and K Streets, NW	024	07/06/09	*			
41b	31 st and K Streets, NW	025	07/17/09	*			
41c	31 st and K Streets, NW	025	07/17/09	*			
42	Wisconsin Ave and K Street, NW	026	07/14/09	*			

Struct No.	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
43	Potomac and Water Streets, NW	027	07/14/09	*			
43a	Potomac and Water Streets, NW	027	07/14/09	*			
44	Water Street, west of Potomac St, NW	027	07/14/09	*			
45	36 th and M Streets, NW	028	07/17/09	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	07/01/09	*			
47	38 th Street and Reservoir Road, NW	029	07/01/09	*			
47a	37 th and T Streets, NW	029	07/01/09	*			
47b	37 th and T Streets, NW	029	07/01/09	*			
47c	38 th and W Streets, NW	029	07/01/09	*			
49	Pennsylvania Ave, east side of Rock Creek, NW	031	07/20/09	*			
50	26 and M Streets, NW	032	07/20/09	*			
51	N Street Extended, west of 25 th Street, NW	033	07/20/09	*			
52	22 nd Street between M and N Streets, NW	034	07/21/09	*			
52a	N Street between 22 nd and 23 rd Streets, NW	034	07/21/09	*			
53	22 nd and M Streets, NW	022, 034	07/21/09	*			
53a	22 nd and M Streets, NW	022, 034	07/21/09	*			
53b	L Street between 21 st Street and New Hampshire Ave, NW	022, 034	07/17/09	*			
53c	L and 22 nd Streets, NW	022	07/17/09	*			
54	23 rd and O Streets, NW	034	07/27/09	*			
55	22 nd Street, south of Q Street, NW	035	07/27/09	*			
55a	22 nd Street, south of Q Street, NW	035	07/27/09	*			
56	23 rd and Massachusetts Ave, NW	036	07/27/09	*			
57	23 rd Street, south of Q Street, NW	036	07/27/09	*			
58	Northwest of Belmont Road and Rock Creek and Potomac Parkway, NW	037	07/17/09	*			
59	North of Belmont Rd, east of Kalorama Cir, NW	038	07/17/09	*			
60	Connecticut Ave, east of Rock Creek, NW	039	07/09/09	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	07/09/09	*			
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	07/14/09	*			

Struct No.	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
63	Harvard Street and Rock Creek Parkway, NW	042	07/14/09	*			
64	Adams Mill Road, south of Irving Street, NW	043	07/14/09	*			
65	Kenyon Street and Adams Mill Road, NW	044	07/14/09	*			
65a	Kenyon Street and Adams Mill Road, NW	044	07/14/09	*			
66	Adams Mill Road and Lamont Street, NW	045	07/14/09	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	07/14/09	*			
68	Ingleside Terrace, Extended and Piney Branch Parkway, NW	047	07/14/09	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	07/14/09	*			
70	Piney Branch Parkway, west of 16 th Street, NW	049	07/14/09	*			
70i	5 th and Quackenbos Streets, NW	049	07/07/09	*			
71	28 th Street, west of Rock Creek Parkway, NW	050	07/24/09	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	07/27/09	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	07/27/09	*			
73	O Street Extended and Rock Creek Parkway, NW	052	07/27/09	*			
74	Q Street, west of Rock Creek, NW	053	07/27/09	*			
75	West side of Rock Creek, 300 ft. south of Massachusetts Ave, NW	054	07/31/09	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	07/31/09	*			
77a	Normanstone Dr and Normanstone Lane, NW	056	07/31/09	*			
78	28th Street Extended, west of Rock Creek, NW	057	07/31/09	*			
79	Connecticut Ave and Rock Creek Parkway, NW	058	07/09/09	*			
84	26 th and P Streets, NW	060	07/27/09	*			
84a	26 th and P Streets, NW	060	07/27/09	*			

Notes:

1. For regulators noted as “visually checked outfall”, the outfall was visually observed to confirm no DWO was occurring.
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 - 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	07/10/09	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	07/01/09	*		*		*		*		
006	Good Hope Road and Welsh Memorial Bridge	07/01/09	*		*		*		*		
007	Between 11 th St. and Anacostia Bridges, SE	07/01/09	*		*		*		*		
009	O St. Sewage Pumping Station, SE	07/28/09	*		*		*		*		
010	O St. Sewage Pumping Station, SE	07/28/09	*			*			*		
011	Main Sewage Pumping Station, SE	07/28/09	*			*			*		
011(a)	Main Sewage Pumping Station, SE	07/28/09	*		*		*		*		
012	Main Sewage Pumping Station, SE	07/28/09	*		*		*		*		
013	Southeast Federal Center, aligned with 4 th St.	07/07/09	*		*		*		*		
014	Navy Yard, aligned with 6 th St., SE	07/28/09	*		*		*		*		
015	Navy Yard, aligned with 9th Street, SE	07/28/09	*			*			*		
016	12th and O Streets, SE	07/23/09	*		*		*		*		
017	M and Water Street, SE	07/23/09	*		*		*		*		
018	East of Barney Circle and South of Pennsylvania Avenue Bridge, SE	07/23/09	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility and D.C. General Hospital	07/27/09	*			*			*		
020	Rock Creek Parkway and Independence, NW	07/23/09	*		*		*		*		
021	Rock Creek Parkway and C St., NW	07/23/09	*			*			*		
022	Rock Creek Parkway and G St., NW	07/20/09	*		*		*		*		

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	
024	South of 30 th and K Streets, NW	07/23/09	*		*			*	*		WASA has developed a capitol project to design and construct a replacement gate for improved performance.
025	South of 31st and K Streets, NW	07/23/09	*		*		*	*			
026	Wisconsin Avenue and Water Street, NW	07/23/09	*		*		*	*			
027	33 rd and Water Sts., NW	07/23/09	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	07/23/09	*			*			*		
029	Adjacent to C&O Canal, aligned with 38 th St. NW	07/23/09	*		*		*		*		
031	Rock Creek Pkwy and Pennsylvania Avenue, NW.	07/20/09	*			*			*		
032	26th and M Street, NW.	07/20/09	*			*			*		
033	Across street from St. Francis Jr. High and aligned with N St., NW.	07/20/09	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	07/27/09	*		*		*		*		
035	P St. Bridge and Rock Creek Parkway	07/27/09	*		*		*		*		
036	22nd Street, South of Q Street NW.	07/09/09	*		*		*		*		
037	Waterside Dr. and Rock Creek Parkway	07/17/09	*		*		*		*		
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	07/17/09	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	07/09/09	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	07/09/09	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	07/23/09	*		*		*		*		
042	Harvard St. and Beach Dr NW.	07/23/09	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	07/23/09	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	07/23/09	*		*		*		*		

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	
045	North of Beach Dr. and Walbridge Pl, NW.	07/23/09	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	07/14/09	*			*			*		
047	Piney Branch Parkway and Ingleside Terrace	07/14/09	*		*		*		*		
048	South of Piney Branch Parkway and 17 th St.	07/14/09	*		*		*		*		
049	North of Piney Branch Parkway and 17 th St.	07/14/09	*		*		*		*		
050	Rock Creek Parkway and L St., NW	07/24/09	*		*		*		*		
051	Across Rock Creek Parkway, aligned with Olive St., NW.	07/31/09	*		*		*		*		
052	Between P and Penna. Ave Bridges, aligned with O Street, NW.	07/31/09	*		*		*		*		
053	Q St. Bridge and Rock Creek Parkway, NW.	07/09/09	*		*		*		*		
054	Massachusetts Avenue and Rock Creek Parkway, NW.	07/31/09	*		*		*		*		
056	Normanstone Dr. and Rock Creek Parkway, NW.	07/31/09	*		*		*		*		
057	28th Street and Rock Creek Parkway, NW	07/31/09	*		*		*		*		
058	Connecticut Avenue and Rock Creek Parkway, NW.	07/09/09	*			*			*		
060	North of P Street Bridge and Rock Creek Pkwy, NW	07/09/09	*		*		*		*		

Notes:

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</i>
Main	31	4	12	Screen #2	July 1-31	Motor bearing	August 2009
				Pump #2	July 22-31	Motor seal bad leaking oil	September 2009
Eastside	31	2	4	Screen#1	July 1-18	Pivot pin for Assembly broken	July 19 2009
				Pump#1	July 24-31	VFD failure /needs reprogramming	July 31 2009
				Screen #1	July 19-31	Motor coupling	August 2009
Poplar Point	31	2 ¹	3	Screen #1	July 1-31	Reconstruction	August 2009
				Pump #1	July 1-31	Replacement	August 2009
Potomac	31	4	5	Screen #3	July 1-31	Reconstruction	September 2009
				Sanitary Pump #4	July 1-31	Reconstruction	September 2009
				Screen#2	July 22	Replacement	August 2009

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 Performed¹</i>	<i>Comments</i>
Main	07/29/09	Group A	Add oil, grease bearings and replace packing if needed.
O St	07/29/09	Group A	Add oil, grease bearings and replace packing if needed.
Eastside	07/29/09	Group A	Add oil, grease bearings and replace packing if needed.
Poplar Point	07/29/09	Group A	Add oil, grease bearings and replace packing if needed.
Potomac	07/29/09	Group A	Add oil, grease bearings and replace packing if needed.
Rock Creek	07/29/09	Group A	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	07/29/09	Group A	Add oil, grease bearings and replace packing if needed.
Earle Place	07/29/09	Group A	Add oil, grease bearings and replace packing if needed.

Notes:

1. Group A consists of:

Exercise bar screens

Exercise all sump pumps

Drain condensation from air compressor storage tank

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

Check all safety equipment

Issue work order requests as required

**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)</i>
Main	1,701.90	54.90	N/A	N/A	N/A
O St ¹	183.10	5.91	N/A	N/A	Normal
Eastside	421.60	13.60	N/A	N/A	N/A
Poplar Point	384.30	12.40	N/A	N/A	N/A
Potomac	3,508.70	113.18	N/A	N/A	N/A
Rock Creek	244.90	7.90	N/A	N/A	N/A
Upper Anacostia	48.20	1.55	N/A	N/A	N/A
Earle Place	0.16	0.01	N/A	N/A	N/A

Notes:

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

2-4 Northeast Boundary Swirl Facility

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

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

<i>Date Inspected</i>	<i># Screens</i>	<i># Swirls</i>	<i>Screens or Swirls Out of Service</i>	<i>Dates</i>	<i>Reason</i>	<i>Schedule to Restore to Service</i>
07/27/07	1,2 & 3	1,2 & 3	None	N/a	N/a	N/a

Table 2-7
Northeast Boundary Swirl Facility – Preventive Maintenance

<i>Date Performed</i>	<i>Type of Preventive Maintenance Performed¹</i>	<i>Comments</i>
07/27/07	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 Duration¹ (Hours)</i>	<i>Total Influent Volume (mg)</i>	<i>Total Foul Sewer Volume (mg)</i>	<i>Total Effluent Volume² (mg)</i>	<i>Approx. Screenings Volume³ # of bins (cu ft)</i>
7/1/2009	2	0.79	0.79	0	0.1(8)
7/23/2009	1	0.57	0.402	0.168	0.3(24)
7/23/2009	8	23.81	2.5	21.031	1.62(128)
7/24/2009	6	3.58	3.58	0	0.1(8)
7/27/2009	5	10.6	10.06	0	0.4(32)
7/31/2009	4	4.82	2.452	2.368	0.40(32)

Note

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/Dechl or System Used?</i>	<i>Dosages</i>		<i>Residual Chlorine Test Results</i>		<i>Enterococcus Test Results</i>		<i>Fecal Coliform Test Results</i>	
		<i>NaOCl (mg/l)</i>	<i>NaHSO₃ (mg/l)</i>	<i>Location</i>	<i>Conc. (mg/l)</i>	<i>Site</i>	<i>Count Per 100ml</i>	<i>Site</i>	<i>Count Per 100ml</i>
7/23/09	Yes	5	2	Mix Chamber	0.1	Mix Chamber	38,000	Mix Chamber	220,000
7/23/09	Yes	5	2	Anacostia River	00	Anacostia River	20,000	Anacostia River	48,000
7/24/09	Yes	5	2	Mix Chamber	0.2	Mix Chamber	7,270	Mix Chamber	45,000
7/24/09	Yes	5	2	Anacostia River	00	Anacostia River	27,000	Anacostia River	51,000
7/31/09	Yes	5	2	Mix Chamber	0.1	Mix Chamber	490,000	Mix Chamber	1,210,000
7/31/09	Yes	5	2	Anacostia River	00	Anacostia River	18	Anacostia River	410

Notes:

1. Mix Chr.: Mixing Chamber
2. River: River Outfall

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

<i>Date</i>	<i>Flow Composited Sample Results</i>						
	<i>Total suspended solids (mg/L)</i>	<i>Nitrite (NO₂-N) mg/L</i>	<i>Nitrate (NO₃-N) mg/L</i>	<i>Total Kjeldahl Nitrogen (mg/L as N)</i>	<i>Total Nitrogen (mg/L)</i>	<i>Total Phosphorus (mg/L)</i>	<i>Carbonaceous Biological Oxygen Demand (mg/L)</i>
7/23/09	78.0	0.00	0.55	1.87	2.42	0.47	125
7/31/09	16	0.00	0.00	3.00	3.00	0.84	12.7

2.5 Inflatable Dams

WASA 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	07/29/09	No	N/A	N/A	N/A
14 - West	07/29/09	No	N/A	N/A	N/A
15	07/29/09	No	N/A	N/A	N/A
15A	07/29/09	No	N/A	N/A	N/A
16 - East	07/29/09	No	N/A	N/A	N/A
16 - West	07/29/09	No	N/A	N/A	N/A
24 - North	07/29/09	No	N/A	N/A	N/A
24 - Middle	07/29/09	No	N/A	N/A	N/A
24 - South	07/29/09	No	N/A	N/A	N/A
34	07/29/09	No	N/A	N/A	N/A
35	07/29/09	No	N/A	N/A	N/A
52	07/29/09	No	N/A	N/A	N/A

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

<i>Inflatable Dam Structure No.</i>	<i>Overflow Dates</i>	<i>Estimated Duration of Overflow (hrs)</i>
14 (E & W)	7/23/09	10 min
15	7/23/09	5 hr 20 min
15A	7/23/09 7/24/09	4 hr 50 min 22 min
16 (E & W)	7/23/09	9 hr 40 min
24	7/23/09	50 min
35	7/23/09 7/27/09	1 hr 20 min 26 min
34	7/23/09	48 min
52	7/23/09	5 min
<i>Structures on Outfall Sewers</i>	<i>Overflow Dates</i>	<i>Estimated Duration of Overflow (hrs)</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(E & W)	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

Dry weather overflows (DWOs), are summarized below:

**Table 3-1
DRY WEATHER DISCHARGES**

There was no record or knowledge of dry weather discharges.

4. SOLIDS AND FLOATABLES CONTROL

4.1 Catch Basin Cleaning

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

Table 4-1 Catch Basin Summaries

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	734	734	1857	1504	8	8	1865	1512
2	4,714	4,112	2,316	2316	1005	4812	4015	126	88	4938	4103
3	3,555	461	-	0	0	2065	265	51	43	2116	308
4	2,782	1,985	159	116	0	1273	824	87	54	1360	878
5	2,167	1,035	1,035	1035	874	3490	1812	299	97	3789	1909
6	1,783	1,594	1,594	1594	158	1686	1078	755	674	2441	1752
7	2,313	-	-	0	0	520	0	1360	0	1880	0
8	1,278	116	116	116	33	405	119	57	30	462	149
WASA Subtotal	20,183	10,871	5,954	5,911	2,804	16,108	9,617	2,743	994	18,851	10,611
DDOT (via VMS) Subtotal				0	0			0	0	0	0
Grand Total	20,183	10,871	5,954	5,911	2,804			2,743	994	18,851	10,611
% Cleaned/Inspected to Date				99%	47%					93%	98%

4.2 BMP Demonstration Projects

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

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

Table 4-2
BMP Demonstration Projects – Report

<i>Facility</i>	<i>Date Inspected</i>	<i>Condition</i>	<i>Work Needed</i>	<i>Work performed</i>	<i>Material Removed (CY)</i>
Netting System CSO 018	7/1/09 and 7/24/09	Good	Minor Maintenance	Nets emptied.	285 lbs.
Bar Rack CSO 040	7/9/09	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	7/23/09	Good	None	Routine Cleaning	(1)

Notes:

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

4.3 Anacostia River Floating Debris Removal Program

This program was initiated in September 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 WASA, Department of Sewer Services. The floating debris removal program utilizes a skimmer boat and support boats to remove floatable debris from the Rivers as well as trash, which accumulates on the riverbanks and in the mud flats at low tides. Work for the most part is directed toward the Anacostia River. The boats pick up debris five days a week. Operations are summarized as follows:

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

<i>Program Operation</i>	5-day work week, excluding holidays, weather permitting
<i>Work Days this month:</i>	22
<i>Days not Operating</i>	19
<i>Reason not Operating</i>	Maintenance on Skimmers
<i># Skimmer in Fleet</i>	2 skimmers
<i># Skimmers Out of Service</i>	2
<i>Dates</i>	B-28, 1/1/09 to present B-29, 7/6/09 thru 7/31/09.
<i>Reason</i>	B-28. Replacing defective wing screens, transmission and hydraulic pump – waiting on parts to rebuild skimmer. B -29 : Repairs to screen on skimmer.
<i>Plan to Restore to Service</i>	As soon as possible.
<i>Volume Material Collected</i>	20 ton.
<i>Nature of Material</i>	Bottles, cans, natural debris and plastics.

4.4 CSS Litter Control

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

Status: no activities this month.

5. MONITORING

5.1 Visual Wet Weather Surveys at Main & O

WASA performs visual surveys of the CSO overflows at Main and O Street Pumping Station to characterize the quantity and nature of floatable discharged. Results are as follows:

**Table 5-1
CSO 010, 011, 011, 012 Visual Wet Weather Survey Summaries
SOLIDS AND FLOATABLES VISUAL SURVEY FORM**

CSO	Time of Observation	Date:		Observed			Quantity of			Quantity of			REMARKS/OTHER
		Y	N	L	M	H	L	M	H	L	M	H	
009													
010													
011													
011a													
012													

Note: L= Low, M= Moderate, H= High

5.2 Rain Data

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

Table 5-2 Rainfall Data (inches)

Monthly Rain Totals

Date	Brentwood Reservoir	Bryant St PS	Main PS	Rock Creek PS
7/1/2009	0	0	0	0
7/2/2009	0	0	0	0
7/3/2009	0	0	0	0
7/4/2009	0	0	0	0
7/5/2009	0	0	0	0
7/6/2009	0	0	0	0
7/7/2009	0	0	0	0
7/8/2009	0	0	0	0
7/9/2009	0	0	0	0
7/10/2009	0	0	0	0
7/11/2009	0	0	0	0
7/12/2009	0	0	0	0
7/13/2009	0	0	0	0
7/14/2009	0	0	0	0
7/15/2009	0	0	0	0
7/16/2009	0	0	0	0
7/17/2009	0	0	0.16	0
7/18/2009	0	0	0	0
7/19/2009	0	0	0	0
7/20/2009	0	0	0	0
7/21/2009	0	0	0	0
7/22/2009	0	0	0	0
7/23/2009	3.02	3.02	0.96	3.02
7/24/2009	0	0	0.01	0
7/25/2009	0.1	0.1	0.08	0.1
7/26/2009	0	0	0	0
7/27/2009	0	0	0	0
7/28/2009	0	0	0	0
7/29/2009	0.05	0.05	0.03	0.05
7/30/2009	0	0	0	0
7/31/2009	0.16	0.16	0.11	0.16
TOTALS	3.33	3.33	1.35	3.33



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

**Monthly Operations Report
For
Combined Sewer System
Month: August 2009**

Prepared By:
D.C. 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: August 2009

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1. INTRODUCTION

The District of Columbia Water and Sewer Authority (WASA or Authority) 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 Authority'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 MAINTENANCE

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**

<i>Struct No.</i>	<i>Location</i>	<i>Associated NPDES Outfall</i>	<i>Date Inspected</i>	<i>Condition</i>		<i>Work Needed</i>	<i>Work performed</i>
				<i>Good</i>	<i>Needs Work</i>		
2	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	08/11/09	*			
4	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	08/11/09	*			
5	Poplar Point Pumping Station	004	08/12/09	*			
6	Chicago Street and Railroad Ave, SE	005	08/05/09	*			
7	W Street and Railroad Ave, SE	005	08/05/09	*			
8	Good Hope Rd, west of Nichols Ave, SE	006	08/05/09	*			
9	13 th Street and Ridge Place, SE	007	08/05/09	*			
11	"O" Street Pumping Station	011(a)	08/12/09	*			
12	Storm Pump Discharge at Main Pumping Station	011	08/12/09	*			
13	2 nd Street, 300 ft. north of N Place, SE	009	08/24/09	*			
14	2 nd Street, 250 ft. north of N Place, SE	011(a)	08/12/09	*			
15	South Capitol and E Streets	010	08/20/09	*			
15a	Half and L Streets, SE	010	08/20/09	*			
15b	South Capitol and I Streets	010	08/12/09	*			
15c	South Capitol and I Streets	010	08/12/09	*			
16	North of Main Sewage Pumping Station	012	08/24/09	*			
17	4 th and N Streets, SE, Both Extended	013	08/07/09	*			
17a	K Street between 6 th Street and 7 th Street, SE	013	08/07/09	*			
18	6 th and M Streets, SE	014	08/03/09	*			
19	9 th and M Streets, SE	015	08/07/09	*			
19a	9 th and M Streets, SE	015	08/07/09	*			
20	12 th and M Streets, SE	016	08/07/09	*			
20a	12 th and M Streets, SE	016	08/07/09	*			
21	14 th and M Streets, SE	017	08/13/09	*			
22a	Barney Circle and Pennsylvania Ave, SE	018	08/07/09	*			

Struct No.	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
22b	Barney Circle and Pennsylvania Ave, SE	018	08/07/09	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	08/07/09	*			
22d	Kentucky Ave and Potomac Street, SE	018	08/07/09	*			
22e	14 th Street and Kentucky Ave, SE	018	08/07/09	*			
23	Independence Ave, 21 st Street, SE, Extended	019	08/12/09	*			
24a	East Capitol St, west of RFK stadium	019	08/12/09	*			
28	21 st and Constitution Ave, NW	020	08/27/09	*			
29	22 nd Street, between Constitution Ave and C St, NW	020	08/27/09	*			
30	17 th and D Streets, NW	020	08/05/09	*			
31	15 th Street and Pennsylvania Ave, NW	020	08/05/09	*			
33	10 th and F Streets, NW	020	08/05/09	*			
34	23 rd Street, north of Constitution Ave, NW	020	08/27/09	*			
34a	23 rd Street near C Street, NW	020	08/27/09	*			
35	Northeast of Roosevelt Bridge, NW	021	08/27/09	*			
36	27 th and I Streets, NW	022	08/07/09	*			
36a	New Hampshire Ave and Eye Street, NW	022	08/07/09	*			
36b	19 th and L Streets, NW	022, 034	08/05/09	*			
36d	17 th and L Streets, NW	022, 034	08/05/09	*			
36g	18 th and M Streets, NW	022, 034	08/05/09	*			
36h	18 th and M Streets, NW	022, 034	08/05/09	*			
37	27 th and Eye Streets, NW	022	08/07/09	*			
38	29 th and K Streets, NW	024	08/03/09	*			
38a	30 th Street, south of K Street, NW	024	08/03/09	*			
39a	30 th and K Streets, NW	024	08/03/09	*			
39b	30 th and K Streets, NW	024	08/03/09	*			
41b	31 st and K Streets, NW	025	08/03/09	*			
41c	31 st and K Streets, NW	025	08/03/09	*			
42	Wisconsin Ave and K Street, NW	026	08/05/09	*			

Struct No.	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
43	Potomac and Water Streets, NW	027	08/05/09	*			
43a	Potomac and Water Streets, NW	027	08/05/09	*			
44	Water Street, west of Potomac St, NW	027	08/05/09	*			
45	36 th and M Streets, NW	028	08/04/09	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	08/04/09	*			
47	38 th Street and Reservoir Road, NW	029	08/04/09	*			
47a	37 th and T Streets, NW	029	08/04/09	*			
47b	37 th and T Streets, NW	029	08/04/09	*			
47c	38 th and W Streets, NW	029	08/04/09	*			
49	Pennsylvania Ave, east side of Rock Creek, NW	031	08/11/09	*			
50	26 and M Streets, NW	032	08/11/09	*			
51	N Street Extended, west of 25 th Street, NW	033	08/11/09	*			
52	22 nd Street between M and N Streets, NW	034	08/27/09	*			
52a	N Street between 22 nd and 23 rd Streets, NW	034	08/27/09	*			
53	22 nd and M Streets, NW	022, 034	08/27/09	*			
53a	22 nd and M Streets, NW	022, 034	08/27/09	*			
53b	L Street between 21 st Street and New Hampshire Ave, NW	022, 034	08/17/09	*			
53c	L and 22 nd Streets, NW	022	08/17/09	*			
54	23 rd and O Streets, NW	034	08/17/09	*			
55	22 nd Street, south of Q Street, NW	035	08/17/09	*			
55a	22 nd Street, south of Q Street, NW	035	08/17/09	*			
56	23 rd and Massachusetts Ave, NW	036	08/17/09	*			
57	23 rd Street, south of Q Street, NW	036	08/17/09	*			
58	Northwest of Belmont Road and Rock Creek and Potomac Parkway, NW	037	08/24/09	*			
59	North of Belmont Rd, east of Kalorama Cir, NW	038	08/24/09	*			
60	Connecticut Ave, east of Rock Creek, NW	039	08/14/09	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	08/14/09	*			
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	08/14/09	*			

Struct No.	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
63	Harvard Street and Rock Creek Parkway, NW	042	08/19/09	*			
64	Adams Mill Road, south of Irving Street, NW	043	08/19/09	*			
65	Kenyon Street and Adams Mill Road, NW	044	08/19/09	*			
65a	Kenyon Street and Adams Mill Road, NW	044	08/19/09	*			
66	Adams Mill Road and Lamont Street, NW	045	08/19/09	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	08/19/09	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	08/19/09	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	08/19/09	*			
70	Piney Branch Parkway, west of 16 th Street, NW	049	08/19/09	*			
70i	5 th and Quackenbos Streets, NW	049	08/04/09	*			
71	28 th Street, west of Rock Creek Parkway, NW	050	08/13/09	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	08/17/09	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	08/17/09	*			
73	O Street Extended and Rock Creek Parkway, NW	052	08/17/09	*			
74	Q Street, west of Rock Creek, NW	053	08/17/09	*			
75	West side of Rock Creek, 300 ft. south of Massachusetts Ave, NW	054	08/18/09	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	08/18/09	*			
77a	Normanstone Dr and Normanstone Lane, NW	056	08/12/09	*			
78	28th Street Extended, west of Rock Creek, NW	057	08/18/09	*			
79	Connecticut Ave and Rock Creek Parkway, NW	058	08/03/09	*			
84	26 th and P Streets, NW	060	08/17/09	*			
84a	26 th and P Streets, NW	060	08/17/09	*			

Notes:

1. For regulators noted as “visually checked outfall”, the outfall was visually observed to confirm no DWO was occurring.
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 - 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	08/11/09	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	08/06/09	*		*		*		*		
006	Good Hope Road and Welsh Memorial Bridge	08/06/09	*		*		*		*		
007	Between 11 th St. and Anacostia Bridges, SE	08/06/09	*		*		*		*		
009	O St. Sewage Pumping Station, SE	08/25/09	*		*		*		*		
010	O St. Sewage Pumping Station, SE	08/25/09	*			*			*		
011	Main Sewage Pumping Station, SE	08/25/09	*			*			*		
011(a)	Main Sewage Pumping Station, SE	08/25/09	*		*		*		*		
012	Main Sewage Pumping Station, SE	08/25/09	*		*		*		*		
013	Southeast Federal Center, aligned with 4 th St.	08/13/09	*		*		*		*		
014	Navy Yard, aligned with 6 th St., SE	08/13/09	*		*		*		*		
015	Navy Yard, aligned with 9th Street, SE	08/13/09	*			*			*		
016	12th and O Streets, SE	08/13/09	*		*		*		*		
017	M and Water Street, SE	08/13/09	*		*		*		*		
018	East of Barney Circle and South of Pennsylvania Avenue Bridge, SE	08/13/09	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility and D.C. General Hospital	08/25/09	*			*			*		
020	Rock Creek Parkway and Independence, NW	08/25/09	*		*		*		*		
021	Rock Creek Parkway and C St., NW	08/25/09	*			*			*		
022	Rock Creek Parkway and G St., NW	08/25/09	*		*		*		*		

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	
024	South of 30 th and K Streets, NW	08/25/09	*		*			*	*		WASA has developed a capitol project to design and construct a replacement gate for improved performance.
025	South of 31st and K Streets, NW	08/25/09	*		*		*	*			
026	Wisconsin Avenue and Water Street, NW	08/25/09	*		*		*	*			
027	33 rd and Water Sts., NW	08/25/09	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	08/25/09	*			*			*		
029	Adjacent to C&O Canal, aligned with 38 th St. NW	08/25/09	*		*		*		*		
031	Rock Creek Pkwy and Pennsylvania Avenue, NW.	08/11/09	*			*			*		
032	26th and M Street, NW.	08/11/09	*			*			*		
033	Across street from St. Francis Jr. High and aligned with N St., NW.	08/11/09	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	08/17/09	*		*		*		*		
035	P St. Bridge and Rock Creek Parkway	08/17/09	*		*		*		*		
036	22nd Street, South of Q Street NW.	08/17/09	*		*		*		*		
037	Waterside Dr. and Rock Creek Parkway	08/07/09	*		*		*		*		
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	08/07/09	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	08/14/09	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	08/14/09	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	08/14/09	*		*		*		*		
042	Harvard St. and Beach Dr NW.	08/06/09	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	08/06/09	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	08/06/09	*		*		*		*		

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	
045	North of Beach Dr. and Walbridge Pl, NW.	08/19/09	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	08/19/09	*			*			*		
047	Piney Branch Parkway and Ingleside Terrace	08/19/09	*		*		*		*		
048	South of Piney Branch Parkway and 17 th St.	08/19/09	*		*		*		*		
049	North of Piney Branch Parkway and 17 th St.	08/19/09	*		*		*		*		
050	Rock Creek Parkway and L St., NW	08/13/09	*		*		*		*		
051	Across Rock Creek Parkway, aligned with Olive St., NW.	08/27/09	*		*		*		*		
052	Between P and Penna. Ave Bridges, aligned with O Street, NW.	08/27/09	*		*		*		*		
053	Q St. Bridge and Rock Creek Parkway, NW.	08/11/09	*		*		*		*		
054	Massachusetts Avenue and Rock Creek Parkway, NW.	08/18/09	*		*		*		*		
056	Normanstone Dr. and Rock Creek Parkway, NW.	08/18/09	*		*		*		*		
057	28th Street and Rock Creek Parkway, NW	08/18/09	*		*		*		*		
058	Connecticut Avenue and Rock Creek Parkway, NW.	08/31/09	*			*			*		
060	North of P Street Bridge and Rock Creek Pkwy, NW	08/31/09	*		*		*		*		

Notes:

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</i>
Main	31	4	12	Pump #2	August 1-31	Motor seal bad leaking oil	September 2009
Eastside	31	2	4	None			
Poplar Point	31	2 ¹	3	None			
Potomac	31	4	5	Screen #3 Sanitary Pump #4 Screen#2	August 1-31 August 1-31 August 1-31	Reconstruction Reconstruction Replacement	September 2009 September 2009 August 2009

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 Performed¹</i>	<i>Comments</i>
Main	08/27/09	Group A	Add oil, grease bearings and replace packing if needed.
O St	08/27/09	Group A	Add oil, grease bearings and replace packing if needed.
Eastside	08/27/09	Group A	Add oil, grease bearings and replace packing if needed.
Poplar Point	08/27/09	Group A	Add oil, grease bearings and replace packing if needed.
Potomac	08/27/09	Group A	Add oil, grease bearings and replace packing if needed.
Rock Creek	08/27/09	Group A	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	08/27/09	Group A	Add oil, grease bearings and replace packing if needed.
Earle Place	08/27/09	Group A	Add oil, grease bearings and replace packing if needed.

Notes:

1. Group A consists of:

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

**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)</i>
Main	1,805.10	58.23	N/A	N/A	N/A
O St ¹	166.90	5.38	8/22/09	39.5	Normal
Eastside	468.90	15.13	N/A	N/A	N/A
Poplar Point	367.20	11.85	N/A	N/A	N/A
Potomac	3,328.70	107.38	N/A	N/A	N/A
Rock Creek	208.20	6.72	N/A	N/A	N/A
Upper Anacostia	45.50	1.47	N/A	N/A	N/A
Earle Place	0.15	0.001	N/A	N/A	N/A

Notes:

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

2-4 Northeast Boundary Swirl Facility

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

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

<i>Date Inspected</i>	<i># Screens</i>	<i># Swirls</i>	<i>Screens or Swirls Out of Service</i>	<i>Dates</i>	<i>Reason</i>	<i>Schedule to Restore to Service</i>
08/26/09	1,2 & 3	1,2 & 3	None	N/a	N/a	N/a

Table 2-7
Northeast Boundary Swirl Facility – Preventive Maintenance

<i>Date Performed</i>	<i>Type of Preventive Maintenance Performed¹</i>	<i>Comments</i>
08/26/09	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 Duration¹ (Hours)</i>	<i>Total Influent Volume (mg)</i>	<i>Total Foul Sewer Volume (mg)</i>	<i>Total Effluent Volume² (mg)</i>	<i>Approx. Screenings Volume³ # of bins (cu ft)</i>
08/02/09	3	9.26	9.26	0	0.70(56)
08/10/09	2	0.97	0.97	0	0.30(24)
08/12/09	4	4.31	4.31	0	0.45(36)
08/18/09	5	6.18	6.18	0	0.45(36)
08/22/09	8	11.53	2.34	9.19	0.60(48)

Note

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>Enterococcus Test Results</i>		<i>Fecal Coliform Test Results</i>	
		<i>NaOCl (mg/l)</i>	<i>NaHSO₃ (mg/l)</i>	<i>Location</i>	<i>Conc. (mg/l)</i>	<i>Site</i>	<i>Count Per 100ml</i>	<i>Site</i>	<i>Count Per 100ml</i>
8/22/09	Yes	5	2	Mix Chamber	0.2	Mix Chamber	21,800	Mix Chamber	15,400
8/22/09	Yes	5	2	Anacostia River	0.0	Anacostia River	48,000	Anacostia River	24,000

Notes:

1. Mix Chr.: Mixing Chamber
2. River: River Outfall

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

<i>Date</i>	<i>Flow Composited Sample Results</i>						
	<i>Total suspended solids (mg/L)</i>	<i>Nitrite (NO₂-N) mg/L</i>	<i>Nitrate (NO₃-N) mg/L</i>	<i>Total Kjeldahl Nitrogen (mg/L as N)</i>	<i>Total Nitrogen (mg/L)</i>	<i>Total Phosphorus (mg/L)</i>	<i>Carbonaceous Biological Oxygen Demand (mg/L)</i>
8/22/09	165	0.06	0.81	16.5	17.4	1.05	55.4

2.5 Inflatable Dams

WASA 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	08/25/09	No	N/A	N/A	N/A
14 - West	08/25/09	No	N/A	N/A	N/A
15	08/25/09	No	N/A	N/A	N/A
15A	08/25/09	No	N/A	N/A	N/A
16 - East	08/22/09	No	N/A	N/A	N/A
16 - West	08/22/09	No	N/A	N/A	N/A
24 - North	08/22/09	No	N/A	N/A	N/A
24 - Middle	08/22/09	No	N/A	N/A	N/A
24 - South	08/22/09	No	N/A	N/A	N/A
34	08/25/09	No	N/A	N/A	N/A
35	08/25/09	No	N/A	N/A	N/A
52	08/25/09	No	N/A	N/A	N/A

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

<i>Inflatable Dam Structure No.</i>	<i>Overflow Dates</i>	<i>Estimated Duration of Overflow (hrs)</i>
14 (E & W)	None	N/A
15	8/2	2.1 min
	8/22	8.72 min
15A	8/2	11.01 min
	8/22	54.28 min
16 (E & W)	8/1	4hr 32 min
	8/2	1hr 24 min
	8/3	5.18 min
	8/4	22.23 min
	8/5	1.06 min
	8/11	2 min
	8/12	3 min
	8/13	2min
24	8/2	6 min
	8/22	6 min
34	8/28	2 min
35	8/2	7 min
	8/22	2 min
52	None	N/A
<i>Structures on Outfall Sewers</i>	<i>Overflow Dates</i>	<i>Estimated Duration of Overflow (hrs)</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(E & W)	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

Dry weather overflows (DWOs), are summarized below:

SSO Reporting:

Location	Eastside Interceptor sewer at Hickey Run –National Arboretum – south of Hickey Lane and west of Valley Ave., NE
Cause	Leakage that entered Hickey Run from a recently repaired section of the 51-inch Eastside Interceptor sewer.
Date/Time Discovered	8/3/09 @ 2:30 p.m.
Action Taken	Mobilized contractor to put a bypass operation in place. Conducted investigations to determine the cause and source of the leak.
Date/Time Discharged Ceased	Discharge ceased when bypass pumping was started on 8/9/09 @11:00 a.m.
Estimated Volume (mg)	3,000 gallons
Did Overflow Reach Receiving water?	Yes, Hickey Run
Action taken to prevent reoccurrence	<p>Short term – Slip-lined the 51-inch Eastside Interceptor in the area of the sewer leak. Repaired and relocated a 10 inch sanitary connection.</p> <p>Long Term – DCWASA will rehabilitate the Eastside Interceptor sewer within the grounds of the National Arboretum. Planning is in progress to accelerate the project and start construction in Summer 2010.</p>

4. SOLIDS AND FLOATABLES CONTROL

4.1 Catch Basin Cleaning

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

Table 4-1 Catch Basin Summaries

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	734	734	1865	1512	20	20	1885	1532
2	4,714	4,112	2,316	2316	1050	4938	4103	55	45	4993	4148
3	3,555	461	-	0	0	2116	308	327	0	2443	308
4	2,782	1,985	159	140	24	1360	878	24	24	1384	902
5	2,167	1,035	1,035	1035	874	3789	1909	5	0	3794	1909
6	1,783	1,594	1,594	1594	191	2441	1752	92	33	2533	1785
7	2,313	-	-	0	0	1880	0	1959	0	3839	0
8	1,278	116	116	116	81	462	149	172	25	634	197
WASA Subtotal	20,183	10,871	5,954	5,935	2,954	18,851	10,611	2,654	147	21,505	10,781
DDOT (via VMS) Subtotal				0	0			0	0	0	0
Grand Total	20,183	10,871	5,954	5,935	2,954			2,654	147	21,505	10,781
% Cleaned/Inspected to Date				99%	50%					>100%	99%

4.2 BMP Demonstration Projects

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

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

Table 4-2
BMP Demonstration Projects – Report

<i>Facility</i>	<i>Date Inspected</i>	<i>Condition</i>	<i>Work Needed</i>	<i>Work performed</i>	<i>Material Removed (CY)</i>
Netting System CSO 018	8/21/09	Good	Minor Maintenance	Nets emptied.	280 lbs.
Bar Rack CSO 040	8/14/09	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	8/14/09	Good	None	Routine Cleaning	(1)

Notes:

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

4.3 Anacostia River Floating Debris Removal Program

This program was initiated in September 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 WASA, Department of Sewer Services. The floating debris removal program utilizes a skimmer boat and support boats to remove floatable debris from the Rivers as well as trash, which accumulates on the riverbanks and in the mud flats at low tides. Work for the most part is directed toward the Anacostia River. The boats pick up debris five days a week. Operations are summarized as follows:

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

<i>Program Operation</i>	5-day work week, excluding holidays, weather permitting
<i>Work Days this month:</i>	21
<i>Days not Operating</i>	2
<i>Reason not Operating</i>	Strong winds.
<i># Skimmer in Fleet</i>	2 skimmers
<i># Skimmers Out of Service</i>	One
<i>Dates</i>	B-28, 1/1/09 to present.
<i>Reason</i>	B-28. Replacing defective wing screens, transmission and hydraulic pump – waiting on parts to rebuild skimmer.
<i>Plan to Restore to Service</i>	As soon as possible. B-29 returned to service on 7/31/09.
<i>Volume Material Collected</i>	30 tons.
<i>Nature of Material</i>	Bottles, cans, natural debris and plastics.

4.4 CSS Litter Control

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

Status: no activities this month.

5. MONITORING

5.1 Visual Wet Weather Surveys at Main & O

WASA performs visual surveys of the CSO overflows at Main and O Street Pumping Station to characterize the quantity and nature of floatable discharged. Results are as follows:

**Table 5-1
CSO 010, 011, 011, 012 Visual Wet Weather Survey Summaries
SOLIDS AND FLOATABLES VISUAL SURVEY FORM**

CSO	Time of Observation	Date:		Observed			Quantity of			Quantity of			REMARKS/OTHER
		Y	N	L	M	H	L	M	H	L	M	H	
009													
010													
011													
011a													
012													

Note: L= Low, M= Moderate, H= High

5.2 Rain Data

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

Table 5-2 Rainfall Data (inches)

Monthly Rain Totals

Date	Brentwood Reservoir	Bryant St PS	Main PS	Rock Creek PS
8/1/2009	0	0	0	0
8/2/2009	0.57	0.44	0.57	0.66
8/3/2009	0.01	0	0.01	0
8/4/2009	0	0	0	0
8/5/2009	0	0	0	0
8/6/2009	0.12	0.07	0.12	0.06
8/7/2009	0	0	0	0
8/8/2009	0	0	0	0
8/9/2009	0	0	0	0
8/10/2009	0.1	0.01	0.1	0.08
8/11/2009	0	0.34	0	0
8/12/2009	0	0	0	0
8/13/2009	0	0	0	0
8/14/2009	0	0	0	0
8/15/2009	0	0	0	0
8/16/2009	0	0	0	0
8/17/2009	0	0	0	0
8/18/2009	0	0.24	0	0
8/19/2009	0	0	0	0
8/20/2009	0	0	0	0
8/21/2009	0.08	0.18	0.08	0.19
8/22/2009	1.04	0.52	1.04	0.83
8/23/2009	0	0	0	0
8/24/2009	0	0	0	0
8/25/2009	0	0	0	0
8/26/2009	0	0	0	0
8/27/2009	0.08	0.08	0	0
8/28/2009	0.12	0.12	0.07	0.17
8/29/2009	0	0	0	0
8/30/2009	0	0	0	0
8/31/2009	0	0	0	0
TOTALS	2.12	2.00	1.99	1.99



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

**Monthly Operations Report
For
Combined Sewer System
Month: September 2009**

Prepared By:
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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: September 2009

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1. INTRODUCTION

The District of Columbia Water and Sewer Authority (WASA or Authority) 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 Authority'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 MAINTENANCE

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**

<i>Struct No.</i>	<i>Location</i>	<i>Associated NPDES Outfall</i>	<i>Date Inspected</i>	<i>Condition</i>		<i>Work Needed</i>	<i>Work performed</i>
				Good	Needs Work		
2	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	09/21/09	*			
4	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	09/21/09	*			
5	Poplar Point Pumping Station	004	09/02/09	*			
6	Chicago Street and Railroad Ave, SE	005	09/01/09	*			
7	W Street and Railroad Ave, SE	005	09/01/09	*			
8	Good Hope Rd, west of Nichols Ave, SE	006	09/01/09	*			
9	13 th Street and Ridge Place, SE	007	09/01/09	*			
11	"O" Street Pumping Station	011(a)	09/10/09	*			
12	Storm Pump Discharge at Main Pumping Station	011	09/10/09	*			
13	2 nd Street, 300 ft. north of N Place, SE	009	09/02/09	*			
14	2 nd Street, 250 ft. north of N Place, SE	011(a)	09/10/09	*			
15	South Capitol and E Streets	010	09/10/09	*			
15a	Half and L Streets, SE	010	09/10/09	*			
15b	South Capitol and I Streets	010	09/02/09	*			
15c	South Capitol and I Streets	010	09/02/09	*			
16	North of Main Sewage Pumping Station	012	09/10/09	*			
17	4 th and N Streets, SE, Both Extended	013	09/16/09	*			
17a	K Street between 6 th Street and 7 th Street, SE	013	09/16/09	*			
18	6 th and M Streets, SE	014	09/02/09	*			
19	9 th and M Streets, SE	015	09/02/09	*			
19a	9 th and M Streets, SE	015	09/02/09	*			
20	12 th and M Streets, SE	016	09/02/09	*			
20a	12 th and M Streets, SE	016	09/02/09	*			
21	14 th and M Streets, SE	017	09/02/09	*			
22a	Barney Circle and Pennsylvania Ave, SE	018	09/16/09	*			

Struct No.	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
22b	Barney Circle and Pennsylvania Ave, SE	018	09/16/09	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	09/16/09	*			
22d	Kentucky Ave and Potomac Street, SE	018	09/18/09	*			
22e	14 th Street and Kentucky Ave, SE	018	09/18/09	*			
23	Independence Ave, 21 st Street, SE, Extended	019	09/18/09	*			
24a	East Capitol St, west of RFK stadium	019	09/18/09	*			
28	21 st and Constitution Ave, NW	020	09/22/09	*			
29	22 nd Street, between Constitution Ave and C St, NW	020	09/22/09	*			
30	17 th and D Streets, NW	020	09/08/09	*			
31	15 th Street and Pennsylvania Ave, NW	020	09/08/09	*			
33	10 th and F Streets, NW	020	09/08/09	*			
34	23 rd Street, north of Constitution Ave, NW	020	09/22/09	*			
34a	23 rd Street near C Street, NW	020	09/22/09	*			
35	Northeast of Roosevelt Bridge, NW	021	09/15/09	*			
36	27 th and I Streets, NW	022	09/16/09	*			
36a	New Hampshire Ave and Eye Street, NW	022	09/16/09	*			
36b	19 th and L Streets, NW	022, 034	09/14/09	*			
36d	17 th and L Streets, NW	022, 034	09/14/09	*			
36g	18 th and M Streets, NW	022, 034	09/14/09	*			
36h	18 th and M Streets, NW	022, 034	09/14/09	*			
37	27 th and Eye Streets, NW	022	09/16/09	*			
38	29 th and K Streets, NW	024	09/14/09	*			
38a	30 th Street, south of K Street, NW	024	09/14/09	*			
39a	30 th and K Streets, NW	024	09/14/09	*			
39b	30 th and K Streets, NW	024	09/14/09	*			
41b	31 st and K Streets, NW	025	09/14/09	*			
41c	31 st and K Streets, NW	025	09/14/09	*			
42	Wisconsin Ave and K Street, NW	026	09/14/09	*			

Struct No.	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
43	Potomac and Water Streets, NW	027	09/14/09	*			
43a	Potomac and Water Streets, NW	027	09/14/09	*			
44	Water Street, west of Potomac St, NW	027	09/14/09	*			
45	36 th and M Streets, NW	028	09/01/09	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	09/01/09	*			
47	38 th Street and Reservoir Road, NW	029	09/01/09	*			
47a	37 th and T Streets, NW	029	09/01/09	*			
47b	37 th and T Streets, NW	029	09/01/09	*			
47c	38 th and W Streets, NW	029	09/01/09	*			
49	Pennsylvania Ave, east side of Rock Creek, NW	031	09/18/09	*			
50	26 and M Streets, NW	032	09/18/09	*			
51	N Street Extended, west of 25 th Street, NW	033	09/18/09	*			
52	22 nd Street between M and N Streets, NW	034	09/15/09	*			
52a	N Street between 22 nd and 23 rd Streets, NW	034	09/15/09	*			
53	22 nd and M Streets, NW	022, 034	09/18/09	*			
53a	22 nd and M Streets, NW	022, 034	09/18/09	*			
53b	L Street between 21 st Street and New Hampshire Ave, NW	022, 034	09/04/09	*			
53c	L and 22 nd Streets, NW	022	09/04/09	*			
54	23 rd and O Streets, NW	034	09/04/09	*			
55	22 nd Street, south of Q Street, NW	035	09/04/09	*			
55a	22 nd Street, south of Q Street, NW	035	09/04/09	*			
56	23 rd and Massachusetts Ave, NW	036	09/04/09	*			
57	23 rd Street, south of Q Street, NW	036	09/04/09	*			
58	Northwest of Belmont Road and Rock Creek and Potomac Parkway, NW	037	09/22/09	*			
59	North of Belmont Rd, east of Kalorama Cir, NW	038	09/22/09	*			
60	Connecticut Ave, east of Rock Creek, NW	039	09/16/09	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	09/16/09	*			
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	09/21/09	*			

Struct No.	Location	Associated NPDES Outfall	Date Inspected	Condition		Work Needed	Work performed
				Good	Needs Work		
63	Harvard Street and Rock Creek Parkway, NW	042	09/21/09	*			
64	Adams Mill Road, south of Irving Street, NW	043	09/21/09	*			
65	Kenyon Street and Adams Mill Road, NW	044	09/21/09	*			
65a	Kenyon Street and Adams Mill Road, NW	044	09/21/09	*			
66	Adams Mill Road and Lamont Street, NW	045	09/21/09	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	09/21/09	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	09/21/09	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	09/21/09	*			
70	Piney Branch Parkway, west of 16 th Street, NW	049	09/21/09	*			
70i	5 th and Quackenbos Streets, NW	049	09/16/09	*			
71	28 th Street, west of Rock Creek Parkway, NW	050	09/29/09	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	09/22/09	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	09/22/09	*			
73	O Street Extended and Rock Creek Parkway, NW	052	09/22/09	*			
74	Q Street, west of Rock Creek, NW	053	09/22/09	*			
75	West side of Rock Creek, 300 ft. south of Massachusetts Ave, NW	054	09/04/09	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	09/28/09	*			
77a	Normanstone Dr and Normanstone Lane, NW	056	09/28/09	*			
78	28th Street Extended, west of Rock Creek, NW	057	09/28/09	*			
79	Connecticut Ave and Rock Creek Parkway, NW	058	09/01/09	*			
84	26 th and P Streets, NW	060	09/22/09	*			
84a	26 th and P Streets, NW	060	09/22/09	*			

Notes:

1. For regulators noted as “visually checked outfall”, the outfall was visually observed to confirm no DWO was occurring.
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 - 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	09/21/09	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	09/08/09	*		*		*		*		
006	Good Hope Road and Welsh Memorial Bridge	09/08/09	*		*		*		*		
007	Between 11 th St. and Anacostia Bridges, SE	09/08/09	*		*		*		*		
009	O St. Sewage Pumping Station, SE	09/10/09	*		*		*		*		
010	O St. Sewage Pumping Station, SE	09/10/09	*			*			*		
011	Main Sewage Pumping Station, SE	09/10/09	*			*			*		
011(a)	Main Sewage Pumping Station, SE	09/10/09	*		*		*		*		
012	Main Sewage Pumping Station, SE	09/10/09	*		*		*		*		
013	Southeast Federal Center, aligned with 4 th St.	09/16/09	*		*		*		*		
014	Navy Yard, aligned with 6 th St., SE	09/28/09	*		*		*		*		
015	Navy Yard, aligned with 9th Street, SE	09/28/09	*			*			*		
016	12th and O Streets, SE	09/17/09	*		*		*		*		
017	M and Water Street, SE	09/17/09	*		*		*		*		
018	East of Barney Circle and South of Pennsylvania Avenue Bridge, SE	09/17/09	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility and D.C. General Hospital	09/03/09	*			*			*		
020	Rock Creek Parkway and Independence, NW	09/03/09	*		*		*		*		
021	Rock Creek Parkway and C St., NW	09/03/09	*			*			*		
022	Rock Creek Parkway and G St., NW	09/03/09	*		*		*		*		

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	
024	South of 30 th and K Streets, NW	09/03/09	*		*			*	*		WASA has developed a capitol project to design and construct a replacement gate for improved performance.
025	South of 31st and K Streets, NW	09/03/09	*		*		*	*			
026	Wisconsin Avenue and Water Street, NW	09/03/09	*		*		*	*			
027	33 rd and Water Sts., NW	09/03/09	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	09/03/09	*			*			*		
029	Adjacent to C&O Canal, aligned with 38 th St. NW	09/03/09	*		*		*		*		
031	Rock Creek Pkwy and Pennsylvania Avenue, NW.	09/04/09	*			*			*		
032	26th and M Street, NW.	09/04/09	*			*			*		
033	Across street from St. Francis Jr. High and aligned with N St., NW.	09/04/09	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	09/04/09	*		*		*		*		
035	P St. Bridge and Rock Creek Parkway	09/25/09	*		*		*		*		
036	22nd Street, South of Q Street NW.	09/28/09	*		*		*		*		
037	Waterside Dr. and Rock Creek Parkway	09/22/09	*		*		*		*		
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	09/22/09	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	09/16/09	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	09/16/09	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	09/24/09	*		*		*		*		
042	Harvard St. and Beach Dr NW.	09/24/09	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	09/24/09	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	09/24/09	*		*		*		*		

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	
045	North of Beach Dr. and Walbridge Pl, NW.	09/24/09	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	09/21/09	*			*			*		
047	Piney Branch Parkway and Ingleside Terrace	09/21/09	*		*		*		*		
048	South of Piney Branch Parkway and 17 th St.	09/21/09	*		*		*		*		
049	North of Piney Branch Parkway and 17 th St.	09/21/09	*		*		*		*		
050	Rock Creek Parkway and L St., NW	09/29/09	*		*		*		*		
051	Across Rock Creek Parkway, aligned with Olive St., NW.	09/30/09	*		*		*		*		
052	Between P and Penna. Ave Bridges, aligned with O Street, NW.	09/30/09	*		*		*		*		
053	Q St. Bridge and Rock Creek Parkway, NW.	09/29/09	*		*		*		*		
054	Massachusetts Avenue and Rock Creek Parkway, NW.	09/28/09	*		*		*		*		
056	Normanstone Dr. and Rock Creek Parkway, NW.	09/28/09	*		*		*		*		
057	28th Street and Rock Creek Parkway, NW	09/28/09	*		*		*		*		
058	Connecticut Avenue and Rock Creek Parkway, NW.	09/01/09	*			*			*		
060	North of P Street Bridge and Rock Creek Pkwy, NW	09/29/09	*		*		*		*		

Notes:

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</i>
Main	31	4	12	Pump #2	September 1-21	Motor seal bad leaking oil	September 2009
Eastside	31	2	4	None			
Poplar Point	31	2 ¹	3	None			
Potomac	31	4	5	Screen #3 Sanitary Pump #4	September 1-30 September 1-30	Reconstruction Reconstruction	October 2009 October 2009

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 Performed¹</i>	<i>Comments</i>
Main	09/25/09	Group A	Add oil, grease bearings and replace packing if needed.
O St	09/25/09	Group A	Add oil, grease bearings and replace packing if needed.
Eastside	09/25/09	Group A	Add oil, grease bearings and replace packing if needed.
Poplar Point	09/25/09	Group A	Add oil, grease bearings and replace packing if needed.
Potomac	09/25/09	Group A	Add oil, grease bearings and replace packing if needed.
Rock Creek	09/25/09	Group A	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	09/25/09	Group A	Add oil, grease bearings and replace packing if needed.
Earle Place	09/25/09	Group A	Add oil, grease bearings and replace packing if needed.

Notes:

1. Group A consists of:

Exercise bar screens

Exercise all sump pumps

Drain condensation from air compressor storage tank

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

Check all safety equipment

Issue work order requests as required

**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)</i>
Main	1,595.70	53.19	N/A	N/A	N/A
O St ¹	165.00	5.50	9/6 9/26 9/27	4.60 44.90 49.10	Normal Normal Normal
Eastside	457.10	15.24	N/A	N/A	N/A
Poplar Point	408.60	13.62	N/A	N/A	N/A
Potomac	3,001.10	100.04	N/A	N/A	N/A
Rock Creek	202.60	6.75	N/A	N/A	N/A
Upper Anacostia	39.70	1.32	N/A	N/A	N/A
Earle Place	0.17	0.01	N/A	N/A	N/A

Notes:

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

2-4 Northeast Boundary Swirl Facility

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

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

<i>Date Inspected</i>	<i># Screens</i>	<i># Swirls</i>	<i>Screens or Swirls Out of Service</i>	<i>Dates</i>	<i>Reason</i>	<i>Schedule to Restore to Service</i>
09/26/09	1,2 & 3	1,2 & 3	None	N/a	N/a	N/a

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

<i>Date Performed</i>	<i>Type of Preventive Maintenance Performed¹</i>	<i>Comments</i>
09/26/09	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 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 Duration¹ (Hours)</i>	<i>Total Influent Volume (mg)</i>	<i>Total Foul Sewer Volume (mg)</i>	<i>Total Effluent Volume² (mg)</i>	<i>Approx. Screenings Volume³ # of bins (cu ft)</i>
9/7/09	7	6.62	3.5	3.12	0.70(56)
9/7/09	4	3.33	3.3	0	0.65(52)
9/11/09	3	15.43	1.86	13.57	0.50(40)
9/26/09	5	21.32	1.69	19.63	0.50(40)
9/27/09	6	14.93	14.93	0	0.40(32)

Note

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/Dechl or System Used?</i>	<i>Dosages</i>		<i>Residual Chlorine Test Results</i>		<i>Enterococcus Test Results</i>		<i>Fecal Coliform Test Results</i>	
		<i>NaOCl (mg/l)</i>	<i>NaHSO₃ (mg/l)</i>	<i>Location</i>	<i>Conc. (mg/l)</i>	<i>Site</i>	<i>Count Per 100ml</i>	<i>Site</i>	<i>Count Per 100ml</i>
9/7/09	Yes	5	2	Mix Chamber	0.2	Mix Chamber	310,000	Mix Chamber	750,000
9/7/09	Yes	5	2	Anacostia River	0.0	Anacostia River	882	Anacostia River	67,300
9/11/09	Yes	5	2	Mix Chamber	0.3	Mix Chamber	260,000	Mix Chamber	270,000
9/11/09	Yes	5	2	Anacostia River	0.0	Anacostia River	190,000	Anacostia River	300,000
9/26/09	Yes	5	2	Mix Chamber	0.3	Mix Chamber	130,000	Mix Chamber	560,000
9/26/09	Yes	5	2	Anacostia River	0.3	Anacostia River	210,000	Anacostia River	1,700,000 (EST)

Notes:

1. Mix Chr.: Mixing Chamber
2. River: River Outfall

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

<i>Date</i>	<i>Flow Composited Sample Results</i>						
	<i>Total suspended solids (mg/L)</i>	<i>Nitrite (NO₂-N) mg/L</i>	<i>Nitrate (NO₃-N) mg/L</i>	<i>Total Kjeldahl Nitrogen (mg/L as N)</i>	<i>Total Nitrogen (mg/L)</i>	<i>Total Phosphorus (mg/L)</i>	<i>Carbonaceous Biological Oxygen Demand (mg/L)</i>
9/07/09	221	0.05	0.25	4.59	4.89	0.93	9.21
9/11/09	492	0.00	0.30	11.6	11.9	2.00	75.9
9/26/09	32.0	0.00	0.32	2.53	2.85	0.72	18.8

Notes:

2.5 Inflatable Dams

WASA 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	09/25/09	No	N/A	N/A	N/A
14 - West	09/25/09	No	N/A	N/A	N/A
15	09/25/09	No	N/A	N/A	N/A
15A	09/25/09	No	N/A	N/A	N/A
16 - East	09/24/09	No	N/A	N/A	N/A
16 - West	09/24/09	No	N/A	N/A	N/A
24 - North	09/24/09	No	N/A	N/A	N/A
24 - Middle	09/24/09	No	N/A	N/A	N/A
24 - South	09/24/09	No	N/A	N/A	N/A
34	09/25/09	No	N/A	N/A	N/A
35	09/25/09	No	N/A	N/A	N/A
52	09/25/09	No	N/A	N/A	N/A

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

<i>Inflatable Dam Structure No.</i>	<i>Overflow Dates</i>	<i>Estimated Duration of Overflow (hrs)</i>
14 (E & W)	None	N/A
15	9/7/09 9/11/09 9/27/09	2 min 29 min 7min
15A	9/7/09 9/11/09 9/26/09 9/27/09	1 hr 13 min 38 min 50 min 45 min
16 (E & W)	9/7/09 9/11/09 9/26/09 9/27/09	52 min 16 min 37 min 2 hr 25 min
24	9/7/09 9/11/09 9/27/09	11 min 6 min 6 min
34	None	N/A
35	9/7/09 9/11/09 9/26/09 9/27/09	3 min 7 min 3 min 2 min
52	None	N/A
<i>Structures on Outfall Sewers</i>	<i>Overflow Dates</i>	<i>Estimated Duration of Overflow (hrs)</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(E & W)	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

Dry weather overflows (DWOs), are summarized below:

**Table 3-1
DRY WEATHER DISCHARGES**

There was no record or knowledge of dry weather discharges.

4. SOLIDS AND FLOATABLES CONTROL

4.1 Catch Basin Cleaning

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

Table 4-1 Catch Basin Summaries

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	734	734	1885	1532	52	52	1937	1584
2	4,714	4,112	2,316	2316	1160	4993	4148	127	110	5120	4258
3	3,555	461	-	0	0	2443	308	957	124	3400	432
4	2,782	1,985	159	159	62	1384	902	465	331	1849	1233
5	2,167	1,035	1,035	1035	878	3794	1909	32	4	3826	1913
6	1,783	1,594	1,594	1594	552	2533	1785	425	361	2958	2146
7	2,313	-	-	0	0	3839	0	389	0	4228	0
8	1,278	116	116	116	116	634	197	483	405	1117	602
WASA Subtotal	20,183	10,871	5,954	5,954	3,502	21,505	10,781	2,930	1,387	24,435	12,168
DDOT (via VMS) Subtotal				0	0			0	0	0	0
Grand Total	20,183	10,871	5,954	5,954	3,502			2,930	1,387	24,435	12,168
% Cleaned/Inspected to Date				100%	59%					>100%	>100%

4.2 BMP Demonstration Projects

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

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

Table 4-2
BMP Demonstration Projects – Report

<i>Facility</i>	<i>Date Inspected</i>	<i>Condition</i>	<i>Work Needed</i>	<i>Work performed</i>	<i>Material Removed (CY)</i>
Netting System CSO 018	09/16/09	Good	Minor Maintenance	Nets emptied.	310 lbs.
Bar Rack CSO 040	09/24/09	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	09/24/09	Good	None	Routine Cleaning	(1)

Notes:

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

4.3 Anacostia River Floating Debris Removal Program

This program was initiated in September 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 WASA, Department of Sewer Services. The floating debris removal program utilizes a skimmer boat and support boats to remove floatable debris from the Rivers as well as trash, which accumulates on the riverbanks and in the mud flats at low tides. Work for the most part is directed toward the Anacostia River. The boats pick up debris five days a week. Operations are summarized as follows:

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

<i>Program Operation</i>	5-day work week, excluding holidays, weather permitting
<i>Work Days this month:</i>	21
<i>Days not Operating</i>	7
<i>Reason not Operating</i>	Maintenance on boats.
<i># Skimmer in Fleet</i>	2 skimmers
<i># Skimmers Out of Service</i>	Two
<i>Dates</i>	B-28, 1/1/09 to present. B-29, 9/22/09 to 9/30/09.
<i>Reason</i>	B-28. Replacing defective wing screens, transmission and hydraulic pump – waiting on parts to rebuild skimmer. B-29. Replace broken hydraulic pump.
<i>Plan to Restore to Service</i>	As soon as possible.
<i>Volume Material Collected</i>	20 ton.
<i>Nature of Material</i>	Bottles, cans, natural debris and plastics.

4.4 CSS Litter Control

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

Status: no activities this month.

5. MONITORING

5.1 Visual Wet Weather Surveys at Main & O

WASA performs visual surveys of the CSO overflows at Main and O Street Pumping Station to characterize the quantity and nature of floatable discharged. Results are as follows:

**Table 5-1
CSO 010, 011, 011, 012 Visual Wet Weather Survey Summaries
SOLIDS AND FLOATABLES VISUAL SURVEY FORM**

Date: 9-11-09

Inspector initials: CW

CSO	Time of Observation	Overflow		Observed			Quantity of			Quantity of			REMARKS/OTHER
		Y	N	L	M	H	L	M	H	L	M	H	
009	12:30 pm	x		x			x			x			
010	12:30 pm	x		x			x			x			
011	12:30 pm	x		x			x			x			
011a	12:30 pm	x		x			x			x			
012	12:30 pm	x		x			x			x			

Note: L= Low, M= Moderate, H= High

5.2 Rain Data

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

Table 5-2 Rainfall Data (inches)

Monthly Rain Totals

Date	Brentwood Reservoir	Bryant St PS	Main PS	Rock Creek PS
9/1/2009	0.02	0.02	0.02	0.02
9/2/2009	0.06	0.06	0.06	0.06
9/3/2009	0	0	0	0
9/4/2009	0	0	0	0
9/5/2009	0	0	0	0
9/6/2009	0	0	0	0
9/7/2009	0.02	0.1	0.02	0.03
9/8/2009	0.06	0.07	0.06	0.07
9/9/2009	0.02	0.08	0.02	0.01
9/10/2009	0	0	0	0
9/11/2009	0.58	0.68	0.58	0.63
9/12/2009	0	0	0	0
9/13/2009	0	0	0	0
9/14/2009	0	0	0	0
9/15/2009	0	0	0	0.46
9/16/2009	0.09	0.02	0.09	0.02
9/17/2009	0	0.02	0	0.01
9/18/2009	0	0	0	0
9/19/2009	0	0	0	0
9/20/2009	0	0	0	0
9/21/2009	0	0	0	0
9/22/2009	0	0	0	0
9/23/2009	0	0	0	0
9/24/2009	0	0	0	0
9/25/2009	0.01	0.01	0.01	0.01
9/26/2009	0.41	1.01	0.41	0.99
9/27/2009	1.04	0.37	1.04	0.36
9/28/2009	0	0	0	0
9/29/2009	0	0	0	0
9/30/2009	0.03	0.02	0.03	0.13
9/1/2009	0.02	0.02	0.02	0.02
TOTALS	2.34	2.46	2.34	2.8

District of Columbia Water and Sewer Authority

Combined Sewer System Model Results

Period: July, August, September 2009

SCENARIO: Q3Y2009, 10-16-09

NPDES No.	Description	Number of Overflows (Occurrences)	CSO Overflow Volume (mg)	Total Duration of Overflow (hrs)	Avg Duration of Overflow (hrs)	Maximum Duration of Overflow (hrs)	Minimum Duration of Overflow (hrs)
Anacostia CSOs							
005	Chicago St and Railroad Station SE	7	2.1	51.8	7.4	15.3	1.3
006	Good Hope Road, West of Nichols Ave.,SE	1	0.0	1.0	1.0	1.0	1.0
007	13 th Street and Ridge Place,SE	3	2.3	6.5	2.2	3.8	0.8
009	2nd Street, 300 feet North of N Place, SE	5	1.8	38.8	7.8	14.8	4.3
010	O Street SewagePumping Station, SE (pumped Overflow)	5	57.7	13.3	2.7	7.8	0.3
011	South of Main Sewage Pumping Station, SE (pumped overflow)	2	1.7	0.5	0.3	0.3	0.3
011a	South of Main SewagePumping Station, SE (gravity overflow)	0	0.0	0.0	0.0	0.0	0.0
012	North of Main SewagePumping Station, SE (Tiber Creek)	1	12.7	4.0	4.0	4.0	4.0
013	4th and N Streets, SE	7	2.2	22.5	3.2	10.5	0.3
014	6th and M Streets, SE	5	9.1	40.8	8.2	12.8	5.0
015	9th and M Streets, SE	3	0.3	6.0	2.0	3.5	0.8
016	12th and M Streets, SE	2	1.4	5.8	2.9	4.0	1.8
017	14th and M Streets, SE	5	7.3	32.5	6.5	10.8	3.0
018	Barney Circle andPennsylvania Ave, SE	11	6.6	189.5	17.2	119.8	1.0
019	Northeast Boundary - Swirl Effluent	5	133.1	38.5	7.7	17.3	2.8
019	Northeast Bound. - Swirl Bypass	2	34.4	10.8	5.4	9.3	1.5
	SUBTOTAL		272.7				
Potomac CSOs							
003	Bolling AFB	0	0.0	0.0	0.0	0.0	0.0
020	23rd Street, North ofConstitution Ave, NW (Easby Point)	2	11.1	8.3	4.1	7.3	1.0
021	Northeast ofRoosevelt Bridge, NW	5	80.8	16.5	3.3	7.5	0.3
022	27th and K Streets, NW	10	9.3	52.0	5.2	15.0	0.3
024	30th and K Streets, NW	19	9.2	99.8	5.3	19.0	0.3
025	31st & K St NW	22	0.2	56.5	2.6	9.3	0.3
026	Wisconsin Avenue andK St., NW	0	0.0	0.0	0.0	0.0	0.0
027	Water Street West ofStreet, NW	10	11.6	67.3	6.7	18.5	0.3
028	36th and M Streets, NW	7	1.2	25.8	3.7	8.0	0.3
029	Canal Road 1000 feet east of Rock Creek,NW	1	2.4	4.5	4.5	4.5	4.5
	SUBTOTAL		125.7				
Rock Creek							
031	Pennsylvania Avenue, East Rock Creek, NW	1	0.0	5.3	5.3	5.3	5.3
032	26th and M Streets, NW	0	0.0	0.0	0.0	0.0	0.0
033	N Street extendedwest of 25th Street,NW	1	0.0	0.3	0.3	0.3	0.3
034	23rd and O Streets, SW	0	0.0	0.0	0.0	0.0	0.0
035	22nd Street south of Q Street, NW	0	0.0	0.0	0.0	0.0	0.0
036	22nd Street South of Q Street, NW	4	0.2	7.8	1.9	5.5	0.3
037	Northwest of Belmontand Rock Creek and Potomac Parkway	0	0.0	0.0	0.0	0.0	0.0
038	North of Belmont Road,east of Kalorama Circle, NW	0	0.0	0.0	0.0	0.0	0.0
039	Connecticut Avenue east of Rock Creek, NW	0	0.0	0.0	0.0	0.0	0.0
040	Biltmore Street extended east of RockCreek, NW	0	0.0	0.0	0.0	0.0	0.0
041	Ontario extended and Rock Creek Parkway	0	0.0	0.0	0.0	0.0	0.0

District of Columbia Water and Sewer Authority

Combined Sewer System Model Results

Period: July, August, September 2009

SCENARIO: Q3Y2009, 10-16-09

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	0.0	0.0	0.0	0.0	0.0
043	Adams Mill Road South of Irving Street, NW	1	0.0	0.5	0.5	0.5	0.5
044	Kenyon Street and Adams Mill Road, NW	0	0.0	0.0	0.0	0.0	0.0
045	Adams Mill Road and Lamont Street, NW	0	0.0	0.0	0.0	0.0	0.0
046	Park Road south of Piney Branch Parkway, NW	0	0.0	0.0	0.0	0.0	0.0
047	Ingleside Terrace extended and Piney Branch Parkway	0	0.0	0.0	0.0	0.0	0.0
048	Mt. Pleasant Street extended and Piney Branch Parkway	0	0.0	0.0	0.0	0.0	0.0
049	Piney Branch and LamontStreet, NW	4	10.4	15.3	3.8	7.3	1.8
050	28th Street west of 16th Street, NW	0	0.0	0.0	0.0	0.0	0.0
051	Olive Street extended and Rock Creek Parkway, NW	0	0.0	0.0	0.0	0.0	0.0
052	O Street extended and Rock Creek Parkway, NW	0	0.0	0.0	0.0	0.0	0.0
053	O Street west of Rock Creek Parkway, NW	0	0.0	0.0	0.0	0.0	0.0
054	West Side of Rock Creek300 ft. south of Mass. Ave, NW	0	0.0	0.0	0.0	0.0	0.0
056	Normanstone Drive extended west of Rock Creek, NW	0	0.0	0.0	0.0	0.0	0.0
057	28th Street extended west of Rock Creek, NW	2	1.9	11.0	5.5	10.3	0.8
058	Connecticut Avenue and Rock Creek Parkway, NW	1	0.0	1.8	1.8	1.8	1.8
060	P St and 26 th St, NW	0	0.0	0.0	0.0	0.0	0.0
	SUBTOTAL		12.6				
	TOTAL		411				

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