QUARTERLY OPERATIONS REPORT

DISTRICT OF COLUMBIA

COMBINED SEWER OVERFLOW FACILITIES

SECOND QUARTER, 2010

Prepared By:

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

Monthly Operations Report
For
Combined Sewer System
Month: April 2010

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

Monthly Operations Report for Combined Sewer System
Month: April 2010

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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 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

Struct No.	*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	04/14/10	*			
4	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	04/14/10	*			
5	Poplar Point Pumping Station	004	04/09/10	*			
6	Chicago Street and Railroad Ave, SE	005	04/09/10	*			
7	W Street and Railroad Ave, SE	005	04/09/10	*			
8	Good Hope Rd, west of Nichols Ave, SE	006	n/a	*			
9	13th Street and Ridge Place, SE	007	04/09/10	*			
11	"O" Street Pumping Station	011(a)	04/15/10	*			
12	Storm Pump Discharge at Main Pumping Station	011	04/15/10	*			
13	2nd Street, 300 ft. north of N Place, SE	009	04/15/10	*			
14	2nd Street, 250 ft. north of N Place, SE	011(a)	04/29/10	*			
15	South Capitol and E Streets	010	04/15/10	*			
15a	Half and L Streets, SE	010	04/15/10	*			
15b	South Capitol and I Streets	010	04/19/10	*			
15c	South Capitol and I Streets	010	04/15/10	*			
16	North of Main Sewage Pumping Station	012	04/15/10	*			
17	4th and N Streets, SE, Both Extended	013	04/19/10	*			
17a	K Street between 6th Street and 7th Street, SE	013	04/19/10	*			
18	6th and M Streets, SE	014	04/08/10	*			
19	9th and M Streets, SE	015	04/06/10	*			
19a	9th and M Streets, SE	015	04/06/10	*			
20	12th and M Streets, SE	016	04/06/10	*			
20a	12th and M Streets, SE	016	04/06/10	*			
21	14th and M Streets, SE	017	04/20/10	*			
22a	Barney Circle and Pennsylvania Ave, SE	018	04/28/10	*			

Struct No.	*Location*	*Associated NPDES Outfall*	*Date Inspected*	*Condition*		*Work Needed*	*Work performed*
				Good	Needs Work		
22b	Barney Circle and Pennsylvania Ave, SE	018	04/28/10	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	04/28/10	*			
22d	Kentucky Ave and Potomac Street, SE	018	04/16/10	*			
22e	14th Street and Kentucky Ave, SE	018	04/16/10	*			
23	Independence Ave, 21st Street, SE, Extended	019	04/28/10	*			
24a	East Capitol St, west of RFK stadium	019	04/28/10	*			
28	21st and Constitution Ave, NW	020	04/16/10	*			
29	22nd Street, between Constitution Ave and C St, NW	020	04/16/10	*			
30	17th and D Streets, NW	020	04/13/10	*			
31	15th Street and Pennsylvania Ave, NW	020	04/13/10	*			
33	10th and F Streets, NW	020	04/13/10	*			
34	23rd Street, north of Constitution Ave, NW	020	04/13/10	*			
34a	23rd Street near C Street, NW	020	04/15/10	*			
35	Northeast of Roosevelt Bridge, NW (1)	021	04/16/10	*			
36	27th and I Streets, NW	022	04/16/10	*			
36a	New Hampshire Ave and Eye Street, NW	022	04/07/10	*			
36b	19th and L Streets, NW	022, 034	04/07/10	*			
36d	17th and L Streets, NW	022, 034	04/07/10	*			
36g	18th and M Streets, NW	022, 034	04/07/10	*			
36h	18th and M Streets, NW	022, 034	04/16/10	*			
37	27th and Eye Streets, NW	022	04/16/10	*			
38	29th and K Streets, NW	024	04/06/10	*			
38a	30th Street, south of K Street, NW	024	04/06/10	*			
39a	30th and K Streets, NW	024	04/06/10	*			
39b	30th and K Streets, NW	024	04/06/10	*			
41b	31st and K Streets, NW	025	04/06/10	*			
41c	31st and K Streets, NW	025	04/07/10	*			
42	Wisconsin Ave and K Street, NW	026	04/07/10	*			

Struct No.	*Location*	*Associated NPDES Outfall*	*Date Inspected*	*Condition*		*Work Needed*	*Work performed*
				Good	Needs Work		
43	Potomac and Water Streets, NW	027	04/07/10	*			
43a	Potomac and Water Streets, NW	027	04/12/10	*			
44	Water Street, west of Potomac St, NW	027	04/12/10	*			
45	36th and M Streets, NW (1)	028	04/12/10	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	04/12/10	*			
47	38th Street and Reservoir Road, NW	029	04/12/10	*			
47a	37th and T Streets, NW	029	04/12/10	*			
47b	37th and T Streets, NW	029	04/12/10	*			
47c	38th and W Streets, NW	029	04/12/10	*			
49	Pennsylvania Ave, east side of Rock Creek, NW	031	04/05/10	*			
50	26 and M Streets, NW	032	04/05/10	*			
51	N Street Extended, west of 25th Street, NW	033	04/05/10	*			
52	22nd Street between M and N Streets, NW	034	04/22/10	*			
52a	N Street between 22nd and 23rd Streets, NW	034	04/22/10	*			
53	22nd and M Streets, NW	022, 034	04/22/10	*			
53a	22nd and M Streets, NW	022, 034	04/22/10	*			
53b	L Street between 21st Street and New Hampshire Ave, NW	022, 034	04/07/10	*			
53c	L and 22nd Streets, NW	022	04/07/10	*			
54	23rd and O Streets, NW	034	04/20/10	*			
55	22nd Street, south of Q Street, NW	035	04/20/10	*			
55a	22nd Street, south of Q Street, NW	035	04/20/10	*			
56	23rd and Massachusetts Ave, NW	036	04/20/10	*			
57	23rd Street, south of Q Street, NW	036	04/20/10	*			
58	Northwest of Belmont Road and Rock Creek and Potomac Parkway, NW	037	04/16/10	*			
59	North of Belmont Rd, east of Kalorama Cir, NW	038	04/16/10	*			
60	Connecticut Ave, east of Rock Creek, NW	039	04/07/10	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	04/23/10	*			

Struct No.	*Location*	*Associated NPDES Outfall*	*Date Inspected*	*Condition*		*Work Needed*	*Work performed*
				Good	Needs Work		
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	04/07/10	*			
63	Harvard Street and Rock Creek Parkway, NW	042	04/07/10	*			
64	Adams Mill Road, south of Irving Street, NW	043	04/23/10	*			
65	Kenyon Street and Adams Mill Road, NW	044	04/20/10	*			
65a	Kenyon Street and Adams Mill Road, NW	044	04/20/10	*			
66	Adams Mill Road and Lamont Street, NW	045	04/20/10	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	04/20/10	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	04/20/10	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	04/20/10	*			
70	Piney Branch Parkway, west of 16th Street, NW	049	04/20/10	*			
70i	5th and Quackenbos Streets, NW	049	04/01/10	*			
71	28th Street, west of Rock Creek Parkway, NW	050	04/01/10	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	04/17/10	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	04/17/10	*			
73	O Street Extended and Rock Creek Parkway, NW	052	04/17/10	*			
74	Q Street, west of Rock Creek, NW	053	04/17/10	*			
75	West side of Rock Creek, 300 ft. south of Massachusetts Ave, NW	054	04/29/10	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	04/29/10	*			
77a	Normanstone Dr and Normanstone Lane, NW	056	04/26/10	*			
78	28th Street Extended, west of Rock Creek, NW	057	04/29/10	*			
79	Connecticut Ave and Rock Creek Parkway, NW	058	04/01/10	*			
84	26th and P Streets, NW	060	04/19/10	*			
84a	26th and P Streets, NW	060	04/19/10	*			

Notes:

1. For regulators noted as “visually checked outfall”, the outfall was visually observed to confirm no DWO was occurring.

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	04/14/10	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	04/08/10	*		*		*		*		
006	Good Hope Road and Welsh Memorial Bridge	04/08/10	*		*		*		*		
007	Between 11th St. and Anacostia Bridges, SE	04/08/10	*		*		*		*		
009	O St. Sewage Pumping Station, SE	04/23/10	*		*		*		*		
010	O St. Sewage Pumping Station, SE	04/23/10	*			*			*		
011	Main Sewage Pumping Station, SE	04/23/10	*			*			*		
011(a)	Main Sewage Pumping Station, SE	04/23/10	*		*		*		*		
012	Main Sewage Pumping Station, SE	04/23/10	*		*		*		*		
013	Southeast Federal Center, aligned with 4th St.	04/23/10	*		*		*		*		
014	Navy Yard, aligned with 6th St., SE	04/19/10	*		*		*		*		
015	Navy Yard, aligned with 9th Street, SE	04/29/10	*			*			*		
016	12th and O Streets, SE	04/29/10	*		*		*		*		
017	M and Water Street, SE	04/29/10	*		*		*		*		
018	East of Barney Circle and South of Pennsylvania Avenue Bridge, SE	04/29/10	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility and D.C. General Hospital	04/29/10	*			*			*		

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	
020	Rock Creek Parkway and Independence, NW	04/27/10	*		*		*		*		
021	Rock Creek Parkway and C St., NW	04/27/10	*			*			*		
022	Rock Creek Parkway and G St., NW	04/27/10	*		*		*		*		
024	South of 30th and K Streets, NW	04/27/10	*		*			*	*		WASA has developed a capitol project to design and construct a replacement gate for improved performance.
025	South of 31st and K Streets, NW	04/27/10	*		*		*		*		
026	Wisconsin Avenue and Water Street, NW	04/27/10	*		*		*		*		
027	33rd and Water Sts., NW	04/27/10	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	04/27/10	*			*			*		
029	Adjacent to C&O Canal, aligned with 38th St. NW	04/27/10	*		*		*		*		
031	Rock Creek Pkwy and Pennsylvania Avenue, NW.	04/27/10	*			*			*		
032	26th and M Street, NW.	04/05/10	*			*			*		
033	Across street from St. Francis Jr. High and aligned with N St., NW.	04/05/10	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	04/05/10	*		*		*		*		
035	P St. Bridge and Rock Creek Parkway	04/20/10	*		*		*		*		
036	22nd Street, South of Q Street NW.	04/20/10	*		*		*		*		
037	Waterside Dr. and Rock Creek Parkway	04/20/10	*		*		*		*		
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	04/27/10	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	04/16/10	*		*		*		*		

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	
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	04/07/10	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	04/07/10	*		*		*		*		
042	Harvard St. and Beach Dr NW.	04/22/10	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	04/22/10	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	04/22/10	*		*		*		*		
045	North of Beach Dr. and Walbridge Pl, NW.	04/22/10	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	04/22/10	*			*			*		
047	Piney Branch Parkway and Ingleside Terrace	04/23/10	*		*		*		*		
048	South of Piney Branch Parkway and 17th St.	04/23/10	*		*		*		*		
049	North of Piney Branch Parkway and 17th St.	04/23/10	*		*		*		*		
050	Rock Creek Parkway and L St., NW	04/23/10	*		*		*		*		
051	Across Rock Creek Parkway, aligned with Olive St., NW.	04/01/10	*		*		*		*		
052	Between P and Penna. Ave Bridges, aligned with O Street, NW.	04/29/10	*		*		*		*		
053	Q St. Bridge and Rock Creek Parkway, NW.	04/29/10	*		*		*		*		

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	
054	Massachusetts Avenue and Rock Creek Parkway, NW.	04/27/10	*		*		*		*		
056	Normanstone Dr. and Rock Creek Parkway, NW.	04/29/10	*		*		*		*		
057	28th Street and Rock Creek Parkway, NW	04/01/10	*		*		*		*		
058	Connecticut Avenue and Rock Creek Parkway, NW.	04/01/10	*			*			*		
060	North of P Street Bridge and Rock Creek Pkwy, NW	04/27/10	*		*		*		*		

2.3 Pumping Stations

Pumping station operations are summarized in the table below.

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

Pumping Station	*No. of Inspections*	*No. Screens*	*No. Pumps*	*Screens or Pumps Out of Service*	*Dates*	*Reason*	*Schedule to Restore to Service*
Main	30	4	10	N/A	N/A	N/A	
Eastside	30	2	4	# 1 Screen # 2 Screen	4/1/10 4/1/10	Motor bad Motor bad	July 31, 2010 Apr 6, 2010
Poplar Point	30	2 [1]	3	# 1 Pump # 3 Pump	4/1/10 4/1/10	Pump bad – rebuild Pump jammed	July 31, 2010 July 31, 2010
Potomac	30	4	5	N/A	N/A	N/A	

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

Pumping Station	*Date Performed*	*Type of Preventive Maintenance Performed*[1]	*Comments*
Main	04/27/10	Group A	Add oil, grease bearings and replace packing if needed.
O St	04/27/10	Group A	Add oil, grease bearings and replace packing if needed.
Eastside	04/27/10	Group A	Add oil, grease bearings and replace packing if needed.
Poplar Point	04/27/10	Group A	Add oil, grease bearings and replace packing if needed.
Potomac	04/27/10	Group A	Add oil, grease bearings and replace packing if needed.
Rock Creek	04/27/10	Group A	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	04/27/10	Group A	Add oil, grease bearings and replace packing if needed.
Earle Place	04/27/10	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

	Sanitary Pumpage		*Storm Water/CSO Pumped To Anacostia River*		
Pumping Station	*Total Wastewater (mg)*	*Daily Average Wastewater (mg)*	*Date*	*Volume (mg)*	*Screenings Collected (units)*
Main	2,148.70	71.62	N/A	N/A	N/A
O St[1]	128.70	4.29	4/9/2010	28.10	Normal
Eastside	440.19	14.20	N/A	N/A	N/A
Poplar Point	608.88	19.64	N/A	N/A	N/A
Potomac	3,675.50	122.52	N/A	N/A	N/A
Rock Creek	182.50	5.89	N/A	N/A	N/A
Upper Anacostia	82.71	2.67	N/A	N/A	N/A
Earle Place	0.23	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

Date Inspected	*# Screens*	*# Swirls*	*Screens or Swirls Out of Service*	*Dates*	*Reason*	*Schedule to Restore to Service*
04/28/10	1,2 & 3	1,2 & 3	None	N/a	N/a	N/a

Table 2-7
Northeast Boundary Swirl Facility – Preventive Maintenance

Date Performed	*Type of Preventive Maintenance Performed*[1]	*Comments*
04/28/10	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

Date	*Approx. Storm Duration[1] (Hours)*	*Total Influent Volume (mg)*	*Total Foul Sewer Volume (mg)*	*Total Effluent Volume[2] (mg)*	*Approx. Screenings Volume[3] # of bins (cu ft)*
04/08/2010	8.30	11.56	9.82	1.74	2.5 (200)

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

Date	*Chlor/ Dechlor System Used?*	*Dosages*		*Residual Chlorine Test Results*		*Enterococcus Test Results*		*Fecal Coliform Test Results*	
		NaOCl (mg/l)	*$NaHSO_3$ (mg/l)*	*Location*	*Conc. (mg/l)*	*Site*	*Count Per 100ml*	*Site*	*Count Per 100ml*
04/08/10	Yes	5	2	Mix Chamber	0.1	Mix Chamber	150,000	Mix Chamber	250,000
04/08/10	Yes	5	2	Anacostia River	0.1	Anacostia River	30,000	Anacostia River	230,000

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

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

	Flow Composited Sample Results						
Date	*Total suspended solids (mg/L)*	*Nitrite (NO2-N) mg/L*	*Nitrate (NO3-N)) mg/L*	*Total Kjeldahl Nitrogen (mg/L as N)*	*Total Nitrogen (mg/L)*	*Total Phosphorus (mg/L)*	*Carbonaceous Biological Oxygen Demand (mg/L)*
4/08/10	233	0.00	0.64	10.5	11.1	1.34	56.4

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

Inflatable Dam Structure No	*Date Inspected*	*Was Dam Out of Service During the Month?*	*Dates out of Service*	*Reason*	*Schedule to Restore to Service*
14 - East	04/22/10	**No**	**N/A**	**N/A**	**N/A**
14 - West	04/22/10	**No**	**N/A**	**N/A**	**N/A**
15	04/22/10	**No**	**N/A**	**N/A**	**N/A**
15A	04/22/10	**No**	**N/A**	**N/A**	**N/A**
16 - East	04/22/10	**No**	**N/A**	**N/A**	**N/A**
16 - West	04/22/10	**No**	**N/A**	**N/A**	**N/A**
24 – North	04/22/10	**No**	**N/A**	**N/A**	**N/A**
24 - Middle	04/22/10	**No**	**N/A**	**N/A**	**N/A**
24 - South	04/22/10	**No**	**N/A**	**N/A**	**N/A**
34	04/22/10	**No**	**N/A**	**N/A**	**N/A**
35	04/22/10	**No**	**N/A**	**N/A**	**N/A**
52	04/22/10	**No**	**N/A**	**N/A**	**N/A**

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

Inflatable Dam Structure No.	*Overflow Dates*	*Estimated Duration of Overflow (hrs)*
14 (E & W)	*None*	*N/A*
15	*None*	*N/A*
15A	*None*	*N/A*
16 (E & W)	*None*	*N/A*
24	*None*	*N/A*
34	*None*	*N/A*
35	*None*	*N/A*
52	*None*	*N/A*
Structures on Outfall Sewers	*Overflow Dates*	*Estimated Duration of Overflow (hrs)*
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
Outfall Sewer Control Gates	*Operational Status*	*Position*
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 Overflows

Location	Potomac Pumping Station
Cause	Motor Control Center (MCC) caught fire, resulting in electric power outage to pumps and motors in the station. The power failure rendered the station incapacitated for about four hours.
Date/ Time Discovered	April 14, 2010 @ 11:30 am
Action Taken	Electricians and Engineers worked on the equipment for about four hours to restore one large pump into operation, which was sufficient to handle the sanitary flow.
Date/Time Discharge Ceased	April 14, 2010 @ 3: 30 pm
Estimated Volume (mg)	500,000 gallons
Did Overflow Reach Receiving water?	Yes, Potomac River
Action taken to prevent reoccurrence	The root cause of the electrical failure is under investigation. DCWASA shall implement any recommendations resulting from the ongoing investigation of the MCC failure. The station is undergoing major rehabilitation; construction is expected to be substantially completed by the end of June 2010.

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

				Anacostia CSS Inspections		*Cleaning*					
				Total CBs Inspected Once this Year	*Total CBs Inspected Twice this Year*	*CBs Cleaned Thru Last Month*		*CB's Cleaned this Month*		*Total CBs Cleaned This Year to Date*	
Ward	*Total CBs*	*CBs in CSS*	*CBs in Anacostia CSS*			Total	In CSS	Total	In CSS	Total	In CSS
1	1,591	1,568	734	734	103	1187	1026	642	632	1829	1658
2	4,714	4,112	2,316	709	36	861	742	593	517	1454	1259
3	3,555	461	-	0	0	3489	344	61	8	3550	352
4	2,782	1,985	159	47	0	815	366	317	226	1132	592
5	2,167	1,035	1,035	1,035	60	504	301	1663	794	2167	1095
6	1,783	1,594	1,594	76	0	62	51	38	25	100	76
7	2,313	-	-	0	0	256	0	53	0	309	0
8	1,278	116	116	26	0	42	22	43	4	85	26
WASA Subtotal	**20,183**	**10,871**	**5,954**	**2,627**	**199**	**7,216**	**2,852**	**3,410**	**2,206**	**10,626**	**5,058**
DDOT (via VMS) Subtotal				**0**	**0**			**0**	**0**	**0**	**0**
Grand Total	**20,183**	**10,871**	**5,954**	**2,627**	**199**			**3,410**	**2,206**	**10,626**	**5,058**
% Cleaned/Inspected to Date				**44%**	**3%**					**53%**	**46%**

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

Facility	*Date Inspected*	*Condition*	*Work Needed*	*Work performed*	*Material Removed (CY)*
Netting System CSO 018	4/27/10	Good	Minor Maintenance	Nets Emptied	375 lbs.
Bar Rack CSO 040	4/7/10	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	4/7/10	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

Program Operation	5-day work week, excluding holidays, weather permitting
Work Days this month:	22
Days not Operating	5
Reason not Operating	Strong winds and inclement weather.
# Skimmer in Fleet	2 skimmers
# Skimmers Out of Service	None
Dates	n/a
Reason	n/a
Plan to Restore to Service	n/a
Volume Material Collected	70 tons.
Nature of Material	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: **Inspector's Initials:**

CSO	Time of Observation	Overflo Y	Overflo N	Observed L	Observed M	Observed H	Quantity of L	Quantity of M	Quantity of H	Quantity of L	Quantity of M	Quantity of H	REMARKS/OTHER
009													
010				NONE									
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
4/1/2010	0	0	0	0
4/2/2010	0	0	0	0
4/3/2010	0	0	0	0
4/4/2010	0	0	0	0
4/5/2010	0	0	0	0
4/6/2010	0	0	0	0
4/7/2010	0	0	0	0
4/8/2010	0	0	0	0
4/9/2010	0	0	0	0
4/10/2010	0	0	0	0
4/11/2010	0	0	0	0
4/12/2010	0	0	0	0
4/13/2010	0	0	0	0
4/14/2010	0	0	0	0
4/15/2010	0	0	0	0
4/16/2010	0.02	0.01	0.19	0.01
4/17/2010	0	0	0	0
4/18/2010	0	0	0	0
4/19/2010	0	0	0	0
4/20/2010	0	0	0	0
4/21/2010	0	0	0	0
4/22/2010	0	0	0	0
4/23/2010	0	0	0	0
4/24/2010	0	0	0	0
4/25/2010	0	0	0	0
4/26/2010	0	0	0	0
4/27/2010	0	0	0	0
4/28/2010	0.02	0.02	0.02	0.02
4/29/2010	0	0	0	0
4/30/2010	0	0	0	0
TOTALS	0.04	0.03	0.21	0.03

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

Monthly Operations Report
For
Combined Sewer System
Month: May 2010

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: May 2010

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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 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

Struct No.	*Location*	*Associated NPDES Outfall*	*Date Inspected*	*Condition*		*Work Needed*	*Work performed*
				Good	Needs Work		
2	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	05/12/10	*			
4	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	05/12/10	*			
5	Poplar Point Pumping Station	004	05/03/10	*			
6	Chicago Street and Railroad Ave, SE	005	05/03/10	*			
7	W Street and Railroad Ave, SE	005	05/03/10	*			
8	Good Hope Rd, west of Nichols Ave, SE	006	05/03/10	*			
9	13th Street and Ridge Place, SE	007	05/03/10	*			
11	"O" Street Pumping Station	011(a)	05/13/10	*			
12	Storm Pump Discharge at Main Pumping Station	011	05/13/10	*			
13	2nd Street, 300 ft. north of N Place, SE	009	05/03/10	*			
14	2nd Street, 250 ft. north of N Place, SE	011(a)	05/13/10	*			
15	South Capitol and E Streets	010	05/13/10	*			
15a	Half and L Streets, SE	010	05/11/10	*			
15b	South Capitol and I Streets	010	05/11/10	*			
15c	South Capitol and I Streets	010	05/11/10	*			
16	North of Main Sewage Pumping Station	012	05/13/10	*			
17	4th and N Streets, SE, Both Extended	013	05/10/10	*			
17a	K Street between 6th Street and 7th Street, SE	013	05/24/10	*			
18	6th and M Streets, SE	014	05/10/10	*			
19	9th and M Streets, SE	015	05/05/10	*			
19a	9th and M Streets, SE	015	05/10/10	*			
20	12th and M Streets, SE	016	05/10/10	*			
20a	12th and M Streets, SE	016	05/05/10	*			
21	14th and M Streets, SE	017	05/21/10	*			

Struct No.	*Location*	*Associated NPDES Outfall*	*Date Inspected*	*Condition*		*Work Needed*	*Work performed*
				Good	Needs Work		
22a	Barney Circle and Pennsylvania Ave, SE	018	05/21/10	*			
22b	Barney Circle and Pennsylvania Ave, SE	018	05/21/10	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	05/21/10	*			
22d	Kentucky Ave and Potomac Street, SE	018	05/26/10	*			
22e	14th Street and Kentucky Ave, SE	018	05/26/10	*			
23	Independence Ave, 21st Street, SE, Extended	019	05/14/10	*			
24a	East Capitol St, west of RFK stadium	019	05/14/10	*			
28	21st and Constitution Ave, NW	020	05/14/10	*			
29	22nd Street, between Constitution Ave and C St, NW	020	05/17/10	*			
30	17th and D Streets, NW	020	05/17/10	*			
31	15th Street and Pennsylvania Ave, NW	020	05/19/10	*			
33	10th and F Streets, NW	020	05/19/10	*			
34	23rd Street, north of Constitution Ave, NW	020	05/19/10	*			
34a	23rd Street near C Street, NW	020	05/13/10	*			
35	Northeast of Roosevelt Bridge, NW (1)	021	05/13/10	*			
36	27th and I Streets, NW	022	05/17/10	*			
36a	New Hampshire Ave and Eye Street, NW	022	05/11/10	*			
36b	19th and L Streets, NW	022, 034	05/11/10	*			
36d	17th and L Streets, NW	022, 034	05/11/10	*			
36g	18th and M Streets, NW	022, 034	05/11/10	*			
36h	18th and M Streets, NW	022, 034	05/11/10	*			
37	27th and Eye Streets, NW	022	05/17/10	*			
38	29th and K Streets, NW	024	05/05/10	*			
38a	30th Street, south of K Street, NW	024	05/05/10	*			
39a	30th and K Streets, NW	024	05/05/10	*			
39b	30th and K Streets, NW	024	05/05/10	*			
41b	31st and K Streets, NW	025	05/14/10	*			
41c	31st and K Streets, NW	025	05/14/10	*			

Struct No.	*Location*	*Associated NPDES Outfall*	*Date Inspected*	*Condition*		*Work Needed*	*Work performed*
				Good	Needs Work		
42	Wisconsin Ave and K Street, NW	026	05/14/10	*			
43	Potomac and Water Streets, NW	027	05/14/10	*			
43a	Potomac and Water Streets, NW	027	05/14/10	*			
44	Water Street, west of Potomac St, NW	027	05/14/10	*			
45	36th and M Streets, NW (1)	028	05/10/10	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	05/10/10	*			
47	38th Street and Reservoir Road, NW	029	05/10/10	*			
47a	37th and T Streets, NW	029	05/10/10	*			
47b	37th and T Streets, NW	029	05/10/10	*			
47c	38th and W Streets, NW	029	05/10/10	*			
49	Pennsylvania Ave, east side of Rock Creek, NW	031	05/11/10	*			
50	26 and M Streets, NW	032	05/11/10	*			
51	N Street Extended, west of 25th Street, NW	033	05/11/10	*			
52	22nd Street between M and N Streets, NW	034	05/20/10	*			
52a	N Street between 22nd and 23rd Streets, NW	034	05/20/10	*			
53	22nd and M Streets, NW	022, 034	05/20/10	*			
53a	22nd and M Streets, NW	022, 034	05/20/10	*			
53b	L Street between 21st Street and New Hampshire Ave, NW	022, 034	05/19/10	*			
53c	L and 22nd Streets, NW	022	05/19/10	*			
54	23rd and O Streets, NW	034	05/21/10	*			
55	22nd Street, south of Q Street, NW	035	05/21/10	*			
55a	22nd Street, south of Q Street, NW	035	05/21/10	*			
56	23rd and Massachusetts Ave, NW	036	05/21/10	*			
57	23rd Street, south of Q Street, NW	036	05/21/10	*			
58	Northwest of Belmont Road and Rock Creek and Potomac Parkway, NW	037	05/24/10	*			
59	North of Belmont Rd, east of Kalorama Cir, NW	038	05/24/10	*			
60	Connecticut Ave, east of Rock Creek, NW	039	05/11/10	*			

Struct No.	*Location*	*Associated NPDES Outfall*	*Date Inspected*	*Condition*		*Work Needed*	*Work performed*
				Good	Needs Work		
61	Biltmore St, Extended, east of Rock Creek, NW	040	05/11/10	*			
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	05/11/10	*			
63	Harvard Street and Rock Creek Parkway, NW	042	05/12/10	*			
64	Adams Mill Road, south of Irving Street, NW	043	05/12/10	*			
65	Kenyon Street and Adams Mill Road, NW	044	05/12/10	*			
65a	Kenyon Street and Adams Mill Road, NW	044	05/12/10	*			
66	Adams Mill Road and Lamont Street, NW	045	05/12/10	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	05/12/10	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	05/12/10	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	05/12/10	*			
70	Piney Branch Parkway, west of 16th Street, NW	049	05/12/10	*			
70i	5th and Quackenbos Streets, NW	049	05/10/10	*			
71	28th Street, west of Rock Creek Parkway, NW	050	05/19/10	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	05/21/10	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	05/21/10	*			
73	O Street Extended and Rock Creek Parkway, NW	052	05/21/10	*			
74	Q Street, west of Rock Creek, NW	053	05/28/10	*			
75	West side of Rock Creek, 300 ft. south of Massachusetts Ave, NW	054	05/28/10	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	05/28/10	*			
77a	Normanstone Dr and Normanstone Lane, NW	056	05/28/10	*			
78	28th Street Extended, west of Rock Creek, NW	057	05/28/10	*			
79	Connecticut Ave and Rock Creek Parkway, NW	058	05/21/10	*			
84	26th and P Streets, NW	060	05/21/10	*			
84a	26th and P Streets, NW	060	05/21/10	*			

Notes:

1. For regulators noted as “visually checked outfall”, the outfall was visually observed to confirm no DWO was occurring.

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	05/12/10	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	05/27/10	*		*		*		*		
006	Good Hope Road and Welsh Memorial Bridge	05/27/10	*		*		*		*		
007	Between 11th St. and Anacostia Bridges, SE	05/27/10	*		*		*		*		
009	O St. Sewage Pumping Station, SE	05/20/10	*		*		*		*		
010	O St. Sewage Pumping Station, SE	05/20/10	*			*			*		
011	Main Sewage Pumping Station, SE	05/20/10	*			*			*		
011(a)	Main Sewage Pumping Station, SE	05/20/10	*		*		*		*		
012	Main Sewage Pumping Station, SE	05/20/10	*		*		*		*		
013	Southeast Federal Center, aligned with 4th St.	05/28/10	*		*		*		*		
014	Navy Yard, aligned with 6th St., SE	05/28/10	*		*		*		*		
015	Navy Yard, aligned with 9th Street, SE	05/28/10	*			*			*		
016	12th and O Streets, SE	05/28/10	*		*		*		*		
017	M and Water Street, SE	05/28/10	*		*		*		*		
018	East of Barney Circle and South of Pennsylvania Avenue Bridge, SE	05/28/10	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility and D.C. General Hospital	05/28/10	*			*			*		

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	
020	Rock Creek Parkway and Independence, NW	05/27/10	*		*		*		*		
021	Rock Creek Parkway and C St., NW	05/27/10	*			*			*		
022	Rock Creek Parkway and G St., NW	05/27/10	*		*		*		*		
024	South of 30th and K Streets, NW	05/27/10	*		*			*	*		
025	South of 31st and K Streets, NW	05/27/10	*		*		*		*		
026	Wisconsin Avenue and Water Street, NW	05/27/10	*		*		*		*		
027	33rd and Water Sts., NW	05/27/10	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	05/27/10	*			*			*		
029	Adjacent to C&O Canal, aligned with 38th St. NW	05/27/10	*		*		*		*		
031	Rock Creek Pkwy and Pennsylvania Avenue, NW.	05/27/10	*			*			*		
032	26th and M Street, NW.	05/11/10	*			*			*		
033	Across street from St. Francis Jr. High and aligned with N St., NW.	05/11/10	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	05/21/10	*		*		*		*		
035	P St. Bridge and Rock Creek Parkway	05/21/10	*		*		*		*		
036	22nd Street, South of Q Street NW.	05/21/10	*		*		*		*		
037	Waterside Dr. and Rock Creek Parkway	05/25/10	*		*		*		*		
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	05/24/10	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	05/11/10	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	05/11/10	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	05/25/10	*		*		*		*		

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	
042	Harvard St. and Beach Dr NW.	05/25/10	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	05/25/10	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	05/25/10	*		*		*		*		
045	North of Beach Dr. and Walbridge Pl, NW.	05/25/10	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	05/12/10	*			*			*		
047	Piney Branch Parkway and Ingleside Terrace	05/12/10	*		*		*		*		
048	South of Piney Branch Parkway and 17th St.	05/12/10	*		*		*		*		
049	North of Piney Branch Parkway and 17th St.	05/12/10	*		*		*		*		
050	Rock Creek Parkway and L St., NW	0519/10	*		*		*		*		
051	Across Rock Creek Parkway, aligned with Olive St., NW.	05/19/10	*		*		*		*		
052	Between P and Penna. Ave Bridges, aligned with O Street, NW.	05/25/10	*		*		*		*		
053	Q St. Bridge and Rock Creek Parkway, NW.	05/25/10	*		*		*		*		
054	Massachusetts Avenue and Rock Creek Parkway, NW.	05/28/10	*		*		*		*		
056	Normanstone Dr. and Rock Creek Parkway, NW.	05/28/10	*		*		*		*		

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	
057	28th Street and Rock Creek Parkway, NW	05/28/10	*		*		*		*		
058	Connecticut Avenue and Rock Creek Parkway, NW.	05/11/10	*			*			*		
060	North of P Street Bridge and Rock Creek Pkwy, NW	05/25/10	*		*		*		*		

2.3 Pumping Stations

Pumping station operations are summarized in the table below.

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

Pumping Station	*No. of Inspections*	*No. Screens*	*No. Pumps*	*Screens or Pumps Out of Service*	*Dates*	*Reason*	*Schedule to Restore to Service*
Main	30	4	10	N/A		N/A	
Eastside	30	2	4	# 1 Screen	4/1/10	Motor bad	July 31, 2010
Poplar Point	30	2 [1]	3	# 1 Sanitary Pump # 3 Sanitary Pump	4/1/10 4/1/10	Pump bad-Rebuild Pump jammed	July 31, 2010 July 31, 2010
Potomac	30	4	5	# 1 Sanitary Pump	5/17/10	Pump protection panel display bad	May 30, 2010

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

Pumping Station	*Date Performed*	*Type of Preventive Maintenance Performed*[1]	*Comments*
Main	05/27/10	Group A	Add oil, grease bearings and replace packing if needed.
O St	05/27/10	Group A	Add oil, grease bearings and replace packing if needed.
Eastside	05/27/10	Group A	Add oil, grease bearings and replace packing if needed.
Poplar Point	05/27/10	Group A	Add oil, grease bearings and replace packing if needed.
Potomac	05/27/10	Group A	Add oil, grease bearings and replace packing if needed.
Rock Creek	05/27/10	Group A	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	05/27/10	Group A	Add oil, grease bearings and replace packing if needed.
Earle Place	05/27/10	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

	Sanitary Pumpage		*Storm Water/CSO Pumped To Anacostia River*		
Pumping Station	*Total Wastewater (mg)*	*Daily Average Wastewater (mg)*	*Date*	*Volume (mg)*	*Screenings Collected (units)*
Main	1,653.80	59.06	N/A	N/A	N/A
O St[1]	139.80	4.99	N/A	None	Normal
Eastside	512.87	18.32	N/A	N/A	N/A
Poplar Point	603.90	21.57	N/A	N/A	N/A
Potomac	3,695.40	131.98	N/A	N/A	N/A
Rock Creek	200.83	7.17	N/A	N/A	N/A
Upper Anacostia	48.96	1.75	N/A	N/A	N/A
Earle Place	0.22	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

Date Inspected	*# Screens*	*# Swirls*	*Screens or Swirls Out of Service*	*Dates*	*Reason*	*Schedule to Restore to Service*
05/26/10	1,2 & 3	1,2 & 3	None	N/a	N/a	N/a

Table 2-7
Northeast Boundary Swirl Facility – Preventive Maintenance

Date Performed	*Type of Preventive Maintenance Performed*[1]	*Comments*
05/26/10	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

Date	*Approx. Storm Duration[1] (Hours)*	*Total Influent Volume (mg)*	*Total Foul Sewer Volume (mg)*	*Total Effluent Volume[2] (mg)*	*Approx. Screenings Volume[3] # of bins (cu ft)*
05/03/2010	2	9.08	9.08	0	(0.75)60
05/14/2010	8	4.53	4.53	0	(1.25)100
05/17/2010	4	3.19	3.19	0	(0.65)52
05/23/2010	8	16.79	3.88	12.91	(1.50)120
05/28/2010	7.5	4.57	4.57	0	(1.00)80

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

Date	*Chlor/ Dechlor System Used?*	*Dosages*		*Residual Chlorine Test Results*		*Enterococcus Test Results*		*Fecal Coliform Test Results*	
		NaOCl (mg/l)	*$NaHSO_3$ (mg/l)*	*Location*	*Conc. (mg/l)*	*Site*	*Count Per 100ml*	*Site*	*Count Per 100ml*
05/23/2010	Yes	5	2	Mix Chamber	0.1	Mix Chamber	<10	Mix Chamber	<10
05/23/2010	Yes	5	2	Anacostia River	0.0	Anacostia River	108	Anacostia River	<10

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

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

	Flow Composited Sample Results						
Date	*Total suspended solids (mg/L)*	*Nitrite (NO2-N) mg/L*	*Nitrate (NO3-N)) mg/L*	*Total Kjeldahl Nitrogen (mg/L as N)*	*Total Nitrogen (mg/L)*	*Total Phosphorus (mg/L)*	*Carbonaceous Biological Oxygen Demand (mg/L)*
5/23/10	126	0.00	0.40	1.99	2.39	0.43	10.1

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

Inflatable Dam Structure No	*Date Inspected*	*Was Dam Out of Service During the Month?*	*Dates out of Service*	*Reason*	*Schedule to Restore to Service*
14 - East	05/25/10	**No**	**N/A**	**N/A**	**N/A**
14 - West	05/25/10	**No**	**N/A**	**N/A**	**N/A**
15	05/25/10	**No**	**N/A**	**N/A**	**N/A**
15A	05/25/10	**No**	**N/A**	**N/A**	**N/A**
16 - East	05/25/10	**No**	**N/A**	**N/A**	**N/A**
16 - West	05/25/10	**No**	**N/A**	**N/A**	**N/A**
24 – North	05/25/10	**No**	**N/A**	**N/A**	**N/A**
24 - Middle	05/25/10	**No**	**N/A**	**N/A**	**N/A**
24 - South	05/25/10	**No**	**N/A**	**N/A**	**N/A**
34	05/25/10	**No**	**N/A**	**N/A**	**N/A**
35	05/25/10	**No**	**N/A**	**N/A**	**N/A**
52	05/25/10	**No**	**N/A**	**N/A**	**N/A**

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

Inflatable Dam Structure No.	*Overflow Dates*	*Estimated Duration of Overflow (hrs)*
14 (E & W)	*None*	*N/A*
15	*None*	*N/A*
15A	*None*	*N/A*
16 (E & W)	*None*	*N/A*
24	*None*	*N/A*
34	*None*	*N/A*
35	*None*	*N/A*
52	*None*	*N/A*
Structures on Outfall Sewers	*Overflow Dates*	*Estimated Duration of Overflow (hrs)*
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
Outfall Sewer Control Gates	*Operational Status*	*Position*
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 overflow (DWOs) during May 2010.

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

				Anacostia CSS Inspections		*Cleaning*					
				Total CBs Inspected Once this Year	*Total CBs Inspected Twice this Year*	*CBs Cleaned Thru Last Month*		*CB's Cleaned this Month*		*Total CBs Cleaned This Year to Date*	
Ward	*Total CBs*	*CBs in CSS*	*CBs in Anacostia CSS*			Total	In CSS	Total	In CSS	Total	In CSS
1	1,591	1,568	734	734	158	1829	1658	73	71	1902	1729
2	4,714	4,112	2,316	975	36	1454	1259	543	473	1997	1732
3	3,555	461	-	0	0	3550	352	666	60	4216	412
4	2,782	1,985	159	65	0	1132	592	321	229	1453	821
5	2,167	1,035	1,035	1035	508	2167	1095	939	448	3106	1543
6	1,783	1,594	1,594	109	65	100	76	37	33	137	109
7	2,313	-	-	0	0	309	0	63	0	372	0
8	1,278	116	116	26	0	85	26	0	0	85	26
WASA Subtotal	**20,183**	**10,871**	**5,954**	**2,944**	**767**	**10,626**	**5,058**	**2,642**	**1,314**	**13,268**	**6,372**
DDOT (via VMS) Subtotal				**0**	**0**			**0**	**0**	**0**	**0**
Grand Total	**20,183**	**10,871**	**5,954**	**2,944**	**767**			**2,642**	**1,314**	**13,268**	**6,372**
% Cleaned/Inspected to Date				**49%**	**13%**					**66%**	**59%**

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

Facility	*Date Inspected*	*Condition*	*Work Needed*	*Work performed*	*Material Removed (CY)*
Netting System CSO 018	5/24/10	Good	Minor Maintenance	Nets Cleaned	400 lbs.
Bar Rack CSO 040	5/11/10	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	5/25/10	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

Program Operation	5-day work week, excluding holidays, weather permitting
Work Days this month:	20
Days not Operating	2
Reason not Operating	Inclement weather - strong winds
# Skimmer in Fleet	2 skimmers
# Skimmers Out of Service	None
Dates	n/a
Reason	n/a
Plan to Restore to Service	n/a.
Volume Material Collected	20 tons.
Nature of Material	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: **Inspector's Initials:**

CSO	Time of Observation	Overflo Y	Overflo N	Observed L	Observed M	Observed H	Quantity of L	Quantity of M	Quantity of H	Quantity of L	Quantity of M	Quantity of H	REMARKS/OTHER
009													
010				NONE									
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
5/1/2010	0	0	0	0
5/2/2010	0	0	0	0
5/3/2010	0.32	0.02	0.29	0.29
5/4/2010	0	0	0.01	0.01
5/5/2010	0	0	0	0
5/6/2010	0	0	0	0
5/7/2010	0	0	0	0
5/8/2010	0	0	0	0
5/9/2010	0	0.03	0	0
5/10/2010	0	0	0	0
5/11/2010	0.01	0	0.04	0.04
5/12/2010	0.08	0.01	0.01	0.01
5/13/2010	0.01	0	0	0
5/14/2010	0.11	0	0.25	0.25
5/15/2010	0	0	0	0
5/16/2010	0	0	0	0
5/17/2010	0.29	0	0.25	0.25
5/18/2010	0.09	0	0.03	0.03
5/19/2010	0	0	0	0
5/20/2010	0	0	0	0
5/21/2010	0	0	0.02	0.02
5/22/2010	0.01	0	0.02	0.02
5/23/2010	0.56	0	0.39	0.39
5/24/2010	0	0	0.04	0.04
5/25/2010	0	0	0.03	0.03
5/26/2010	0	0	0	0
5/27/2010	0.01	0	0.34	0.34
5/28/2010	0	0	0.24	0.24
5/29/2010	0	0	0	0
5/30/2010	0	0	0	0
5/31/2010	0	0	0	0
TOTALS	1.49	0.06	1.96	1.96

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

Monthly Operations Report For *Combined Sewer System*

Month: June 2010

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: June 2010

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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 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

Struct No.	*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	06/10/10	*			
4	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	06/10/10	*			
5	Poplar Point Pumping Station	004	06/17/10	*			
6	Chicago Street and Railroad Ave, SE	005	06/01/10	*			
7	W Street and Railroad Ave, SE	005	06/01/10	*			
8	Good Hope Rd, west of Nichols Ave, SE	006	n/a	*			Combined flow at this structure was separated on May 25, 2010.
9	13th Street and Ridge Place, SE	007	06/01/10	*			
11	"O" Street Pumping Station	011(a)	06/17/10	*			
12	Storm Pump Discharge at Main Pumping Station	011	06/17/10	*			
13	2nd Street, 300 ft. north of N Place, SE	009	06/09/10	*			
14	2nd Street, 250 ft. north of N Place, SE	011(a)	06/17/10	*			
15	South Capitol and E Streets	010	06/11/10	*			
15a	Half and L Streets, SE	010	06/11/10	*			
15b	South Capitol and I Streets	010	06/11/10	*			
15c	South Capitol and I Streets	010	06/11/10	*			
16	North of Main Sewage Pumping Station	012	06/17/10	*			
17	4th and N Streets, SE, Both Extended	013	06/09/10	*			
17a	K Street between 6th Street and 7th Street, SE	013	06/18/10	*			
18	6th and M Streets, SE	014	06/01/10	*			
19	9th and M Streets, SE	015	06/23/10	*			
19a	9th and M Streets, SE	015	06/23/10	*			
20	12th and M Streets, SE	016	06/23/10	*			

Struct No.	*Location*	*Associated NPDES Outfall*	*Date Inspected*	*Condition*		*Work Needed*	*Work performed*
				Good	Needs Work		
20a	12th and M Streets, SE	016	06/23/10	*			
21	14th and M Streets, SE	017	06/18/10	*			
22a	Barney Circle and Pennsylvania Ave, SE	018	06/25/10	*			
22b	Barney Circle and Pennsylvania Ave, SE	018	06/25/10	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	06/25/10	*			
22d	Kentucky Ave and Potomac Street, SE	018	06/02/10	*			
22e	14th Street and Kentucky Ave, SE	018	06/02/10	*			
23	Independence Ave, 21st Street, SE, Extended	019	06/25/10	*			
24a	East Capitol St, west of RFK stadium	019	06/08/10	*			
28	21st and Constitution Ave, NW	020	06/11/10	*			
29	22nd Street, between Constitution Ave and C St, NW	020	06/11/10	*			
30	17th and D Streets, NW	020	06/07/10	*			
31	15th Street and Pennsylvania Ave, NW	020	06/07/10	*			
33	10th and F Streets, NW	020	06/07/10	*			
34	23rd Street, north of Constitution Ave, NW	020	06/17/10	*			
34a	23rd Street near C Street, NW	020	06/11/10	*			
35	Northeast of Roosevelt Bridge, NW	021	06/17/10	*			
36	27th and I Streets, NW	022	06/14/10	*			
36a	New Hampshire Ave and Eye Street, NW	022	06/14/10	*			
36b	19th and L Streets, NW	022, 034	06/14/10	*			
36d	17th and L Streets, NW	022, 034	06/14/10	*			
36g	18th and M Streets, NW	022, 034	06/14/10	*			
36h	18th and M Streets, NW	022, 034	06/14/10	*			
37	27th and Eye Streets, NW	022	06/14/10	*			
38	29th and K Streets, NW	024	06/02/10	*			
38a	30th Street, south of K Street, NW	024	06/02/10	*			
39a	30th and K Streets, NW	024	06/02/10	*			
39b	30th and K Streets, NW	024	06/02/10	*			

Struct No.	*Location*	*Associated NPDES Outfall*	*Date Inspected*	*Condition*		*Work Needed*	*Work performed*
				Good	Needs Work		
41b	31st and K Streets, NW	025	06/09/10	*			
41c	31st and K Streets, NW	025	06/09/10	*			
42	Wisconsin Ave and K Street, NW	026	06/09/10	*			
43	Potomac and Water Streets, NW	027	06/09/10	*			
43a	Potomac and Water Streets, NW	027	06/09/10	*			
44	Water Street, west of Potomac St, NW	027	06/09/10	*			
45	36th and M Streets, NW	028	06/07/10	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	06/07/10	*			
47	38th Street and Reservoir Road, NW	029	06/07/10	*			
47a	37th and T Streets, NW	029	06/07/10	*			
47b	37th and T Streets, NW	029	06/07/10	*			
47c	38th and W Streets, NW	029	06/07/10	*			
49	Pennsylvania Ave, east side of Rock Creek, NW	031	06/14/10	*			
50	26 and M Streets, NW	032	06/14/10	*			
51	N Street Extended, west of 25th Street, NW	033	06/14/10	*			
52	22nd Street between M and N Streets, NW	034	06/24/10	*			
52a	N Street between 22nd and 23rd Streets, NW	034	06/24/10	*			
53	22nd and M Streets, NW	022, 034	06/24/10	*			
53a	22nd and M Streets, NW	022, 034	06/24/10	*			
53b	L Street between 21st Street and New Hampshire Ave, NW	022, 034	06/14/10	*			
53c	L and 22nd Streets, NW	022	06/14/10	*			
54	23rd and O Streets, NW	034	06/21/10	*			
55	22nd Street, south of Q Street, NW	035	06/21/10	*			
55a	22nd Street, south of Q Street, NW	035	06/21/10	*			
56	23rd and Massachusetts Ave, NW	036	06/21/10	*			
57	23rd Street, south of Q Street, NW	036	06/21/10	*			
58	Northwest of Belmont Road and Rock Creek and Potomac Parkway, NW	037	06/18/10	*			
59	North of Belmont Rd, east of Kalorama Cir, NW	038	06/18/10	*			

Struct No.	*Location*	*Associated NPDES Outfall*	*Date Inspected*	*Condition*		*Work Needed*	*Work performed*
				Good	Needs Work		
60	Connecticut Ave, east of Rock Creek, NW	039	06/18/10	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	06/18/10	*			
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	06/16/10	*			
63	Harvard Street and Rock Creek Parkway, NW	042	06/16/10	*			
64	Adams Mill Road, south of Irving Street, NW	043	06/16/10	*			
65	Kenyon Street and Adams Mill Road, NW	044	06/16/10	*			
65a	Kenyon Street and Adams Mill Road, NW	044	06/16/10	*			
66	Adams Mill Road and Lamont Street, NW	045	06/16/10	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	06/16/10	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	06/16/10	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	06/16/10	*			
70	Piney Branch Parkway, west of 16th Street, NW	049	06/16/10	*			
70i	5th and Quackenbos Streets, NW	049	06/02/10	*			
71	28th Street, west of Rock Creek Parkway, NW	050	06/02/10	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	06/18/10	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	06/18/10	*			
73	O Street Extended and Rock Creek Parkway, NW	052	06/18/10	*			
74	Q Street, west of Rock Creek, NW	053	06/21/10	*			
75	West side of Rock Creek, 300 ft. south of Massachusetts Ave, NW	054	06/25/10	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	06/25/10	*			
77a	Normanstone Dr and Normanstone Lane, NW	056	06/21/10	*			
78	28th Street Extended, west of Rock Creek, NW	057	06/25/10	*			
79	Connecticut Ave and Rock Creek Parkway, NW	058	06/10/10	*			
84	26th and P Streets, NW	060	06/18/10	*			
84a	26th and P Streets, NW	060	06/18/10	*			

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	06/10/10	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	06/10/10	*		*		*		*		
006	Good Hope Road and Welsh Memorial Bridge	06/10/10	*		*		*		*		
007	Between 11th St. and Anacostia Bridges, SE	06/10/10	*		*		*		*		
009	O St. Sewage Pumping Station, SE	09/10/10	*		*		*		*		
010	O St. Sewage Pumping Station, SE	06/28/10	*			*			*		
011	Main Sewage Pumping Station, SE	06/28/10	*			*			*		
011(a)	Main Sewage Pumping Station, SE	06/28/10	*		*		*		*		
012	Main Sewage Pumping Station, SE	06/28/10	*		*		*		*		
013	Southeast Federal Center, aligned with 4th St.	06/09/10	*		*		*		*		
014	Navy Yard, aligned with 6th St., SE	06/21/10	*		*		*		*		
015	Navy Yard, aligned with 9th Street, SE	06/21/10	*			*			*		
016	12th and O Streets, SE	06/28/10	*		*		*		*		
017	M and Water Street, SE	06/28/10	*		*		*		*		
018	East of Barney Circle and South of Pennsylvania Avenue Bridge, SE	06/28/10	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility and D.C. General Hospital	06/29/10	*			*			*		
020	Rock Creek Parkway and Independence, NW	06/29/10	*		*		*		*		
021	Rock Creek Parkway and C St., NW	06/29/10	*			*			*		
022	Rock Creek Parkway and G St., NW	06/29/10	*		*		*		*		
024	South of 30th and K Streets, NW	06/29/10	*		*			*	*		WASA has developed a capitol project to design and construct a replacement gate for improved performance.

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	
025	South of 31st and K Streets, NW	06/29/10	*		*		*		*		
026	Wisconsin Avenue and Water Street, NW	06/29/10	*		*		*		*		
027	33rd and Water Sts., NW	06/29/10	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	06/29/10	*			*			*		
029	Adjacent to C&O Canal, aligned with 38th St. NW	06/29/10	*		*		*		*		
031	Rock Creek Pkwy and Pennsylvania Avenue, NW.	06/14/10	*			*			*		
032	26th and M Street, NW.	06/14/10	*			*			*		
033	Across street from St. Francis Jr. High and aligned with N St., NW.	06/14/10	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	06/21/10	*		*		*		*		
035	P St. Bridge and Rock Creek Parkway	06/21/10	*		*		*		*		
036	22nd Street, South of Q Street NW.	06/10/10	*		*		*		*		
037	Waterside Dr. and Rock Creek Parkway	06/18/10	*		*		*		*		
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	06/18/10	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	06/18/10	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	06/18/10	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	06/23/10	*		*		*		*		
042	Harvard St. and Beach Dr NW.	06/23/10	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	06/23/10	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	06/23/10	*		*		*		*		
045	North of Beach Dr. and Walbridge Pl, NW.	06/23/10	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	06/17/10	*			*			*		
047	Piney Branch Parkway and Ingleside Terrace	06/17/10	*		*		*		*		

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	
048	South of Piney Branch Parkway and 17th St.	06/17/10	*		*		*		*		
049	North of Piney Branch Parkway and 17th St.	06/17/10	*		*		*		*		
050	Rock Creek Parkway and L St., NW	06/02/10	*		*		*		*		
051	Across Rock Creek Parkway, aligned with Olive St., NW.	06/10/10	*		*		*		*		
052	Between P and Penna. Ave Bridges, aligned with O Street, NW.	06/10/10	*		*		*		*		
053	Q St. Bridge and Rock Creek Parkway, NW.	06/10/10	*		*		*		*		
054	Massachusetts Avenue and Rock Creek Parkway, NW.	06/25/10	*		*		*		*		
056	Normanstone Dr. and Rock Creek Parkway, NW.	06/25/10	*		*		*		*		
057	28th Street and Rock Creek Parkway, NW	06/25/10	*		*		*		*		
058	Connecticut Avenue and Rock Creek Parkway, NW.	06/10/10	*			*			*		
060	North of P Street Bridge and Rock Creek Pkwy, NW	06/10/10	*		*		*		*		

Notes:

2.3 Pumping Stations

Pumping station operations are summarized in the table below.

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

Pumping Station	*No. of Inspections*	*No. Screens*	*No. Pumps*	*Screens or Pumps Out of Service*	*Dates*	*Reason*	*Schedule to Restore to Service*
Main	31	4	10	N/A		N/A	
Eastside	31	2	4	# 1 Screen	4/1/10	Motor bad	July 31, 2010
Poplar Point	31	2 [1]	3	# 1 Sanitary Pump # 3 Sanitary Pump	4/1/10 4/1/10	Pump bad – rebuild Pump jammed	July 31, 2010 July 31, 2010
Potomac	31	4	5	N/A		N/A	

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

Pumping Station	*Date Performed*	*Type of Preventive Maintenance Performed*[1]	*Comments*
Main	06/23/10	Group A	Add oil, grease bearings and replace packing if needed.
O St	06/23/10	Group A	Add oil, grease bearings and replace packing if needed.
Eastside	06/23/10	Group A	Add oil, grease bearings and replace packing if needed.
Poplar Point	06/23/10	Group A	Add oil, grease bearings and replace packing if needed.
Potomac	06/23/10	Group A	Add oil, grease bearings and replace packing if needed.
Rock Creek	06/23/10	Group A	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	06/23/10	Group A	Add oil, grease bearings and replace packing if needed.
Earle Place	06/23/10	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

	Sanitary Pumpage		*Storm Water/CSO Pumped To Anacostia River*		
Pumping Station	*Total Wastewater (mg)*	*Daily Average Wastewater (mg)*	*Date*	*Volume (mg)*	*Screenings Collected (units)*
Main	2,146.30	71.54	N/A	N/A	N/A
O St[1]	134.20	4.47	06/01 06/28	8.8 15.5	Normal Normal
Eastside	453.06	14.61	N/A	N/A	N/A
Poplar Point	576.00	18.58	N/A	N/A	N/A
Potomac	3,740.00	124.67	N/A	N/A	N/A
Rock Creek	143.33	4.62	N/A	N/A	N/A
Upper Anacostia	54.17	1.75	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

Date Inspected	*# Screens*	*# Swirls*	*Screens or Swirls Out of Service*	*Dates*	*Reason*	*Schedule to Restore to Service*
06/25/10	1,2 & 3	1,2 & 3	None	N/a	N/a	N/a

Table 2-7
Northeast Boundary Swirl Facility – Preventive Maintenance

Date Performed	*Type of Preventive Maintenance Performed*[1]	*Comments*
06/25/10	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

Date	*Approx. Storm Duration[1] (Hours)*	*Total Influent Volume (mg)*	*Total Foul Sewer Volume (mg)*	*Total Effluent Volume[2] (mg)*	*Approx. Screenings Volume[3] # of bins (cu ft)*
6/1/2010	5	3.90	3.90	0	0.60 (48)
6/14/2010	6	6.21	6.21	0	0.80 (64)
6/27/2010	4	0.69	0.69	0	0.00(0)
6/28/2010	5	5.82	5.82	0	2.20(176)

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

Date	*Chlor/ Dechlor System Used?*	*Dosages*		*Residual Chlorine Test Results*		*Enterococcus Test Results*		*Fecal Coliform Test Results*	
		NaOCl (mg/l)	*$NaHSO_3$ (mg/l)*	*Location*	*Conc. (mg/l)*	*Site*	*Count Per 100ml*	*Site*	*Count Per 100ml*
			NONE						

Note: * Samples were collected and transported to the Laboratory for testing; the Laboratory was unable to account for the sample. A review of procedures has been conducted with laboratory and sampling personnel to prevent re-occurrence.

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

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

Date	*Flow Composited Sample Results*						
	Total suspended solids (mg/L)	*Nitrite (NO2-N) mg/L*	*Nitrate (NO3-N)) mg/L*	*Total Kjeldahl Nitrogen (mg/L as N)*	*Total Nitrogen (mg/L)*	*Total Phosphorus (mg/L)*	*Carbonaceous Biological Oxygen Demand (mg/L)*
	NONE						

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

Inflatable Dam Structure No	*Date Inspected*	*Was Dam Out of Service During the Month?*	*Dates out of Service*	*Reason*	*Schedule to Restore to Service*
14 - East	06/24/10	**No**	**N/A**	**N/A**	**N/A**
14 - West	06/24/10	**No**	**N/A**	**N/A**	**N/A**
15	06/24/10	**No**	**N/A**	**N/A**	**N/A**
15A	06/24/10	**No**	**N/A**	**N/A**	**N/A**
16 - East	06/24/10	**No**	**N/A**	**N/A**	**N/A**
16 - West	06/24/10	**No**	**N/A**	**N/A**	**N/A**
24 - North	06/24/10	**No**	**N/A**	**N/A**	**N/A**
24 - Middle	06/24/10	**No**	**N/A**	**N/A**	**N/A**
24 - South	06/24/10	**No**	**N/A**	**N/A**	**N/A**
34	06/24/10	**No**	**N/A**	**N/A**	**N/A**
35	06/24/10	**No**	**N/A**	**N/A**	**N/A**
52	06/24/10	**No**	**N/A**	**N/A**	**N/A**

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

Inflatable Dam Structure No.	*Dam Location*	*Overflow Dates*	*Estimated Duration of Overflow (hrs)*
14 (E & W)	*2 nd & N Street, SE Main Pumping Station*	*None*	*N/A*
15	*South Capitol & E Sts., SE*	*None*	*N/A*
15A	*Half & L Streets, SE*	*None*	*N/A*
16 (E & W)	*2 nd & N Street, SE Main Pumping Station*	*None*	*N/A*
24	*Northeast Boundary Swirl Facility*	*None*	*N/A*
34	*23rd & Constitution Ave., NW*	*None*	*N/A*
35	*Parking Lot, East of Kennedy Center, NW*	*None*	*N/A*
52	*22nd Street, between M & N Streets, NW*	*None*	*N/A*
Structures on Outfall Sewers		*Overflow Dates*	*Estimated Duration of Overflow (hrs)*
Outfall Structure 1	Blue Plains	None	This structure has been bulk-headed. Overflows are no longer possible.
Outfall Structure 1A	Blue Plains	None	This structure has been bulk headed. Overflows are no longer possible.
Outfall Structure 2(E & W)	Bowling AFB- Eglin Way & McGuire, SW	None	None
Outfall Sewer Control Gates		*Operational Status*	*Position*
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:

Location	18 inch sanitary sewer just above Canal Road near Ashby and W Streets, NW
Cause	District of Columbia Water and Sewer Authority maintenance crew met a District resident to investigate a reported sanitary sewer leak.
Date/ Time Discovered	June 4, 2010 at 11:15 AM
Action Taken	WASA applied a quick setting concrete to stop the leak
Date/Time Discharge Ceased	June 4, 2010 @ 7:30 PM
Estimated Volume (mg)	8 gallons
Did Overflow Reach Receiving water?	Yes, Maddox Run, a stream from Battery Kemble Park which flows into the Potomac River.
Action taken to prevent reoccurrence	A contractor was contacted to perform permanent repairs. Each following day WASA crews made visual inspections and occasionally applied additional quick setting concrete to ensure that leakage did not recur. Permanent repairs are scheduled to begin by the middle of the week June 7, 2010.

Location	1063 Wisconsin Ave., NW
Cause	District of Columbia Water and Sewer Authority maintenance crew responded to a service request from a National Park Service Ranger regarding a sewer leak at 1063 Wisconsin Avenue. The crew observed seepage through a retaining wall close to the canal and used a close circuit television camera (CCTV) to identify the source of the problem. They found that the sewer lateral serving the building was partially collapsed.
Date/ Time Discovered	June 5, 2010 at 6:00 PM
Action Taken	DCWASA repair crew excavated and replaced the defective sewer lateral
Date/Time Discharge Ceased	June 6, 2010@ 8:30 AM
Estimated Volume (mg)	15 gallons
Did Overflow Reach Receiving water?	No.
Action taken to prevent reoccurrence	DCWASA repair crew excavated and replaced the defective sewer lateral

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

			Inspections			*Cleaning*					
						CBs Cleaned Thru Last Month		*CB's Cleaned this Month*		*Total CBs Cleaned This Year to Date*	
Ward	*Total CBs*	*CBs in CSS*	*CBs in Anacostia CSS*	*Total Anacostia CBs Inspected Once this Year*	*Total Anacostia CBs Inspected Twice this Year*	Total	In CSS	Total	In CSS	Total	In CSS
1	1,591	1,568	734	734	578	1902	1729	423	417	2325	2146
2	4,714	4,112	2,316	1540	917	1997	1732	1150	1003	3147	2735
3	3,555	461	-	0	0	4216	412	746	97	4962	509
4	2,782	1,985	159	68	0	1453	821	24	17	1477	838
5	2,167	1,035	1,035	1035	602	3106	1543	196	94	3302	1637
6	1,783	1,594	1,594	189	0	137	109	90	80	227	189
7	2,313	-	-	0	0	372	0	79	0	451	0
8	1,278	116	116	32	3	85	26	70	6	155	32
WASA Subtotal	**20,183**	**10,871**	**5,954**	**3,598**	**2,100**	**13,268**	**6,372**	**2,778**	**1,714**	**16,046**	**8,086**
DDOT (via VMS) Subtotal				**0**	**0**			**0**	**0**	**0**	**0**
Grand Total	**20,183**	**10,871**	**5,954**	**3,598**	**2,100**			**2,778**	**1,714**	**16,046**	**8,086**
% Cleaned/Inspected to Date				**60%**	**35%**					**79%**	**74%**

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

Facility	*Date Inspected*	*Condition*	*Work Needed*	*Work performed*	*Material Removed (CY)*
Netting System CSO 018	6/28/10	Good	Minor Maintenance	Nets emptied.	400 lbs.
Bar Rack CSO 040	6/18/10	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	6/23/10	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

Program Operation	5-day work week, excluding holidays, weather permitting
Work Days this month:	22
Days not Operating	3
Reason not Operating	High winds.
# Skimmer in Fleet	2 skimmers
# Skimmers Out of Service	0
Dates	n/a.
Reason	n/a.
Plan to Restore to Service	n/a.
Volume Material Collected	40 tons.
Nature of Material	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:June 1, 2010 **Inspector's 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	3:15 PM	x		x			x			x			
010	3:15 PM	x		x									
011	3:15 PM	x		x			x			x			
011a	3:15 PM	x		x			x			x			
012	3:15 PM	x		x			x			x			

Date:June 28, 2010 **Inspector's Initials: VB**

CSO	Time of Observation	Overflow		Observed			Quantity of			Quantity of			REMARKS/OTHER
		Y	N	L	M	H	L	M	H	L	M	H	
009													
010													
011													
011a													
012	4:00 PM	x		x			x			x			
	5: 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
6/1/2010	0.07	0.07	0.07	0.07
6/2/2010	0	0	0	0
6/3/2010	0	0	0	0
6/4/2010	0	0	0	0
6/5/2010	0	0	0	0
6/6/2010	0	0	0	0
6/7/2010	0	0	0	0
6/8/2010	0	0	0	0
6/9/2010	0.01	0.01	0.01	0.01
6/10/2010	0	0.03	0	0
6/11/2010	0	0	0	0
6/12/2010	0	0	0	0
6/13/2010	0	0	0	0
6/14/2010	0	0	0	0
6/15/2010	0.01	0.01	0	0.01
6/16/2010	0.01	0.01	0	0.01
6/17/2010	0	0	0	0
6/18/2010	0	0	0	0
6/19/2010	0	0	0	0
6/20/2010	0	0	0	0
6/21/2010	0	0	0	0
6/22/2010	0	0	0	0
6/23/2010	0	0	0	0
6/24/2010	0	0	0	0
6/25/2010	0	0	0	0
6/26/2010	0	0	0	0
6/27/2010	0	0	0	0
6/28/2010	0.02	0.02	0.02	0.02
6/29/2010	0	0	0	0
6/30/2010	0	0	0	0
TOTALS	0.12	0.15	0.1	0.12

District of Columbia Water and Sewer Authority

Combined Sewer System Model Results
Period: April, May, June 2010
SCENARIO: Q2Y2010, 7-15-10

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	0.24	9.00	1.29	1.75	0.25
006	Good Hope Road, West of Nichols Ave.,SE	0	0.00	0.00	0.00	0.00	0.00
007	13th Street and Ridge Place,SE	0	0.00	0.00	0.00	0.00	0.00
009	2nd Street, 300 feet North of N Place, SE	0	0.00	0.00	0.00	0.00	0.00
010	O Street SewagePumping Station, SE (pumped Overflow)	1	1.04	0.25	0.25	0.25	0.25
011	South of Main Sewage Pumping Station, SE (pumped overflow)	1	0.83	0.25	0.25	0.25	0.25
011a	South of Main SewagePumping Station, SE (gravity overflow)	0	0.00	0.00	0.00	0.00	0.00
012	North of Main SewagePumping Station, SE (Tiber Creek)	1	0.001	0.25	0.25	0.25	0.25
013	4th and N Streets, SE	0	0.00	0.00	0.00	0.00	0.00
014	6th and M Streets, SE	6	0.43	9.25	1.54	2.50	1.00
015	9th and M Streets, SE	1	0.0004	0.25	0.25	0.25	0.25
016	12th and M Streets, SE	0	0.00	0.00	0.00	0.00	0.00
017	14th and M Streets, SE	3	0.03	2.00	0.67	1.00	0.25
018	Barney Circle andPennsylvania Ave, SE	12	0.50	22.50	1.88	5.00	0.25
019	Northeast Boundary - Swirl Effluent	0	0.00	0.00	0.00	0.00	0.00
019	Northeast Bound. - Swirl Bypass	0	0.00	0.00	0.00	0.00	0.00
	SUBTOTAL		**3.07**				
Potomac CSOs							
003	Bolling AFB	0	0.00	0.00	0.00	0.00	0.00
020	23rd Street, North ofConstitution Ave, NW (Easby Point)	0	0.00	0.00	0.00	0.00	0.00
021	Northeast ofRoosevelt Bridge, NW	0	0.00	0.00	0.00	0.00	0.00
022	27th and K Streets, NW	4	0.01	3.00	0.75	1.25	0.50
024	30th and K Streets, NW	0	0.00	0.00	0.00	0.00	0.00
025	31st & K St NW	0	0.000	0.00	0.00	0.00	0.00
026	Wisconsin Avenue andK St., NW	0	0.00	0.00	0.00	0.00	0.00
027	Water Street West ofStreet, NW	6	0.87	26.25	4.38	8.50	2.75
028	36th and M Streets, NW	4	0.03	1.50	0.38	0.50	0.25
029	Canal Road 1000 feet east of Rock Creek,NW	0	0.00	0.00	0.00	0.00	0.00
	SUBTOTAL		**0.91**				
Rock Creek							
031	Pennsylvania Avenue, East Rock Creek, NW	0	0.00	0.00	0.00	0.00	0.00
032	26th and M Streets, NW	0	0.00	0.00	0.00	0.00	0.00
033	N Street extendedwest of 25th Street,NW	0	0.00	0.00	0.00	0.00	0.00
034	23rd and O Streets, SW	0	0.00	0.00	0.00	0.00	0.00
035	22nd Street south of Q Street, NW	0	0.00	0.00	0.00	0.00	0.00
036	22nd Street South of Q Street, NW	0	0.0000	0.00	0.00	0.00	0.00
037	Northwest of Belmontand Rock Creek and Potomac Parkway	0	0.00	0.00	0.00	0.00	0.00
038	North of Belmont Road,east of Kalorama Circle, NW	0	0.00	0.00	0.00	0.00	0.00
039	Connecticut Avenue east of Rock Creek, NW	0	0.00	0.00	0.00	0.00	0.00
040	Biltmore Street extended east of RockCreek, NW	0	0.00	0.00	0.00	0.00	0.00
041	Ontario extended and Rock Creek Parkway	0	0.00	0.00	0.00	0.00	0.00

District of Columbia Water and Sewer Authority

Combined Sewer System Model Results
Period: April, May, June 2010
SCENARIO: Q2Y2010, 7-15-10

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	0	0.00	0.00	0.00	0.00	0.00
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	0	0.00	0.00	0.00	0.00	0.00
046	Park Road south of Piney Branch Parkway, NW	0	0.00	0.00	0.00	0.00	0.00
047	Ingleside Terrace extended and Piney Branch Parkway	0	0.00	0.00	0.00	0.00	0.00
048	Mt. Pleasant Street extended and Piney Branch Parkway	0	0.00	0.00	0.00	0.00	0.00
049	Piney Branch and LamontStreet, NW	0	0.00	0.00	0.00	0.00	0.00
050	28th Street west of 16th Street, NW	0	0.00	0.00	0.00	0.00	0.00
051	Olive Street extended and Rock Creek Parkway, NW	0	0.00	0.00	0.00	0.00	0.00
052	O Street extended and Rock Creek Parkway, NW	0	0.00	0.00	0.00	0.00	0.00
053	O Street west of Rock Creek Parkway, NW	0	0.00	0.00	0.00	0.00	0.00
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	0	0.0000	0.00	0.00	0.00	0.00
058	Connecticut Avenue and Rock Creek Parkway, NW	0	0.00	0.00	0.00	0.00	0.00
060	P St and 26th St, NW	0	0.0000	0.00	0.00	0.00	0.00
	SUBTOTAL		**0.00**				
	TOTAL		**3.98**				

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