QUARTERLY OPERATIONS REPORT

DISTRICT OF COLUMBIA

COMBINED SEWER OVERFLOW FACILITIES

FOURTH QUARTER, 2009

Prepared By:

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

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

Monthly Operations Report
For
Combined Sewer System
Month: October 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: October 2009

Table of Contents

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	10/21/09	*			
4	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	10/21/09	*			
5	Poplar Point Pumping Station	004	10/22/09	*			
6	Chicago Street and Railroad Ave, SE	005	10/05/09	*			
7	W Street and Railroad Ave, SE	005	10/05/09	*			
8	Good Hope Rd, west of Nichols Ave, SE	006	10/05/09	*			
9	13th Street and Ridge Place, SE	007	10/05/09	*			
11	"O" Street Pumping Station	011(a)	10/22/09	*			
12	Storm Pump Discharge at Main Pumping Station	011	10/22/09	*			
13	2nd Street, 300 ft. north of N Place, SE	009	10/07/09	*			
14	2nd Street, 250 ft. north of N Place, SE	011(a)	10/22/09	*			
15	South Capitol and E Streets	010	10/22/09	*			
15a	Half and L Streets, SE	010	10/22/09	*			
15b	South Capitol and I Streets	010	10/21/09	*			
15c	South Capitol and I Streets	010	10/21/09	*			
16	North of Main Sewage Pumping Station	012	10/08/09	*			
17	4th and N Streets, SE, Both Extended	013	10/31/09	*			
17a	K Street between 6th Street and 7th Street, SE	013	10/30/09	*			
18	6th and M Streets, SE	014	10/01/09	*			
19	9th and M Streets, SE	015	10/06/09	*			
19a	9th and M Streets, SE	015	10/06/09	*			
20	12th and M Streets, SE	016	10/06/09	*			
20a	12th and M Streets, SE	016	10/06/09	*			
21	14th and M Streets, SE	017	10/07/09	*			
22a	Barney Circle and Pennsylvania Ave, SE	018	10/06/09	*			

Struct No.	*Location*	*Associated NPDES Outfall*	*Date Inspected*	*Condition*		*Work Needed*	*Work performed*
				Good	Needs Work		
22b	Barney Circle and Pennsylvania Ave, SE	018	10/06/09	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	10/06/09	*			
22d	Kentucky Ave and Potomac Street, SE	018	10/20/09	*			
22e	14th Street and Kentucky Ave, SE	018	10/20/09	*			
23	Independence Ave, 21st Street, SE, Extended	019	10/23/09	*			
24a	East Capitol St, west of RFK stadium	019	10/23/09	*			
28	21st and Constitution Ave, NW	020	10/23/09	*			
29	22nd Street, between Constitution Ave and C St, NW	020	10/23/09	*			
30	17th and D Streets, NW	020	10/01/09	*			
31	15th Street and Pennsylvania Ave, NW	020	10/01/09	*			
33	10th and F Streets, NW	020	10/01/09	*			
34	23rd Street, north of Constitution Ave, NW	020	10/22/09	*			
34a	23rd Street near C Street, NW	020	10/23/09	*			
35	Northeast of Roosevelt Bridge, NW	021	10/08/09	*			
36	27th and I Streets, NW	022	10/09/09	*			
36a	New Hampshire Ave and Eye Street, NW	022	10/09/09	*			
36b	19th and L Streets, NW	022, 034	10/7/09	*			
36d	17th and L Streets, NW	022, 034	10/7/09	*			
36g	18th and M Streets, NW	022, 034	10/7/09	*			
36h	18th and M Streets, NW	022, 034	10/7/09	*			
37	27th and Eye Streets, NW	022	10/09/09	*			
38	29th and K Streets, NW	024	10/06/09	*			
38a	30th Street, south of K Street, NW	024	10/06/09	*			
39a	30th and K Streets, NW	024	10/06/09	*			
39b	30th and K Streets, NW	024	10/06/09	*			
41b	31st and K Streets, NW	025	10/06/09	*			
41c	31st and K Streets, NW	025	10/06/09	*			
42	Wisconsin Ave and K Street, NW	026	10/13/09	*			

Struct No.	*Location*	*Associated NPDES Outfall*	*Date Inspected*	*Condition*		*Work Needed*	*Work performed*
				Good	Needs Work		
43	Potomac and Water Streets, NW	027	10/13/09	*			
43a	Potomac and Water Streets, NW	027	10/13/09	*			
44	Water Street, west of Potomac St, NW	027	10/13/09	*			
45	36th and M Streets, NW	028	10/06/09	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	10/05/09	*			
47	38th Street and Reservoir Road, NW	029	10/05/09	*			
47a	37th and T Streets, NW	029	10/05/09	*			
47b	37th and T Streets, NW	029	10/05/09	*			
47c	38th and W Streets, NW	029	10/05/09	*			
49	Pennsylvania Ave, east side of Rock Creek, NW	031	10/07/09	*			
50	26 and M Streets, NW	032	10/07/09	*			
51	N Street Extended, west of 25th Street, NW	033	10/07/09	*			
52	22nd Street between M and N Streets, NW	034	10/22/09	*			
52a	N Street between 22nd and 23rd Streets, NW	034	10/22/09	*			
53	22nd and M Streets, NW	022, 034	10/23/09	*			
53a	22nd and M Streets, NW	022, 034	10/23/09	*			
53b	L Street between 21st Street and New Hampshire Ave, NW	022, 034	10/09/09	*			
53c	L and 22nd Streets, NW	022	10/09/09	*			
54	23rd and O Streets, NW	034	10/19/09	*			
55	22nd Street, south of Q Street, NW	035	10/19/09	*			
55a	22nd Street, south of Q Street, NW	035	10/19/09	*			
56	23rd and Massachusetts Ave, NW	036	10/19/09	*			
57	23rd Street, south of Q Street, NW	036	10/19/09	*			
58	Northwest of Belmont Road and Rock Creek and Potomac Parkway, NW	037	10/09/09	*			
59	North of Belmont Rd, east of Kalorama Cir, NW	038	10/09/09	*			
60	Connecticut Ave, east of Rock Creek, NW	039	10/09/09	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	10/09/09	*			
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	10/14/09	*			

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	10/14/09	*			
64	Adams Mill Road, south of Irving Street, NW	043	10/14/09	*			
65	Kenyon Street and Adams Mill Road, NW	044	10/14/09	*			
65a	Kenyon Street and Adams Mill Road, NW	044	10/14/09	*			
66	Adams Mill Road and Lamont Street, NW	045	10/14/09	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	10/14/09	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	10/14/09	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	10/14/09	*			
70	Piney Branch Parkway, west of 16th Street, NW	049	10/14/09	*			
70i	5th and Quackenbos Streets, NW	049	10/01/09	*			
71	28th Street, west of Rock Creek Parkway, NW	050	10/05/09	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	10/19/09	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	10/19/09	*			
73	O Street Extended and Rock Creek Parkway, NW	052	10/19/09	*			
74	Q Street, west of Rock Creek, NW	053	10/19/09	*			
75	West side of Rock Creek, 300 ft. south of Massachusetts Ave, NW	054	10/23/09	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	10/23/09	*			
77a	Normanstone Dr and Normanstone Lane, NW	056	10/23/09	*			
78	28th Street Extended, west of Rock Creek, NW	057	10/23/09	*			
79	Connecticut Ave and Rock Creek Parkway, NW	058	10/06/09	*			
84	26th and P Streets, NW	060	10/19/09	*			
84a	26th and P Streets, NW	060	10/19/09	*			

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	10/21/09	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	10/01/09	*		*		*		*		
006	Good Hope Road and Welsh Memorial Bridge	10/01/09	*		*		*		*		
007	Between 11th St. and Anacostia Bridges, SE	10/01/09	*		*		*		*		
009	O St. Sewage Pumping Station, SE	10/30/09	*		*		*		*		
010	O St. Sewage Pumping Station, SE	10/30/09	*			*			*		
011	Main Sewage Pumping Station, SE	10/30/09	*			*			*		
011(a)	Main Sewage Pumping Station, SE	10/30/09	*		*		*		*		
012	Main Sewage Pumping Station, SE	10/30/09	*		*		*		*		
013	Southeast Federal Center, aligned with 4th St.	10/13/09	*		*		*		*		
014	Navy Yard, aligned with 6th St., SE	10/20/09	*		*		*		*		
015	Navy Yard, aligned with 9th Street, SE	10/20/09	*			*			*		
016	12th and O Streets, SE	10/20/09	*		*		*		*		
017	M and Water Street, SE	10/20/09	*		*		*		*		
018	East of Barney Circle and South of Pennsylvania Avenue Bridge, SE	10/20/09	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility and D.C. General Hospital	10/01/09	*			*			*		
020	Rock Creek Parkway and Independence, NW	10/30/09	*		*		*		*		
021	Rock Creek Parkway and C St., NW	10/30/09	*			*			*		
022	Rock Creek Parkway and G St., NW	10/30/09	*		*		*		*		

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 30th and K Streets, NW	10/30/09	*		*			*	*		WASA has developed a capitol project to design and construct a replacement gate for improved performance.
025	South of 31st and K Streets, NW	10/30/09	*		*		*		*		
026	Wisconsin Avenue and Water Street, NW	10/30/09	*		*		*		*		
027	33rd and Water Sts., NW	10/30/09	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	10/30/09	*			*			*		
029	Adjacent to C&O Canal, aligned with 38th St. NW	10/30/09	*		*		*		*		
031	Rock Creek Pkwy and Pennsylvania Avenue, NW.	10/07/09	*			*			*		
032	26th and M Street, NW.	10/07/09	*			*			*		
033	Across street from St. Francis Jr. High and aligned with N St., NW.	10/07/09	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	10/19/09	*		*		*		*		
035	P St. Bridge and Rock Creek Parkway	10/19/09	*		*		*		*		
036	22nd Street, South of Q Street NW.	10/21/09	*		*		*		*		
037	Waterside Dr. and Rock Creek Parkway	10/09/09	*		*		*		*		
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	10/09/09	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	10/09/09	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	10/09/09	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	10/20/09	*		*		*		*		
042	Harvard St. and Beach Dr NW.	10/20/09	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	10/20/09	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	10/20/09	*		*		*		*		
045	North of Beach Dr. and Walbridge Pl, NW.	10/20/09	*		*		*		*		

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	
046	Piney Branch Parkway and Park Road, NW.	10/14/09	*			*			*		
047	Piney Branch Parkway and Ingleside Terrace	10/14/09	*		*		*		*		
048	South of Piney Branch Parkway and 17th St.	10/14/09	*		*		*		*		
049	North of Piney Branch Parkway and 17th St.	10/14/09	*		*		*		*		
050	Rock Creek Parkway and L St., NW	10/05/09	*		*		*		*		
051	Across Rock Creek Parkway, aligned with Olive St., NW.	10/30/09	*		*		*		*		
052	Between P and Penna. Ave Bridges, aligned with O Street, NW.	10/30/09	*		*		*		*		
053	Q St. Bridge and Rock Creek Parkway, NW.	10/21/09	*		*		*		*		
054	Massachusetts Avenue and Rock Creek Parkway, NW.	10/23/09	*		*		*		*		
056	Normanstone Dr. and Rock Creek Parkway, NW.	10/23/09	*		*		*		*		
057	28th Street and Rock Creek Parkway, NW	10/23/09	*		*		*		*		
058	Connecticut Avenue and Rock Creek Parkway, NW.	10/23/09	*			*			*		
060	North of P Street Bridge and Rock Creek Pkwy, NW	10/21/09	*		*		*		*		

Notes:

2.3 Pumping Stations

Pumping station operations are summarized in the table below.

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

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	None			
Eastside	31	2	4	Screen #2	Oct 1-31	Bad motor and gear box	Jan 30, 2010
Poplar Point	31	2 [1]	3	Pump # 1 Screen #1	Oct 1-31 Oct 1-31	Pump required Overhaul Screen off track, bad bearings, bad motor	Dec 31, 2009 Dec 6, 2009
Potomac	31	4	5	Pump #4	Oct 1-31	Reconstruction	January 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	10/29/09	Group A	Add oil, grease bearings and replace packing if needed.
O St	10/29/09	Group A	Add oil, grease bearings and replace packing if needed.
Eastside	10/29/09	Group A	Add oil, grease bearings and replace packing if needed.
Poplar Point	10/29/09	Group A	Add oil, grease bearings and replace packing if needed.
Potomac	10/29/09	Group A	Add oil, grease bearings and replace packing if needed.
Rock Creek	10/29/09	Group A	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	10/29/09	Group A	Add oil, grease bearings and replace packing if needed.
Earle Place	10/29/09	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

Pumping Station	*Sanitary Pumpage*		*Storm Water/CSO Pumped To Anacostia River*		
	Total Wastewater (mg)	*Daily Average Wastewater (mg)*	*Date*	*Volume (mg)*	*Screenings Collected (units)*
Main	1,736.70	56.02	N/A	N/A	N/A
O St[1]	164.30	5.30	10/17 10/24 10/27 10/28	82.7 30.2 51.7 123.1	Normal Normal Normal Normal
Eastside	555.00	17.90	N/A	N/A	N/A
Poplar Point	440.00	14.19	N/A	N/A	N/A
Potomac	3,519.50	113.53	N/A	N/A	N/A
Rock Creek	255.80	8.25	N/A	N/A	N/A
Upper Anacostia	37.30	1.20	N/A	N/A	N/A
Earle Place	0.15	0.005	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*
10/28/09	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*
10/28/09	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

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)*
10/17/09	8	13.57	7.179	6.391	0.10(8)
10/18/09	6	22.81	4.48	18.33	0.30(24)
10/24/09	8	13.74	3.994	9.746	1.8(144)
10/27/09	7	15.83	2.019	13.811	10(80)
10/28/09	8	44.92	2.731	42.189	.20(16)

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*
10/17/09	Yes	5	2	Mix Chamber	0.1	Mix Chamber	39,000	Mix Chamber	58,000
10/17/09	Yes	5	2	Anacostia River	0.0	Anacostia River	3,200	Anacostia River	3,100
10/18/09	Yes	5	2	Mix Chamber	0.1	Mix Chamber	42,000	Mix Chamber	380,000
10/18/09	Yes	5	2	Anacostia River	0.0	Anacostia River	21,000	Anacostia River	800,000 (EST.)
10/24/09	Yes	5	2	Mix Chamber	0.1	Mix Chamber	170,000	Mix Chamber	230,000
10/24/09	Yes	5	2	Anacostia River	0.0	Anacostia River	162	Anacostia River	20,900
10/27/09	Yes	5	2	Mix Chamber	0.1	Mix Chamber	110,000	Mix Chamber	280,000
10/27/09	Yes	5	2	Anacostia River	0.0	Anacostia River	22,000	Anacostia River	210,000
10/28/09	Yes	5	2	Mix Chamber	0.1	Mix Chamber	49,000	Mix Chamber	70,000
10/28/09	Yes	5	2	Anacostia River	0.0	Anacostia River	510,000	Anacostia River	160,000

Notes:
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)*
10/17/09	239	0.00	0.40	3.10	3.50	0.78	17.8
10/18/09	10.9	0.00	0.30	1.41	1.71	0.19	7.38
10/24/09	36.0	0.00	0.27	1.82	2.09	0.55	10.4
10/27/09	22.0	0.00	0.04	0.77	0.81	0.30	9.63
10/28/09	56.5	0.00	0.63	0.83	1.46	0.30	11.5

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	10/27/09	**No**	**N/A**	**N/A**	**N/A**
14 - West	10/27/09	**No**	**N/A**	**N/A**	**N/A**
15	10/27/09	**No**	**N/A**	**N/A**	**N/A**
15A	10/27/09	**No**	**N/A**	**N/A**	**N/A**
16 - East	10/27/09	**No**	**N/A**	**N/A**	**N/A**
16 - West	10/27/09	**No**	**N/A**	**N/A**	**N/A**
24 - North	10/27/09	**No**	**N/A**	**N/A**	**N/A**
24 - Middle	10/27/09	**No**	**N/A**	**N/A**	**N/A**
24 - South	10/27/09	**No**	**N/A**	**N/A**	**N/A**
34	10/27/09	**No**	**N/A**	**N/A**	**N/A**
35	10/27/09	**No**	**N/A**	**N/A**	**N/A**
52	10/27/09	**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	*10/17/09*	*1 min*
	10/18/09	*1min*
	10/24/09	*18 min*
	10/27/09	*2 min*
	10/28/09	*10 min*
15A	*10/17/09*	*6 hrs*
	10/18/09	*1 hr 25 min*
	10/24/09	*25 min*
	10/27/09	*53 min*
	10/28/09	*1 hr 41 min*
16 (E & W)	*10/17/09*	*12 min*
	10/18/09	*34 min*
	10/24/09	*44 min*
	10/27/09	*1 hr*
	10/28/09	*5 hr*
24	*10/17/09*	*12 min*
	10/18/09	*7 min*
	10/24/09	*1 hr 34 min*
	10/27/09	*6 min*
	10/28/09	*45 min*
34	*10/24/09*	*3 min*
35	*10/18/09*	*1 min*
	10/24/09	*15 min*
	10/27/09	*1 min*
	10/28/09	*7 min*
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 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

			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	734	1937	1584	34	22	1971	1606
2	4,714	4,112	2,316	2316	1721	5120	4258	660	621	5780	4879
3	3,555	461	-	0	0	3400	432	117	83	3517	515
4	2,782	1,985	159	159	116	1849	1233	642	223	2491	1456
5	2,167	1,035	1,035	1035	893	3826	1913	19	15	3845	1928
6	1,783	1,594	1,594	1594	908	2958	2146	566	356	3524	2502
7	2,313	-	-	0	0	4228	0	94	0	4322	0
8	1,278	116	116	116	116	1117	602	824	116	1941	718
WASA Subtotal	**20,183**	**10,871**	**5,954**	**5,954**	**4,488**	**24,435**	**12,168**	**2,956**	**1,436**	**27,391**	**13,604**
DDOT (via VMS) Subtotal				**0**	**0**			**0**	**0**	**0**	**0**
Grand Total	**20,183**	**10,871**	**5,954**	**5,954**	**4,488**			**2,956**	**1,436**	**27,391**	**13,604**
% Cleaned/Inspected to Date				**100%**	**75%**					**>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

Facility	*Date Inspected*	*Condition*	*Work Needed*	*Work performed*	*Material Removed (CY)*
Netting System CSO 018	10/29/09	Good	Minor Maintenance	Nets emptied.	350 lbs.
Bar Rack CSO 040	10/9/09	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	10/20/09	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

Program Operation	5-day work week, excluding holidays, weather permitting
Work Days this month:	21
Days not Operating	18
Reason not Operating	Mechanical problems with skimmers.
# Skimmer in Fleet	2 skimmers
# Skimmers Out of Service	One
Dates	B-28, 1/1/09 to present. B-29, 10/1/09 to 10/22/09 and 10/24/09 thru 10/28/09.
Reason	B-28. Replacing defective wing screens, transmission and hydraulic pump – waiting on parts to rebuild skimmer. B-29. Problems with broken hydraulic pump.
Plan to Restore to Service	As soon as possible.
Volume Material Collected	30 ton.
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:10/24 **Inspector's Initials: GDS**

CSO	Time of Observation	Overflow		Observed			Quantity of Floatables			Quantity of Man-Made			REMARKS/OTHER
		Y	N	L	M	H	L	M	H	L	M	H	
009	6 pm	x		x			x			x			
010													
011													
011a													
012	5 pm		x			x			x				

Date:10/27 **Inspector's Initials: JWW**

CSO	Time of Observation	Overflow Y	Overflow N	Observed L	Observed M	Observed H	Quantity of Floatables L	Quantity of Floatables M	Quantity of Floatables H	Quantity of Man-Made L	Quantity of Man-Made M	Quantity of Man-Made H	REMARKS/OTHER
009	9 am	x		x			x			x			
	11 am	x		x			x			x			
	1 pm	x		x			x			x			
	3 pm	x		x			x			x			
010													
011													
011a													
012	9 am	x		x			x			x			
	11 am	x		x			x			x			
	1 pm	x		x			x			x			
	3 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
10/1/2009	0	0	0	0
10/2/2009	0.02	0.02	0	0.03
10/3/2009	0	0	0	0
10/4/2009	0	0	0	0
10/5/2009	0	0	0	0
10/6/2009	0	0	0	0
10/7/2009	0	0	0	0
10/8/2009	0	0	0	0
10/9/2009	0	0	0	0
10/10/2009	0.04	0.04	0.02	0.04
10/11/2009	0	0	0	0
10/12/2009	0	0	0	0
10/13/2009	0	0	0	0
10/14/2009	0.11	0.1	0.1	0.11
10/15/2009	0.6	0.66	0.66	0.6
10/16/2009	0.47	0.49	0.49	0.47
10/17/2009	1.14	1.24	1.24	1.15
10/18/2009	0.34	0.46	0.46	0.34
10/19/2009	0	0	0	0
10/20/2009	0	0	0	0
10/21/2009	0	0	0	0
10/22/2009	0	0	0	0
10/23/2009	0.02	0	0	0.02
10/24/2009	0.78	0.57	0.57	0.78
10/25/2009	0	0	0	0
10/26/2009	0	0	0	0
10/27/2009	1.23	1.08	1.08	1.23
10/28/2009	0.86	0.74	0.74	0.86
10/29/2009	0	0	0	0
10/30/2009	0	0	0	0
10/31/2009	0.06	0.04	0.04	0.06
TOTALS	5.67	5.44	5.4	5.69

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

Monthly Operations Report
For
Combined Sewer System
Month: November 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: November 2009

Table of Contents

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	11/30/09	*			
4	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	11/30/09	*			
5	Poplar Point Pumping Station	004	11/24/09	*			
6	Chicago Street and Railroad Ave, SE	005	11/02/09	*			
7	W Street and Railroad Ave, SE	005	11/02/09	*			
8	Good Hope Rd, west of Nichols Ave, SE	006	11/02/09	*			
9	13th Street and Ridge Place, SE	007	11/02/09	*			
11	"O" Street Pumping Station	011(a)	11/24/09	*			
12	Storm Pump Discharge at Main Pumping Station	011	11/24/09	*			
13	2nd Street, 300 ft. north of N Place, SE	009	11/25/09	*			
14	2nd Street, 250 ft. north of N Place, SE	011(a)	11/24/09	*			
15	South Capitol and E Streets	010	11/24/09	*			
15a	Half and L Streets, SE	010	11/24/09	*			
15b	South Capitol and I Streets	010	11/09/09	*			
15c	South Capitol and I Streets	010	11/09/09	*			
16	North of Main Sewage Pumping Station	012	11/24/09	*			
17	4th and N Streets, SE, Both Extended	013	11/25/09	*			
17a	K Street between 6th Street and 7th Street, SE	013	11/25/09	*			
18	6th and M Streets, SE	014	11/02/09	*			
19	9th and M Streets, SE	015	11/06/09	*			
19a	9th and M Streets, SE	015	11/06/09	*			
20	12th and M Streets, SE	016	11/20/09	*			
20a	12th and M Streets, SE	016	11/20/09	*			
21	14th and M Streets, SE	017	11/20/09	*			
22a	Barney Circle and Pennsylvania Ave, SE	018	11/03/09	*			

Struct No.	*Location*	*Associated NPDES Outfall*	*Date Inspected*	*Condition*		*Work Needed*	*Work performed*
				Good	Needs Work		
22b	Barney Circle and Pennsylvania Ave, SE	018	11/03/09	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	11/03/09	*			
22d	Kentucky Ave and Potomac Street, SE	018	11/23/09	*			
22e	14th Street and Kentucky Ave, SE	018	11/23/09	*			
23	Independence Ave, 21st Street, SE, Extended	019	11/06/09	*			
24a	East Capitol St, west of RFK stadium	019	11/06/09	*			
28	21st and Constitution Ave, NW	020	11/25/09	*			
29	22nd Street, between Constitution Ave and C St, NW	020	11/25/09	*			
30	17th and D Streets, NW	020	11/10/09	*			
31	15th Street and Pennsylvania Ave, NW	020	11/10/09	*			
33	10th and F Streets, NW	020	11/10/09	*			
34	23rd Street, north of Constitution Ave, NW	020	11/24/09	*			
34a	23rd Street near C Street, NW	020	11/25/09	*			
35	Northeast of Roosevelt Bridge, NW	021	11/24/09	*			
36	27th and I Streets, NW	022	11/16/09	*			
36a	New Hampshire Ave and Eye Street, NW	022	11/16/09	*			
36b	19th and L Streets, NW	022, 034	11/13/09	*			
36d	17th and L Streets, NW	022, 034	11/13/09	*			
36g	18th and M Streets, NW	022, 034	11/13/09	*			
36h	18th and M Streets, NW	022, 034	11/13/09	*			
37	27th and Eye Streets, NW	022	11/16/09	*			
38	29th and K Streets, NW	024	11/13/09	*			
38a	30th Street, south of K Street, NW	024	11/13/09	*			
39a	30th and K Streets, NW	024	11/13/09	*			
39b	30th and K Streets, NW	024	11/13/09	*			
41b	31st and K Streets, NW	025	11/03/09	*			
41c	31st and K Streets, NW	025	11/03/09	*			
42	Wisconsin Ave and K Street, NW	026	11/03/09	*			

Struct No.	*Location*	*Associated NPDES Outfall*	*Date Inspected*	*Condition*		*Work Needed*	*Work performed*
				Good	Needs Work		
43	Potomac and Water Streets, NW	027	11/23/09	*			
43a	Potomac and Water Streets, NW	027	11/23/09	*			
44	Water Street, west of Potomac St, NW	027	11/23/09	*			
45	36th and M Streets, NW	028	11/06/09	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	11/06/09	*			
47	38th Street and Reservoir Road, NW	029	11/06/09	*			
47a	37th and T Streets, NW	029	11/06/09	*			
47b	37th and T Streets, NW	029	11/06/09	*			
47c	38th and W Streets, NW	029	11/06/09	*			
49	Pennsylvania Ave, east side of Rock Creek, NW	031	11/16/09	*			
50	26 and M Streets, NW	032	11/16/09	*			
51	N Street Extended, west of 25th Street, NW	033	11/16/09	*			
52	22nd Street between M and N Streets, NW	034	11/30/09	*			
52a	N Street between 22nd and 23rd Streets, NW	034	11/30/09	*			
53	22nd and M Streets, NW	022, 034	11/23/09	*			
53a	22nd and M Streets, NW	022, 034	11/23/09	*			
53b	L Street between 21st Street and New Hampshire Ave, NW	022, 034	11/16/09	*			
53c	L and 22nd Streets, NW	022	11/16/09	*			
54	23rd and O Streets, NW	034	11/20/09	*			
55	22nd Street, south of Q Street, NW	035	11/20/09	*			
55a	22nd Street, south of Q Street, NW	035	11/20/09	*			
56	23rd and Massachusetts Ave, NW	036	11/20/09	*			
57	23rd Street, south of Q Street, NW	036	11/20/09	*			
58	Northwest of Belmont Road and Rock Creek and Potomac Parkway, NW	037	11/13/09	*			
59	North of Belmont Rd, east of Kalorama Cir, NW	038	11/13/09	*			
60	Connecticut Ave, east of Rock Creek, NW	039	11/03/09	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	11/03/09	*			
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	11/09/09	*			

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	11/09/09	*			
64	Adams Mill Road, south of Irving Street, NW	043	11/09/09	*			
65	Kenyon Street and Adams Mill Road, NW	044	11/09/09	*			
65a	Kenyon Street and Adams Mill Road, NW	044	11/09/09	*			
66	Adams Mill Road and Lamont Street, NW	045	11/09/09	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	11/09/09	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	11/09/09	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	11/09/09	*			
70	Piney Branch Parkway, west of 16th Street, NW	049	11/09/09	*			
70i	5th and Quackenbos Streets, NW	049	11/02/09	*			
71	28th Street, west of Rock Creek Parkway, NW	050	11/03/09	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	11/20/09	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	11/20/09	*			
73	O Street Extended and Rock Creek Parkway, NW	052	11/20/09	*			
74	Q Street, west of Rock Creek, NW	053	11/20/09	*			
75	West side of Rock Creek, 300 ft. south of Massachusetts Ave, NW	054	11/30/09	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	11/30/09	*			
77a	Normanstone Dr and Normanstone Lane, NW	056	11/05/09	*			
78	28th Street Extended, west of Rock Creek, NW	057	11/30/09	*			
79	Connecticut Ave and Rock Creek Parkway, NW	058	11/03/09	*			
84	26th and P Streets, NW	060	11/20/09	*			
84a	26th and P Streets, NW	060	11/20/09	*			

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	11/30/09	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	11/19/09	*		*		*		*		
006	Good Hope Road and Welsh Memorial Bridge	11/19/09	*		*		*		*		
007	Between 11th St. and Anacostia Bridges, SE	11/19/09	*		*		*		*		
009	O St. Sewage Pumping Station, SE	11/25/09	*		*		*		*		
010	O St. Sewage Pumping Station, SE	11/25/09	*			*			*		
011	Main Sewage Pumping Station, SE	11/25/09	*			*			*		
011(a)	Main Sewage Pumping Station, SE	11/25/09	*		*		*		*		
012	Main Sewage Pumping Station, SE	11/25/09	*		*		*		*		
013	Southeast Federal Center, aligned with 4th St.	11/25/09	*		*		*		*		
014	Navy Yard, aligned with 6th St., SE	11/25/09	*		*		*		*		
015	Navy Yard, aligned with 9th Street, SE	11/25/09	*			*			*		
016	12th and O Streets, SE	11/06/09	*		*		*		*		
017	M and Water Street, SE	11/06/09	*		*		*		*		
018	East of Barney Circle and South of Pennsylvania Avenue Bridge, SE	11/06/09	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility and D.C. General Hospital	11/06/09	*			*			*		
020	Rock Creek Parkway and Independence, NW	11/30/09	*		*		*		*		
021	Rock Creek Parkway and C St., NW	11/30/09	*			*			*		
022	Rock Creek Parkway and G St., NW	11/30/09	*		*		*		*		

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 30th and K Streets, NW	11/30/09	*		*			*	*		WASA has developed a capitol project to design and construct a replacement gate for improved performance.
025	South of 31st and K Streets, NW	11/30/09	*		*		*		*		
026	Wisconsin Avenue and Water Street, NW	11/30/09	*		*		*		*		
027	33rd and Water Sts., NW	11/30/09	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	11/30/09	*			*			*		
029	Adjacent to C&O Canal, aligned with 38th St. NW	11/30/09	*		*		*		*		
031	Rock Creek Pkwy and Pennsylvania Avenue, NW.	11/16/09	*			*			*		
032	26th and M Street, NW.	11/16/09	*			*			*		
033	Across street from St. Francis Jr. High and aligned with N St., NW.	11/16/09	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	11/20/09	*		*		*		*		
035	P St. Bridge and Rock Creek Parkway	11/20/09	*		*		*		*		
036	22nd Street, South of Q Street NW.	11/05/09	*		*		*		*		
037	Waterside Dr. and Rock Creek Parkway	11/13/09	*		*		*		*		
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	11/13/09	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	11/03/09	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	11/03/09	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	11/23/09	*		*		*		*		
042	Harvard St. and Beach Dr NW.	11/23/09	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	11/23/09	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	11/23/09	*		*		*		*		

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.	11/23/09	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	11/09/09	*			*			*		
047	Piney Branch Parkway and Ingleside Terrace	11/23/09	*		*		*		*		
048	South of Piney Branch Parkway and 17th St.	11/23/09	*		*		*		*		
049	North of Piney Branch Parkway and 17th St.	11/23/09	*		*		*		*		
050	Rock Creek Parkway and L St., NW	11/03/09	*		*		*		*		
051	Across Rock Creek Parkway, aligned with Olive St., NW.	11/05/09	*		*		*		*		
052	Between P and Penna. Ave Bridges, aligned with O Street, NW.	11/05/09	*		*		*		*		
053	Q St. Bridge and Rock Creek Parkway, NW.	11/05/09	*		*		*		*		
054	Massachusetts Avenue and Rock Creek Parkway, NW.	11/30/09	*		*		*		*		
056	Normanstone Dr. and Rock Creek Parkway, NW.	11/30/09	*		*		*		*		
057	28th Street and Rock Creek Parkway, NW	11/30/09	*		*		*		*		
058	Connecticut Avenue and Rock Creek Parkway, NW.	11/03/09	*			*			*		
060	North of P Street Bridge and Rock Creek Pkwy, NW	11/05/09	*		*		*		*		

Notes:

2.3 Pumping Stations

Pumping station operations are summarized in the table below.

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

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	None			
Eastside	31	2	4	Screen #2	Nov 1-30	Bad motor and gear box	Jan 30, 2010
Poplar Point	31	2 [1]	3	Pump # 1 Screen # 1 Screen # 2	Nov 1-31 Nov 1-31 Nov 31	Pump required Overhaul Screen off track, bad bearings, bad motor Bad motor	Dec 31, 2009 Dec 6, 2009 Jan 30, 2009
Potomac	31	4	5	Pump #4	Nov 1-31	Reconstruction	January 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	11/24/09	Group A	Add oil, grease bearings and replace packing if needed.
O St	11/24/09	Group A	Add oil, grease bearings and replace packing if needed.
Eastside	11/24/09	Group A	Add oil, grease bearings and replace packing if needed.
Poplar Point	11/24/09	Group A	Add oil, grease bearings and replace packing if needed.
Potomac	11/24/09	Group A	Add oil, grease bearings and replace packing if needed.
Rock Creek	11/24/09	Group A	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	11/24/09	Group A	Add oil, grease bearings and replace packing if needed.
Earle Place	11/24/09	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

Pumping Station	*Sanitary Pumpage*		*Storm Water/CSO Pumped To Anacostia River*		
	Total Wastewater (mg)	*Daily Average Wastewater (mg)*	*Date*	*Volume (mg)*	*Screenings Collected (units)*
Main	1,621.70	54.06	N/A	N/A	N/A
O St[1]	165.30	5.51	11-11-09 11-12-09 11-20-09 11-24-09	27.7 57.9 92.0 71.8	Normal Normal Normal Normal
Eastside	517.50	17.25	N/A	N/A	N/A
Poplar Point	554.50	18.48	N/A	N/A	N/A
Potomac	3,464.60	115.49	N/A	N/A	N/A
Rock Creek	251.80	8.39	N/A	N/A	N/A
Upper Anacostia	42.40	1.41	N/A	N/A	N/A
Earle Place	0.12	0.004	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*
11/24/09	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*
11/24/09	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

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)*
11/1/09	6	6.58	6.58	0	0.15(12)
11/11/09	4.5	12.28	12.28	0	0.15(12)
11/12/09	4.5	4.6	4.6	0	0.15(12)
11/12/09	3.25	6.31	6.31	0	0.00(0)
11/13/09	3.67	9.61	1.629	7.981	2.70(216)
11/20/09	16	8.64	3.433	5.207	3.00(240)
11/24/09	9	21.95	5.574	16.376	3.00(240)

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*
11/13/09	Yes	5	2	Mix Chamber	0.1	Mix Chamber	340,000	Mix Chamber	410,000
11/13/09	Yes	5	2	Anacostia River	0.0	Anacostia River	210,000	Anacostia River	290,000
11/20/09	Yes	5	2	Mix Chamber	0.1	Mix Chamber	26,000	Mix Chamber	28,000
11/20/09	Yes	5	2	Anacostia River	0.0	Anacostia River	32,000	Anacostia River	190,000
11/24/09	Yes	5	2	Mix Chamber	0.0	Mix Chamber	31,000	Mix Chamber	24,000
11/24/09	Yes	5	2	Anacostia River	0.3	Anacostia River	1,350	Anacostia River	2,100

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)*
11/13/09	241	0.06	0.52	11.1	11.7	1.58	66.2
11/20/09	204	0.00	0.31	2.23	2.44	0.65	31.0
11/24/09	99.0	0.03	0.15	3.68	3.86	0.79	16.2

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	11/25/09	**No**	**N/A**	**N/A**	**N/A**
14 - West	11/25/09	**No**	**N/A**	**N/A**	**N/A**
15	11/25/09	**No**	**N/A**	**N/A**	**N/A**
15A	11/25/09	**No**	**N/A**	**N/A**	**N/A**
16 - East	11/25/09	**No**	**N/A**	**N/A**	**N/A**
16 - West	11/25/09	**No**	**N/A**	**N/A**	**N/A**
24 - North	11/25/09	**No**	**N/A**	**N/A**	**N/A**
24 - Middle	11/25/09	**No**	**N/A**	**N/A**	**N/A**
24 - South	11/25/09	**No**	**N/A**	**N/A**	**N/A**
34	11/25/09	**No**	**N/A**	**N/A**	**N/A**
35	11/25/09	**No**	**N/A**	**N/A**	**N/A**
52	11/25/09	**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*	*11/1/09* *11/12/09* *11/13/09* *11/20/09* *11/24/09*	*1 min* *2 min* *3 min* *1 hr 5 min* *2 min*
15A	*Half & L Streets, SE*	*11/1/09* *11/11/09* *11/12/09* *11/13/09* *11/20/09* *11/24/09*	*40 min* *1 hr 35 min* *3 hr 45 min* *50 min* *2 hr 45 min* *4 hr 6 min*
16 (E & W)	*2 nd & N Street, SE* *Main Pumping Station*	*11/1/09* *11/13/09* *11/20/09* *11/24/09*	*5 min* *1 min* *51 min* *10 min*
24	*Northeast Boundary Swirl Facility*	*11/1/09* *11/13/09* *11/20/09* *11/24/09*	*6 min* *6 min* *1 hr 57 min* *4 min*
34	*23rd & Constitution Ave., NW*	*11/13/09* *11/20/09*	*48 min* *24 min*
35	*Parking Lot, East of Kennedy Center, NW*	*11/13/09* *11/20/09* *11/24/09*	*3 min* *39 min* *1 min*
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)	Bolling 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:

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

			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	734	1971	1606	98	66	2069	1672
2	4,714	4,112	2,316	2316	1942	5780	4879	351	221	6131	5100
3	3,555	461	-	0	0	3517	515	373	8	3890	523
4	2,782	1,985	159	159	159	2491	1456	1989	931	4480	2387
5	2,167	1,035	1,035	1035	1035	3845	1928	342	205	4187	2133
6	1,783	1,594	1,594	1594	1044	3524	2502	190	136	3714	2638
7	2,313	-	-	0	0	4322	0	8	0	4330	0
8	1,278	116	116	116	116	1941	718	126	126	2067	844
WASA Subtotal	**20,183**	**10,871**	**5,954**	**5,954**	**5,030**	**27,391**	**13,604**	**3,477**	**1,693**	**30,868**	**15,297**
DDOT (via VMS) Subtotal				**0**	**0**			**0**	**0**	**0**	**0**
Grand Total	**20,183**	**10,871**	**5,954**	**5,594**	**5,030**			**3,477**	**1,693**	**30,868**	**15,297**
% Cleaned/Inspected to Date				**100%**	**84%**					**>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

Facility	*Date Inspected*	*Condition*	*Work Needed*	*Work performed*	*Material Removed (CY)*
Netting System CSO 018	11/23/09	Good	Minor Maintenance	Nets emptied.	350 lbs.
Bar Rack CSO 040	11/3/09	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	11/23/09	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

Program Operation	5-day work week, excluding holidays, weather permitting
Work Days this month:	19
Days not Operating	15
Reason not Operating	Mechanical problems with skimmers.
# Skimmer in Fleet	2 skimmers
# Skimmers Out of Service	One
Dates	B-28, 1/1/09 to present. B-29, 11/1/09 to 11/25/09.
Reason	B-28. Replacing defective wing screens, transmission and hydraulic pump – waiting on parts to rebuild skimmer. B-29. Problems with broken hydraulic pump.
Plan to Restore to Service	B-29 was back in service 11/25/09.
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:11/1 **Inspector's Initials: JWW**

CSO	Time of Observation	Overflow		Observed			Quantity of			Quantity of			REMARKS/OTHER
		Y	N	L	M	H	L	M	H	L	M	H	
009	9 am	x		x			x						
010													
011													
011a													
012	9 am	x		x			x						

Date:11/12 **Inspector's Initials: GDS**

CSO	Time of Observation	Overflow		Observed			Quantity of			Quantity of			REMARKS/OTHER
		Y	N	L	M	H	L	M	H	L	M	H	
009	9 am	x			x		x						
	11 am	x			x		x						
	1 pm	x			x		x						
	3 pm	x			x		x						
010													
011													
011a													
012	9 am	x			x		x						
	11 am	x			x		x						
	1 pm	x			x		x						
	3 pm	x			x		x						

Date:11/24 **Inspector's Initials: JWW**

CSO	Time of Observation	Overflow Y	Overflow 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	9 am	x		x			x			x			
	11 am	x		x			x			x			
	1 pm	x		x			x			x			
	3 pm	x		x			x			x			
010													
011													
011a													
012	9 am	x		x			x			x			
	11 am	x		x			x			x			
	1 pm	x		x			x			x			
	3 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
11/1/2009	0.55	0.55	0.55	0.56
11/2/2009	0	0	0	0.01
11/3/2009	0	0	0	0
11/4/2009	0	0	0	0
11/5/2009	0.01	0.02	0.02	0
11/6/2009	0	0	0	0
11/7/2009	0	0	0	0
11/8/2009	0	0	0	0
11/9/2009	0	0	0	0
11/10/2009	0	0	0	0
11/11/2009	0.73	1.01	1.01	0.96
11/12/2009	0.52	0.66	0.66	0.6
11/13/2009	0.3	0.26	0.26	0.32
11/14/2009	0	0	0	0.01
11/15/2009	0	0	0	0
11/16/2009	0	0	0	0
11/17/2009	0	0	0	0
11/18/2009	0	0	0	0
11/19/2009	0.59	0.48	0.33	0.97
11/20/2009	0.01	0.13	0.01	0.02
11/21/2009	0	0	0	0
11/22/2009	0	0	0	0
11/23/2009	0.49	0.27	0.56	0.47
11/24/2009	0.38	0.22	0.31	0.34
11/25/2009	0.13	0.08	0.13	0.15
11/26/2009	0.1	0.08	0.1	0.19
11/27/2009	0.07	0.03	0.03	0.05
11/28/2009	0	0	0	0
11/29/2009	0	0	0	0
11/30/2009	0.11	0.07	0.18	0.22
TOTALS	3.99	3.86	4.15	4.87

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

Monthly Operations Report
For
Combined Sewer System
Month: December 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: December 2009

Table of Contents

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	12/14/09	*			
4	Bolling AFB, 2250 ft. north of the south line of the Base, SW	003	12/14/09	*			
5	Poplar Point Pumping Station	004	12/10/09	*			
6	Chicago Street and Railroad Ave, SE	005	12/17/09	*			
7	W Street and Railroad Ave, SE	005	12/17/09	*			
8	Good Hope Rd, west of Nichols Ave, SE	006	12/30/09	*			
9	13th Street and Ridge Place, SE	007	12/01/09	*			
11	"O" Street Pumping Station	011(a)	12/10/09	*			
12	Storm Pump Discharge at Main Pumping Station	011	12/10/09	*			
13	2nd Street, 300 ft. north of N Place, SE	009	12/09/09	*			
14	2nd Street, 250 ft. north of N Place, SE	011(a)	12/10/09	*			
15	South Capitol and E Streets	010	12/10/09	*			
15a	Half and L Streets, SE	010	12/10/09	*			
15b	South Capitol and I Streets	010	12/29/09	*			
15c	South Capitol and I Streets	010	12/29/09	*			
16	North of Main Sewage Pumping Station	012	12/10/09	*			
17	4th and N Streets, SE, Both Extended	013	12/04/09	*			
17a	K Street between 6th Street and 7th Street, SE	013	12/30/09	*			
18	6th and M Streets, SE	014	12/01/09	*			
19	9th and M Streets, SE	015	12/04/09	*			
19a	9th and M Streets, SE	015	12/04/09	*			
20	12th and M Streets, SE	016	12/04/09	*			
20a	12th and M Streets, SE	016	12/04/09	*			
21	14th and M Streets, SE	017	12/28/09	*			
22a	Barney Circle and Pennsylvania Ave, SE	018	12/14/09	*			

Struct No.	*Location*	*Associated NPDES Outfall*	*Date Inspected*	*Condition*		*Work Needed*	*Work performed*
				Good	Needs Work		
22b	Barney Circle and Pennsylvania Ave, SE	018	12/14/09	*			
22c	Barney Circle and Pennsylvania Ave, SE	018	12/14/09	*			
22d	Kentucky Ave and Potomac Street, SE	018	12/04/09	*			
22e	14th Street and Kentucky Ave, SE	018	12/04/09	*			
23	Independence Ave, 21st Street, SE, Extended	019	12/18/09	*			
24a	East Capitol St, west of RFK stadium	019	12/18/09	*			
28	21st and Constitution Ave, NW	020	12/14/09	*			
29	22nd Street, between Constitution Ave and C St, NW	020	12/14/09	*			
30	17th and D Streets, NW	020	12/04/09	*			
31	15th Street and Pennsylvania Ave, NW	020	12/04/09	*			
33	10th and F Streets, NW	020	12/04/09	*			
34	23rd Street, north of Constitution Ave, NW	020	12/10/09	*			
34a	23rd Street near C Street, NW	020	12/14/09	*			
35	Northeast of Roosevelt Bridge, NW	021	12/15/09	*			
36	27th and I Streets, NW	022	12/28/09	*			
36a	New Hampshire Ave and Eye Street, NW	022	12/28/09	*			
36b	19th and L Streets, NW	022, 034	12/03/09	*			
36d	17th and L Streets, NW	022, 034	12/03/09	*			
36g	18th and M Streets, NW	022, 034	12/03/09	*			
36h	18th and M Streets, NW	022, 034	12/03/09	*			
37	27th and Eye Streets, NW	022	12/28/09	*			
38	29th and K Streets, NW	024	12/03/09	*			
38a	30th Street, south of K Street, NW	024	12/03/09	*			
39a	30th and K Streets, NW	024	12/03/09	*			
39b	30th and K Streets, NW	024	12/03/09	*			
41b	31st and K Streets, NW	025	12/03/09	*			
41c	31st and K Streets, NW	025	12/03/09	*			
42	Wisconsin Ave and K Street, NW	026	12/28/09	*			

Struct No.	*Location*	*Associated NPDES Outfall*	*Date Inspected*	*Condition*		*Work Needed*	*Work performed*
				Good	Needs Work		
43	Potomac and Water Streets, NW	027	12/28/09	*			
43a	Potomac and Water Streets, NW	027	12/28/09	*			
44	Water Street, west of Potomac St, NW	027	12/28/09	*			
45	36th and M Streets, NW	028	12/01/09	*			
46	Canal Rd, 1000ft. east of Foxhall Rd, NW	029	12/01/09	*			
47	38th Street and Reservoir Road, NW	029	12/01/09	*			
47a	37th and T Streets, NW	029	12/01/09	*			
47b	37th and T Streets, NW	029	12/01/09	*			
47c	38th and W Streets, NW	029	12/01/09	*			
49	Pennsylvania Ave, east side of Rock Creek, NW	031	12/18/09	*			
50	26 and M Streets, NW	032	12/18/09	*			
51	N Street Extended, west of 25th Street, NW	033	12/18/09	*			
52	22nd Street between M and N Streets, NW	034	12/10/09	*			
52a	N Street between 22nd and 23rd Streets, NW	034	12/11/09	*			
53	22nd and M Streets, NW	022, 034	12/11/09	*			
53a	22nd and M Streets, NW	022, 034	12/11/09	*			
53b	L Street between 21st Street and New Hampshire Ave, NW	022, 034	12/11/09	*			
53c	L and 22nd Streets, NW	022	12/11/09	*			
54	23rd and O Streets, NW	034	12/29/09	*			
55	22nd Street, south of Q Street, NW	035	12/29/09	*			
55a	22nd Street, south of Q Street, NW	035	12/29/09	*			
56	23rd and Massachusetts Ave, NW	036	12/29/09	*			
57	23rd Street, south of Q Street, NW	036	12/29/09	*			
58	Northwest of Belmont Road and Rock Creek and Potomac Parkway, NW	037	12/07/09	*			
59	North of Belmont Rd, east of Kalorama Cir, NW	038	12/07/09	*			
60	Connecticut Ave, east of Rock Creek, NW	039	12/07/09	*			
61	Biltmore St, Extended, east of Rock Creek, NW	040	12/07/09	*			
62	Ontario Rd, Extended, and Rock Creek Pkwy, NW	041	12/09/09	*			

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	12/09/09	*			
64	Adams Mill Road, south of Irving Street, NW	043	12/09/09	*			
65	Kenyon Street and Adams Mill Road, NW	044	12/09/09	*			
65a	Kenyon Street and Adams Mill Road, NW	044	12/09/09	*			
66	Adams Mill Road and Lamont Street, NW	045	12/09/09	*			
67	Park Rd , south of Piney Branch Pkwy, NW	046	12/09/09	*			
68	Ingleside Terrance, Extended and Piney Branch Parkway, NW	047	12/09/09	*			
69	Mt. Pleasant Street, Extended and Piney Branch Parkway, NW	048	12/09/09	*			
70	Piney Branch Parkway, west of 16th Street, NW	049	12/09/09	*			
70i	5th and Quackenbos Streets, NW	049	12/01/09	*			
71	28th Street, west of Rock Creek Parkway, NW	050	12/03/09	*			
72	Olive Street Extended and Rock Creek Pkwy, NW	051	12/29/09	*			
72a	Olive Street Extended and Rock Creek Pkwy, NW	051	12/29/09	*			
73	O Street Extended and Rock Creek Parkway, NW	052	12/29/09	*			
74	Q Street, west of Rock Creek, NW	053	12/29/09	*			
75	West side of Rock Creek, 300 ft. south of Massachusetts Ave, NW	054	12/07/09	*			
77	Normanstone Dr Extended, west of Rock Creek, NW	056	12/07/09	*			
77a	Normanstone Dr and Normanstone Lane, NW	056	12/30/09	*			
78	28th Street Extended, west of Rock Creek, NW	057	12/07/09	*			
79	Connecticut Ave and Rock Creek Parkway, NW	058	12/03/09	*			
84	26th and P Streets, NW	060	12/29/09	*			
84a	26th and P Streets, NW	060	12/29/09	*			

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	12/14/09	*		*		*		*		
005	Across from Navy Yard, aligned with Parsons Ave., SE	12/17/09	*		*		*		*		
006	Good Hope Road and Welsh Memorial Bridge	12/17/09	*		*		*		*		
007	Between 11th St. and Anacostia Bridges, SE	12/15/09	*		*		*		*		
009	O St. Sewage Pumping Station, SE	12/30/09	*		*		*		*		
010	O St. Sewage Pumping Station, SE	12/30/09	*			*			*		
011	Main Sewage Pumping Station, SE	12/30/09	*			*			*		
011(a)	Main Sewage Pumping Station, SE	12/30/09	*		*		*		*		
012	Main Sewage Pumping Station, SE	12/30/09	*		*		*		*		
013	Southeast Federal Center, aligned with 4th St.	12/04/09	*		*		*		*		
014	Navy Yard, aligned with 6th St., SE	12/31/09	*		*		*		*		
015	Navy Yard, aligned with 9th Street, SE	12/31/09	*			*			*		
016	12th and O Streets, SE	12/31/09	*		*		*		*		
017	M and Water Street, SE	12/31/09	*		*		*		*		
018	East of Barney Circle and South of Pennsylvania Avenue Bridge, SE	12/31/09	*		*		*		*		
019	Adjacent to Service Drive behind swirl facility and D.C. General Hospital	12/16/09	*			*			*		
020	Rock Creek Parkway and Independence, NW	12/17/09	*		*		*		*		
021	Rock Creek Parkway and C St., NW	12/17/09	*			*			*		
022	Rock Creek Parkway and G St., NW	12/17/09	*		*		*		*		

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 30th and K Streets, NW	12/17/09	*		*			*	*		WASA has developed a capitol project to design and construct a replacement gate for improved performance.
025	South of 31st and K Streets, NW	12/17/09	*		*		*		*		
026	Wisconsin Avenue and Water Street, NW	12/17/09	*		*		*		*		
027	33rd and Water Sts., NW	12/17/09	*			*			*		
028	Key Bridge and Whitehurst Freeway, NW	12/17/09	*			*			*		
029	Adjacent to C&O Canal, aligned with 38th St. NW	12/17/09	*		*		*		*		
031	Rock Creek Pkwy and Pennsylvania Avenue, NW.	12/18/09	*			*			*		
032	26th and M Street, NW.	12/18/09	*			*			*		
033	Across street from St. Francis Jr. High and aligned with N St., NW.	12/18/09	*		*		*		*		
034	Just west of St. Francis Jr. High and north of N St., NW	12/29/09	*		*		*		*		
035	P St. Bridge and Rock Creek Parkway	12/29/09	*		*		*		*		
036	22nd Street, South of Q Street NW.	12/29/09	*		*		*		*		
037	Waterside Dr. and Rock Creek Parkway	12/07/09	*		*		*		*		
038	Between arch footbridge and Connecticut Ave., north of Kalorama Circle, NW.	12/07/09	*		*		*		*		
039	Connecticut Avenue Bridge and Rock Creek Parkway, NW.	12/07/09	*		*		*		*		
040	Aligned with Biltmore Rd., between Connecticut Ave and Ellington Bridge.	12/07/09	*		*		*		*		
041	Beach Dr. and Ontario Pl., NW	12/17/09	*		*		*		*		
042	Harvard St. and Beach Dr NW.	12/17/09	*		*		*		*		
043	Upstream of Harvard St. and Beach Dr NW.	12/17/09	*		*		*		*		
044	Kenyon Street and Beach Dr., NW.	12/17/09	*		*		*		*		

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.	12/17/09	*		*		*		*		
046	Piney Branch Parkway and Park Road, NW.	12/09/09	*			*			*		
047	Piney Branch Parkway and Ingleside Terrace	12/09/09	*		*		*		*		
048	South of Piney Branch Parkway and 17th St.	12/09/09	*		*		*		*		
049	North of Piney Branch Parkway and 17th St.	12/09/09	*		*		*		*		
050	Rock Creek Parkway and L St., NW	12/03/09	*		*		*		*		
051	Across Rock Creek Parkway, aligned with Olive St., NW.	12/30/09	*		*		*		*		
052	Between P and Penna. Ave Bridges, aligned with O Street, NW.	12/30/09	*		*		*		*		
053	Q St. Bridge and Rock Creek Parkway, NW.	12/29/09	*		*		*		*		
054	Massachusetts Avenue and Rock Creek Parkway, NW.	12/07/09	*		*		*		*		
056	Normanstone Dr. and Rock Creek Parkway, NW.	12/07/09	*		*		*		*		
057	28th Street and Rock Creek Parkway, NW	12/07/09	*		*		*		*		
058	Connecticut Avenue and Rock Creek Parkway, NW.	12/03/09	*			*			*		
060	North of P Street Bridge and Rock Creek Pkwy, NW	12/29/09	*		*		*		*		

Notes:

2.3 Pumping Stations

Pumping station operations are summarized in the table below.

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

Pumping Station	*No. of Inspections*	*No. Screens*	*No. Pumps*	*Screens or Pumps Out of Service*	*Dates*	*Reason*	*Schedule to Restore to Service*
Main	31	3	10	None			
Eastside	31	2	4	Screen #1 Screen #1 Screen #2	Dec 1-9 Dec 24-31 Dec 1-31	Bad motor Screen sprocket off track Bad motor and gear box	Dec 9, 2009 Jan 30, 2010 Jan 30, 2010
Poplar Point	31	2 [1]	3	Pump # 1 Screen # 1 Screen # 2	Dec 1-31 Dec 1-5 Dec 1-31	Pump required Overhaul Screen Sprocket came off track, bad bearing, bad motor Bad motor	Dec 31, 2009 Dec 6, 2009 Jan 30, 2010
Potomac	31	4	5	Pump #4	Dec 1-31	Reconstruction	January 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	12/30/09	Group A	Add oil, grease bearings and replace packing if needed.
O St	12/30/09	Group A	Add oil, grease bearings and replace packing if needed.
Eastside	12/30/09	Group A	Add oil, grease bearings and replace packing if needed.
Poplar Point	12/30/09	Group A	Add oil, grease bearings and replace packing if needed.
Potomac	12/30/09	Group A	Add oil, grease bearings and replace packing if needed.
Rock Creek	12/30/09	Group A	Add oil, grease bearings and replace packing if needed.
Upper Anacostia	12/30/09	Group A	Add oil, grease bearings and replace packing if needed.
Earle Place	12/30/09	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

Pumping Station	*Sanitary Pumpage*		*Storm Water/CSO Pumped To Anacostia River*		
	Total Wastewater (mg)	*Daily Average Wastewater (mg)*	*Date*	*Volume (mg)*	*Screenings Collected (units)*
Main	1,904.20	61.43	N/A	N/A	N/A
O St[1]	182.10	5.87	2-Dec 3-Dec 5-Dec 9-Dec 13-Dec 25-Dec 26-Dec	35.3 35.3 59.6 59.6 52.5 52.5 194.5 194.5 22.3 22.3 73.1 73.1 158.3 158.3	Normal Normal Normal Normal Normal Normal Normal Normal
Eastside	554.00	17.89	N/A	N/A	N/A
Poplar Point	455.40	14.69	N/A	N/A	N/A
Potomac	4,053.10	130.75	N/A	N/A	N/A
Rock Creek	267.50	8.63	N/A	N/A	N/A
Upper Anacostia	1.81	3.30	N/A	N/A	N/A
Earle Place	0.31	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*
12/13/09	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*
12/13/09	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

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)*
12/2/2009	2	11.67	2.64	9.03	0
12/3/2009	6	13.71	3.08	10.63	0
12/5/2009	6	14.4	3.89	10.51	(.20)16
12/5/2009	8	6.57	6.57	0	0
12/9/2009	8	57.48	3.16	54.32	(.50)40
12/9/2009	9	5.89	0.92	4.97	(.30)24
12/9/2009	7	1.83	1.83	0	(.30)24
12/13/2009	5	10.63	2.27	8.36	(.30)24
12/25/2009	8	47.71	4.87	42.84	(70)56
12/26/2009	7	48.15	1.97	46.18	(.25)20
12/26/2009	9	1.61	1.61	0	(.85)68
12/26/2009	3	0.15	0.15	0	0

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*
12/02/09	Yes	5	2	Mix Chamber	0.1	Mix Chamber	210,000	Mix Chamber	560,000
12/02/09	Yes	5	2	Anacostia River	0.0	Anacostia River	190,000	Anacostia River	280,000
12/05/09	Yes	5	2	Mix Chamber	0.1	Mix Chamber	120,000	Mix Chamber	48,000
12/05/09	Yes	5	2	Anacostia River	0.0	Anacostia River	60,000	Anacostia River	290,000
12/09/09	Yes	5	2	Mix Chamber	0.1	Mix Chamber	54,000	Mix Chamber	90,000
12/09/09	Yes	5	2	Anacostia River	0.0	Anacostia River	150,000	Anacostia River	130,000
12/09/09	Yes	5	2	Mix Chamber	0.1	Mix Chamber	35,000	Mix Chamber	100,000
12/09/09	Yes	5	2	Anacostia River	0.0	Anacostia River	32,000	Anacostia River	80,000
12/13/09	Yes	5	2	Mix Chamber	0.5	Mix Chamber	60,000	Mix Chamber	240,000
12/13/09	Yes	5	2	Anacostia River	0.0	Anacostia River	160,000	Anacostia River	230,000
12/25/09	Yes	5	2	Mix Chamber	0.2	Mix Chamber	56,000	Mix Chamber	50,000
12/25/09	Yes	5	2	Anacostia River	0.0	Anacostia River	260,000	Anacostia River	290,000
12/26/09	Yes	5	2	Mix Chamber	0.2	Mix Chamber	3,700	Mix Chamber	3,200
12/26/09	Yes	5	2	Anacostia River	0.0	Anacostia River	4,500	Anacostia River	20,000

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)*
12/02/09	80.0	.05	0.63	4.22	4.90	0.64	44.2
12/05/09	46.0	0.05	0.99	9.52	10.6	1.03	42.3
12/09/09	52.0	0.04	0.64	2.43	3.11	0.51	6.21
12/13/09	100	0.09	0.60	6.35	7.04	1.36	34.5
12/25/09	263	0.06	0.49	14.8	15.4	1.63	86.7
12/26/09	35.0	0.00	0.77	2.70	3.47	0.35	5.27

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	12/30/09	**No**	**N/A**	**N/A**	**N/A**
14 - West	12/30/09	**No**	**N/A**	**N/A**	**N/A**
15	12/30/09	**No**	**N/A**	**N/A**	**N/A**
15A	12/30/09	**No**	**N/A**	**N/A**	**N/A**
16 - East	12/13/09	**No**	**N/A**	**N/A**	**N/A**
16 - West	12/13/09	**No**	**N/A**	**N/A**	**N/A**
24 - North	12/13/09	**No**	**N/A**	**N/A**	**N/A**
24 - Middle	12/13/09	**No**	**N/A**	**N/A**	**N/A**
24 - South	12/13/09	**No**	**N/A**	**N/A**	**N/A**
34	12/30/09	**No**	**N/A**	**N/A**	**N/A**
35	12/30/09	**No**	**N/A**	**N/A**	**N/A**
52	12/30/09	**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 DISCHARGES

There was one (1) dry weather discharge during December 2009.

Location	CSO #005, W Street and Railroad Avenue, SE
Cause	Malfunction of the pumps at the Poplar Point Pumping Station caused a backup in the 4' 6"Anacostia Main Interceptor. The sewer backed up through CSO Structure #7 and overflowed into the 3' 6" storm sewer that discharges into the Anacostia River.
Date/Time Discovered	12/17/09 @ 5:00 p.m.
Action Taken	Main Pump Station Operator contacted Supervisor who went to check the station. The Supervisor turned on stand-by pumps at the station to convey the flow.
Date/Time Discharged Ceased	12/17/09 @ 5:40 p.m.
Estimated Volume (mg)	400,000 gallons
Did Overflow Reach Receiving water?	Yes, Anacostia River
Action taken to prevent reoccurrence	We reinstalled the wet-well high water alarm at the station and connect it to SCADA so the Main Pump Station Operator receives the alarm. We configured the by-pass pumps to remain in automatic mode. The bypass pumps have been furnished with the capability to automatically dial Pumping Supervisors when any change is there status is detected. Plan to purchase three (3) new pumps for the station. A follow up inspection performed 12/18/09 confirmed that CSO Structure #7 was functioning properly.

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	734	2069	1672	117	65	2186	1737
2	4,714	4,112	2,316	2316	2316	6131	5100	566	386	6697	5486
3	3,555	461	-	0	0	3890	523	211	32	4101	555
4	2,782	1,985	159	159	159	4480	2387	227	84	4707	2471
5	2,167	1,035	1,035	1035	1035	4187	2133	261	117	4448	2250
6	1,783	1,594	1,594	1594	1594	3714	2638	626	567	4340	3205
7	2,313	-	-	0	0	4330	0	98	0	4428	0
8	1,278	116	116	116	116	2067	844	191	41	2258	885
WASA Subtotal	**20,183**	**10,871**	**5,954**	**5,954**	**5,954**	**30,868**	**15,297**	**2,297**	**1,292**	**33,165**	**16,589**
DDOT (via VMS) Subtotal				**0**	**0**			**0**	**0**	**0**	**0**
Grand Total	**20,183**	**10,871**	**5,954**	**5,954**	**5,954**			**2,297**	**1,292**	**33,165**	**16,589**
% Cleaned/Inspected to Date				**100%**	**100%**					**>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

Facility	*Date Inspected*	*Condition*	*Work Needed*	*Work performed*	*Material Removed (CY)*
Netting System CSO 018	12/30/09	Good	Minor Maintenance	Nets emptied.	400 lbs.
Bar Rack CSO 040	12/7/09	Good	None	Routine Cleaning	(1)
Bar Rack CSO 041	12/17/09	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

Program Operation	5-day work week, excluding holidays, weather permitting
Work Days this month:	22
Days not Operating	9
Reason not Operating	Waiting for Repair parts and frozen river.
# Skimmer in Fleet	2 skimmers
# Skimmers Out of Service	One
Dates	B-28, 1/1/09 to present. B-29, 12/18/09 to 12/28/09.
Reason	B-28. Replacing defective wing screens, transmission and hydraulic pump – waiting on parts to rebuild skimmer. B-29. Problems with roller spun screen bearing.
Plan to Restore to Service	As soon as possible.
Volume Material Collected	30 ton.
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:12/5 **Inspector's Initials: JWW**

CSO	Time of Observation	Overflow		Observed			Quantity of			Quantity of			REMARKS/OTHER
		Y	N	L	M	H	L	M	H	L	M	H	
009	11 am	x		x			x			x			
	1 pm	x		x			x			x			
	3 pm	x		x			x			x			
010													
011													
011a													
012	11 am	x		x			x			x			
	1 pm	x		x			x			x			
	3 pm	x		x			x			x			

Date:12/9 **Inspector's Initials: GDS**

CSO	Time of Observation	Overflow		Observed			Quantity of			Quantity of			REMARKS/OTHER
		Y	N	L	M	H	L	M	H	L	M	H	
009	1:30 pm	x		x			x			x			
	3: 30 pm	x		x			x			x			
010													
011													
011a													
012	1:30 pm	x		x			x			x			
	3: 30 pm	x		x			x			x			

Date:12/13 **Inspector's Initials: GDS**

CSO	Time of Observation	Overflow		Observed			Quantity of			Quantity of			REMARKS/OTHER
		Y	N	L	M	H	L	M	H	L	M	H	
009	2:30 pm	x		x			x			x			
010													
011													
011a													
012	2:30 pm	x		x			x			x			

Date:12/26 **Inspector's Initials: JWW**

CSO	Time of Observation	Overflow		Observed			Quantity of			Quantity of			REMARKS/OTHER
		Y	N	L	M	H	L	M	H	L	M	H	
009	2 pm	x		x			x			x			
	4 pm	x		x			x			x			
010													
011													
011a													
012	2 pm	x		x			x			x			
	4 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
12/1/2009	0	0	0	0
12/2/2009	0.36	0.41	0.48	0.48
12/3/2009	0.43	0.24	0.25	0.25
12/4/2009	0	0	0	0
12/5/2009	0.64	0.24	0.81	0.81
12/6/2009	0.01	0	0	0
12/7/2009	0	0	0	0
12/8/2009	0	0.08	0.33	0.33
12/9/2009	1.17	0.29	1.21	1.21
12/10/2009	0	0	0	0
12/11/2009	0	0	0	0
12/12/2009	0	0	0	0
12/13/2009	0.42	0.42	0.48	0.48
12/14/2009	0	0	0	0
12/15/2009	0	0	0	0
12/16/2009	0	0	0	0
12/17/2009	0	0	0	0
12/18/2009	0	0	0	0
12/19/2009	0	0	0	0
12/20/2009	0.03	0.12	0.01	0.01
12/21/2009	0.02	0.11	0.02	0
12/22/2009	0	0	0	0
12/23/2009	0	0	0	0.13
12/24/2009	0	0	0	0.1
12/25/2009	0.54	0.62	0.5	1.1
12/26/2009	0.69	0.86	0.72	0.86
12/27/2009	0	0	0	0
12/28/2009	0	0	0	0
12/29/2009	0	0	0	0
12/30/2009	0	0	0	0
12/31/2009	0.27	0.32	0.4	0.44
TOTALS	4.58	3.71	5.21	6.2

District of Columbia Water and Sewer Authority

Combined Sewer System Model Results
Period: October, November, December 2009
SCENARIO: Q4Y2009, 1-22-10

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	17	4.3	238.5	14.0	69.8	2.5
006	Good Hope Road, West of Nichols Ave.,SE	0	0.0	0.0	0.0	0.0	0.0
007	13th Street and Ridge Place,SE	6	0.7	7.0	1.2	2.0	0.3
009	2nd Street, 300 feet North of N Place, SE	15	3.2	139.0	9.3	28.8	2.0
010	O Street SewagePumping Station, SE (pumped Overflow)	16	66.3	17.0	1.1	4.0	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	0.0	0.3	0.3	0.3	0.3
013	4th and N Streets, SE	17	1.1	37.0	2.2	6.5	0.5
014	6th and M Streets, SE	17	10.8	115.8	6.8	16.8	0.3
015	9th and M Streets, SE	4	0.0	5.8	1.4	2.3	0.8
016	12th and M Streets, SE	4	0.6	6.0	1.5	2.8	0.8
017	14th and M Streets, SE	15	8.9	90.3	6.0	15.5	1.8
018	Barney Circle andPennsylvania Ave, SE	23	9.2	302.5	13.2	73.8	0.3
019	Northeast Boundary - Swirl Effluent	19	170.1	122.5	6.4	21.5	0.3
019	Northeast Bound. - Swirl Bypass	1	0.5	0.3	0.3	0.3	0.3
	SUBTOTAL		**277.4**				
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)	5	0.7	6.5	1.3	2.3	0.3
021	Northeast ofRoosevelt Bridge, NW	8	49.4	21.8	2.7	5.3	0.3
022	27th and K Streets, NW	17	0.7	221.3	13.0	63.0	1.8
024	30th and K Streets, NW	21	3.7	321.0	15.3	79.8	0.5
025	31st & K St NW	19	0.0	112.8	5.9	23.8	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	18	20.5	273.0	15.2	71.0	0.3
028	36th and M Streets, NW	16	1.0	63.0	3.9	8.5	0.3
029	Canal Road 1000 feet east of Rock Creek,NW	4	0.2	2.5	0.6	1.3	0.3
	SUBTOTAL		**76.3**				
Rock Creek							
031	Pennsylvania Avenue, East Rock Creek, NW	1	0.0	0.8	0.8	0.8	0.8
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	0	0.0	0.0	0.0	0.0	0.0
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	5	0.0	7.8	1.6	2.0	1.0
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: October, November, December 2009
SCENARIO: Q4Y2009, 1-22-10

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	0.0	0.0	0.0	0.0	0.0
043	Adams Mill Road South of Irving Street, NW	0	0.0	0.0	0.0	0.0	0.0
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	7	2.3	15.8	2.3	3.5	0.3
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	3	0.2	4.3	1.4	2.3	0.8
058	Connecticut Avenue and Rock Creek Parkway, NW	0	0.0	0.0	0.0	0.0	0.0
060	P St and 26th St, NW	0	0.0	0.0	0.0	0.0	0.0
	SUBTOTAL		**2.6**				
	TOTAL		**356**				

N:\1164 EPMC 3B\WASA Data\DSS Monthly Rpt\2009\Q4 Report\[Q4Y2009_Report_22Jan2010.xlsx]Q4Y2009

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