



Greater New Haven Water Pollution Control Authority

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June 27, 2014

Mr. George V. Hicks
Sanitary Engineer
Municipal Facilities Section, Water Management Bureau
Department of Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

Subject: GNHWPCA Annual Progress Report
Consent Order WC5509

Dear Mr. Hicks:

Per Section B6 of the Consent Order WC5509, the Authority has assembled this letter and informational attachments to fulfill the requirement of an annual "progress report" which describes the actions the Authority has taken to comply with the Consent Order.

Please find the following attachments as summary of our progress:

Attachment "A" is an updated version of the CSO LTCP Table to be used in both the "Annual Progress Report" and "5-yr Update to the LTCP." The general format of this table was approved by DEEP on 9/14/11. We have updated the "2014 Status" column to reflect all relevant project information and notes.

Attachment "B" is a listing of Approval / Denial letters the Authority has received from the DEEP between July 1, 2013 and the date of this letter. In summary the following CWF projects obtained approval:

1. Wet Weather / Nitrogen Phase 1 Construction
2. West River CSO Abatement Study
3. Hydraulic Model Update (in preparation for next LTCP update)
4. I/I Hamden and East Haven – Approval to Advertise
5. SSES Areas 5,9 & 13 in East Haven, Middle Thorpe Dr. Hamden Approval

Attachment "C" is a listing of emails between DEEP and the Authority from July 1, 2013 to the time of this letter. The emails are limited to those which include a transmission of documents or critical information relevant to the consent order and/or moving projects to construction through the CWF program.

Attachment "D" is a listing of GNHWPCA letter transmissions to the DEEP between July 1, 2013 and the date of this letter.

Mr. George V. Hicks
June 28, 2013
Page 2 of 2

Attachments C and D are not intended to be comprehensive listings of all correspondence between GNHWPCA and DEEP. Rather they are those communications that contain material and substantive information on the relative subjects.

Attachment "E" includes calibrated flow monitoring results obtained from all Permitted CSO outfalls between May 2013 and April 2014. A current CSO Map has also been included as part of this attachment.

I have personally examined and am familiar with the information submitted in these documents and all attachments and certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief, and I understand that any false statement made in this document or its attachment may be punishable as a criminal offense.

Sincerely,

Greater New Haven Water Pollution Control Authority

A handwritten signature in black ink, appearing to read 'S. Holbrook', with a long horizontal line extending to the right.

Sidney J. Holbrook

Executive Director

cc: Gabe Varca, Director of Finance and Administration
Gary Zrelak, Director of Operations
Thomas V. Sgroi, P.E., Director of Engineering

Enc.

ATTACHMENT “A”

GNHWPCA

CSO LTCP

ANNUAL STATUS REPORT

FY 2014

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CSO LONG TERM CONTROL PLAN ANNUAL STATUS REPORT
June 30, 2014

1997 EXISTING CONDITIONS MODEL						2007 MODEL UPDATE				2014 STATUS				FACILITIES PLAN & LONG TERM CONTROL PLAN GOAL				
NPDES PERMIT CSO REFERENCE NO.	NO. OF CSO OUTFALLS	NO. OF CSO REGULATOR LOCATIONS	CSO REGULATOR LOCATION	CSO RECEIVING WATER	1997 CSO REGULATOR STATUS	1997 EXISTING CONDITIONS MODEL ^{1,2} YEAR DESIGN STORM CSO VOLUME (MG)	CSO LTCP CAPITAL IMPROVEMENTS 1997-2007	2007 CSO REGULATOR STATUS	2007 EXISTING CONDITIONS MODEL ¹ 2-YEAR DESIGN STORM CSO VOLUME (MG)	REDUCTION 1997-2007 CSO VOLUME (MG)	NPDES PERMIT CSO REFERENCE NO.	PROPOSED NPDES PERMIT CSO REF. NO.	CSO LTCP CAPITAL IMPROVEMENTS & NOTES 2008-2014	2013 CSO REGULATOR STATUS	2011 CSO LTCP PROPOSED CAPITAL IMPROVEMENTS	2011 CSO LTCP FINAL CSO STATUS	2011 CSO LTCP FUTURE CONDITIONS MODEL ¹ 2-YEAR DESIGN STORM CSO VOLUME (MG)	
CSO 001	1	1	East Shore WPAF	New Haven Harbor	Active					CSO 001	CSO 001		Active	Wet Weather Improvements	Active w/ Treatment	0.0		
CSO 002	2	2	E.T.G. Boulevard @ Lambertson Street	West River	Active	1.1		0.0	1.1	CSO 002			Closed	CSO Storage Tank	Inactive	0.0		
CSO 003	3	3	E.T.G. Boulevard @ Orange Avenue	West River	Active	4.3		3.1	1.2	CSO 003	CSO 003		Active	CSO Storage Tank	Inactive	0.0		
CSO 004	4	4	E.T.G. Boulevard @ Legion Avenue	West River	Active	6.1		6.1	0.0	CSO 004	CSO 004		Active	CSO Storage Tank	Inactive	0.0		
CSO 005		5	E.T.G. Boulevard @ Derby Avenue	West River	Active	5.0		4.8	0.2	CSO 005	CSO 005		Active	CSO Storage Tank	Inactive	0.0		
CSO 005 (A)		6	University Place		Active	Discharges to CSO 005 outfall		Discharges to CSO 005 outfall		CSO 005 (A)			Closed		Closed	0.0		
CSO 005 (B)		7	Elm / University Place		Active	Discharges to CSO 005 outfall		Discharges to CSO 005 outfall		CSO 005 (B)			Closed		Closed	0.0		
CSO 006	6	8	Whalley Avenue @ Fitch Street	West River	Active	4.6		5.1	-0.5	CSO 006	CSO 006		Active	CSO Storage Tank	Inactive	0.0		
CSO 007	7	9	Munson Street @ Canal Street	Mill River	Closed	0.0		0.0	0.0	CSO 007			Closed	Close CSO	Closed	0.0		
CSO 008	8	10	Munson Street @ Orchard Street	Beaver Ponds	Active	0.2		0.2	0.0	CSO 008		Scheduled for Closure	Close (2014)	Close CSO	Closed	0.0		
CSO 009	9	11	Grand Avenue @ James Street	Mill River	Active	2.8		2.5	0.3	CSO 009	CSO 009	I&I Project in Progress	Active	Sewer Separation and Roof Leader Disconnection	Inactive	0.0		
CSO 010	10	12	East Street @ I-91	Mill River	Active	0.7		0.3	0.4	CSO 010		Scheduled for Closure	Close (2014)	Close CSO	Closed	0.0		
CSO 010 (A)		13	East Street @ I-91	Mill River	Active	0.7		0.6	0.1	CSO 010 (A)	R 010 (A)	Sewer Separation in Progress	Active	CSO Storage Tank	Inactive	0.0		
CSO 011	11	14	Humphrey Street @ I-91	Mill River	Active	9.9		7.4	2.5	CSO 011	CSO 011	Sewer Separation in Progress	Active	CSO Storage Tank	Inactive	0.0		
CSO 012	12	15	Mitchell Drive east of Nicoll Street	Mill River	Active	2.7		1.5	1.2	CSO 012	CSO 012	Sewer Separation in Progress	Active	CSO Storage Tank	Inactive	0.0		
CSO 013		16	Everitt Street @ East Rock Road	Mill River	Active	0.8		0.1	0.7	CSO 013		Scheduled for Closure	Close (2014)	Close CSO	Closed	0.0		
CSO 013 (A)		17	East Rock Road @ Everitt Street		Active	Discharges to CSO 013 outfall		Discharges to CSO 013 outfall		CSO 013 (A)			Closed		Closed	0.0		
CSO 014	14	18	Trumbull Street @ Orange Street	Mill River	Active	0.9		1.0	-0.1	CSO 014		Scheduled for Closure	Close (2014)	Close CSO	Closed	0.0		
CSO 015	15	19	James Street Siphon	Quinnipiac River	Active	4.6		1.7	2.9	CSO 015	CSO 015	I&I Project in Progress; Gate 2012	Active	Sewer Separation and Roof Leader Disconnection	Inactive	0.0		
CSO 016	16	20	Poplar Street @ River Street	Quinnipiac River	Active	1.7		3.8	-2.1	CSO 016	CSO 016	Tide Gate 2010	Active	Sewer Separation and Roof Leader Disconnection	Inactive	0.0		
CSO 017	17	21	Grand Avenue @ Front Street	Quinnipiac River	Closed	0.0		0.0	0.0	CSO 017			Closed		Closed	0.0		
CSO 018	18	22	Lombard Street @ North Front Street	Quinnipiac River	Active	1.7		0.0	1.7	CSO 018			Closed		Closed	0.0		
CSO 019	19	23	Pine Street @ North Front Street	Quinnipiac River	Active	1.5		1.3	0.2	CSO 019	CSO 019		Active	Sewer Separation and Roof Leader Disconnection	Inactive	0.0		
CSO 020	20	24	Quinnipiac Avenue @ Clifton Street	Quinnipiac River	Active	0.2		0.6	-0.4	CSO 020	CSO 020		Active	Close CSO	Closed	0.0		
CSO 021		25	East Street Pump Station	New Haven Harbor	Active	5.4		5.0	0.4	CSO 021	CSO 021	Sewer Separation in Progress; Tide Gate 2013	Active	Major Pump Station Upgrade / Monitoring Program	Active	0.2		
CSO 021 (A)		26	Chapel / Hamilton	New Haven Harbor	Active	Discharges to CSO 021 outfall		0.0	0.0	CSO 021 (A)			Closed		Closed	0.0		
CSO 022	22	27	Allen Place	New Haven Harbor	Active	No model data		0.0	0.0	CSO 022			Closed		Closed	0.0		
CSO 023	23	28	Chestnut Street @ Water Street	New Haven Harbor	Closed	0.0		0.0	0.0	CSO 023			Closed		Closed	0.0		
CSO 024	24	29	Boulevard Pump Station	New Haven Harbor	Active	3.5		0.6	2.9	CSO 024	CSO 024	Tide Gate 2010	Active	Major Pump Station Upgrade	Inactive	0.0		
CSO 025		30	Union Pump Station	New Haven Harbor	Active	4.2		2.5	1.7	CSO 025	CSO 025		Active	Major Pump Station Upgrade / Monitoring Program	Inactive	0.2		
CSO 025 (A)		31	Elm / University Place	New Haven Harbor	Active	Discharges to CSO 025 outfall		Discharges to CSO 025 outfall		CSO 025 (A)			Closed		Closed	0.0		
CSO 025 (B)		32	Grove / Whitney	New Haven Harbor	Active	Discharges to CSO 025 outfall		0.0	0.0	CSO 025 (B)			Closed		Closed	0.0		
CSO 026	26	33	Humphrey Pump Station	Mill River	Active	0.1		0.0	0.1	CSO 026	R 026	Discharges to CSO 011	Active	Monitoring Program	Closed	0.0		
CSO 027	27	34	East / Ives	Mill River	Active	0.7		0.5	0.2	CSO 027			Closed	Close CSO	Closed	0.0		
CSO 028	28	35	Mitchell Pump Station	Mill River	Active	0.0		0.0	0.0	CSO 028	R 028	Discharge to CSO 012	Active	Monitoring Program	Closed	0.0		
CSO 029	29	36	Barnes Pump Station	Quinnipiac River	Active	0.3		0.0	0.3	CSO 029			Closed		Closed	0.0		
CSO 030	30	37	Quinnipiac Pump Station	Quinnipiac River	Active	No model data		0.0	0.0	CSO 030			Closed		Closed	0.0		
CSO 031	31	38	South Frontage / Davenport	New Haven Harbor	Active	No model data		0.9	No model data	CSO 031		Closed CSO	Closed		Closed	0.0		
CSO 032	32	39	Port Sea / Liberty	New Haven Harbor	Active	No model data		0.0	No model data	CSO 032	R 032	Scheduled for Closure	Close (2014)	Close CSO	Closed	0.0		
CSO 033	33	40	Carlisle / Liberty	New Haven Harbor	Active	No model data		0.0	No model data	CSO 033			Closed		Closed	0.0		
CSO 034	34	41	George / Temple	New Haven Harbor	Active	1.0		0.9	0.1	CSO 034	R 034	Discharge to CSO 025	Active	Monitoring Program	Active	0.8		
CSO 035	35	42	Woodward Pump Station	New Haven Harbor	Active	0.1		0.1	0.0	CSO 035			Closed		Closed	0.0		
(not assigned)	36	43	Greene Street	New Haven Harbor	Active	No model data		0.0	No model data	(not assigned)		Scheduled for Closure	Close (2014)	Close CSO	Closed	0.0		
N/A	37	44	Middletown / Front	Quinnipiac River	Closed	0.0		0.0	0.0	N/A			Closed		Closed	0.0		
N/A	38	45	State / James	Mill River	Closed	0.0		0.0	0.0	N/A			Closed		Closed	0.0		
CSO VOLUME (MG)						64.8		50.6	14.2							3	1.2	
CSO VOLUME REDUCTION (%)						0%		22%										98%
NUMBER OF ACTIVE CSO REGULATORS					40		33									3		
NUMBER OF INACTIVE / CLOSED CSO REGULATORS					5		12									20		
NUMBER OF ACTIVE CSO OUTFALLS					33		28									3		
NUMBER OF INACTIVE / CLOSED CSO OUTFALLS					5		10									42		

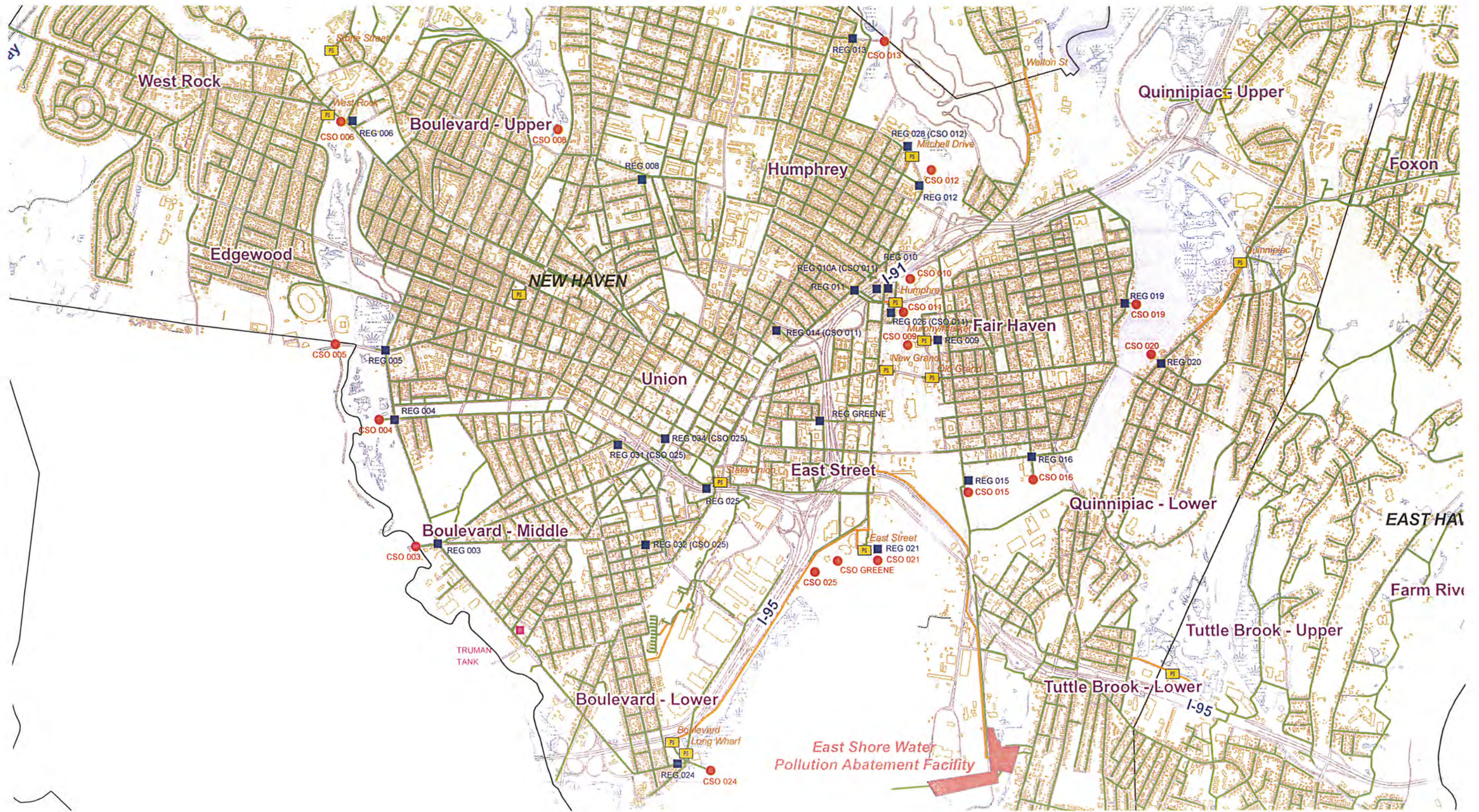
LEGEND/NOTES

	DENOTES CSO OUTFALL CURRENTLY INACTIVE/CLOSED
1	DATA OBTAINED FROM 2001 LTCP
2	DATA OBTAINED FROM 2011 FACILITIES PLAN
3	IT IS PROPOSED THAT THE REMAINING 1.2 MG OF CSO VOLUME WOULD EITHER BE CAPTURED BY A TANK(S) OR ELIMINATED THROUGH SEPARATION TYPE PROJECT WITHIN EACH RESPECTIVE SEWERSHED. THE FACILITIES PLAN ASSUMES THAT THERE WILL BE BETTER INFORMATION AT THE TIME WE VISIT EACH SEWERSHED AND THAT A COST BENEFIT DETERMINATION WITH THEN BE MADE TO REACH THE GOAL OF ZERO OVERFLOWS DURING A 2-YEAR EVENT. FURTHER CLARIFICATION OF THIS APPROACH CAN BE FOUND IN THE LETTER FROM THE AUTHORITY TO DEEP'S GEORGE V. HICKS DATED JUNE 21, 2011 REGARDING THE GHNWPCA LONG TERM CONTROL PLAN UPDATE.

DEFINITIONS

ACTIVE	ACTIVE CSO DURING A 2-YEAR STORM FREQUENCY, SEE NOTE NO. 3
INACTIVE	INACTIVE CSO DURING STORM FREQUENCIES BELOW 2-YEARS
CLOSED	CLOSED - BULKHEADED CSO, CLOSED FOR ALL STORMS

UPDATED SEWER MAP



ATTACHMENT “B”

**DEEP LETTER
CORRESPONDENCE**

FY 2014



FY 2014 DEEP LETTER CORRESPONDENCE

APPROVAL DATE	LETTER TYPE	CWF #	PROJECT	Amount	TO	FROM
06/13/13	Approval	Permit No. CT0100366	Trucked Waste Disposal	n.a.	Gary Zrelak	Oswald Inglese, Jr.
08/01/13	Approval	441C	CH2MHill Task Order 10 Amendment No. 2	\$87,000	Sidney Holbrook	Denis Greci, PE
08/21/13	Approval	441C	WW Improvements and Nitrogen Reduction Spec Changes	n.a.	Sidney Holbrook	Denis Greci, PE
10/02/13	Notification	581C2	Project Loan Obligation Due		Sidney Holbrook	Lee Rogers
10/22/13	Approval	441C	Authorization to Award WW Capacity Improvements	\$46,664,545	Sidney Holbrook	Denise Ruzicka, PE
11/14/13	Approval	441C	Task Order CH2M 11	\$4,697,658	Sidney Holbrook	Denise Ruzicka, PE
11/14/13	Approval	Pending	West River CSO Abatement Study	\$149,800	Sidney Holbrook	Denis Greci, PE
12/09/13	Approval	581	Trumbull Street Area Phase 1A Change Order #3	(1,891,299,38)	Sidney Holbrook	Denis Greci, PE
03/11/14	Approval	Pending	Draft Hydraulic Modeling Update	\$789,209	Sidney Holbrook	Denis Greci, PE
03/13/14	Notification	N/A	Draft FY14 and FY15 Priority List available for comment	n.a.	WPCA's	George V. Hicks, PE
04/02/14	Approval	649PG	SSES Areas 5, 9 & 13 in East Haven, Middle Thorpe Dr, Hamden	n.a.	Sidney Holbrook	Denise Ruzicka, PE
04/07/14	Approval	668PG	West River CSO Abatement Study Final Task Order	\$149,800	Sidney Holbrook	Denis Greci, PE
04/28/14	Notification	N/A	Draft Funding Eligibility Memo request for comments		WPCA's	Denise Ruzicka, PE
05/19/14	Approval	670PG	Final Hydraulic Modeling Update	\$789,209	Sidney Holbrook	Denis Greci, PE
05/19/14	Notification	N/A	CWF Buy American Memo		WPCA's	George V. Hicks, PE

ATTACHMENT "C"

**DEEP / GNHWPCA
EMAIL TRANSMITTALS**

FY 2014



FY 2014 DEEP / GNH EMAIL TRANSMITTALS					
DATE	EMAIL TYPE	CWF #	PROJECT	TO	FROM
06/28/13	Report	N/A	Consent Order Annual Progress Report	G.Hicks, PE	Sid Holbrook
09/12/13	Letter	N/A	FY 14 and FY15 Priority List Request	G.Hicks, PE	Sid Holbrook
07/17/13	Informational	N/A	Facility Planning Checklist	WPCA's	Stacy Pappano
12/31/13	Report	N/A	GNHWPCA Two Year Bid Schedule	G.Hicks, PE	Sid Holbrook
02/25/14	Informational	Various	Project Review Progress Summary	T.Sgroi, PE	I.Hall, PE
02/27/14	Informational	Various	Unofficial Approval to Bid I/I Project	T.Sgroi, PE	I.Hall, PE

ATTACHMENT “D”

**GNHWPCA LETTER
CORRESPONDENCE**

FY 2014



FY 2014 GNHWPCA LETTER CORRESPONDENCE					
DATE	DOCUMENT TYPE	CWF #	PROJECT	TO	FROM
06/20/13	Transmittal	441C	WW Nitrogen Phase1 - Addendum No. 4	S.Muollo	M.Ricozzi, PE
06/28/13	Transmittal	441C	WW Nitrogen Phase1 - Addendum No. 5	S.Muollo	M.Ricozzi, PE
07/12/13	Transmittal	441C	WW Nitrogen Phase1 - Addendum No. 6	S.Muollo	M.Ricozzi, PE
07/19/13	Transmittal	441C	WW Nitrogen Phase1 - Addendum No. 7	S.Muollo	M.Ricozzi, PE
08/05/13	Transmittal	441C	WW Nitrogen Phase 1 Nickerson Award Recommendation	L.Rogers	M.Ricozzi, PE
08/06/13	Transmittal	441C	Yale Trumbull Phase 2A Plans and Specs	I.Hall, PE	M.Ricozzi, PE
08/13/14	Transmittal	441C	Yale Trumbull Phase 2A Application Part 1	Susan Hawkins	Sid Holbrook
08/14/14	Transmittal	441C	Yale Trumbull Phase 2A Application Part 1 and 2	Sharon Dixon-Peay	Sid Holbrook
08/20/13	Letter	441-C	Right of Way Affidavit for Plant Project	D. Ruzicka, PE	Glenn Santoro, Esq
09/13/13	Letter	N/A	FY14 - FY15 Priority List Request	G.Hicks, PE	Sidney J. Holbrook
12/31/13	Letter	N/A	Two Year Bid Schedule	G.Hicks, PE	Sidney J. Holbrook
01/08/14	Transmittal	581C2	Yale Campus Trumbull Street Phase 1A Change Order #3	I.Hall, PE	Mario Ricozzi, PE
01/28/14	Transmittal	649P	East Haven and Hamden I/I Removal Phase 2 SSES Review Copy	I.Hall, PE	Mario Ricozzi, PE
02/04/14	Transmittal	668PG	West River CSO Study Application Part 1	Susan Hawkins	Sid Holbrook
02/05/14	Transmittal	668PG	West River CSO Study Application Part 1 and 2	Sharon Dixon-Peay	Sid Holbrook
02/25/14	Transmittal	441C	WW Nitrogen Phase 1 Contract, NTP and Insurance	S.Muollo, PE	Mario Ricozzi, PE
04/30/14	Transmittal	670PG	Hydraulic Model Application Part 1	Susan Hawkins	Sid Holbrook
04/30/14	Transmittal	670PG	Hydraulic Model Application Part 1 and 2	Sharon Dixon-Peay	Sid Holbrook
05/16/14	Report		Response to USEPA 308 RFI	G.Hicks, PE	Sid Holbrook
06/12/14	Transmittal	649PG	State St Hamden Area 10 East Haven I/I Req. to Award	I.Hall, PE	Mario Ricozzi, PE

ATTACHMENT "E"

**ANNUAL CSO FLOW
MONITORING DATA**

JUNE 2014

**GREATER NEW HAVEN
WATER POLLUTION CONTROL AUTHORITY**



**JUNE 2014
ANNUAL CSO FLOW MONITORING
PROGRAM DATA**

ATTACHMENT "E"

JUNE 2014

ANNUAL CSO FLOW MONITORING PROGRAM DATA

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REGULATOR & CSO DESIGNATIONS & STATUS

METER LOCATION SUMMARY

**GREATER NEW HAVEN WPCA
CSO FLOW MONITORING PROGRAM
METER LOCATION SUMMARY
APRIL 2, 2014**

OF-006 SEWER, OVERFLOW AA AND OVERFLOW BB

- Meter OF-006 Sewer was installed in the 36 inch sewer upstream of the two overflow pipes on 6/4/12 at an invert elevation of 8.25 (overflow depth is 27 inches)
- Meters OF-006 Overflows AA and BB were installed in the twin 24 inch overflow pipes on 7/30/12 at an invert elevation of 10.54
- CSO start and stop times are based on a depth greater than 27 inches at Meter OF-006 Sewer and positive velocities at Meters OF-006 Overflows AA and BB
- CSO volumes are calculated based on depths and velocities at Meters OF-006 Overflows AA and BB, the hydraulic elements chart and the Continuity Equation

OF-005 SEWER AND OVERFLOW

- Meter OF-005 Sewer was installed in the 57 inch high by 60 inch wide sewer at REG 005 6/7/12 at an elevation of 5.44 (5 inches above the invert due to sediment) (overflow depth is 53.5 inches)
- Meter OF-005 Overflow was installed in the 48 inch overflow pipe on 6/7/12 at an invert elevation of 8.40 downstream of the 36 inch drain connection
- Meter OF-005 Overflow was reinstalled in the 48 inch overflow pipe on 11/17/13 at an invert elevation of 8.40 upstream of the 36 inch drain connection
- CSO start and stop times are based on a depth greater than 53.5 inches at Meter OF-005 Sewer and positive velocities at Meter OF-005 Overflow
- CSO volumes are calculated based on depths and velocities at Meter OF-005 Overflow, the hydraulic elements chart and the Continuity Equation

OF-004 SEWER AND OVERFLOW

- Meter OF-004 Sewer was installed in the 64 inch high by 72 inch wide sewer downstream of REG 004 6/6/12 at an invert elevation of 4.05 (overflow depth is 35 inches)
- Meters OF-004 Overflow was installed in the 3 foot high by 5 foot wide box culvert overflow on 6/6/12 at an invert elevation of 4.81
- The regulator consists of three weirs, each two feet wide
- CSO start and stop times are based on a depth greater than 35 inches at Meter OF-004 Sewer and positive velocities at Meter OF-004 Overflow
- CSO volumes are calculated based on depths and velocities at Meter OF-004 Overflow, the hydraulic elements chart and the Continuity Equation

OF-003 SEWER AND OVERFLOW

- Meter OF-003 Sewer was installed in the 64 inch high by 72 inch wide sewer downstream of REG 003 on 6/5/12 at an invert elevation of 2.39 (overflow depth is 46 inches)
- Meter OF-003 Overflow was installed in the 54 inch overflow pipe on 6/5/12 at an invert elevation of 2.75
- The regulator consists of an 5 foot long transverse weir
- CSO start and stop times are based on a depth greater than 46 inches at Meter OF-003 Sewer and positive velocities at Meter OF-003 Overflow
- CSO volumes are calculated based on depths and velocities at Meter OF-003 Overflow, the hydraulic elements chart and the Continuity Equation
- There is significant tidal influence at Meter OF-003 Overflow
- In order to account for the tidal depths being included in the CSO volume calculations, it is proposed to use the depths measured at Meter OF-003 Sewer when they exceed the weir elevation, the hydraulic elements chart and the Continuity Equation
- An alternative would be to use the depths measured at Meter OF-003 Sewer when they exceed the weir elevation and the weir formula

GNH1 SEWER AT TRUMAN TANK

- Meter GNH1 Sewer was installed in the 64 inch high by 72 inch wide sewer downstream of the Truman Tank Diversion Chamber on 6/12/12 at an invert elevation of 1.29 (there is 14 inches of hard packed sediment in the Diversion Chamber) (overflow depth is 36 inches)
- The regulator is a 10 foot bending weir
- The SCADA system measures depths in each cell of the 5 MG tank
- Truman Tank activation start and stop times are based on a depth greater than 36 inches at Meter GNH1 Sewer and SCADA depths in the Truman Tank
- CSO volumes are calculated based on SCADA depths in the Truman Tank

OF-024 US and DS SEWER AND REG 024 WEIR

- Meter OF-024 US Sewer was installed in the 69 inch high by 84 inch wide sewer upstream of REG 024 on 7/30/12 at an invert elevation of -1.17 (overflow depth is 65 inches)
- Meter OF-024 DS Sewer was installed in the 48 inch sewer downstream of REG 024 on 7/30/12 at an invert elevation of -2.72 (overflow depth is 81 inches)
- Meter 024 Weir was installed to measure weir depth at REG 024 on 10/31/12 at the weir elevation of 4.40
- The regulator consists of three weirs each 4.5 feet wide
- CSO start and stop times are based on depths greater than 65 inches at Meter OF-024 US Sewer, depths greater than 81 inches at Meter OF-024 DS Sewer (verified by the Meter 024 Weir depths)
- CSO volumes are calculated based on the weir elevation and the weir formula

OF-025 OVERFLOW - (THIS METER WAS REMOVED IN SEPTEMBER 2013)

- Meter OF-025 Overflow was installed in REG 025 on 12/12/12 at an invert elevation of 4.65 (overflow depth is 21 inches)
- The regulator consists of a 45 inch wide weir at elevation 6.40
- CSO start and stop times are based on a depth greater than 21 inches at REG 025
- CSO volumes are calculated based on depth over the 45 inch weir at REG 025 using the weir formula

REG 025 (METERS State, Frontage, Union and DS) (CSO 025)

- Four meters were installed in September 2013 to estimate CSOs at REG 025
- Meter State was installed in the 48 inch wide by 60 inch high sewer on State Street upstream of REG 025 at an invert of 4.92
- Meter Frontage was installed in the 30 inch sewer on North Frontage Road upstream of REG 025 at an invert of 3.00
- Meter Union was installed in the 36 inch sewer on State Street upstream of REG 025
- Meter Union was moved to the 30 inch sewer on Columbus Avenue in November 2013 at an invert of -0.73
- Meter REG 025 DS was installed in the 42 inch discharge pipe downstream of REG 025 and the State/Union Pump Station
- Meter REG 025 DS was moved to REG 025 in November 2013. Sensors are metering the depths on each side of the overflow weir
- CSO or stormwater inflow start and stop times are estimated based on the depths at the overflow weir
- CSO or stormwater inflow volumes are estimated using the weir formula

REG 034 SEWER AND OVERFLOW – (THIS METER WAS REMOVED IN SEPTEMBER 2013)

- Meter REG-034 Sewer was installed in the 48 inch sewer at REG 034 on 3/27/13 at an invert elevation of 11.45 (overflow depth is 15 inches)
- Meter REG-034 Overflow was installed on the overflow weir on 3/27/13
- The regulator consists of a 78 inch weir at elevation 12.70
- CSO start and stop times are based on a depth greater than 15 inches at REG 034
- CSO volumes are calculated based on depth over the 78 inch weir at REG 034 using the weir formula

REG 034 (METERS Temple, George, and DS) (CSO 025)

- Three meters were installed in September 2013 to estimate CSOs at REG 034
- Meter Temple was installed in the 25 inch wide by 37 inch high sewer on Temple Street upstream of REG 034
- Meter George was installed in the 36 inch wide by 48 inch high sewer on George Street upstream of REG 034
- Meter REG 034 DS was installed in the 24 inch discharge pipe downstream of REG 034

- Meter REG 034 DS was moved to REG 034 in November 2013. Sensors are metering the depths on each side of the overflow weir
- CSO or stormwater inflow start and stop times are estimated based on the depths at the overflow weir
- CSO or stormwater inflow volumes are estimated using the weir formula

OF-013 SEWER AND OVERFLOW – (THIS METER WAS REMOVED IN SEPTEMBER 2013)

- Meter OF-013 Sewer was installed in the 30 inch high by 45 inch wide sewer at REG 013 on 3/15/13 at an invert elevation of 20.20 (overflow depth is 25 inches)
- Meter OF-013 Overflow was installed on the overflow weir on 3/15/13
- The regulator is a 25 inch wide weir
- CSO start and stop times are based on a depth greater than 25 inches at REG 013
- CSO volumes are calculated based on depth over the 25 inch weir at REG 013 using the weir formula
- We plan to close OF-013 during FY13 as recommended in the CSO LTCP

OF-012 OVERFLOW A AND B

- Meters OF-012 Overflows A and B were installed in the twin 18 inch overflow pipes on 10/15/12 at an invert elevation of 14.20 (overflow depth in the 48 inch sewer is only 36 inches)
- The 36 inch by 55 inch sewer downstream of REG 012 is a hydraulic bottleneck
- Spring flows from the Mill River Trunk Sewer in Hamden contain significant amounts of I/I
- New 6 inch high weirs were installed in each 18 inch overflow pipes on 5/3/13 raising the overflow depth to 42 inches
- CSO start and stop times at REG 012 are based on positive velocities at Meters OF-012 Overflows A and B
- CSO volumes at REG 012 are calculated based on depths and velocities at Meters OF-012 Overflows A and B, the hydraulic elements chart and the Continuity Equation
- Total CSO volumes from CSO 012 are estimated by summing the CSO volumes from REG 012 and REG 028

REG 028 AT MITCHELL DRIVE PUMP STATION

- Regulator 028 is a 15 inch overflow pipe from the Mitchell Drive PS wetwell to CSO 012
- The SCADA system monitors the depth in the wetwell
- No overflows occurred in 2012 (including the 5 year storm on 9/28/12) or 2013
- Plan is to replace the pumps with grinder pumps, add an emergency generator receptacle, and then close REG 028

OF-010 SEWER

- Meter OF-010 Sewer was installed in the 54 inch sewer at REG 010/010A on 12/20/12 at an invert elevation of 8.47 (overflow depth is 57 inches)
- The regulator is a 46 inch wide weir

- CSO start and stop times are based on a depth greater than 57 inches at REG 010/010A
- CSO volumes are calculated based on depth over the 46 inch weir at REG 010/010A using the weir formula
- We plan to close CSO 010 during FY13 as recommended in the CSO LTCP

REG 010A (CSO 011)

- Meter REG 010A was installed in the 54 inch sewer at REG 010A on 12/20/12 at an invert elevation of 8.47 (overflow depth is 62 inches)
- The regulator is a 114 inch wide weir
- CSO start and stop times at REG 010A are based on a depth greater than 62 inches at Meter REG 010A
- CSO volumes at REG 010A are calculated based on depth over the 114 inch weir at REG 010A using the weir formula

REG 014 SEWER AND OVERFLOW (CSO 011) – (THIS METER WAS REMOVED IN SEPTEMBER 2013)

- Meter REG 014 Overflow was installed on the weir in the 48 inch overflow pipe on 10/3/12
- Meter OF-014 Sewer was installed in the 66 inch sewer at REG 014 on 12/20/12 at an invert elevation of 12.40 (overflow depth is 54 inches)
- The regulator is a 44 inch wide weir
- CSO start and stop times are based on a depth greater than 54 inches at REG 014
- CSO volumes are calculated based on depth over the 44 inch weir at REG 014 using the weir formula
- We plan to close REG 014 during FY13 based on the metering data which confirmed that completion of Phase 1 of the Yale/Trumbull separation project eliminated the need for REG 014

REG 011 (METERS OF-011-997, 609, 631 AND 819) (CSO 011)

- Four meters were installed in December 2012 to estimate CSOs at REG 011
- Meter OF-011-997 was installed in the 30 inch sewer on State Street upstream of the 42 inch discharge pipe– **(THIS METER WAS REMOVED IN SEPTEMBER 2013)** Metered flows were very consistent and relatively small
- Meter OF-011-609 was installed in the 37 inch wide by 25 inch high sewer on Humphrey Street upstream of REG 011– **(THIS METER WAS REMOVED IN SEPTEMBER 2013)** Metered flows were very consistent and relatively small
- Meter OF-011-631 was installed in the 66 inch sewer on State Street upstream of REG 011
- Meter OF-011-819 was installed in the 42 inch discharge pipe downstream of REG 011 and Meter O-011997
- CSO start and stop times at REG 011 are estimated by summing the flows from the one upstream meter and subtracting the flows from the downstream meter (anytime the resultant flow is greater than zero a CSO is occurring)
- CSO volumes from REG 011 are estimated using the resultant flows as calculated above

- Total CSO volumes from CSO 011 are estimated by summing the CSO volumes from REG 010A, REG 011 and REG 026

REG 026 AT HUMPHREY STREET PUMP STATION

- Regulator 026 is a 10 inch overflow pipe from the Humphrey Street PS wetwell to CSO 011
- The SCADA system monitors the depth in the wetwell
- No overflows occurred in 2012 (including the 5 year storm on 9/28/12) or 2013
- Plan is to replace the pumps and then close the REG 026

OF-GREENE SEWER AND OVERFLOW – (THIS METER WAS REMOVED IN SEPTEMBER 2013)

- Meter OF-Greene Overflow was installed in REG Greene on 8/15/12 at an invert elevation of 5.72 (overflow depth is 72 inches)
- Meter OF-Greene Sewer was installed in the 24 inch sewer at REG Greene on 3/25/13 at an invert elevation of 5.72 (overflow depth is 72 inches)
- The regulator is a 15 inch pipe
- CSO start and stop times are based on a depth greater than 72 inches at REG Greene
- CSO volumes are calculated based on depth over the 72 inches at REG Greene using the hydraulic elements chart and the Continuity Equation
- We plan to close OF-GREENE during FY13 based on the metering data which confirmed that following completion of the separation work upstream of REG Greene that CSO Greene is no longer needed

REG 021-OF AND OF-021 US SEWER (E ST PS SEWER)

- Meter OF-021 US Sewer (E St PS) was installed in the 62 inch wide by 67 inch high sewer upstream of REG 021 on 9/13/12 at an invert elevation of 0.10 (overflow depth is 75 inches)
- Meter OF-021 was installed in REG 021 on 11/15/12 at an invert elevation of -0.97 (overflow depth is 88 inches)
- The regulator is twin 84 inch wide steel plate weirs at elevation 6.34
- There is a duckbill on the overflow pipe
- CSO start and stop times are based on a depth greater than 88 inches at REG 021
- CSO volumes are calculated based on depth over the twin 84 inch weirs at REG 021 using the weir formula

OF-009 OVERFLOW

- Meter OF-009 Overflow was installed in the 30 inch wide by 45 inch high overflow pipe on 10/3/12 at an invert elevation of 3.50
- The regulator consists of an 5.5 foot long weir at an elevation of 5.70
- CSO start and stop times are based on a positive velocities at Meter OF-009 Overflow
- CSO volumes are calculated based on depths and velocities at Meter OF-009 Overflow, the hydraulic elements chart and the Continuity Equation
- There is significant tidal influence at Meter OF-009 Overflow (no duckbill)

- Unlike OF-003, there is not a meter in the sewer to use an alternative check on Meter OF-009 Overflow
- Some sort of manual depth deduction could be possible if CSOs happen coincident with tides

OF-015 US and DS SEWERS

- Meter OF-015 US Sewer was installed in the 45 inch sewer upstream of REG 015 on 10/3/12 at an invert elevation of -0.16
- Meter OF-015 DS Sewer was installed in the 48 inch sewer to the James Street siphon inlet downstream of REG 015 on 10/3/12 at an invert elevation of -1.10 (overflow depth is 40.5 inches)
- The James Street siphon was designed with a capacity of 24 MGD
- The regulator consists of a 7 foot long concrete weir at elevation 2.27
- CSO start and stop times are based on depths greater than 40.5 inches at Meter OF-015 DS Sewer (difficult to estimate small CSOs)
- Velocities at Meters OF-015 US and DS drop from over 2 fps to under 1 fps during CSO events
- CSO volumes are calculated by subtracting the Meter 015 DS Sewer flows from the Meter 015 US Sewer flows

OF-016 OVERFLOW

- Meter OF-016 Overflow was installed in the 48 inch wide by 60 inch high overflow pipe on 8/30/12 at an invert elevation of 0.90
- The regulator consists of an 3.8 foot long weir at an elevation of 3.40
- CSO start and stop times are based on a positive velocities at Meter OF-016 Overflow
- CSO volumes are calculated based on depths and velocities at Meter OF-016 Overflow, the hydraulic elements chart and the Continuity Equation
- There is significant tidal influence at Meter OF-016 Overflow (even though there is a duckbill)
- Unlike OF-003, there is not a meter in the sewer to use an alternative check on Meter OF-016 Overflow
- Some sort of manual depth deduction could be possible if CSOs happen coincident with tides

OF-019 OVERFLOW

- Meter OF-019 Overflow was installed in the 24 inch overflow pipe on 8/13/12 at an invert elevation of 4.80
- The regulator consists of twin 15 inch overflow pipes at an elevation of 6.50
- CSO start and stop times are based on a positive velocities at Meter OF-019 Overflow
- CSO volumes are calculated based on depths and velocities at Meter OF-019 Overflow, the hydraulic elements chart and the Continuity Equation
- There is significant tidal influence at Meter OF-019 Overflow (no duckbill)
- Unlike OF-003, there is not a meter in the sewer to use an alternative check on Meter OF-019 Overflow
- Some sort of manual depth deduction could be possible if CSOs happen coincident with tides

OF-020 SEWER AND OVERFLOW

- Meter OF-020 Overflow (depth sensor) was installed in the 15 inch overflow pipe at REG 021 on 3/25/13 at an invert elevation of 13.95
- Meter OF-020 Sewer was installed in the 24 inch sewer at REG 021 on 3/25/13 at an invert elevation of 11.50 (overflow depth is 30 inches)
- The regulator is a 15 inch pipe
- CSO start and stop times are based on a depth greater than 30 inches at REG-021
- CSO volumes are calculated based on depth over the 30 inches at REG-021 using the hydraulic elements chart and the Continuity Equation

METER DATA

SUMMARY

MAY 2013 – APRIL 2014

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - MAY 2013 THROUGH APRIL 2014

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>	<u>RAINFALL (IN)</u>	<u>METER MONTHS</u>
CSO 006	REG 006	16	3.651	47.71	12
CSO 005	REG 005	29	3.634	47.71	12
CSO 004	REG 004	42	18.846	47.71	12
CSO 003	REG 003	38	17.833	47.71	12
CSO 024	REG 024	12	10.005	47.71	12
CSO 009	REG 009	29	2.081	47.71	12
CSO 019	REG 019	13	0.358	47.71	12
CSO 016	REG 016	32	14.032	47.71	12
CSO 015	REG 015	25	4.378	47.71	12
CSO 010	REG 010	6	2.157	44.34	10
CSO 011	REGS 010A, 011, 014, 026	13	9.349	47.71	12
CSO 012	REGS 012A, 012B, 028	13	1.539	47.71	12
CSO GREENE	REG GREENE	0	0.000	22.20	5
CSO 025	REGS 025, 034	0	0.000	20.49	5
CSO 021	REG 021	18	15.968	47.71	12
CSO 013	REG 013	7	0.170	22.20	5
CSO 020	REG 020	4	0.228	47.71	12
TOTAL		297	104.229		

METER DATA

APRIL 2014

**GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CSO FLOW MONITORING PROGRAM
METER DATA SUMMARY - APRIL 2014**

MONTHLY RAINFALL SUMMARY

6.60 inches of rain (3.44 inches of rain in a typical month)

No snow

6 rain events (10 rain events in a typical month)

One 2 year storm, all other storms less than 1 month return frequency

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>
CSO 006	REGS 006 A, 006 B	3	0.965
CSO 005	REG 005	1	0.790
CSO 004	REG 004	4	4.905
CSO 003	REG 003	3	0.525
CSO 024	REG 024	2	2.516
CSO 009	REG 009	1	0.360
CSO 019	REG 019	1	0.080
CSO 016	REG 016	1	0.937
CSO 015	REG 015	1	1.103
CSO 010	REG 010	1	0.700
CSO 011	REGS 010A, 011, 014, 026	1	1.442
CSO 012	REGS 012A, 012B, 028	1	0.797
CSO 025	REGS 025, 034	0	0.000
CSO 021	REG 021	1	2.287
CSO 020	REG 020	1	0.109
TOTAL		22	17.516
		(22 CSO events in a typical month)	(20.358 MG of CSO volume in a typical month)

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - THROUGH APRIL 2014

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>	<u>RAINFALL (IN)</u>	<u>METER MONTHS</u>
CSO 006	REGS 006 A, 006 B	28	8.845	82.58	23
CSO 005	REG 005	23	5.081	82.58	23
CSO 004	REG 004	80	39.002	82.58	23
CSO 003	REG 003	63	31.490	82.58	23
CSO 024	REG 024	21	24.170	76.98	21
CSO 009	REG 009	38	2.764	65.24	19
CSO 019	REG 019	25	1.443	76.98	21
CSO 016	REG 016	49	25.810	71.31	20
CSO 015	REG 015	31	5.602	65.24	19
CSO 010	REG 010	13	2.829	65.94	18
CSO 011	REGS 010A, 011, 014, 026	15	9.235	60.87	17
CSO 012	REGS 012A, 012B, 028	34	11.595	76.98	21
CSO 025	REGS 025, 034	0	0.000	20.49	5
CSO 021	REG 021	26	24.710	61.87	18
CSO 020	REG 020	4	0.228	45.32	13
TOTAL		450	192.804		

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - TYPICAL YEAR ESTIMATES

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>ANNUAL CSO EVENTS BASED ON RAINFALL⁽¹⁾</u>	<u>ANNUAL CSO VOLUME (MG) BASED ON RAINFALL⁽²⁾</u>	<u>ANNUAL CSO EVENTS BASED ON MONTHS⁽³⁾</u>	<u>ANNUAL CSO VOLUME (MG) BASED ON MONTHS⁽⁴⁾</u>	<u>MODEL CSO EVENTS</u>	<u>MODEL CSO VOLUME (MG)</u>
CSO 006	REGS 006 A, 006 B	14	4.420	15	4.615	27	27.0
CSO 005	REG 005	11	2.539	12	2.651	39	22.0
CSO 004	REG 004	40	19.492	42	20.349	44	65.3
CSO 003	REG 003	31	15.737	33	16.430	28	12.5
CSO 024	REG 024	11	12.958	12	13.811	0	1.9
CSO 009	REG 009	24	1.748	24	1.746	27	8.1
CSO 019	REG 019	13	0.774	14	0.825	7	2.4
CSO 016	REG 016	28	14.937	29	15.486	45	20.4
CSO 015	REG 015	20	3.544	20	3.538	9	4.1
CSO 010	REG 010	8	1.771	9	1.886	6	2.4
CSO 011	REGS 010A, 011, 014, 026	10	6.261	11	6.519	15	26.6
CSO 012	REGS 012A, 012B, 028	18	6.216	19	6.626	8	2.9
CSO 025	REGS 025, 034	0	0.000	0	0.000	6	9.0
CSO 021	REG 021	17	16.483	17	16.473	23	35.1
CSO 020	REG 020	4	0.208	4	0.210	8	1.4
TOTAL		247	106.880	256	110.954	292	241.1

- (1) Annual CSO Events Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Events to Date / Rainfall to Date
 (2) Annual CSO Volume (MG) Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Volume (MG) to Date / Rainfall to Date
 (3) Annual CSO Events Based on Months = 12 x CSO Events to Date / Meter Months to Date
 (4) Annual CSO Volume (MG) Based on Months = 12 x CSO Volume (MG) to Date / Meter Months to Date

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Orange Ave. @ Int. of Ella T. Grasso Blvd.
 003
 NPDES Permit Outfall #:
 MONTH: April YEAR: 2014
 Average Low Temp: 38
 Average High Temp: 57
 Measured Rainfall: 6.60
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	4/4/2014 - 4/5/2014	20:00	1:35	5.58	0.22	***						
2	4/7/2014 - 4/8/2014	18:40	10:35	15.92	0.69	***	4/8/2014	7:20	8:15	0.92	0.401	0.015
3	4/15/2014 - 4/16/2014	5:50	9:10	27.33	1.00	***	4/15/2014	8:00	19:40	11.67	0.282	0.137
4	4/22/2014 - 4/23/2014	18:10	8:10	14.00	0.04	***						
5	4/26/2014 - 4/27/2014	3:35	0:30	20.92	0.78	***						
6	4/29/2014 - 5/1/2014	20:00	23:50	51.83	3.87	2 YEAR	4/30/2014 - 5/1/2014	9:10	6:55	21.75	0.411	0.373

TOTAL MONTH
 FLOW VOLUME = 0.525

Note: Overflow occurs when Interceptor level reaches 46"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Ella T. Grasso Blvd. - 23 yrds North of Legion Ave.
 NPDES Permit Outfall #: 004
 MONTH: April YEAR: 2014
 Average Low Temp: 38
 Average High Temp: 57
 Measured Rainfall: 6.60
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	4/4/2014 - 4/5/2014	20:00	1:35	5.58	0.22	***						
2	4/7/2014 - 4/8/2014	18:40	10:35	15.92	0.69	***	4/7/2014 - 4/8/2014	21:50	9:20	11.50	0.613	0.294
3	4/15/2014 - 4/16/2014	5:50	9:10	27.33	1.00	***	4/15/2014 - 4/16/2014	7:55	0:25	16.50	1.157	0.796
4	4/22/2014 - 4/23/2014	18:10	8:10	14.00	0.04	***						
5	4/26/2014 - 4/27/2014	3:35	0:30	20.92	0.78	***	4/26/2014	5:55	22:50	16.92	0.031	0.022
6	4/29/2014 - 5/1/2014	20:00	23:50	51.83	3.87	2 YEAR	4/30/2014 - 5/2/2014	8:55	0:00	39.08	2.329	3.793

TOTAL MONTH FLOW VOLUME = 4.905

Note: Overflow occurs when Interceptor level reaches 35"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Derby Ave. 20 yrds East of Ella T. Grasso Blvd.
 LOCATION: 005
 NPDES Permit Outfall #:
 MONTH: April YEAR: 2014
 Average Low Temp: 38
 Average High Temp: 57
 Measured Rainfall: 6.60
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	4/4/2014 - 4/5/2014	20:00	1:35	5.58	0.22	***						
2	4/7/2014 - 4/8/2014	18:40	10:35	15.92	0.69	***						
3	4/15/2014 - 4/16/2014	5:50	9:10	27.33	1.00	***						
4	4/22/2014 - 4/23/2014	18:10	8:10	14.00	0.04	***						
5	4/26/2014 - 4/27/2014	3:35	0:30	20.92	0.78	***						
6	4/29/2014 - 5/1/2014	20:00	23:50	51.83	3.87	2 YEAR	4/30/2014 - 5/1/2014	23:25	5:15	5.83	3.249	0.790

TOTAL MONTH FLOW VOLUME = 0.790

Note: Overflow occurs when Interceptor level reaches 53.5"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Whalley Ave. 30 yds from Fitch Street
 LOCATION: 006
 NPDES Permit Outfall #:
 MONTH: April YEAR: 2014
 Average Low Temp: 38
 Average High Temp: 57
 Measured Rainfall: 6.60
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	4/4/2014 - 4/5/2014	20:00	1:35	5.58	0.22	***						
2	4/7/2014 - 4/8/2014	18:40	10:35	15.92	0.69	***						
3	4/15/2014 - 4/16/2014	5:50	9:10	27.33	1.00	***						
4	4/22/2014 - 4/23/2014	18:10	8:10	14.00	0.04	***						
5	4/26/2014 - 4/27/2014	3:35	0:30	20.92	0.78	***						
6	4/29/2014 - 5/1/2014	20:00	23:50	51.83	3.87	2 YEAR	5/1/2014	0:30	5:20	4.83	4.792	0.965

TOTAL MONTH FLOW VOLUME = 0.965

Note: Overflow occurs when Interceptor level reaches 27"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Grand Avenue & James Street
 LOCATION: 009
 NPDES Permit Outfall #:
 MONTH: April YEAR: 2014
 Average Low Temp: 38
 Average High Temp: 57
 Measured Rainfall: 6.60
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	4/4/2014 - 4/5/2014	20:00	1:35	5.58	0.22	***						
2	4/7/2014 - 4/8/2014	18:40	10:35	15.92	0.69	***						
3	4/15/2014 - 4/16/20	5:50	9:10	27.33	1.00	***						
4	4/22/2014 - 4/23/20	18:10	8:10	14.00	0.04	***						
5	4/26/2014 - 4/27/20	3:35	0:30	20.92	0.78	***						
6	4/29/2014 - 5/1/201	20:00	23:50	51.83	3.87	2 YEAR	4/30/2014 - 5/1/2014	9:10	6:50	21.67	0.399	0.360

TOTAL MONTH
 FLOW VOLUME = 0.360

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 547 East Street
 LOCATION: 010
 NPDES Permit Outfall #:
 MONTH: April YEAR: 2014
 Average Low Temp: 38
 Average High Temp: 57
 Measured Rainfall: 6.60
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	4/4/2014 - 4/5/2014	20:00	1:35	5.58	0.22	***						
2	4/7/2014 - 4/8/2014	18:40	10:35	15.92	0.69	***						
3	4/15/2014 - 4/16/20	5:50	9:10	27.33	1.00	***						
4	4/22/2014 - 4/23/20	18:10	8:10	14.00	0.04	***						
5	4/26/2014 - 4/27/20	3:35	0:30	20.92	0.78	***						
6	4/29/2014 - 5/1/201	20:00	23:50	51.83	3.87	2 YEAR	5/1/2014	1:00	5:35	4.58	3.663	0.700

TOTAL MONTH FLOW VOLUME = 0.700

Note: Overflow occurs when sewer level reaches 54"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011
 NPDES Permit Outfall #:
 MONTH: April YEAR: 2014
 Average Low Temp: 38
 Average High Temp: 57
 Measured Rainfall: 6.60
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	4/4/2014 - 4/5/2014	20:00	1:35	5.58	0.22	***						
2	4/7/2014 - 4/8/2014	18:40	10:35	15.92	0.69	***						
3	4/15/2014 - 4/16/20	5:50	9:10	27.33	1.00	***						
4	4/22/2014 - 4/23/20	18:10	8:10	14.00	0.04	***						
5	4/26/2014 - 4/27/20	3:35	0:30	20.92	0.78	***						
6	4/29/2014 - 5/1/201	20:00	23:50	51.83	3.87	2 YEAR	5/1/2014	0:40	5:50	5.17	6.697	1.442

TOTAL MONTH
 FLOW VOLUME = 1.442

Note: OF-011-609 and OF-011-997 removed on 8/26

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 75 Mitchell Drive
 LOCATION: 012
 NPDES Permit Outfall #:
 MONTH: April YEAR: 2014
 Average Low Temp: 38
 Average High Temp: 57
 Measured Rainfall: 6.60
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	4/4/2014 - 4/5/2014	20:00	1:35	5.58	0.22	***						
2	4/7/2014 - 4/8/2014	18:40	10:35	15.92	0.69	***						
3	4/15/2014 - 4/16/20	5:50	9:10	27.33	1.00	***						
4	4/22/2014 - 4/23/20	18:10	8:10	14.00	0.04	***						
5	4/26/2014 - 4/27/20	3:35	0:30	20.92	0.78	***						
6	4/29/2014 - 5/1/201	20:00	23:50	51.83	3.87	2 YEAR	4/30/2014 - 5/1/201	23:25	20:20	20.92	0.834	0.797
TOTAL MONTH												
FLOW VOLUME =												0.797

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 15 James Street
 LOCATION: 015
 NPDES Permit Outfall #:
 MONTH: April YEAR: 2014
 Average Low Temp: 38
 Average High Temp: 57
 Measured Rainfall: 6.60
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	4/4/2014 - 4/5/2014	20:00	1:35	5.58	0.22	***						
2	4/7/2014 - 4/8/2014	18:40	10:35	15.92	0.69	***						
3	4/15/2014 - 4/16/20	5:50	9:10	27.33	1.00	***						
4	4/22/2014 - 4/23/20	18:10	8:10	14.00	0.04	***						
5	4/26/2014 - 4/27/20	3:35	0:30	20.92	0.78	***						
6	4/29/2014 - 5/1/201	20:00	23:50	51.83	3.87	2 YEAR	4/30/2014 - 5/1/2014	23:20	5:20	6.00	4.411	1.103

TOTAL MONTH
 FLOW VOLUME = 1.103

Note: Overflow can occur with DS sewer depth reaches 40.5"
 Expected capacity of siphon is between 24 and 30 MGD.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Int. River & Poplar
 LOCATION: 016
 NPDES Permit Outfall #:
 MONTH: April YEAR: 2014
 Average Low Temp: 38
 Average High Temp: 57
 Measured Rainfall: 6.60
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	4/4/2014 - 4/5/2014	20:00	1:35	5.58	0.22	***						
2	4/7/2014 - 4/8/2014	18:40	10:35	15.92	0.69	***						
3	4/15/2014 - 4/16/20	5:50	9:10	27.33	1.00	***						
4	4/22/2014 - 4/23/20	18:10	8:10	14.00	0.04	***						
5	4/26/2014 - 4/27/20	3:35	0:30	20.92	0.78	***						
6	4/29/2014 - 5/1/201	20:00	23:50	51.83	3.87	2 YEAR	4/30/2014 - 5/1/2014	8:50	5:55	21.08	1.067	0.937

TOTAL MONTH
 FLOW VOLUME = 0.937

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 279 Front Street
 LOCATION: 019
 NPDES Permit Outfall #:
 MONTH: April YEAR: 2014
 Average Low Temp: 38
 Average High Temp: 57
 Measured Rainfall: 6.60
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT						
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)	
1	4/4/2014 - 4/5/2014	20:00	1:35	5.58	0.22	***							
2	4/7/2014 - 4/8/2014	18:40	10:35	15.92	0.69	***							
3	4/15/2014 - 4/16/20	5:50	9:10	27.33	1.00	***							
4	4/22/2014 - 4/23/20	18:10	8:10	14.00	0.04	***							
5	4/26/2014 - 4/27/20	3:35	0:30	20.92	0.78	***							
6	4/29/2014 - 5/1/201	20:00	23:50	51.83	3.87	2 YEAR	5/1/2014	3:15	4:40	1.42	1.347	0.080	

TOTAL MONTH
 FLOW VOLUME = 0.080

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Clifton and Quinnipiac
 NPDES Permit Outfall #: 020
 MONTH: April YEAR: 2014
 Average Low Temp: 38
 Average High Temp: 57
 Measured Rainfall: 6.60
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	4/4/2014 - 4/5/2014	20:00	1:35	5.58	0.22	***						
2	4/7/2014 - 4/8/2014	18:40	10:35	15.92	0.69	***						
3	4/15/2014 - 4/16/2014	5:50	9:10	27.33	1.00	***						
4	4/22/2014 - 4/23/2014	18:10	8:10	14.00	0.04	***						
5	4/26/2014 - 4/27/2014	3:35	0:30	20.92	0.78	***						
6	4/29/2014 - 5/1/2014	20:00	23:50	51.83	3.87	2 YEAR	5/1/2014	3:25	12:05	8.67	0.303	0.109

TOTAL MONTH FLOW VOLUME = 0.109

Note: Overflow occurs when level is 31" in the interceptor.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 638 Long Wharf Drive
 LOCATION: 021
 NPDES Permit Outfall #:
 MONTH: April YEAR: 2014
 Average Low Temp: 38
 Average High Temp: 57
 Measured Rainfall: 6.60
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	4/4/2014 - 4/5/2014	20:00	1:35	5.58	0.22	***						
2	4/7/2014 - 4/8/2014	18:40	10:35	15.92	0.69	***						
3	4/15/2014 - 4/16/20	5:50	9:10	27.33	1.00	***						
4	4/22/2014 - 4/23/20	18:10	8:10	14.00	0.04	***						
5	4/26/2014 - 4/27/20	3:35	0:30	20.92	0.78	***						
6	4/29/2014 - 5/1/201	20:00	23:50	51.83	3.87	2 YEAR	4/30/2014 - 5/1/2014	23:30	7:00	7.50	7.320	2.287
TOTAL MONTH												
FLOW VOLUME =												2.287

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Sea Street @ South Water Street
 LOCATION: 024
 NPDES Permit Outfall #:
 MONTH: April YEAR: 2014
 Average Low Temp: 38
 Average High Temp: 57
 Measured Rainfall: 6.60
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	4/4/2014 - 4/5/2014	20:00	1:35	5.58	0.22	***						
2	4/7/2014 - 4/8/2014	18:40	10:35	15.92	0.69	***						
3	4/15/2014 - 4/16/2014	5:50	9:10	27.33	1.00	***	4/15/2014	13:00	17:10	4.17	5.440	0.944
4	4/22/2014 - 4/23/2014	18:10	8:10	14.00	0.04	***						
5	4/26/2014 - 4/27/2014	3:35	0:30	20.92	0.78	***						
6	4/29/2014 - 5/1/2014	20:00	23:50	51.83	3.87	2 YEAR	5/1/2014	0:50	6:05	5.25	7.185	1.572

TOTAL MONTH FLOW VOLUME = 2.516

Note: Overflow occurs when upstream depth reaches approx. 65" or when downstream reaches approx. 81".

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Intersection of State & N. Front Street
 LOCATION: 025
 NPDES Permit Outfall #:
 MONTH: April YEAR: 2014
 Average Low Temp: 38
 Average High Temp: 57
 Measured Rainfall: 6.60
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	4/4/2014 - 4/5/2014	20:00	1:35	5.58	0.22	***						
2	4/7/2014 - 4/8/2014	18:40	10:35	15.92	0.69	***						
3	4/15/2014 - 4/16/20	5:50	9:10	27.33	1.00	***						
4	4/22/2014 - 4/23/20	18:10	8:10	14.00	0.04	***						
5	4/26/2014 - 4/27/20	3:35	0:30	20.92	0.78	***						
6	4/29/2014 - 5/1/201	20:00	23:50	51.83	3.87	2 YEAR						

TOTAL MONTH FLOW VOLUME = 0.000

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG George and Temple
 LOCATION: Regulator 34
 NPDES Permit Outfall #:
 MONTH: April YEAR: 2014
 Average Low Temp: 38
 Average High Temp: 57
 Measured Rainfall: 6.60
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	4/4/2014 - 4/5/2014	20:00	1:35	5.58	0.22	***						
2	4/7/2014 - 4/8/2014	18:40	10:35	15.92	0.69	***						
3	4/15/2014 - 4/16/20	5:50	9:10	27.33	1.00	***						
4	4/22/2014 - 4/23/20	18:10	8:10	14.00	0.04	***						
5	4/26/2014 - 4/27/20	3:35	0:30	20.92	0.78	***						
6	4/29/2014 - 5/1/201	20:00	23:50	51.83	3.87	2 YEAR	5/1/2014	0:45	4:25	3.67		

TOTAL MONTH
 FLOW VOLUME = 0.000

Note:

METER DATA

MARCH 2014

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - MARCH 2014

MONTHLY RAINFALL SUMMARY

5.91 inches of rain (3.44 inches of rain in a typical month)

2.0 inches of snow

7 rain events (10 rain events in a typical month)

One 2 year storm, one 1 month storm, all other storms less than 1 month return frequency

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>
CSO 006	REGS 006 A, 006 B	3	0.584
CSO 005	REG 005	2	0.493
CSO 004	REG 004	4	4.110
CSO 003	REG 003	3	0.448
CSO 024	REG 024	2	1.338
CSO 009	REG 009	3	0.052
CSO 019	REG 019	3	0.141
CSO 016	REG 016	1	2.691
CSO 015	REG 015	3	1.169
CSO 010	REG 010	1	0.174
CSO 011	REGS 010A, 011, 014, 026	2	1.597
CSO 012	REGS 012A, 012B, 028	1	0.116
CSO 025	REGS 025, 034	0	0.000
CSO 021	REG 021	2	1.575
CSO 020	REG 020	1	0.080
TOTAL		31	14.568
		(22 CSO events in a typical month)	(20.358 MG of CSO volume in a typical month)

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - THROUGH MARCH 2014

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>	<u>RAINFALL (IN)</u>	<u>METER MONTHS</u>
CSO 006	REGS 006 A, 006 B	25	7.880	75.98	22
CSO 005	REG 005	22	4.291	75.98	22
CSO 004	REG 004	76	34.097	75.98	22
CSO 003	REG 003	60	30.965	75.98	22
CSO 024	REG 024	19	21.654	70.38	20
CSO 009	REG 009	37	2.404	58.64	18
CSO 019	REG 019	24	1.363	70.38	20
CSO 016	REG 016	48	24.873	64.71	19
CSO 015	REG 015	30	4.499	58.64	18
CSO 010	REG 010	12	2.129	59.34	17
CSO 011	REGS 010A, 011, 014, 026	14	7.793	54.27	16
CSO 012	REGS 012A, 012B, 028	33	10.798	70.38	20
CSO 025	REGS 025, 034	0	0.000	13.89	4
CSO 021	REG 021	25	22.423	55.27	17
CSO 020	REG 020	3	0.119	38.72	12
TOTAL		428	175.288		

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - TYPICAL YEAR ESTIMATES

CSO NUMBER	REGULATOR NUMBERS	ANNUAL CSO EVENTS	ANNUAL CSO VOLUME (MG)	ANNUAL CSO EVENTS	ANNUAL CSO VOLUME (MG)	MODEL CSO EVENTS	MODEL CSO VOLUME (MG)
		BASED ON RAINFALL ⁽¹⁾	BASED ON RAINFALL ⁽²⁾	BASED ON MONTHS ⁽³⁾	BASED ON MONTHS ⁽⁴⁾		
CSO 006	REGS 006 A, 006 B	14	4.280	14	4.298	27	27.0
CSO 005	REG 005	12	2.331	12	2.341	39	22.0
CSO 004	REG 004	41	18.520	41	18.598	44	65.3
CSO 003	REG 003	33	16.819	33	16.890	28	12.5
CSO 024	REG 024	11	12.698	11	12.992	0	1.9
CSO 009	REG 009	26	1.692	25	1.603	27	8.1
CSO 019	REG 019	14	0.799	14	0.818	7	2.4
CSO 016	REG 016	31	15.863	30	15.709	45	20.4
CSO 015	REG 015	21	3.166	20	2.999	9	4.1
CSO 010	REG 010	8	1.481	8	1.503	6	2.4
CSO 011	REGS 010A, 011, 014, 026	11	5.926	11	5.845	15	26.6
CSO 012	REGS 012A, 012B, 028	19	6.332	20	6.479	8	2.9
CSO 025	REGS 025, 034	0	0.000	0	0.000	6	9.0
CSO 021	REG 021	19	16.743	18	15.828	23	35.1
CSO 020	REG 020	3	0.127	3	0.119	8	1.4
TOTAL		259	106.651	257	105.903	292	241.1

(1) Annual CSO Events Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Events to Date / Rainfall to Date

(2) Annual CSO Volume (MG) Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Volume (MG) to Date / Rainfall to Date

(3) Annual CSO Events Based on Months = 12 x CSO Events to Date / Meter Months to Date

(4) Annual CSO Volume (MG) Based on Months = 12 x CSO Volume (MG) to Date / Meter Months to Date

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Orange Ave. @ Int. of Ella T. Grasso Blvd.
 NPDES Permit Outfall #: 003
 MONTH: March YEAR: 2014
 Average Low Temp: 25
 Average High Temp: 42
 Measured Rainfall: 5.91
 Measured Snowfall: 2.00

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT						
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)	
1	3/10/2014	9:25	9:30	0.08	0.01	***							
2	3/12/2014	17:05	23:25	6.33	0.43	***	3/12/2014	19:35	20:30	0.92	0.284	0.011	
3	3/15/2014	4:10	6:00	1.83	0.08	***							
4	3/19/2014 - 3/20/2014	20:20	1:55	5.58	1.13	1 MONTH	3/19/2014 - 3/20/2014	22:50	2:25	3.58	0.969	0.145	
5	3/28/2014	17:30	23:00	5.50	0.02	***							
6	3/29/2014 - 3/30/2014	11:40	7:20	19.67	3.43	2 YEAR	3/29/2014 - 3/30/2014	17:40	7:45	14.08	0.498	0.292	
7	3/30/2014 - 3/31/2014	22:25	14:05	15.67	0.81	***							

TOTAL MONTH FLOW VOLUME = 0.448

Note: Overflow occurs when Interceptor level reaches 46"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Ella T. Grasso Blvd. - 23 yrds North of Legion Ave.
 004
 NPDES Permit Outfall #:
 MONTH: March YEAR: 2014
 Average Low Temp: 25
 Average High Temp: 42
 Measured Rainfall: 5.91
 Measured Snowfall: 2.00

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT						
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)	
1	3/10/2014	9:25	9:30	0.08	0.01	***							
2	3/12/2014	17:05	23:25	6.33	0.43	***	3/12/2014	19:00	21:10	2.17	1.280	0.116	
3	3/15/2014	4:10	6:00	1.83	0.08	***							
4	3/19/2014 - 3/20/2014	20:20	1:55	5.58	1.13	1 MONTH	3/19/2014 - 3/20/2014	22:35	3:05	4.50	2.722	0.510	
5	3/28/2014	17:30	23:00	5.50	0.02	***							
6	3/29/2014 - 3/30/2014	11:40	7:20	19.67	3.43	2 YEAR	3/29/2014 - 3/30/2014	16:40	13:00	20.33	3.762	3.187	
7	3/30/2014 - 3/31/2014	22:25	14:05	15.67	0.81	***	3/31/2014	6:30	17:45	11.25	0.634	0.297	

TOTAL MONTH FLOW VOLUME = 4.110

Note: Overflow occurs when Interceptor level reaches 35"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Derby Ave. 20 yrds East of Ella T. Grasso Blvd.
 005
 NPDES Permit Outfall #:
 MONTH: March YEAR: 2014
 Average Low Temp: 25
 Average High Temp: 42
 Measured Rainfall: 5.91
 Measured Snowfall: 2.00

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	3/10/2014	9:25	9:30	0.08	0.01	***						
2	3/12/2014	17:05	23:25	6.33	0.43	***						
3	3/15/2014	4:10	6:00	1.83	0.08	***						
4	3/19/2014 - 3/20/2014	20:20	1:55	5.58	1.13	1 MONTH	3/20/2014	0:35	1:25	0.83	1.172	0.041
5	3/28/2014	17:30	23:00	5.50	0.02	***						
6	3/29/2014 - 3/30/2014	11:40	7:20	19.67	3.43	2 YEAR	3/29/2014 - 3/30/2014	23:10	3:40	4.50	2.413	0.452
7	3/30/2014 - 3/31/2014	22:25	14:05	15.67	0.81	***						

TOTAL MONTH FLOW VOLUME = 0.493

Note: Overflow occurs when Interceptor level reaches 53.5"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Whalley Ave. 30 yrds from Fitch Street
 006
 NPDES Permit Outfall #:
 MONTH: March YEAR: 2014
 Average Low Temp: 25
 Average High Temp: 42
 Measured Rainfall: 5.91
 Measured Snowfall: 2.00

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	3/10/2014	9:25	9:30	0.08	0.01	***						
2	3/12/2014	17:05	23:25	6.33	0.43	***						
3	3/15/2014	4:10	6:00	1.83	0.08	***						
4	3/19/2014 - 3/20/2014	20:20	1:55	5.58	1.13	1 MONTH	3/20/2014	0:50	1:35	0.75	0.992	0.031
5	3/28/2014	17:30	23:00	5.50	0.02	***						
6	3/29/2014 - 3/30/2014	11:40	7:20	19.67	3.43	2 YEAR	3/29/2014 - 3/30/2014	23:30	4:30	5.00	2.568	0.535
7	3/30/2014 - 3/31/2014	22:25	14:05	15.67	0.81	***	3/31/2014	14:10	17:15	3.08	0.140	0.018

TOTAL MONTH FLOW VOLUME = 0.584

Note: Overflow occurs when Interceptor level reaches 27"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Grand Avenue & James Street
 009
 NPDES Permit Outfall #:
 MONTH: March YEAR: 2014
 Average Low Temp: 25
 Average High Temp: 42
 Measured Rainfall: 5.91
 Measured Snowfall: 2.00

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	3/10/2014	9:25	9:30	0.08	0.01	***						
2	3/12/2014	17:05	23:25	6.33	0.43	***	3/12/2014	19:35	20:30	0.92	0.460	0.018
3	3/15/2014	4:10	6:00	1.83	0.08	***						
4	3/19/2014 - 3/20/20	20:20	1:55	5.58	1.13	1 MONTH	3/19/2014 - 3/20/2014	22:50	0:25	1.58	0.129	0.009
5	3/28/2014	17:30	23:00	5.50	0.02	***						
6	3/29/2014 - 3/30/20	11:40	7:20	19.67	3.43	2 YEAR	3/29/2014	17:40	21:25	3.75	0.162	0.025
7	3/30/2014 - 3/31/20	22:25	14:05	15.67	0.81	***						

TOTAL MONTH FLOW VOLUME = 0.052

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 547 East Street
 LOCATION: 010
 NPDES Permit Outfall #:
 MONTH: March YEAR: 2014
 Average Low Temp: 25
 Average High Temp: 42
 Measured Rainfall: 5.91
 Measured Snowfall: 2.00

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	3/10/2014	9:25	9:30	0.08	0.01	***						
2	3/12/2014	17:05	23:25	6.33	0.43	***						
3	3/15/2014	4:10	6:00	1.83	0.08	***						
4	3/19/2014 - 3/20/20	20:20	1:55	5.58	1.13	1 MONTH						
5	3/28/2014	17:30	23:00	5.50	0.02	***						
6	3/29/2014 - 3/30/20	11:40	7:20	19.67	3.43	2 YEAR	3/30/2014	1:45	3:40	1.92	2.184	0.174
7	3/30/2014 - 3/31/20	22:25	14:05	15.67	0.81	***						

TOTAL MONTH FLOW VOLUME = 0.174

Note: Overflow occurs when sewer level reaches 54"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 547 East Street
 LOCATION: 010A
 NPDES Permit Outfall #:
 MONTH: March YEAR: 2014
 Average Low Temp: 25
 Average High Temp: 42
 Measured Rainfall: 5.91
 Measured Snowfall: 2.00

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	3/10/2014	9:25	9:30	0.08	0.01	***						
2	3/12/2014	17:05	23:25	6.33	0.43	***						
3	3/15/2014	4:10	6:00	1.83	0.08	***						
4	3/19/2014 - 3/20/20	20:20	1:55	5.58	1.13	1 MONTH						
5	3/28/2014	17:30	23:00	5.50	0.02	***						
6	3/29/2014 - 3/30/20	11:40	7:20	19.67	3.43	2 YEAR						
7	3/30/2014 - 3/31/20	22:25	14:05	15.67	0.81	***						

TOTAL MONTH
 FLOW VOLUME = 0.000

Note: Overflow occurs when sewer level reaches 62"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011
 NPDES Permit Outfall #:
 MONTH: March YEAR: 2014
 Average Low Temp: 25
 Average High Temp: 42
 Measured Rainfall: 5.91
 Measured Snowfall: 2.00

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	3/10/2014	9:25	9:30	0.08	0.01	***						
2	3/12/2014	17:05	23:25	6.33	0.43	***						
3	3/15/2014	4:10	6:00	1.83	0.08	***						
4	3/19/2014 - 3/20/20	20:20	1:55	5.58	1.13	1 MONTH	3/20/2014	0:55	1:50	0.92	4.126	0.158
5	3/28/2014	17:30	23:00	5.50	0.02	***						
6	3/29/2014 - 3/30/20	11:40	7:20	19.67	3.43	2 YEAR	3/29/2014 - 3/30/2014	23:40	4:25	4.75	7.272	1.439
7	3/30/2014 - 3/31/20	22:25	14:05	15.67	0.81	***						

TOTAL MONTH FLOW VOLUME = 1.597

Note: Sum of 10A and 11
 OF-011-609 and OF-011-997 removed on 8/26

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 75 Mitchell Drive
 LOCATION: 012
 NPDES Permit Outfall #:
 MONTH: March YEAR: 2014
 Average Low Temp: 25
 Average High Temp: 42
 Measured Rainfall: 5.91
 Measured Snowfall: 2.00

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	3/10/2014	9:25	9:30	0.08	0.01	***						
2	3/12/2014	17:05	23:25	6.33	0.43	***						
3	3/15/2014	4:10	6:00	1.83	0.08	***						
4	3/19/2014 - 3/20/20	20:20	1:55	5.58	1.13	1 MONTH						
5	3/28/2014	17:30	23:00	5.50	0.02	***						
6	3/29/2014 - 3/30/20	11:40	7:20	19.67	3.43	2 YEAR	3/30/2014	1:30	8:00	6.50	0.428	0.116
7	3/30/2014 - 3/31/20	22:25	14:05	15.67	0.81	***						
										TOTAL MONTH FLOW VOLUME =		0.116

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 15 James Street
 LOCATION: 015
 NPDES Permit Outfall #:
 MONTH: March YEAR: 2014
 Average Low Temp: 25
 Average High Temp: 42
 Measured Rainfall: 5.91
 Measured Snowfall: 2.00

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	3/10/2014	9:25	9:30	0.08	0.01	***						
2	3/12/2014	17:05	23:25	6.33	0.43	***	3/12/2014	19:50	20:20	0.50	0.485	0.010
3	3/15/2014	4:10	6:00	1.83	0.08	***						
4	3/19/2014 - 3/20/20	20:20	1:55	5.58	1.13	1 MONTH	3/20/2014	0:15	2:50	2.58	1.592	0.171
5	3/28/2014	17:30	23:00	5.50	0.02	***						
6	3/29/2014 - 3/30/20	11:40	7:20	19.67	3.43	2 YEAR	3/29/2014 - 3/30/2014	22:00	4:20	6.33	3.743	0.988
7	3/30/2014 - 3/31/20	22:25	14:05	15.67	0.81	***						

TOTAL MONTH
 FLOW VOLUME = 1.169

Note: Overflow can occur with DS sewer depth reaches 40.5"
 Expected capacity of siphon is between 24 and 30 MGD.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Int. River & Poplar
 LOCATION: 016
 NPDES Permit Outfall #:
 MONTH: March YEAR: 2014
 Average Low Temp: 25
 Average High Temp: 42
 Measured Rainfall: 5.91
 Measured Snowfall: 2.00

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	3/10/2014	9:25	9:30	0.08	0.01	***						
2	3/12/2014	17:05	23:25	6.33	0.43	***						
3	3/15/2014	4:10	6:00	1.83	0.08	***						
4	3/19/2014 - 3/20/20	20:20	1:55	5.58	1.13	1 MONTH						
5	3/28/2014	17:30	23:00	5.50	0.02	***						
6	3/29/2014 - 3/30/20	11:40	7:20	19.67	3.43	2 YEAR	3/29/2014 - 3/30/2014	12:05	4:55	16.83	3.836	2.691
7	3/30/2014 - 3/31/20	22:25	14:05	15.67	0.81	***						

TOTAL MONTH FLOW VOLUME = 2.691

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 279 Front Street
 LOCATION: 019
 NPDES Permit Outfall #:
 MONTH: March YEAR: 2014
 Average Low Temp: 25
 Average High Temp: 42
 Measured Rainfall: 5.91
 Measured Snowfall: 2.00

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	3/10/2014	9:25	9:30	0.08	0.01	***						
2	3/12/2014	17:05	23:25	6.33	0.43	***						
3	3/15/2014	4:10	6:00	1.83	0.08	***						
4	3/19/2014 - 3/20/20	20:20	1:55	5.58	1.13	1 MONTH	3/20/2014	1:05	2:55	1.83	0.414	0.032
5	3/28/2014	17:30	23:00	5.50	0.02	***						
6	3/29/2014 - 3/30/20	11:40	7:20	19.67	3.43	2 YEAR	3/29/2014 - 3/30/2014	22:30	3:10	4.67	0.267	0.052
7	3/30/2014 - 3/31/20	22:25	14:05	15.67	0.81	***	3/30/2014 - 3/31/2014	22:55	0:55	2.00	0.685	0.057

TOTAL MONTH FLOW VOLUME = 0.141

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Clifton and Quinnipiac
 NPDES Permit Outfall #: 020
 MONTH: March YEAR: 2014
 Average Low Temp: 25
 Average High Temp: 42
 Measured Rainfall: 5.91
 Measured Snowfall: 2.00

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	3/10/2014	9:25	9:30	0.08	0.01	***						
2	3/12/2014	17:05	23:25	6.33	0.43	***						
3	3/15/2014	4:10	6:00	1.83	0.08	***						
4	3/19/2014 - 3/20/2014	20:20	1:55	5.58	1.13	1 MONTH						
5	3/28/2014	17:30	23:00	5.50	0.02	***						
6	3/29/2014 - 3/30/2014	11:40	7:20	19.67	3.43	2 YEAR	3/29/2014 - 3/30/2014	23:45	14:45	15.00	0.127	0.080
7	3/30/2014 - 3/31/2014	22:25	14:05	15.67	0.81	***	NO DATA					

TOTAL MONTH FLOW VOLUME = 0.080

Note: Overflow occurs when level is 31" in the interceptor.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 638 Long Wharf Drive
 LOCATION: 021
 NPDES Permit Outfall #:
 MONTH: March YEAR: 2014
 Average Low Temp: 25
 Average High Temp: 42
 Measured Rainfall: 5.91
 Measured Snowfall: 2.00

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	3/10/2014	9:25	9:30	0.08	0.01	***						
2	3/12/2014	17:05	23:25	6.33	0.43	***						
3	3/15/2014	4:10	6:00	1.83	0.08	***						
4	3/19/2014 - 3/20/20	20:20	1:55	5.58	1.13	1 MONTH	3/20/2014	0:35	2:50	2.25	3.015	0.283
5	3/28/2014	17:30	23:00	5.50	0.02	***						
6	3/29/2014 - 3/30/20	11:40	7:20	19.67	3.43	2 YEAR	3/29/2014 - 3/30/2014	22:50	7:50	9.00	3.445	1.292
7	3/30/2014 - 3/31/20	22:25	14:05	15.67	0.81	***						

TOTAL MONTH FLOW VOLUME = 1.575

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Sea Street @ South Water Street
 NPDES Permit Outfall #: 024
 MONTH: March YEAR: 2014
 Average Low Temp: 25
 Average High Temp: 42
 Measured Rainfall: 5.91
 Measured Snowfall: 2.00

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	3/10/2014	9:25	9:30	0.08	0.01	***						
2	3/12/2014	17:05	23:25	6.33	0.43	***						
3	3/15/2014	4:10	6:00	1.83	0.08	***						
4	3/19/2014 - 3/20/2014	20:20	1:55	5.58	1.13	1 MONTH	3/20/2014	1:10	3:20	2.17	5.511	0.498
5	3/28/2014	17:30	23:00	5.50	0.02	***						
6	3/29/2014 - 3/30/2014	11:40	7:20	19.67	3.43	2 YEAR	3/29/2014 - 3/30/2014	23:20	5:20	6.00	3.361	0.840
7	3/30/2014 - 3/31/2014	22:25	14:05	15.67	0.81	***						

TOTAL MONTH FLOW VOLUME = 1.338

Note: Overflow occurs when upstream depth reaches approx. 65" or when downstream reaches approx. 81".

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Intersection of State & N. Front Street
 NPDES Permit Outfall #: 025
 MONTH: March YEAR: 2014
 Average Low Temp: 25
 Average High Temp: 42
 Measured Rainfall: 5.91
 Measured Snowfall: 2.00

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	3/10/2014	9:25	9:30	0.08	0.01	***						
2	3/12/2014	17:05	23:25	6.33	0.43	***						
3	3/15/2014	4:10	6:00	1.83	0.08	***						
4	3/19/2014 - 3/20/20	20:20	1:55	5.58	1.13	1 MONTH						
5	3/28/2014	17:30	23:00	5.50	0.02	***						
6	3/29/2014 - 3/30/20	11:40	7:20	19.67	3.43	2 YEAR						
7	3/30/2014 - 3/31/20	22:25	14:05	15.67	0.81	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG George and Temple
 LOCATION: Regulator 34
 NPDES Permit Outfall #:
 MONTH: March YEAR: 2014
 Average Low Temp: 25
 Average High Temp: 42
 Measured Rainfall: 5.91
 Measured Snowfall: 2.00

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	3/10/2014	9:25	9:30	0.08	0.01	***						
2	3/12/2014	17:05	23:25	6.33	0.43	***						
3	3/15/2014	4:10	6:00	1.83	0.08	***						
4	3/19/2014 - 3/20/20	20:20	1:55	5.58	1.13	1 MONTH						
5	3/28/2014	17:30	23:00	5.50	0.02	***						
6	3/29/2014 - 3/30/20	11:40	7:20	19.67	3.43	2 YEAR						
7	3/30/2014 - 3/31/20	22:25	14:05	15.67	0.81	***						

TOTAL MONTH
 FLOW VOLUME = 0.000

Note:

METER DATA

FEBRUARY 2014

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - FEBRUARY 2014

MONTHLY RAINFALL SUMMARY

2.87 inches of rain (3.44 inches of rain in a typical month)

29.5 inches of snow

11 rain events (10 rain events in a typical month)

All storms less than 1 month return frequency

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>
CSO 006	REGS 006 A, 006 B	0	0.000
CSO 005	REG 005	0	0.000
CSO 004	REG 004	0	0.000
CSO 003	REG 003	0	0.000
CSO 024	REG 024	0	0.000
CSO 009	REG 009	0	0.000
CSO 019	REG 019	0	0.000
CSO 016	REG 016	0	0.000
CSO 015	REG 015	0	0.000
CSO 010	REG 010	0	0.000
CSO 011	REGS 010A, 011, 014, 026	0	0.000
CSO 012	REGS 012A, 012B, 028	0	0.000
CSO 025	REGS 025, 034	0	0.000
CSO 021	REG 021	0	0.000
CSO 020	REG 020	0	0.000
TOTAL		0	0.000
		(22 CSO events in a typical month)	(20.358 MG of CSO volume in a typical month)

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - THROUGH FEBRUARY 2014

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>	<u>RAINFALL (IN)</u>	<u>METER MONTHS</u>
CSO 006	REGS 006 A, 006 B	22	7.296	70.07	21
CSO 005	REG 005	20	3.798	70.07	21
CSO 004	REG 004	72	29.987	70.07	21
CSO 003	REG 003	57	30.517	70.07	21
CSO 024	REG 024	17	20.316	64.47	19
CSO 009	REG 009	34	2.352	52.73	17
CSO 019	REG 019	21	1.222	64.47	19
CSO 016	REG 016	47	22.182	58.80	18
CSO 015	REG 015	27	3.330	52.73	17
CSO 010	REG 010	11	1.955	53.43	16
CSO 011	REGS 010A, 011, 014, 026	12	6.196	48.36	15
CSO 012	REGS 012A, 012B, 028	32	10.682	64.47	19
CSO 025	REGS 025, 034	0	0.000	7.98	3
CSO 021	REG 021	23	20.848	49.36	16
CSO 020	REG 020	2	0.039	32.81	11
TOTAL		397	160.720		

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - TYPICAL YEAR ESTIMATES

CSO NUMBER	REGULATOR NUMBERS	ANNUAL CSO EVENTS	ANNUAL CSO VOLUME (MG)	ANNUAL CSO EVENTS	ANNUAL CSO VOLUME (MG)	MODEL CSO EVENTS	MODEL CSO VOLUME (MG)
		BASED ON RAINFALL ⁽¹⁾	BASED ON RAINFALL ⁽²⁾	BASED ON MONTHS ⁽³⁾	BASED ON MONTHS ⁽⁴⁾		
CSO 006	REGS 006 A, 006 B	13	4.297	13	4.169	27	27.0
CSO 005	REG 005	12	2.237	11	2.170	39	22.0
CSO 004	REG 004	42	17.662	41	17.135	44	65.3
CSO 003	REG 003	34	17.974	33	17.438	28	12.5
CSO 024	REG 024	11	13.005	11	12.831	0	1.9
CSO 009	REG 009	27	1.841	24	1.660	27	8.1
CSO 019	REG 019	13	0.782	13	0.772	7	2.4
CSO 016	REG 016	33	15.569	31	14.788	45	20.4
CSO 015	REG 015	21	2.606	19	2.351	9	4.1
CSO 010	REG 010	8	1.510	8	1.466	6	2.4
CSO 011	REGS 010A, 011, 014, 026	10	5.288	10	4.957	15	26.6
CSO 012	REGS 012A, 012B, 028	20	6.838	20	6.747	8	2.9
CSO 025	REGS 025, 034	0	0.000	0	0.000	6	9.0
CSO 021	REG 021	19	17.431	17	15.636	23	35.1
CSO 020	REG 020	3	0.049	2	0.043	8	1.4
TOTAL		264	107.040	251	102.120	292	241.1

- (1) Annual CSO Events Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Events to Date / Rainfall to Date
 (2) Annual CSO Volume (MG) Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Volume (MG) to Date / Rainfall to Date
 (3) Annual CSO Events Based on Months = 12 x CSO Events to Date / Meter Months to Date
 (4) Annual CSO Volume (MG) Based on Months = 12 x CSO Volume (MG) to Date / Meter Months to Date

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Orange Ave. @ Int. of Ella T. Grasso Blvd.
 LOCATION: 003
 NPDES Permit Outfall #:
 MONTH: February YEAR: 2014
 Average Low Temp: 20
 Average High Temp: 36
 Measured Rainfall: 2.87
 Measured Snowfall: 29.50

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
	2/4/2014	13:55	16:40	2.75	0.23	***						
	2/5/2014	12:15	16:45	4.50	0.14	***						
	2/6/2014	11:15	15:30	4.25	0.16	***						
	2/7/2014	10:45	15:30	4.75	0.24	***						
	2/8/2014	11:35	12:00	0.42	0.20	***						
	2/10/2014	8:55	13:50	4.92	0.08	***						
	2/13/2014 - 2/14/2014	21:35	11:20	13.75	0.82	***						
	2/16/2014	9:45	13:30	3.75	0.04	***						
	2/19/2014	11:25	20:50	9.42	0.67	***						
	2/20/2014 - 2/21/2014	19:25	17:40	22.25	0.25	***						
	2/28/2014	8:25	8:30	0.08	0.04	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 46"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Ella T. Grasso Blvd. - 23 yds North of Legion Ave.
 NPDES Permit Outfall #: 004
 MONTH: February YEAR: 2014
 Average Low Temp: 20
 Average High Temp: 36
 Measured Rainfall: 2.87
 Measured Snowfall: 29.50

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
	2/4/2014	13:55	16:40	2.75	0.23	***						
	2/5/2014	12:15	16:45	4.50	0.14	***						
	2/6/2014	11:15	15:30	4.25	0.16	***						
	2/7/2014	10:45	15:30	4.75	0.24	***						
	2/8/2014	11:35	12:00	0.42	0.20	***						
	2/10/2014	8:55	13:50	4.92	0.08	***						
	2/13/2014 - 2/14/2014	21:35	11:20	13.75	0.82	***						
	2/16/2014	9:45	13:30	3.75	0.04	***						
	2/19/2014	11:25	20:50	9.42	0.67	***						
	2/20/2014 - 2/21/2014	19:25	17:40	22.25	0.25	***						
	2/28/2014	8:25	8:30	0.08	0.04	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 35"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Derby Ave. 20 yds East of Ella T. Grasso Blvd.
 LOCATION: 005
 NPDES Permit Outfall #:
 MONTH: February YEAR: 2014
 Average Low Temp: 20
 Average High Temp: 36
 Measured Rainfall: 2.87
 Measured Snowfall: 29.50

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
	2/4/2014	13:55	16:40	2.75	0.23	***						
	2/5/2014	12:15	16:45	4.50	0.14	***						
	2/6/2014	11:15	15:30	4.25	0.16	***						
	2/7/2014	10:45	15:30	4.75	0.24	***						
	2/8/2014	11:35	12:00	0.42	0.20	***						
	2/10/2014	8:55	13:50	4.92	0.08	***						
	2/13/2014 - 2/14/2014	21:35	11:20	13.75	0.82	***						
	2/16/2014	9:45	13:30	3.75	0.04	***						
	2/19/2014	11:25	20:50	9.42	0.67	***						
	2/20/2014 - 2/21/2014	19:25	17:40	22.25	0.25	***						
	2/28/2014	8:25	8:30	0.08	0.04	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 53.5"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Whalley Ave. 30 yds from Fitch Street
 LOCATION: 006
 NPDES Permit Outfall #:
 MONTH: February YEAR: 2014
 Average Low Temp: 20
 Average High Temp: 36
 Measured Rainfall: 2.87
 Measured Snowfall: 29.50

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
	2/4/2014	13:55	16:40	2.75	0.23	***						
	2/5/2014	12:15	16:45	4.50	0.14	***						
	2/6/2014	11:15	15:30	4.25	0.16	***						
	2/7/2014	10:45	15:30	4.75	0.24	***						
	2/8/2014	11:35	12:00	0.42	0.20	***						
	2/10/2014	8:55	13:50	4.92	0.08	***						
	2/13/2014 - 2/14/2014	21:35	11:20	13.75	0.82	***						
	2/16/2014	9:45	13:30	3.75	0.04	***						
	2/19/2014	11:25	20:50	9.42	0.67	***						
	2/20/2014 - 2/21/2014	19:25	17:40	22.25	0.25	***						
	2/28/2014	8:25	8:30	0.08	0.04	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 27"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Grand Avenue & James Street
 LOCATION: 009
 NPDES Permit Outfall #:
 MONTH: February YEAR: 2014
 Average Low Temp: 20
 Average High Temp: 36
 Measured Rainfall: 2.87
 Measured Snowfall: 29.50

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
	2/4/2014	13:55	16:40	2.75	0.23	***						
	2/5/2014	12:15	16:45	4.50	0.14	***						
	2/6/2014	11:15	15:30	4.25	0.16	***						
	2/7/2014	10:45	15:30	4.75	0.24	***						
	2/8/2014	11:35	12:00	0.42	0.20	***						
	2/10/2014	8:55	13:50	4.92	0.08	***						
	2/13/2014 - 2/14/20	21:35	11:20	13.75	0.82	***						
	2/16/2014	9:45	13:30	3.75	0.04	***						
	2/19/2014	11:25	20:50	9.42	0.67	***						
	2/20/2014 - 2/21/20	19:25	17:40	22.25	0.25	***						
	2/28/2014	8:25	8:30	0.08	0.04	***						

TOTAL MONTH
 FLOW VOLUME = 0.000

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 547 East Street
 LOCATION: 010
 NPDES Permit Outfall #:
 MONTH: February YEAR: 2014
 Average Low Temp: 20
 Average High Temp: 36
 Measured Rainfall: 2.87
 Measured Snowfall: 29.50

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
	2/4/2014	13:55	16:40	2.75	0.23	***						
	2/5/2014	12:15	16:45	4.50	0.14	***						
	2/6/2014	11:15	15:30	4.25	0.16	***						
	2/7/2014	10:45	15:30	4.75	0.24	***						
	2/8/2014	11:35	12:00	0.42	0.20	***						
	2/10/2014	8:55	13:50	4.92	0.08	***						
	2/13/2014 - 2/14/20	21:35	11:20	13.75	0.82	***						
	2/16/2014	9:45	13:30	3.75	0.04	***						
	2/19/2014	11:25	20:50	9.42	0.67	***						
	2/20/2014 - 2/21/20	19:25	17:40	22.25	0.25	***						
	2/28/2014	8:25	8:30	0.08	0.04	***						

TOTAL MONTH
 FLOW VOLUME = 0.000

Note: Overflow occurs when sewer level reaches 54"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 547 East Street
 LOCATION: 010A
 NPDES Permit Outfall #:
 MONTH: February YEAR: 2014
 Average Low Temp: 20
 Average High Temp: 36
 Measured Rainfall: 2.87
 Measured Snowfall: 29.50

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
	2/4/2014	13:55	16:40	2.75	0.23	***						
	2/5/2014	12:15	16:45	4.50	0.14	***						
	2/6/2014	11:15	15:30	4.25	0.16	***						
	2/7/2014	10:45	15:30	4.75	0.24	***						
	2/8/2014	11:35	12:00	0.42	0.20	***						
	2/10/2014	8:55	13:50	4.92	0.08	***						
	2/13/2014 - 2/14/20	21:35	11:20	13.75	0.82	***						
	2/16/2014	9:45	13:30	3.75	0.04	***						
	2/19/2014	11:25	20:50	9.42	0.67	***						
	2/20/2014 - 2/21/20	19:25	17:40	22.25	0.25	***						
	2/28/2014	8:25	8:30	0.08	0.04	***						
										TOTAL MONTH FLOW VOLUME =		0.000

Note: Overflow occurs when sewer level reaches 62"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011
 NPDES Permit Outfall #:
 MONTH: February YEAR: 2014
 Average Low Temp: 20
 Average High Temp: 36
 Measured Rainfall: 2.87
 Measured Snowfall: 29.50

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
	2/4/2014	13:55	16:40	2.75	0.23	***						
	2/5/2014	12:15	16:45	4.50	0.14	***						
	2/6/2014	11:15	15:30	4.25	0.16	***						
	2/7/2014	10:45	15:30	4.75	0.24	***						
	2/8/2014	11:35	12:00	0.42	0.20	***						
	2/10/2014	8:55	13:50	4.92	0.08	***						
	2/13/2014 - 2/14/20	21:35	11:20	13.75	0.82	***						
	2/16/2014	9:45	13:30	3.75	0.04	***						
	2/19/2014	11:25	20:50	9.42	0.67	***						
	2/20/2014 - 2/21/20	19:25	17:40	22.25	0.25	***						
	2/28/2014	8:25	8:30	0.08	0.04	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Sum of 10A and 11
 OF-011-609 and OF-011-997 removed on 8/26

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 75 Mitchell Drive
 LOCATION: 012
 NPDES Permit Outfall #:
 MONTH: February YEAR: 2014
 Average Low Temp: 20
 Average High Temp: 36
 Measured Rainfall: 2.87
 Measured Snowfall: 29.50

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
	2/4/2014	13:55	16:40	2.75	0.23	***						
	2/5/2014	12:15	16:45	4.50	0.14	***						
	2/6/2014	11:15	15:30	4.25	0.16	***						
	2/7/2014	10:45	15:30	4.75	0.24	***						
	2/8/2014	11:35	12:00	0.42	0.20	***						
	2/10/2014	8:55	13:50	4.92	0.08	***						
	2/13/2014 - 2/14/20	21:35	11:20	13.75	0.82	***						
	2/16/2014	9:45	13:30	3.75	0.04	***						
	2/19/2014	11:25	20:50	9.42	0.67	***						
	2/20/2014 - 2/21/20	19:25	17:40	22.25	0.25	***						
	2/28/2014	8:25	8:30	0.08	0.04	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 15 James Street
 LOCATION: 015
 NPDES Permit Outfall #:
 MONTH: February YEAR: 2014
 Average Low Temp: 20
 Average High Temp: 36
 Measured Rainfall: 2.87
 Measured Snowfall: 29.50

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
	2/4/2014	13:55	16:40	2.75	0.23	***						
	2/5/2014	12:15	16:45	4.50	0.14	***						
	2/6/2014	11:15	15:30	4.25	0.16	***						
	2/7/2014	10:45	15:30	4.75	0.24	***						
	2/8/2014	11:35	12:00	0.42	0.20	***						
	2/10/2014	8:55	13:50	4.92	0.08	***						
	2/13/2014 - 2/14/20	21:35	11:20	13.75	0.82	***						
	2/16/2014	9:45	13:30	3.75	0.04	***						
	2/19/2014	11:25	20:50	9.42	0.67	***						
	2/20/2014 - 2/21/20	19:25	17:40	22.25	0.25	***						
	2/28/2014	8:25	8:30	0.08	0.04	***						

TOTAL MONTH
 FLOW VOLUME = 0.000

Note: Overflow can occur with DS sewer depth reaches 40.5"
 Expected capacity of siphon is between 24 and 30 MGD.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Int. River & Poplar
 LOCATION: 016
 NPDES Permit Outfall #:
 MONTH: February YEAR: 2014
 Average Low Temp: 20
 Average High Temp: 36
 Measured Rainfall: 2.87
 Measured Snowfall: 29.50

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
	2/4/2014	13:55	16:40	2.75	0.23	***						
	2/5/2014	12:15	16:45	4.50	0.14	***						
	2/6/2014	11:15	15:30	4.25	0.16	***						
	2/7/2014	10:45	15:30	4.75	0.24	***						
	2/8/2014	11:35	12:00	0.42	0.20	***						
	2/10/2014	8:55	13:50	4.92	0.08	***						
	2/13/2014 - 2/14/20	21:35	11:20	13.75	0.82	***						
	2/16/2014	9:45	13:30	3.75	0.04	***						
	2/19/2014	11:25	20:50	9.42	0.67	***						
	2/20/2014 - 2/21/20	19:25	17:40	22.25	0.25	***						
	2/28/2014	8:25	8:30	0.08	0.04	***						

TOTAL MONTH
 FLOW VOLUME = 0.000

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 279 Front Street
 LOCATION: 019
 NPDES Permit Outfall #:
 MONTH: February YEAR: 2014
 Average Low Temp: 20
 Average High Temp: 36
 Measured Rainfall: 2.87
 Measured Snowfall: 29.50

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
	2/4/2014	13:55	16:40	2.75	0.23	***						
	2/5/2014	12:15	16:45	4.50	0.14	***						
	2/6/2014	11:15	15:30	4.25	0.16	***						
	2/7/2014	10:45	15:30	4.75	0.24	***						
	2/8/2014	11:35	12:00	0.42	0.20	***						
	2/10/2014	8:55	13:50	4.92	0.08	***						
	2/13/2014 - 2/14/20	21:35	11:20	13.75	0.82	***						
	2/16/2014	9:45	13:30	3.75	0.04	***						
	2/19/2014	11:25	20:50	9.42	0.67	***						
	2/20/2014 - 2/21/20	19:25	17:40	22.25	0.25	***						
	2/28/2014	8:25	8:30	0.08	0.04	***						

TOTAL MONTH
 FLOW VOLUME = 0.000

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 638 Long Wharf Drive
 LOCATION: 021
 NPDES Permit Outfall #:
 MONTH: February YEAR: 2014
 Average Low Temp: 20
 Average High Temp: 36
 Measured Rainfall: 2.87
 Measured Snowfall: 29.50

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
	2/4/2014	13:55	16:40	2.75	0.23	***						
	2/5/2014	12:15	16:45	4.50	0.14	***						
	2/6/2014	11:15	15:30	4.25	0.16	***						
	2/7/2014	10:45	15:30	4.75	0.24	***						
	2/8/2014	11:35	12:00	0.42	0.20	***						
	2/10/2014	8:55	13:50	4.92	0.08	***						
	2/13/2014 - 2/14/20	21:35	11:20	13.75	0.82	***						
	2/16/2014	9:45	13:30	3.75	0.04	***						
	2/19/2014	11:25	20:50	9.42	0.67	***						
	2/20/2014 - 2/21/20	19:25	17:40	22.25	0.25	***						
	2/28/2014	8:25	8:30	0.08	0.04	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Sea Street @ South Water Street
 LOCATION: 024
 NPDES Permit Outfall #:
 MONTH: February YEAR: 2014
 Average Low Temp: 20
 Average High Temp: 36
 Measured Rainfall: 2.87
 Measured Snowfall: 29.50

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
	2/4/2014	13:55	16:40	2.75	0.23	***						
	2/5/2014	12:15	16:45	4.50	0.14	***						
	2/6/2014	11:15	15:30	4.25	0.16	***						
	2/7/2014	10:45	15:30	4.75	0.24	***						
	2/8/2014	11:35	12:00	0.42	0.20	***						
	2/10/2014	8:55	13:50	4.92	0.08	***						
	2/13/2014 - 2/14/2014	21:35	11:20	13.75	0.82	***						
	2/16/2014	9:45	13:30	3.75	0.04	***						
	2/19/2014	11:25	20:50	9.42	0.67	***						
	2/20/2014 - 2/21/2014	19:25	17:40	22.25	0.25	***						
	2/28/2014	8:25	8:30	0.08	0.04	***						

TOTAL MONTH FLOW VOLUME = 0

Note: Overflow occurs when upstream depth reaches approx. 65" or when downstream reaches approx. 81".

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Intersection of State & N. Front Street
 LOCATION: 025
 NPDES Permit Outfall #:
 MONTH: February YEAR: 2014
 Average Low Temp: 20
 Average High Temp: 36
 Measured Rainfall: 2.87
 Measured Snowfall: 29.50

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
	2/4/2014	13:55	16:40	2.75	0.23	***						
	2/5/2014	12:15	16:45	4.50	0.14	***						
	2/6/2014	11:15	15:30	4.25	0.16	***						
	2/7/2014	10:45	15:30	4.75	0.24	***						
	2/8/2014	11:35	12:00	0.42	0.20	***						
	2/10/2014	8:55	13:50	4.92	0.08	***						
	2/13/2014 - 2/14/20	21:35	11:20	13.75	0.82	***						
	2/16/2014	9:45	13:30	3.75	0.04	***						
	2/19/2014	11:25	20:50	9.42	0.67	***						
	2/20/2014 - 2/21/20	19:25	17:40	22.25	0.25	***						
	2/28/2014	8:25	8:30	0.08	0.04	***						

TOTAL MONTH
 FLOW VOLUME = 0.000

Note: Not yet quantified. See email.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG George and Temple
 LOCATION: Regulator 34
 NPDES Permit Outfall #:
 MONTH: February YEAR: 2014
 Average Low Temp: 20
 Average High Temp: 36
 Measured Rainfall: 2.87
 Measured Snowfall: 29.50

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
	2/4/2014	13:55	16:40	2.75	0.23	***						
	2/5/2014	12:15	16:45	4.50	0.14	***						
	2/6/2014	11:15	15:30	4.25	0.16	***						
	2/7/2014	10:45	15:30	4.75	0.24	***						
	2/8/2014	11:35	12:00	0.42	0.20	***						
	2/10/2014	8:55	13:50	4.92	0.08	***						
	2/13/2014 - 2/14/20	21:35	11:20	13.75	0.82	***						
	2/16/2014	9:45	13:30	3.75	0.04	***						
	2/19/2014	11:25	20:50	9.42	0.67	***						
	2/20/2014 - 2/21/20	19:25	17:40	22.25	0.25	***						
	2/28/2014	8:25	8:30	0.08	0.04	***						

TOTAL MONTH
 FLOW VOLUME = 0.000

Note: Sensor removed from DS 11/19. Installed in Regulator on 12/2.

METER DATA

JANUARY 2014

**GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CSO FLOW MONITORING PROGRAM
METER DATA SUMMARY - JANUARY 2014**

MONTHLY RAINFALL SUMMARY

2.43 inches of rain (3.44 inches of rain in a typical month)
 14.3 inches of snow
 8 rain events (10 rain events in a typical month)
 One 3 month storm, all other storms less than 1 month return frequency

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>
CSO 006	REGS 006 A, 006 B	0	0.000
CSO 005	REG 005	2	0.066
CSO 004	REG 004	3	0.564
CSO 003	REG 003	2	0.029
CSO 024	REG 024	0	0.000
CSO 009	REG 009	1	0.054
CSO 019	REG 019	1	0.002
CSO 016	REG 016	3	0.638
CSO 015	REG 015	2	0.098
CSO 010	REG 010	0	0.000
CSO 011	REGS 010A, 011, 014, 026	0	0.000
CSO 012	REGS 012A, 012B, 028	0	0.000
CSO 025	REGS 025, 034	0	0.000
CSO 021	REG 021	1	0.096
CSO 020	REG 020	0	0.000
TOTAL		15	1.547
		(22 CSO events in a typical month)	(20.358 MG of CSO volume in a typical month)

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - THROUGH JANUARY 2014

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>	<u>RAINFALL (IN)</u>	<u>METER MONTHS</u>
CSO 006	REGS 006 A, 006 B	22	7.296	67.20	20
CSO 005	REG 005	20	3.798	67.20	20
CSO 004	REG 004	72	29.987	67.20	20
CSO 003	REG 003	57	30.517	67.20	20
CSO 024	REG 024	17	20.316	61.60	18
CSO 009	REG 009	34	2.352	49.86	16
CSO 019	REG 019	21	1.222	61.60	18
CSO 016	REG 016	47	22.182	55.93	17
CSO 015	REG 015	27	3.330	49.86	16
CSO 010	REG 010	11	1.955	52.56	15
CSO 011	REGS 010A, 011, 014, 026	12	6.196	45.49	14
CSO 012	REGS 012A, 012B, 028	32	10.682	61.60	18
CSO 025	REGS 025, 034	0	0.000	5.11	2
CSO 021	REG 021	23	20.848	46.49	15
CSO 020	REG 020	2	0.039	29.94	10
TOTAL		397	160.720		

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - TYPICAL YEAR ESTIMATES

CSO NUMBER	REGULATOR NUMBERS	ANNUAL CSO EVENTS	ANNUAL CSO VOLUME (MG)	ANNUAL CSO EVENTS	ANNUAL CSO VOLUME (MG)	MODEL CSO EVENTS	MODEL CSO VOLUME (MG)
		BASED ON RAINFALL ⁽¹⁾	BASED ON RAINFALL ⁽²⁾	BASED ON MONTHS ⁽³⁾	BASED ON MONTHS ⁽⁴⁾		
CSO 006	REGS 006 A, 006 B	14	4.481	13	4.378	27	27.0
CSO 005	REG 005	12	2.332	12	2.279	39	22.0
CSO 004	REG 004	44	18.416	43	17.992	44	65.3
CSO 003	REG 003	35	18.742	34	18.310	28	12.5
CSO 024	REG 024	11	13.611	11	13.544	0	1.9
CSO 009	REG 009	28	1.947	26	1.764	27	8.1
CSO 019	REG 019	14	0.819	14	0.815	7	2.4
CSO 016	REG 016	35	16.368	33	15.658	45	20.4
CSO 015	REG 015	22	2.756	20	2.498	9	4.1
CSO 010	REG 010	9	1.535	9	1.564	6	2.4
CSO 011	REGS 010A, 011, 014, 026	11	5.621	10	5.311	15	26.6
CSO 012	REGS 012A, 012B, 028	21	7.157	21	7.121	8	2.9
CSO 025	REGS 025, 034	0	0.000	0	0.000	6	9.0
CSO 021	REG 021	20	18.507	18	16.678	23	35.1
CSO 020	REG 020	3	0.054	2	0.047	8	1.4
TOTAL		277	112.292	266	107.911	292	241.1

- (1) Annual CSO Events Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Events to Date / Rainfall to Date
 (2) Annual CSO Volume (MG) Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Volume (MG) to Date / Rainfall to Date
 (3) Annual CSO Events Based on Months = 12 x CSO Events to Date / Meter Months to Date
 (4) Annual CSO Volume (MG) Based on Months = 12 x CSO Volume (MG) to Date / Meter Months to Date

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Orange Ave. @ Int. of Ella T. Grasso Blvd.
 LOCATION: 003
 NPDES Permit Outfall #:
 MONTH: January YEAR: 2014
 Average Low Temp: 35
 Average High Temp: 19
 Measured Rainfall: 2.43
 Measured Snowfall: 14.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	1/4/2014	12:20	13:50	1.50	0.08	***						
2	1/5/2014 - 1/6/2014	14:50	15:35	24.75	0.44	***	1/6/2014	9:00	11:05	2.08	0.160	0.014
3	1/10/2014 - 1/12/2014	12:10	1:45	37.58	1.05	3 MONTH	1/11/2014	14:10	15:25	1.25	0.291	0.015
4	1/14/2014	6:05	22:20	16.25	0.75	***						
5	1/18/2014	9:10	14:15	5.08	0.07	***						
6	1/23/2014	12:45	13:15	0.50	0.02	***						
7	1/27/2014	8:20	8:25	0.08	0.01	***						
8	1/29/2014	9:40	9:45	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 0.029

Note: Overflow occurs when Interceptor level reaches 46"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Ella T. Grasso Blvd. - 23 yrds North of Legion Ave.
 NPDES Permit Outfall #: 004
 MONTH: January YEAR: 2014
 Average Low Temp: 35
 Average High Temp: 19
 Measured Rainfall: 2.43
 Measured Snowfall: 14.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	1/4/2014	12:20	13:50	1.50	0.08	***						
2	1/5/2014 - 1/6/2014	14:50	15:35	24.75	0.44	***	1/6/2014	8:55	14:50	5.92	0.787	0.194
3	1/10/2014 - 1/12/2014	12:10	1:45	37.58	1.05	3 MONTH	1/11/2014 - 1/12/2014	14:20	0:45	10.42	0.558	0.242
4	1/14/2014	6:05	22:20	16.25	0.75	***	1/14/2014	13:50	19:30	5.67	0.542	0.128
5	1/18/2014	9:10	14:15	5.08	0.07	***						
6	1/23/2014	12:45	13:15	0.50	0.02	***						
7	1/27/2014	8:20	8:25	0.08	0.01	***						
8	1/29/2014	9:40	9:45	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 0.564

Note: Overflow occurs when Interceptor level reaches 35"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Derby Ave. 20 yrds East of Ella T. Grasso Blvd.
 LOCATION: 005
 NPDES Permit Outfall #:
 MONTH: January YEAR: 2014
 Average Low Temp: 35
 Average High Temp: 19
 Measured Rainfall: 2.43
 Measured Snowfall: 14.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	1/4/2014	12:20	13:50	1.50	0.08	***						
2	1/5/2014 - 1/6/2014	14:50	15:35	24.75	0.44	***	1/6/2014	9:05	9:45	0.67	0.432	0.012
3	1/10/2014 - 1/12/2014	12:10	1:45	37.58	1.05	3 MONTH	1/11/2014	14:20	14:40	0.33	3.875	0.054
4	1/14/2014	6:05	22:20	16.25	0.75	***						
5	1/18/2014	9:10	14:15	5.08	0.07	***						
6	1/23/2014	12:45	13:15	0.50	0.02	***						
7	1/27/2014	8:20	8:25	0.08	0.01	***						
8	1/29/2014	9:40	9:45	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 0.066

Note: Overflow occurs when Interceptor level reaches pipe height, 53.5" or drop-in pipe overwhelms drop-in.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Whalley Ave. 30 yds from Fitch Street
 006
 NPDES Permit Outfall #:
 MONTH: January YEAR: 2014
 Average Low Temp: 35
 Average High Temp: 19
 Measured Rainfall: 2.43
 Measured Snowfall: 14.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	1/4/2014	12:20	13:50	1.50	0.08	***						
2	1/5/2014 - 1/6/2014	14:50	15:35	24.75	0.44	***						
3	1/10/2014 - 1/12/2014	12:10	1:45	37.58	1.05	3 MONTH						
4	1/14/2014	6:05	22:20	16.25	0.75	***						
5	1/18/2014	9:10	14:15	5.08	0.07	***						
6	1/23/2014	12:45	13:15	0.50	0.02	***						
7	1/27/2014	8:20	8:25	0.08	0.01	***						
8	1/29/2014	9:40	9:45	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 27"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Grand Avenue & James Street
 LOCATION: 009
 NPDES Permit Outfall #:
 MONTH: January YEAR: 2014
 Average Low Temp: 35
 Average High Temp: 19
 Measured Rainfall: 2.43
 Measured Snowfall: 14.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	1/4/2014	12:20	13:50	1.50	0.08	***						
2	1/5/2014 - 1/6/2014	14:50	15:35	24.75	0.44	***						
3	1/10/2014 - 1/12/20	12:10	1:45	37.58	1.05	3 MONTH	1/11/2014	14:25	14:55	0.50	2.581	0.054
4	1/14/2014	6:05	22:20	16.25	0.75	***						
5	1/18/2014	9:10	14:15	5.08	0.07	***						
6	1/23/2014	12:45	13:15	0.50	0.02	***						
7	1/27/2014	8:20	8:25	0.08	0.01	***						
8	1/29/2014	9:40	9:45	0.08	0.01	***						

TOTAL MONTH
 FLOW VOLUME = 0.054

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 547 East Street
 LOCATION: 010
 NPDES Permit Outfall #:
 MONTH: January YEAR: 2014
 Average Low Temp: 35
 Average High Temp: 19
 Measured Rainfall: 2.43
 Measured Snowfall: 14.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	1/4/2014	12:20	13:50	1.50	0.08	***						
2	1/5/2014 - 1/6/2014	14:50	15:35	24.75	0.44	***						
3	1/10/2014 - 1/12/20	12:10	1:45	37.58	1.05	3 MONTH						
4	1/14/2014	6:05	22:20	16.25	0.75	***						
5	1/18/2014	9:10	14:15	5.08	0.07	***						
6	1/23/2014	12:45	13:15	0.50	0.02	***						
7	1/27/2014	8:20	8:25	0.08	0.01	***						
8	1/29/2014	9:40	9:45	0.08	0.01	***						

TOTAL MONTH
 FLOW VOLUME = 0.000

Note: Overflow occurs when sewer level reaches 54"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 547 East Street
 LOCATION: 010A
 NPDES Permit Outfall #:
 MONTH: January YEAR: 2014
 Average Low Temp: 35
 Average High Temp: 19
 Measured Rainfall: 2.43
 Measured Snowfall: 14.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	1/4/2014	12:20	13:50	1.50	0.08	***						
2	1/5/2014 - 1/6/2014	14:50	15:35	24.75	0.44	***						
3	1/10/2014 - 1/12/20	12:10	1:45	37.58	1.05	3 MONTH						
4	1/14/2014	6:05	22:20	16.25	0.75	***						
5	1/18/2014	9:10	14:15	5.08	0.07	***						
6	1/23/2014	12:45	13:15	0.50	0.02	***						
7	1/27/2014	8:20	8:25	0.08	0.01	***						
8	1/29/2014	9:40	9:45	0.08	0.01	***						

TOTAL MONTH
 FLOW VOLUME = 0.000

Note: Overflow occurs when sewer level reaches 62"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011
 NPDES Permit Outfall #:
 MONTH: January YEAR: 2014
 Average Low Temp: 35
 Average High Temp: 19
 Measured Rainfall: 2.43
 Measured Snowfall: 14.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	1/4/2014	12:20	13:50	1.50	0.08	***						
2	1/5/2014 - 1/6/2014	14:50	15:35	24.75	0.44	***						
3	1/10/2014 - 1/12/20	12:10	1:45	37.58	1.05	3 MONTH						
4	1/14/2014	6:05	22:20	16.25	0.75	***						
5	1/18/2014	9:10	14:15	5.08	0.07	***						
6	1/23/2014	12:45	13:15	0.50	0.02	***						
7	1/27/2014	8:20	8:25	0.08	0.01	***						
8	1/29/2014	9:40	9:45	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Sum of 10A and 11
 OF-011-609 and OF-011-997 removed on 8/26

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 75 Mitchell Drive
 LOCATION: 012
 NPDES Permit Outfall #:
 MONTH: January YEAR: 2014
 Average Low Temp: 35
 Average High Temp: 19
 Measured Rainfall: 2.43
 Measured Snowfall: 14.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	1/4/2014	12:20	13:50	1.50	0.08	***						
2	1/5/2014 - 1/6/2014	14:50	15:35	24.75	0.44	***						
3	1/10/2014 - 1/12/20	12:10	1:45	37.58	1.05	3 MONTH						
4	1/14/2014	6:05	22:20	16.25	0.75	***						
5	1/18/2014	9:10	14:15	5.08	0.07	***						
6	1/23/2014	12:45	13:15	0.50	0.02	***						
7	1/27/2014	8:20	8:25	0.08	0.01	***						
8	1/29/2014	9:40	9:45	0.08	0.01	***						

TOTAL MONTH
 FLOW VOLUME = 0.000

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 15 James Street
 LOCATION: 015
 NPDES Permit Outfall #:
 MONTH: January YEAR: 2014
 Average Low Temp: 35
 Average High Temp: 19
 Measured Rainfall: 2.43
 Measured Snowfall: 14.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	1/4/2014	12:20	13:50	1.50	0.08	***						
2	1/5/2014 - 1/6/2014	14:50	15:35	24.75	0.44	***						
3	1/10/2014 - 1/12/20	12:10	1:45	37.58	1.05	3 MONTH	1/11/2014	14:25	15:00	0.58	3.489	0.085
4	1/14/2014	6:05	22:20	16.25	0.75	***	1/11/2014	18:30	18:45	0.25	1.265	0.013
5	1/18/2014	9:10	14:15	5.08	0.07	***						
6	1/23/2014	12:45	13:15	0.50	0.02	***						
7	1/27/2014	8:20	8:25	0.08	0.01	***						
8	1/29/2014	9:40	9:45	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 0.098

Note: Overflow can occur with DS sewer depth reaches 40.5"
 Expected capacity of siphon is between 24 and 30 MGD.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Int. River & Poplar
 LOCATION: 016
 NPDES Permit Outfall #:
 MONTH: January YEAR: 2014
 Average Low Temp: 35
 Average High Temp: 19
 Measured Rainfall: 2.43
 Measured Snowfall: 14.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	1/4/2014	12:20	13:50	1.50	0.08	***						
2	1/5/2014 - 1/6/2014	14:50	15:35	24.75	0.44	***	1/6/2014	9:05	10:35	1.50	3.749	0.234
3	1/10/2014 - 1/12/2014	12:10	1:45	37.58	1.05	3 MONTH	1/11/2014	14:20	15:30	1.17	8.091	0.393
4	1/14/2014	6:05	22:20	16.25	0.75	***	1/14/2014	13:45	16:40	2.92	0.090	0.011
5	1/18/2014	9:10	14:15	5.08	0.07	***						
6	1/23/2014	12:45	13:15	0.50	0.02	***						
7	1/27/2014	8:20	8:25	0.08	0.01	***						
8	1/29/2014	9:40	9:45	0.08	0.01	***						

TOTAL MONTH
 FLOW VOLUME = 0.638

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 279 Front Street
 LOCATION: 019
 NPDES Permit Outfall #:
 MONTH: January YEAR: 2014
 Average Low Temp: 35
 Average High Temp: 19
 Measured Rainfall: 2.43
 Measured Snowfall: 14.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT						
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)	
1	1/4/2014	12:20	13:50	1.50	0.08	***							
2	1/5/2014 - 1/6/2014	14:50	15:35	24.75	0.44	***							
3	1/10/2014 - 1/12/20	12:10	1:45	37.58	1.05	3 MONTH	1/11/2014	14:35	14:50	0.25	0.196	0.002	
4	1/14/2014	6:05	22:20	16.25	0.75	***							
5	1/18/2014	9:10	14:15	5.08	0.07	***							
6	1/23/2014	12:45	13:15	0.50	0.02	***							
7	1/27/2014	8:20	8:25	0.08	0.01	***							
8	1/29/2014	9:40	9:45	0.08	0.01	***							

TOTAL MONTH FLOW VOLUME = 0.002

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 638 Long Wharf Drive
 LOCATION: 021
 NPDES Permit Outfall #:
 MONTH: January YEAR: 2014
 Average Low Temp: 35
 Average High Temp: 19
 Measured Rainfall: 2.43
 Measured Snowfall: 14.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	1/4/2014	12:20	13:50	1.50	0.08	***						
2	1/5/2014 - 1/6/2014	14:50	15:35	24.75	0.44	***						
3	1/10/2014 - 1/12/20	12:10	1:45	37.58	1.05	3 MONTH	1/11/2014	15:00	15:55	0.92	2.512	0.096
4	1/14/2014	6:05	22:20	16.25	0.75	***						
5	1/18/2014	9:10	14:15	5.08	0.07	***						
6	1/23/2014	12:45	13:15	0.50	0.02	***						
7	1/27/2014	8:20	8:25	0.08	0.01	***						
8	1/29/2014	9:40	9:45	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 0.096

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Intersection of State & N. Front Street
 LOCATION: 025
 NPDES Permit Outfall #:
 MONTH: January YEAR: 2014
 Average Low Temp: 35
 Average High Temp: 19
 Measured Rainfall: 2.43
 Measured Snowfall: 14.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	1/4/2014	12:20	13:50	1.50	0.08	***						
2	1/5/2014 - 1/6/2014	14:50	15:35	24.75	0.44	***						
3	1/10/2014 - 1/12/20	12:10	1:45	37.58	1.05	3 MONTH						
4	1/14/2014	6:05	22:20	16.25	0.75	***						
5	1/18/2014	9:10	14:15	5.08	0.07	***						
6	1/23/2014	12:45	13:15	0.50	0.02	***						
7	1/27/2014	8:20	8:25	0.08	0.01	***						
8	1/29/2014	9:40	9:45	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Not yet quantified. See email.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG George and Temple
 LOCATION: Regulator 34
 NPDES Permit Outfall #:
 MONTH: January YEAR: 2014
 Average Low Temp: 35
 Average High Temp: 19
 Measured Rainfall: 2.43
 Measured Snowfall: 14.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	1/4/2014	12:20	13:50	1.50	0.08	***	NO DATA					
2	1/5/2014 - 1/6/2014	14:50	15:35	24.75	0.44	***						
3	1/10/2014 - 1/12/20	12:10	1:45	37.58	1.05	3 MONTH						
4	1/14/2014	6:05	22:20	16.25	0.75	***						
5	1/18/2014	9:10	14:15	5.08	0.07	***						
6	1/23/2014	12:45	13:15	0.50	0.02	***						
7	1/27/2014	8:20	8:25	0.08	0.01	***						
8	1/29/2014	9:40	9:45	0.08	0.01	***						

TOTAL MONTH
 FLOW VOLUME = 0.000

Note: Sensor removed from DS 11/19. Installed in Regulator on 12/2.

METER DATA

DECEMBER 2013

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - DECEMBER 2013

MONTHLY RAINFALL SUMMARY

4.33 inches of rain (3.44 inches of rain in a typical month)
 12.3 inches of snow
 12 rain events (10 rain events in a typical month)
 One 6 month storm, two 1 month storms, all other storms less than 1 month return frequency

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>
CSO 006	REGS 006 A, 006 B	1	0.351
CSO 005	REG 005	2	0.232
CSO 004	REG 004	3	1.253
CSO 003	REG 003	3	0.429
CSO 024	REG 024	2	0.683
CSO 009	REG 009	3	0.078
CSO 019	REG 019	1	0.004
CSO 016	REG 016	3	0.706
CSO 015	REG 015	2	0.043
CSO 010	REG 010	1	0.089
CSO 011	REGS 010A, 011, 014, 026	1	0.684
CSO 012	REGS 012A, 012B, 028	1	0.037
CSO 025	REGS 025, 034	0	0.000
CSO 021	REG 021	3	2.544
CSO 020	REG 020	0	0.000
TOTAL		26	7.133
		(22 CSO events in a typical month)	(20.358 MG of CSO volume in a typical month)

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - THROUGH DECEMBER 2013

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>	<u>RAINFALL (IN)</u>	<u>METER MONTHS</u>
CSO 006	REGS 006 A, 006 B	22	7.296	64.77	19
CSO 005	REG 005	18	3.732	64.77	19
CSO 004	REG 004	69	29.423	64.77	19
CSO 003	REG 003	55	30.488	64.77	19
CSO 024	REG 024	17	20.316	59.17	17
CSO 009	REG 009	33	2.298	47.43	15
CSO 019	REG 019	20	1.220	59.17	17
CSO 016	REG 016	44	21.544	53.50	16
CSO 015	REG 015	25	3.232	47.43	15
CSO 010	REG 010	11	1.955	50.13	14
CSO 011	REGS 010A, 011, 014, 026	12	6.196	43.06	13
CSO 012	REGS 012A, 012B, 028	32	10.682	59.17	17
CSO 025	REGS 025, 034	0	0.000	2.68	1
CSO 021	REG 021	22	20.752	44.06	14
CSO 020	REG 020	2	0.039	27.51	9
TOTAL		382	159.173	60.44	18

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - TYPICAL YEAR ESTIMATES

CSO NUMBER	REGULATOR NUMBERS	ANNUAL CSO EVENTS	ANNUAL CSO VOLUME (MG)	ANNUAL CSO EVENTS	ANNUAL CSO VOLUME (MG)	MODEL CSO EVENTS	MODEL CSO VOLUME (MG)
		BASED ON RAINFALL ⁽¹⁾	BASED ON RAINFALL ⁽²⁾	BASED ON MONTHS ⁽³⁾	BASED ON MONTHS ⁽⁴⁾		
CSO 006	REGS 006 A, 006 B	14	4.649	14	4.608	27	27.0
CSO 005	REG 005	11	2.378	11	2.357	39	22.0
CSO 004	REG 004	44	18.748	44	18.583	44	65.3
CSO 003	REG 003	35	19.426	35	19.256	28	12.5
CSO 024	REG 024	12	14.170	12	14.341	0	1.9
CSO 009	REG 009	29	2.000	26	1.838	27	8.1
CSO 019	REG 019	14	0.851	14	0.861	7	2.4
CSO 016	REG 016	34	16.619	33	16.158	45	20.4
CSO 015	REG 015	22	2.812	20	2.586	9	4.1
CSO 010	REG 010	9	1.609	9	1.676	6	2.4
CSO 011	REGS 010A, 011, 014, 026	12	5.938	11	5.719	15	26.6
CSO 012	REGS 012A, 012B, 028	22	7.451	23	7.540	8	2.9
CSO 025	REGS 025, 034	0	0.000	0	0.000	6	9.0
CSO 021	REG 021	21	19.438	19	17.787	23	35.1
CSO 020	REG 020	3	0.059	3	0.052	8	1.4
TOTAL		278	116.089	271	113.310	292	241.1

- (1) Annual CSO Events Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Events to Date / Rainfall to Date
- (2) Annual CSO Volume (MG) Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Volume (MG) to Date / Rainfall to Date
- (3) Annual CSO Events Based on Months = 12 x CSO Events to Date / Meter Months to Date
- (4) Annual CSO Volume (MG) Based on Months = 12 x CSO Volume (MG) to Date / Meter Months to Date

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Orange Ave. @ Int. of Ella T. Grasso Blvd.
 003
 NPDES Permit Outfall #:
 MONTH: December YEAR: 2013
 Average Low Temp: 27
 Average High Temp: 41
 Measured Rainfall: 4.43
 Measured Snowfall: 12.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	12/1/2013	2:50	3:50	1.00	0.04	***						
2	12/5/2013	6:00	6:50	0.83	0.07	***						
3	12/6/2013 - 12/7/2013	3:05	3:15	24.17	0.89	1 MONTH	12/6/2013	21:15	21:55	0.67	0.320	0.009
4	12/9/2013	8:15	12:00	3.75	0.13	***						
5	12/10/2013	8:20	15:00	6.67	0.19	***						
6	12/11/2013	9:50	9:55	0.08	0.01	***						
7	12/15/2013	11:00	16:15	5.25	0.21	***						
8	12/16/2013	10:40	13:50	3.17	0.08	***						
9	12/18/2013	9:35	14:35	5.00	0.27	***						
10	12/19/2013	9:35	12:10	2.58	0.19	***						
11	12/23/2013	6:45	19:45	13.00	0.72	1 MONTH	12/23/2013	13:35	15:10	1.58	0.653	0.043
12	12/29/2013	12:10	19:15	7.08	1.63	6 MONTH	12/29/2013	15:15	19:35	4.33	2.087	0.377

TOTAL MONTH FLOW VOLUME = 0.429

Note: Overflow occurs when Interceptor level reaches 46"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Ella T. Grasso Blvd. - 23 yds North of Legion Ave.
 004
 NPDES Permit Outfall #:
 MONTH: December YEAR: 2013
 Average Low Temp: 27
 Average High Temp: 41
 Measured Rainfall: 4.43
 Measured Snowfall: 12.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT						
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)	
1	12/1/2013	2:50	3:50	1.00	0.04	***							
2	12/5/2013	6:00	6:50	0.83	0.07	***							
3	12/6/2013 - 12/7/2013	3:05	3:15	24.17	0.89	1 MONTH	12/6/2013 - 12/7/2013	20:50	1:45	4.92	1.094	0.224	
4	12/9/2013	8:15	12:00	3.75	0.13	***							
5	12/10/2013	8:20	15:00	6.67	0.19	***							
6	12/11/2013	9:50	9:55	0.08	0.01	***							
7	12/15/2013	11:00	16:15	5.25	0.21	***							
8	12/16/2013	10:40	13:50	3.17	0.08	***							
9	12/18/2013	9:35	14:35	5.00	0.27	***							
10	12/19/2013	9:35	12:10	2.58	0.19	***							
11	12/23/2013	6:45	19:45	13.00	0.72	1 MONTH	12/23/2013	9:35	16:15	6.67	0.819	0.227	
12	12/29/2013	12:10	19:15	7.08	1.63	6 MONTH	12/29/2013	14:10	20:35	6.42	2.999	0.802	

TOTAL MONTH FLOW VOLUME = 1.253

Note: Overflow occurs when Interceptor level reaches 35"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Derby Ave. 20 yrds East of Ella T. Grasso Blvd.
 LOCATION: 005
 NPDES Permit Outfall #:
 MONTH: December YEAR: 2013
 Average Low Temp: 27
 Average High Temp: 41
 Measured Rainfall: 4.43
 Measured Snowfall: 12.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	12/1/2013	2:50	3:50	1.00	0.04	***						
2	12/5/2013	6:00	6:50	0.83	0.07	***						
3	12/6/2013 - 12/7/2013	3:05	3:15	24.17	0.89	1 MONTH						
4	12/9/2013	8:15	12:00	3.75	0.13	***						
5	12/10/2013	8:20	15:00	6.67	0.19	***						
6	12/11/2013	9:50	9:55	0.08	0.01	***						
7	12/15/2013	11:00	16:15	5.25	0.21	***						
8	12/16/2013	10:40	13:50	3.17	0.08	***						
9	12/18/2013	9:35	14:35	5.00	0.27	***						
10	12/19/2013	9:35	12:10	2.58	0.19	***						
11	12/23/2013	6:45	19:45	13.00	0.72	1 MONTH	12/23/2013	13:20	15:30	2.17	0.223	0.020
12	12/29/2013	12:10	19:15	7.08	1.63	6 MONTH	12/29/2013	16:25	18:35	2.17	2.349	0.212

TOTAL MONTH FLOW VOLUME = 0.232

Note: Overflow occurs when Interceptor level reaches pipe height, 53.5" or drop-in pipe overwhelms drop-in.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Whalley Ave. 30 yds from Fitch Street
 LOCATION: 006
 NPDES Permit Outfall #:
 MONTH: December YEAR: 2013
 Average Low Temp: 27
 Average High Temp: 41
 Measured Rainfall: 4.43
 Measured Snowfall: 12.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	12/1/2013	2:50	3:50	1.00	0.04	***						
2	12/5/2013	6:00	6:50	0.83	0.07	***						
3	12/6/2013 - 12/7/2013	3:05	3:15	24.17	0.89	1 MONTH						
4	12/9/2013	8:15	12:00	3.75	0.13	***						
5	12/10/2013	8:20	15:00	6.67	0.19	***						
6	12/11/2013	9:50	9:55	0.08	0.01	***						
7	12/15/2013	11:00	16:15	5.25	0.21	***						
8	12/16/2013	10:40	13:50	3.17	0.08	***						
9	12/18/2013	9:35	14:35	5.00	0.27	***						
10	12/19/2013	9:35	12:10	2.58	0.19	***						
11	12/23/2013	6:45	19:45	13.00	0.72	1 MONTH						
12	12/29/2013	12:10	19:15	7.08	1.63	6 MONTH	12/29/2013	16:30	19:05	2.58	3.261	0.351

TOTAL MONTH FLOW VOLUME = 0.351

Note: Overflow occurs when Interceptor level reaches 27"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Grand Avenue & James Street
 LOCATION: 009
 NPDES Permit Outfall #:
 MONTH: December YEAR: 2013
 Average Low Temp: 27
 Average High Temp: 41
 Measured Rainfall: 4.43
 Measured Snowfall: 12.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	12/1/2013	2:50	3:50	1.00	0.04	***						
2	12/5/2013	6:00	6:50	0.83	0.07	***						
3	12/6/2013 - 12/7/2013	3:05	3:15	24.17	0.89	1 MONTH	12/6/2013 - 12/7/2013	20:25	1:00	4.58	0.110	0.021
4	12/9/2013	8:15	12:00	3.75	0.13	***						
5	12/10/2013	8:20	15:00	6.67	0.19	***						
6	12/11/2013	9:50	9:55	0.08	0.01	***						
7	12/15/2013	11:00	16:15	5.25	0.21	***						
8	12/16/2013	10:40	13:50	3.17	0.08	***						
9	12/18/2013	9:35	14:35	5.00	0.27	***						
10	12/19/2013	9:35	12:10	2.58	0.19	***						
11	12/23/2013	6:45	19:45	13.00	0.72	1 MONTH	12/23/2013	13:30	13:55	0.42	0.570	0.010
12	12/29/2013	12:10	19:15	7.08	1.63	6 MONTH	12/29/2013	14:55	18:40	3.75	0.298	0.047

TOTAL MONTH FLOW VOLUME = 0.078

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 547 East Street
 LOCATION: 010
 NPDES Permit Outfall #:
 MONTH: December YEAR: 2013
 Average Low Temp: 27
 Average High Temp: 41
 Measured Rainfall: 4.43
 Measured Snowfall: 12.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	12/1/2013	2:50	3:50	1.00	0.04	***						
2	12/5/2013	6:00	6:50	0.83	0.07	***						
3	12/6/2013 - 12/7/20	3:05	3:15	24.17	0.89	1 MONTH						
4	12/9/2013	8:15	12:00	3.75	0.13	***						
5	12/10/2013	8:20	15:00	6.67	0.19	***						
6	12/11/2013	9:50	9:55	0.08	0.01	***						
7	12/15/2013	11:00	16:15	5.25	0.21	***						
8	12/16/2013	10:40	13:50	3.17	0.08	***						
9	12/18/2013	9:35	14:35	5.00	0.27	***						
10	12/19/2013	9:35	12:10	2.58	0.19	***						
11	12/23/2013	6:45	19:45	13.00	0.72	1 MONTH						
12	12/29/2013	12:10	19:15	7.08	1.63	6 MONTH	12/29/2013	17:05	18:35	1.50	1.419	0.089

TOTAL MONTH FLOW VOLUME = 0.089

Note: Overflow occurs when sewer level reaches 54"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011
 NPDES Permit Outfall #:
 MONTH: December YEAR: 2013
 Average Low Temp: 27
 Average High Temp: 41
 Measured Rainfall: 4.43
 Measured Snowfall: 12.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	12/1/2013	2:50	3:50	1.00	0.04	***						
2	12/5/2013	6:00	6:50	0.83	0.07	***						
3	12/6/2013 - 12/7/20	3:05	3:15	24.17	0.89	1 MONTH						
4	12/9/2013	8:15	12:00	3.75	0.13	***						
5	12/10/2013	8:20	15:00	6.67	0.19	***						
6	12/11/2013	9:50	9:55	0.08	0.01	***						
7	12/15/2013	11:00	16:15	5.25	0.21	***						
8	12/16/2013	10:40	13:50	3.17	0.08	***						
9	12/18/2013	9:35	14:35	5.00	0.27	***						
10	12/19/2013	9:35	12:10	2.58	0.19	***						
11	12/23/2013	6:45	19:45	13.00	0.72	1 MONTH						
12	12/29/2013	12:10	19:15	7.08	1.63	6 MONTH	12/29/2013	16:40	19:20	2.67	6.154	0.684

TOTAL MONTH FLOW VOLUME = 0.684

Note: OF-011-609 and OF-011-997 removed on 8/26

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 75 Mitchell Drive
 LOCATION: 012
 NPDES Permit Outfall #:
 MONTH: December YEAR: 2013
 Average Low Temp: 27
 Average High Temp: 41
 Measured Rainfall: 4.43
 Measured Snowfall: 12.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	12/1/2013	2:50	3:50	1.00	0.04	***						
2	12/5/2013	6:00	6:50	0.83	0.07	***						
3	12/6/2013 - 12/7/20	3:05	3:15	24.17	0.89	1 MONTH						
4	12/9/2013	8:15	12:00	3.75	0.13	***						
5	12/10/2013	8:20	15:00	6.67	0.19	***						
6	12/11/2013	9:50	9:55	0.08	0.01	***						
7	12/15/2013	11:00	16:15	5.25	0.21	***						
8	12/16/2013	10:40	13:50	3.17	0.08	***						
9	12/18/2013	9:35	14:35	5.00	0.27	***						
10	12/19/2013	9:35	12:10	2.58	0.19	***						
11	12/23/2013	6:45	19:45	13.00	0.72	1 MONTH						
12	12/29/2013	12:10	19:15	7.08	1.63	6 MONTH	12/29/2013	16:50	18:35	1.75	0.509	0.037

TOTAL MONTH
 FLOW VOLUME = 0.037

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 15 James Street
 LOCATION: 015
 NPDES Permit Outfall #:
 MONTH: December YEAR: 2013
 Average Low Temp: 27
 Average High Temp: 41
 Measured Rainfall: 4.43
 Measured Snowfall: 12.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	12/1/2013	2:50	3:50	1.00	0.04	***						
2	12/5/2013	6:00	6:50	0.83	0.07	***						
3	12/6/2013 - 12/7/20	3:05	3:15	24.17	0.89	1 MONTH						
4	12/9/2013	8:15	12:00	3.75	0.13	***						
5	12/10/2013	8:20	15:00	6.67	0.19	***						
6	12/11/2013	9:50	9:55	0.08	0.01	***						
7	12/15/2013	11:00	16:15	5.25	0.21	***						
8	12/16/2013	10:40	13:50	3.17	0.08	***						
9	12/18/2013	9:35	14:35	5.00	0.27	***						
10	12/19/2013	9:35	12:10	2.58	0.19	***						
11	12/23/2013	6:45	19:45	13.00	0.72	1 MONTH	12/23/2013	13:45	14:25	0.67	0.031	0.001
12	12/29/2013	12:10	19:15	7.08	1.63	6 MONTH	12/29/2013	16:15	18:50	2.58	0.387	0.042

TOTAL MONTH FLOW VOLUME = 0.043

Note: Overflow can occur with DS sewer depth reaches 40.5"
 Expected capacity of siphon is between 24 and 30 MGD.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Int. River & Poplar
 LOCATION: 016
 NPDES Permit Outfall #:
 MONTH: December YEAR: 2013
 Average Low Temp: 27
 Average High Temp: 41
 Measured Rainfall: 4.43
 Measured Snowfall: 12.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	12/1/2013	2:50	3:50	1.00	0.04	***						
2	12/5/2013	6:00	6:50	0.83	0.07	***						
3	12/6/2013 - 12/7/20	3:05	3:15	24.17	0.89	1 MONTH	12/6/2013	20:15	22:40	2.42	3.075	0.310
4	12/9/2013	8:15	12:00	3.75	0.13	***						
5	12/10/2013	8:20	15:00	6.67	0.19	***						
6	12/11/2013	9:50	9:55	0.08	0.01	***						
7	12/15/2013	11:00	16:15	5.25	0.21	***						
8	12/16/2013	10:40	13:50	3.17	0.08	***						
9	12/18/2013	9:35	14:35	5.00	0.27	***						
10	12/19/2013	9:35	12:10	2.58	0.19	***						
11	12/23/2013	6:45	19:45	13.00	0.72	1 MONTH	12/23/2013	9:10	10:35	1.42	0.358	0.021
12	12/29/2013	12:10	19:15	7.08	1.63	6 MONTH	12/29/2013	13:25	16:15	2.83	3.175	0.375

TOTAL MONTH
 FLOW VOLUME = 0.706

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 279 Front Street
 LOCATION: 019
 NPDES Permit Outfall #:
 MONTH: December YEAR: 2013
 Average Low Temp: 27
 Average High Temp: 41
 Measured Rainfall: 4.43
 Measured Snowfall: 12.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	12/1/2013	2:50	3:50	1.00	0.04	***						
2	12/5/2013	6:00	6:50	0.83	0.07	***						
3	12/6/2013 - 12/7/20	3:05	3:15	24.17	0.89	1 MONTH						
4	12/9/2013	8:15	12:00	3.75	0.13	***						
5	12/10/2013	8:20	15:00	6.67	0.19	***						
6	12/11/2013	9:50	9:55	0.08	0.01	***						
7	12/15/2013	11:00	16:15	5.25	0.21	***						
8	12/16/2013	10:40	13:50	3.17	0.08	***						
9	12/18/2013	9:35	14:35	5.00	0.27	***						
10	12/19/2013	9:35	12:10	2.58	0.19	***						
11	12/23/2013	6:45	19:45	13.00	0.72	1 MONTH						
12	12/29/2013	12:10	19:15	7.08	1.63	6 MONTH	12/29/2013	17:00	18:20	1.33	0.065	0.004

TOTAL MONTH
 FLOW VOLUME = 0.004

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 638 Long Wharf Drive
 LOCATION: 021
 NPDES Permit Outfall #:
 MONTH: December YEAR: 2013
 Average Low Temp: 27
 Average High Temp: 41
 Measured Rainfall: 4.43
 Measured Snowfall: 12.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	12/1/2013	2:50	3:50	1.00	0.04	***						
2	12/5/2013	6:00	6:50	0.83	0.07	***						
3	12/6/2013 - 12/7/20	3:05	3:15	24.17	0.89	1 MONTH	12/6/2013	21:50	22:35	0.75	0.728	0.023
4	12/9/2013	8:15	12:00	3.75	0.13	***						
5	12/10/2013	8:20	15:00	6.67	0.19	***						
6	12/11/2013	9:50	9:55	0.08	0.01	***						
7	12/15/2013	11:00	16:15	5.25	0.21	***						
8	12/16/2013	10:40	13:50	3.17	0.08	***						
9	12/18/2013	9:35	14:35	5.00	0.27	***						
10	12/19/2013	9:35	12:10	2.58	0.19	***						
11	12/23/2013	6:45	19:45	13.00	0.72	1 MONTH	12/23/2013	14:15	15:45	1.50	2.070	0.129
12	12/29/2013	12:10	19:15	7.08	1.63	6 MONTH	12/29/2013	15:35	20:45	5.17	11.109	2.392

TOTAL MONTH FLOW VOLUME = 2.544

Note: Meter failure 11/22 - 11/30

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Sea Street @ South Water Street
 LOCATION: 024
 NPDES Permit Outfall #:
 MONTH: December YEAR: 2013
 Average Low Temp: 27
 Average High Temp: 41
 Measured Rainfall: 4.43
 Measured Snowfall: 12.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	12/1/2013	2:50	3:50	1.00	0.04	***						
2	12/5/2013	6:00	6:50	0.83	0.07	***						
3	12/6/2013 - 12/7/2013	3:05	3:15	24.17	0.89	1 MONTH	12/6/2013 - 12/7/2013	21:55	1:50	3.92	3.012	0.492
4	12/9/2013	8:15	12:00	3.75	0.13	***						
5	12/10/2013	8:20	15:00	6.67	0.19	***						
6	12/11/2013	9:50	9:55	0.08	0.01	***						
7	12/15/2013	11:00	16:15	5.25	0.21	***						
8	12/16/2013	10:40	13:50	3.17	0.08	***						
9	12/18/2013	9:35	14:35	5.00	0.27	***						
10	12/19/2013	9:35	12:10	2.58	0.19	***						
11	12/23/2013	6:45	19:45	13.00	0.72	1 MONTH						
12	12/29/2013	12:10	19:15	7.08	1.63	6 MONTH	12/29/2013	17:45	19:10	1.42	3.236	0.191

TOTAL MONTH FLOW VOLUME = 0.683

Note: Overflow occurs when upstream depth reaches approx. 65" or when downstream reaches approx. 81".

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Intersection of State & N. Front Street
 LOCATION: 025
 NPDES Permit Outfall #:
 MONTH: December YEAR: 2013
 Average Low Temp: 27
 Average High Temp: 41
 Measured Rainfall: 4.43
 Measured Snowfall: 12.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	12/1/2013	2:50	3:50	1.00	0.04	***						
2	12/5/2013	6:00	6:50	0.83	0.07	***						
3	12/6/2013 - 12/7/20	3:05	3:15	24.17	0.89	1 MONTH						
4	12/9/2013	8:15	12:00	3.75	0.13	***						
5	12/10/2013	8:20	15:00	6.67	0.19	***						
6	12/11/2013	9:50	9:55	0.08	0.01	***						
7	12/15/2013	11:00	16:15	5.25	0.21	***						
8	12/16/2013	10:40	13:50	3.17	0.08	***						
9	12/18/2013	9:35	14:35	5.00	0.27	***						
10	12/19/2013	9:35	12:10	2.58	0.19	***						
11	12/23/2013	6:45	19:45	13.00	0.72	1 MONTH						
12	12/29/2013	12:10	19:15	7.08	1.63	6 MONTH						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Not yet quantified. See email.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG George and Temple
 LOCATION: Regulator 34
 NPDES Permit Outfall #:
 MONTH: December YEAR: 2013
 Average Low Temp: 27
 Average High Temp: 41
 Measured Rainfall: 4.43
 Measured Snowfall: 12.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	12/1/2013	2:50	3:50	1.00	0.04	***						
2	12/5/2013	6:00	6:50	0.83	0.07	***						
3	12/6/2013 - 12/7/2013	3:05	3:15	24.17	0.89	1 MONTH						
4	12/9/2013	8:15	12:00	3.75	0.13	***						
5	12/10/2013	8:20	15:00	6.67	0.19	***						
6	12/11/2013	9:50	9:55	0.08	0.01	***						
7	12/15/2013	11:00	16:15	5.25	0.21	***						
8	12/16/2013	10:40	13:50	3.17	0.08	***						
9	12/18/2013	9:35	14:35	5.00	0.27	***						
10	12/19/2013	9:35	12:10	2.58	0.19	***						
11	12/23/2013	6:45	19:45	13.00	0.72	1 MONTH	NO DATA					
12	12/29/2013	12:10	19:15	7.08	1.63	6 MONTH	NO DATA					

TOTAL MONTH FLOW VOLUME = 0.000

Note: Sensor removed from DS 11/19. Installed in Regulator on 12/2.

METER DATA

NOVEMBER 2013

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - NOVEMBER 2013

MONTHLY RAINFALL SUMMARY

2.68 inches of rain (3.44 inches of rain in a typical month)
 no snow
 8 rain events (10 rain events in a typical month)
 One 1 month storm, all other storms less than 1 month return frequency

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>
CSO 006	REGS 006 A, 006 B	1	0.074
CSO 005	REG 005	0	0.000
CSO 004	REG 004	2	0.889
CSO 003	REG 003	2	0.179
CSO 024	REG 024	1	0.486
CSO 009	REG 009	2	0.097
CSO 019	REG 019	0	0.000
CSO 016	REG 016	2	0.437
CSO 015	REG 015	1	0.019
CSO 011	REGS 010A, 011, 014, 026	0	0.000
CSO 012	REGS 012A, 012B, 028	0	0.000
CSO 025	REGS 025, 034	0	0.000
CSO 021	REG 021	1	0.190
CSO 020	REG 020	0	0.000
TOTAL		12	2.371
		(22 CSO events in a typical month)	(20.358 MG of CSO volume in a typical month)

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - THROUGH NOVEMBER 2013

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>	<u>RAINFALL (IN)</u>	<u>METER MONTHS</u>
CSO 006	REGS 006 A, 006 B	21	6.945	60.44	18
CSO 005	REG 005	16	3.500	60.44	18
CSO 004	REG 004	66	28.170	60.44	18
CSO 003	REG 003	52	30.059	60.44	18
CSO 024	REG 024	15	19.633	54.84	16
CSO 009	REG 009	30	2.220	43.10	14
CSO 019	REG 019	11	1.216	54.84	16
CSO 016	REG 016	41	20.838	49.17	15
CSO 015	REG 015	23	3.189	43.10	14
CSO 011	REGS 010A, 011, 014, 026	11	5.512	38.73	12
CSO 012	REGS 012A, 012B, 028	31	10.645	54.84	16
CSO 025	REGS 025, 034	0	0.000	2.68	1
CSO 021	REG 021	19	18.208	39.73	13
CSO 020	REG 020	2	0.039	27.51	9
TOTAL		338	150.174	60.44	18

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - TYPICAL YEAR ESTIMATES

CSO NUMBER	REGULATOR NUMBERS	ANNUAL CSO EVENTS	ANNUAL CSO VOLUME (MG)	ANNUAL CSO EVENTS	ANNUAL CSO VOLUME (MG)	MODEL CSO EVENTS	MODEL CSO VOLUME (MG)
		BASED ON RAINFALL ⁽¹⁾	BASED ON RAINFALL ⁽²⁾	BASED ON MONTHS ⁽³⁾	BASED ON MONTHS ⁽⁴⁾		
CSO 006	REGS 006 A, 006 B	14	4.742	14	4.630	27	27.0
CSO 005	REG 005	11	2.390	11	2.333	39	22.0
CSO 004	REG 004	45	19.235	44	18.780	44	65.3
CSO 003	REG 003	36	20.525	35	20.039	28	12.5
CSO 024	REG 024	11	14.775	11	14.725	0	1.9
CSO 009	REG 009	29	2.126	26	1.903	27	8.1
CSO 019	REG 019	8	0.915	8	0.912	7	2.4
CSO 016	REG 016	34	17.490	33	16.670	45	20.4
CSO 015	REG 015	22	3.054	20	2.733	9	4.1
CSO 011	REGS 010A, 011, 014, 026	12	5.873	11	5.512	15	26.6
CSO 012	REGS 012A, 012B, 028	23	8.011	23	7.984	8	2.9
CSO 025	REGS 025, 034	0	0.000	0	0.000	6	9.0
CSO 021	REG 021	20	18.914	18	16.807	23	35.1
CSO 020	REG 020	3	0.059	3	0.052	8	1.4
TOTAL		265	118.050	253	113.029	286	238.7

- (1) Annual CSO Events Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Events to Date / Rainfall to Date
- (2) Annual CSO Volume (MG) Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Volume (MG) to Date / Rainfall to Date
- (3) Annual CSO Events Based on Months = 12 x CSO Events to Date / Meter Months to Date
- (4) Annual CSO Volume (MG) Based on Months = 12 x CSO Volume (MG) to Date / Meter Months to Date

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Orange Ave. @ Int. of Ella T. Grasso Blvd.
 LOCATION: 003
 NPDES Permit Outfall #:
 MONTH: November YEAR: 2013
 Average Low Temp: 34
 Average High Temp: 52
 Measured Rainfall: 2.68
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	11/1/2013	0:45	10:55	10.17	0.09	***						
2	11/2/2013	18:40	18:50	0.17	0.04	***						
3	11/7/2013	11:15	16:20	5.08	0.26	***						
4	11/12/2013	5:35	7:15	1.67	0.03	***						
5	11/16/2013	6:55	7:00	0.08	0.01	***						
6	11/18/2013	0:00	5:25	5.42	0.34	***	11/18/2013	5:10	6:00	0.83	0.495	0.017
7	11/22/2013	8:05	11:45	3.67	0.12	***						
8	11/26/2013 - 11/27/2013	16:50	18:50	26.00	1.79	1 MONTH	11/27/2013	2:40	7:50	5.17	0.752	0.162

TOTAL MONTH FLOW VOLUME = 0.179

Note: Overflow occurs when Interceptor level reaches 46"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

Ella T. Grasso Blvd. - 23 yrds North of Legion Ave.

LOCATION:

004

NPDES Permit Outfall #:

MONTH:

November YEAR: 2013

Average Low Temp:

34

Average High Temp:

52

Measured Rainfall:

2.68

Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	11/1/2013	0:45	10:55	10.17	0.09	***						
2	11/2/2013	18:40	18:50	0.17	0.04	***						
3	11/7/2013	11:15	16:20	5.08	0.26	***						
4	11/12/2013	5:35	7:15	1.67	0.03	***						
5	11/16/2013	6:55	7:00	0.08	0.01	***						
6	11/18/2013	0:00	5:25	5.42	0.34	***	11/18/2013	5:05	6:25	1.33	1.909	0.107
7	11/22/2013	8:05	11:45	3.67	0.12	***						
8	11/26/2013 - 11/27/2013	16:50	18:50	26.00	1.79	1 MONTH	11/26/2013 - 11/27/2013	23:30	12:00	12.50	1.501	0.782

TOTAL MONTH FLOW VOLUME = 0.889

Note: Overflow occurs when Interceptor level reaches 35"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Derby Ave. 20 yds East of Ella T. Grasso Blvd.
 LOCATION: 005
 NPDES Permit Outfall #:
 MONTH: November YEAR: 2013
 Average Low Temp: 34
 Average High Temp: 52
 Measured Rainfall: 2.68
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	11/1/2013	0:45	10:55	10.17	0.09	***						
2	11/2/2013	18:40	18:50	0.17	0.04	***						
3	11/7/2013	11:15	16:20	5.08	0.26	***						
4	11/12/2013	5:35	7:15	1.67	0.03	***						
5	11/16/2013	6:55	7:00	0.08	0.01	***						
6	11/18/2013	0:00	5:25	5.42	0.34	***						
7	11/22/2013	8:05	11:45	3.67	0.12	***						
8	11/26/2013 - 11/27/2013	16:50	18:50	26.00	1.79	1 MONTH						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches pipe height, 53.5" or drop-in pipe overwhelms drop-in.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Whalley Ave. 30 yrds from Fitch Street
 LOCATION: 006
 NPDES Permit Outfall #:
 MONTH: November YEAR: 2013
 Average Low Temp: 34
 Average High Temp: 52
 Measured Rainfall: 2.68
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	11/1/2013	0:45	10:55	10.17	0.09	***						
2	11/2/2013	18:40	18:50	0.17	0.04	***						
3	11/7/2013	11:15	16:20	5.08	0.26	***						
4	11/12/2013	5:35	7:15	1.67	0.03	***						
5	11/16/2013	6:55	7:00	0.08	0.01	***						
6	11/18/2013	0:00	5:25	5.42	0.34	***						
7	11/22/2013	8:05	11:45	3.67	0.12	***						
8	11/26/2013 - 11/27/2013	16:50	18:50	26.00	1.79	1 MONTH	11/27/2013	4:25	6:00	1.58	1.122	0.074

TOTAL MONTH FLOW VOLUME = 0.074

Note: Overflow occurs when Interceptor level reaches 27"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Grand Avenue & James Street
 LOCATION: 009
 NPDES Permit Outfall #:
 MONTH: November YEAR: 2013
 Average Low Temp: 34
 Average High Temp: 52
 Measured Rainfall: 2.68
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	11/1/2013	0:45	10:55	10.17	0.09	***						
2	11/2/2013	18:40	18:50	0.17	0.04	***						
3	11/7/2013	11:15	16:20	5.08	0.26	***						
4	11/12/2013	5:35	7:15	1.67	0.03	***						
5	11/16/2013	6:55	7:00	0.08	0.01	***						
6	11/18/2013	0:00	5:25	5.42	0.34	***	11/18/2013	5:10	5:40	0.50	0.091	0.002
7	11/22/2013	8:05	11:45	3.67	0.12	***						
8	11/26/2013 - 11/27/	16:50	18:50	26.00	1.79	1 MONTH	11/27/2013	3:40	4:50	1.17	1.954	0.095

TOTAL MONTH FLOW VOLUME = 0.097

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 547 East Street
 LOCATION: 010A
 NPDES Permit Outfall #:
 MONTH: November YEAR: 2013
 Average Low Temp: 34
 Average High Temp: 52
 Measured Rainfall: 2.68
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	11/1/2013	0:45	10:55	10.17	0.09	***						
2	11/2/2013	18:40	18:50	0.17	0.04	***						
3	11/7/2013	11:15	16:20	5.08	0.26	***						
4	11/12/2013	5:35	7:15	1.67	0.03	***						
5	11/16/2013	6:55	7:00	0.08	0.01	***						
6	11/18/2013	0:00	5:25	5.42	0.34	***						
7	11/22/2013	8:05	11:45	3.67	0.12	***						
8	11/26/2013 - 11/27/	16:50	18:50	26.00	1.79	1 MONTH						

TOTAL MONTH
 FLOW VOLUME = 0.000

Note: Overflow occurs when sewer level reaches 62"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011
 NPDES Permit Outfall #:
 MONTH: November YEAR: 2013
 Average Low Temp: 34
 Average High Temp: 52
 Measured Rainfall: 2.68
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	11/1/2013	0:45	10:55	10.17	0.09	***						
2	11/2/2013	18:40	18:50	0.17	0.04	***						
3	11/7/2013	11:15	16:20	5.08	0.26	***						
4	11/12/2013	5:35	7:15	1.67	0.03	***						
5	11/16/2013	6:55	7:00	0.08	0.01	***						
6	11/18/2013	0:00	5:25	5.42	0.34	***						
7	11/22/2013	8:05	11:45	3.67	0.12	***						
8	11/26/2013 - 11/27/	16:50	18:50	26.00	1.79	1 MONTH						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Sum of 10A and 11
 OF-011-609 and OF-011-997 removed on 8/26

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 75 Mitchell Drive
 LOCATION: 012
 NPDES Permit Outfall #:
 MONTH: November YEAR: 2013
 Average Low Temp: 34
 Average High Temp: 52
 Measured Rainfall: 2.68
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	11/1/2013	0:45	10:55	10.17	0.09	***						
2	11/2/2013	18:40	18:50	0.17	0.04	***						
3	11/7/2013	11:15	16:20	5.08	0.26	***						
4	11/12/2013	5:35	7:15	1.67	0.03	***						
5	11/16/2013	6:55	7:00	0.08	0.01	***						
6	11/18/2013	0:00	5:25	5.42	0.34	***						
7	11/22/2013	8:05	11:45	3.67	0.12	***						
8	11/26/2013 - 11/27/	16:50	18:50	26.00	1.79	1 MONTH						

TOTAL MONTH
 FLOW VOLUME = 0.000

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 15 James Street
 LOCATION: 015
 NPDES Permit Outfall #:
 MONTH: November YEAR: 2013
 Average Low Temp: 34
 Average High Temp: 52
 Measured Rainfall: 2.68
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	11/1/2013	0:45	10:55	10.17	0.09	***						
2	11/2/2013	18:40	18:50	0.17	0.04	***						
3	11/7/2013	11:15	16:20	5.08	0.26	***						
4	11/12/2013	5:35	7:15	1.67	0.03	***						
5	11/16/2013	6:55	7:00	0.08	0.01	***						
6	11/18/2013	0:00	5:25	5.42	0.34	***						
7	11/22/2013	8:05	11:45	3.67	0.12	***						
8	11/26/2013 - 11/27/	16:50	18:50	26.00	1.79	1 MONTH	11/27/2013	4:10	6:30	2.33	0.200	0.019

TOTAL MONTH FLOW VOLUME = 0.019

Note: Overflow can occur with DS sewer depth reaches 40.5"
 Expected capacity of siphon is between 24 and 30 MGD.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Int. River & Poplar
 LOCATION: 016
 NPDES Permit Outfall #:
 MONTH: November YEAR: 2013
 Average Low Temp: 34
 Average High Temp: 52
 Measured Rainfall: 2.68
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	11/1/2013	0:45	10:55	10.17	0.09	***						
2	11/2/2013	18:40	18:50	0.17	0.04	***						
3	11/7/2013	11:15	16:20	5.08	0.26	***						
4	11/12/2013	5:35	7:15	1.67	0.03	***						
5	11/16/2013	6:55	7:00	0.08	0.01	***						
6	11/18/2013	0:00	5:25	5.42	0.34	***	11/18/2013	5:10	5:40	0.50	3.045	0.063
7	11/22/2013	8:05	11:45	3.67	0.12	***						
8	11/26/2013 - 11/27/	16:50	18:50	26.00	1.79	1 MONTH	11/26/2013 - 11/27/2013	23:10	5:20	6.17	1.456	0.374

TOTAL MONTH
 FLOW VOLUME = 0.437

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 279 Front Street
 LOCATION: 019
 NPDES Permit Outfall #:
 MONTH: November YEAR: 2013
 Average Low Temp: 34
 Average High Temp: 52
 Measured Rainfall: 2.68
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	11/1/2013	0:45	10:55	10.17	0.09	***						
2	11/2/2013	18:40	18:50	0.17	0.04	***						
3	11/7/2013	11:15	16:20	5.08	0.26	***						
4	11/12/2013	5:35	7:15	1.67	0.03	***						
5	11/16/2013	6:55	7:00	0.08	0.01	***						
6	11/18/2013	0:00	5:25	5.42	0.34	***						
7	11/22/2013	8:05	11:45	3.67	0.12	***						
8	11/26/2013 - 11/27/	16:50	18:50	26.00	1.79	1 MONTH						

TOTAL MONTH
 FLOW VOLUME = 0.000

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 638 Long Wharf Drive
 LOCATION: 021
 NPDES Permit Outfall #:
 MONTH: November YEAR: 2013
 Average Low Temp: 34
 Average High Temp: 52
 Measured Rainfall: 2.68
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	11/1/2013	0:45	10:55	10.17	0.09	***						
2	11/2/2013	18:40	18:50	0.17	0.04	***						
3	11/7/2013	11:15	16:20	5.08	0.26	***						
4	11/12/2013	5:35	7:15	1.67	0.03	***						
5	11/16/2013	6:55	7:00	0.08	0.01	***						
6	11/18/2013	0:00	5:25	5.42	0.34	***	11/18/2013	5:40	6:50	1.17	3.915	0.190
7	11/22/2013	8:05	11:45	3.67	0.12	***						
8	11/26/2013 - 11/27/	16:50	18:50	26.00	1.79	1 MONTH						

TOTAL MONTH FLOW VOLUME = 0.190

Note: Meter failure 11/22 - 11/30

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Sea Street @ South Water Street
 LOCATION: 024
 NPDES Permit Outfall #:
 MONTH: November YEAR: 2013
 Average Low Temp: 34
 Average High Temp: 52
 Measured Rainfall: 2.68
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	11/1/2013	0:45	10:55	10.17	0.09	***						
2	11/2/2013	18:40	18:50	0.17	0.04	***						
3	11/7/2013	11:15	16:20	5.08	0.26	***						
4	11/12/2013	5:35	7:15	1.67	0.03	***						
5	11/16/2013	6:55	7:00	0.08	0.01	***						
6	11/18/2013	0:00	5:25	5.42	0.34	***						
7	11/22/2013	8:05	11:45	3.67	0.12	***						
8	11/26/2013 - 11/27/201	16:50	18:50	26.00	1.79	1 MONTH	11/27/2013	1:45	7:05	5.33	2.189	0.486

TOTAL MONTH FLOW VOLUME = 0.486

Note: Overflow occurs when upstream depth reaches approx. 65" or when downstream reaches approx. 81".

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Intersection of State & N. Front Street
 LOCATION: 025
 NPDES Permit Outfall #:
 MONTH: November YEAR: 2013
 Average Low Temp: 34
 Average High Temp: 52
 Measured Rainfall: 2.68
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	11/1/2013	0:45	10:55	10.17	0.09	***						
2	11/2/2013	18:40	18:50	0.17	0.04	***						
3	11/7/2013	11:15	16:20	5.08	0.26	***						
4	11/12/2013	5:35	7:15	1.67	0.03	***						
5	11/16/2013	6:55	7:00	0.08	0.01	***						
6	11/18/2013	0:00	5:25	5.42	0.34	***						
7	11/22/2013	8:05	11:45	3.67	0.12	***						
8	11/26/2013 - 11/27/	16:50	18:50	26.00	1.79	1 MONTH						

TOTAL MONTH FLOW VOLUME = 0.000

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG George and Temple
 LOCATION: Regulator 34
 NPDES Permit Outfall #:
 MONTH: November YEAR: 2013
 Average Low Temp: 34
 Average High Temp: 52
 Measured Rainfall: 2.68
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	11/1/2013	0:45	10:55	10.17	0.09	***						
2	11/2/2013	18:40	18:50	0.17	0.04	***						
3	11/7/2013	11:15	16:20	5.08	0.26	***						
4	11/12/2013	5:35	7:15	1.67	0.03	***						
5	11/16/2013	6:55	7:00	0.08	0.01	***						
6	11/18/2013	0:00	5:25	5.42	0.34	***						
7	11/22/2013	8:05	11:45	3.67	0.12	***						
8	11/26/2013 - 11/27/	16:50	18:50	26.00	1.79	1 MONTH						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Sensor removed from DS 11/19. Installed in Regulator on 12/2.

METER DATA

OCTOBER 2013

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - OCTOBER 2013

MONTHLY RAINFALL SUMMARY

0.69 inches of rain (3.44 inches of rain in a typical month)
 no snow
 5 rain events (10 rain events in a typical month)
 All storms less than 1 month return frequency

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>
CSO 006	REGS 006 A, 006 B	0	0.000
CSO 005	REG 005	0	0.000
CSO 004	REG 004	3	0.232
CSO 003	REG 003	3	0.269
CSO 024	REG 024	0	0.000
CSO 009	REG 009	1	0.052
CSO 019	REG 019	1	0.004
CSO 016	REG 016	3	0.182
CSO 015	REG 015	1	0.047
CSO 011	REGS 010A, 011, 014, 026	0	0.000
CSO 012	REGS 012A, 012B, 028	0	0.000
CSO 025	REGS 025, 034	NO DATA	NO DATA
CSO 021	REG 021	0	0.000
CSO 020	REG 020	0	0.000
TOTAL		12	0.786
		(22 CSO events in a typical month)	(20.358 MG of CSO volume in a typical month)

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - THROUGH OCTOBER 2013

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>	<u>RAINFALL (IN)</u>	<u>METER MONTHS</u>
CSO 006	REGS 006 A, 006 B	20	6.871	57.76	17
CSO 005	REG 005	16	3.500	57.76	17
CSO 004	REG 004	64	27.821	57.76	17
CSO 003	REG 003	50	29.880	57.76	17
CSO 024	REG 024	14	19.147	52.16	15
CSO 009	REG 009	28	2.123	40.42	13
CSO 019	REG 019	11	1.216	52.16	15
CSO 016	REG 016	39	20.401	46.49	14
CSO 015	REG 015	22	3.170	40.42	13
CSO 011	REGS 010A, 011, 014, 026	11	5.512	36.05	11
CSO 012	REGS 012A, 012B, 028	31	10.645	52.16	15
CSO 025	REGS 025, 034	6	4.194	16.19	6
CSO 021	REG 021	18	18.018	37.05	12
CSO 020	REG 020	2	0.039	26.83	8
TOTAL		332	152.537	57.76	17

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - TYPICAL YEAR ESTIMATES

CSO NUMBER	REGULATOR NUMBERS	ANNUAL CSO EVENTS	ANNUAL CSO VOLUME (MG)	ANNUAL CSO EVENTS	ANNUAL CSO VOLUME (MG)	MODEL CSO EVENTS	MODEL CSO VOLUME (MG)
		BASED ON RAINFALL ⁽¹⁾	BASED ON RAINFALL ⁽²⁾	BASED ON MONTHS ⁽³⁾	BASED ON MONTHS ⁽⁴⁾		
CSO 006	REGS 006 A, 006 B	14	4.909	14	4.850	27	27.0
CSO 005	REG 005	11	2.501	11	2.471	39	22.0
CSO 004	REG 004	46	19.878	45	19.638	44	65.3
CSO 003	REG 003	36	21.350	35	21.092	28	12.5
CSO 024	REG 024	11	15.149	11	15.318	0	1.9
CSO 009	REG 009	29	2.168	26	1.960	27	8.1
CSO 019	REG 019	9	0.962	9	0.973	7	2.4
CSO 016	REG 016	35	18.110	33	17.487	45	20.4
CSO 015	REG 015	22	3.237	20	2.926	9	4.1
CSO 011	REGS 010A, 011, 014, 026	13	6.310	12	6.013	15	26.6
CSO 012	REGS 012A, 012B, 028	25	8.423	25	8.516	8	2.9
CSO 025	REGS 025, 034	15	10.691	12	8.388	6	9.0
CSO 021	REG 021	20	20.070	18	18.018	23	35.1
CSO 020	REG 020	3	0.060	3	0.059	8	1.4
TOTAL		285	133.758	272	127.649	286	238.7

- (1) Annual CSO Events Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Events to Date / Rainfall to Date
 (2) Annual CSO Volume (MG) Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Volume (MG) to Date / Rainfall to Date
 (3) Annual CSO Events Based on Months = 12 x CSO Events to Date / Meter Months to Date
 (4) Annual CSO Volume (MG) Based on Months = 12 x CSO Volume (MG) to Date / Meter Months to Date

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Orange Ave. @ Int. of Ella T. Grasso Blvd.
 003
 NPDES Permit Outfall #:
 MONTH: October YEAR: 2013
 Average Low Temp: 46
 Average High Temp: 66
 Measured Rainfall: 0.69
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	10/4/2013	15:50	16:35	0.75	0.22	***	10/4/2013	16:35	17:10	0.58	2.042	0.050
2	10/6/2013	1:40	18:55	17.25	0.18	***	10/6/2013	2:35	3:30	0.92	4.052	0.155
3	10/7/2013	17:15	18:35	1.33	0.25	***	10/7/2013	18:05	18:40	0.58	2.643	0.064
4	10/18/2013	0:40	0:45	0.08	0.01	***						
5	10/31/2013 - 11/1/2013	21:15	0:00	2.75	0.03	***						

TOTAL MONTH FLOW VOLUME = 0.269

Note: Overflow occurs when Interceptor level reaches 46"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Ella T. Grasso Blvd, - 23 yrds North of Legion Ave.
 NPDES Permit Outfall #: 004
 MONTH: October YEAR: 2013
 Average Low Temp: 46
 Average High Temp: 66
 Measured Rainfall: 0.69
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	10/4/2013	15:50	16:35	0.75	0.22	***	10/4/2013	16:25	17:20	0.92	0.944	0.036
2	10/6/2013	1:40	18:55	17.25	0.18	***	10/6/2013	2:30	3:50	1.33	2.318	0.129
3	10/7/2013	17:15	18:35	1.33	0.25	***	10/7/2013	18:00	19:05	1.08	1.476	0.067
4	10/18/2013	0:40	0:45	0.08	0.01	***						
5	10/31/2013 - 11/1/2013	21:15	0:00	2.75	0.03	***						

TOTAL MONTH FLOW VOLUME = 0.232

Note: Overflow occurs when Interceptor level reaches 35"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Derby Ave. 20 yrds East of Ella T. Grasso Blvd.
 LOCATION: 005
 NPDES Permit Outfall #:
 MONTH: October YEAR: 2013
 Average Low Temp: 46
 Average High Temp: 66
 Measured Rainfall: 0.69
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	10/4/2013	15:50	16:35	0.75	0.22	***						
2	10/6/2013	1:40	18:55	17.25	0.18	***						
3	10/7/2013	17:15	18:35	1.33	0.25	***						
4	10/18/2013	0:40	0:45	0.08	0.01	***						
5	10/31/2013 - 11/1/2013	21:15	0:00	2.75	0.03	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches pipe height, 53.5" or drop-in pipe overwhelms drop-in.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Whalley Ave. 30 yds from Fitch Street
 LOCATION: 006
 NPDES Permit Outfall #:
 MONTH: October YEAR: 2013
 Average Low Temp: 46
 Average High Temp: 66
 Measured Rainfall: 0.69
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	10/4/2013	15:50	16:35	0.75	0.22	***						
2	10/6/2013	1:40	18:55	17.25	0.18	***						
3	10/7/2013	17:15	18:35	1.33	0.25	***						
4	10/18/2013	0:40	0:45	0.08	0.01	***						
5	10/31/2013 - 11/1/2013	21:15	0:00	2.75	0.03	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 27"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Grand Avenue & James Street
 LOCATION: 009
 NPDES Permit Outfall #:
 MONTH: October YEAR: 2013
 Average Low Temp: 46
 Average High Temp: 66
 Measured Rainfall: 0.69
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT						
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)	
1	10/4/2013	15:50	16:35	0.75	0.22	***							
2	10/6/2013	1:40	18:55	17.25	0.18	***	10/6/2013	2:35	3:15	0.67	1.886	0.052	
3	10/7/2013	17:15	18:35	1.33	0.25	***	10/7/2013	18:05	18:15	0.17	0.031	0.000	
4	10/18/2013	0:40	0:45	0.08	0.01	***							
5	10/31/2013 - 11/1/2	21:15	0:00	2.75	0.03	***							

TOTAL MONTH FLOW VOLUME = 0.052

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 547 East Street
 LOCATION: 010
 NPDES Permit Outfall #:
 MONTH: October YEAR: 2013
 Average Low Temp: 46
 Average High Temp: 66
 Measured Rainfall: 0.69
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	10/4/2013	15:50	16:35	0.75	0.22	***						
2	10/6/2013	1:40	18:55	17.25	0.18	***						
3	10/7/2013	17:15	18:35	1.33	0.25	***						
4	10/18/2013	0:40	0:45	0.08	0.01	***						
5	10/31/2013 - 11/1/2	21:15	0:00	2.75	0.03	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when sewer level reaches 54"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 547 East Street
 LOCATION: 010A
 NPDES Permit Outfall #:
 MONTH: October YEAR: 2013
 Average Low Temp: 46
 Average High Temp: 66
 Measured Rainfall: 0.69
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	10/4/2013	15:50	16:35	0.75	0.22	***						
2	10/6/2013	1:40	18:55	17.25	0.18	***						
3	10/7/2013	17:15	18:35	1.33	0.25	***						
4	10/18/2013	0:40	0:45	0.08	0.01	***						
5	10/31/2013 - 11/1/2	21:15	0:00	2.75	0.03	***						

TOTAL MONTH FLOW VOLUME = 0

Note: Overflow occurs when sewer level reaches 62"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011
 NPDES Permit Outfall #:
 MONTH: October YEAR: 2013
 Average Low Temp: 46
 Average High Temp: 66
 Measured Rainfall: 0.69
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	10/4/2013	15:50	16:35	0.75	0.22	***						
2	10/6/2013	1:40	18:55	17.25	0.18	***						
3	10/7/2013	17:15	18:35	1.33	0.25	***						
4	10/18/2013	0:40	0:45	0.08	0.01	***						
5	10/31/2013 - 11/1/2	21:15	0:00	2.75	0.03	***						

TOTAL MONTH FLOW VOLUME = 0

Note: Sum of 10A and 11
 OF-011-609 and OF-011-997 removed on 8/26

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 75 Mitchell Drive
 LOCATION: 012
 NPDES Permit Outfall #:
 MONTH: October YEAR: 2013
 Average Low Temp: 46
 Average High Temp: 66
 Measured Rainfall: 0.69
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	10/4/2013	15:50	16:35	0.75	0.22	***						
2	10/6/2013	1:40	18:55	17.25	0.18	***						
3	10/7/2013	17:15	18:35	1.33	0.25	***						
4	10/18/2013	0:40	0:45	0.08	0.01	***						
5	10/31/2013 - 11/1/2	21:15	0:00	2.75	0.03	***						

TOTAL MONTH
 FLOW VOLUME = 0.000

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 15 James Street
 LOCATION: 015
 NPDES Permit Outfall #:
 MONTH: October YEAR: 2013
 Average Low Temp: 46
 Average High Temp: 66
 Measured Rainfall: 0.69
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT						
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)	
1	10/4/2013	15:50	16:35	0.75	0.22	***							
2	10/6/2013	1:40	18:55	17.25	0.18	***	10/6/2013	2:40	2:55	0.25	4.509	0.047	
3	10/7/2013	17:15	18:35	1.33	0.25	***							
4	10/18/2013	0:40	0:45	0.08	0.01	***							
5	10/31/2013 - 11/1/2	21:15	0:00	2.75	0.03	***							

TOTAL MONTH FLOW VOLUME = 0.047

Note: Overflow can occur with DS sewer depth reaches 40.5"
 Expected capacity of siphon is between 24 and 30 MGD.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Int. River & Poplar
 LOCATION: 016
 NPDES Permit Outfall #:
 MONTH: October YEAR: 2013
 Average Low Temp: -46
 Average High Temp: 66
 Measured Rainfall: 0.69
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	10/4/2013	15:50	16:35	0.75	0.22	***	10/4/2013	16:20	16:35	0.25	0.204	0.002
2	10/6/2013	1:40	18:55	17.25	0.18	***	10/6/2013	3:05	3:55	0.83	3.185	0.111
3	10/7/2013	17:15	18:35	1.33	0.25	***	10/7/2013	17:40	18:15	0.58	2.832	0.069
4	10/18/2013	0:40	0:45	0.08	0.01	***						
5	10/31/2013 - 11/1/2	21:15	0:00	2.75	0.03	***						

TOTAL MONTH FLOW VOLUME = 0.182

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 279 Front Street
 LOCATION: 019
 NPDES Permit Outfall #:
 MONTH: October YEAR: 2013
 Average Low Temp: 46
 Average High Temp: 66
 Measured Rainfall: 0.69
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT						
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)	
1	10/4/2013	15:50	16:35	0.75	0.22	***							
2	10/6/2013	1:40	18:55	17.25	0.18	***	10/6/2013	2:45	3:10	0.42	0.217	0.004	
3	10/7/2013	17:15	18:35	1.33	0.25	***							
4	10/18/2013	0:40	0:45	0.08	0.01	***							
5	10/31/2013 - 11/1/2	21:15	0:00	2.75	0.03	***							

TOTAL MONTH FLOW VOLUME = 0.004

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 638 Long Wharf Drive
 LOCATION: 021
 NPDES Permit Outfall #:
 MONTH: October YEAR: 2013
 Average Low Temp: 46
 Average High Temp: 66
 Measured Rainfall: 0.69
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	10/4/2013	15:50	16:35	0.75	0.22	***						
2	10/6/2013	1:40	18:55	17.25	0.18	***						
3	10/7/2013	17:15	18:35	1.33	0.25	***						
4	10/18/2013	0:40	0:45	0.08	0.01	***						
5	10/31/2013 - 11/1/2	21:15	0:00	2.75	0.03	***						

TOTAL MONTH
 FLOW VOLUME = 0.000

Note: Meter Installed 11/15/2012

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Sea Street @ South Water Street
 LOCATION: 024
 NPDES Permit Outfall #:
 MONTH: October YEAR: 2013
 Average Low Temp: 46
 Average High Temp: 66
 Measured Rainfall: 0.69
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	10/4/2013	15:50	16:35	0.75	0.22	***						
2	10/6/2013	1:40	18:55	17.25	0.18	***						
3	10/7/2013	17:15	18:35	1.33	0.25	***						
4	10/18/2013	0:40	0:45	0.08	0.01	***						
5	10/31/2013 - 11/1/2013	21:15	0:00	2.75	0.03	***						

TOTAL MONTH FLOW VOLUME = 0

Note: Overflow occurs when upstream depth reaches approx. 65" or when downstream reaches approx. 81".

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Intersection of State & N. Front Street
 025
 NPDES Permit Outfall #:
 MONTH: October YEAR: 2013
 Average Low Temp: 46
 Average High Temp: 66
 Measured Rainfall: 0.69
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	10/4/2013	15:50	16:35	0.75	0.22	***	10/4/2013	No data available				
2	10/6/2013	1:40	18:55	17.25	0.18	***	10/6/2013	No data available				
3	10/7/2013	17:15	18:35	1.33	0.25	***	10/7/2013	No data available				
4	10/18/2013	0:40	0:45	0.08	0.01	***						
5	10/31/2013 - 11/1/2	21:15	0:00	2.75	0.03	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Original site removed on 8/26
 New configuration installed 9/6

METER DATA

SEPTEMBER 2013

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - SEPTEMBER 2013

MONTHLY RAINFALL SUMMARY

2.26 inches of rain (3.44 inches of rain in a typical month)
 no snow
 5 rain events (10 rain events in a typical month)
 Two 6 month storms, all other storms less than 1 month return frequency

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>
CSO 006	REGS 006 A, 006 B	1	0.078
CSO 005	REG 005	0	0.000
CSO 004	REG 004	3	0.783
CSO 003	REG 003	3	1.370
CSO 024	REG 024	1	0.699
CSO 009	REG 009	2	0.067
CSO 019	REG 019	1	0.006
CSO 016	REG 016	1	0.527
CSO 015	REG 015	2	0.350
CSO 010	REG 010	0	0.000
CSO 011	REGS 010A, 011, 014, 026	2	0.149
CSO 012	REGS 012A, 012B, 028	1	0.006
CSO GREENE	REG GREENE	0	0.000
CSO 025	REGS 025, 034	NO DATA	NO DATA
CSO 021	REG 021	2	0.395
CSO 013	REG 013	1	0.045
CSO 020	REG 020	1	0.009
TOTAL		21	4.484
	(22 CSO events in a typical month)		(20,358 MG of CSO volume in a typical month)

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - THROUGH SEPTEMBER 2013

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>	<u>RAINFALL (IN)</u>	<u>METER MONTHS</u>
CSO 006	REGS 006 A, 006 B	20	6.871	57.07	16
CSO 005	REG 005	16	3.500	57.07	16
CSO 004	REG 004	61	27.589	57.07	16
CSO 003	REG 003	47	29.611	57.07	16
CSO 024	REG 024	14	19.147	51.47	14
CSO 009	REG 009	27	2.071	39.73	12
CSO 019	REG 019	10	1.212	51.47	14
CSO 016	REG 016	36	20.219	45.80	13
CSO 015	REG 015	21	3.123	39.73	12
CSO 010	REG 010	10	1.866	45.80	13
CSO 011	REGS 010A, 011, 014, 026	11	5.512	35.36	10
CSO 012	REGS 012A, 012B, 028	31	10.645	51.47	14
CSO GREENE	REG GREENE	3	0.111	51.47	14
CSO 025	REGS 025, 034	6	4.194	16.19	6
CSO 021	REG 021	18	18.018	36.36	11
CSO 013	REG 013	7	0.170	26.14	7
CSO 020	REG 020	2	0.039	26.14	7
TOTAL		340	153.898	57.07	16

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - TYPICAL YEAR ESTIMATES

CSO NUMBER	REGULATOR NUMBERS	ANNUAL CSO EVENTS	ANNUAL CSO VOLUME (MG)	ANNUAL CSO EVENTS	ANNUAL CSO VOLUME (MG)	MODEL CSO EVENTS	MODEL CSO VOLUME (MG)
		BASED ON RAINFALL ⁽¹⁾	BASED ON RAINFALL ⁽²⁾	BASED ON MONTHS ⁽³⁾	BASED ON MONTHS ⁽⁴⁾		
CSO 006	REGS 006 A, 006 B	14	4.969	15	5.153	27	27.0
CSO 005	REG 005	12	2.531	12	2.625	39	22.0
CSO 004	REG 004	44	19.951	46	20.692	44	65.3
CSO 003	REG 003	34	21.413	35	22.208	28	12.5
CSO 024	REG 024	11	15.353	12	16.412	0	1.9
CSO 009	REG 009	28	2.151	27	2.071	27	8.1
CSO 019	REG 019	8	0.972	9	1.039	7	2.4
CSO 016	REG 016	32	18.219	33	18.664	45	20.4
CSO 015	REG 015	22	3.244	21	3.123	9	4.1
CSO 010	REG 010	9	1.681	9	1.722	6	2.4
CSO 011	REGS 010A, 011, 014, 026	13	6.433	13	6.614	15	26.6
CSO 012	REGS 012A, 012B, 028	25	8.535	27	9.124	8	2.9
CSO GREENE	REG GREENE	2	0.089	3	0.095	NO DATA	NO DATA
CSO 025	REGS 025, 034	15	10.691	12	8.388	6	9.0
CSO 021	REG 021	20	20.451	20	19.656	23	35.1
CSO 013	REG 013	11	0.268	12	0.291	1	0.4
CSO 020	REG 020	3	0.062	3	0.067	8	1.4
TOTAL		291	136.684	293	137.587	293	241.5

- (1) Annual CSO Events Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Events to Date / Rainfall to Date
- (2) Annual CSO Volume (MG) Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Volume (MG) to Date / Rainfall to Date
- (3) Annual CSO Events Based on Months = 12 x CSO Events to Date / Meter Months to Date
- (4) Annual CSO Volume (MG) Based on Months = 12 x CSO Volume (MG) to Date / Meter Months to Date

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Orange Ave. @ Int. of Ella T. Grasso Blvd.
 003
 NPDES Permit Outfall #:
 MONTH: September YEAR: 2013
 Average Low Temp: 54
 Average High Temp: 74
 Measured Rainfall: 2.26
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	9/2/2013	2:25	7:30	5.08	0.21	***						
2	9/3/2013	12:30	12:35	0.08	0.01	***						
3	9/10/2013	5:45	12:15	6.50	0.15	***	9/10/2013	12:40	13:00	0.33	0.746	0.010
4	9/12/2013 - 9/13/2013	19:35	5:50	10.25	0.91	6 MONTH	9/12/2013	20:10	21:55	1.75	7.351	0.536
5	9/22/2013	1:25	5:30	4.08	0.98	6 MONTH	9/22/2013	2:55	5:30	2.58	7.659	0.824

TOTAL MONTH
 FLOW VOLUME = 1.370

Note: Overflow occurs when Interceptor level reaches 46"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Ella T. Grasso Blvd. - 23 yrds North of Legion Ave.
 NPDES Permit Outfall #: 004
 MONTH: September YEAR: 2013
 Average Low Temp: 54
 Average High Temp: 74
 Measured Rainfall: 2.26
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	9/2/2013	2:25	7:30	5.08	0.21	***						
2	9/3/2013	12:30	12:35	0.08	0.01	***						
3	9/10/2013	5:45	12:15	6.50	0.15	***	9/10/2013	12:25	13:20	0.92	0.495	0.019
4	9/12/2013 - 9/13/2013	19:35	5:50	10.25	0.91	6 MONTH	9/12/2013	20:05	22:40	2.58	2.454	0.264
5	9/22/2013	1:25	5:30	4.08	0.98	6 MONTH	9/22/2013	2:55	5:35	2.67	4.502	0.500

TOTAL MONTH FLOW VOLUME = 0.783

Note: Overflow occurs when Interceptor level reaches 35"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG: Derby Ave. 20 yds East of Ella T. Grasso Blvd.
 LOCATION: 005
 NPDES Permit Outfall #:
 MONTH: September YEAR: 2013
 Average Low Temp: 54
 Average High Temp: 74
 Measured Rainfall: 2.26
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	9/2/2013	2:25	7:30	5.08	0.21	***						
2	9/3/2013	12:30	12:35	0.08	0.01	***						
3	9/10/2013	5:45	12:15	6.50	0.15	***						
4	9/12/2013 - 9/13/2013	19:35	5:50	10.25	0.91	6 MONTH						
5	9/22/2013	1:25	5:30	4.08	0.98	6 MONTH						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches pipe height, 53.5" or drop-in pipe overwhelms drop-in.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Whalley Ave. 30 yrds from Fitch Street
 LOCATION: 006
 NPDES Permit Outfall #:
 MONTH: September YEAR: 2013
 Average Low Temp: 54
 Average High Temp: 74
 Measured Rainfall: 2.26
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT						
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)	
1	9/2/2013	2:25	7:30	5.08	0.21	***							
2	9/3/2013	12:30	12:35	0.08	0.01	***							
3	9/10/2013	5:45	12:15	6.50	0.15	***							
4	9/12/2013 - 9/13/2013	19:35	5:50	10.25	0.91	6 MONTH							
5	9/22/2013	1:25	5:30	4.08	0.98	6 MONTH	9/22/2013	3:20	4:30	1.17	1.605	0.078	

TOTAL MONTH
 FLOW VOLUME = 0.078

Note: Overflow occurs when Interceptor level reaches 27"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Grand Avenue & James Street
 LOCATION: :009
 NPDES Permit Outfall #:
 MONTH: September YEAR: 2013
 Average Low Temp: 54
 Average High Temp: 74
 Measured Rainfall: 2.26
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	9/2/2013	2:25	7:30	5.08	0.21	***						
2	9/3/2013	12:30	12:35	0.08	0.01	***						
3	9/10/2013	5:45	12:15	6.50	0.15	***						
4	9/12/2013 - 9/13/20	19:35	5:50	10.25	0.91	6 MONTH	9/12/2013	20:10	21:40	1.50	0.872	0.054
5	9/22/2013	1:25	5:30	4.08	0.98	6 MONTH	9/22/2013	3:55	4:25	0.50	0.632	0.013

TOTAL MONTH FLOW VOLUME = 0.067

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 547 East Street
 LOCATION: 010
 NPDES Permit Outfall #:
 MONTH: September YEAR: 2013
 Average Low Temp: 54
 Average High Temp: 74
 Measured Rainfall: 2.26
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	9/2/2013	2:25	7:30	5.08	0.21	***						
2	9/3/2013	12:30	12:35	0.08	0.01	***						
3	9/10/2013	5:45	12:15	6.50	0.15	***						
4	9/12/2013 - 9/13/20	19:35	5:50	10.25	0.91	6 MONTH						
5	9/22/2013	1:25	5:30	4.08	0.98	6 MONTH						

TOTAL MONTH
 FLOW VOLUME = 0.000

Note: Overflow occurs when sewer level reaches 54"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011
 NPDES Permit Outfall #:
 MONTH: September YEAR: 2013
 Average Low Temp: 54
 Average High Temp: 74
 Measured Rainfall: 2.26
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	9/2/2013	2:25	7:30	5.08	0.21	***						
2	9/3/2013	12:30	12:35	0.08	0.01	***						
3	9/10/2013	5:45	12:15	6.50	0.15	***						
4	9/12/2013 - 9/13/20	19:35	5:50	10.25	0.91	6 MONTH	9/12/2013	20:20	20:35	0.25	3.130	0.033
5	9/22/2013	1:25	5:30	4.08	0.98	6 MONTH	9/22/2013	3:35	4:30	0.92	3.031	0.116

TOTAL MONTH FLOW VOLUME = 0.149

Note: OF-011-609 and OF-011-997 removed on 8/26

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 75 Mitchell Drive
 LOCATION: 012
 NPDES Permit Outfall #:
 MONTH: September YEAR: 2013
 Average Low Temp: 54
 Average High Temp: 74
 Measured Rainfall: 2.26
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	9/2/2013	2:25	7:30	5.08	0.21	***						
2	9/3/2013	12:30	12:35	0.08	0.01	***						
3	9/10/2013	5:45	12:15	6.50	0.15	***	9/10/2013	13:05	13:10	0.08	1.810	0.006
4	9/12/2013 - 9/13/20	19:35	5:50	10.25	0.91	6 MONTH						
5	9/22/2013	1:25	5:30	4.08	0.98	6 MONTH						
TOTAL MONTH												
FLOW VOLUME =												0.006

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 15 James Street
 LOCATION: 015
 NPDES Permit Outfall #:
 MONTH: September YEAR: 2013
 Average Low Temp: 54
 Average High Temp: 74
 Measured Rainfall: 2.26
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	9/2/2013	2:25	7:30	5.08	0.21	***						
2	9/3/2013	12:30	12:35	0.08	0.01	***						
3	9/10/2013	5:45	12:15	6.50	0.15	***						
4	9/12/2013 - 9/13/20	19:35	5:50	10.25	0.91	6 MONTH	9/12/2013	20:50	21:55	1.08	5.126	0.231
5	9/22/2013	1:25	5:30	4.08	0.98	6 MONTH	9/22/2013	3:15	4:35	1.33	2.146	0.119

TOTAL MONTH
 FLOW VOLUME = 0.350

Note: Overflow can occur with DS sewer depth reaches 40.5"
 Expected capacity of siphon is between 24 and 30 MGD.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Int. River & Poplar
 LOCATION: 016
 NPDES Permit Outfall #:
 MONTH: September YEAR: 2013
 Average Low Temp: 54
 Average High Temp: 74
 Measured Rainfall: 2.26
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	9/2/2013	2:25	7:30	5.08	0.21	***						
2	9/3/2013	12:30	12:35	0.08	0.01	***						
3	9/10/2013	5:45	12:15	6.50	0.15	***						
4	9/12/2013 - 9/13/20	19:35	5:50	10.25	0.91	6 MONTH						
5	9/22/2013	1:25	5:30	4.08	0.98	6 MONTH	9/22/2013	3:50	5:25	1.58	7.982	0.527

TOTAL MONTH
 FLOW VOLUME = 0.527

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 279 Front Street
 LOCATION: 019
 NPDES Permit Outfall #:
 MONTH: September YEAR: 2013
 Average Low Temp: 54
 Average High Temp: 74
 Measured Rainfall: 2.26
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT						
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)	
1	9/2/2013	2:25	7:30	5.08	0.21	***							
2	9/3/2013	12:30	12:35	0.08	0.01	***							
3	9/10/2013	5:45	12:15	6.50	0.15	***							
4	9/12/2013 - 9/13/20	19:35	5:50	10.25	0.91	6 MONTH							
5	9/22/2013	1:25	5:30	4.08	0.98	6 MONTH	9/22/2013	3:20	4:15	0.92	0.169	0.006	

TOTAL MONTH FLOW VOLUME = 0.006

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Clifton and Quinnipiac
 LOCATION: 020
 NPDES Permit Outfall #:
 MONTH: September YEAR: 2013
 Average Low Temp: 54
 Average High Temp: 74
 Measured Rainfall: 2.26
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	9/2/2013	2:25	7:30	5.08	0.21	***						
2	9/3/2013	12:30	12:35	0.08	0.01	***						
							9/6/2013	7:05	7:25	0.33	0.618	0.009
3	9/10/2013	5:45	12:15	6.50	0.15	***						
4	9/12/2013 - 9/13/2013	19:35	5:50	10.25	0.91	6 MONTH						
5	9/22/2013	1:25	5:30	4.08	0.98	6 MONTH	9/22/2013	13:35	14:10	0.58	0.375	0.009
6												

TOTAL MONTH FLOW VOLUME = 0.018

Note: Overflow occurs when level is 31" in the interceptor.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 638 Long Wharf Drive
 LOCATION: 021
 NPDES Permit Outfall #:
 MONTH: September YEAR: 2013
 Average Low Temp: 54
 Average High Temp: 74
 Measured Rainfall: 2.26
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	9/2/2013	2:25	7:30	5.08	0.21	***						
2	9/3/2013	12:30	12:35	0.08	0.01	***						
3	9/10/2013	5:45	12:15	6.50	0.15	***						
4	9/12/2013 - 9/13/20	19:35	5:50	10.25	0.91	6 MONTH	9/12/2013	20:40	22:25	1.75	2.988	0.218
5	9/22/2013	1:25	5:30	4.08	0.98	6 MONTH	9/22/2013	3:40	5:20	1.67	2.551	0.177

TOTAL MONTH
 FLOW VOLUME = 0.395

Note: Meter Installed 11/15/2012

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Sea Street @ South Water Street
 LOCATION: 024
 NPDES Permit Outfall #:
 MONTH: September YEAR: 2013
 Average Low Temp: 54
 Average High Temp: 74
 Measured Rainfall: 2.26
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT						
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)	
1	9/2/2013	2:25	7:30	5.08	0.21	***							
2	9/3/2013	12:30	12:35	0.08	0.01	***							
3	9/10/2013	5:45	12:15	6.50	0.15	***							
4	9/12/2013 - 9/13/2013	19:35	5:50	10.25	0.91	6 MONTH							
5	9/22/2013	1:25	5:30	4.08	0.98	6 MONTH	9/22/2013	3:25	8:10	4.75	3.532	0.699	

TOTAL MONTH
 FLOW VOLUME = 0.699

Note: Overflow occurs when upstream depth reaches approx. 65" or when downstream reaches approx. 81".

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Intersection of State & N. Front Street
 LOCATION: 025
 NPDES Permit Outfall #:
 MONTH: September YEAR: 2013
 Average Low Temp: 54
 Average High Temp: 74
 Measured Rainfall: 2.26
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	9/2/2013	2:25	7:30	5.08	0.21	***						
2	9/3/2013	12:30	12:35	0.08	0.01	***						
3	9/10/2013	5:45	12:15	6.50	0.15	***	No data available					
4	9/12/2013 - 9/13/20	19:35	5:50	10.25	0.91	6 MONTH	No data available					
5	9/22/2013	1:25	5:30	4.08	0.98	6 MONTH	No data available					

TOTAL MONTH FLOW VOLUME = 0.000

Note: Original site removed on 8/26
 New configuration installed 9/6

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG George and Temple
 LOCATION: Regulator 34
 NPDES Permit Outfall #:
 MONTH: September YEAR: 2013
 Average Low Temp: 54
 Average High Temp: 74
 Measured Rainfall: 2.26
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	9/2/2013	2:25	7:30	5.08	0.21	***						
2	9/3/2013	12:30	12:35	0.08	0.01	***						
3	9/10/2013	5:45	12:15	6.50	0.15	***						
4	9/12/2013 - 9/13/20	19:35	5:50	10.25	0.91	6 MONTH	No data available					
5	9/22/2013	1:25	5:30	4.08	0.98	6 MONTH	No data available					

TOTAL MONTH FLOW VOLUME = 0.000

Note: Original site removed on 8/26
 New configuration installed 9/6

METER DATA

AUGUST 2013

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - AUGUST 2013

MONTHLY RAINFALL SUMMARY

2.59 inches of rain (3.44 inches of rain in a typical month)
 no snow

7 rain events (10 rain events in a typical month)

One 6 month storm, one 3 month storm, one 1 month storm, all other storms less than 1 month return frequency

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>
CSO 006	REGS 006 A, 006 B	1	0.135
CSO 005	REG 005	3	0.142
CSO 004	REG 004	4	0.590
CSO 003	REG 003	4	0.641
CSO 024	REG 024	0	0.000
CSO 009	REG 009	4	0.120
CSO 019	REG 019	2	0.004
CSO 016	REG 016	3	0.841
CSO 015	REG 015	2	0.019
CSO 010	REG 010	1	0.620
CSO 011	REGS 010A, 011, 014, 026	1	0.554
CSO 012	REGS 012A, 012B, 028	1	0.043
CSO GREENE	REG GREENE	0	0.000
CSO 025	REGS 025, 034	NO DATA	NO DATA
CSO 021	REG 021	1	0.210
CSO 013	REG 013	1	0.045
CSO 020	REG 020	0	0.000
TOTAL		28	3.964
	(22 CSO events in a typical month)		(20.358 MG of CSO volume in a typical month)

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - THROUGH AUGUST 2013

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>	<u>RAINFALL (IN)</u>	<u>METER MONTHS</u>
CSO 006	REGS 006 A, 006 B	19	6.793	54.81	15
CSO 005	REG 005	53	6.502	54.81	15
CSO 004	REG 004	58	26.806	54.81	15
CSO 003	REG 003	44	28.241	54.81	15
CSO 024	REG 024	13	18.448	49.21	13
CSO 009	REG 009	25	2.004	37.47	11
CSO 019	REG 019	9	1.206	49.21	13
CSO 016	REG 016	35	19.692	43.54	12
CSO 015	REG 015	19	2.773	37.47	11
CSO 010	REG 010	10	1.866	43.54	12
CSO 011	REGS 010A, 011, 014, 026	9	5.363	33.10	9
CSO 012	REGS 012A, 012B, 028	30	10.639	49.21	13
CSO GREENE	REG GREENE	3	0.111	49.21	13
CSO 025	REGS 025, 034	6	4.194	16.19	6
CSO 021	REG 021	16	17.623	34.10	10
CSO 013	REG 013	6	0.125	23.88	6
CSO 020	REG 020	1	0.030	23.88	6
TOTAL		356	152.416	54.81	15

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - TYPICAL YEAR ESTIMATES

CSO NUMBER	REGULATOR NUMBERS	ANNUAL CSO EVENTS	ANNUAL CSO VOLUME (MG)	ANNUAL CSO EVENTS	ANNUAL CSO VOLUME (MG)	MODEL CSO EVENTS	MODEL CSO VOLUME (MG)
		BASED ON RAINFALL ⁽¹⁾	BASED ON RAINFALL ⁽²⁾	BASED ON MONTHS ⁽³⁾	BASED ON MONTHS ⁽⁴⁾		
CSO 006	REGS 006 A, 006 B	14	5.115	15	5.434	27	27.0
CSO 005	REG 005	40	4.896	42	5.202	39	22.0
CSO 004	REG 004	44	20.184	46	21.445	44	65.3
CSO 003	REG 003	33	21.264	35	22.593	28	12.5
CSO 024	REG 024	11	15.471	12	17.029	0	1.9
CSO 009	REG 009	28	2.207	27	2.186	27	8.1
CSO 019	REG 019	8	1.011	8	1.113	7	2.4
CSO 016	REG 016	33	18.665	35	19.692	45	20.4
CSO 015	REG 015	21	3.054	21	3.025	9	4.1
CSO 010	REG 010	9	1.769	10	1.866	6	2.4
CSO 011	REGS 010A, 011, 014, 026	11	6.687	12	7.151	15	26.6
CSO 012	REGS 012A, 012B, 028	25	8.922	28	9.821	8	2.9
CSO GREENE	REG GREENE	3	0.093	3	0.102	NO DATA	NO DATA
CSO 025	REGS 025, 034	15	10.691	12	8.388	6	9.0
CSO 021	REG 021	19	21.328	19	21.148	23	35.1
CSO 013	REG 013	10	0.216	12	0.250	1	0.4
CSO 020	REG 020	2	0.052	2	0.060	8	1.4
TOTAL		314	141.359	326	146.194	293	241.5

- (1) Annual CSO Events Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Events to Date / Rainfall to Date
 (2) Annual CSO Volume (MG) Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Volume (MG) to Date / Rainfall to Date
 (3) Annual CSO Events Based on Months = 12 x CSO Events to Date / Meter Months to Date
 (4) Annual CSO Volume (MG) Based on Months = 12 x CSO Volume (MG) to Date / Meter Months to Date

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Orange Ave. @ Int. of Ella T. Grasso Blvd.
 NPDES Permit Outfall #: 003
 MONTH: August YEAR: 2013
 Average Low Temp: 63
 Average High Temp: 80
 Measured Rainfall: 2.59
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	8/1/2013 - 8/2/2013	14:45	2:20	11.58	0.40	***	8/1/2013 - 8/2/2013	23:05	0:30	1.42	1.457	0.086
2	8/3/2013	6:10	9:45	3.58	0.04	***						
3	8/8/2013	2:15	3:55	1.67	0.08	***						
4	8/9/2013	5:45	19:50	14.08	0.65	3 MONTH	8/9/2013	14:55	15:55	1.00	3.073	0.128
5	8/13/2013	9:35	12:35	3.00	0.11	***						
6	8/22/2013	10:25	13:10	2.75	0.66	6 MONTH	8/22/2013	11:00	12:35	1.58	5.760	0.380
7	8/26/2013 - 8/27/2013	20:00	6:25	10.42	0.65	1 MONTH	8/27/2013	2:00	2:40	0.67	1.702	0.047

TOTAL MONTH FLOW VOLUME = 0.641

Note: Overflow occurs when Interceptor level reaches 46"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Ella T. Grasso Blvd. - 23 yrds North of Legion Ave.
 NPDES Permit Outfall #: 004
 MONTH: August YEAR: 2013
 Average Low Temp: 63
 Average High Temp: 80
 Measured Rainfall: 2.59
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	8/1/2013 - 8/2/2013	14:45	2:20	11.58	0.40	***	8/1/2013 - 8/2/2013	22:45	0:45	2.00	1.176	0.098
2	8/3/2013	6:10	9:45	3.58	0.04	***						
3	8/8/2013	2:15	3:55	1.67	0.08	***						
4	8/9/2013	5:45	19:50	14.08	0.65	3 MONTH	8/9/2013	15:00	16:05	1.08	1.651	0.075
5	8/13/2013	9:35	12:35	3.00	0.11	***						
6	8/22/2013	10:25	13:10	2.75	0.66	6 MONTH	8/22/2013	10:55	13:00	2.08	4.414	0.383
7	8/26/2013 - 8/27/2013	20:00	6:25	10.42	0.65	1 MONTH	8/27/2013	1:50	4:50	3.00	0.273	0.034

TOTAL MONTH
 FLOW VOLUME = 0.590

Note: Overflow occurs when Interceptor level reaches 35"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Derby Ave. 20 yds East of Ella T. Grasso Blvd.
 LOCATION: 005
 NPDES Permit Outfall #:
 MONTH: August YEAR: 2013
 Average Low Temp: 63
 Average High Temp: 80
 Measured Rainfall: 2.59
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	8/1/2013 - 8/2/2013	14:45	2:20	11.58	0.40	***	8/1/2013	23:20	23:35	0.25	0.225	0.002
2	8/3/2013	6:10	9:45	3.58	0.04	***						
3	8/8/2013	2:15	3:55	1.67	0.08	***						
4	8/9/2013	5:45	19:50	14.08	0.65	3 MONTH	8/9/2013	14:45	15:10	0.42	0.231	0.004
5	8/13/2013	9:35	12:35	3.00	0.11	***						
6	8/22/2013	10:25	13:10	2.75	0.66	6 MONTH	8/22/2013	10:45	11:45	1.00	3.264	0.136
7	8/26/2013 - 8/27/2013	20:00	6:25	10.42	0.65	1 MONTH						

TOTAL MONTH FLOW VOLUME = 0.142

Note: Overflow occurs when Interceptor level reaches pipe height, 53.5" or drop-in pipe overwhelms drop-in.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Whalley Ave. 30 yrds from Fitch Street
 NPDES Permit Outfall #: 006
 MONTH: August YEAR: 2013
 Average Low Temp: 63
 Average High Temp: 80
 Measured Rainfall: 2.59
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	8/1/2013 - 8/2/2013	14:45	2:20	11.58	0.40	***						
2	8/3/2013	6:10	9:45	3.58	0.04	***						
3	8/8/2013	2:15	3:55	1.67	0.08	***						
4	8/9/2013	5:45	19:50	14.08	0.65	3 MONTH						
5	8/13/2013	9:35	12:35	3.00	0.11	***						
6	8/22/2013	10:25	13:10	2.75	0.66	6 MONTH	8/22/2013	11:00	12:00	1.00	3.240	0.135
7	8/26/2013 - 8/27/2013	20:00	6:25	10.42	0.65	1 MONTH						

TOTAL MONTH FLOW VOLUME = 0.135

Note: Overflow occurs when Interceptor level reaches 27"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Grand Avenue & James Street
 009
 NPDES Permit Outfall #:
 MONTH: August YEAR: 2013
 Average Low Temp: 63
 Average High Temp: 80
 Measured Rainfall: 2.59
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	8/1/2013 - 8/2/2013	14:45	2:20	11.58	0.40	***	8/1/2013	23:10	23:50	0.67	0.102	0.003
2	8/3/2013	6:10	9:45	3.58	0.04	***						
3	8/8/2013	2:15	3:55	1.67	0.08	***						
4	8/9/2013	5:45	19:50	14.08	0.65	3 MONTH	8/9/2013	14:55	15:40	0.75	0.802	0.025
5	8/13/2013	9:35	12:35	3.00	0.11	***						
6	8/22/2013	10:25	13:10	2.75	0.66	6 MONTH	8/22/2013	11:00	11:30	0.50	4.348	0.091
7	8/26/2013 - 8/27/2013	20:00	6:25	10.42	0.65	1 MONTH	8/27/2013	2:00	2:15	0.25	0.143	0.001

TOTAL MONTH FLOW VOLUME = 0.120

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 547 East Street
 LOCATION: 010
 NPDES Permit Outfall #:
 MONTH: August YEAR: 2013
 Average Low Temp: 63
 Average High Temp: 80
 Measured Rainfall: 2.59
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	8/1/2013 - 8/2/2013	14:45	2:20	11.58	0.40	***						
2	8/3/2013	6:10	9:45	3.58	0.04	***						
3	8/8/2013	2:15	3:55	1.67	0.08	***						
4	8/9/2013	5:45	19:50	14.08	0.65	3 MONTH						
5	8/13/2013	9:35	12:35	3.00	0.11	***						
6	8/22/2013	10:25	13:10	2.75	0.66	6 MONTH	8/22/2013	11:05	11:40	0.58	25.516	0.620
7	8/26/2013 - 8/27/20	20:00	6:25	10.42	0.65	1 MONTH						

TOTAL MONTH
 FLOW VOLUME = 0.620

Note: Overflow occurs when sewer level reaches 54"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011
 NPDES Permit Outfall #:
 MONTH: August YEAR: 2013
 Average Low Temp: 63
 Average High Temp: 80
 Measured Rainfall: 2.59
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	8/1/2013 - 8/2/2013	14:45	2:20	11.58	0.40	***						
2	8/3/2013	6:10	9:45	3.58	0.04	***						
3	8/8/2013	2:15	3:55	1.67	0.08	***						
4	8/9/2013	5:45	19:50	14.08	0.65	3 MONTH						
5	8/13/2013	9:35	12:35	3.00	0.11	***						
6	8/22/2013	10:25	13:10	2.75	0.66	6 MONTH	8/22/2013	10:55	12:25	1.50	8.861	0.554
7	8/26/2013 - 8/27/2013	20:00	6:25	10.42	0.65	1 MONTH						

TOTAL MONTH FLOW VOLUME = 0.554

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 75 Mitchell Drive
 LOCATION: 012
 NPDES Permit Outfall #:
 MONTH: August YEAR: 2013
 Average Low Temp: 63
 Average High Temp: 80
 Measured Rainfall: 2.59
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	8/1/2013 - 8/2/2013	14:45	2:20	11.58	0.40	***						
2	8/3/2013	6:10	9:45	3.58	0.04	***						
3	8/8/2013	2:15	3:55	1.67	0.08	***						
4	8/9/2013	5:45	19:50	14.08	0.65	3 MONTH						
5	8/13/2013	9:35	12:35	3.00	0.11	***						
6	8/22/2013	10:25	13:10	2.75	0.66	6 MONTH	8/22/2013	11:00	11:40	0.67	1.543	0.043
7	8/26/2013 - 8/27/20	20:00	6:25	10.42	0.65	1 MONTH						
										TOTAL MONTH FLOW VOLUME =		0.043

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG East Rock & Everit
 LOCATION: 013
 NPDES Permit Outfall #:
 MONTH: August YEAR: 2013
 Average Low Temp: 63
 Average High Temp: 80
 Measured Rainfall: 2.59
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	8/1/2013 - 8/2/2013	14:45	2:20	11.58	0.40	***						
2	8/3/2013	6:10	9:45	3.58	0.04	***						
3	8/8/2013	2:15	3:55	1.67	0.08	***						
4	8/9/2013	5:45	19:50	14.08	0.65	3 MONTH						
5	8/13/2013	9:35	12:35	3.00	0.11	***						
6	8/22/2013	10:25	13:10	2.75	0.66	6 MONTH	8/22/2013	10:55	11:20	0.42	2.569	0.045
7	8/26/2013 - 8/27/20	20:00	6:25	10.42	0.65	1 MONTH						

TOTAL MONTH FLOW VOLUME = 0.045

Note: Overflow occurs at 25"
 Meter removed on 8/26

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 15 James Street
 LOCATION: 015
 NPDES Permit Outfall #:
 MONTH: August YEAR: 2013
 Average Low Temp: 63
 Average High Temp: 80
 Measured Rainfall: 2.59
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	8/1/2013 - 8/2/2013	14:45	2:20	11.58	0.40	***						
2	8/3/2013	6:10	9:45	3.58	0.04	***						
3	8/8/2013	2:15	3:55	1.67	0.08	***						
4	8/9/2013	5:45	19:50	14.08	0.65	3 MONTH	8/9/2013	15:00	15:40	0.67	0.035	0.001
5	8/13/2013	9:35	12:35	3.00	0.11	***						
6	8/22/2013	10:25	13:10	2.75	0.66	6 MONTH	8/22/2013	11:05	11:55	0.83	0.514	0.018
7	8/26/2013 - 8/27/20	20:00	6:25	10.42	0.65	1 MONTH						

TOTAL MONTH FLOW VOLUME = 0.019

Note: Overflow can occur with DS sewer depth reaches 40.5"
 Expected capacity of siphon is between 24 and 30 MGD.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Int. River & Poplar
 LOCATION: 016
 NPDES Permit Outfall #:
 MONTH: August YEAR: 2013
 Average Low Temp: 63
 Average High Temp: 80
 Measured Rainfall: 2.59
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	8/1/2013 - 8/2/2013	14:45	2:20	11.58	0.40	***						
2	8/3/2013	6:10	9:45	3.58	0.04	***						
3	8/8/2013	2:15	3:55	1.67	0.08	***						
4	8/9/2013	5:45	19:50	14.08	0.65	3 MONTH	8/9/2013	14:45	15:25	0.67	7.687	0.214
5	8/13/2013	9:35	12:35	3.00	0.11	***						
6	8/22/2013	10:25	13:10	2.75	0.66	6 MONTH	8/22/2013	10:45	11:45	1.00	12.987	0.541
7	8/26/2013 - 8/27/20	20:00	6:25	10.42	0.65	1 MONTH	8/27/2013	1:05	5:05	4.00	0.514	0.086
TOTAL MONTH												
FLOW VOLUME =											0.841	

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 279 Front Street
 LOCATION: 019
 NPDES Permit Outfall #:
 MONTH: August YEAR: 2013
 Average Low Temp: 63
 Average High Temp: 80
 Measured Rainfall: 2.59
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	8/1/2013 - 8/2/2013	14:45	2:20	11.58	0.40	***						
2	8/3/2013	6:10	9:45	3.58	0.04	***						
3	8/8/2013	2:15	3:55	1.67	0.08	***						
4	8/9/2013	5:45	19:50	14.08	0.65	3 MONTH	8/9/2013	15:05	15:20	0.25	0.082	0.001
5	8/13/2013	9:35	12:35	3.00	0.11	***						
6	8/22/2013	10:25	13:10	2.75	0.66	6 MONTH	8/22/2013	11:10	11:30	0.33	0.185	0.003
7	8/26/2013 - 8/27/20	20:00	6:25	10.42	0.65	1 MONTH						

TOTAL MONTH FLOW VOLUME = 0.004

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Clifton and Quinnipiac
 LOCATION: 020
 NPDES Permit Outfall #:
 MONTH: August YEAR: 2013
 Average Low Temp: 63
 Average High Temp: 80
 Measured Rainfall: 2.59
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	8/1/2013 - 8/2/2013	14:45	2:20	11.58	0.40	***						
2	8/3/2013	6:10	9:45	3.58	0.04	***						
3	8/8/2013	2:15	3:55	1.67	0.08	***						
4	8/9/2013	5:45	19:50	14.08	0.65	3 MONTH						
5	8/13/2013	9:35	12:35	3.00	0.11	***						
6	8/22/2013	10:25	13:10	2.75	0.66	6 MONTH						
7	8/26/2013 - 8/27/20	20:00	6:25	10.42	0.65	1 MONTH						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when level is 31" in the interceptor.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 638 Long Wharf Drive
 LOCATION: 021
 NPDES Permit Outfall #:
 MONTH: August YEAR: 2013
 Average Low Temp: 63
 Average High Temp: 80
 Measured Rainfall: 2.59
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	8/1/2013 - 8/2/2013	14:45	2:20	11.58	0.40	***						
2	8/3/2013	6:10	9:45	3.58	0.04	***						
3	8/8/2013	2:15	3:55	1.67	0.08	***						
4	8/9/2013	5:45	19:50	14.08	0.65	3 MONTH						
5	8/13/2013	9:35	12:35	3.00	0.11	***						
6	8/22/2013	10:25	13:10	2.75	0.66	6 MONTH	8/22/2013	11:25	13:00	1.58	3.186	0.210
7	8/26/2013 - 8/27/20	20:00	6:25	10.42	0.65	1 MONTH						

TOTAL MONTH FLOW VOLUME = 0.210

Note: Meter Installed 11/15/2012

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Sea Street @ South Water Street
 LOCATION: 024
 NPDES Permit Outfall #:
 MONTH: August YEAR: 2013
 Average Low Temp: 63
 Average High Temp: 80
 Measured Rainfall: 2.59
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	8/1/2013 - 8/2/2013	14:45	2:20	11.58	0.40	***						
2	8/3/2013	6:10	9:45	3.58	0.04	***						
3	8/8/2013	2:15	3:55	1.67	0.08	***						
4	8/9/2013	5:45	19:50	14.08	0.65	3 MONTH						
5	8/13/2013	9:35	12:35	3.00	0.11	***						
6	8/22/2013	10:25	13:10	2.75	0.66	6 MONTH						
7	8/26/2013 - 8/27/2013	20:00	6:25	10.42	0.65	1 MONTH						

TOTAL MONTH FLOW VOLUME = 0

Note: Overflow occurs when upstream depth reaches approx. 65" or when downstream reaches approx. 81".

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Intersection of State & N. Front Street
 025
 NPDES Permit Outfall #:
 MONTH: August YEAR: 2013
 Average Low Temp: 63
 Average High Temp: 80
 Measured Rainfall: 2.59
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	8/1/2013 - 8/2/2013	14:45	2:20	11.58	0.40	***						
2	8/3/2013	6:10	9:45	3.58	0.04	***						
3	8/8/2013	2:15	3:55	1.67	0.08	***						
4	8/9/2013	5:45	19:50	14.08	0.65	3 MONTH	No Data					
5	8/13/2013	9:35	12:35	3.00	0.11	***						
6	8/22/2013	10:25	13:10	2.75	0.66	6 MONTH	No Data					
7	8/26/2013 - 8/27/20	20:00	6:25	10.42	0.65	1 MONTH						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when level exceeds 21"
 Meter removed on 8/26

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Int. of Greene Street & St. John Connector
 NPDES Permit Outfall #: Greene
 MONTH: August YEAR: 2013
 Average Low Temp: 63
 Average High Temp: 80
 Measured Rainfall: 2.59
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	8/1/2013 - 8/2/2013	14:45	2:20	11.58	0.40	***						
2	8/3/2013	6:10	9:45	3.58	0.04	***						
3	8/8/2013	2:15	3:55	1.67	0.08	***						
4	8/9/2013	5:45	19:50	14.08	0.65	3 MONTH						
5	8/13/2013	9:35	12:35	3.00	0.11	***						
6	8/22/2013	10:25	13:10	2.75	0.66	6 MONTH						
7	8/26/2013 - 8/27/20	20:00	6:25	10.42	0.65	1 MONTH						

TOTAL MONTH FLOW VOLUME = 0

Note: Overflow occurs when Interceptor level reaches pipe height, 72" Meter removed on 8/26

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG George and Temple
 LOCATION: Regulator 34
 NPDES Permit Outfall #:
 MONTH: August YEAR: 2013
 Average Low Temp: 63
 Average High Temp: 80
 Measured Rainfall: 2.59
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	8/1/2013 - 8/2/2013	14:45	2:20	11.58	0.40	***						
2	8/3/2013	6:10	9:45	3.58	0.04	***						
3	8/8/2013	2:15	3:55	1.67	0.08	***						
4	8/9/2013	5:45	19:50	14.08	0.65	3 MONTH	No Data					
5	8/13/2013	9:35	12:35	3.00	0.11	***						
6	8/22/2013	10:25	13:10	2.75	0.66	6 MONTH	No Data					
7	8/26/2013 - 8/27/20	20:00	6:25	10.42	0.65	1 MONTH						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when influent level reaches ~15".
 Meter removed on 8/26

METER DATA

JULY 2013

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - JULY 2013

MONTHLY RAINFALL SUMMARY

4.24 inches of rain (3.44 inches of rain in a typical month)
 no snow

11 rain events (10 rain events in a typical month)

Two 1 year storms, one 3 month storm, all other storms less than 1 month return frequency

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>
CSO 006	REGS 006 A, 006 B	0	0.000
CSO 005	REG 005	6	0.078
CSO 004	REG 004	5	0.478
CSO 003	REG 003	4	0.668
CSO 024	REG 024	1	0.301
CSO 009	REG 009	2	0.142
CSO 019	REG 019	1	0.018
CSO 016	REG 016	4	1.135
CSO 015	REG 015	2	0.044
CSO 010	REG 010	1	0.060
CSO 011	REGS 010A, 011, 014, 026	0	0.000
CSO 012	REGS 012A, 012B, 028	1	0.042
CSO GREENE	REG GREENE	0	0.000
CSO 025	REGS 025, 034	NO DATA	NO DATA
CSO 021	REG 021	0	0.000
CSO 013	REG 013	1	0.038
CSO 020	REG 020	0	0.000
TOTAL		28	3.004

(22 CSO events in a typical month)

(20.358 MG of CSO volume in a typical month)

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - THROUGH JULY 2013

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>	<u>RAINFALL (IN)</u>	<u>METER MONTHS</u>
CSO 006	REGS 006 A, 006 B	18	6.658	52.22	14
CSO 005	REG 005	50	6.360	52.22	14
CSO 004	REG 004	54	26.216	52.22	14
CSO 003	REG 003	40	27.600	52.22	14
CSO 024	REG 024	13	18.448	46.62	12
CSO 009	REG 009	21	1.884	34.88	10
CSO 019	REG 019	7	1.202	46.62	12
CSO 016	REG 016	32	18.851	40.95	11
CSO 015	REG 015	17	2.754	34.88	10
CSO 010	REG 010	9	1.246	40.95	11
CSO 011	REGS 010A, 011, 014, 026	8	4.809	30.51	8
CSO 012	REGS 012A, 012B, 028	29	10.596	46.62	12
CSO GREENE	REG GREENE	3	0.111	46.62	12
CSO 025	REGS 025, 034	6	4.194	16.19	6
CSO 021	REG 021	15	17.413	31.51	9
CSO 013	REG 013	5	0.080	21.29	5
CSO 020	REG 020	1	0.030	21.29	5
TOTAL		328	148.452	52.22	14

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - TYPICAL YEAR ESTIMATES

CSO NUMBER	REGULATOR NUMBERS	ANNUAL CSO EVENTS	ANNUAL CSO VOLUME (MG)	ANNUAL CSO EVENTS	ANNUAL CSO VOLUME (MG)	MODEL CSO EVENTS	MODEL CSO VOLUME (MG)
		BASED ON RAINFALL ⁽¹⁾	BASED ON RAINFALL ⁽²⁾	BASED ON MONTHS ⁽³⁾	BASED ON MONTHS ⁽⁴⁾		
CSO 006	REGS 006 A, 006 B	14	5.262	15	5.707	27	27.0
CSO 005	REG 005	40	5.026	43	5.451	39	22.0
CSO 004	REG 004	43	20.719	46	22.471	44	65.3
CSO 003	REG 003	32	21.813	34	23.657	28	12.5
CSO 024	REG 024	12	16.331	13	18.448	0	1.9
CSO 009	REG 009	25	2.229	25	2.261	27	8.1
CSO 019	REG 019	6	1.064	7	1.202	7	2.4
CSO 016	REG 016	32	18.998	35	20.565	45	20.4
CSO 015	REG 015	20	3.259	20	3.305	9	4.1
CSO 010	REG 010	9	1.256	10	1.359	6	2.4
CSO 011	REGS 010A, 011, 014, 026	11	6.505	12	7.214	15	26.6
CSO 012	REGS 012A, 012B, 028	26	9.380	29	10.596	8	2.9
CSO GREENE	REG GREENE	3	0.098	3	0.111	NO DATA	NO DATA
CSO 025	REGS 025, 034	15	10.691	12	8.388	6	9.0
CSO 021	REG 021	20	22.807	20	23.217	23	35.1
CSO 013	REG 013	10	0.155	12	0.192	1	0.4
CSO 020	REG 020	2	0.058	2	0.072	8	1.4
TOTAL		306	145.437	325	153.952	293	241.5

- (1) Annual CSO Events Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Events to Date / Rainfall to Date
- (2) Annual CSO Volume (MG) Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Volume (MG) to Date / Rainfall to Date
- (3) Annual CSO Events Based on Months = 12 x CSO Events to Date / Meter Months to Date
- (4) Annual CSO Volume (MG) Based on Months = 12 x CSO Volume (MG) to Date / Meter Months to Date

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Orange Ave. @ Int. of Ella T. Grasso Blvd.
 LOCATION: 003
 NPDES Permit Outfall #:
 MONTH: July YEAR: 2013
 Average Low Temp: 71
 Average High Temp: 86
 Measured Rainfall: 4.24
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/1/2013	13:05	15:25	2.33	0.14	***						
2	7/2/2013	21:55	22:25	0.50	0.05	***						
3	7/9/2013	15:55	16:00	0.08	0.01	***						
4	7/11/2013	7:45	20:45	13.00	1.43	3 MONTH	7/11/2013	8:20	9:15	0.92	1.577	0.060
5	7/12/2013	21:30	21:50	0.33	0.02	***	7/11/2013	20:40	21:20	0.67	1.395	0.039
6	7/13/2013	7:10	14:35	7.42	0.13	***						
7	7/14/2013	19:25	19:35	0.17	0.04	***	7/14/2013	21:25	21:50	0.42	0.121	0.002
8	7/22/2013 - 7/23/2013	23:20	6:25	7.08	1.10	1 YEAR						
9	7/23/2013	17:35	18:20	0.75	0.88	1 YEAR	7/23/2013	3:25	5:05	1.67	8.166	0.567
10	7/25/2013 - 7/26/2013	10:10	7:55	21.75	0.36	***						
11	7/26/2013	14:50	16:20	1.50	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.668

Note: Overflow occurs when Interceptor level reaches 46"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Ella T. Grasso Blvd. - 23 yds North of Legion Ave.
 LOCATION: 004
 NPDES Permit Outfall #:
 MONTH: July YEAR: 2013
 Average Low Temp: 71
 Average High Temp: 86
 Measured Rainfall: 4.24
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/1/2013	13:05	15:25	2.33	0.14	***						
2	7/2/2013	21:55	22:25	0.50	0.05	***						
3	7/9/2013	15:55	16:00	0.08	0.01	***						
4	7/11/2013	7:45	20:45	13.00	1.43	3 MONTH	7/11/2013	8:10	9:35	1.42	1.387	0.082
5	7/12/2013	21:30	21:50	0.33	0.02	***	7/11/2013	20:30	21:35	1.08	1.201	0.054
6	7/13/2013	7:10	14:35	7.42	0.13	***	7/13/2013	21:10	21:55	0.75	0.742	0.023
7	7/14/2013	19:25	19:35	0.17	0.04	***	7/14/2013	21:00	22:10	1.17	1.171	0.057
8	7/22/2013 - 7/23/2013	23:20	6:25	7.08	1.10	1 YEAR						
9	7/23/2013	17:35	18:20	0.75	0.88	1 YEAR	7/23/2013	3:25	5:15	1.83	3.424	0.262
10	7/25/2013 - 7/26/2013	10:10	7:55	21.75	0.36	***						
11	7/26/2013	14:50	16:20	1.50	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.478

Note: Overflow occurs when Interceptor level reaches 35"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Derby Ave. 20 yrds East of Ella T. Grasso Blvd.
 005
 NPDES Permit Outfall #:
 MONTH: July YEAR: 2013
 Average Low Temp: 71
 Average High Temp: 86
 Measured Rainfall: 4.24
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/1/2013	13:05	15:25	2.33	0.14	***						
2	7/2/2013	21:55	22:25	0.50	0.05	***						
3	7/9/2013	15:55	16:00	0.08	0.01	***	7/9/2013	15:55	16:05	0.17	0.112	0.001
4	7/11/2013	7:45	20:45	13.00	1.43	3 MONTH	7/11/2013	8:00	8:15	0.25	0.599	0.006
5	7/12/2013	21:30	21:50	0.33	0.02	***	7/11/2013	20:20	21:00	0.67	0.425	0.012
6	7/13/2013	7:10	14:35	7.42	0.13	***	7/13/2013	20:50	21:25	0.58	0.369	0.009
7	7/14/2013	19:25	19:35	0.17	0.04	***	7/14/2013	20:50	21:00	0.17	0.477	0.003
8	7/22/2013 - 7/23/2013	23:20	6:25	7.08	1.10	1 YEAR	7/23/2013	3:15	4:15	1.00	1.134	0.047
9	7/23/2013	17:35	18:20	0.75	0.88	1 YEAR						
10	7/25/2013 - 7/26/2013	10:10	7:55	21.75	0.36	***						
11	7/26/2013	14:50	16:20	1.50	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.078

Note: Overflow occurs when Interceptor level reaches pipe height, 53.5" or drop-in pipe overwhelms drop-in.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Whalley Ave. 30 yrds from Fitch Street
 006
 NPDES Permit Outfall #:
 MONTH: July YEAR: 2013
 Average Low Temp: 71
 Average High Temp: 86
 Measured Rainfall: 4.24
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/1/2013	13:05	15:25	2.33	0.14	***						
2	7/2/2013	21:55	22:25	0.50	0.05	***						
3	7/9/2013	15:55	16:00	0.08	0.01	***						
4	7/11/2013	7:45	20:45	13.00	1.43	3 MONTH						
5	7/12/2013	21:30	21:50	0.33	0.02	***						
6	7/13/2013	7:10	14:35	7.42	0.13	***						
7	7/14/2013	19:25	19:35	0.17	0.04	***						
8	7/22/2013 - 7/23/2013	23:20	6:25	7.08	1.10	1 YEAR						
9	7/23/2013	17:35	18:20	0.75	0.88	1 YEAR						
10	7/25/2013 - 7/26/2013	10:10	7:55	21.75	0.36	***						
11	7/26/2013	14:50	16:20	1.50	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 27"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Grand Avenue & James Street
 LOCATION: 009
 NPDES Permit Outfall #:
 MONTH: July YEAR: 2013
 Average Low Temp: 71
 Average High Temp: 86
 Measured Rainfall: 4.24
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/1/2013	13:05	15:25	2.33	0.14	***						
2	7/2/2013	21:55	22:25	0.50	0.05	***						
3	7/9/2013	15:55	16:00	0.08	0.01	***						
4	7/11/2013	7:45	20:45	13.00	1.43	3 MONTH	7/11/2013	8:10	8:50	0.67	0.167	0.005
5	7/12/2013	21:30	21:50	0.33	0.02	***						
6	7/13/2013	7:10	14:35	7.42	0.13	***						
7	7/14/2013	19:25	19:35	0.17	0.04	***						
8	7/22/2013 - 7/23/2013	23:20	6:25	7.08	1.10	1 YEAR	7/23/2013	3:20	4:40	1.33	2.466	0.137
9	7/23/2013	17:35	18:20	0.75	0.88	1 YEAR						
10	7/25/2013 - 7/26/2013	10:10	7:55	21.75	0.36	***						
11	7/26/2013	14:50	16:20	1.50	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.142

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 547 East Street
 LOCATION: 010
 NPDES Permit Outfall #:
 MONTH: July YEAR: 2013
 Average Low Temp: 71
 Average High Temp: 86
 Measured Rainfall: 4.24
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/1/2013	13:05	15:25	2.33	0.14	***						
2	7/2/2013	21:55	22:25	0.50	0.05	***						
3	7/9/2013	15:55	16:00	0.08	0.01	***						
4	7/11/2013	7:45	20:45	13.00	1.43	3 MONTH						
5	7/12/2013	21:30	21:50	0.33	0.02	***						
6	7/13/2013	7:10	14:35	7.42	0.13	***						
7	7/14/2013	19:25	19:35	0.17	0.04	***						
8	7/22/2013 - 7/23/20	23:20	6:25	7.08	1.10	1 YEAR	7/23/2013	3:50	4:35	0.75	3.200	0.060
9	7/23/2013	17:35	18:20	0.75	0.88	1 YEAR						
10	7/25/2013 - 7/26/20	10:10	7:55	21.75	0.36	***						
11	7/26/2013	14:50	16:20	1.50	0.08	***						

TOTAL MONTH
 FLOW VOLUME = 0.060

Note: Overflow occurs when sewer level reaches 54"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011
 NPDES Permit Outfall #:
 MONTH: July YEAR: 2013
 Average Low Temp: 71
 Average High Temp: 86
 Measured Rainfall: 4.24
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/1/2013	13:05	15:25	2.33	0.14	***						
2	7/2/2013	21:55	22:25	0.50	0.05	***						
3	7/9/2013	15:55	16:00	0.08	0.01	***						
4	7/11/2013	7:45	20:45	13.00	1.43	3 MONTH						
5	7/12/2013	21:30	21:50	0.33	0.02	***						
6	7/13/2013	7:10	14:35	7.42	0.13	***						
7	7/14/2013	19:25	19:35	0.17	0.04	***						
8	7/22/2013 - 7/23/20	23:20	6:25	7.08	1.10	1 YEAR						
9	7/23/2013	17:35	18:20	0.75	0.88	1 YEAR						
10	7/25/2013 - 7/26/20	10:10	7:55	21.75	0.36	***						
11	7/26/2013	14:50	16:20	1.50	0.08	***						

TOTAL MONTH FLOW VOLUME = 0

Note: Sum of 10A, 11, and 14

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 75 Mitchell Drive
 LOCATION: 012
 NPDES Permit Outfall #:
 MONTH: July YEAR: 2013
 Average Low Temp: 71
 Average High Temp: 86
 Measured Rainfall: 4.24
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/1/2013	13:05	15:25	2.33	0.14	***						
2	7/2/2013	21:55	22:25	0.50	0.05	***						
3	7/9/2013	15:55	16:00	0.08	0.01	***						
4	7/11/2013	7:45	20:45	13.00	1.43	3 MONTH						
5	7/12/2013	21:30	21:50	0.33	0.02	***						
6	7/13/2013	7:10	14:35	7.42	0.13	***						
7	7/14/2013	19:25	19:35	0.17	0.04	***						
8	7/22/2013 - 7/23/20	23:20	6:25	7.08	1.10	1 YEAR	7/23/2013	3:40	4:30	0.83	1.210	0.042
9	7/23/2013	17:35	18:20	0.75	0.88	1 YEAR						
10	7/25/2013 - 7/26/20	10:10	7:55	21.75	0.36	***						
11	7/26/2013	14:50	16:20	1.50	0.08	***						

TOTAL MONTH
 FLOW VOLUME = 0.042

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG East Rock & Everit
 LOCATION: 013
 NPDES Permit Outfall #:
 MONTH: July YEAR: 2013
 Average Low Temp: 71
 Average High Temp: 86
 Measured Rainfall: 4.24
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/1/2013	13:05	15:25	2.33	0.14	***						
2	7/2/2013	21:55	22:25	0.50	0.05	***						
3	7/9/2013	15:55	16:00	0.08	0.01	***						
4	7/11/2013	7:45	20:45	13.00	1.43	3 MONTH						
5	7/12/2013	21:30	21:50	0.33	0.02	***						
6	7/13/2013	7:10	14:35	7.42	0.13	***						
7	7/14/2013	19:25	19:35	0.17	0.04	***						
8	7/22/2013 - 7/23/20	23:20	6:25	7.08	1.10	1 YEAR	7/23/2013	3:40	4:05	0.42	2.211	0.038
9	7/23/2013	17:35	18:20	0.75	0.88	1 YEAR						
10	7/25/2013 - 7/26/20	10:10	7:55	21.75	0.36	***						
11	7/26/2013	14:50	16:20	1.50	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.038

Note: Overflow occurs at 25"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 15 James Street
 LOCATION: 015
 NPDES Permit Outfall #:
 MONTH: July YEAR: 2013
 Average Low Temp: 71
 Average High Temp: 86
 Measured Rainfall: 4.24
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/1/2013	13:05	15:25	2.33	0.14	***						
2	7/2/2013	21:55	22:25	0.50	0.05	***						
3	7/9/2013	15:55	16:00	0.08	0.01	***						
4	7/11/2013	7:45	20:45	13.00	1.43	3 MONTH						
5	7/12/2013	21:30	21:50	0.33	0.02	***						
6	7/13/2013	7:10	14:35	7.42	0.13	***						
7	7/14/2013	19:25	19:35	0.17	0.04	***	7/14/2013	21:15	21:50	0.58	0.412	0.010
8	7/22/2013 - 7/23/20	23:20	6:25	7.08	1.10	1 YEAR	7/23/2013	3:30	4:40	1.17	0.694	0.034
9	7/23/2013	17:35	18:20	0.75	0.88	1 YEAR						
10	7/25/2013 - 7/26/20	10:10	7:55	21.75	0.36	***						
11	7/26/2013	14:50	16:20	1.50	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.044

Note: Overflow can occur with DS sewer depth reaches 40.5"
 Expected capacity of siphon is between 24 and 30 MGD.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Int. River & Poplar
 LOCATION: 016
 NPDES Permit Outfall #:
 MONTH: July YEAR: 2013
 Average Low Temp: 71
 Average High Temp: 86
 Measured Rainfall: 4.24
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/1/2013	13:05	15:25	2.33	0.14	***						
2	7/2/2013	21:55	22:25	0.50	0.05	***						
3	7/9/2013	15:55	16:00	0.08	0.01	***						
4	7/11/2013	7:45	20:45	13.00	1.43	3 MONTH	7/11/2013	8:10	8:55	0.75	2.635	0.082
5	7/12/2013	21:30	21:50	0.33	0.02	***						
6	7/13/2013	7:10	14:35	7.42	0.13	***						
7	7/14/2013	19:25	19:35	0.17	0.04	***	7/14/2013	21:00	22:20	1.33	2.223	0.124
8	7/22/2013 - 7/23/20	23:20	6:25	7.08	1.10	1 YEAR	7/23/2013	3:10	5:05	1.92	10.384	0.829
9	7/23/2013	17:35	18:20	0.75	0.88	1 YEAR	7/23/2013	18:05	19:10	1.08	2.217	0.100
10	7/25/2013 - 7/26/20	10:10	7:55	21.75	0.36	***						
11	7/26/2013	14:50	16:20	1.50	0.08	***						

TOTAL MONTH FLOW VOLUME = 1.135

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 279 Front Street
 LOCATION: 019
 NPDES Permit Outfall #:
 MONTH: July YEAR: 2013
 Average Low Temp: 71
 Average High Temp: 86
 Measured Rainfall: 4.24
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/1/2013	13:05	15:25	2.33	0.14	***						
2	7/2/2013	21:55	22:25	0.50	0.05	***						
3	7/9/2013	15:55	16:00	0.08	0.01	***						
4	7/11/2013	7:45	20:45	13.00	1.43	3 MONTH						
5	7/12/2013	21:30	21:50	0.33	0.02	***						
6	7/13/2013	7:10	14:35	7.42	0.13	***						
7	7/14/2013	19:25	19:35	0.17	0.04	***						
8	7/22/2013 - 7/23/20	23:20	6:25	7.08	1.10	1 YEAR						
9	7/23/2013	17:35	18:20	0.75	0.88	1 YEAR	7/23/2013	3:40	4:25	0.75	0.579	0.018
10	7/25/2013 - 7/26/20	10:10	7:55	21.75	0.36	***						
11	7/26/2013	14:50	16:20	1.50	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.018

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Clifton and Quinnipiac
 LOCATION: 020
 NPDES Permit Outfall #:
 MONTH: July YEAR: 2013
 Average Low Temp: 71
 Average High Temp: 86
 Measured Rainfall: 4.24
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/1/2013	13:05	15:25	2.33	0.14	***						
2	7/2/2013	21:55	22:25	0.50	0.05	***						
3	7/9/2013	15:55	16:00	0.08	0.01	***						
4	7/11/2013	7:45	20:45	13.00	1.43	3 MONTH						
5	7/12/2013	21:30	21:50	0.33	0.02	***						
6	7/13/2013	7:10	14:35	7.42	0.13	***						
7	7/14/2013	19:25	19:35	0.17	0.04	***						
8	7/22/2013 - 7/23/20	23:20	6:25	7.08	1.10	1 YEAR						
9	7/23/2013	17:35	18:20	0.75	0.88	1 YEAR						
10	7/25/2013 - 7/26/20	10:10	7:55	21.75	0.36	***						
11	7/26/2013	14:50	16:20	1.50	0.08	***						

TOTAL MONTH
 FLOW VOLUME = 0.000

Note: Overflow occurs when level is 31" in the interceptor.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 638 Long Wharf Drive
 LOCATION: 021
 NPDES Permit Outfall #:
 MONTH: July YEAR: 2013
 Average Low Temp: 71
 Average High Temp: 86
 Measured Rainfall: 4.24
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/1/2013	13:05	15:25	2.33	0.14	***						
2	7/2/2013	21:55	22:25	0.50	0.05	***						
3	7/9/2013	15:55	16:00	0.08	0.01	***						
4	7/11/2013	7:45	20:45	13.00	1.43	3 MONTH						
5	7/12/2013	21:30	21:50	0.33	0.02	***						
6	7/13/2013	7:10	14:35	7.42	0.13	***						
7	7/14/2013	19:25	19:35	0.17	0.04	***						
8	7/22/2013 - 7/23/20	23:20	6:25	7.08	1.10	1 YEAR						
9	7/23/2013	17:35	18:20	0.75	0.88	1 YEAR						
10	7/25/2013 - 7/26/20	10:10	7:55	21.75	0.36	***						
11	7/26/2013	14:50	16:20	1.50	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Meter Installed 11/15/2012

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Sea Street @ South Water Street
 LOCATION: 024
 NPDES Permit Outfall #:
 MONTH: July YEAR: 2013
 Average Low Temp: 71
 Average High Temp: 86
 Measured Rainfall: 4.24
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/1/2013	13:05	15:25	2.33	0.14	***						
2	7/2/2013	21:55	22:25	0.50	0.05	***						
3	7/9/2013	15:55	16:00	0.08	0.01	***						
4	7/11/2013	7:45	20:45	13.00	1.43	3 MONTH						
5	7/12/2013	21:30	21:50	0.33	0.02	***						
6	7/13/2013	7:10	14:35	7.42	0.13	***						
7	7/14/2013	19:25	19:35	0.17	0.04	***						
8	7/22/2013 - 7/23/2013	23:20	6:25	7.08	1.10	1 YEAR	7/23/2013	3:35	4:05	0.50	14.453	0.301
9	7/23/2013	17:35	18:20	0.75	0.88	1 YEAR						
10	7/25/2013 - 7/26/2013	10:10	7:55	21.75	0.36	***						
11	7/26/2013	14:50	16:20	1.50	0.08	***						

TOTAL MONTH
 FLOW VOLUME = 0.301

Note: Overflow occurs when upstream depth reaches approx. 65" or when downstream reaches approx. 81".

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Intersection of State & N. Front Street
 LOCATION: 025
 NPDES Permit Outfall #:
 MONTH: July YEAR: 2013
 Average Low Temp: 71
 Average High Temp: 86
 Measured Rainfall: 4.24
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/1/2013	13:05	15:25	2.33	0.14	***	NO DATA					
2	7/2/2013	21:55	22:25	0.50	0.05	***						
3	7/9/2013	15:55	16:00	0.08	0.01	***						
4	7/11/2013	7:45	20:45	13.00	1.43	3 MONTH						
5	7/12/2013	21:30	21:50	0.33	0.02	***						
6	7/13/2013	7:10	14:35	7.42	0.13	***						
7	7/14/2013	19:25	19:35	0.17	0.04	***						
8	7/22/2013 - 7/23/20	23:20	6:25	7.08	1.10	1 YEAR						
9	7/23/2013	17:35	18:20	0.75	0.88	1 YEAR						
10	7/25/2013 - 7/26/20	10:10	7:55	21.75	0.36	***						
11	7/26/2013	14:50	16:20	1.50	0.08	***						

TOTAL MONTH FLOW VOLUME = 0

Note: Overflow occurs when level exceeds 21"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Int. of Greene Street & St. John Connector
 LOCATION: Greene
 NPDES Permit Outfall #:
 MONTH: July YEAR: 2013
 Average Low Temp: 71
 Average High Temp: 86
 Measured Rainfall: 4.24
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/1/2013	13:05	15:25	2.33	0.14	***						
2	7/2/2013	21:55	22:25	0.50	0.05	***						
3	7/9/2013	15:55	16:00	0.08	0.01	***						
4	7/11/2013	7:45	20:45	13.00	1.43	3 MONTH						
5	7/12/2013	21:30	21:50	0.33	0.02	***						
6	7/13/2013	7:10	14:35	7.42	0.13	***						
7	7/14/2013	19:25	19:35	0.17	0.04	***						
8	7/22/2013 - 7/23/20	23:20	6:25	7.08	1.10	1 YEAR						
9	7/23/2013	17:35	18:20	0.75	0.88	1 YEAR						
10	7/25/2013 - 7/26/20	10:10	7:55	21.75	0.36	***						
11	7/26/2013	14:50	16:20	1.50	0.08	***						

TOTAL MONTH FLOW VOLUME = 0

Note: Overflow occurs when Interceptor level reaches pipe height, 72"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG George and Temple
 LOCATION: Regulator 34
 NPDES Permit Outfall #:
 MONTH: July YEAR: 2013
 Average Low Temp: 71
 Average High Temp: 86
 Measured Rainfall: 4.24
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	7/1/2013	13:05	15:25	2.33	0.14	***						
2	7/2/2013	21:55	22:25	0.50	0.05	***						
3	7/9/2013	15:55	16:00	0.08	0.01	***						
4	7/11/2013	7:45	20:45	13.00	1.43	3 MONTH	NO DATA					
5	7/12/2013	21:30	21:50	0.33	0.02	***						
6	7/13/2013	7:10	14:35	7.42	0.13	***						
7	7/14/2013	19:25	19:35	0.17	0.04	***						
8	7/22/2013 - 7/23/20	23:20	6:25	7.08	1.10	1 YEAR	NO DATA					
9	7/23/2013	17:35	18:20	0.75	0.88	1 YEAR						
10	7/25/2013 - 7/26/20	10:10	7:55	21.75	0.36	***						
11	7/26/2013	14:50	16:20	1.50	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when influent level reaches ~15".

METER DATA

JUNE 2013

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - JUNE 2013

MONTHLY RAINFALL SUMMARY

10.08 inches of rain (3.44 inches of rain in a typical month)
 no snow
 9 rain events (10 rain events in a typical month)
 One 5 year storm, one 1 year storm, two 3 month storms, all other storms less than 1 month return frequency

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>
CSO 006	REGS 006 A, 006 B	5	1,443
CSO 005	REG 005	6	1,396
CSO 004	REG 004	7	4,678
CSO 003	REG 003	7	12,383
CSO 024	REG 024	1	2,979
CSO 009	REG 009	7	0,985
CSO 019	REG 019	2	0,099
CSO 016	REG 016	7	5,532
CSO 015	REG 015	6	1,404
CSO 010	REG 010	1	0,514
CSO 011	REGS 010A, 011, 014, 026	4	4,824
CSO 012	REGS 012A, 012B, 028	6	0,497
CSO GREENE	REG GREENE	0	0,000
CSO 025	REGS 025, 034	0	0,000
CSO 021	REG 021	5	8,600
CSO 013	REG 013	4	0,042
CSO 020	REG 020	1	0,030
TOTAL		69	45,406
	(22 CSO events in a typical month)		(20,358 MG of CSO volume in a typical month)

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - THROUGH JUNE 2013

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>	<u>RAINFALL (IN)</u>	<u>METER MONTHS</u>
CSO 006	REGS 006 A, 006 B	18	6.658	47.98	13
CSO 005	REG 005	44	6.282	47.98	13
CSO 004	REG 004	49	25.738	47.98	13
CSO 003	REG 003	36	26.932	47.98	13
CSO 024	REG 024	12	18.147	42.38	11
CSO 009	REG 009	19	1.742	30.64	9
CSO 019	REG 019	6	1.184	42.38	11
CSO 016	REG 016	28	17.716	36.71	10
CSO 015	REG 015	15	2.710	30.64	9
CSO 010	REG 010	8	1.242	36.71	10
CSO 011	REGS 010A, 011, 014, 026	8	5.478	26.27	7
CSO 012	REGS 012A, 012B, 028	28	10.554	42.38	11
CSO GREENE	REG GREENE	3	0.111	42.38	11
CSO 025	REGS 025, 034	0	0.000	0.00	0
CSO 021	REG 021	15	17.413	27.27	8
CSO 013	REG 013	4	0.042	17.05	4
CSO 020	REG 020	1	0.030	17.05	4
TOTAL		294	141.979	47.98	13

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - TYPICAL YEAR ESTIMATES

CSO NUMBER	REGULATOR NUMBERS	ANNUAL CSO EVENTS	ANNUAL CSO VOLUME (MG)	ANNUAL CSO EVENTS	ANNUAL CSO VOLUME (MG)	MODEL CSO EVENTS	MODEL CSO VOLUME (MG)
		BASED ON RAINFALL ⁽¹⁾	BASED ON RAINFALL ⁽²⁾	BASED ON MONTHS ⁽³⁾	BASED ON MONTHS ⁽⁴⁾		
CSO 006	REGS 006 A, 006 B	15	5.727	17	6.146	27	27.0
CSO 005	REG 005	38	5.403	41	5.799	39	22.0
CSO 004	REG 004	42	22.139	45	23.758	44	65.3
CSO 003	REG 003	31	23.166	33	24.860	28	12.5
CSO 024	REG 024	12	17.672	13	19.797	0	1.9
CSO 009	REG 009	26	2.346	25	2.323	27	8.1
CSO 019	REG 019	6	1.153	7	1.292	7	2.4
CSO 016	REG 016	31	19.917	34	21.259	45	20.4
CSO 015	REG 015	20	3.650	20	3.613	9	4.1
CSO 010	REG 010	9	1.396	10	1.490	6	2.4
CSO 011	REGS 010A, 011, 014, 026	13	8.606	14	9.391	15	26.6
CSO 012	REGS 012A, 012B, 028	27	10.278	31	11.513	8	2.9
CSO GREENE	REG GREENE	3	0.108	3	0.121	NO DATA	NO DATA
CSO 025	REGS 025, 034	0	0.000	0	0.000	6	9.0
CSO 021	REG 021	23	26.353	23	26.120	23	35.1
CSO 013	REG 013	10	0.102	12	0.126	1	0.4
CSO 020	REG 020	2	0.073	3	0.090	8	1.4
TOTAL		296	147.913	314	157.482	293	241.5

- (1) Annual CSO Events Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Events to Date / Rainfall to Date
- (2) Annual CSO Volume (MG) Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Volume (MG) to Date / Rainfall to Date
- (3) Annual CSO Events Based on Months = 12 x CSO Events to Date / Meter Months to Date
- (4) Annual CSO Volume (MG) Based on Months = 12 x CSO Volume (MG) to Date / Meter Months to Date

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Orange Ave. @ Int. of Ella T. Grasso Blvd.
 LOCATION: 003
 NPDES Permit Outfall #:
 MONTH: June YEAR: 2013
 Average Low Temp: 61
 Average High Temp: 78
 Measured Rainfall: 10.08
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/3/2013	2:15	11:25	9.17	0.96	1 YEAR	6/3/2013	9:55	11:55	2.00	6.038	0.503
2	6/6/2013 - 6/8/2013	19:35	4:25	32.83	4.96	5 YEAR	6/7/2013 - 6/8/2013	11:20	5:35	18.25	9.632	7.325
3	6/10/2012 - 6/11/2013	15:30	18:10	26.67	1.74	3 MONTH	6/10/2013 - 6/11/2013	20:00	19:35	23.58	1.931	1.898
4	6/13/2013 - 6/14/2013	9:00	20:10	35.17	1.79	3 MONTH	6/13/2013 - 6/14/2013	11:15	4:25	17.17	2.399	1.716
5	6/17/2013	14:25	19:15	4.83	0.07	***	6/17/2013	19:30	20:00	0.50	1.569	0.033
6	6/18/2013	17:15	22:35	5.33	0.35	***	6/18/2013	17:50	20:05	2.25	7.813	0.732
7	6/26/2013	19:50	20:10	0.33	0.02	***						
8	6/27/2013 - 6/28/2013	22:40	0:55	2.25	0.18	***	6/27/2013 - 6/28/2013	23:10	0:40	1.50	2.819	0.176
9	6/28/2013	23:25	23:30	0.08	0.01	***						

TOTAL MONTH
 FLOW VOLUME = 12.383

Note: Overflow occurs when Interceptor level reaches 46"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Derby Ave. 20 yrds East of Ella T. Grasso Blvd.
 LOCATION: 005
 NPDES Permit Outfall #:
 MONTH: June YEAR: 2013
 Average Low Temp: 61
 Average High Temp: 78
 Measured Rainfall: 10.08
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/3/2013	2:15	11:25	9.17	0.96	1 YEAR	6/3/2013	9:40	10:50	1.17	1.372	0.067
2	6/6/2013 - 6/8/2013	19:35	4:25	32.83	4.96	5 YEAR	6/7/2013 - 6/8/2013	12:40	4:45	16.08	1.270	0.851
3	6/10/2012 - 6/11/2013	15:30	18:10	26.67	1.74	3 MONTH	6/10/2013 - 6/11/2013	19:30	18:45	23.25	0.148	0.144
4	6/13/2013 - 6/14/2013	9:00	20:10	35.17	1.79	3 MONTH	6/13/2013 - 6/14/2013	9:50	6:00	20.17	0.132	0.111
5	6/17/2013	14:25	19:15	4.83	0.07	***						
6	6/18/2013	17:15	22:35	5.33	0.35	***	6/18/2013	17:15	18:55	1.67	2.842	0.197
7	6/26/2013	19:50	20:10	0.33	0.02	***						
8	6/27/2013 - 6/28/2013	22:40	0:55	2.25	0.18	***	6/27/2013 - 6/28/2013	23:00	0:20	1.33	0.466	0.026
9	6/28/2013	23:25	23:30	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 1.396

Note: Overflow occurs when Interceptor level reaches pipe height, 53.5" or drop-in pipe overwhelms drop-in.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Whalley Ave. 30 yds from Fitch Street
 LOCATION: 006
 NPDES Permit Outfall #:
 MONTH: June YEAR: 2013
 Average Low Temp: 61
 Average High Temp: 78
 Measured Rainfall: 10.08
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/3/2013	2:15	11:25	9.17	0.96	1 YEAR	6/3/2013	10:00	10:45	0.75	#REF!	#REF!
2	6/6/2013 - 6/8/2013	19:35	4:25	32.83	4.96	5 YEAR	6/7/2013- 6/8/2013	18:10	14:45	20.58	#REF!	#REF!
3	6/10/2012 - 6/11/2013	15:30	18:10	26.67	1.74	3 MONTH	6/11/2013	5:05	19:10	14.08	#REF!	#REF!
4	6/13/2013 - 6/14/2013	9:00	20:10	35.17	1.79	3 MONTH	6/13/2013 - 6/14/2013	22:25	16:30	18.08	#REF!	#REF!
5	6/17/2013	14:25	19:15	4.83	0.07	***						
6	6/18/2013	17:15	22:35	5.33	0.35	***	6/18/2013	17:40	19:55	2.25	#REF!	#REF!
7	6/26/2013	19:50	20:10	0.33	0.02	***						
8	6/27/2013 - 6/28/2013	22:40	0:55	2.25	0.18	***						
9	6/28/2013	23:25	23:30	0.08	0.01	***						

TOTAL MONTH
 FLOW VOLUME = #REF!

Note: Overflow occurs when Interceptor level reaches 27"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Grand Avenue & James Street
 LOCATION: 009
 NPDES Permit Outfall #:
 MONTH: June YEAR: 2013
 Average Low Temp: 61
 Average High Temp: 78
 Measured Rainfall: 10.08
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/3/2013	2:15	11:25	9.17	0.96	1 YEAR	6/3/2013	9:45	11:20	1.58	1.228	0.081
2	6/6/2013 - 6/8/2013	19:35	4:25	32.83	4.96	5 YEAR	6/7/2013 - 6/8/2013	13:10	4:50	15.66	1.051	0.686
3	6/10/2013 - 6/11/2013	15:30	18:10	26.67	1.74	3 MONTH	6/10/2013 - 6/11/2013	19:55	18:45	22.83	0.072	0.069
4	6/13/2013 - 6/14/2013	9:00	20:10	35.17	1.79	3 MONTH	6/13/2013 - 6/14/2013	10:50	6:00	19.17	0.054	0.044
5	6/17/2013	14:25	19:15	4.83	0.07	***	6/17/2013	18:55	20:30	1.58	1.126	0.074
6	6/18/2013	17:15	22:35	5.33	0.35	***	6/18/2013	17:20	18:25	1.08	0.653	0.029
7	6/26/2013	19:50	20:10	0.33	0.02	***						
8	6/27/2013 - 6/28/2013	22:40	0:55	2.25	0.18	***	6/27/2013	23:10	23:30	0.33	0.189	0.003
9	6/28/2013	23:25	23:30	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 0.985

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 547 East Street
 LOCATION: 010
 NPDES Permit Outfall #:
 MONTH: June YEAR: 2013
 Average Low Temp: 61
 Average High Temp: 78
 Measured Rainfall: 10.08
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/3/2013	2:15	11:25	9.17	0.96	1 YEAR	6/7/13 - 6/8/13	19:10	0:35	5.42	2.276	0.514
2	6/6/2013 - 6/8/2013	19:35	4:25	32.83	4.96	5 YEAR						
3	6/10/2012 - 6/11/20	15:30	18:10	26.67	1.74	3 MONTH						
4	6/13/2013 - 6/14/20	9:00	20:10	35.17	1.79	3 MONTH						
5	6/17/2013	14:25	19:15	4.83	0.07	***						
6	6/18/2013	17:15	22:35	5.33	0.35	***						
7	6/26/2013	19:50	20:10	0.33	0.02	***						
8	6/27/2013 - 6/28/20	22:40	0:55	2.25	0.18	***						
9	6/28/2013	23:25	23:30	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 0.514

Note: Overflow occurs when sewer level reaches 57"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 547 East Street
 LOCATION: 010A
 NPDES Permit Outfall #:
 MONTH: June YEAR: 2013
 Average Low Temp: 61
 Average High Temp: 78
 Measured Rainfall: 10.08
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/3/2013	2:15	11:25	9.17	0.96	1 YEAR						
2	6/6/2013 - 6/8/2013	19:35	4:25	32.83	4.96	5 YEAR	6/7/13 - 6/8/13	18:30	4:45	10.25	1.623	0.693
3	6/10/2012 - 6/11/20	15:30	18:10	26.67	1.74	3 MONTH						
4	6/13/2013 - 6/14/20	9:00	20:10	35.17	1.79	3 MONTH						
5	6/17/2013	14:25	19:15	4.83	0.07	***						
6	6/18/2013	17:15	22:35	5.33	0.35	***						
7	6/26/2013	19:50	20:10	0.33	0.02	***						
8	6/27/2013 - 6/28/20	22:40	0:55	2.25	0.18	***						
9	6/28/2013	23:25	23:30	0.08	0.01	***						

TOTAL MONTH
 FLOW VOLUME = 0.693

Note: Overflow occurs when sewer level reaches 52"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011
 NPDES Permit Outfall #:
 MONTH: June YEAR: 2013
 Average Low Temp: 61
 Average High Temp: 78
 Measured Rainfall: 10.08
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/3/2013	2:15	11:25	9.17	0.96	1 YEAR	6/3/2013	10:00	11:00	1.00	4.794	0.200
2	6/6/2013 - 6/8/2013	19:35	4:25	32.83	4.96	5 YEAR	6/7/13 - 6/8/13	18:15	5:00	10.75	9.156	4.101
3	6/10/3012 - 6/11/20	15:30	18:10	26.67	1.74	3 MONTH						
4	6/13/2013 - 6/14/20	9:00	20:10	35.17	1.79	3 MONTH	6/13/2013	22:50	23:55	1.08	5.396	0.244
5	6/17/2013	14:25	19:15	4.83	0.07	***						
6	6/18/2013	17:15	22:35	5.33	0.35	***	6/18/2013	18:00	19:20	1.33	5.027	0.279
7	6/26/2013	19:50	20:10	0.33	0.02	***						
8	6/27/2013 - 6/28/20	22:40	0:55	2.25	0.18	***						
9	6/28/2013	23:25	23:30	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 4.824

Note: Sum of 10A, 11, and 14

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011
 NPDES Permit Outfall #:
 MONTH: June YEAR: 2013
 Average Low Temp: 61
 Average High Temp: 78
 Measured Rainfall: 10.08
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/3/2013	2:15	11:25	9.17	0.96	1 YEAR	6/3/2013	10:00	11:00	1.00	4.794	0.200
2	6/6/2013 - 6/8/2013	19:35	4:25	32.83	4.96	5 YEAR	6/7/13 - 6/8/13	18:15	5:00	10.75	7.608	3.408
3	6/10/3012 - 6/11/20	15:30	18:10	26.67	1.74	3 MONTH						
4	6/13/2013 - 6/14/20	9:00	20:10	35.17	1.79	3 MONTH	6/13/2013	22:50	23:55	1.08	5.396	0.244
5	6/17/2013	14:25	19:15	4.83	0.07	***						
6	6/18/2013	17:15	22:35	5.33	0.35	***	6/18/2013	18:00	19:20	1.33	5.027	0.279
7	6/26/2013	19:50	20:10	0.33	0.02	***						
8	6/27/2013 - 6/28/20	22:40	0:55	2.25	0.18	***						
9	6/28/2013	23:25	23:30	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 4.131

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 75 Mitchell Drive
 LOCATION: 012
 NPDES Permit Outfall #:
 MONTH: June YEAR: 2013
 Average Low Temp: 61
 Average High Temp: 78
 Measured Rainfall: 10.08
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/3/2013	2:15	11:25	9.17	0.96	1 YEAR	6/3/2013	10:00	10:25	0.42	0.481	0.008
2	6/6/2013 - 6/8/2013	19:35	4:25	32.83	4.96	5 YEAR	6/7/2013 - 6/8/2013	18:20	5:20	11.00	0.735	0.337
3	6/10/2012 - 6/11/2013	15:30	18:10	26.67	1.74	3 MONTH	6/11/2013	16:25	18:45	2.33	0.116	0.011
4	6/13/2013 - 6/14/2013	9:00	20:10	35.17	1.79	3 MONTH	6/13/2013 - 6/14/2013	22:20	4:45	6.42	0.197	0.053
5	6/17/2013	14:25	19:15	4.83	0.07	***	6/17/2013	18:55	19:50	0.92	1.335	0.051
6	6/18/2013	17:15	22:35	5.33	0.35	***	6/18/2013	17:40	19:25	1.75	0.507	0.037
7	6/26/2013	19:50	20:10	0.33	0.02	***						
8	6/27/2013 - 6/28/2013	22:40	0:55	2.25	0.18	***						
9	6/28/2013	23:25	23:30	0.08	0.01	***						

TOTAL MONTH
 FLOW VOLUME = 0.497

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG East Rock & Everit
 LOCATION: 013
 NPDES Permit Outfall #:
 MONTH: June YEAR: 2013
 Average Low Temp: 61
 Average High Temp: 78
 Measured Rainfall: 10.08
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/3/2013	2:15	11:25	9.17	0.96	1 YEAR	6/3/2013	9:55	10:05	0.17	0.745	0.005
2	6/6/2013 - 6/8/2013	19:35	4:25	32.83	4.96	5 YEAR	6/7/2013 - 6/8/2013	19:20	0:10	4.83	0.062	0.013
3	6/10/3012 - 6/11/20	15:30	18:10	26.67	1.74	3 MONTH						
4	6/13/2013 - 6/14/20	9:00	20:10	35.17	1.79	3 MONTH						
5	6/17/2013	14:25	19:15	4.83	0.07	***	6/17/2013	18:55	19:10	0.25	1.523	0.016
6	6/18/2013	17:15	22:35	5.33	0.35	***	6/18/2013	17:35	17:50	0.25	0.776	0.008
7	6/26/2013	19:50	20:10	0.33	0.02	***						
8	6/27/2013 - 6/28/20	22:40	0:55	2.25	0.18	***						
9	6/28/2013	23:25	23:30	0.08	0.01	***						

TOTAL MONTH
 FLOW VOLUME = 0.042

Note: Overflow occurs at 25"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 30 Trumbull Street
 LOCATION: 014
 NPDES Permit Outfall #:
 MONTH: June YEAR: 2013
 Average Low Temp: 61
 Average High Temp: 78
 Measured Rainfall: 10.08
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/3/2013	2:15	11:25	9.17	0.96	1 YEAR						
2	6/6/2013 - 6/8/2013	19:35	4:25	32.83	4.96	5 YEAR						
3	6/10/2012 - 6/11/2013	15:30	18:10	26.67	1.74	3 MONTH						
4	6/13/2013 - 6/14/2013	9:00	20:10	35.17	1.79	3 MONTH						
5	6/17/2013	14:25	19:15	4.83	0.07	***						
6	6/18/2013	17:15	22:35	5.33	0.35	***						
7	6/26/2013	19:50	20:10	0.33	0.02	***						
8	6/27/2013 - 6/28/2013	22:40	0:55	2.25	0.18	***						
9	6/28/2013	23:25	23:30	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 0

Note: Overflow occurs when interceptor depth reaches 54"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 15 James Street
 LOCATION: 015
 NPDES Permit Outfall #:
 MONTH: June YEAR: 2013
 Average Low Temp: 61
 Average High Temp: 78
 Measured Rainfall: 10.08
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/3/2013	2:15	11:25	9.17	0.96	1 YEAR	6/3/2013	9:55	11:10	1.25	1.258	0.066
2	6/6/2013 - 6/8/2013	19:35	4:25	32.83	4.96	5 YEAR	6/7/2013 - 6/8/2013	21:50	1:20	9.42	3.571	0.702
3	6/10/3012 - 6/11/20	15:30	18:10	26.67	1.74	3 MONTH	6/11/2013	18:15	18:45	1.83	1.384	0.209
4	6/13/2013 - 6/14/20	9:00	20:10	35.17	1.79	3 MONTH	6/13/2013	22:20	23:25	1.83	1.790	0.101
5	6/17/2013	14:25	19:15	4.83	0.07	***	6/17/2013	19:10	19:55	0.75	4.803	0.150
6	6/18/2013	17:15	22:35	5.33	0.35	***	6/18/2013	18:20	19:25	1.08	3.894	0.176
7	6/26/2013	19:50	20:10	0.33	0.02	***						
8	6/27/2013 - 6/28/20	22:40	0:55	2.25	0.18	***						
9	6/28/2013	23:25	23:30	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 1.404

Note: Overflow can occur with DS sewer depth reaches 40.5"
 Expected capacity of siphon is between 24 and 30 MGD.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Int. River & Poplar
 LOCATION: 016
 NPDES Permit Outfall #:
 MONTH: June YEAR: 2013
 Average Low Temp: 61
 Average High Temp: 78
 Measured Rainfall: 10.08
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/3/2013	2:15	11:25	9.17	0.96	1 YEAR	6/3/2013	9:45	13:45	4.00	4.425	0.737
2	6/6/2013 - 6/8/2013	19:35	4:25	32.83	4.96	5 YEAR	6/7/2013 - 6/8/2013	13:35	5:30	15.92	4.072	2.700
3	6/10/3012 - 6/11/20	15:30	18:10	26.67	1.74	3 MONTH	6/10/2013	19:50	22:45	6.17	2.021	0.644
4	6/13/2013 - 6/14/20	9:00	20:10	35.17	1.79	3 MONTH	6/13/2013	20:10	23:45	5.41	4.848	0.970
5	6/17/2013	14:25	19:15	4.83	0.07	***	6/17/2013	18:55	19:30	0.58	14.558	0.354
6	6/18/2013	17:15	22:35	5.33	0.35	***	6/18/2013	18:00	18:25	0.42	3.885	0.067
7	6/26/2013	19:50	20:10	0.33	0.02	***	6/27/2013 - 6/28/2013	23:05	0:00	0.92	1.559	0.060
8	6/27/2013 - 6/28/20	22:40	0:55	2.25	0.18	***						
9	6/28/2013	23:25	23:30	0.08	0.01	***						

TOTAL MONTH
 FLOW VOLUME = 5.532

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 279 Front Street
 LOCATION: 019
 NPDES Permit Outfall #:
 MONTH: June YEAR: 2013
 Average Low Temp: 61
 Average High Temp: 78
 Measured Rainfall: 10.08
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/3/2013	2:15	11:25	9.17	0.96	1 YEAR	6/3/2013	10:05	10:30	0.42	0.134	0.002
2	6/6/2013 - 6/8/2013	19:35	4:25	32.83	4.96	5 YEAR	6/7/2013 - 6/8/2013	19:10	0:40	5.50	0.423	0.097
3	6/10/3012 - 6/11/20	15:30	18:10	26.67	1.74	3 MONTH						
4	6/13/2013 - 6/14/20	9:00	20:10	35.17	1.79	3 MONTH						
5	6/17/2013	14:25	19:15	4.83	0.07	***						
6	6/18/2013	17:15	22:35	5.33	0.35	***						
7	6/26/2013	19:50	20:10	0.33	0.02	***						
8	6/27/2013 - 6/28/20	22:40	0:55	2.25	0.18	***						
9	6/28/2013	23:25	23:30	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 0.099

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Clifton and Quinnipiac
 LOCATION: 020
 NPDES Permit Outfall #:
 MONTH: June YEAR: 2013
 Average Low Temp: 61
 Average High Temp: 78
 Measured Rainfall: 10.08
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/3/2013	2:15	11:25	9.17	0.96	1 YEAR						
2	6/6/2013 - 6/8/2013	19:35	4:25	32.83	4.96	5 YEAR	6/7/2013 - 6/8/2013	18:35	18:30	23.92	0.028	0.030
3	6/10/2012 - 6/11/20	15:30	18:10	26.67	1.74	3 MONTH						
4	6/13/2013 - 6/14/20	9:00	20:10	35.17	1.79	3 MONTH						
5	6/17/2013	14:25	19:15	4.83	0.07	***						
6	6/18/2013	17:15	22:35	5.33	0.35	***						
7	6/26/2013	19:50	20:10	0.33	0.02	***						
8	6/27/2013 - 6/28/20	22:40	0:55	2.25	0.18	***						
9	6/28/2013	23:25	23:30	0.08	0.01	***						

TOTAL MONTH
 FLOW VOLUME = 0.030

Note: Overflow occurs when level is 31" in the interceptor.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 638 Long Wharf Drive
 LOCATION: 021
 NPDES Permit Outfall #:
 MONTH: June YEAR: 2013
 Average Low Temp: 61
 Average High Temp: 78
 Measured Rainfall: 10.08
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/3/2013	2:15	11:25	9.17	0.96	1 YEAR	6/3/2013	10:25	12:30	2.08	4.107	0.360
2	6/6/2013 - 6/8/2013	19:35	4:25	32.83	4.96	5 YEAR	6/7/2013 - 6/8/2013	13:55	6:25	16.50	9.531	6.552
3	6/10/2012 - 6/11/20	15:30	18:10	26.67	1.74	3 MONTH	6/10/2013 - 6/11/2013	23:25	0:05	0.67	0.384	0.011
4	6/13/2013 - 6/14/20	9:00	20:10	35.17	1.79	3 MONTH	6/13/2013 - 6/14/2013	22:30	6:30	8.00	4.014	1.338
5	6/17/2013	14:25	19:15	4.83	0.07	***						
6	6/18/2013	17:15	22:35	5.33	0.35	***	6/18/2013	18:30	20:15	1.75	4.653	0.339
7	6/26/2013	19:50	20:10	0.33	0.02	***						
8	6/27/2013 - 6/28/20	22:40	0:55	2.25	0.18	***						
9	6/28/2013	23:25	23:30	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 8.600

Note: Meter Installed 11/15/2012

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Sea Street @ South Water Street
 LOCATION: 024
 NPDES Permit Outfall #:
 MONTH: June YEAR: 2013
 Average Low Temp: 61
 Average High Temp: 78
 Measured Rainfall: 10.08
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/3/2013	2:15	11:25	9.17	0.96	1 YEAR						
2	6/6/2013 - 6/8/2013	19:35	4:25	32.83	4.96	5 YEAR	6/7/2013 - 6/8/2013	15:55	4:50	12.90	5.535	2.979
3	6/10/2013 - 6/11/2013	15:30	18:10	26.67	1.74	3 MONTH						
4	6/13/2013 - 6/14/2013	9:00	20:10	35.17	1.79	3 MONTH						
5	6/17/2013	14:25	19:15	4.83	0.07	***						
6	6/18/2013	17:15	22:35	5.33	0.35	***						
7	6/26/2013	19:50	20:10	0.33	0.02	***						
8	6/27/2013 - 6/28/2013	22:40	0:55	2.25	0.18	***						
9	6/28/2013	23:25	23:30	0.08	0.01	***						

TOTAL MONTH
 FLOW VOLUME = 2.979

Note: Overflow occurs when upstream depth reaches approx. 65" or when downstream reaches approx. 81".

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Intersection of State & N. Front Street
 LOCATION: 025
 NPDES Permit Outfall #:
 MONTH: June YEAR: 2013
 Average Low Temp: 61
 Average High Temp: 78
 Measured Rainfall: 10.08
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/3/2013	2:15	11:25	9.17	0.96	1 YEAR	NO DATA					
2	6/6/2013 - 6/8/2013	19:35	4:25	32.83	4.96	5 YEAR						
3	6/10/3012 - 6/11/20	15:30	18:10	26.67	1.74	3 MONTH						
4	6/13/2013 - 6/14/20	9:00	20:10	35.17	1.79	3 MONTH						
5	6/17/2013	14:25	19:15	4.83	0.07	***						
6	6/18/2013	17:15	22:35	5.33	0.35	***						
7	6/26/2013	19:50	20:10	0.33	0.02	***						
8	6/27/2013 - 6/28/20	22:40	0:55	2.25	0.18	***						
9	6/28/2013	23:25	23:30	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 0

Note: Overflow occurs when level exceeds 21"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG George and Temple
 LOCATION: Regulator 34
 NPDES Permit Outfall #: _____
 MONTH: June YEAR: 2013
 Average Low Temp: 61
 Average High Temp: 78
 Measured Rainfall: 10.08
 Measured Snowfall: _____

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/3/2013	2:15	11:25	9.17	0.96	1 YEAR	NO DATA					
2	6/6/2013 - 6/8/2013	19:35	4:25	32.83	4.96	5 YEAR						
3	6/10/2012 - 6/11/20	15:30	18:10	26.67	1.74	3 MONTH						
4	6/13/2013 - 6/14/20	9:00	20:10	35.17	1.79	3 MONTH						
5	6/17/2013	14:25	19:15	4.83	0.07	***						
6	6/18/2013	17:15	22:35	5.33	0.35	***						
7	6/26/2013	19:50	20:10	0.33	0.02	***						
8	6/27/2013 - 6/28/20	22:40	0:55	2.25	0.18	***						
9	6/28/2013	23:25	23:30	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when influent level reaches ~15".

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Int. of Greene Street & St. John Connector
 LOCATION: Greene
 NPDES Permit Outfall #:
 MONTH: June YEAR: 2013
 Average Low Temp: 61
 Average High Temp: 78
 Measured Rainfall: 10.08
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/3/2013	2:15	11:25	9.17	0.96	1 YEAR						
2	6/6/2013 - 6/8/2013	19:35	4:25	32.83	4.96	5 YEAR						
3	6/10/3012 - 6/11/20	15:30	18:10	26.67	1.74	3 MONTH						
4	6/13/2013 - 6/14/20	9:00	20:10	35.17	1.79	3 MONTH						
5	6/17/2013	14:25	19:15	4.83	0.07	***						
6	6/18/2013	17:15	22:35	5.33	0.35	***						
7	6/26/2013	19:50	20:10	0.33	0.02	***						
8	6/27/2013 - 6/28/20	22:40	0:55	2.25	0.18	***						
9	6/28/2013	23:25	23:30	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 0

Note: Overflow occurs when Interceptor level reaches pipe height, 72"

METER DATA

MAY 2013

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - MAY 2013

MONTHLY RAINFALL SUMMARY

3.03 inches of rain (3.44 inches of rain in a typical month)
 no snow
 8 rain events (10 rain events in a typical month)
 One 1 month storm, all other storms less than 1 month return frequency

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>
CSO 006	REGS 006 A, 006 B	1	0.021
CSO 005	REG 005	7	0.437
CSO 004	REG 004	4	0.454
CSO 003	REG 003	4	0.892
CSO 024	REG 024	2	1.003
CSO 009	REG 009	3	0.074
CSO 019	REG 019	0	0.000
CSO 016	REG 016	4	0.406
CSO 015	REG 015	3	0.082
CSO 010	REG 010	0	0.000
CSO 011	REGS 010A, 011, 014, 026	2	0.099
CSO 012	REGS 012A, 012B, 028	1	0.001
CSO GREENE	REG GREENE	0	0.000
CSO 025	REGS 025, 034	0	0.000
CSO 021	REG 021	2	0.071
CSO 013	REG 013	0	0.000
CSO 020	REG 020	0	0.000
TOTAL		33	3.540
		(22 CSO events in a typical month)	(20.358 MG of CSO volume in a typical month)

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - THROUGH MAY 2013

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>	<u>RAINFALL (IN)</u>	<u>METER MONTHS</u>
CSO 006	REGS 006 A, 006 B	13	5.215	37.90	12
CSO 005	REG 005	38	4.886	37.90	12
CSO 004	REG 004	42	21.060	37.90	12
CSO 003	REG 003	29	14.549	37.90	12
CSO 024	REG 024	11	15.168	32.30	10
CSO 009	REG 009	12	0.757	20.56	8
CSO 019	REG 019	4	0.199	32.30	10
CSO 016	REG 016	21	12.184	26.63	9
CSO 015	REG 015	9	1.306	20.56	8
CSO 010	REG 010	7	0.728	26.63	9
CSO 011	REGS 010A, 011, 014, 026	4	0.654	16.19	6
CSO 012	REGS 012A, 012B, 028	22	10.057	32.30	10
CSO GREENE	REG GREENE	3	0.111	32.30	10
CSO 025	REGS 025, 034	0	0.000	0.00	0
CSO 021	REG 021	10	8.813	17.19	7
CSO 013	REG 013	0	0.000	6.97	3
CSO 020	REG 020	0	0.000	6.97	3
TOTAL		225	95.687	37.90	12

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
 CSO FLOW MONITORING PROGRAM
 METER DATA SUMMARY - TYPICAL YEAR ESTIMATES

CSO NUMBER	REGULATOR NUMBERS	ANNUAL CSO EVENTS	ANNUAL CSO VOLUME (MG)	ANNUAL CSO EVENTS	ANNUAL CSO VOLUME (MG)	MODEL CSO EVENTS	MODEL CSO VOLUME (MG)
		BASED ON RAINFALL ⁽¹⁾	BASED ON RAINFALL ⁽²⁾	BASED ON MONTHS ⁽³⁾	BASED ON MONTHS ⁽⁴⁾		
CSO 006	REGS 006 A, 006 B	14	5.679	13	5.215	27	27.0
CSO 005	REG 005	41	5.320	38	4.886	39	22.0
CSO 004	REG 004	46	22.933	42	21.060	44	65.3
CSO 003	REG 003	32	15.843	29	14.549	28	12.5
CSO 024	REG 024	14	19.380	13	18.202	0	1.9
CSO 009	REG 009	24	1.520	18	1.136	27	8.1
CSO 019	REG 019	5	0.254	5	0.239	7	2.4
CSO 016	REG 016	33	18.882	28	16.245	45	20.4
CSO 015	REG 015	18	2.622	14	1.959	9	4.1
CSO 010	REG 010	11	1.128	9	0.971	6	2.4
CSO 011	REGS 010A, 011, 014, 026	10	1.667	8	1.308	15	26.6
CSO 012	REGS 012A, 012B, 028	28	12.850	26	12.068	8	2.9
CSO GREENE	REG GREENE	4	0.142	4	0.133	NO DATA	NO DATA
CSO 025	REGS 025, 034	0	0.000	0	0.000	6	9.0
CSO 021	REG 021	24	21.158	17	15.108	23	35.1
CSO 013	REG 013	0	0.000	0	0.000	1	0.4
CSO 020	REG 020	0	0.000	0	0.000	8	1.4
TOTAL		304	129.378	264	113.079	293	241.5

(1) Annual CSO Events Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Events to Date / Rainfall to Date

(2) Annual CSO Volume (MG) Based on Rainfall = Annual Rainfall (3.44 in x 12 = 41.28 in) x CSO Volume (MG) to Date / Rainfall to Date

(3) Annual CSO Events Based on Months = 12 x CSO Events to Date / Meter Months to Date

(4) Annual CSO Volume (MG) Based on Months = 12 x CSO Volume (MG) to Date / Meter Months to Date

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Orange Ave. @ Int. of Ella T. Grasso Blvd.
 LOCATION: 003
 NPDES Permit Outfall #:
 MONTH: May YEAR: 2013
 Average Low Temp: 41
 Average High Temp: 59
 Measured Rainfall: 3.03
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/8/2013	10:45	13:55	3.17	0.29	***	5/8/2013	14:05	15:15	1.17	4.655	0.226
2	5/9/2013	8:55	17:55	9.00	0.22	***						
3	5/11/2013 - 5/12/2013	2:55	8:40	29.75	0.38	***	5/11/2013	18:10	18:50	0.67	1.217	0.034
4	5/15/2013	13:25	13:30	0.08	0.01	***						
5	5/19/2013 - 5/20/2013	8:45	0:50	16.08	0.39	***	5/19/2013	21:25	22:35	1.17	2.012	0.098
6	5/22/2013	5:55	6:15	0.33	0.22	***						
7	5/23/2013 - 5/24/2013	9:15	20:15	59.00	1.35	1 MONTH	5/23/2013	10:15	11:05			
8	5/28/2013 - 5/29/2013	15:35	8:40	17.08	0.17	***	5/23/2013 - 5/24/2013	23:00	4:00			
							5/25/2013	4:50	5:25	6.41	2.000	0.534

TOTAL MONTH FLOW VOLUME = 0.892

Note: Overflow occurs when Interceptor level reaches 46"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Ella T. Grasso Blvd. - 23 yds North of Legion Ave.
 NPDES Permit Outfall #: 004
 MONTH: May YEAR: 2013
 Average Low Temp: 41
 Average High Temp: 59
 Measured Rainfall: 3.03
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/8/2013	10:45	13:55	3.17	0.29	***	5/8/2013	14:00	15:30	1.50	1.692	0.106
2	5/9/2013	8:55	17:55	9.00	0.22	***						
3	5/11/2013 - 5/12/2013	2:55	8:40	29.75	0.38	***	5/11/2013	17:50	19:00	1.17	0.842	0.041
4	5/15/2013	13:25	13:30	0.08	0.01	***						
5	5/19/2013 - 5/20/2013	8:45	0:50	16.08	0.39	***	5/19/2013	20:55	23:15	2.33	0.372	0.036
6	5/22/2013	5:55	6:15	0.33	0.22	***						
7	5/23/2013 - 5/24/2013	9:15	20:15	59.00	1.35	1 MONTH	5/23/2013	10:05	11:20			
8	5/28/2013 - 5/29/2013	15:35	8:40	17.08	0.17	***	5/23/2013 - 5/24/2013	22:55	4:15			
							5/25/2013	4:40	5:35	7.50	0.867	0.271

TOTAL MONTH FLOW VOLUME = 0.454

Note: Overflow occurs when Interceptor level reaches 35"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Derby Ave. 20 yrds East of Ella T. Grasso Blvd.
 LOCATION: 005
 NPDES Permit Outfall #:
 MONTH: May YEAR: 2013
 Average Low Temp: 41
 Average High Temp: 59
 Measured Rainfall: 3.03
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/8/2013	10:45	13:55	3.17	0.29	***	5/8/2013	13:50	14:40	0.83	4.860	0.169
2	5/9/2013	8:55	17:55	9.00	0.22	***	5/9/2013	14:10	18:15	4.08	0.086	0.015
3	5/11/2013 - 5/12/2013	2:55	8:40	29.75	0.38	***	5/11/2013	3:20	4:35			
4	5/15/2013	13:25	13:30	0.08	0.01	***	5/11/2013	17:20	19:00	2.92	0.296	0.036
5	5/19/2013 - 5/20/2013	8:45	0:50	16.08	0.39	***	5/19/2013	16:55	22:40	5.75	0.075	0.018
6	5/22/2013	5:55	6:15	0.33	0.22	***	5/22/2013	5:55	6:25	0.50	0.282	0.006
7	5/23/2013 - 5/24/2013	9:15	20:15	59.00	1.35	1 MONTH	5/23/2013	9:50	10:40			
8	5/28/2013 - 5/29/2013	15:35	8:40	17.08	0.17	***	5/23/2013 - 5/24/2013	21:00	3:45			
							5/24/2013	18:45	19:15			
							5/25/2013	3:55	6:00			
							5/25/2013	9:30	10:25			
							5/25/2013	15:55	17:05	12.25	0.376	0.192
							5/28/2013	16:15	16:45	0.50	0.059	0.001

TOTAL MONTH FLOW VOLUME = 0.437

Note: Overflow occurs when Interceptor level reaches pipe height, 60" or drop-in pipe overwhelms drop-in

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Whalley Ave. 30 yrds from Fitch Street
 NPDES Permit Outfall #: 006
 MONTH: May YEAR: 2013
 Average Low Temp: 41
 Average High Temp: 59
 Measured Rainfall: 3.03
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/8/2013	10:45	13:55	3.17	0.29	***	5/8/2013	14:20	15:05	0.75	0.672	0.021
2	5/9/2013	8:55	17:55	9.00	0.22	***						
3	5/11/2013 - 5/12/2013	2:55	8:40	29.75	0.38	***						
4	5/15/2013	13:25	13:30	0.08	0.01	***						
5	5/19/2013 - 5/20/2013	8:45	0:50	16.08	0.39	***						
6	5/22/2013	5:55	6:15	0.33	0.22	***						
7	5/23/2013 - 5/24/2013	9:15	20:15	59.00	1.35	1 MONTH						
8	5/28/2013 - 5/29/2013	15:35	8:40	17.08	0.17	***						

TOTAL MONTH FLOW VOLUME = 0.021

Note: Overflow occurs when Interceptor level reaches 27"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Grand Avenue & James Street
 LOCATION: .009
 NPDES Permit Outfall #:
 MONTH: May YEAR: 2013
 Average Low Temp: 41
 Average High Temp: 59
 Measured Rainfall: 3.03
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/8/2013	10:45	13:55	3.17	0.29	***	5/8/2013	13:50	14:20	0.50	1.203	0.025
2	5/9/2013	8:55	17:55	9.00	0.22	***						
3	5/11/2013 - 5/12/20	2:55	8:40	29.75	0.38	***	5/11/2013	17:35	18:05	0.50	0.292	0.006
4	5/15/2013	13:25	13:30	0.08	0.01	***						
5	5/19/2013 - 5/20/20	8:45	0:50	16.08	0.39	***						
6	5/22/2013	5:55	6:15	0.33	0.22	***						
7	5/23/2013 - 5/24/20	9:15	20:15	59.00	1.35	1 MONTH	5/24/2013	0:50	3:45	2.92	0.352	0.043
8	5/28/2013 - 5/29/20	15:35	8:40	17.08	0.17	***						

TOTAL MONTH
 FLOW VOLUME = 0.074

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 547 East Street
 LOCATION: 010
 NPDES Permit Outfall #:
 MONTH: May YEAR: 2013
 Average Low Temp: 41
 Average High Temp: 59
 Measured Rainfall: 3.03
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/8/2013	10:45	13:55	3.17	0.29	***						
2	5/9/2013	8:55	17:55	9.00	0.22	***						
3	5/11/2013 - 5/12/20	2:55	8:40	29.75	0.38	***						
4	5/15/2013	13:25	13:30	0.08	0.01	***						
5	5/19/2013 - 5/20/20	8:45	0:50	16.08	0.39	***						
6	5/22/2013	5:55	6:15	0.33	0.22	***						
7	5/23/2013 - 5/24/20	9:15	20:15	59.00	1.35	1 MONTH						
8	5/28/2013 - 5/29/20	15:35	8:40	17.08	0.17	***						

TOTAL MONTH FLOW VOLUME = 0

Note: Overflow occurs when sewer level reaches 57"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 547 East Street
 LOCATION: 010A
 NPDES Permit Outfall #:
 MONTH: May YEAR: 2013
 Average Low Temp: 41
 Average High Temp: 59
 Measured Rainfall: 3.03
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/8/2013	10:45	13:55	3.17	0.29	***						
2	5/9/2013	8:55	17:55	9.00	0.22	***						
3	5/11/2013 - 5/12/20	2:55	8:40	29.75	0.38	***						
4	5/15/2013	13:25	13:30	0.08	0.01	***						
5	5/19/2013 - 5/20/20	8:45	0:50	16.08	0.39	***						
6	5/22/2013	5:55	6:15	0.33	0.22	***						
7	5/23/2013 - 5/24/20	9:15	20:15	59.00	1.35	1 MONTH						
8	5/28/2013 - 5/29/20	15:35	8:40	17.08	0.17	***						

TOTAL MONTH FLOW VOLUME = 0

Note: Overflow occurs when sewer level reaches 52"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011
 NPDES Permit Outfall #:
 MONTH: May YEAR: 2013
 Average Low Temp: 41
 Average High Temp: 59
 Measured Rainfall: 3.03
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/8/2013	10:45	13:55	3.17	0.29	***	5/8/2013	13:55	14:20	1.50	1.072	0.067
2	5/9/2013	8:55	17:55	9.00	0.22	***						
3	5/11/2013 - 5/12/20	2:55	8:40	29.75	0.38	***						
4	5/15/2013	13:25	13:30	0.08	0.01	***						
5	5/19/2013 - 5/20/20	8:45	0:50	16.08	0.39	***						
6	5/22/2013	5:55	6:15	0.33	0.22	***						
7	5/23/2013 - 5/24/20	9:15	20:15	59.00	1.35	1 MONTH	5/24/2013	0:05	0:30	0.42	1.825	0.032
8	5/28/2013 - 5/29/20	15:35	8:40	17.08	0.17	***						

TOTAL MONTH FLOW VOLUME = 0.099

Note: Sum of 10A, 11, and 14

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 75 Mitchell Drive
 LOCATION: 012
 NPDES Permit Outfall #:
 MONTH: May YEAR: 2013
 Average Low Temp: 41
 Average High Temp: 59
 Measured Rainfall: 3.03
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/8/2013	10:45	13:55	3.17	0.29	***	5/8/2013	14:05	14:30	0.42	0.033	0.001
2	5/9/2013	8:55	17:55	9.00	0.22	***						
3	5/11/2013 - 5/12/20	2:55	8:40	29.75	0.38	***						
4	5/15/2013	13:25	13:30	0.08	0.01	***						
5	5/19/2013 - 5/20/20	8:45	0:50	16.08	0.39	***						
6	5/22/2013	5:55	6:15	0.33	0.22	***						
7	5/23/2013 - 5/24/20	9:15	20:15	59.00	1.35	1 MONTH						
8	5/28/2013 - 5/29/20	15:35	8:40	17.08	0.17	***						

TOTAL MONTH
 FLOW VOLUME = 0.001

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG East Rock & Everit
 LOCATION: 013
 NPDES Permit Outfall #:
 MONTH: May YEAR: 2013
 Average Low Temp: 41
 Average High Temp: 59
 Measured Rainfall: 3.03
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/8/2013	10:45	13:55	3.17	0.29	***						
2	5/9/2013	8:55	17:55	9.00	0.22	***						
3	5/11/2013 - 5/12/20	2:55	8:40	29.75	0.38	***						
4	5/15/2013	13:25	13:30	0.08	0.01	***						
5	5/19/2013 - 5/20/20	8:45	0:50	16.08	0.39	***						
6	5/22/2013	5:55	6:15	0.33	0.22	***						
7	5/23/2013 - 5/24/20	9:15	20:15	59.00	1.35	1 MONTH						
8	5/28/2013 - 5/29/20	15:35	8:40	17.08	0.17	***						

TOTAL MONTH FLOW VOLUME = 0

Note: Overflow occurs at 25"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 30 Trumbull Street
 LOCATION: 014
 NPDES Permit Outfall #:
 MONTH: May YEAR: 2013
 Average Low Temp: 41
 Average High Temp: 59
 Measured Rainfall: 3.03
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/8/2013	10:45	13:55	3.17	0.29	***						
2	5/9/2013	8:55	17:55	9.00	0.22	***						
3	5/11/2013 - 5/12/20	2:55	8:40	29.75	0.38	***						
4	5/15/2013	13:25	13:30	0.08	0.01	***						
5	5/19/2013 - 5/20/20	8:45	0:50	16.08	0.39	***						
6	5/22/2013	5:55	6:15	0.33	0.22	***						
7	5/23/2013 - 5/24/20	9:15	20:15	59.00	1.35	1 MONTH						
8	5/28/2013 - 5/29/20	15:35	8:40	17.08	0.17	***						

TOTAL MONTH FLOW VOLUME = 0

Note: Overflow occurs when interceptor depth reaches 54"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 15 James Street
 LOCATION: 015
 NPDES Permit Outfall #:
 MONTH: May YEAR: 2013
 Average Low Temp: 41
 Average High Temp: 59
 Measured Rainfall: 3.03
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/8/2013	10:45	13:55	3.17	0.29	***	5/8/2013	14:00	14:25	0.42	1.903	0.033
2	5/9/2013	8:55	17:55	9.00	0.22	***						
3	5/11/2013 - 5/12/20	2:55	8:40	29.75	0.38	***						
4	5/15/2013	13:25	13:30	0.08	0.01	***						
5	5/19/2013 - 5/20/20	8:45	0:50	16.08	0.39	***						
6	5/22/2013	5:55	6:15	0.33	0.22	***						
7	5/23/2013 - 5/24/20	9:15	20:15	59.00	1.35	1 MONTH	5/24/2013	1:00	1:30	0.50	1.278	0.027
8	5/28/2013 - 5/29/20	15:35	8:40	17.08	0.17	***	5/24/2013	3:10	3:45	0.58	0.919	0.022

TOTAL MONTH
 FLOW VOLUME = 0.082

Note: Overflow can occur with DS sewer depth reaches 40.5"
 Expected capacity of siphon is between 24 and 30 MGD.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Int. River & Poplar
 LOCATION: 016
 NPDES Permit Outfall #:
 MONTH: May YEAR: 2013
 Average Low Temp: -41
 Average High Temp: 59
 Measured Rainfall: 3.03
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/8/2013	10:45	13:55	3.17	0.29	***	5/8/2013	14:05	14:25	0.33	5.801	0.081
2	5/9/2013	8:55	17:55	9.00	0.22	***						
3	5/11/2013 - 5/12/20	2:55	8:40	29.75	0.38	***	5/11/2013	17:30	19:00	1.50	1.460	0.091
4	5/15/2013	13:25	13:30	0.08	0.01	***						
5	5/19/2013 - 5/20/20	8:45	0:50	16.08	0.39	***						
6	5/22/2013	5:55	6:15	0.33	0.22	***						
7	5/23/2013 - 5/24/20	9:15	20:15	59.00	1.35	1 MONTH	5/24/2013	2:50	4:25	1.58	2.666	0.176
8	5/28/2013 - 5/29/20	15:35	8:40	17.08	0.17	***	5/25/2013	3:50	5:45	1.92	0.727	0.058

TOTAL MONTH
 FLOW VOLUME = 0.406

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 279 Front Street
 LOCATION: 019
 NPDES Permit Outfall #:
 MONTH: May YEAR: 2013
 Average Low Temp: 41
 Average High Temp: 59
 Measured Rainfall: 3.03
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/8/2013	10:45	13:55	3.17	0.29	***						
2	5/9/2013	8:55	17:55	9.00	0.22	***						
3	5/11/2013 - 5/12/20	2:55	8:40	29.75	0.38	***						
4	5/15/2013	13:25	13:30	0.08	0.01	***						
5	5/19/2013 - 5/20/20	8:45	0:50	16.08	0.39	***						
6	5/22/2013	5:55	6:15	0.33	0.22	***						
7	5/23/2013 - 5/24/20	9:15	20:15	59.00	1.35	1 MONTH						
8	5/28/2013 - 5/29/20	15:35	8:40	17.08	0.17	***						

TOTAL MONTH FLOW VOLUME = 0

Note:

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Clifton and Quinnipiac
 LOCATION: 020
 NPDES Permit Outfall #:
 MONTH: May YEAR: 2013
 Average Low Temp: -41
 Average High Temp: 59
 Measured Rainfall: 3.03
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/8/2013	10:45	13:55	3.17	0.29	***						
2	5/9/2013	8:55	17:55	9.00	0.22	***						
3	5/11/2013 - 5/12/20	2:55	8:40	29.75	0.38	***						
4	5/15/2013	13:25	13:30	0.08	0.01	***						
5	5/19/2013 - 5/20/20	8:45	0:50	16.08	0.39	***						
6	5/22/2013	5:55	6:15	0.33	0.22	***						
7	5/23/2013 - 5/24/20	9:15	20:15	59.00	1.35	1 MONTH						
8	5/28/2013 - 5/29/20	15:35	8:40	17.08	0.17	***						

TOTAL MONTH FLOW VOLUME = 0

Note: Overflow occurs when level is 31" in the interceptor.

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 638 Long Wharf Drive
 LOCATION: 021
 NPDES Permit Outfall #:
 MONTH: May YEAR: 2013
 Average Low Temp: 41
 Average High Temp: 59
 Measured Rainfall: 3.03
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/8/2013	10:45	13:55	3.17	0.29	***	5/8/2013	14:40	15:40	1.00	1.394	0.058
2	5/9/2013	8:55	17:55	9.00	0.22	***						
3	5/11/2013 - 5/12/20	2:55	8:40	29.75	0.38	***						
4	5/15/2013	13:25	13:30	0.08	0.01	***						
5	5/19/2013 - 5/20/20	8:45	0:50	16.08	0.39	***						
6	5/22/2013	5:55	6:15	0.33	0.22	***	5/24/2013	3:25	4:05	0.67	0.461	0.013
7	5/23/2013 - 5/24/20	9:15	20:15	59.00	1.35	1 MONTH						
8	5/28/2013 - 5/29/20	15:35	8:40	17.08	0.17	***						

TOTAL MONTH FLOW VOLUME = 0.071

Note: Meter Installed 11/15/2012

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Sea Street @ South Water Street
 LOCATION: 024
 NPDES Permit Outfall #:
 MONTH: May YEAR: 2013
 Average Low Temp: 41
 Average High Temp: 59
 Measured Rainfall: 3.03
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/8/2013	10:45	13:55	3.17	0.29	***	5/8/2013	15:30	17:15	1.75	8.148	0.594
2	5/9/2013	8:55	17:55	9.00	0.22	***						
3	5/11/2013 - 5/12/20	2:55	8:40	29.75	0.38	***						
4	5/15/2013	13:25	13:30	0.08	0.01	***						
5	5/19/2013 - 5/20/20	8:45	0:50	16.08	0.39	***						
6	5/22/2013	5:55	6:15	0.33	0.22	***						
7	5/23/2013 - 5/24/20	9:15	20:15	59.00	1.35	1 MONTH	5/24/2013	2:40	3:35	0.92	10.713	0.409
8	5/28/2013 - 5/29/20	15:35	8:40	17.08	0.17	***						

TOTAL MONTH FLOW VOLUME = 1.003

Note: Overflow occurs when upstream depth reaches approx. 65" or when downstream reaches approx. 81".

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG George and Temple
 LOCATION: Regulator 34
 NPDES Permit Outfall #:
 MONTH: May YEAR: 2013
 Average Low Temp: 41
 Average High Temp: 59
 Measured Rainfall: 3.03
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/8/2013	10:45	13:55	3.17	0.29	***	NO DATA					
2	5/9/2013	8:55	17:55	9.00	0.22	***						
3	5/11/2013 - 5/12/20	2:55	8:40	29.75	0.38	***						
4	5/15/2013	13:25	13:30	0.08	0.01	***						
5	5/19/2013 - 5/20/20	8:45	0:50	16.08	0.39	***						
6	5/22/2013	5:55	6:15	0.33	0.22	***						
7	5/23/2013 - 5/24/20	9:15	20:15	59.00	1.35	1 MONTH						
8	5/28/2013 - 5/29/20	15:35	8:40	17.08	0.17	***						

TOTAL MONTH FLOW VOLUME = 0

Note: Overflow occurs when influent level reaches ~15".

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Int. of Greene Street & St. John Connector
 LOCATION: Greene
 NPDES Permit Outfall #:
 MONTH: May YEAR: 2013
 Average Low Temp: 41
 Average High Temp: 59
 Measured Rainfall: 3.03
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/8/2013	10:45	13:55	3.17	0.29	***						
2	5/9/2013	8:55	17:55	9.00	0.22	***						
3	5/11/2013 - 5/12/20	2:55	8:40	29.75	0.38	***						
4	5/15/2013	13:25	13:30	0.08	0.01	***						
5	5/19/2013 - 5/20/20	8:45	0:50	16.08	0.39	***						
6	5/22/2013	5:55	6:15	0.33	0.22	***						
7	5/23/2013 - 5/24/20	9:15	20:15	59.00	1.35	1 MONTH						
8	5/28/2013 - 5/29/20	15:35	8:40	17.08	0.17	***						

TOTAL MONTH FLOW VOLUME = 0

Note: Overflow occurs when Interceptor level reaches pipe height, 72"