



GREATER NEW HAVEN
Water Pollution Control Authority

CONSENT ORDER WC5509
Annual Progress Report
July 1, 2016 – June 30, 2017





Greater New Haven Water Pollution Control Authority

260 East Street New Haven, CT 06511

203.466.5280 p 203 772.1564 f www.gnhwpc.com

June 30, 2017

Mr. George V. Hicks, P.E.,
Department of Energy and Environmental Protection
Planning & Standards Division
Bureau of Water Protection and Land Reuse
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, the general format of this table was approved by DEEP on 9/14/11. We have updated the Table based on the results contained in the 2016 CSO LTCP Update Report.

Attachment "B" is a listing of Approval / Denial letters the Authority has received from the DEEP between July 1, 2016 and the date of this letter.

Attachment "C" is a listing of emails and letters between DEEP, EPA and the Authority from July 1, 2016 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. Please note that Attachments "C" is 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 "D" includes calibrated flow monitoring results obtained from all Permitted CSO outfalls between May 2016 and April 2017. A current CSO Map has also been included as part of this attachment.

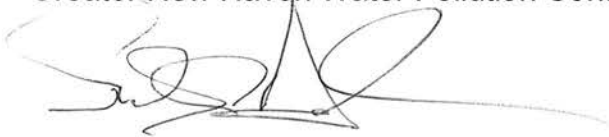
I have personally examined and am familiar with the information submitted in these documents and all attachments and certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the

Mr. George V. Hicks, P.E.
June 30, 2015
Page 2 of 2

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 flourish 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
Bruce J. Kirkland, P.E., Senior Engineer

w/ Attachments

ATTACHMENT “A”

GNHWPCA

CSO LTCP

ANNUAL STATUS REPORT

FY 2017

2017 ANNUAL REPORT
ATTACHMENT "A"

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CSO LONG TERM CONTROL PLAN ANNUAL STATUS REPORT
June 30, 2017

1997 EXISTING CONDITIONS MODEL							CALIBRATED 2016 CONDITIONS MODEL				2017 STATUS				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 2-YEAR DESIGN STORM CSO VOLUME (MG)	CSO LTCP CAPITAL IMPROVEMENTS 1997-2016	2016 CSO REGULATOR STATUS	CALIBRATED 2016 CONDITIONS MODEL 2-YEAR DESIGN STORM CSO VOLUME (MG)	REDUCTION 1997-2016 CSO VOLUME (MG)	NPDES PERMIT CSO REFERENCE NO.	NPDES PERMIT CSO REF. NO.	CSO LTCP AND REGULATOR IMPROVEMENTS 2013-2017	2017 CSO REGULATOR STATUS	PROPOSED CAPITAL IMPROVEMENTS	CSO LTCP FINAL CSO STATUS	CSO LTCP FUTURE CONDITIONS MODEL 2-YEAR DESIGN STORM CSO VOLUME (MG)
CSO 001	1	1	East Shore WPAF	New Haven Harbor	Active	No model data		Active	No model data		CSO 001	CSO 001	Wet Weather Improvements	Active	Wet Weather Improvements	Active w/ Treatment	No model data
CSO 002	2	2	E.T.G. Boulevard @ Lambertson Street	West River	Active	1.5		Closed	0.0	1.5	CSO 002			Closed		Closed	0.00
CSO 003	3	3	E.T.G. Boulevard @ Orange Avenue	West River	Active	0.7		Active	0.9	-0.2	CSO 003	CSO 003	Design of CSO Regulator Improvements are underway	Active	Regulator Improvements & CSO Storage Tank	Inactive	0.00
CSO 004	4	4	E.T.G. Boulevard @ Legion Avenue	West River	Active	1.0		Active	1.9	-0.9	CSO 004	CSO 004	Weir raised 8 inches in 2014, design of CSO Regulator Improvements are underway	Active	Regulator Improvements & CSO Storage Tank	Inactive	0.00
CSO 005	5	5	E.T.G. Boulevard @ Derby Avenue	West River	Active	2.4		Active	1.2	1.2	CSO 005	CSO 005	Weir raised 1.45 feet in 2014	Active	CSO Storage Tank	Inactive	0.00
CSO 005 (A)		6	University Place		Active	Discharges to CSO 005 outfall		Closed			CSO 005 (A)			Closed		Closed	0.00
CSO 005 (B)		7	Elm / University Place		Active	Discharges to CSO 005 outfall		Closed			CSO 005 (B)			Closed		Closed	0.00
CSO 006	6	8	Whalley Avenue @ Fitch Street	West River	Active	2.3		Active	2.3	0.0	CSO 006	CSO 006	Design of CSO Regulator Improvements are underway	Active	Regulator Improvements & CSO Storage Tank	Inactive	0.00
CSO 007	7	9	Munson Street @ Canal Street	Mill River	Closed	0.0		Closed	0.0	0.0	CSO 007			Closed		Closed	0.00
CSO 008	8	10	Munson Street @ Orchard Street	Beaver Ponds	Active	0.0		Closed	0.0	0.0	CSO 008		Closed in 2014	Closed		Closed	0.00
CSO 009	9	11	Grand Avenue @ James Street	Mill River	Active	0.5		Active	0.4	0.1	CSO 009	CSO 009	Weir raised 8 inches in 2015, I&I Project complete	Active	Sewer Separation	Inactive	0.00
CSO 010	10	12	East Street @ I-91	Mill River	Active	0.3		Closed	0.0	0.3	CSO 010		Closed in 2014	Closed		Closed	0.00
CSO 010 (A)		13	East Street @ I-91	Mill River	Active	Discharges to CSO 011 outfall		Active	Discharges to CSO 011 outfall	Discharges to CSO 011 outfall	CSO 010 (A)	R 010 (A)	Sewer Separation Design Complete, Discharges to CSO 011	Active	CSO Storage Tank	Inactive	0.00
CSO 011	11	14	Humphrey Street @ I-91	Mill River	Active	6.2		Active	2.6	3.6	CSO 011	CSO 011	Sewer Separation Design Complete	Active	CSO Storage Tank	Inactive	0.00
CSO 012	12	15	Mitchell Drive east of Nicoll Street	Mill River	Active	1.0		Active	0.2	0.8	CSO 012	CSO 012	Weir raised 6 inches in 2013, Design of capacity improvement project is underway	Active	Capacity Improvement project / Close CSO	Closed	0.00
CSO 013	13	16	Everitt Street @ East Rock Road	Mill River	Active	0.1		Active	0.0	0.1	CSO 013		Closed in 2014	Closed		Closed	0.00
CSO 013 (A)		17	East Rock Road @ Everitt Street		Active	Discharges to CSO 013 outfall		Closed			CSO 013 (A)			Closed		Closed	0.00
CSO 014		18	Trumbull Street @ Orange Street	Mill River	Active	Discharges to CSO 011 outfall		Closed			CSO 014		Closed in 2014	Closed		Closed	0.00
CSO 015	14	19	James Street Siphon	Quinnipiac River	Active	1.5		Active	0.7	0.8	CSO 015	CSO 015	I&I Project complete	Active	Sewer Separation & CSO Storage Tank	Inactive	0.00
CSO 016	15	20	Poplar Street @ River Street	Quinnipiac River	Active	1.4		Active	1.5	-0.1	CSO 016	CSO 016		Active	Sewer Separation & CSO Storage Tank	Inactive	0.00
CSO 017	16	21	Grand Avenue @ Front Street	Quinnipiac River	Closed	0.0		Closed	0.0	0.0	CSO 017			Closed		Closed	0.00
CSO 018	17	22	Lombard Street @ North Front Street	Quinnipiac River	Active	0.0		Closed	0.0	0.0	CSO 018			Closed		Closed	0.00
CSO 019	18	23	Pine Street @ North Front Street	Quinnipiac River	Active	0.4		Closed	0.0	0.4	CSO 019	CSO 019	Closed in 2015	Closed		Closed	0.00
CSO 020	19	24	Quinnipiac Avenue @ Clifton Street	Quinnipiac River	Active	0.1		Active	0.1	0.0	CSO 020	CSO 020	Design of capacity improvement project is underway	Active	Capacity Improvement project / Close CSO	Closed	0.00
CSO 021	20	25	East Street Pump Station	New Haven Harbor	Active	1.4		Active	1.5	-0.1	CSO 021	CSO 021	Sewer Separation Design Complete; Tide Gate 2013	Active	Major Pump Station Upgrade	Inactive	0.00
CSO 021 (A)		26	Chapel / Hamilton	New Haven Harbor	Active	Discharges to CSO 021 outfall		Closed		0.0	CSO 021 (A)			Closed		Closed	0.00
CSO 022	21	27	Allen Place	New Haven Harbor	Active	No model data		Closed			CSO 022			Closed		Closed	0.00
CSO 023	22	28	Chestnut Street @ Water Street	New Haven Harbor	Closed	0.0		Closed	0.0	0.0	CSO 023			Closed		Closed	0.00
CSO 024	23	29	Boulevard Pump Station	New Haven Harbor	Active	3.2		Active	0.0	3.2	CSO 024	CSO 024	Weir raised 1.5 feet in 2017	Active	Major Pump Station Upgrade & CSO Storage Tank	Inactive	0.00
CSO 025	24	30	Union Pump Station	New Haven Harbor	Active	1.4		Active	1.0	0.4	CSO 025	CSO 025	Design of CSO Regulator Improvements are underway	Active	Regulator Improvements & Major Pump Station Upgrade	Inactive	0.00
CSO 025 (A)		31	Elm / University Place	New Haven Harbor	Active	Discharges to CSO 025 outfall		Closed			CSO 025 (A)			Closed		Closed	0.00
CSO 025 (B)		32	Grove / Whitney	New Haven Harbor	Active	Discharges to CSO 025 outfall		Closed			CSO 025 (B)			Closed		Closed	0.00
CSO 026	25	33	Humphrey Pump Station	Mill River	Active	Discharges to CSO 011 outfall		Active	Discharges to CSO 011 outfall	Discharges to CSO 011 outfall	CSO 026	R 026	Discharges to CSO 011, design of pump station upgrade is underway	Active	Pump Station Upgrade / Close CSO	Closed	0.00
CSO 027		34	East / Ives	Mill River	Active	0.4		Closed	0.0	0.4	CSO 027			Closed		Closed	0.00
CSO 028		35	Mitchell Pump Station	Mill River	Active	Discharges to CSO 012 outfall		Active	Discharges to CSO 012 outfall	Discharges to CSO 012 outfall	CSO 028	R 028	Discharges to CSO 012, design of pump station upgrade is underway	Active	Pump Station Upgrade / Close CSO	Closed	0.00
CSO 029	26	36	Barnes Pump Station	Quinnipiac River	Active	No model data		Closed			CSO 029			Closed		Closed	0.00
CSO 030	27	37	Quinnipiac Pump Station	Quinnipiac River	Active	No model data		Closed			CSO 030			Closed		Closed	0.00
CSO 031		38	South Frontage / Davenport	New Haven Harbor	Active	Discharges to CSO 025 outfall		Closed			CSO 031		Closed in 2013	Closed		Closed	0.00
CSO 032		39	Port Sea / Liberty	New Haven Harbor	Active	Discharges to CSO 025 outfall		Closed			CSO 032		Closed in 2014	Closed		Closed	0.00
CSO 033		40	Carlisle / Liberty	New Haven Harbor	Active	Discharges to CSO 025 outfall		Closed			CSO 033			Closed		Closed	0.00
CSO 034		41	George / Temple	New Haven Harbor	Active	Discharges to CSO 025 outfall		Active	Discharges to CSO 025 outfall	Discharges to CSO 025 outfall	CSO 034	R 034	Discharges to CSO 025, weir raised 2 feet in 2014	Active	Close Regulator	Closed	0.00
CSO 035	28	42	Woodward Pump Station	New Haven Harbor	Active	No model data		Closed			CSO 035			Closed		Closed	0.00
(not assigned)	29	43	Greene Street	New Haven Harbor	Active	0.3		Closed	0.0	0.3	(not assigned)		Closed in 2014	Closed		Closed	0.00
N/A	30	44	Middletown / Front	Quinnipiac River	Closed	0.0		Closed	0.0	0.0	N/A			Closed		Closed	0.00
N/A	31	45	State / James	Mill River	Closed	0.0		Closed	0.0	0.0	N/A			Closed		Closed	0.00
CSO VOLUME (MG)						26.0		14.3	11.7								0.00
CSO VOLUME REDUCTION (%)						0.0		45%									100%
NUMBER OF ACTIVE CSO REGULATORS					40		18									0	
NUMBER OF INACTIVE / CLOSED CSO REGULATORS					5		27									45	
NUMBER OF ACTIVE CSO OUTFALLS					26		14									0	
NUMBER OF INACTIVE / CLOSED CSO OUTFALLS					5		17									31	

LEGEND/NOTES	
	DENOTES CSO OUTFALL CURRENTLY INACTIVE/CLOSED
	CSO VOLUME ESTIMATES WERE OBTAINED FROM THE 2016 CSO LTCP UPDATE REPORT

DEFINITIONS	
ACTIVE	ACTIVE CSO DURING A 2-YEAR STORM FREQUENCY
INACTIVE	INACTIVE CSO DURING STORM FREQUENCIES BELOW 2-YEARS
CLOSED	CLOSED - BULKHEADED CSO - CLOSED FOR ALL STORMS

ATTACHMENT "B"

**DEEP LETTER
CORRESPONDENCE**

FY 2017

ATTACHMENT "C"

DEEP / GNHWPCA

LETTER & EMAIL

CORRESPONDENCE

FY 2017



FY 2016 GNHWPCA LETTER & E-MAIL CORRESPONDENCE/TRANSMITTALS					
DATE	DOCUMENT TYPE	Ref/CWF #	PROJECT	TO	FROM
06/30/16	email	Concent Order	Annual Progress Report Consent Order WC5509 (hard copy from Sid followed)	D.Ruzica, G.Hicks	T.Sgroi
07/27/16	email	CWF Projects	Request for information regarding Priority List Projects	T.Sgroi	G.Hicks
07/27/16	email	CWF Projects	Upcoming Projects list as requested by George Hicks	G. Hicks	T.Sgroi
07/07/16	email	CWF Projects	Project status for various CWF Projects	G.Hicks	T.Sgroi
10/28/16	email	CMOM	CMOM Corrective Action Plan Annual Report	J.Melcher, G.Hicks	G.Zrelak
10/31/16	email	CMOM	CMOM Corrective Action Plan Annual Report - Supplemental Pages	J.Melcher, G.Hicks	G.Zrelak
12/01/16	email	CMOM	EPA Comments Letter regarding CMOM Corrective Action Plan	Sid Holbrook	John Melcher, EPA
04/28/17	email	LTCP	Approval Request for West River Study	J.Melcher, G.Hicks	G.Zrelak

ATTACHMENT “D”

**ANNUAL CSO FLOW
MONITORING DATA**

JUNE 2017

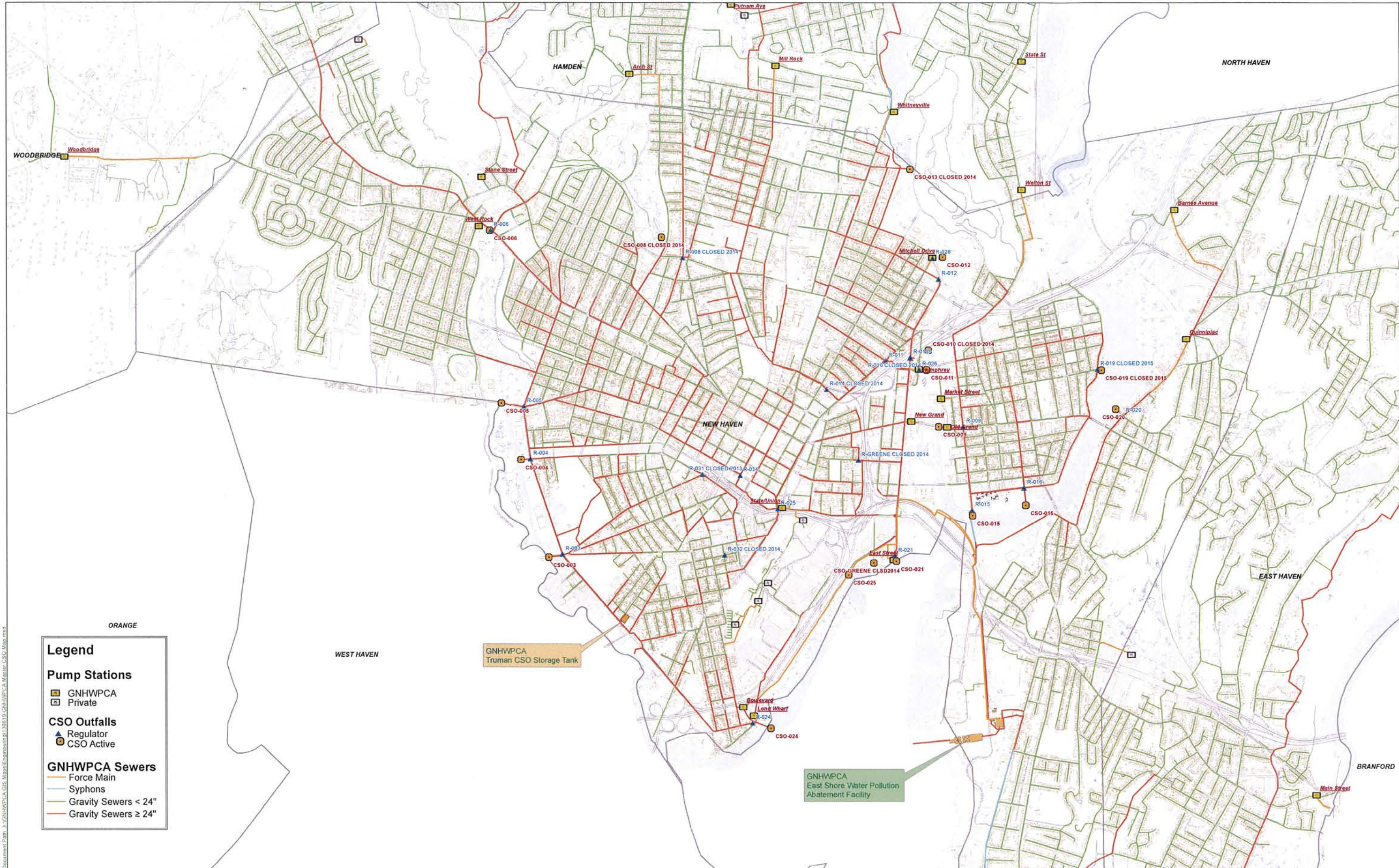
ATTACHMENT "D"

JUNE 2017
ANNUAL CSO FLOW MONITORING PROGRAM DATA

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGES</u>
Updated Sewer Map	1
Regulator and CSO Designations and Status	1
Meter Location Summary	6
Meter Data Summary May 2016 through April 2017	1
Meter Data – April 2017	19
Meter Data – March 2017	17
Meter Data – February 2017	17
Meter Data – January 2017	17
Meter Data – December 2016	19
Meter Data – November 2016	17
Meter Data – October 2016	16
Meter Data – September 2016	17
Meter Data – August 2016	17
Meter Data – July 2016	17
Meter Data – June 2016	17
Meter Data – May 2016	17

UPDATED SEWER MAP



Legend

Pump Stations

- GNHWPCA
- Private

CSO Outfalls

- Regulator
- CSO Active

GNHWPCA Sewers

- Force Main
- Syphons
- Gravity Sewers < 24"
- Gravity Sewers ≥ 24"

**GNHWPCA
COMBINED SEWER OVERFLOW (CSO) AND REGULATOR (R) LOCATIONS**



Document Path: X:\GNHWPCA GIS Maps\Enginesumup1\0619_GNHWPCCA Master CSO Map.mxd

REGULATOR & CSO DESIGNATIONS & STATUS

**GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
REGULATOR AND CSO DESIGNATIONS AND STATUS**

30-Jun-17

(1) NPDES CSO #	(1) NPDES REGULATOR LOCATION	(1) NPDES CSO RECEIVING WATER	(1) NPDES CSO STATUS	(2) CSO #	(2) CSO STATUS	(2) REG #	(2) REG STATUS
#003	E.T. Grasso Boulevard @ Orange Av	West River	Active	#003	Active	#003	Weir replaced in 2012
#004	E.T. Grasso Boulevard @ Legion Av	West River	Active	#004	Active	#004	Weir raised 8 inches in 2014
#005	E.T. Grasso Boulevard @ Derby Av	West River	Active	#005	Active	#005	Weir raised 1.45 feet in 2014
#005 (A)	University Place	West River	Active	None	Closed prior to 2008	None	Closed prior to 2008
#005 (B)	Elm/University Place	West River	Active	None	Closed prior to 2008	None	Closed prior to 2008
#006	Whalley Av @ Fitch Street	West River	Active	#006	Active	#006	Active
#008	Munson St @ Orchard St	Mill River	Active	#008	Closed in 2014	#008	Closed in 2014
#009	Grande Av @ James St	Mill River	Active	#009	Active	#009	Weir raised 8 inches in 2015
#010	East St @ I-91 (2 Weirs/2 Regulators)	Mill River	Active	#010	Closed in 2014	#010	Closed in 2014
#010 (A)	East St @ I-91 (2 Weirs/2 Regulators)	Mill River	Active	#011	Active	#010 (A)	Active
#011	Humphrey St @ I-91	Mill River	Active	#011	Active	#011	Active
#012	Mitchell Dr east of Nicoll St	Mill River	Active	#012	Active	#012	Weir raised 6 inches in 2013
#013	Everitt St @ East Rock Rd	Mill River	Active	#013	Closed in 2014	#013	Closed in 2014
#013 (A)	East Rock Rd @ Everitt St	Mill River	Active	None	Closed prior to 2008	None	Closed prior to 2008
#014	Trumbull St @ Orange St	Mill River	Active	#011	Active	#014	Closed in 2014
#015	James St Siphon	Quinnipiac River	Active	#015	Active	#015	Active
#016	Poplar St @ River St	Quinnipiac River	Active	#016	Active	#016	Weir repaired in 2014
#019	Pine St @ North Front St	Quinnipiac River	Active	#019	Closed in 2015	#019	Closed in 2015
#020	Quinnipiac Av @ Clifton St	Quinnipiac River	Active	#020	Active	#020	Active
#021	East St Pump Station	New Haven Harbor	Active	#021	Active	#021	Active
#021 (A)	Chapel/Hamilton	New Haven Harbor	Active	None	Closed prior to 2008	None	Closed prior to 2008
#024	Boulevard Pump Station (Sea St)	New Haven Harbor	Active	#024	Active	#024	Weir raised 1.5 feet in 2017
#025	Union Pump Station (Union & State St)	New Haven Harbor	Active	#025	Active	#025	Weir repaired in 2014
#025 (A)	Elm/University Place	New Haven Harbor	Active	None	Closed prior to 2008	None	Closed prior to 2008
#025 (B)	Grove/Whitney	New Haven Harbor	Active	None	Closed prior to 2008	None	Closed prior to 2008
#026	Humphrey Pump Station	Mill River	Active	#011	Active	#026	Active
#027	East/lves	Mill River	Active	None	Closed prior to 2008	None	Closed prior to 2008
#028	Mitchell Pump Station	Mill River	Active	#012	Active	#028	Active
#031	S. Frontage/Davenport	New Haven Harbor	Active	None	Closed in 2013	None	Closed in 2013
#032	Port Sea/Liberty	New Haven Harbor	Active	#025	Active	#032	Closed in 2014
#033	Carlisle/Liberty	New Haven Harbor	Active	None	Closed prior to 2008	None	Closed prior to 2008
#034	George/Temple	New Haven Harbor	Active	#025	Active	#034	Weir raised 2 feet in 2014
	Greene St	New Haven Harbor	Active	Greene	Closed in 2014	Greene	Closed in 2014
	Middletown/Front	Quinnipiac River	Active	None	Closed prior to 2008	None	Closed prior to 2008
				13	ACTIVE CSOs	17	ACTIVE REGULATORS
(1) NPDES Permit # CT 0100366 dated February 9, 2016							
(2) Ongoing CSO Flow Monitoring Program initiated in June 2012							

METER LOCATION SUMMARY

**GREATER NEW HAVEN WPCA
CSO FLOW MONITORING PROGRAM
METER LOCATION SUMMARY
JUNE 30, 2017**

UPDATED TO NAVD88 DATUM

OF-003 SEWER AND OVERFLOW

- Meter OF-003 Sewer was installed in the 72 inch wide by 67 inch high sewer downstream of REG 003 on 6/5/12 at an invert elevation of 1.34 (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 1.70
- 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

OF-004 SEWER AND OVERFLOW

- Meter OF-004 Sewer was installed in the 72 inch wide by 64 inch high sewer downstream of REG 004 on 6/6/12 at an invert elevation of 3.00 (overflow depth is 43 inches)
- Meters OF-004 Overflow was installed in the 5 foot wide by 3 foot high box culvert overflow on 6/6/12 at an invert elevation of 3.01
- The regulator consists of three weirs, each two feet wide. The weirs were raised 8 inches on 7/25/14 to elevation 6.59
- CSO start and stop times are based on a depth greater than 43 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-005 SEWER AND OVERFLOW

- Meter OF-005 Sewer was installed in the 60 inch wide by 57 inch high sewer at REG 005 on 6/7/12 at an elevation of 4.27 (5 inches above the invert due to sediment) (overflow depth is 72 inches)
- Meter OF-005 Overflow was installed in the 48 inch overflow pipe on 6/7/12 at an invert elevation of 7.35 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 7.35 upstream of the 36 inch drain connection
- A new overflow weir was constructed on 7/25/14 at an elevation of 10.25

- CSO start and stop times are based on a depth greater than 72 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-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 7.20 (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 9.49
- 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-009 SEWER AND 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 2.65
- The regulator consists of a 5.5 foot long weir at an elevation of 4.65. The weir was rebuilt on January 27, 2013. The overflow was raised 8 inches to elevation 5.32 on 6/23/15.
- Meter OF-009 Sewer (FM-19) was installed in the 35 inch wide by 52 inch high sewer one manhole upstream of REG-009 on 7/21/15 at an invert elevation of 2.81 (overflow depth is 30 inches)
- CSO start and stop times are based on a depths greater than 30 inches at Meter OF-009 Sewer (FM-19) and 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

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 7.42 (overflow depth is 62 inches)
- The regulator is a 114 inch wide weir at elevation 12.62
- 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 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 OF-011-631
- CSO start and stop times at REG 011 are estimated by subtracting the flows from the downstream meter (Meter OF-011-819) from the one upstream meter (Meter OF-011-631) (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
- When depths in the wetwell exceed 74 inches an overflow is occurring

OF-012 SEWER

- 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 13.05 **(THESE METERS WERE RELOCATED IN SEPTEMBER 2014)**
- New 6 inch high weirs were installed in each 18 inch overflow pipes on 5/3/13 at an elevation of 13.65 (raising the overflow depth to 36 inches)
- The new Meter OF-012 Sewer was installed in the 36 inch wide by 55 inch high sewer, three manholes downstream of REG 012, at an invert elevation of 9.89 (overflow depth is 36 inches)
- CSO start and stop times at REG 012 are based on a depth greater than 36 inches at Meter OF-012 Sewer
- CSO volumes at REG 012 are calculated based on depth over the equivalent 1.08 foot long weir at REG 012 using the weir formula

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
- When depths in the wetwell exceed 102 inches a CSO is occurring

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 -1.21

- 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 -2.15 (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 1.22
- CSO start and stop times are based on depths greater than 40.5 inches at Meter OF-015 DS Sewer
- 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 -0.43
- The regulator consists of an 3.8 foot long weir at an elevation of 2.35
- 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)

OF-020 SEWER AND OVERFLOW

- Meter OF-020 Overflow (depth sensor) was installed in the 15 inch overflow pipe at REG 020 on 3/25/13 at an invert elevation of 12.90
- Meter OF-020 Sewer was installed in the 24 inch sewer at REG 020 on 3/25/13 at an invert elevation of 10.45 (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-020
- CSO volumes are calculated based on depth over the 30 inches at REG-020 using the hydraulic elements chart and the Continuity Equation

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 -0.95
- Meter OF-021 was installed in REG 021 on 11/15/12 at an invert elevation of -2.21 (overflow depth is 90 inches)
- The regulator is twin 84 inch wide steel plate weirs at elevation 5.29
- There is a duckbill on the overflow pipe
- CSO start and stop times are based on a depth greater than 90 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-024 US and DS SEWER AND REG 024 WEIR

- Meter OF-024 US Sewer was installed in the 84 inch wide by 69 inch high sewer upstream of REG 024 on 7/30/12 at an invert elevation of -2.22 (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 -3.19 (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 2.99
- 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 by subtracting the Meter OF-024 DS flows from the Meter OF-024 US flows

REG 025 (METERS State, Frontage, Columbus and weir) (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 3.87
- Meter Frontage was installed in the 30 inch sewer on North Frontage Road upstream of REG 025 at an invert of 1.95
- Meter Columbus was installed in the 30 inch sewer on Columbus Avenue in November 2013 at an invert of -1.78
- Meter REG 025 weir was installed in REG 025 in November 2013. Sensors are metering the depths above the overflow elevation on each side of the overflow weir
- The overflow weir is 45 inches long and is made up of stainless steel plates at an overflow elevation of 5.35
- 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 (METERS Temple, George, and weir) (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 weir was installed in REG 034 in November 2013. Sensors are metering the depths on each side of the overflow weir above the overflow elevation
- The overflow weir consists of wood stop logs, 6.6 feet long. The overflow elevation was raised two feet by adding stop logs to elevation 13.65 on 8/1/14
- 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

GNH1 SEWER AT TRUMAN TANK

- Meter GNH1 Sewer was installed in the 72 inch wide by 64 inch high sewer downstream of the Truman Tank Diversion Chamber on 6/12/12 at an invert elevation of 0.25 (overflow depth is 36 inches)
- The regulator is a 10 foot bending weir at elevation 3.28 feet
- 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 storage volumes are calculated based on SCADA depths in the Truman Tank

METER DATA

SUMMARY

MAY 2016 – APRIL 2017

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - MAY 2016 THROUGH APRIL 2017

<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	12	1.908	34.66	12
CSO 005	REG 005	6	0.359	34.66	12
CSO 004	REG 004	19	1.664	34.66	12
CSO 003	REG 003	25	2.111	34.66	12
CSO 024	REG 024	14	4.403	34.66	12
CSO 009	REG 009	23	0.855	34.66	12
CSO 016	REG 016	20	6.245	34.66	12
CSO 015	REG 015	27	2.891	30.82	11
CSO 011	REGS 010A, 011, 026	13	3.916	34.66	12
CSO 012	REGS 012A, 012B, 028	7	0.087	34.66	12
CSO 025	REGS 025, 034	9	1.204	34.66	12
CSO 021	REG 021	14	5.035	34.66	12
CSO 020	REG 020	5	0.032	34.66	12
TOTAL		194	30.710		

METER DATA

APRIL 2017

**GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CSO FLOW MONITORING PROGRAM
METER DATA SUMMARY - APRIL 2017**

MONTHLY RAINFALL SUMMARY

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

No snowfall

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

One one month, one three month and one six 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	3	0.703
CSO 005	REG 005	2	0.153
CSO 004	REG 004	3	0.716
CSO 003	REG 003	3	0.084
CSO 024	REG 024	3	0.782
CSO 009	REG 009	4	0.335
CSO 016	REG 016	3	0.867
CSO 015	REG 015	4	0.487
CSO 011	REGS 010A, 011, 026	2	0.913
CSO 012	REGS 012A, 012B, 028	3	0.031
CSO 025	REGS 025, 034	2	0.355
CSO 021	REG 021	3	3.054
CSO 020	REG 020	2	0.011
TOTAL		37	8.491

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - THROUGH APRIL 2017

<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	69	15,904	190.63	60
CSO 005	REG 005	15	0.801	91.81	33
CSO 004	REG 004	57	6.088	92.05	33
CSO 003	REG 003	146	37,843	187.72	59
CSO 024	REG 024	52	34,799	177.40	56
CSO 009	REG 009	101	4,607	170.28	55
CSO 016	REG 016	120	43,887	172.93	58
CSO 015	REG 015	110	13,421	166.59	54
CSO 011	REGS 010A, 011, 026	50	19,553	165.91	53
CSO 012	REGS 012A, 012B, 028	9	0.102	88.32	31
CSO 025	REGS 025, 034	26	2,926	91.96	33
CSO 021	REG 021	69	44,947	166.89	54
CSO 020	REG 020	14	0.306	150.34	49
TOTAL		838	225,184		

**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>
CSO 006	REGS 006 A, 006 B	15	3.443	14	3.181
CSO 005	REG 005	7	0.360	5	0.291
CSO 004	REG 004	26	2.729	21	2.214
CSO 003	REG 003	32	8.320	30	7.697
CSO 024	REG 024	12	8.096	11	7.457
CSO 009	REG 009	24	1.117	22	1.005
CSO 016	REG 016	29	10.474	25	9.080
CSO 015	REG 015	27	3.325	24	2.982
CSO 011	REGS 010A, 011, 026	12	4.864	11	4.427
CSO 012	REGS 012A, 012B, 028	4	0.048	3	0.039
CSO 025	REGS 025, 034	12	1.313	9	1.064
CSO 021	REG 021	17	11.115	15	9.988
CSO 020	REG 020	4	0.084	3	0.075
TOTAL		217	55.202	192	49.426

(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: April YEAR: 2017

Average Low Temp: 43

Average High Temp: 60

Measured Rainfall: 4.55

Measured Snowfall: 0.00

EVENT No.	RAINFALL EVENT					CSO EVENT						
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	4/4/2017-4/5/2017	0:40	1:15	24.58	1.27	3 MONTH	4/4/2017	4:40	8:00	3.33	0.489	0.068
2	4/6/2017	7:05	18:40	11.58	1.13	6 MONTH	4/6/2017	18:05	18:50	0.75	0.244	0.008
3	4/12/2017	13:35	13:50	0.25	0.04	***						
4	4/15/2017	18:50	18:55	0.08	0.01	***						
5	4/16/2017	20:20	21:00	0.67	0.06	***						
6	4/19/2017-4/20/2017	17:40	9:30	15.83	0.26	***						
7	4/21/2017	1:00	11:25	10.42	0.26	***						
8	4/22/2017	10:55	13:45	2.83	0.03	***						
9	4/25/2017-4/26/2017	5:45	11:10	29.42	1.48	1 MONTH	4/25/2017 - 4/26/2017	21:55	0:40	2.75	0.068	0.008
10	4/28/2017	5:10	5:15	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 0.084

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: April YEAR: 2017
 Average Low Temp: 43
 Average High Temp: 60
 Measured Rainfall: 4.55
 Measured Snowfall: 0.00

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	4/4/2017-4/5/2017	0:40	1:15	24.58	1.27	3 MONTH	4/4/2017	4:25	9:10	4.75	1.992	0.394
2	4/6/2017	7:05	18:40	11.58	1.13	6 MONTH	4/6/2017	18:05	19:40	1.58	4.377	0.289
3	4/12/2017	13:35	13:50	0.25	0.04	***						
4	4/15/2017	18:50	18:55	0.08	0.01	***						
5	4/16/2017	20:20	21:00	0.67	0.06	***						
6	4/19/2017-4/20/2017	17:40	9:30	15.83	0.26	***						
7	4/21/2017	1:00	11:25	10.42	0.26	***						
8	4/22/2017	10:55	13:45	2.83	0.03	***						
9	4/25/2017-4/26/2017	5:45	11:10	29.42	1.48	1 MONTH	4/25/2017 - 4/26/2017	22:10	0:35	2.42	0.324	0.033
10	4/28/2017	5:10	5:15	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 0.716

Note: Overflow occurs when interceptor level reaches 4.3'

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Derby Ave. 20 yrds East of Ella T. Grasso Blvd.

LOCATION: 005

NPDES Permit Outfall #:

April YEAR: 2017

MONTH:

43

Average Low Temp:

60

Average High Temp:

4.55

Measured Rainfall:

0.00

Measured Snowfall:

0.00

EVENT No.	RAINFALL EVENT					CSO EVENT						
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	4/4/2017-4/5/2017	0:40	1:15	24.58	1.27	3 MONTH	4/4/2017	6:00	6:50	0.83	0.326	0.011
2	4/6/2017	7:05	18:40	11.58	1.13	6 MONTH	4/6/2017	18:10	18:55	0.75	4.554	0.142
3	4/12/2017	13:35	13:50	0.25	0.04	***						
4	4/15/2017	18:50	18:55	0.08	0.01	***						
5	4/16/2017	20:20	21:00	0.67	0.06	***						
6	4/19/2017-4/20/2017	17:40	9:30	15.83	0.26	***						
7	4/21/2017	1:00	11:25	10.42	0.26	***						
8	4/22/2017	10:55	13:45	2.83	0.03	***						
9	4/25/2017-4/26/2017	5:45	11:10	29.42	1.48	1 MONTH						
10	4/28/2017	5:10	5:15	0.08	0.01	***						
TOTAL MONTH											0.153	
FLOW VOLUME =												

Note: Overflow occurs when Interceptor level reaches 71"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Whalley Ave. 30 yds from Fitch Street
 NPDES Permit Outfall #: 006
 MONTH: April YEAR: 2017
 Average Low Temp: 43
 Average High Temp: 60
 Measured Rainfall: 4.55
 Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q. volume (MG)		
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)	OUTFALL Q.ave (MGD)
1	4/4/2017-4/5/2017	0:40	1:15	24.58	1.27	3 MONTH	4/4/2017	4:45	9:40	4.92	2.180	0.446
2	4/6/2017	7:05	18:40	11.58	1.13	6 MONTH	4/6/2017	17:40	20:30	2.83	2.000	0.236
3	4/12/2017	13:35	13:50	0.25	0.04	***						
4	4/15/2017	18:50	18:55	0.08	0.01	***						
5	4/16/2017	20:20	21:00	0.67	0.06	***						
6	4/19/2017-4/20/2017	17:40	9:30	15.83	0.26	***						
7	4/21/2017	1:00	11:25	10.42	0.26	***						
8	4/22/2017	10:55	13:45	2.83	0.03	***						
9	4/25/2017-4/26/2017	5:45	11:10	29.42	1.48	1 MONTH	4/25/2017 - 4/26/2017	23:10	0:10	1.00	0.504	0.021
10	4/28/2017	5:10	5:15	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 0.703

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 #: 2017
 MONTH: April YEAR: 2017
 Average Low Temp: 43
 Average High Temp: 60
 Measured Rainfall: 4.55
 Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					OUTFALL Q volume (MG)
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)		
1	4/4/2017-4/5/2017	0:40	1:15	24.58	1.27	3 MONTH	4:30	8:30	4.00	0.806	0.134	
2	4/6/2017	7:05	18:40	11.58	1.13	6 MONTH	17:50	19:05	1.25	1.975	0.103	
3	4/12/2017	13:35	13:50	0.25	0.04	***						
4	4/15/2017	18:50	18:55	0.08	0.01	***						
5	4/16/2017	20:20	21:00	0.67	0.06	***						
6	4/19/2017-4/20/2017	17:40	9:30	15.83	0.26	***	7:25	8:00	0.58	0.640	0.016	
7	4/21/2017	1:00	11:25	10.42	0.26	***						
8	4/22/2017	10:55	13:45	2.83	0.03	***						
9	4/25/2017-4/26/2017	5:45	11:10	29.42	1.48	1 MONTH	22:40	0:05	1.42	1.395	0.082	
10	4/28/2017	5:10	5:15	0.08	0.01	***						
										TOTAL MONTH FLOW VOLUME =	0.335	

Note: Overflow occurs when Interceptor level reaches 30"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 547 East Street
 010A

NPDES Permit Outfall #:

MONTH: April YEAR: 2017

Average Low Temp: 43

Average High Temp: 60

Measured Rainfall: 4.55

Measured Snowfall: 0.00

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	4/4/2017-4/5/2017	0:40	1:15	24.58	1.27	3 MONTH							
2	4/6/2017	7:05	18:40	11.58	1.13	6 MONTH							
3	4/12/2017	13:35	13:50	0.25	0.04	***							
4	4/15/2017	18:50	18:55	0.08	0.01	***							
5	4/16/2017	20:20	21:00	0.67	0.06	***							
6	4/19/2017-4/20/2017	17:40	9:30	15.83	0.26	***							
7	4/21/2017	1:00	11:25	10.42	0.26	***							
8	4/22/2017	10:55	13:45	2.83	0.03	***							
9	4/25/2017-4/26/2017	5:45	11:10	29.42	1.48	1 MONTH							
10	4/28/2017	5:10	5:15	0.08	0.01	***							

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 62"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011
 NPDES Permit Outfall #: April YEAR: 2017
 MONTH: 43
 Average Low Temp: 60
 Average High Temp: 4.55
 Measured Rainfall: 0.00
 Measured Snowfall:

EVENT NO.	RAINFALL EVENT					CSO EVENT						
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	4/4/2017-4/5/2017	0:40	1:15	24.58	1.27	3 MONTH	4/4/2017	5:10	7:40	2.50	4.984	0.467
2	4/6/2017	7:05	18:40	11.58	1.13	6 MONTH	4/6/2017	18:00	19:50	1.83	5.832	0.446
3	4/12/2017	13:35	13:50	0.25	0.04	***						
4	4/15/2017	18:50	18:55	0.08	0.01	***						
5	4/16/2017	20:20	21:00	0.67	0.06	***						
6	4/19/2017-4/20/2017	17:40	9:30	15.83	0.26	***						
7	4/21/2017	1:00	11:25	10.42	0.26	***						
8	4/22/2017	10:55	13:45	2.83	0.03	***						
9	4/25/2017-4/26/2017	5:45	11:10	29.42	1.48	1 MONTH						
10	4/28/2017	5:10	5:15	0.08	0.01	***						
TOTAL MONTH											0.913	
FLOW VOLUME =												

Sum of 010A and 011

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

011

LOCATION:

NPDES Permit Outfall #:

April YEAR: 2017

MONTH:

43

Average Low Temp:

60

Average High Temp:

4.55

Measured Rainfall:

0.00

EVENT No.	RAINFALL EVENT					CSO EVENT						
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	4/4/2017-4/5/2017	0:40	1:15	24.58	1.27	3 MONTH	4/4/2017	5:10	7:40	2.50	4.984	0.467
2	4/6/2017	7:05	18:40	11.58	1.13	6 MONTH	4/6/2017	18:00	19:50	1.83	5.832	0.446
3	4/12/2017	13:35	13:50	0.25	0.04	***						
4	4/15/2017	18:50	18:55	0.08	0.01	***						
5	4/16/2017	20:20	21:00	0.67	0.06	***						
6	4/19/2017-4/20/2017	17:40	9:30	15.83	0.26	***						
7	4/21/2017	1:00	11:25	10.42	0.26	***						
8	4/22/2017	10:55	13:45	2.83	0.03	***						
9	4/25/2017-4/26/2017	5:45	11:10	29.42	1.48	1 MONTH						
10	4/28/2017	5:10	5:15	0.08	0.01	***						
TOTAL MONTH											0.913	
FLOW VOLUME =												

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 75 Mitchell Drive

LOCATION: 012

NPDES Permit Outfall #:

MONTH: April YEAR: 2017

Average Low Temp: 43

Average High Temp: 60

Measured Rainfall: 4.55

Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					OUTFALL Q volume (MG)
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)		
1	4/4/2017-4/5/2017	0:40	1:15	24.58	1.27	3 MONTH	5:50	7:10	1.33	0.314	0.017	
2	4/6/2017	7:05	18:40	11.58	1.13	6 MONTH	18:20	19:20	1.00	0.321	0.013	
3	4/12/2017	13:35	13:50	0.25	0.04	***						
4	4/15/2017	18:50	18:55	0.08	0.01	***						
5	4/16/2017	20:20	21:00	0.67	0.06	***						
6	4/19/2017-4/20/2017	17:40	9:30	15.83	0.26	***						
7	4/21/2017	1:00	11:25	10.42	0.26	***						
8	4/22/2017	10:55	13:45	2.83	0.03	***						
9	4/25/2017-4/26/2017	5:45	11:10	29.42	1.48	1 MONTH	23:40	0:20	0.67	0.051	0.001	
10	4/28/2017	5:10	5:15	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 0.031

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 15 James Street

LOCATION: 015

NPDES Permit Outfall #:

MONTH: April YEAR: 2017

Average Low Temp: 43

Average High Temp: 60

Measured Rainfall: 4.55

Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP			DURATION (hours)
1	4/4/2017-4/5/2017	0:40	1:15	24.58	1.27	3 MONTH	4/4/2017	4:15	8:10	3.92	1.710	0.279
2	4/6/2017	7:05	18:40	11.58	1.13	6 MONTH	4/6/2017	8:05	8:30	0.42	2.778	0.048
3	4/12/2017	13:35	13:50	0.25	0.04	***	4/6/2017	18:10	19:35	1.42	0.650	0.038
4	4/15/2017	18:50	18:55	0.08	0.01	***						
5	4/16/2017	20:20	21:00	0.67	0.06	***						
6	4/19/2017-4/20/2017	17:40	9:30	15.83	0.26	***						
7	4/21/2017	1:00	11:25	10.42	0.26	***						
8	4/22/2017	10:55	13:45	2.83	0.03	***						
9	4/25/2017-4/26/2017	5:45	11:10	29.42	1.48	1 MONTH	4/25/2017 - 4/26/2017	22:05	1:00	2.92	1.003	0.122
10	4/28/2017	5:10	5:15	0.08	0.01	***						

Expected capacity of siphon is between 24 and 30 MGD.
Weir Height 40.5"

TOTAL MONTH FLOW VOLUME = 0.487

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Int. River & Poplar
016

LOCATION:
NPDES Permit Outfall #:

MONTH: April YEAR: 2017

43

60

4.55

0.00

Average Low Temp:

Average High Temp:

Measured Rainfall:

Measured Snowfall:

EVENT No.	RAINFALL EVENT					CSO EVENT						
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	4/4/2017-4/5/2017	0:40	1:15	24.58	1.27	3 MONTH	4/4/2017	4:25	7:10	2.75	3.443	0.395
2	4/6/2017	7:05	18:40	11.58	1.13	6 MONTH	4/6/2017	18:00	19:05	1.08	4.560	0.380
3	4/12/2017	13:35	13:50	0.25	0.04	***						
4	4/15/2017	18:50	18:55	0.08	0.01	***						
5	4/16/2017	20:20	21:00	0.67	0.06	***						
6	4/19/2017-4/20/2017	17:40	9:30	15.83	0.26	***						
7	4/21/2017	1:00	11:25	10.42	0.26	***						
8	4/22/2017	10:55	13:45	2.83	0.03	***						
9	4/25/2017-4/26/2017	5:45	11:10	29.42	1.48	1 MONTH	4/25/2017 - 4/26/2017	23:00	0:05	1.08	2.040	0.092
10	4/28/2017	5:10	5:15	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 0.867

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Clifton and Quinmipiac

LOCATION: 020

NPDES Permit Outfall #:

April YEAR: 2017

MONTH: 43

Average Low Temp: 60

Average High Temp: 4.55

Measured Rainfall: 0.00

EVENT No.	RAINFALL EVENT					CSO EVENT						
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	4/4/2017-4/5/2017	0:40	1:15	24.58	1.27	3 MONTH	4/4/2017	6:35	9:05	2.50	0.001	0.000
2	4/6/2017	7:05	18:40	11.58	1.13	6 MONTH	4/6/2017	18:20	21:50	3.50	0.078	0.011
3	4/12/2017	13:35	13:50	0.25	0.04	***						
4	4/15/2017	18:50	18:55	0.08	0.01	***						
5	4/16/2017	20:20	21:00	0.67	0.06	***						
6	4/19/2017-4/20/2017	17:40	9:30	15.83	0.26	***						
7	4/21/2017	1:00	11:25	10.42	0.26	***						
8	4/22/2017	10:55	13:45	2.83	0.03	***						
9	4/25/2017-4/26/2017	5:45	11:10	29.42	1.48	1 MONTH						
10	4/28/2017	5:10	5:15	0.08	0.01	***						

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

TOTAL MONTH FLOW VOLUME = 0.011

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 638 Long Wharf Drive

LOCATION: 021

NPDES Permit Outfall #:

MONTH: April YEAR: 2017

Average Low Temp: 43

Average High Temp: 60

Measured Rainfall: 4.55

Measured Snowfall: 0.00

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	4/4/2017-4/5/2017	0:40	1:15	24.58	1.27	3 MONTH	4/4/2017	5:20	8:55	3.58	7.342	1.096
2	4/6/2017	7:05	18:40	11.58	1.13	6 MONTH	4/6/2017	18:35	20:15	1.67	3.662	0.254
3	4/12/2017	13:35	13:50	0.25	0.04	***						
4	4/15/2017	18:50	18:55	0.08	0.01	***						
5	4/16/2017	20:20	21:00	0.67	0.06	***						
6	4/19/2017-4/20/2017	17:40	9:30	15.83	0.26	***						
7	4/21/2017	1:00	11:25	10.42	0.26	***						
8	4/22/2017	10:55	13:45	2.83	0.03	***						
9	4/25/2017-4/26/2017	5:45	11:10	29.42	1.48	1 MONTH	4/25/2017 - 4/26/2017	23:05	1:10	2.08	19.635	1.704
10	4/28/2017	5:10	5:15	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 3.054

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Sea Street @ South Water Street
024

LOCATION:

NPDES Permit Outfall #:

MONTH: April YEAR: 2017

Average Low Temp: 43

Average High Temp: 60

Measured Rainfall: 4.55

Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					OUTFALL Q _v volume (MG)
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Q _{avg} (MGD)	
1	4/4/2017-4/5/2017	0:40	1:15	24.58	1.27	3 MONTH	4/4/2017	5:20	9:45	4.42	3.731	0.687
2	4/6/2017	7:05	18:40	11.58	1.13	6 MONTH	4/6/2017	18:25	19:05	0.67	3.035	0.084
3	4/12/2017	13:35	13:50	0.25	0.04	***						
4	4/15/2017	18:50	18:55	0.08	0.01	***						
5	4/16/2017	20:20	21:00	0.67	0.06	***						
6	4/19/2017-4/20/2017	17:40	9:30	15.83	0.26	***						
7	4/21/2017	1:00	11:25	10.42	0.26	***						
8	4/22/2017	10:55	13:45	2.83	0.03	***						
9	4/25/2017-4/26/2017	5:45	11:10	29.42	1.48	1 MONTH	4/25/2017	23:25	23:50	0.42	0.619	0.011
10	4/28/2017	5:10	5:15	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 0.782

Note: Overflow occurs when interceptor level reaches 65" in US & 81" in DS

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Intersection of State & N. Front Street
 025
 MONTH: April YEAR: 2017
 NPDES Permit Outfall #: 43
 Average Low Temp: 43
 Average High Temp: 60
 Measured Rainfall: 4.55
 Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL volume (MG)
1	4/4/2017-4/5/2017	0:40	1:15	24.58	1.27	3 MONTH						
2	4/6/2017	7:05	18:40	11.58	1.13	6 MONTH						
3	4/12/2017	13:35	13:50	0.25	0.04	***						
4	4/15/2017	18:50	18:55	0.08	0.01	***						
5	4/16/2017	20:20	21:00	0.67	0.06	***						
6	4/19/2017-4/20/2017	17:40	9:30	15.83	0.26	***						
7	4/21/2017	1:00	11:25	10.42	0.26	***						
8	4/22/2017	10:55	13:45	2.83	0.03	***						
9	4/25/2017-4/26/2017	5:45	11:10	29.42	1.48	1 MONTH						
10	4/28/2017	5:10	5:15	0.08	0.01	***						
TOTAL MONTH											0.000	
FLOW VOLUME =												

Note: Overflow occurs when Interceptor level reaches 21"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG George and Temple
 LOCATION: Regulator 34
 NPDES Permit Outfall #:
 MONTH: April YEAR: 2017
 Average Low Temp: 43
 Average High Temp: 60
 Measured Rainfall: 4.55
 Measured Snowfall: 0.00

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	4/4/2017-4/5/2017	0:40	1:15	24.58	1.27	3 MONTH	4/4/2017	6:00	6:15	0.25	2.276	0.024
2	4/6/2017	7:05	18:40	11.58	1.13	6 MONTH	4/6/2017	18:10	18:40	0.50	15.871	0.331
3	4/12/2017	13:35	13:50	0.25	0.04	***						
4	4/15/2017	18:50	18:55	0.08	0.01	***						
5	4/16/2017	20:20	21:00	0.67	0.06	***						
6	4/19/2017-4/20/2017	17:40	9:30	15.83	0.26	***						
7	4/21/2017	1:00	11:25	10.42	0.26	***						
8	4/22/2017	10:55	13:45	2.83	0.03	***						
9	4/25/2017-4/26/2017	5:45	11:10	29.42	1.48	1 MONTH						
10	4/28/2017	5:10	5:15	0.08	0.01	***						
											TOTAL MONTH	0.355
											FLOW VOLUME =	

METER DATA

MARCH 2017

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CSO FLOW MONITORING PROGRAM
METER DATA SUMMARY - MARCH 2017

MONTHLY RAINFALL SUMMARY

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

13.0 inches of snow

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

Three one 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	0	0.000
CSO 005	REG 005	0	0.000
CSO 004	REG 004	1	0.012
CSO 003	REG 003	2	0.004
CSO 024	REG 024	1	0.164
CSO 009	REG 009	3	0.069
CSO 016	REG 016	1	0.035
CSO 015	REG 015	2	0.126
CSO 011	REGS 010A, 011, 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	0.011
CSO 020	REG 020	0	0.000
TOTAL		11	0.421

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CSO FLOW MONITORING PROGRAM
METER DATA SUMMARY - THROUGH MARCH 2017

<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	66	15.201	186.08	59
CSO 005	REG 005	13	0.648	87.26	32
CSO 004	REG 004	54	5.372	87.50	32
CSO 003	REG 003	143	37.759	183.17	58
CSO 024	REG 024	49	34.017	172.85	55
CSO 009	REG 009	97	4.272	165.73	54
CSO 016	REG 016	117	43.020	168.38	57
CSO 015	REG 015	106	12.934	162.04	53
CSO 011	REGS 010A, 011, 026	48	18.640	161.36	52
CSO 012	REGS 012A, 012B, 028	6	0.071	83.77	30
CSO 025	REGS 025, 034	24	2.571	87.41	32
CSO 021	REG 021	66	41.893	162.34	53
CSO 020	REG 020	12	0.295	145.79	48
TOTAL		801	216.693		

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - TYPICAL YEAR ESTIMATES

CSO NUMBER	REGULATOR NUMBERS	ANNUAL CSO EVENTS BASED ON RAINFALL ⁽¹⁾	ANNUAL CSO VOLUME (MG) BASED ON RAINFALL ⁽²⁾	ANNUAL CSO EVENTS BASED ON MONTHS ⁽³⁾	ANNUAL CSO VOLUME (MG) BASED ON MONTHS ⁽⁴⁾
CSO 006	REGS 006 A, 006 B	15	3.371	13	3.092
CSO 005	REG 005	6	0.306	5	0.243
CSO 004	REG 004	25	2.534	20	2.015
CSO 003	REG 003	32	8.508	30	7.812
CSO 024	REG 024	12	8.122	11	7.422
CSO 009	REG 009	24	1.064	22	0.949
CSO 016	REG 016	29	10.544	25	9.057
CSO 015	REG 015	27	3.294	24	2.928
CSO 011	REGS 010A, 011, 026	12	4.767	11	4.302
CSO 012	REGS 012A, 012B, 028	3	0.035	2	0.028
CSO 025	REGS 025, 034	11	1.214	9	0.964
CSO 021	REG 021	17	10.650	15	9.485
CSO 020	REG 020	3	0.084	3	0.074
TOTAL		213	54.409	186	48.297

(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: March YEAR: 2017
 Average Low Temp: 27
 Average High Temp: 43
 Measured Rainfall: 3.79
 Measured Snowfall: 13.20

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	3/1/2017	4:40	13:10	8.50	0.32	1 MONTH							
2	3/7/2017	6:25	12:45	6.33	0.03	***							
3	3/8/2017	1:15	12:25	11.17	0.05	***							
4	3/10/2017	15:25	16:55	1.50	0.09	***							
5	3/11/2017	14:15	14:20	0.08	0.01	***							
6	3/14/2017	12:20	16:45	4.42	0.85	1 MONTH							
7	3/15/2017	9:35	15:10	5.58	0.11	***							
8	3/16/2017	10:10	11:10	1.00	0.05	***							
9	3/27/2017	1:35	12:20	10.75	0.45	***	3/27/2017	10:45	12:15	1.50	0.048	0.003	
10	3/28/2017	5:45	6:40	0.92	0.08	***							
11	3/28/2017 - 3/29/2017	12:25	0:25	12.00	0.43	***	3/28/2017	14:10	15:00	0.83	0.039	0.001	
12	3/31/2017 - 4/1/2017	4:25	5:50	25.42	1.32	1 MONTH							

TOTAL MONTH FLOW VOLUME = 0.004

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: March YEAR: 2017

Average Low Temp: 27

Average High Temp: 43

Measured Rainfall: 3.79

Measured Snowfall: 13.20

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	3/1/2017	4:40	13:10	8.50	0.32	1 MONTH						
2	3/7/2017	6:25	12:45	6.33	0.03	***						
3	3/8/2017	1:15	12:25	11.17	0.05	***						
4	3/10/2017	15:25	16:55	1.50	0.09	***						
5	3/11/2017	14:15	14:20	0.08	0.01	***						
6	3/14/2017	12:20	16:45	4.42	0.85	1 MONTH						
7	3/15/2017	9:35	15:10	5.58	0.11	***						
8	3/16/2017	10:10	11:10	1.00	0.05	***						
9	3/27/2017	1:35	12:20	10.75	0.45	***		10:45	11:45	1.00	0.297	0.012
10	3/28/2017	5:45	6:40	0.92	0.08	***						
11	3/28/2017 - 3/29/2017	12:25	0:25	12.00	0.43	***						
12	3/31/2017 - 4/1/2017	4:25	5:50	25.42	1.32	1 MONTH						

TOTAL MONTH FLOW VOLUME =

0.012

Note: Overflow occurs when Interceptor level reaches 43"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Derby Ave. 20 yds East of Ella T. Grasso Blvd.

LOCATION: 005

NPDES Permit Outfall #:

MONTH: March YEAR: 2017

27

Average Low Temp:

43

Average High Temp:

3.79

Measured Rainfall:

13.20

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	3/1/2017	4:40	13:10	8.50	0.32	1 MONTH						
2	3/7/2017	6:25	12:45	6.33	0.03	***						
3	3/8/2017	1:15	12:25	11.17	0.05	***						
4	3/10/2017	15:25	16:55	1.50	0.09	***						
5	3/11/2017	14:15	14:20	0.08	0.01	***						
6	3/14/2017	12:20	16:45	4.42	0.85	1 MONTH						
7	3/15/2017	9:35	15:10	5.58	0.11	***						
8	3/16/2017	10:10	11:10	1.00	0.05	***						
9	3/27/2017	1:35	12:20	10.75	0.45	***						
10	3/28/2017	5:45	6:40	0.92	0.08	***						
11	3/28/2017 - 3/29/2017	12:25	0:25	12.00	0.43	***						
12	3/31/2017 - 4/1/2017	4:25	5:50	25.42	1.32	1 MONTH						
TOTAL MONTH											FLOW VOLUME =	0.000

Note: Overflow occurs when Interceptor level reaches 71"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Whalley Ave. 30 yds from Fitch Street
 NPDES Permit Outfall #: 006
 MONTH: March YEAR: 2017
 Average Low Temp: 27
 Average High Temp: 43
 Measured Rainfall: 3.79
 Measured Snowfall: 13.20

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	3/1/2017	4:40	13:10	8.50	0.32	1 MONTH						
2	3/7/2017	6:25	12:45	6.33	0.03	***						
3	3/8/2017	1:15	12:25	11.17	0.05	***						
4	3/10/2017	15:25	16:55	1.50	0.09	***						
5	3/11/2017	14:15	14:20	0.08	0.01	***						
6	3/14/2017	12:20	16:45	4.42	0.85	1 MONTH						
7	3/15/2017	9:35	15:10	5.58	0.11	***						
8	3/16/2017	10:10	11:10	1.00	0.05	***						
9	3/27/2017	1:35	12:20	10.75	0.45	***						
10	3/28/2017	5:45	6:40	0.92	0.08	***						
11	3/28/2017 - 3/29/2017	12:25	0:25	12.00	0.43	***						
12	3/31/2017 - 4/1/2017	4:25	5:50	25.42	1.32	1 MONTH						
TOTAL MONTH											0.000	
FLOW VOLUME =											0.000	

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 #: 2017
 MONTH: March YEAR: 2017
 Average Low Temp: 27
 Average High Temp: 43
 Measured Rainfall: 3.79
 Measured Snowfall: 13.20

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	3/1/2017	4:40	13:10	8.50	0.32	1 MONTH	3/1/2017	11:25	12:20	0.92	0.110	0.004
2	3/7/2017	6:25	12:45	6.33	0.03	***						
3	3/8/2017	1:15	12:25	11.17	0.05	***						
4	3/10/2017	15:25	16:55	1.50	0.09	***						
5	3/11/2017	14:15	14:20	0.08	0.01	***						
6	3/14/2017	12:20	16:45	4.42	0.85	1 MONTH						
7	3/15/2017	9:35	15:10	5.58	0.11	***						
8	3/16/2017	10:10	11:10	1.00	0.05	***						
9	3/27/2017	1:35	12:20	10.75	0.45	***	3/27/2017	10:25	11:25	1.00	1.510	0.063
10	3/28/2017	5:45	6:40	0.92	0.08	***						
11	3/28/2017 - 3/29/2017	12:25	0:25	12.00	0.43	***	3/28/2017	13:50	14:05	0.25	0.201	0.002
12	3/31/2017 - 4/1/2017	4:25	5:50	25.42	1.32	1 MONTH						
TOTAL MONTH											FLOW VOLUME =	0.069

Note: Overflow occurs when Interceptor level reaches 30"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

011

LOCATION:

NPDES Permit Outfall #:

March YEAR: 2017

MONTH: 27

Average Low Temp:

43

Average High Temp:

3.79

Measured Rainfall:

13.20

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	3/1/2017	4:40	13:10	8.50	0.32	1 MONTH							
2	3/7/2017	6:25	12:45	6.33	0.03	***							
3	3/8/2017	1:15	12:25	11.17	0.05	***							
4	3/10/2017	15:25	16:55	1.50	0.09	***							
5	3/11/2017	14:15	14:20	0.08	0.01	***							
6	3/14/2017	12:20	16:45	4.42	0.85	1 MONTH							
7	3/15/2017	9:35	15:10	5.58	0.11	***							
8	3/16/2017	10:10	11:10	1.00	0.05	***							
9	3/27/2017	1:35	12:20	10.75	0.45	***							
10	3/28/2017	5:45	6:40	0.92	0.08	***							
11	3/28/2017 - 3/29/2017	12:25	0:25	12.00	0.43	***							
12	3/31/2017 - 4/1/2017	4:25	5:50	25.42	1.32	1 MONTH							

TOTAL MONTH FLOW VOLUME = 0.000

Sum of 010A and 011

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 75 Mitchell Drive
 012

NPDES Permit Outfall #:

MONTH: March YEAR: 2017

Average Low Temp:

27

Average High Temp:

43

Measured Rainfall:

3.79

Measured Snowfall:

13.20

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	3/1/2017	4:40	13:10	8.50	0.32	1 MONTH					
2	3/7/2017	6:25	12:45	6.33	0.03	***					
3	3/8/2017	1:15	12:25	11.17	0.05	***					
4	3/10/2017	15:25	16:55	1.50	0.09	***					
5	3/11/2017	14:15	14:20	0.08	0.01	***					
6	3/14/2017	12:20	16:45	4.42	0.85	1 MONTH					
7	3/15/2017	9:35	15:10	5.58	0.11	***					
8	3/16/2017	10:10	11:10	1.00	0.05	***					
9	3/27/2017	1:35	12:20	10.75	0.45	***					
10	3/28/2017	5:45	6:40	0.92	0.08	***					
11	3/28/2017 - 3/29/2017	12:25	0:25	12.00	0.43	***					
12	3/31/2017 - 4/1/2017	4:25	5:50	25.42	1.32	1 MONTH					

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 15 James Street
 LOCATION: 015

NPDES Permit Outfall #:

March YEAR: 2017

MONTH: 27

Average Low Temp: 43

Average High Temp: 3.79

Measured Rainfall: 13.20

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	3/1/2017	4:40	13:10	8.50	0.32	1 MONTH	3/1/2017	11:35	11:45	0.17	2.144	0.015	
2	3/7/2017	6:25	12:45	6.33	0.03	***	3/1/2017	12:15	12:25	0.17	2.530	0.018	
3	3/8/2017	1:15	12:25	11.17	0.05	***							
4	3/10/2017	15:25	16:55	1.50	0.09	***							
5	3/11/2017	14:15	14:20	0.08	0.01	***							
6	3/14/2017	12:20	16:45	4.42	0.85	1 MONTH							
7	3/15/2017	9:35	15:10	5.58	0.11	***							
8	3/16/2017	10:10	11:10	1.00	0.05	***							
9	3/27/2017	1:35	12:20	10.75	0.45	***	3/27/2017	10:45	12:00	1.25	1.793	0.093	
10	3/28/2017	5:45	6:40	0.92	0.08	***							
11	3/28/2017 - 3/29/2017	12:25	0:25	12.00	0.43	***							
12	3/31/2017 - 4/1/2017	4:25	5:50	25.42	1.32	1 MONTH							

Expected capacity of siphon is between 24 and 30 MGD.
 Weir Height 40.5"

TOTAL MONTH FLOW VOLUME = 0.126

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Int. River & Poplar

LOCATION: 016

NPDES Permit Outfall #:

March YEAR: 2017

MONTH: 27

Average Low Temp:

43

Average High Temp:

3.79

Measured Rainfall:

13.20

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	3/1/2017	4:40	13:10	8.50	0.32	1 MONTH					
2	3/7/2017	6:25	12:45	6.33	0.03	***					
3	3/8/2017	1:15	12:25	11.17	0.05	***					
4	3/10/2017	15:25	16:55	1.50	0.09	***					
5	3/11/2017	14:15	14:20	0.08	0.01	***					
6	3/14/2017	12:20	16:45	4.42	0.85	1 MONTH					
7	3/15/2017	9:35	15:10	5.58	0.11	***					
8	3/16/2017	10:10	11:10	1.00	0.05	***					
9	3/27/2017	1:35	12:20	10.75	0.45	***					
10	3/28/2017	5:45	6:40	0.92	0.08	***					
11	3/28/2017 - 3/29/2017	12:25	0:25	12.00	0.43	***					
12	3/31/2017 - 4/1/2017	4:25	5:50	25.42	1.32	1 MONTH	3/31/2017	18:30	22:25	3.92	0.215
										TOTAL MONTH FLOW VOLUME =	0.035

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Clifton and Quinippiac
 020

NPDES Permit Outfall #: March YEAR: 2017

MONTH: 27

Average Low Temp: 43

Average High Temp: 3.79

Measured Rainfall: 13.20

EVENT No.	DATE	RAINFALL EVENT						CSO EVENT			
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)
1	3/1/2017	4:40	13:10	8.50	0.32	1 MONTH					
2	3/7/2017	6:25	12:45	6.33	0.03	***					
3	3/8/2017	1:15	12:25	11.17	0.05	***					
4	3/10/2017	15:25	16:55	1.50	0.09	***					
5	3/11/2017	14:15	14:20	0.08	0.01	***					
6	3/14/2017	12:20	16:45	4.42	0.85	1 MONTH					
7	3/15/2017	9:35	15:10	5.58	0.11	***					
8	3/16/2017	10:10	11:10	1.00	0.05	***					
9	3/27/2017	1:35	12:20	10.75	0.45	***					
10	3/28/2017	5:45	6:40	0.92	0.08	***					
11	3/28/2017 - 3/29/2017	12:25	0:25	12.00	0.43	***					
12	3/31/2017 - 4/1/2017	4:25	5:50	25.42	1.32	1 MONTH					

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

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 638 Long Wharf Drive

LOCATION: 021

NPDES Permit Outfall #:

MONTH: March YEAR: 2017

Average Low Temp:

27

Average High Temp:

43

Measured Rainfall:

3.79

Measured Snowfall:

13.20

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	3/1/2017	4:40	13:10	8.50	0.32	1 MONTH					
2	3/7/2017	6:25	12:45	6.33	0.03	***					
3	3/8/2017	1:15	12:25	11.17	0.05	***					
4	3/10/2017	15:25	16:55	1.50	0.09	***					
5	3/11/2017	14:15	14:20	0.08	0.01	***					
6	3/14/2017	12:20	16:45	4.42	0.85	1 MONTH					
7	3/15/2017	9:35	15:10	5.58	0.11	***					
8	3/16/2017	10:10	11:10	1.00	0.05	***					
9	3/27/2017	1:35	12:20	10.75	0.45	***	3/27/2017	11:25	12:10	0.75	0.342
10	3/28/2017	5:45	6:40	0.92	0.08	***					
11	3/28/2017 - 3/29/2017	12:25	0:25	12.00	0.43	***					
12	3/31/2017 - 4/1/2017	4:25	5:50	25.42	1.32	1 MONTH					
TOTAL MONTH										0.011	
FLOW VOLUME =											

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Sea Street @ South Water Street
 NPDES Permit Outfall #: 024
 MONTH: March YEAR: 2017
 Average Low Temp: 27
 Average High Temp: 43
 Measured Rainfall: 3.79
 Measured Snowfall: 13.20

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	3/1/2017	4:40	13:10	8.50	0.32	1 MONTH						
2	3/7/2017	6:25	12:45	6.33	0.03	***						
3	3/8/2017	1:15	12:25	11.17	0.05	***						
4	3/10/2017	15:25	16:55	1.50	0.09	***						
5	3/11/2017	14:15	14:20	0.08	0.01	***						
6	3/14/2017	12:20	16:45	4.42	0.85	1 MONTH						
7	3/15/2017	9:35	15:10	5.58	0.11	***						
8	3/16/2017	10:10	11:10	1.00	0.05	***						
9	3/27/2017	1:35	12:20	10.75	0.45	***						
10	3/28/2017	5:45	6:40	0.92	0.08	***						
11	3/28/2017 - 3/29/2017	12:25	0:25	12.00	0.43	***						
12	3/31/2017 - 4/1/2017	4:25	5:50	25.42	1.32	1 MONTH						
											TOTAL MONTH FLOW VOLUME =	0.164

Note: Overflow occurs when interceptor level reaches 65" in US & 81" in DS

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Intersection of State & N. Front Street
 025
 NPDES Permit Outfall #: March YEAR: 2017
 MONTH: 27
 Average Low Temp: 43
 Average High Temp: 3.79
 Measured Rainfall: 13.20
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT						CSO EVENT				OUTFALL Q volume (MG)
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	
1	3/1/2017	4:40	13:10	8.50	0.32	1 MONTH						
2	3/7/2017	6:25	12:45	6.33	0.03	***						
3	3/8/2017	1:15	12:25	11.17	0.05	***						
4	3/10/2017	15:25	16:55	1.50	0.09	***						
5	3/11/2017	14:15	14:20	0.08	0.01	***						
6	3/14/2017	12:20	16:45	4.42	0.85	1 MONTH						
7	3/15/2017	9:35	15:10	5.58	0.11	***						
8	3/16/2017	10:10	11:10	1.00	0.05	***						
9	3/27/2017	1:35	12:20	10.75	0.45	***						
10	3/28/2017	5:45	6:40	0.92	0.08	***						
11	3/28/2017 - 3/29/2017	12:25	0:25	12.00	0.43	***						
12	3/31/2017 - 4/1/2017	4:25	5:50	25.42	1.32	1 MONTH						

TOTAL MONTH
 FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 21"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG George and Temple
 LOCATION: Regulator 34

NPDES Permit Outfall #:

MONTH: March YEAR: 2017

Average Low Temp: 27

Average High Temp: 43

Measured Rainfall: 3.79

Measured Snowfall: 13.20

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP			DURATION (hours)
1	3/1/2017	4:40	13:10	8.50	0.32	1 MONTH						
2	3/7/2017	6:25	12:45	6.33	0.03	***						
3	3/8/2017	1:15	12:25	11.17	0.05	***						
4	3/10/2017	15:25	16:55	1.50	0.09	***						
5	3/11/2017	14:15	14:20	0.08	0.01	***						
6	3/14/2017	12:20	16:45	4.42	0.85	1 MONTH						
7	3/15/2017	9:35	15:10	5.58	0.11	***						
8	3/16/2017	10:10	11:10	1.00	0.05	***						
9	3/27/2017	1:35	12:20	10.75	0.45	***						
10	3/28/2017	5:45	6:40	0.92	0.08	***						
11	3/28/2017 - 3/29/2017	12:25	0:25	12.00	0.43	***						
12	3/31/2017 - 4/1/2017	4:25	5:50	25.42	1.32	1 MONTH						
TOTAL MONTH											0.000	
FLOW VOLUME =												

METER DATA

FEBRUARY 2017

**GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CSO FLOW MONITORING PROGRAM
METER DATA SUMMARY - FEBRUARY 2017**

MONTHLY RAINFALL SUMMARY

1.00 inches of rain (3.44 inches of rain in a typical month)
13.9 inches of snow
7 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	1	0.001
CSO 016	REG 016	0	0.000
CSO 015	REG 015	0	0.000
CSO 011	REGS 010A, 011, 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	0.004
CSO 020	REG 020	0	0.000
TOTAL		2	0.005

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - THROUGH FEBRUARY 2017

CSO NUMBER	REGULATOR NUMBERS	CSO EVENTS	CSO VOLUME (MG)	RAINFALL (IN)	METER MONTHS
CSO 006	REGS 006 A, 006 B	66	15,201	182.29	58
CSO 005	REG 005	13	0,648	83.47	31
CSO 004	REG 004	53	5,360	83.71	31
CSO 003	REG 003	141	37,755	179.38	57
CSO 024	REG 024	48	33,853	169.06	54
CSO 009	REG 009	94	4,203	161.94	53
CSO 016	REG 016	116	42,985	164.59	56
CSO 015	REG 015	104	12,808	158.25	52
CSO 011	REGS 010A, 011, 026	48	18,640	157.57	51
CSO 012	REGS 012A, 012B, 028	6	0,071	79.98	29
CSO 025	REGS 025, 034	24	2,571	83.62	31
CSO 021	REG 021	65	41,882	158.55	52
CSO 020	REG 020	12	0,295	142.00	47
TOTAL		790	216,272		

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>
CSO 006	REGS 006 A, 006 B	15	3.441	14	3.145
CSO 005	REG 005	6	0.320	5	0.251
CSO 004	REG 004	26	2.642	21	2.075
CSO 003	REG 003	32	8.686	30	7.948
CSO 024	REG 024	12	8.264	11	7.523
CSO 009	REG 009	24	1.071	21	0.952
CSO 016	REG 016	29	10.778	25	9.211
CSO 015	REG 015	27	3.340	24	2.956
CSO 011	REGS 010A, 011, 026	13	4.882	11	4.386
CSO 012	REGS 012A, 012B, 028	3	0.037	2	0.029
CSO 025	REGS 025, 034	12	1.269	9	0.995
CSO 021	REG 021	17	10.902	15	9.665
CSO 020	REG 020	3	0.086	3	0.075
TOTAL		216	55.633	188	49.136

(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 #: 28
 MONTH: February YEAR: 2017
 Average Low Temp: 44
 Average High Temp: 1.00
 Measured Rainfall: 13.90
 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	2/1/2017	9:10	9:45	0.58	0.13	***						
2	2/7/2017	7:45	15:20	7.58	0.13	***						
3	2/8/2017	4:30	4:35	0.08	0.01	***						
4	2/10/2017	9:10	11:30	2.33	0.10	***						
5	2/13/2017	7:50	15:10	7.33	0.33	***						
6	2/15/2017	18:05	18:35	0.50	0.03	***						
7	2/25/2017	18:15	22:45	4.50	0.27	***						

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.
 004
 NPDES Permit Outfall #: February YEAR: 2017
 MONTH: 28
 Average Low Temp: 44
 Average High Temp: 1.00
 Measured Rainfall: 13.90
 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	2/1/2017	9:10	9:45	0.58	0.13	***						
2	2/7/2017	7:45	15:20	7.58	0.13	***						
3	2/8/2017	4:30	4:35	0.08	0.01	***						
4	2/10/2017	9:10	11:30	2.33	0.10	***						
5	2/13/2017	7:50	15:10	7.33	0.33	***						
6	2/15/2017	18:05	18:35	0.50	0.03	***						
7	2/25/2017	18:15	22:45	4.50	0.27	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 43"

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: 2017

Average Low Temp: 28

Average High Temp: 44

Measured Rainfall: 1.00

Measured Snowfall: 13.90

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	2/1/2017	9:10	9:45	0.58	0.13	***						
2	2/7/2017	7:45	15:20	7.58	0.13	***						
3	2/8/2017	4:30	4:35	0.08	0.01	***						
4	2/10/2017	9:10	11:30	2.33	0.10	***						
5	2/13/2017	7:50	15:10	7.33	0.33	***						
6	2/15/2017	18:05	18:35	0.50	0.03	***						
7	2/25/2017	18:15	22:45	4.50	0.27	***						
TOTAL MONTH											0.000	
FLOW VOLUME =												

Note: Overflow occurs when Interceptor level reaches 71"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Whalley Ave. 30 yards from Fitch Street
 006
 NPDES Permit Outfall #: February YEAR: 2017
 MONTH: 28
 Average Low Temp: 44
 Average High Temp: 1.00
 Measured Rainfall: 13.90
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	2/1/2017	9:10	9:45	0.58	0.13	***					
2	2/7/2017	7:45	15:20	7.58	0.13	***					
3	2/8/2017	4:30	4:35	0.08	0.01	***					
4	2/10/2017	9:10	11:30	2.33	0.10	***					
5	2/13/2017	7:50	15:10	7.33	0.33	***					
6	2/15/2017	18:05	18:35	0.50	0.03	***					
7	2/25/2017	18:15	22:45	4.50	0.27	***					
										TOTAL MONTH	0.000
										FLOW VOLUME =	

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 #: February YEAR: 2017

MONTH: 28

Average Low Temp: 44

Average High Temp: 1.00

Measured Rainfall: 13.90

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	2/1/2017	9:10	9:45	0.58	0.13	***						
2	2/7/2017	7:45	15:20	7.58	0.13	***						
3	2/8/2017	4:30	4:35	0.08	0.01	***						
4	2/10/2017	9:10	11:30	2.33	0.10	***						
5	2/13/2017	7:50	15:10	7.33	0.33	***						
6	2/15/2017	18:05	18:35	0.50	0.03	***						
7	2/25/2017	18:15	22:45	4.50	0.27	***	2/25/2017	20:00	20:20	0.33	0.067	0.001
											TOTAL MONTH	0.001
											FLOW VOLUME =	

Note: Overflow occurs when Interceptor level reaches 30"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

011

LOCATION:

NPDES Permit Outfall #:

February YEAR: 2017

MONTH: 28

Average Low Temp: 44

Average High Temp:

Measured Rainfall: 1.00

Measured Snowfall: 13.90

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	2/1/2017	9:10	9:45	0.58	0.13	***						
2	2/7/2017	7:45	15:20	7.58	0.13	***						
3	2/8/2017	4:30	4:35	0.08	0.01	***						
4	2/10/2017	9:10	11:30	2.33	0.10	***						
5	2/13/2017	7:50	15:10	7.33	0.33	***						
6	2/15/2017	18:05	18:35	0.50	0.03	***						
7	2/25/2017	18:15	22:45	4.50	0.27	***						

Sum of 010A and 011

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 75 Mitchell Drive
 012

NPDES Permit Outfall #:

February YEAR: 2017

MONTH:

28

Average Low Temp:

44

Average High Temp:

1.00

Measured Rainfall:

13.90

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	2/1/2017	9:10	9:45	0.58	0.13	***						
2	2/7/2017	7:45	15:20	7.58	0.13	***						
3	2/8/2017	4:30	4:35	0.08	0.01	***						
4	2/10/2017	9:10	11:30	2.33	0.10	***						
5	2/13/2017	7:50	15:10	7.33	0.33	***						
6	2/15/2017	18:05	18:35	0.50	0.03	***						
7	2/25/2017	18:15	22:45	4.50	0.27	***						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 15 James Street

LOCATION: 015

NPDES Permit Outfall #:

MONTH: February YEAR: 2017

Average Low Temp: 28

Average High Temp: 44

Measured Rainfall: 1.00

Measured Snowfall: 13.90

EVENT No.	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)		
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START		STOP	DURATION (hours)
1	2/1/2017	9:10	9:45	0.58	0.13	***					
2	2/7/2017	7:45	15:20	7.58	0.13	***					
3	2/8/2017	4:30	4:35	0.08	0.01	***					
4	2/10/2017	9:10	11:30	2.33	0.10	***					
5	2/13/2017	7:50	15:10	7.33	0.33	***					
6	2/15/2017	18:05	18:35	0.50	0.03	***					
7	2/25/2017	18:15	22:45	4.50	0.27	***					

Expected capacity of siphon is between 24 and 30 MGD.
Weir Height 40.5"

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Int. River & Poplar 016
 NPDES Permit Outfall #: 2017
 MONTH: February YEAR: 2017
 Average Low Temp: 28
 Average High Temp: 44
 Measured Rainfall: 1.00
 Measured Snowfall: 13.90

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	2/1/2017	9:10	9:45	0.58	0.13	***						
2	2/7/2017	7:45	15:20	7.58	0.13	***						
3	2/8/2017	4:30	4:35	0.08	0.01	***						
4	2/10/2017	9:10	11:30	2.33	0.10	***						
5	2/13/2017	7:50	15:10	7.33	0.33	***						
6	2/15/2017	18:05	18:35	0.50	0.03	***						
7	2/25/2017	18:15	22:45	4.50	0.27	***						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Clifton and Quininiac

LOCATION: 020

NPDES Permit Outfall #: February YEAR: 2017

MONTH: 28

Average Low Temp: 44

Average High Temp: 1.00

Measured Rainfall: 13.90

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	2/1/2017	9:10	9:45	0.58	0.13	***						
2	2/7/2017	7:45	15:20	7.58	0.13	***						
3	2/8/2017	4:30	4:35	0.08	0.01	***						
4	2/10/2017	9:10	11:30	2.33	0.10	***						
5	2/13/2017	7:50	15:10	7.33	0.33	***						
6	2/15/2017	18:05	18:35	0.50	0.03	***						
7	2/25/2017	18:15	22:45	4.50	0.27	***						
											TOTAL MONTH FLOW VOLUME =	0.000

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

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 638 Long Wharf Drive
 021
 NPDES Permit Outfall #: 2017
 MONTH: February YEAR: 2017
 Average Low Temp: 28
 Average High Temp: 44
 Measured Rainfall: 1.00
 Measured Snowfall: 13.90

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	2/1/2017	9:10	9:45	0.58	0.13	***						
2	2/7/2017	7:45	15:20	7.58	0.13	***						
3	2/8/2017	4:30	4:35	0.08	0.01	***						
4	2/10/2017	9:10	11:30	2.33	0.10	***						
5	2/13/2017	7:50	15:10	7.33	0.33	***						
6	2/15/2017	18:05	18:35	0.50	0.03	***						
7	2/25/2017	18:15	22:45	4.50	0.27	***	2/25/2017	21:15	21:50	0.58	0.148	0.004

TOTAL MONTH FLOW VOLUME = 0.004

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 Sea Street @ South Water Street
 024

LOCATION:

NPDES Permit Outfall #:

MONTH:

Average Low Temp:

Average High Temp:

Measured Rainfall:

Measured Snowfall:

February YEAR: 2017

28

44

1.00

13.90

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q avg (MGD)	OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP			DURATION (hours)
1	2/1/2017	9:10	9:45	0.58	0.13	***						
2	2/7/2017	7:45	15:20	7.58	0.13	***						
3	2/8/2017	4:30	4:35	0.08	0.01	***						
4	2/10/2017	9:10	11:30	2.33	0.10	***						
5	2/13/2017	7:50	15:10	7.33	0.33	***						
6	2/15/2017	18:05	18:35	0.50	0.03	***						
7	2/25/2017	18:15	22:45	4.50	0.27	***						
TOTAL MONTH											FLOW VOLUME =	0.000

Note: Overflow occurs when Interceptor level reaches 65" in US & 81" in DS

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 Intersection of State & N. Front Street
 LOCATION: 025
 NPDES Permit Outfall #: February YEAR: 2017
 MONTH: 28
 Average Low Temp: 28
 Average High Temp: 44
 Measured Rainfall: 1.00
 Measured Snowfall: 13.90

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL volume (MG)
1	2/1/2017	9:10	9:45	0.58	0.13	***						
2	2/7/2017	7:45	15:20	7.58	0.13	***						
3	2/8/2017	4:30	4:35	0.08	0.01	***						
4	2/10/2017	9:10	11:30	2.33	0.10	***						
5	2/13/2017	7:50	15:10	7.33	0.33	***						
6	2/15/2017	18:05	18:35	0.50	0.03	***						
7	2/25/2017	18:15	22:45	4.50	0.27	***						
											TOTAL MONTH	0.000
											FLOW VOLUME =	

Note: Overflow occurs when interceptor level reaches 21"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG George and Temple
 LOCATION: Regulator 34
 NPDES Permit Outfall #: February YEAR: 2017
 MONTH: 28
 Average Low Temp: 44
 Average High Temp: 1.00
 Measured Rainfall: 13.90
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q _{avg} (MGD)	OUTFALL Q volume (MG)
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		
1	2/1/2017	9:10	9:45	0:58	0.13	***					
2	2/7/2017	7:45	15:20	7:58	0.13	***					
3	2/8/2017	4:30	4:35	0:08	0.01	***					
4	2/10/2017	9:10	11:30	2:33	0.10	***					
5	2/13/2017	7:50	15:10	7:33	0.33	***					
6	2/15/2017	18:05	18:35	0:50	0.03	***					
7	2/25/2017	18:15	22:45	4:50	0.27	***					
TOTAL MONTH FLOW VOLUME =											0.000

METER DATA

JANUARY 2017

**GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CSO FLOW MONITORING PROGRAM
METER DATA SUMMARY - JANUARY 2017**

MONTHLY RAINFALL SUMMARY

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

9.3 inches of snow

10 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	0	0.000
CSO 004	REG 004	1	0.006
CSO 003	REG 003	2	0.049
CSO 024	REG 024	0	0.000
CSO 009	REG 009	0	0.000
CSO 016	REG 016	2	0.230
CSO 015	REG 015	3	0.205
CSO 011	REGS 010A, 011, 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	0.035
CSO 020	REG 020	0	0.000
TOTAL		9	0.525

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - THROUGH JANUARY 2017

<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	66	15.201	181.29	57
CSO 005	REG 005	13	0.648	82.47	30
CSO 004	REG 004	53	5.360	82.71	30
CSO 003	REG 003	141	37.755	178.38	56
CSO 024	REG 024	48	33.853	168.06	53
CSO 009	REG 009	93	4.202	160.94	52
CSO 016	REG 016	116	42.985	163.59	55
CSO 015	REG 015	104	12.808	157.25	51
CSO 011	REGS 010A, 011, 026	48	18.640	156.57	50
CSO 012	REGS 012A, 012B, 028	6	0.071	78.98	28
CSO 025	REGS 025, 034	24	2.571	82.62	30
CSO 021	REG 021	64	41.878	157.55	51
CSO 020	REG 020	12	0.295	141.00	46
TOTAL		788	216.267		

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>
CSO 006	REGS 006 A, 006 B	15	3.460	14	3.200
CSO 005	REG 005	7	0.324	5	0.259
CSO 004	REG 004	26	2.674	21	2.144
CSO 003	REG 003	33	8.735	30	8.090
CSO 024	REG 024	12	8.313	11	7.665
CSO 009	REG 009	24	1.078	21	0.970
CSO 016	REG 016	29	10.844	25	9.379
CSO 015	REG 015	27	3.361	24	3.014
CSO 011	REGS 010A, 011, 026	13	4.913	12	4.474
CSO 012	REGS 012A, 012B, 028	3	0.037	3	0.030
CSO 025	REGS 025, 034	12	1.284	10	1.028
CSO 021	REG 021	17	10.970	15	9.854
CSO 020	REG 020	4	0.086	3	0.077
TOTAL		217	55.995	191	50.107

(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 #: January YEAR: 2017
 MONTH: 28
 Average Low Temp: 41
 Average High Temp: 3.34
 Measured Rainfall: 9.30
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				TOTAL MONTH FLOW VOLUME =		
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)	OUTFALL Qavg (MGD)
1	1/1/2017	2:15	2:20	0:08	0.01	***	1/3/2017	17:50	18:50	1.00	0.771	0.032
2	1/2/2017 - 1/4/2017	13:20	0:40	35:33	0.86	***						
3	1/6/2017	9:30	9:35	0:08	0.01	***						
4	1/8/2017	13:05	13:40	0:58	0.03	***						
5	1/10/2017 - 1/11/2017	17:15	4:40	11:42	0.20	***						
6	1/11/2017 - 1/12/2017	22:40	3:25	4:75	0.31	***						
7	1/15/2017	8:45	10:55	2:17	0.11	***						
8	1/17/2017 - 1/18/2017	12:15	10:40	22:42	0.21	***						
9	1/21/2017	0:15	0:20	0:08	0.01	***						
10	1/23/2017 - 1/24/2017	18:15	21:10	26:92	1.59	3 MONTH	1/24/2017	0:15	0:40	0.42	0.988	0.017

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 #: January YEAR: 2017
 MONTH: 28
 Average Low Temp: 41
 Average High Temp: 3.34
 Measured Rainfall: 9.30
 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	1/1/2017	2:15	2:20	0:08	0.01	***	1/3/2017	18:00	18:25	0.42	0.329	0.006
2	1/2/2017 - 1/4/2017	13:20	0:40	35:33	0.86	***						
3	1/6/2017	9:30	9:35	0:08	0.01	***						
4	1/8/2017	13:05	13:40	0:58	0.03	***						
5	1/10/2017 - 1/11/2017	17:15	4:40	11:42	0.20	***						
6	1/11/2017 - 1/12/2017	22:40	3:25	4:75	0.31	***						
7	1/15/2017	8:45	10:55	2:17	0.11	***						
8	1/17/2017 - 1/18/2017	12:15	10:40	22:42	0.21	***						
9	1/21/2017	0:15	0:20	0:08	0.01	***						
10	1/23/2017 - 1/24/2017	18:15	21:10	26:92	1.59	3 MONTH						

TOTAL MONTH FLOW VOLUME = 0.006

Note: Overflow occurs when Interceptor level reaches 43"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Derby Ave. 20 yds East of Ella T. Grasso Blvd.
 005

LOCATION:
 NPDES Permit Outfall #:
 MONTH: January YEAR: 2017
 Average Low Temp: 28
 Average High Temp: 41
 Measured Rainfall: 3.34
 Measured Snowfall: 9.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					OUTFALL Q volume (MG)
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	
1	1/1/2017	2:15	2:20	0:08	0.01	***						
2	1/2/2017 - 1/4/2017	13:20	0:40	35:33	0.86	***						
3	1/6/2017	9:30	9:35	0:08	0.01	***						
4	1/8/2017	13:05	13:40	0:58	0.03	***						
5	1/10/2017 - 1/11/2017	17:15	4:40	11:42	0.20	***						
6	1/11/2017 - 1/12/2017	22:40	3:25	4:75	0.31	***						
7	1/15/2017	8:45	10:55	2:17	0.11	***						
8	1/17/2017 - 1/18/2017	12:15	10:40	22:42	0.21	***						
9	1/21/2017	0:15	0:20	0:08	0.01	***						
10	1/23/2017 - 1/24/2017	18:15	21:10	26:92	1.59	3 MONTH						
TOTAL MONTH											0.000	
FLOW VOLUME =												

Note: Overflow occurs when Interceptor level reaches 71"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Whalley Ave. 30 yds from Fitch Street
 NPDES Permit Outfall #: 006
 MONTH: January YEAR: 2017
 Average Low Temp: 28
 Average High Temp: 41
 Measured Rainfall: 3.34
 Measured Snowfall: 9.30

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)
		START	STOP	DURATION (hours)	TOTAL FREQUENCY	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	
1	1/1/2017	2:15	2:20	0:08	0.01 ***					
2	1/2/2017 - 1/4/2017	13:20	0:40	35:33	0.86 ***					
3	1/6/2017	9:30	9:35	0:08	0.01 ***					
4	1/8/2017	13:05	13:40	0:58	0.03 ***					
5	1/10/2017 - 1/11/2017	17:15	4:40	11:42	0.20 ***					
6	1/11/2017 - 1/12/2017	22:40	3:25	4:75	0.31 ***					
7	1/15/2017	8:45	10:55	2:17	0.11 ***					
8	1/17/2017 - 1/18/2017	12:15	10:40	22:42	0.21 ***					
9	1/21/2017	0:15	0:20	0:08	0.01 ***					
10	1/23/2017 - 1/24/2017	18:15	21:10	26:92	1.59 3 MONTH					

TOTAL MONTH FLOW VOLUME = 0.000

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: January YEAR: 2017

Average Low Temp: 28

Average High Temp: 41

Measured Rainfall: 3.34

Measured Snowfall: 9.30

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	1/1/2017	2:15	2:20	0:08	0.01	***						
2	1/2/2017 - 1/4/2017	13:20	0:40	35:33	0.86	***						
3	1/6/2017	9:30	9:35	0:08	0.01	***						
4	1/8/2017	13:05	13:40	0:58	0.03	***						
5	1/10/2017 - 1/11/2017	17:15	4:40	11:42	0.20	***						
6	1/11/2017 - 1/12/2017	22:40	3:25	4:75	0.31	***						
7	1/15/2017	8:45	10:55	2:17	0.11	***						
8	1/17/2017 - 1/18/2017	12:15	10:40	22:42	0.21	***						
9	1/21/2017	0:15	0:20	0:08	0.01	***						
10	1/23/2017 - 1/24/2017	18:15	21:10	26:92	1.59	3 MONTH						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 30"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

011

LOCATION:

NPDES Permit Outfall #:

January YEAR: 2017

MONTH:

28

Average Low Temp:

41

Average High Temp:

3.34

Measured Rainfall:

9.30

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	1/1/2017	2:15	2:20	0:08	0.01	***						
2	1/2/2017 - 1/4/2017	13:20	0:40	35.33	0.86	***						
3	1/6/2017	9:30	9:35	0:08	0.01	***						
4	1/8/2017	13:05	13:40	0:58	0.03	***						
5	1/10/2017 - 1/11/2017	17:15	4:40	11.42	0.20	***						
6	1/11/2017 - 1/12/2017	22:40	3:25	4:75	0.31	***						
7	1/15/2017	8:45	10:55	2:17	0.11	***						
8	1/17/2017 - 1/18/2017	12:15	10:40	22.42	0.21	***						
9	1/21/2017	0:15	0:20	0:08	0.01	***						
10	1/23/2017 - 1/24/2017	18:15	21:10	26.92	1.59	3 MONTH						
											TOTAL MONTH	0.000
											FLOW VOLUME =	

Sum of 010A and 011

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 75 Mitchell Drive
 LOCATION: 012

NPDES Permit Outfall #:

MONTH: January YEAR: 2017

28

41

3.34

9.30

Average Low Temp:

Average High Temp:

Measured Rainfall:

Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q _{avg} (MGD)	OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP			DURATION (hours)
1	1/1/2017	2:15	2:20	0:08	0.01	***						
2	1/2/2017 - 1/4/2017	13:20	0:40	35.33	0.86	***						
3	1/6/2017	9:30	9:35	0:08	0.01	***						
4	1/8/2017	13:05	13:40	0:58	0.03	***						
5	1/10/2017 - 1/11/2017	17:15	4:40	11.42	0.20	***						
6	1/11/2017 - 1/12/2017	22:40	3:25	4.75	0.31	***						
7	1/15/2017	8:45	10:55	2.17	0.11	***						
8	1/17/2017 - 1/18/2017	12:15	10:40	22.42	0.21	***						
9	1/21/2017	0:15	0:20	0:08	0.01	***						
10	1/23/2017 - 1/24/2017	18:15	21:10	26.92	1.59	3 MONTH						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 15 James Street
 LOCATION: 015

NPDES Permit Outfall #:

January YEAR: 2017

MONTH: 28

Average Low Temp: 41

Average High Temp: 3.34

Measured Rainfall: 9.30

Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP			DURATION (hours)
1	1/1/2017	2:15	2:20	0:08	0.01	***	1/3/2017	16:45	19:00	2.25	0.934	0.088
2	1/2/2017 - 1/4/2017	13:20	0:40	35:33	0.86	***						
3	1/6/2017	9:30	9:35	0:08	0.01	***						
4	1/8/2017	13:05	13:40	0:58	0.03	***						
5	1/10/2017 - 1/11/2017	17:15	4:40	11:42	0.20	***	1/11/2017	4:15	4:45	0.50	0.793	0.017
6	1/11/2017 - 1/12/2017	22:40	3:25	4:75	0.31	***						
7	1/15/2017	8:45	10:55	2:17	0.11	***						
8	1/17/2017 - 1/18/2017	12:15	10:40	22:42	0.21	***						
9	1/21/2017	0:15	0:20	0:08	0.01	***						
10	1/23/2017 - 1/24/2017	18:15	21:10	26:92	1.59	3 MONTH	1/23/2017 - 1/24/2017	20:30	0:25	0.67	3.637	0.100

Expected capacity of siphon is between 24 and 30 MGD.
 Weir Height 40.5"

TOTAL MONTH FLOW VOLUME = 0.205

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Int. River & Poplar
 016

NPDES Permit Outfall #: January YEAR: 2017

MONTH: 28

Average Low Temp: 41

Average High Temp: 3.34

Measured Rainfall: 9.30

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	1/1/2017	2:15	2:20	0:08	0.01	***	1/3/2017	17:30	18:45	1.25	4.240	0.221
2	1/2/2017 - 1/4/2017	13:20	0:40	35.33	0.86	***						
3	1/6/2017	9:30	9:35	0:08	0.01	***						
4	1/8/2017	13:05	13:40	0:58	0.03	***						
5	1/10/2017 - 1/11/2017	17:15	4:40	11.42	0.20	***						
6	1/11/2017 - 1/12/2017	22:40	3:25	4.75	0.31	***						
7	1/15/2017	8:45	10:55	2.17	0.11	***						
8	1/17/2017 - 1/18/2017	12:15	10:40	22.42	0.21	***						
9	1/21/2017	0:15	0:20	0:08	0.01	***						
10	1/23/2017 - 1/24/2017	18:15	21:10	26.92	1.59	3 MONTH	1/24/2017	2:55	3:35	0.67	0.336	0.009

TOTAL MONTH
 FLOW VOLUME = 0.230

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Clifton and Quininiac
 LOCATION: 020

NPDES Permit Outfall #:

MONTH: January YEAR: 2017

Average Low Temp: 28

Average High Temp: 41

Measured Rainfall: 3.34

Measured Snowfall: 9.30

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					OUTFALL Q volume (MG)
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	
1	1/1/2017	2:15	2:20	0:08	0.01	***						
2	1/2/2017 - 1/4/2017	13:20	0:40	35:33	0.86	***						
3	1/6/2017	9:30	9:35	0:08	0.01	***						
4	1/8/2017	13:05	13:40	0:58	0.03	***						
5	1/10/2017 - 1/11/2017	17:15	4:40	11:42	0.20	***						
6	1/11/2017 - 1/12/2017	22:40	3:25	4:75	0.31	***						
7	1/15/2017	8:45	10:55	2:17	0.11	***						
8	1/17/2017 - 1/18/2017	12:15	10:40	22:42	0.21	***						
9	1/21/2017	0:15	0:20	0:08	0.01	***						
10	1/23/2017 - 1/24/2017	18:15	21:10	26:92	1.59	3 MONTH						

Note: Overflow occurs when level is 31" in the interceptor. TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 638 Long Wharf Drive
 021

NPDES Permit Outfall #:
 MONTH: January YEAR: 2017
 Average Low Temp: 28
 Average High Temp: 41
 Measured Rainfall: 3.34
 Measured Snowfall: 9.30

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	1/1/2017	2:15	2:20	0:08	0.01	***						
2	1/2/2017 - 1/4/2017	13:20	0:40	35:33	0.86	***						
3	1/6/2017	9:30	9:35	0:08	0.01	***						
4	1/8/2017	13:05	13:40	0:58	0.03	***						
5	1/10/2017 - 1/11/2017	17:15	4:40	11:42	0.20	***						
6	1/11/2017 - 1/12/2017	22:40	3:25	4:75	0.31	***						
7	1/15/2017	8:45	10:55	2:17	0.11	***						
8	1/17/2017 - 1/18/2017	12:15	10:40	22:42	0.21	***						
9	1/21/2017	0:15	0:20	0:08	0.01	***						
10	1/23/2017 - 1/24/2017	18:15	21:10	26:92	1.59	3 MONTH	1/24/2017	0:30	4:00	3.50	0.239	0.035

TOTAL MONTH FLOW VOLUME = 0.035

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

Sea Street @ South Water Street
024

LOCATION:

NPDES Permit Outfall #:

MONTH:

Average Low Temp:

Average High Temp:

Measured Rainfall:

Measured Snowfall:

January YEAR: 2017

28

41

3.34

9.30

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	1/1/2017	2:15	2:20	0:08	0.01	***						
2	1/2/2017 - 1/4/2017	13:20	0:40	35.33	0.86	***						
3	1/6/2017	9:30	9:35	0:08	0.01	***						
4	1/8/2017	13:05	13:40	0:58	0.03	***						
5	1/10/2017 - 1/11/2017	17:15	4:40	11.42	0.20	***						
6	1/11/2017 - 1/12/2017	22:40	3:25	4.75	0.31	***						
7	1/15/2017	8:45	10:55	2.17	0.11	***						
8	1/17/2017 - 1/18/2017	12:15	10:40	22.42	0.21	***						
9	1/21/2017	0:15	0:20	0:08	0.01	***						
10	1/23/2017 - 1/24/2017	18:15	21:10	26.92	1.59	3 MONTH						
TOTAL MONTH											FLOW VOLUME =	0.000

Note: Overflow occurs when Interceptor level reaches 65" in US & 81" in DS

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Intersection of State & N. Front Street
 025
 NPDES Permit Outfall #: 2017
 MONTH: January YEAR: 2017
 Average Low Temp: 28
 Average High Temp: 41
 Measured Rainfall: 3.34
 Measured Snowfall: 9.30

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Qavg volume (MG)	OUTFALL (MGD)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP			DURATION (hours)
1	1/1/2017	2:15	2:20	0:08	0.01	***						
2	1/2/2017 - 1/4/2017	13:20	0:40	35:33	0.86	***						
3	1/6/2017	9:30	9:35	0:08	0.01	***						
4	1/8/2017	13:05	13:40	0:58	0.03	***						
5	1/10/2017 - 1/11/2017	17:15	4:40	11:42	0.20	***						
6	1/11/2017 - 1/12/2017	22:40	3:25	4:75	0.31	***						
7	1/15/2017	8:45	10:55	2:17	0.11	***						
8	1/17/2017 - 1/18/2017	12:15	10:40	22:42	0.21	***						
9	1/21/2017	0:15	0:20	0:08	0.01	***						
10	1/23/2017 - 1/24/2017	18:15	21:10	26:92	1.59	3 MONTH						
TOTAL MONTH											0.000	
FLOW VOLUME =											0.000	

Note: Overflow occurs when Interceptor level reaches 21"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG George and Temple

LOCATION: Regulator 34

NPDES Permit Outfall #:

MONTH: January YEAR: 2017

Average Low Temp: 28

Average High Temp: 41

Measured Rainfall: 3.34

Measured Snowfall: 9.30

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	1/1/2017	2:15	2:20	0:08	0.01	***						
2	1/2/2017 - 1/4/2017	13:20	0:40	35.33	0.86	***						
3	1/6/2017	9:30	9:35	0:08	0.01	***						
4	1/8/2017	13:05	13:40	0:58	0.03	***						
5	1/10/2017 - 1/11/2017	17:15	4:40	11.42	0.20	***						
6	1/11/2017 - 1/12/2017	22:40	3:25	4.75	0.31	***						
7	1/15/2017	8:45	10:55	2.17	0.11	***						
8	1/17/2017 - 1/18/2017	12:15	10:40	22.42	0.21	***						
9	1/21/2017	0:15	0:20	0:08	0.01	***						
10	1/23/2017 - 1/24/2017	18:15	21:10	26.92	1.59	3 MONTH						

TOTAL MONTH FLOW VOLUME = 0.000

METER DATA

DECEMBER 2016

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - DECEMBER 2016

MONTHLY RAINFALL SUMMARY

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

5.3 inches of snow

7 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	2	0.031
CSO 024	REG 024	0	0.000
CSO 009	REG 009	1	0.0002
CSO 016	REG 016	0	0.000
CSO 015	REG 015	1	0.145
CSO 011	REGS 010A, 011, 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		4	0.176

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - THROUGH DECEMBER 2016

<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	66	15.201	177.95	56
CSO 005	REG 005	13	0.648	79.13	29
CSO 004	REG 004	52	5.354	79.37	29
CSO 003	REG 003	139	37.706	175.04	55
CSO 024	REG 024	48	33.853	164.72	52
CSO 009	REG 009	93	4.202	157.60	51
CSO 016	REG 016	114	42.755	160.25	54
CSO 015	REG 015	101	12.603	153.91	50
CSO 011	REGS 010A, 011, 026	48	18.640	153.23	49
CSO 012	REGS 012A, 012B, 028	6	0.071	75.64	27
CSO 025	REGS 025, 034	24	2.571	79.28	29
CSO 021	REG 021	63	41.843	154.21	50
CSO 020	REG 020	12	0.295	137.66	45
TOTAL		779	215.742		

**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>
CSO 006	REGS 006 A, 006 B	15	3.525	14	3.257
CSO 005	REG 005	7	0.338	5	0.268
CSO 004	REG 004	27	2.784	21	2.197
CSO 003	REG 003	33	8.890	30	8.209
CSO 024	REG 024	12	8.482	11	7.812
CSO 009	REG 009	24	1.100	22	0.988
CSO 016	REG 016	29	11.011	26	9.565
CSO 015	REG 015	27	3.379	24	3.025
CSO 011	REGS 010A, 011, 026	13	5.020	12	4.563
CSO 012	REGS 012A, 012B, 028	3	0.039	3	0.032
CSO 025	REGS 025, 034	12	1.338	10	1.058
CSO 021	REG 021	17	11.198	15	10.042
CSO 020	REG 020	4	0.088	3	0.079
TOTAL		220	57.105	193	51.016

(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: 2016
 Average Low Temp: 28
 Average High Temp: 43
 Measured Rainfall: 3.04
 Measured Snowfall: 5.30

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	12/5/2016	6:45	9:25	2.67	0.15	***						
2	12/6/2016 - 12/7/2016	19:30	5:15	9.75	0.40	***						
3	12/12/2016	1:50	9:30	7.67	0.62	***						
4	12/17/2016 - 12/18/2016	12:55	13:55	25.00	0.47	***	12/24/2016	12:10	12:45	0.58	0.238	0.006
5	12/24/2016	7:30	13:25	5.92	0.59	***						
6	12/26/2016 - 12/27/2016	19:20	9:45	14.42	0.04	***						
7	12/29/2016	10:35	17:40	7.08	0.67	***	12/29/2016	16:20	17:50	1.50	0.402	0.025

TOTAL MONTH FLOW VOLUME = 0.031

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 #:

December YEAR: 2016

MONTH: 28

Average Low Temp:

Average High Temp: 43

Measured Rainfall:

Measured Snowfall: 3.04

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	12/5/2016	6:45	9:25	2.67	0.15	***						
2	12/6/2016 - 12/7/2016	19:30	5:15	9.75	0.40	***						
3	12/12/2016	1:50	9:30	7.67	0.62	***						
4	12/17/2016 - 12/18/2016	12:55	13:55	25.00	0.47	***						
5	12/24/2016	7:30	13:25	5.92	0.59	***						
6	12/26/2016 - 12/27/2016	19:20	9:45	14.42	0.04	***						
7	12/29/2016	10:35	17:40	7.08	0.67	***						
TOTAL MONTH											FLOW VOLUME =	0.000

Note: Overflow occurs when Interceptor level reaches 43"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Derby Ave. 20 yds East of Ella T. Grasso Blvd.

LOCATION: 005

NPDES Permit Outfall #:

MONTH: December YEAR: 2016

Average Low Temp: 28

Average High Temp: 43

Measured Rainfall: 3.04

Measured Snowfall: 5.30

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	12/5/2016	6:45	9:25	2.67	0.15	***						
2	12/6/2016 - 12/7/2016	19:30	5:15	9.75	0.40	***						
3	12/12/2016	1:50	9:30	7.67	0.62	***						
4	12/17/2016 - 12/18/2016	12:55	13:55	25.00	0.47	***						
5	12/24/2016	7:30	13:25	5.92	0.59	***						
6	12/26/2016 - 12/27/2016	19:20	9:45	14.42	0.04	***						
7	12/29/2016	10:35	17:40	7.08	0.67	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 71"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Whalley Ave. 30 yds from Fitch Street
 006
 NPDES Permit Outfall #: 2016
 MONTH: December YEAR: 2016
 Average Low Temp: 28
 Average High Temp: 43
 Measured Rainfall: 3.04
 Measured Snowfall: 5.30

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	12/5/2016	6:45	9:25	2.67	0.15	***						
2	12/6/2016 - 12/7/2016	19:30	5:15	9.75	0.40	***						
3	12/12/2016	1:50	9:30	7.67	0.62	***						
4	12/17/2016 - 12/18/2016	12:55	13:55	25.00	0.47	***						
5	12/24/2016	7:30	13:25	5.92	0.59	***						
6	12/26/2016 - 12/27/2016	19:20	9:45	14.42	0.04	***						
7	12/29/2016	10:35	17:40	7.08	0.67	***						
											TOTAL MONTH	0.000
											FLOW VOLUME =	

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 #: 2016

MONTH: December YEAR: 2016

Average Low Temp: 28

Average High Temp: 43

Measured Rainfall: 3.04

Measured Snowfall: 5.30

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)		
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)	OUTFALL Qavg (MGD)
1	12/5/2016	6:45	9:25	2.67	0.15	***						
2	12/6/2016 - 12/7/2016	19:30	5:15	9.75	0.40	***						
3	12/12/2016	1:50	9:30	7.67	0.62	***						
4	12/17/2016 - 12/18/2016	12:55	13:55	25.00	0.47	***						
5	12/24/2016	7:30	13:25	5.92	0.59	***						
6	12/26/2016 - 12/27/2016	19:20	9:45	14.42	0.04	***						
7	12/29/2016	10:35	17:40	7.08	0.67	***	12/29/2016	16:15	16:25	0.17	0.032	0.000

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when interceptor level reaches 30"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 547 East Street
 LOCATION: 010A

NPDES Permit Outfall #: 2016
 MONTH: December
 Average Low Temp: 28
 Average High Temp: 43
 Measured Rainfall: 3.04
 Measured Snowfall: 5.30

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	12/5/2016	6:45	9:25	2.67	0.15	***						
2	12/6/2016 - 12/7/2016	19:30	5:15	9.75	0.40	***						
3	12/12/2016	1:50	9:30	7.67	0.62	***						
4	12/17/2016 - 12/18/2016	12:55	13:55	25.00	0.47	***						
5	12/24/2016	7:30	13:25	5.92	0.59	***						
6	12/26/2016 - 12/27/2016	19:20	9:45	14.42	0.04	***						
7	12/29/2016	10:35	17:40	7.08	0.67	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 62"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011

NPDES Permit Outfall #:

MONTH: December YEAR: 2016

Average Low Temp: 28

Average High Temp: 43

Measured Rainfall: 3.04

Measured Snowfall: 5.30

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	12/5/2016	6:45	9:25	2.67	0.15	***						
2	12/6/2016 - 12/7/2016	19:30	5:15	9.75	0.40	***						
3	12/12/2016	1:50	9:30	7.67	0.62	***						
4	12/17/2016 - 12/18/2016	12:55	13:55	25.00	0.47	***						
5	12/24/2016	7:30	13:25	5.92	0.59	***						
6	12/26/2016 - 12/27/2016	19:20	9:45	14.42	0.04	***						
7	12/29/2016	10:35	17:40	7.08	0.67	***						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

011

LOCATION:

NPDES Permit Outfall #:

2016

MONTH:

December

Average Low Temp:

28

Average High Temp:

43

Measured Rainfall:

3.04

Measured Snowfall:

5.30

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	12/5/2016	6:45	9:25	2.67	0.15	***					
2	12/6/2016 - 12/7/2016	19:30	5:15	9.75	0.40	***					
3	12/12/2016	1:50	9:30	7.67	0.62	***					
4	12/17/2016 - 12/18/2016	12:55	13:55	25.00	0.47	***					
5	12/24/2016	7:30	13:25	5.92	0.59	***					
6	12/26/2016 - 12/27/2016	19:20	9:45	14.42	0.04	***					
7	12/29/2016	10:35	17:40	7.08	0.67	***					
										TOTAL MONTH	0.000
										FLOW VOLUME =	

Sum of 010A and 011

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 75 Mitchell Drive

LOCATION: 012

NPDES Permit Outfall #:

MONTH: December YEAR: 2016

Average Low Temp: 28

Average High Temp: 43

Measured Rainfall: 3.04

Measured Snowfall: 5.30

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	12/5/2016	6:45	9:25	2.67	0.15	***					
2	12/6/2016 - 12/7/2016	19:30	5:15	9.75	0.40	***					
3	12/12/2016	1:50	9:30	7.67	0.62	***					
4	12/17/2016 - 12/18/2016	12:55	13:55	25.00	0.47	***					
5	12/24/2016	7:30	13:25	5.92	0.59	***					
6	12/26/2016 - 12/27/2016	19:20	9:45	14.42	0.04	***					
7	12/29/2016	10:35	17:40	7.08	0.67	***					

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 15 James Street
 LOCATION: 015

NPDES Permit Outfall #: December YEAR: 2016

MONTH: 28

Average Low Temp: 43

Average High Temp: 3.04

Measured Rainfall: 5.30

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	12/5/2016	6:45	9:25	2.67	0.15	***						
2	12/6/2016 - 12/7/2016	19:30	5:15	9.75	0.40	***						
3	12/12/2016	1:50	9:30	7.67	0.62	***						
4	12/17/2016 - 12/18/2016	12:55	13:55	25.00	0.47	***						
5	12/24/2016	7:30	13:25	5.92	0.59	***						
6	12/26/2016 - 12/27/2016	19:20	9:45	14.42	0.04	***						
7	12/29/2016	10:35	17:40	7.08	0.67	***	12/29/2016	15:50	18:05	2.25	1.522	0.145

Expected capacity of siphon is between 24 and 30 MGD.
 Weir Height 40.5"

TOTAL MONTH FLOW VOLUME = 0.145

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Int. River & Poplar

LOCATION: 016

NPDES Permit Outfall #:

December YEAR: 2016

MONTH:

28

Average Low Temp:

43

Average High Temp:

3.04

Measured Rainfall:

5.30

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	12/5/2016	6:45	9:25	2.67	0.15	***						
2	12/6/2016 - 12/7/2016	19:30	5:15	9.75	0.40	***						
3	12/12/2016	1:50	9:30	7.67	0.62	***						
4	12/17/2016 - 12/18/2016	12:55	13:55	25.00	0.47	***						
5	12/24/2016	7:30	13:25	5.92	0.59	***						
6	12/26/2016 - 12/27/2016	19:20	9:45	14.42	0.04	***						
7	12/29/2016	10:35	17:40	7.08	0.67	***						

TOTAL MONTH FLOW VOLUME =

0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Clifton and Quinnciac
 020
 NPDES Permit Outfall #: 2016
 MONTH: December YEAR: 2016
 Average Low Temp: 28
 Average High Temp: 43
 Measured Rainfall: 3.04
 Measured Snowfall: 5.30

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	12/5/2016	6:45	9:25	2.67	0.15	***						
2	12/6/2016 - 12/7/2016	19:30	5:15	9.75	0.40	***						
3	12/12/2016	1:50	9:30	7.67	0.62	***						
4	12/17/2016 - 12/18/2016	12:55	13:55	25.00	0.47	***						
5	12/24/2016	7:30	13:25	5.92	0.59	***						
6	12/26/2016 - 12/27/2016	19:20	9:45	14.42	0.04	***						
7	12/29/2016	10:35	17:40	7.08	0.67	***						

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

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 638 Long Wharf Drive
 021
 NPDES Permit Outfall #: 2016
 MONTH: December YEAR: 2016
 Average Low Temp: 28
 Average High Temp: 43
 Measured Rainfall: 3.04
 Measured Snowfall: 5.30

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	12/5/2016	6:45	9:25	2.67	0.15	***						
2	12/6/2016 - 12/7/2016	19:30	5:15	9.75	0.40	***						
3	12/12/2016	1:50	9:30	7.67	0.62	***						
4	12/17/2016 - 12/18/2016	12:55	13:55	25.00	0.47	***						
5	12/24/2016	7:30	13:25	5.92	0.59	***						
6	12/26/2016 - 12/27/2016	19:20	9:45	14.42	0.04	***						
7	12/29/2016	10:35	17:40	7.08	0.67	***						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

Sea Street @ South Water Street
024

LOCATION:

NPDES Permit Outfall #:

MONTH:

Average Low Temp:

Average High Temp:

Measured Rainfall:

Measured Snowfall:

December YEAR: 2016

28

43

3.04

5.30

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	START	STOP	DURATION (hours)		OUTFALL Qavg (MGD)
1	12/5/2016	6:45	9:25	2.67	0.15	***					
2	12/6/2016 - 12/7/2016	19:30	5:15	9.75	0.40	***					
3	12/12/2016	1:50	9:30	7.67	0.62	***					
4	12/17/2016 - 12/18/2016	12:55	13:55	25.00	0.47	***					
5	12/24/2016	7:30	13:25	5.92	0.59	***					
6	12/26/2016 - 12/27/2016	19:20	9:45	14.42	0.04	***					
7	12/29/2016	10:35	17:40	7.08	0.67	***					

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when interceptor level reaches 65" in US & 81" in DS

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Intersection of State & N. Front Street
 025
 MONTH: December YEAR: 2016
 NPDES Permit Outfall #: 28
 Average Low Temp: 43
 Average High Temp: 3.04
 Measured Rainfall: 5.30
 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	12/5/2016	6:45	9:25	2.67	0.15	***						
2	12/6/2016 - 12/7/2016	19:30	5:15	9.75	0.40	***						
3	12/12/2016	1:50	9:30	7.67	0.62	***						
4	12/17/2016 - 12/18/2016	12:55	13:55	25.00	0.47	***						
5	12/24/2016	7:30	13:25	5.92	0.59	***						
6	12/26/2016 - 12/27/2016	19:20	9:45	14.42	0.04	***						
7	12/29/2016	10:35	17:40	7.08	0.67	***						
TOTAL MONTH											FLOW VOLUME =	0.000

Note: Overflow occurs when Interceptor level reaches 21"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

George and Temple
Regulator 34

NPDES Permit Outfall #:

December YEAR: 2016

MONTH:

28

Average Low Temp:

43

Average High Temp:

3.04

Measured Rainfall:

5.30

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	12/5/2016	6:45	9:25	2.67	0.15	***						
2	12/6/2016 - 12/7/2016	19:30	5:15	9.75	0.40	***						
3	12/12/2016	1:50	9:30	7.67	0.62	***						
4	12/17/2016 - 12/18/2016	12:55	13:55	25.00	0.47	***						
5	12/24/2016	7:30	13:25	5.92	0.59	***						
6	12/26/2016 - 12/27/2016	19:20	9:45	14.42	0.04	***						
7	12/29/2016	10:35	17:40	7.08	0.67	***						

TOTAL MONTH
FLOW VOLUME =

0.000

METER DATA

NOVEMBER 2016

**GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CSO FLOW MONITORING PROGRAM
METER DATA SUMMARY - NOVEMBER 2016**

MONTHLY RAINFALL SUMMARY

3.84 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 3 month and 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	0.297
CSO 005	REG 005	0	0.000
CSO 004	REG 004	2	0.168
CSO 003	REG 003	4	0.847
CSO 024	REG 024	2	0.785
CSO 009	REG 009	2	0.011
CSO 016	REG 016	1	0.779
CSO 015	REG 015	See Note 1	See Note 1
CSO 011	REGS 010A, 011, 026	1	0.360
CSO 012	REGS 012A, 012B, 028	1	0.014
CSO 025	REGS 025, 034	1	0.008
CSO 021	REG 021	1	0.606
CSO 020	REG 020	0	0.000
TOTAL		16	3.875

Note 1 - The meters were removed at CSO 015 during November to allow cleaning of the James Street sewer and siphon.

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - THROUGH NOVEMBER 2016

<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	66	15.201	174.91	55
CSO 005	REG 005	13	0.648	76.09	28
CSO 004	REG 004	52	5.354	76.33	28
CSO 003	REG 003	137	37.675	172.00	54
CSO 024	REG 024	48	33.853	161.68	51
CSO 009	REG 009	92	4.202	154.56	50
CSO 016	REG 016	114	42.755	157.21	53
CSO 015	REG 015	100	12.458	150.87	49
CSO 011	REGS 010A, 011, 026	48	18.640	150.19	48
CSO 012	REGS 012A, 012B, 028	6	0.071	72.60	26
CSO 025	REGS 025, 034	24	2.571	76.24	28
CSO 021	REG 021	63	41.843	151.17	49
CSO 020	REG 020	12	0.295	134.62	44
TOTAL		775	215.566		

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>
CSO 006	REGS 006 A, 006 B	16	3.587	14	3.317
CSO 005	REG 005	7	0.351	6	0.278
CSO 004	REG 004	28	2.895	22	2.275
CSO 003	REG 003	33	9.040	30	8.354
CSO 024	REG 024	12	8.641	11	7.965
CSO 009	REG 009	25	1.122	22	1.008
CSO 016	REG 016	30	11.224	26	9.746
CSO 015	REG 015	27	3.408	24	3.051
CSO 011	REGS 010A, 011, 026	13	5.122	12	4.658
CSO 012	REGS 012A, 012B, 028	3	0.040	3	0.033
CSO 025	REGS 025, 034	13	1.392	10	1.096
CSO 021	REG 021	17	11.423	15	10.247
CSO 020	REG 020	4	0.090	3	0.080
TOTAL		225	58.245	197	52.027

(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 #: 36
 MONTH: November YEAR: 2016
 Average Low Temp: 55
 Average High Temp: 3.84
 Measured Rainfall: 0.00
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP			DURATION (hours)
1	11/9/2016	19:15	19:20	0.08	0.01	***	11/15/2016	11:35	16:10	4.58	1.647	0.315
2	11/15/2016	6:50	21:35	14.75	1.08	1 MONTH	11/20/2016	2:45	3:35	0.83	0.881	0.031
3	11/20/2016	1:10	7:50	6.67	0.60	1 MONTH						
4	11/25/2016	19:05	19:10	0.08	0.01	***	11/29/2016	14:05	18:25	4.33	2.613	0.472
5	11/29/2016	10:10	18:55	8.75	1.23	3 MONTH	11/30/2016	16:40	18:00	1.33	0.523	0.029
6	11/30/2016-12/01/2016	12:30	5:55	17.42	0.91	***						
TOTAL MONTH											FLOW VOLUME =	0.847

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 #: 2016
 MONTH: November YEAR: 2016
 Average Low Temp: 36
 Average High Temp: 55
 Measured Rainfall: 3.84
 Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q, volume (MG)		
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)	OUTFALL Q,avg (MGD)
1	11/9/2016	19:15	19:20	0.08	0.01	***	11/15/2016	11:40	15:25	3.75	0.163	0.025
2	11/15/2016	6:50	21:35	14.75	1.08	1 MONTH						
3	11/20/2016	1:10	7:50	6.67	0.60	1 MONTH						
4	11/25/2016	19:05	19:10	0.08	0.01	***	11/29/2016	14:20	18:00	3.67	0.934	0.143
5	11/29/2016	10:10	18:55	8.75	1.23	3 MONTH						
6	11/30/2016-12/01/2016	12:30	5:55	17.42	0.91	***						
TOTAL MONTH											FLOW VOLUME =	0.168

Note: Overflow occurs when Interceptor level reaches 43"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Derby Ave. 20 yds East of Ella T. Grasso Blvd.
 LOCATION: 005

NPDES Permit Outfall #: November YEAR: 2016

MONTH: 36

Average Low Temp: 55

Average High Temp: 3.84

Measured Rainfall: 0.00

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	11/9/2016	19:15	19:20	0.08	0.01	***						
2	11/15/2016	6:50	21:35	14.75	1.08	1 MONTH						
3	11/20/2016	1:10	7:50	6.67	0.60	1 MONTH						
4	11/25/2016	19:05	19:10	0.08	0.01	***						
5	11/29/2016	10:10	18:55	8.75	1.23	3 MONTH						
6	11/30/2016-12/01/2016	12:30	5:55	17.42	0.91	***						
TOTAL MONTH											FLOW VOLUME =	0.000

Note: Overflow occurs when Interceptor level reaches 71"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Whalley Ave. 30 yds from Fitch Street
 NPDES Permit Outfall #: 006
 MONTH: November YEAR: 2016
 Average Low Temp: 36
 Average High Temp: 55
 Measured Rainfall: 3.84
 Measured Snowfall: 0.00

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	11/9/2016	19:15	19:20	0.08	0.01	***						
2	11/15/2016	6:50	21:35	14.75	1.08	1 MONTH						
3	11/20/2016	1:10	7:50	6.67	0.60	1 MONTH						
4	11/25/2016	19:05	19:10	0.08	0.01	***						
5	11/29/2016	10:10	18:55	8.75	1.23	3 MONTH	11/29/2016	14:50	17:50	3.00	2.381	0.297
6	11/30/2016-12/01/2016	12:30	5:55	17.42	0.91	***						
											TOTAL MONTH	0.297
											FLOW VOLUME =	

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 #: 2016
 MONTH: November YEAR: 2016
 Average Low Temp: 36
 Average High Temp: 55
 Measured Rainfall: 3.84
 Measured Snowfall: 0.00

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	11/9/2016	19:15	19:20	0.08	0.01	***						
2	11/15/2016	6:50	21:35	14.75	1.08	1 MONTH	11/15/2016	14:25	14:55	0.50	0.085	0.002
3	11/20/2016	1:10	7:50	6.67	0.60	1 MONTH						
4	11/25/2016	19:05	19:10	0.08	0.01	***						
5	11/29/2016	10:10	18:55	8.75	1.23	3 MONTH	11/29/2016	15:15	18:10	2.92	0.071	0.009
6	11/30/2016-12/01/2016	12:30	5:55	17.42	0.91	***						
TOTAL MONTH											0.011	
FLOW VOLUME =												

Note: Overflow occurs when Interceptor level reaches 30"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011
 NPDES Permit Outfall #: 2016
 MONTH: November YEAR: 2016
 Average Low Temp: 36
 Average High Temp: 55
 Measured Rainfall: 3.84
 Measured Snowfall: 0.00

EVENT No.	RAINFALL EVENT						CSO EVENT					
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	11/9/2016	19:15	19:20	0.08	0.01	***						
2	11/15/2016	6:50	21:35	14.75	1.08	1 MONTH						
3	11/20/2016	1:10	7:50	6.67	0.60	1 MONTH						
4	11/25/2016	19:05	19:10	0.08	0.01	***						
5	11/29/2016	10:10	18:55	8.75	1.23	3 MONTH	11/29/2016	14:45	17:50	3.08	2.803	0.360
6	11/30/2016-12/01/2016	12:30	5:55	17.42	0.91	***						

Sum of 010A and 011

TOTAL MONTH FLOW VOLUME =

0.360

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 75 Mitchell Drive
 012

NPDES Permit Outfall #:
 MONTH: November YEAR: 2016
 Average Low Temp: 36
 Average High Temp: 55
 Measured Rainfall: 3.84
 Measured Snowfall: 0.00

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	11/9/2016	19:15	19:20	0.08	0.01	***							
2	11/15/2016	6:50	21:35	14.75	1.08	1 MONTH							
3	11/20/2016	1:10	7:50	6.67	0.60	1 MONTH							
4	11/25/2016	19:05	19:10	0.08	0.01	***							
5	11/29/2016	10:10	18:55	8.75	1.23	3 MONTH	11/29/2016	16:55	17:40	0.75	0.446	0.014	
6	11/30/2016-12/01/2016	12:30	5:55	17.42	0.91	***							
											TOTAL MONTH FLOW VOLUME =	0.014	

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 15 James Street
 015

NPDES Permit Outfall #:

MONTH: November YEAR: 2016

36

55

3.84

0.00

Average Low Temp:

Average High Temp:

Measured Rainfall:

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	11/9/2016	19:15	19:20	0.08	0.01	***							
2	11/15/2016	6:50	21:35	14.75	1.08	1 MONTH							
3	11/20/2016	1:10	7:50	6.67	0.60	1 MONTH							
4	11/25/2016	19:05	19:10	0.08	0.01	***							
5	11/29/2016	10:10	18:55	8.75	1.23	3 MONTH							
6	11/30/2016-12/01/2016	12:30	5:55	17.42	0.91	***							

The meters were removed during November to allow cleaning of the James Street sewer and siphon.

Expected capacity of siphon is between 24 and 30 MGD.
 Weir Height 40.5"

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Int. River & Poplar
 016

NPDES Permit Outfall #:

MONTH: November YEAR: 2016

Average Low Temp: 36

Average High Temp: 55

Measured Rainfall: 3.84

Measured Snowfall: 0.00

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	11/9/2016	19:15	19:20	0.08	0.01	***							
2	11/15/2016	6:50	21:35	14.75	1.08	1 MONTH							
3	11/20/2016	1:10	7:50	6.67	0.60	1 MONTH							
4	11/25/2016	19:05	19:10	0.08	0.01	***							
5	11/29/2016	10:10	18:55	8.75	1.23	3 MONTH	11/29/2016	13:55	18:15	4.33	4.316	0.779	
6	11/30/2016-12/01/2016	12:30	5:55	17.42	0.91	***							
											TOTAL MONTH		
											FLOW VOLUME =	0.779	

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Clifton and Quinnpiac

LOCATION: 020

NPDES Permit Outfall #:

MONTH: November YEAR: 2016

Average Low Temp: 36

Average High Temp: 55

Measured Rainfall: 3.84

Measured Snowfall: 0.00

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	11/9/2016	19:15	19:20	0.08	0.01	***							
2	11/15/2016	6:50	21:35	14.75	1.08	1 MONTH							
3	11/20/2016	1:10	7:50	6.67	0.60	1 MONTH							
4	11/25/2016	19:05	19:10	0.08	0.01	***							
5	11/29/2016	10:10	18:55	8.75	1.23	3 MONTH							
6	11/30/2016-12/01/2016	12:30	5:55	17.42	0.91	***							
											TOTAL MONTH	0.000	
											FLOW VOLUME =	0.000	

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

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 638 Long Wharf Drive
 021

NPDES Permit Outfall #:
 MONTH: November YEAR: 2016

Average Low Temp: 36

Average High Temp: 55

Measured Rainfall: 3.84

Measured Snowfall: 0.00

EVENT No.	RAINFALL EVENT						CSO EVENT					
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	11/9/2016	19:15	19:20	0.08	0.01	***						
2	11/15/2016	6:50	21:35	14.75	1.08	1 MONTH						
3	11/20/2016	1:10	7:50	6.67	0.60	1 MONTH						
4	11/25/2016	19:05	19:10	0.08	0.01	***						
5	11/29/2016	10:10	18:55	8.75	1.23	3 MONTH	11/29/2016	15:05	18:35	3.50	4.153	0.606
6	11/30/2016-12/01/2016	12:30	5:55	17.42	0.91	***						
											TOTAL MONTH FLOW VOLUME =	0.606

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Sea Street @ South Water Street
 024

NPDES Permit Outfall #:
 MONTH: November YEAR: 2016
 Average Low Temp: 36
 Average High Temp: 55
 Measured Rainfall: 3.84
 Measured Snowfall: 0.00

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	11/9/2016	19:15	19:20	0.08	0.01	***							
2	11/15/2016	6:50	21:35	14.75	1.08	1 MONTH	11/15/2016	13:35	16:10	2.58	2.990	0.322	
3	11/20/2016	1:10	7:50	6.67	0.60	1 MONTH							
4	11/25/2016	19:05	19:10	0.08	0.01	***							
5	11/29/2016	10:10	18:55	8.75	1.23	3 MONTH	11/29/2016	16:55	18:45	1.83	6.055	0.463	
6	11/30/2016-12/01/2016	12:30	5:55	17.42	0.91	***							
											TOTAL MONTH	0.785	
											FLOW VOLUME =		

Note: Overflow occurs when interceptor level reaches 65" in US & 81" in DS

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Intersection of State & N. Front Street
 025
 NPDES Permit Outfall #: 2016
 MONTH: November YEAR: 2016
 Average Low Temp: 36
 Average High Temp: 55
 Measured Rainfall: 3.84
 Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT						CSO EVENT				OUTFALL Q volume (MG)
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	
1	11/9/2016	19:15	19:20	0.08	0.01	***						
2	11/15/2016	6:50	21:35	14.75	1.08	1 MONTH						
3	11/20/2016	1:10	7:50	6.67	0.60	1 MONTH						
4	11/25/2016	19:05	19:10	0.08	0.01	***						
5	11/29/2016	10:10	18:55	8.75	1.23	3 MONTH						
6	11/30/2016-12/01/2016	12:30	5:55	17.42	0.91	***						

TOTAL MONTH
 FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 21"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: George and Temple Regulator 34
 NPDES Permit Outfall #: 2016
 MONTH: November YEAR: 2016
 Average Low Temp: 36
 Average High Temp: 55
 Measured Rainfall: 3.84
 Measured Snowfall: 0.00

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	11/9/2016	19:15	19:20	0.08	0.01	***						
2	11/15/2016	6:50	21:35	14.75	1.08	1 MONTH						
3	11/20/2016	1:10	7:50	6.67	0.60	1 MONTH						
4	11/25/2016	19:05	19:10	0.08	0.01	***						
5	11/29/2016	10:10	18:55	8.75	1.23	3 MONTH	11/29/2016	16:55	17:05	0.17	1.084	0.008
6	11/30/2016-12/01/2016	12:30	5:55	17.42	0.91	***						
TOTAL MONTH											0.008	
FLOW VOLUME =												

METER DATA

OCTOBER 2016

**GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CSO FLOW MONITORING PROGRAM
METER DATA SUMMARY - OCTOBER 2016**

MONTHLY RAINFALL SUMMARY

3.60 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, one 3 month and one 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	2	0.110
CSO 005	REG 005	0	0.000
CSO 004	REG 004	2	0.110
CSO 003	REG 003	2	0.407
CSO 024	REG 024	1	0.301
CSO 009	REG 009	1	0.117
CSO 016	REG 016	2	1.241
CSO 015	REG 015	3	0.404
CSO 011	REGS 010A, 011, 026	1	0.417
CSO 012	REGS 012A, 012B, 028	1	0.040
CSO 025	REGS 025, 034	0	0.000
CSO 021	REG 021	1	0.338
CSO 020	REG 020	0	0.000
TOTAL		16	3.485

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - THROUGH OCTOBER 2016

<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	65	14.904	171.07	54
CSO 005	REG 005	13	0.648	72.25	27
CSO 004	REG 004	50	5.186	72.49	27
CSO 003	REG 003	133	36.828	168.16	53
CSO 024	REG 024	46	33.068	157.84	50
CSO 009	REG 009	90	4.191	150.72	49
CSO 016	REG 016	113	41.976	153.37	52
CSO 015	REG 015	100	12.458	150.87	49
CSO 011	REGS 010A, 011, 026	47	18.280	146.35	47
CSO 012	REGS 012A, 012B, 028	5	0.057	68.76	25
CSO 025	REGS 025, 034	23	2.563	72.40	27
CSO 021	REG 021	62	41.237	147.33	48
CSO 020	REG 020	12	0.295	130.78	43
TOTAL		759	211.691		

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - TYPICAL YEAR ESTIMATES

CSO NUMBER	REGULATOR NUMBERS	ANNUAL CSO EVENTS BASED ON RAINFALL ⁽¹⁾	ANNUAL CSO VOLUME (MG) BASED ON RAINFALL ⁽²⁾	ANNUAL CSO EVENTS BASED ON MONTHS ⁽³⁾	ANNUAL CSO VOLUME (MG) BASED ON MONTHS ⁽⁴⁾
CSO 006	REGS 006 A, 006 B	16	3.596	14	3.312
CSO 005	REG 005	7	0.370	6	0.288
CSO 004	REG 004	28	2.952	22	2.284
CSO 003	REG 003	33	9.039	30	8.320
CSO 024	REG 024	12	8.646	11	7.936
CSO 009	REG 009	25	1.148	22	1.026
CSO 016	REG 016	30	11.295	26	9.754
CSO 015	REG 015	27	3.408	24	3.040
CSO 011	REGS 010A, 011, 026	13	5.155	12	4.665
CSO 012	REGS 012A, 012B, 028	3	0.034	2	0.027
CSO 025	REGS 025, 034	13	1.461	10	1.133
CSO 021	REG 021	17	11.551	15	10.309
CSO 020	REG 020	4	0.093	3	0.082
TOTAL		225	58.654	196	52.095

(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 #: October YEAR: 2016
 MONTH: 50
 Average Low Temp: 69
 Average High Temp: 3.60
 Measured Rainfall: 0.00
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)		
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)	OUTFALL Qavg (MGD)
1	10/1/2016	1:00	1:05	0.08	0.01	***						
2	10/3/2016	16:05	16:45	0.67	0.03	***						
3	10/8/2016-10/9/2016	15:20	15:10	23.83	0.76	1 MONTH						
4	10/22/2016	9:00	15:50	6.83	0.27	***						
5	10/24/2016	2:25	4:20	1.92	0.12	***						
6	10/27/2016-10/28/2016	10:50	0:55	14.08	1.67	6 MONTH	10/27/2016-10/28/2016	22:15	0:45	2.50	3.165	0.330
7	10/30/2016	15:55	20:10	4.25	0.74	3 MONTH	10/30/2016	16:50	18:20	1.50	1.231	0.077
TOTAL MONTH											0.407	
FLOW VOLUME =												

Note: Overflow occurs when Interceptor level reaches 46"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Ella T. Grasso Blvd. - 23 yards North of Legion Ave.
 004

NPDES Permit Outfall #: 50
 MONTH: October YEAR: 2016
 Average Low Temp: 69
 Average High Temp: 3.60
 Measured Rainfall: 0.00
 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	10/1/2016	1:00	1:05	0:08	0.01	***						
2	10/3/2016	16:05	16:45	0:67	0.03	***						
3	10/8/2016-10/9/2016	15:20	15:10	23.83	0.76	1 MONTH						
4	10/22/2016	9:00	15:50	6.83	0.27	***						
5	10/24/2016	2:25	4:20	1.92	0.12	***						
6	10/27/2016-10/28/2016	10:50	0:55	14.08	1.67	6 MONTH	10/27/2016-10/28/2016	22:25	0:05	1.67	1.407	0.098
7	10/30/2016	15:55	20:10	4.25	0.74	3 MONTH	10/30/2016	17:15	17:50	0.58	0.494	0.012
TOTAL MONTH											FLOW VOLUME =	0.110

Note: Overflow occurs when Interceptor level reaches 43"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Derby Ave. 20 yds East of Ella T. Grasso Blvd.
 LOCATION: 005
 NPDES Permit Outfall #: October YEAR: 2016
 MONTH: 50
 Average Low Temp: 69
 Average High Temp: 3.60
 Measured Rainfall: 0.00
 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	10/1/2016	1:00	1:05	0:08	0.01	***						
2	10/3/2016	16:05	16:45	0:67	0.03	***						
3	10/8/2016-10/9/2016	15:20	15:10	23:83	0.76	1 MONTH						
4	10/22/2016	9:00	15:50	6:83	0.27	***						
5	10/24/2016	2:25	4:20	1:92	0.12	***						
6	10/27/2016-10/28/2016	10:50	0:55	14:08	1.67	6 MONTH						
7	10/30/2016	15:55	20:10	4:25	0.74	3 MONTH						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 71"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Whalley Ave. 30 yds from Fitch Street
 NPDES Permit Outfall #: 006
 MONTH: October YEAR: 2016
 Average Low Temp: 50
 Average High Temp: 69
 Measured Rainfall: 3.60
 Measured Snowfall: 0.00

EVENT No.	RAINFALL EVENT				CSO EVENT							
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	10/1/2016	1:00	1:05	0.08	0.01	***						
2	10/3/2016	16:05	16:45	0.67	0.03	***						
3	10/8/2016-10/9/2016	15:20	15:10	23.83	0.76	1 MONTH	10/8/2016	20:35	20:55	0.33	0.432	0.006
4	10/22/2016	9:00	15:50	6.83	0.27	***						
5	10/24/2016	2:25	4:20	1.92	0.12	***						
6	10/27/2016-10/28/2016	10:50	0:55	14.08	1.67	6 MONTH	10/27/2016-10/28	23:05	0:05	1.00	2.496	0.104
7	10/30/2016	15:55	20:10	4.25	0.74	3 MONTH						
											TOTAL MONTH	0.110
											FLOW VOLUME =	

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: October YEAR: 2016

Average Low Temp: 50

Average High Temp: 69

Measured Rainfall: 3.60

Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP			DURATION (hours)
1	10/1/2016	1:00	1:05	0:08	0.01	***						
2	10/3/2016	16:05	16:45	0:67	0.03	***						
3	10/8/2016-10/9/2016	15:20	15:10	23:83	0.76	1 MONTH						
4	10/22/2016	9:00	15:50	6:83	0.27	***						
5	10/24/2016	2:25	4:20	1:92	0.12	***						
6	10/27/2016-10/28/2016	10:50	0:55	14:08	1.67	6 MONTH	10/27/2016-10/28/2016	23:05	0:05	1.00	2.805	0.117
7	10/30/2016	15:55	20:10	4:25	0.74	3 MONTH						

TOTAL MONTH FLOW VOLUME =

0.117

Note: Overflow occurs when Interceptor level reaches 30"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

011

LOCATION:

NPDES Permit Outfall #:

October YEAR: 2016

MONTH:

50

Average Low Temp:

69

Average High Temp:

3.60

Measured Rainfall:

0.00

Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP			DURATION (hours)
1	10/1/2016	1:00	1:05	0.08	0.01	***						
2	10/3/2016	16:05	16:45	0.67	0.03	***						
3	10/8/2016-10/9/2016	15:20	15:10	23.83	0.76	1 MONTH						
4	10/22/2016	9:00	15:50	6.83	0.27	***						
5	10/24/2016	2:25	4:20	1.92	0.12	***						
6	10/27/2016-10/28/2016	10:50	0:55	14.08	1.67	6 MONTH	10/27/2016-10/28/2016	22:45	0:25	1.67	6.011	0.417
7	10/30/2016	15:55	20:10	4.25	0.74	3 MONTH						
TOTAL MONTH											0.417	
FLOW VOLUME =												

Sum of 010A and 011

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 75 Mitchell Drive

LOCATION: 012

NPDES Permit Outfall #:

MONTH: October YEAR: 2016

Average Low Temp: 50

Average High Temp: 69

Measured Rainfall: 3.60

Measured Snowfall: 0.00

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	10/1/2016	1:00	1:05	0:08	0.01	***						
2	10/3/2016	16:05	16:45	0:67	0.03	***						
3	10/8/2016-10/9/2016	15:20	15:10	23:83	0.76	1 MONTH						
4	10/22/2016	9:00	15:50	6:83	0.27	***						
5	10/24/2016	2:25	4:20	1:92	0.12	***						
6	10/27/2016-10/28/2016	10:50	0:55	14:08	1.67	6 MONTH	10/27/2016-10/28/2016	23:05	0:00	0.92	1.057	0.040
7	10/30/2016	15:55	20:10	4:25	0.74	3 MONTH						

TOTAL MONTH FLOW VOLUME = 0.040

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 15 James Street
 LOCATION: 015

NPDES Permit Outfall #:
 MONTH: October YEAR: 2016

Average Low Temp: 50
 Average High Temp: 69
 Measured Rainfall: 3.60
 Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q, volume (MG)		
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)	OUTFALL Qavg (MGD)
1	10/1/2016	1:00	1:05	0:08	0.01	***						
2	10/3/2016	16:05	16:45	0:67	0.03	***						
3	10/8/2016-10/9/2016	15:20	15:10	23.83	0.76	1 MONTH	10/9/2016	15:20	15:35	0.25	1.618	0.017
4	10/22/2016	9:00	15:50	6.83	0.27	***						
5	10/24/2016	2:25	4:20	1.92	0.12	***						
6	10/27/2016-10/28/2016	10:50	0:55	14.08	1.67	6 MONTH	10/27/2016-10/28/2016	19:40	0:40	5.00	1.512	0.286
7	10/30/2016	15:55	20:10	4.25	0.74	3 MONTH	10/30/2016	16:30	18:10	1.67	2.265	0.101

Expected capacity of siphon is between 24 and 30 MGD.
 Weir Height 40.5"

TOTAL MONTH FLOW VOLUME = 0.404

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Int. River & Poplar 016
 NPDES Permit Outfall #: 016
 MONTH: October YEAR: 2016
 Average Low Temp: 50
 Average High Temp: 69
 Measured Rainfall: 3.60
 Measured Snowfall: 0.00

EVENT No.	RAINFALL EVENT							CSO EVENT				
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	10/1/2016	1:00	1:05	0.08	0.01	***						
2	10/3/2016	16:05	16:45	0.67	0.03	***						
3	10/8/2016-10/9/2016	15:20	15:10	23.83	0.76	1 MONTH						
4	10/22/2016	9:00	15:50	6.83	0.27	***						
5	10/24/2016	2:25	4:20	1.92	0.12	***						
6	10/27/2016-10/28/2016	10:50	0:55	14.08	1.67	6 MONTH	10/27/2016-10/28/2016	22:35	0:45	2.17	13.689	1.236
7	10/30/2016	15:55	20:10	4.25	0.74	3 MONTH	10/30/2016	17:20	17:35	0.25	0.494	0.005

TOTAL MONTH FLOW VOLUME = 1.241

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Clifton and Quinnpiac

LOCATION: 020

NPDES Permit Outfall #:

October YEAR: 2016

MONTH: 50

Average Low Temp: 69

Average High Temp: 3.60

Measured Rainfall: 0.00

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	10/1/2016	1:00	1:05	0.08	0.01	***							
2	10/3/2016	16:05	16:45	0.67	0.03	***							
3	10/8/2016-10/9/2016	15:20	15:10	23.83	0.76	1 MONTH							
4	10/22/2016	9:00	15:50	6.83	0.27	***							
5	10/24/2016	2:25	4:20	1.92	0.12	***							
6	10/27/2016-10/28/2016	10:50	0:55	14.08	1.67	6 MONTH							
7	10/30/2016	15:55	20:10	4.25	0.74	3 MONTH							

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

TOTAL MONTH FLOW VOLUME =

0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 638 Long Wharf Drive

LOCATION: 021

NPDES Permit Outfall #:

MONTH: October YEAR: 2016

Average Low Temp: 50

Average High Temp: 69

Measured Rainfall: 3.60

Measured Snowfall: 0.00

EVENT No.	RAINFALL EVENT					CSO EVENT						
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	10/1/2016	1:00	1:05	0.08	0.01	***						
2	10/3/2016	16:05	16:45	0.67	0.03	***						
3	10/8/2016-10/9/2016	15:20	15:10	23.83	0.76	1 MONTH						
4	10/22/2016	9:00	15:50	6.83	0.27	***						
5	10/24/2016	2:25	4:20	1.92	0.12	***						
6	10/27/2016-10/28/2016	10:50	0:55	14.08	1.67	6 MONTH	10/27/2016-10/28/2016	23:00	0:50	1.83	4.426	0.338
7	10/30/2016	15:55	20:10	4.25	0.74	3 MONTH						
TOTAL MONTH											0.338	
FLOW VOLUME =											0.338	

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Sea Street @ South Water Street
 NPDES Permit Outfall #: 024
 MONTH: October YEAR: 2016
 Average Low Temp: 50
 Average High Temp: 69
 Measured Rainfall: 3.60
 Measured Snowfall: 0.00

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	10/1/2016	1:00	1:05	0:08	0.01	***						
2	10/3/2016	16:05	16:45	0:67	0.03	***						
3	10/8/2016-10/9/2016	15:20	15:10	23:83	0.76	1 MONTH						
4	10/22/2016	9:00	15:50	6:83	0.27	***						
5	10/24/2016	2:25	4:20	1:92	0.12	***						
6	10/27/2016-10/28/2016	10:50	0:55	14:08	1.67	6 MONTH						
7	10/30/2016	15:55	20:10	4:25	0.74	3 MONTH						
											TOTAL MONTH	0.301
											FLOW VOLUME =	0.301

Note: Overflow occurs when interceptor level reaches 65" in US & 81" in DS

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Intersection of State & N. Front Street
 NPDES Permit Outfall #: 025
 MONTH: October YEAR: 2016
 Average Low Temp: 50
 Average High Temp: 69
 Measured Rainfall: 3.60
 Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Qavg volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	10/1/2016	1:00	1:05	0.08	0.01	***					
2	10/3/2016	16:05	16:45	0.67	0.03	***					
3	10/8/2016-10/9/2016	15:20	15:10	23.83	0.76	1 MONTH					
4	10/22/2016	9:00	15:50	6.83	0.27	***					
5	10/24/2016	2:25	4:20	1.92	0.12	***					
6	10/27/2016-10/28/2016	10:50	0:55	14.08	1.67	6 MONTH					
7	10/30/2016	15:55	20:10	4.25	0.74	3 MONTH					

TOTAL MONTH FLOW VOLUME = 0.000

METER DATA

SEPTEMBER 2016

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CSO FLOW MONITORING PROGRAM
METER DATA SUMMARY - SEPTEMBER 2016

MONTHLY RAINFALL SUMMARY

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

No snow

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

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	0	0.000
CSO 005	REG 005	0	0.000
CSO 004	REG 004	1	0.002
CSO 003	REG 003	1	0.010
CSO 024	REG 024	0	0.000
CSO 009	REG 009	1	0.003
CSO 016	REG 016	1	0.159
CSO 015	REG 015	1	0.045
CSO 011	REGS 010A, 011, 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		5	0.219

**GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CSO FLOW MONITORING PROGRAM**

METER DATA SUMMARY - THROUGH SEPTEMBER 2016

<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	63	14.794	167.47	53
CSO 005	REG 005	13	0.648	68.65	26
CSO 004	REG 004	48	5.076	68.89	26
CSO 003	REG 003	131	36.421	164.56	52
CSO 024	REG 024	45	32.767	154.24	49
CSO 009	REG 009	89	4.074	147.12	48
CSO 016	REG 016	111	40.735	149.77	51
CSO 015	REG 015	97	12.054	147.27	48
CSO 011	REGS 010A, 011, 026	46	17.863	142.75	46
CSO 012	REGS 012A, 012B, 028	4	0.017	65.16	24
CSO 025	REGS 025, 034	23	2.563	68.80	26
CSO 021	REG 021	61	40.899	143.73	47
CSO 020	REG 020	12	0.295	127.18	42
TOTAL		743	208.206		

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>
CSO 006	REGS 006 A, 006 B	16	3.646	14	3.350
CSO 005	REG 005	8	0.390	6	0.299
CSO 004	REG 004	29	3.041	22	2.321
CSO 003	REG 003	33	9.134	30	8.386
CSO 024	REG 024	12	8.767	11	8.025
CSO 009	REG 009	25	1.143	22	1.018
CSO 016	REG 016	31	11.225	26	9.652
CSO 015	REG 015	27	3.378	24	3.003
CSO 011	REGS 010A, 011, 026	13	5.164	12	4.657
CSO 012	REGS 012A, 012B, 028	3	0.011	2	0.009
CSO 025	REGS 025, 034	14	1.537	11	1.176
CSO 021	REG 021	18	11.743	16	10.442
CSO 020	REG 020	4	0.096	3	0.084
TOTAL		227	59.179	196	52.338

(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: September YEAR: 2016
 Average Low Temp: 43
 Average High Temp: 89
 Measured Rainfall: 1.34
 Measured Snowfall: 0.00

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	9/1/2016-9/2/2016	6:40	0:50	18.17	0.04	***						
2	9/6/2016-9/7/2016	18:30	2:10	7.67	0.08	***						
3	9/14/2016	17:15	17:20	0.08	0.01	***						
4	9/19/2016-9/20/2016	7:30	10:50	27.33	0.65	1 MONTH						
5	9/27/2016	3:40	8:00	4.33	0.40	1 MONTH	9/27/2016	5:15	5:50	0.58	0.399	0.010
6	9/30/2016	13:05	23:10	10.08	0.16	***						

TOTAL MONTH FLOW VOLUME = 0.010

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: September YEAR: 2016
 Average Low Temp: 43
 Average High Temp: 89
 Measured Rainfall: 1.34
 Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q. volume (MG)		
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)	OUTFALL Qavg (MGD)
1	9/1/2016-9/2/2016	6:40	0:50	18.17	0.04	***						
2	9/6/2016-9/7/2016	18:30	2:10	7.67	0.08	***						
3	9/14/2016	17:15	17:20	0.08	0.01	***						
4	9/19/2016-9/20/2016	7:30	10:50	27.33	0.65	1 MONTH						
5	9/27/2016	3:40	8:00	4.33	0.40	1 MONTH	9/27/2016	5:15	5:40	0.42	0.104	0.002
6	9/30/2016	13:05	23:10	10.08	0.16	***						
TOTAL MONTH											FLOW VOLUME =	0.002

Note: Overflow occurs when Interceptor level reaches 43"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Derby Ave. 20 yds East of Ella T. Grasso Blvd.

LOCATION: 005

NPDES Permit Outfall #:

September YEAR: 2016

MONTH: 43

Average Low Temp:

89

Average High Temp:

1.34

Measured Rainfall:

0.00

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP			DURATION (hours)
1	9/1/2016-9/2/2016	6:40	0:50	18.17	0.04	***						
2	9/6/2016-9/7/2016	18:30	2:10	7.67	0.08	***						
3	9/14/2016	17:15	17:20	0.08	0.01	***						
4	9/19/2016-9/20/2016	7:30	10:50	27.33	0.65	1 MONTH						
5	9/27/2016	3:40	8:00	4.33	0.40	1 MONTH						
6	9/30/2016	13:05	23:10	10.08	0.16	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 71"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Whalley Ave. 30 yds from Fitch Street
 NPDES Permit Outfall #: 006
 MONTH: September YEAR: 2016
 Average Low Temp: 43
 Average High Temp: 89
 Measured Rainfall: 1.34
 Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	9/1/2016-9/2/2016	6:40	0:50	18.17	0.04	***					
2	9/6/2016-9/7/2016	18:30	2:10	7.67	0.08	***					
3	9/14/2016	17:15	17:20	0.08	0.01	***					
4	9/19/2016-9/20/2016	7:30	10:50	27.33	0.65	1 MONTH					
5	9/27/2016	3:40	8:00	4.33	0.40	1 MONTH					
6	9/30/2016	13:05	23:10	10.08	0.16	***					
										TOTAL MONTH FLOW VOLUME =	0.000

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 #: 2016
 MONTH: September
 Average Low Temp: 43
 Average High Temp: 89
 Measured Rainfall: 1.34
 Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)		
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)	OUTFALL Qavg (MGD)
1	9/1/2016-9/2/2016	6:40	0:50	18.17	0.04	***						
2	9/6/2016-9/7/2016	18:30	2:10	7.67	0.08	***						
3	9/14/2016	17:15	17:20	0.08	0.01	***						
4	9/19/2016-9/20/2016	7:30	10:50	27.33	0.65	1 MONTH						
5	9/27/2016	3:40	8:00	4.33	0.40	1 MONTH	9/27/2016	4:40	5:30	0.83	0.079	0.003
6	9/30/2016	13:05	23:10	10.08	0.16	***						
TOTAL MONTH											0.003	
FLOW VOLUME =											0.003	

Note: Overflow occurs when Interceptor level reaches 30"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

011

LOCATION:

NPDES Permit Outfall #:

September YEAR: 2016

43

Average Low Temp:

89

Average High Temp:

1.34

Measured Rainfall:

0.00

Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT						CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)		
1	9/1/2016-9/2/2016	6:40	0:50	18.17	0.04	***							
2	9/6/2016-9/7/2016	18:30	2:10	7.67	0.08	***							
3	9/14/2016	17:15	17:20	0.08	0.01	***							
4	9/19/2016-9/20/2016	7:30	10:50	27.33	0.65	1 MONTH							
5	9/27/2016	3:40	8:00	4.33	0.40	1 MONTH							
6	9/30/2016	13:05	23:10	10.08	0.16	***							
											TOTAL MONTH FLOW VOLUME =	0.000	

Sum of 010A and 011

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 75 Mitchell Drive

LOCATION: 012

NPDES Permit Outfall #:

MONTH: September YEAR: 2016

Average Low Temp: 43

Average High Temp: 89

Measured Rainfall: 1.34

Measured Snowfall: 0.00

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	9/1/2016-9/2/2016	6:40	0:50	18.17	0.04	***						
2	9/6/2016-9/7/2016	18:30	2:10	7.67	0.08	***						
3	9/14/2016	17:15	17:20	0.08	0.01	***						
4	9/19/2016-9/20/2016	7:30	10:50	27.33	0.65	1 MONTH						
5	9/27/2016	3:40	8:00	4.33	0.40	1 MONTH						
6	9/30/2016	13:05	23:10	10.08	0.16	***						
TOTAL MONTH											FLOW VOLUME =	0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 15 James Street
 LOCATION: 015

NPDES Permit Outfall #:

September YEAR: 2016

MONTH: 43

Average Low Temp: 89

Average High Temp: 1.34

Measured Rainfall: 0.00

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	9/1/2016-9/2/2016	6:40	0:50	18.17	0.04	***	9/19/2016	12:20	13:25	1.08	0.996	0.045
2	9/6/2016-9/7/2016	18:30	2:10	7.67	0.08	***						
3	9/14/2016	17:15	17:20	0.08	0.01	***						
4	9/19/2016-9/20/2016	7:30	10:50	27.33	0.65	1 MONTH						
5	9/27/2016	3:40	8:00	4.33	0.40	1 MONTH						
6	9/30/2016	13:05	23:10	10.08	0.16	***						

Expected capacity of siphon is between 24 and 30 MGD.
 Weir Height 40.5"

TOTAL MONTH FLOW VOLUME = 0.045

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Int. River & Poplar
 NPDES Permit Outfall #: 016
 MONTH: September YEAR: 2016
 Average Low Temp: 43
 Average High Temp: 89
 Measured Rainfall: 1.34
 Measured Snowfall: 0.00

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	9/1/2016-9/2/2016	6:40	0:50	18.17	0.04	***						
2	9/6/2016-9/7/2016	18:30	2:10	7.67	0.08	***						
3	9/14/2016	17:15	17:20	0.08	0.01	***						
4	9/19/2016-9/20/2016	7:30	10:50	27.33	0.65	1 MONTH						
5	9/27/2016	3:40	8:00	4.33	0.40	1 MONTH	9/27/2016	4:45	5:55	1.17	3.272	0.159
6	9/30/2016	13:05	23:10	10.08	0.16	***						

TOTAL MONTH FLOW VOLUME = 0.159

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Clifton and Quinippiac
 020
 NPDES Permit Outfall #: 020
 MONTH: September YEAR: 2016
 Average Low Temp: 43
 Average High Temp: 89
 Measured Rainfall: 1.34
 Measured Snowfall: 0.00

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	9/1/2016-9/2/2016	6:40	0:50	18.17	0.04	***							
2	9/6/2016-9/7/2016	18:30	2:10	7.67	0.08	***							
3	9/14/2016	17:15	17:20	0.08	0.01	***							
4	9/19/2016-9/20/2016	7:30	10:50	27.33	0.65	1 MONTH							
5	9/27/2016	3:40	8:00	4.33	0.40	1 MONTH							
6	9/30/2016	13:05	23:10	10.08	0.16	***							
											TOTAL MONTH FLOW VOLUME =	0.000	

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

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 638 Long Wharf Drive
 021

NPDES Permit Outfall #: September YEAR: 2016

MONTH: 43
 Average Low Temp: 89
 Average High Temp: 1.34
 Measured Rainfall: 0.00
 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	9/1/2016-9/2/2016	6:40	0:50	18.17	0.04	***						
2	9/6/2016-9/7/2016	18:30	2:10	7.67	0.08	***						
3	9/14/2016	17:15	17:20	0.08	0.01	***						
4	9/19/2016-9/20/2016	7:30	10:50	27.33	0.65	1 MONTH						
5	9/27/2016	3:40	8:00	4.33	0.40	1 MONTH						
6	9/30/2016	13:05	23:10	10.08	0.16	***						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Sea Street @ South Water Street
 NPDES Permit Outfall #: 024
 MONTH: September YEAR: 2016
 Average Low Temp: 43
 Average High Temp: 89
 Measured Rainfall: 1.34
 Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	9/1/2016-9/2/2016	6:40	0:50	18.17	0.04	***					
2	9/6/2016-9/7/2016	18:30	2:10	7.67	0.08	***					
3	9/14/2016	17:15	17:20	0.08	0.01	***					
4	9/19/2016-9/20/2016	7:30	10:50	27.33	0.65	1 MONTH					
5	9/27/2016	3:40	8:00	4.33	0.40	1 MONTH					
6	9/30/2016	13:05	23:10	10.08	0.16	***					
TOTAL MONTH										FLOW VOLUME =	0.000

Note: Overflow occurs when Interceptor level reaches 65" in US & 81" in DS

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Intersection of State & N. Front Street
 NPDES Permit Outfall #: 025
 MONTH: September YEAR: 2016
 Average Low Temp: 43
 Average High Temp: 89
 Measured Rainfall: 1.34
 Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q Qavg (MGD)	OUTFALL volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP			DURATION (hours)
1	9/1/2016-9/2/2016	6:40	0:50	18.17	0.04	***						
2	9/6/2016-9/7/2016	18:30	2:10	7.67	0.08	***						
3	9/14/2016	17:15	17:20	0.08	0.01	***						
4	9/19/2016-9/20/2016	7:30	10:50	27.33	0.65	1 MONTH						
5	9/27/2016	3:40	8:00	4.33	0.40	1 MONTH						
6	9/30/2016	13:05	23:10	10.08	0.16	***						
TOTAL MONTH											0.000	
FLOW VOLUME =											0.000	

Note: Overflow occurs when Interceptor level reaches 21"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: George and Temple Regulator 34
 NPDES Permit Outfall #: 2016
 MONTH: September YEAR: 2016
 Average Low Temp: 43
 Average High Temp: 89
 Measured Rainfall: 1.34
 Measured Snowfall: 0.00

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	9/1/2016-9/2/2016	6:40	0:50	18.17	0.04	***						
2	9/6/2016-9/7/2016	18:30	2:10	7.67	0.08	***						
3	9/14/2016	17:15	17:20	0.08	0.01	***						
4	9/19/2016-9/20/2016	7:30	10:50	27.33	0.65	1 MONTH						
5	9/27/2016	3:40	8:00	4.33	0.40	1 MONTH						
6	9/30/2016	13:05	23:10	10.08	0.16	***						

TOTAL MONTH FLOW VOLUME = 0.000

METER DATA

AUGUST 2016

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - AUGUST 2016

MONTHLY RAINFALL SUMMARY

1.70 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, 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	0.156
CSO 005	REG 005	1	0.008
CSO 004	REG 004	2	0.103
CSO 003	REG 003	2	0.116
CSO 024	REG 024	1	0.868
CSO 009	REG 009	3	0.077
CSO 016	REG 016	2	0.720
CSO 015	REG 015	3	0.308
CSO 011	REGS 010A, 011, 026	3	0.758
CSO 012	REGS 012A, 012B, 028	0	0.000
CSO 025	REGS 025, 034	2	0.207
CSO 021	REG 021	1	0.002
CSO 020	REG 020	1	0.010
TOTAL		22	3.333

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - THROUGH AUGUST 2016

<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	63	14.794	166.13	52
CSO 005	REG 005	13	0.648	67.31	25
CSO 004	REG 004	47	5.074	67.55	25
CSO 003	REG 003	130	36.411	163.22	51
CSO 024	REG 024	45	32.767	152.90	48
CSO 009	REG 009	88	4.071	145.78	47
CSO 016	REG 016	110	40.576	148.43	50
CSO 015	REG 015	96	12.009	145.93	47
CSO 011	REGS 010A, 011, 026	46	17.863	141.41	45
CSO 012	REGS 012A, 012B, 028	4	0.017	63.82	23
CSO 025	REGS 025, 034	23	2.563	67.46	25
CSO 021	REG 021	61	40.899	142.39	46
CSO 020	REG 020	12	0.295	125.84	41
TOTAL		738	207.987		

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>
CSO 006	REGS 006 A, 006 B	16	3.675	15	3.414
CSO 005	REG 005	8	0.397	6	0.311
CSO 004	REG 004	29	3.100	22	2.412
CSO 003	REG 003	33	9.207	31	8.548
CSO 024	REG 024	12	8.844	11	8.192
CSO 009	REG 009	25	1.153	22	1.039
CSO 016	REG 016	31	11.282	27	9.808
CSO 015	REG 015	27	3.396	24	3.055
CSO 011	REGS 010A, 011, 026	13	5.213	12	4.761
CSO 012	REGS 012A, 012B, 028	3	0.011	2	0.009
CSO 025	REGS 025, 034	14	1.568	11	1.223
CSO 021	REG 021	18	11.854	16	10.669
CSO 020	REG 020	4	0.097	4	0.086
TOTAL		228	59.700	200	53.441
(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 #: 2016
 MONTH: August YEAR: 2016
 Average Low Temp: 79
 Average High Temp: 93
 Measured Rainfall: 1.70
 Measured Snowfall: 0.00

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	8/1/2016	0:45	1:15	0.50	0.02	***						
2	8/2/2016	6:00	6:40	0.67	0.16	1 MONTH						
3	8/6/2016	17:45	18:30	0.75	0.15	***						
4	8/10/2016	6:35	19:45	13.17	0.69	3 MONTH	8/10/2016	13:15	14:35	1.33	0.866	0.048
5	8/11/2016-8/12/2016	9:05	16:35	31.50	0.09	***						
6	8/13/2016	21:50	22:55	1.08	0.21	1 MONTH						
7	8/21/2016-8/22/2016	21:20	1:10	3.83	0.38	6 MONTH	8/22/2016	0:15	1:20	1.08	1.509	0.068
TOTAL MONTH											FLOW VOLUME =	0.116

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: August YEAR: 2016

Average Low Temp: 79

Average High Temp: 93

Measured Rainfall: 1.70

Measured Snowfall: 0.00

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	8/1/2016	0:45	1:15	0:50	0.02	***						
2	8/2/2016	6:00	6:40	0:67	0.16	1 MONTH						
3	8/6/2016	17:45	18:30	0:75	0.15	***						
4	8/10/2016	6:35	19:45	13:17	0.69	3 MONTH	8/10/2016	13:15	14:30	1.25	0.974	0.051
5	8/11/2016-8/12/2016	9:05	16:35	31:50	0.09	***						
6	8/13/2016	21:50	22:55	1:08	0.21	1 MONTH						
7	8/21/2016-8/22/2016	21:20	1:10	3:83	0.38	6 MONTH	8/22/2016	0:15	1:00	0.75	1.667	0.052
											TOTAL MONTH	
											FLOW VOLUME =	0.103

Note: Overflow occurs when Interceptor level reaches 43"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Derby Ave. 20 yds East of Ella T. Grasso Blvd.

005

LOCATION: NPDES Permit Outfall #:

MONTH: August YEAR: 2016

Average Low Temp: 79

Average High Temp: 93

Measured Rainfall: 1.70

Measured Snowfall: 0.00

EVENT No.	RAINFALL EVENT							CSO EVENT				
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	8/1/2016	0:45	1:15	0:50	0.02	***						
2	8/2/2016	6:00	6:40	0:67	0.16	1 MONTH						
3	8/6/2016	17:45	18:30	0:75	0.15	***						
4	8/10/2016	6:35	19:45	13:17	0.69	3 MONTH	8/10/2016	13:10	13:25	0.25	0.765	0.008
5	8/11/2016-8/12/2016	9:05	16:35	31:50	0.09	***						
6	8/13/2016	21:50	22:55	1:08	0.21	1 MONTH						
7	8/21/2016-8/22/2016	21:20	1:10	3:83	0.38	6 MONTH						
											TOTAL MONTH FLOW VOLUME =	0.008

Note: Overflow occurs when Interceptor level reaches 71"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Whalley Ave. 30 yds from Fitch Street
 006
 NPDES Permit Outfall #: August YEAR: 2016
 MONTH: 79
 Average Low Temp: 93
 Average High Temp: 1.70
 Measured Rainfall: 0.00
 Measured Snowfall:

EVENT No.	RAINFALL EVENT							CSO EVENT				
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Cavg Q volume (MGD)	OUTFALL Q volume (MG)
1	8/1/2016	0:45	1:15	0.50	0.02	***						
2	8/2/2016	6:00	6:40	0.67	0.16	1 MONTH						
3	8/6/2016	17:45	18:30	0.75	0.15	***						
4	8/10/2016	6:35	19:45	13.17	0.69	3 MONTH	8/10/2016	13:15	14:20	1.08	1.730	0.156
5	8/11/2016-8/12/2016	9:05	16:35	31.50	0.09	***						
6	8/13/2016	21:50	22:55	1.08	0.21	1 MONTH						
7	8/21/2016-8/22/2016	21:20	1:10	3.83	0.38	6 MONTH						

TOTAL MONTH FLOW VOLUME = 0.156

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: 2016
 Average Low Temp: 79
 Average High Temp: 93
 Measured Rainfall: 1.70
 Measured Snowfall: 0.00

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	8/1/2016	0:45	1:15	0:50	0.02	***										
2	8/2/2016	6:00	6:40	0:67	0.16	1 MONTH										
3	8/6/2016	17:45	18:30	0:75	0.15	***		18:05	18:20	0.25	0.474	0.005				
4	8/10/2016	6:35	19:45	13:17	0.69	3 MONTH		13:05	13:35	0.50	3.098	0.065				
5	8/11/2016-8/12/2016	9:05	16:35	31:50	0.09	***										
6	8/13/2016	21:50	22:55	1:08	0.21	1 MONTH										
7	8/21/2016-8/22/2016	21:20	1:10	3:83	0.38	6 MONTH		0:10	0:40	0.50	0.428	0.007				
											TOTAL MONTH					
											FLOW VOLUME =					0.077

Note: Overflow occurs when interceptor level reaches 30"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011

NPDES Permit Outfall #: 2016

MONTH: August YEAR: 2016

79

Average Low Temp:

93

Average High Temp:

1.70

Measured Rainfall:

0.00

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	8/1/2016	0:45	1:15	0:50	0.02	***						
2	8/2/2016	6:00	6:40	0:67	0.16	1 MONTH						
3	8/6/2016	17:45	18:30	0:75	0.15	***						
4	8/10/2016	6:35	19:45	13:17	0.69	3 MONTH	8/6/2016	18:20	19:05	0.75	2.542	0.079
5	8/11/2016-8/12/2016	9:05	16:35	31:50	0.09	***	8/10/2016	13:05	14:20	1.25	7.750	0.404
6	8/13/2016	21:50	22:55	1:08	0.21	1 MONTH						
7	8/21/2016-8/22/2016	21:20	1:10	3:83	0.38	6 MONTH	8/22/2016	0:10	1:15	1.08	6.102	0.275

Sum of 010A and 011

TOTAL MONTH FLOW VOLUME = 0.758

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 75 Mitchell Drive

LOCATION: 012

NPDES Permit Outfall #:

MONTH: August YEAR: 2016

79

Average Low Temp:

93

Average High Temp:

1.70

Measured Rainfall:

0.00

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 ₃ volume (MG)
1	8/1/2016	0:45	1:15	0:50	0.02	***						
2	8/2/2016	6:00	6:40	0:67	0.16	1 MONTH						
3	8/6/2016	17:45	18:30	0:75	0.15	***						
4	8/10/2016	6:35	19:45	13:17	0.69	3 MONTH						
5	8/11/2016-8/12/2016	9:05	16:35	31:50	0.09	***						
6	8/13/2016	21:50	22:55	1:08	0.21	1 MONTH						
7	8/21/2016-8/22/2016	21:20	1:10	3:83	0.38	6 MONTH						

TOTAL MONTH FLOW VOLUME =

0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 15 James Street
 LOCATION: 015

NPDES Permit Outfall #:

MONTH: August YEAR: 2016

Average Low Temp: 79

Average High Temp: 93

Measured Rainfall: 1.70

Measured Snowfall: 0.00

EVENT No.	RAINFALL EVENT							CSO EVENT				
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Cavg (MGD)	OUTFALL Q volume (MG)
1	8/1/2016	0:45	1:15	0.50	0.02	***						
2	8/2/2016	6:00	6:40	0.67	0.16	1 MONTH						
3	8/6/2016	17:45	18:30	0.75	0.15	***	8/6/2016	18:15	18:45	0.50	1.544	0.032
4	8/10/2016	6:35	19:45	13.17	0.69	3 MONTH	8/10/2016	13:10	14:05	0.92	3.263	0.125
5	8/11/2016-8/12/2016	9:05	16:35	31.50	0.09	***						
6	8/13/2016	21:50	22:55	1.08	0.21	1 MONTH						
7	8/21/2016-8/22/2016	21:20	1:10	3.83	0.38	6 MONTH	8/22/2016	0:15	1:05	0.83	4.356	0.151

Expected capacity of siphon is between 24 and 30 MGD.
 Weir Height 40.5"

TOTAL MONTH FLOW VOLUME = 0.308

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Int. River & Poplar

LOCATION: 016

NPDES Permit Outfall #:

MONTH: August YEAR: 2016

Average Low Temp: 79

Average High Temp: 93

Measured Rainfall: 1.70

Measured Snowfall: 0.00

EVENT No.	RAINFALL EVENT							CSO EVENT				
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	8/1/2016	0:45	1:15	0:50	0.02	***						
2	8/2/2016	6:00	6:40	0:67	0.16	1 MONTH						
3	8/6/2016	17:45	18:30	0:75	0.15	***						
4	8/10/2016	6:35	19:45	13:17	0.69	3 MONTH	8/10/2016	13:10	14:25	1.25	7.907	0.412
5	8/11/2016-8/12/2016	9:05	16:35	31:50	0.09	***						
6	8/13/2016	21:50	22:55	1:08	0.21	1 MONTH						
7	8/21/2016-8/22/2016	21:20	1:10	3:83	0.38	6 MONTH	8/22/2016	0:10	0:50	0.67	11.079	0.308
											TOTAL MONTH FLOW VOLUME =	0.720

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Clifton and Quinipiac

LOCATION: 020

NPDES Permit Outfall #:

MONTH: August YEAR: 2016

Average Low Temp: 79

Average High Temp: 93

Measured Rainfall: 1.70

Measured Snowfall: 0.00

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	8/1/2016	0:45	1:15	0:50	0.02	***							
2	8/2/2016	6:00	6:40	0:67	0.16	1 MONTH							
4	8/6/2016	17:45	18:30	0:75	0.15	***							
5	8/10/2016	6:35	19:45	13.17	0.69	3 MONTH							
6	8/11/2016-8/12/2016	9:05	16:35	31.50	0.09	***							
7	8/13/2016	21:50	22:55	1:08	0.21	1 MONTH							
8	8/21/2016-8/22/2016	21:20	1:10	3.83	0.38	6 MONTH							

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

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 638 Long Wharf Drive

021

NPDES Permit Outfall #:

MONTH: August YEAR: 2016

Average Low Temp: 79

Average High Temp: 93

Measured Rainfall: 1.70

Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)			
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)	OUTFALL Qavg (MGD)	
1	8/1/2016	0:45	1:15	0:50	0.02	***							
2	8/2/2016	6:00	6:40	0:67	0.16	1 MONTH							
3	8/6/2016	17:45	18:30	0:75	0.15	***							
4	8/10/2016	6:35	19:45	13:17	0.69	3 MONTH							
5	8/11/2016-8/12/2016	9:05	16:35	31:50	0.09	***							
6	8/13/2016	21:50	22:55	1:08	0.21	1 MONTH							
7	8/21/2016-8/22/2016	21:20	1:10	3:83	0.38	6 MONTH	8/22/2016	1:10	1:25	0:25	0.175	0.002	

TOTAL MONTH FLOW VOLUME = 0.002

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Sea Street @ South Water Street
 024

NPDES Permit Outfall #: August YEAR: 2016

MONTH: 79

Average Low Temp: 79

Average High Temp: 93

Measured Rainfall: 1.70

Measured Snowfall: 0.00

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	8/1/2016	0:45	1:15	0.50	0.02	***						
2	8/2/2016	6:00	6:40	0.67	0.16	1 MONTH						
3	8/6/2016	17:45	18:30	0.75	0.15	***						
4	8/10/2016	6:35	19:45	13.17	0.69	3 MONTH	8/10/2016	14:05	15:30	1.42	14.704	0.868
5	8/11/2016-8/12/2016	9:05	16:35	31.50	0.09	***						
6	8/13/2016	21:50	22:55	1.08	0.21	1 MONTH						
7	8/21/2016-8/22/2016	21:20	1:10	3.83	0.38	6 MONTH						
TOTAL MONTH											FLOW VOLUME =	0.868

Note: Overflow occurs when Interceptor level reaches 65" in US & 81" in DS

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Intersection of State & N. Front Street
 LOCATION: 025
 NPDES Permit Outfall #: August YEAR: 2016
 MONTH: 79
 Average Low Temp: 93
 Average High Temp: 1.70
 Measured Rainfall: 0.00
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					OUTFALL Q volume (MG)
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	
1	8/1/2016	0:45	1:15	0:50	0.02	***						
2	8/2/2016	6:00	6:40	0:67	0.16	1 MONTH						
3	8/6/2016	17:45	18:30	0:75	0.15	***						
4	8/10/2016	6:35	19:45	13:17	0.69	3 MONTH						
5	8/11/2016-8/12/2016	9:05	16:35	31:50	0.09	***						
6	8/13/2016	21:50	22:55	1:08	0.21	1 MONTH						
7	8/21/2016-8/22/2016	21:20	1:10	3:83	0.38	6 MONTH						

TOTAL MONTH
FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 21"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG George and Temple
 LOCATION: Regulator 34

NPDES Permit Outfall #: August YEAR: 2016

MONTH: 79

Average Low Temp: 93

Average High Temp: 1.70

Measured Rainfall: 0.00

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	8/1/2016	0:45	1:15	0.50	0.02	***						
2	8/2/2016	6:00	6:40	0.67	0.16	1 MONTH						
3	8/6/2016	17:45	18:30	0.75	0.15	***						
4	8/10/2016	6:35	19:45	13.17	0.69	3 MONTH	8/10/2016	13:10	13:25	0.25	8.840	0.092
5	8/11/2016-8/12/2016	9:05	16:35	31.50	0.09	***						
6	8/13/2016	21:50	22:55	1.08	0.21	1 MONTH						
7	8/21/2016-8/22/2016	21:20	1:10	3.83	0.38	6 MONTH	8/22/2016	0:10	0:30	0.33	8.250	0.115
											TOTAL MONTH	0.207
											FLOW VOLUME =	

METER DATA

JULY 2016

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - JULY 2016

MONTHLY RAINFALL SUMMARY

3.68 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, three 3 month storms, 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	2	0.307
CSO 005	REG 005	1	0.049
CSO 004	REG 004	4	0.235
CSO 003	REG 003	4	0.305
CSO 024	REG 024	4	0.962
CSO 009	REG 009	5	0.126
CSO 016	REG 016	4	1.225
CSO 015	REG 015	6	0.341
CSO 011	REGS 010A, 011, 026	3	0.711
CSO 012	REGS 012A, 012B, 028	0	0.000
CSO 025	REGS 025, 034	1	0.144
CSO 021	REG 021	2	0.545
CSO 020	REG 020	1	0.010
TOTAL		37	4.960

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - THROUGH JULY 2016

<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	62	14.638	164.43	51
CSO 005	REG 005	12	0.640	65.61	24
CSO 004	REG 004	45	4.971	65.85	24
CSO 003	REG 003	128	36.295	161.52	50
CSO 024	REG 024	44	31.899	151.20	47
CSO 009	REG 009	85	3.994	144.08	46
CSO 016	REG 016	108	39.856	146.73	49
CSO 015	REG 015	93	11.701	144.23	46
CSO 011	REGS 010A, 011, 026	43	17.105	139.71	44
CSO 012	REGS 012A, 012B, 028	4	0.017	62.12	22
CSO 025	REGS 025, 034	21	2.356	65.76	24
CSO 021	REG 021	60	40.897	140.69	45
CSO 020	REG 020	11	0.285	124.14	40
TOTAL		716	204.654		

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>
CSO 006	REGS 006 A, 006 B	16	3.674	15	3.444
CSO 005	REG 005	8	0.403	6	0.320
CSO 004	REG 004	28	3.115	22	2.461
CSO 003	REG 003	33	9.274	31	8.691
CSO 024	REG 024	12	8.707	11	8.144
CSO 009	REG 009	24	1.144	22	1.042
CSO 016	REG 016	30	11.210	27	9.832
CSO 015	REG 015	27	3.348	24	3.041
CSO 011	REGS 010A, 011, 026	13	5.053	12	4.662
CSO 012	REGS 012A, 012B, 028	3	0.011	2	0.009
CSO 025	REGS 025, 034	13	1.479	10	1.171
CSO 021	REG 021	18	11.996	16	10.905
CSO 020	REG 020	4	0.095	3	0.086
TOTAL		223	59.414	198	53.723

(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 Ella T. Grasso Blvd. - 23 yds North of Legion Ave.

LOCATION: 004

NPDES Permit Outfall #:

MONTH: July YEAR: 2016

Average Low Temp: 66

Average High Temp: 84

Measured Rainfall: 3.68

Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		
1	7/1/2016	18:50	19:10	0.33	0.04	***	7/5/2016	3:05	4:45	1.67	0.090
2	7/5/2016	0:00	5:00	5.00	0.66	3 Month	7/7/2016	17:10	18:45	1.58	0.145
3	7/7/2016	16:50	18:50	2.00	0.76	1 Year					
4	7/9/2016	2:35	23:50	21.25	0.07	***					
5	7/10/2016	15:00	17:35	2.58	0.06	***					
6	7/14/2016	4:20	17:50	13.50	0.35	3 Month	7/14/2016	5:05	5:20	0.25	0.000
7	7/18/2016	17:00	17:40	0.67	0.18	1 Month					
8	7/25/2016	16:10	20:50	4.67	0.61	1 Year	7/25/2016	20:20	20:25	0.08	0.000
9	7/29/2016	3:45	19:55	16.17	0.41	***					
10	7/30/2016 - 7/31/2016	19:10	3:40	8.50	0.02	***					
11	7/31/2016	21:45	23:45	2.00	0.52	3 Month					

TOTAL MONTH FLOW VOLUME = 0.235

Note: Overflow occurs when Interceptor level reaches 43"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Derby Ave. 20 yds East of Ella T. Grasso Blvd.
LOCATION: 005

NPDES Permit Outfall #: July YEAR: 2016
MONTH: 66
 Average Low Temp: 84
 Average High Temp: 3.68
 Measured Rainfall: 0.00
 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	7/1/2016	18:50	19:10	0.33	0.04 ***							
2	7/5/2016	0:00	5:00	5.00	0.66 3 Month							
3	7/7/2016	16:50	18:50	2.00	0.76 1 Year							
4	7/9/2016	2:35	23:50	21.25	0.07 ***							
5	7/10/2016	15:00	17:35	2.58	0.06 ***							
6	7/14/2016	4:20	17:50	13.50	0.35 3 Month							
7	7/18/2016	17:00	17:40	0.67	0.18 1 Month							
8	7/25/2016	16:10	20:50	4.67	0.61 1 Year							
9	7/29/2016	3:45	19:55	16.17	0.41 ***							
10	7/30/2016 - 7/31/2016	19:10	3:40	8.50	0.02 ***							
11	7/31/2016	21:45	23:45	2.00	0.52 3 Month							
											TOTAL MONTH	0.049
											FLOW VOLUME =	

Note: Overflow occurs when Interceptor level reaches 71"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Grand Avenue & James Street
 009

NPDES Permit Outfall #: 2016
 MONTH: July YEAR: 2016
 Average Low Temp: 66
 Average High Temp: 84
 Measured Rainfall: 3.68
 Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)				
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)	OUTFALL Qavg (MGD)		
1	7/1/2016	18:50	19:10	0.33	0.04	***								
2	7/5/2016	0:00	5:00	5.00	0.66	3 Month	7/5/2016	3:15	4:00	0.75	0.091	0.003		
3	7/7/2016	16:50	18:50	2.00	0.76	1 Year	7/7/2016	17:10	17:50	0.67	1.854	0.051		
4	7/9/2016	2:35	23:50	21.25	0.07	***								
5	7/10/2016	15:00	17:35	2.58	0.06	***								
6	7/14/2016	4:20	17:50	13.50	0.35	3 Month	7/14/2016	4:55	5:25	0.50	0.826	0.014		
7	7/18/2016	17:00	17:40	0.67	0.18	1 Month								
8	7/25/2016	16:10	20:50	4.67	0.61	1 Year								
9	7/29/2016	3:45	19:55	16.17	0.41	***	7/29/2016	19:45	19:55	0.17	2.331	0.016		
10	7/30/2016 - 7/31/2016	19:10	3:40	8.50	0.02	***								
11	7/31/2016	21:45	23:45	2.00	0.52	3 Month	7/31/2016	22:10	22:35	0.42	2.404	0.042		
										TOTAL MONTH				
										FLOW VOLUME =				0.126

Note: Overflow occurs when Interceptor level reaches 30"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 011
 NPDES Permit Outfall #: July YEAR: 2016
 MONTH: 66
 Average Low Temp: 84
 Average High Temp: 84
 Measured Rainfall: 3.68
 Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP			DURATION (hours)
1	7/1/2016	18:50	19:10	0.33	0.04	***						
2	7/5/2016	0:00	5:00	5.00	0.66	3 Month	7/5/2016	3:15	4:30	1.25	4.208	0.219
3	7/7/2016	16:50	18:50	2.00	0.76	1 Year	7/7/2016	17:15	18:50	1.58	6.511	0.430
4	7/9/2016	2:35	23:50	21.25	0.07	***						
5	7/10/2016	15:00	17:35	2.58	0.06	***						
6	7/14/2016	4:20	17:50	13.50	0.35	3 Month	7/14/2016	5:00	5:35	0.58	2.557	0.062
7	7/18/2016	17:00	17:40	0.67	0.18	1 Month						
8	7/25/2016	16:10	20:50	4.67	0.61	1 Year						
9	7/29/2016	3:45	19:55	16.17	0.41	***						
10	7/30/2016 - 7/31/2016	19:10	3:40	8.50	0.02	***						
11	7/31/2016	21:45	23:45	2.00	0.52	3 Month						
TOTAL MONTH											0.711	
FLOW VOLUME =												

Sum of 010A and 011

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 75 Mitchell Drive

LOCATION: 012

NPDES Permit Outfall #:

MONTH: July YEAR: 2016

Average Low Temp: 66

Average High Temp: 84

Measured Rainfall: 3.68

Measured Snowfall: 0.00

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	7/1/2016	18:50	19:10	0:33	0.04	***							
2	7/5/2016	0:00	5:00	5.00	0.66	3 Month							
3	7/7/2016	16:50	18:50	2.00	0.76	1 Year							
4	7/9/2016	2:35	23:50	21.25	0.07	***							
5	7/10/2016	15:00	17:35	2.58	0.06	***							
6	7/14/2016	4:20	17:50	13.50	0.35	3 Month							
7	7/18/2016	17:00	17:40	0.67	0.18	1 Month							
8	7/25/2016	16:10	20:50	4.67	0.61	1 Year							
9	7/29/2016	3:45	19:55	16.17	0.41	***							
10	7/30/2016 - 7/31/2016	19:10	3:40	8.50	0.02	***							
11	7/31/2016	21:45	23:45	2.00	0.52	3 Month							

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 15 James Street
 015

NPDES Permit Outfall #:

MONTH: July YEAR: 2016

Average Low Temp: 66

Average High Temp: 84

Measured Rainfall: 3.68

Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)			
1	7/1/2016	18:50	19:10	0.33	0.04	***							
2	7/5/2016	0:00	5:00	5.00	0.66	3 Month	3:05	4:20	1.25	1.532	0.080		
3	7/7/2016	16:50	18:50	2.00	0.76	1 Year	17:10	18:10	1.00	2.430	0.101		
4	7/9/2016	2:35	23:50	21.25	0.07	***							
5	7/10/2016	15:00	17:35	2.58	0.06	***							
6	7/14/2016	4:20	17:50	13.50	0.35	3 Month	5:05	5:30	0.42	1.702	0.030		
7	7/18/2016	17:00	17:40	0.67	0.18	1 Month							
8	7/25/2016	16:10	20:50	4.67	0.61	1 Year	20:20	20:25	0.08	0.615	0.002		
9	7/29/2016	3:45	19:55	16.17	0.41	***	20:00	20:10	0.17	0.421	0.003		
10	7/30/2016 - 7/31/2016	19:10	3:40	8.50	0.02	***							
11	7/31/2016	21:45	23:45	2.00	0.52	3 Month	22:15	23:55	1.67	1.802	0.125		

Expected capacity of siphon is between 24 and 30 MGD.
 Weir Height 40.5"

TOTAL MONTH
 FLOW VOLUME = 0.341

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Int. River & Poplar
 016

NPDES Permit Outfall #:
 MONTH: July YEAR: 2016
 Average Low Temp: 66
 Average High Temp: 84
 Measured Rainfall: 3.68
 Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP			DURATION (hours)
1	7/1/2016	18:50	19:10	0.33	0.04	***						
2	7/5/2016	0:00	5:00	5.00	0.66	3 Month	7/5/2016	3:00	4:30	1.50	5.740	0.359
3	7/7/2016	16:50	18:50	2.00	0.76	1 Year	7/7/2016	17:15	18:05	0.83	23.781	0.826
4	7/9/2016	2:35	23:50	21.25	0.07	***						
5	7/10/2016	15:00	17:35	2.58	0.06	***						
6	7/14/2016	4:20	17:50	13.50	0.35	3 Month	7/14/2016	5:05	5:25	0.33	2.816	0.039
7	7/18/2016	17:00	17:40	0.67	0.18	1 Month						
8	7/25/2016	16:10	20:50	4.67	0.61	1 Year	7/25/2016	20:15	20:25	0.17	0.084	0.001
9	7/29/2016	3:45	19:55	16.17	0.41	***						
10	7/30/2016 - 7/31/2016	19:10	3:40	8.50	0.02	***						
11	7/31/2016	21:45	23:45	2.00	0.52	3 Month						

TOTAL MONTH
 FLOW VOLUME = 1.225

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Clifton and Quininiac
 020

NPDES Permit Outfall #:
 MONTH: July YEAR: 2016
 Average Low Temp: 66
 Average High Temp: 84
 Measured Rainfall: 3.68
 Measured Snowfall: 0.00

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	7/1/2016	18:50	19:10	0:33	0.04	***						
2	7/5/2016	0:00	5:00	5.00	0.66	3 Month						
3	7/7/2016	16:50	18:50	2.00	0.76	1 Year						
4	7/9/2016	2:35	23:50	21.25	0.07	***						
5	7/10/2016	15:00	17:35	2.58	0.06	***						
6	7/14/2016	4:20	17:50	13.50	0.35	3 Month						
7	7/18/2016	17:00	17:40	0.67	0.18	1 Month						
8	7/25/2016	16:10	20:50	4.67	0.61	1 Year						
9	7/29/2016	3:45	19:55	16.17	0.41	***						
10	7/30/2016 - 7/31/2016	19:10	3:40	8.50	0.02	***						
11	7/31/2016	21:45	23:45	2.00	0.52	3 Month						
											TOTAL MONTH FLOW VOLUME =	0.010

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

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 638 Long Wharf Drive
 021

NPDES Permit Outfall #: 2016
 MONTH: July YEAR: 2016
 Average Low Temp: 66
 Average High Temp: 84
 Measured Rainfall: 3.68
 Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q.volum (MG)			
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)	OUTFALL Qavg (MGD)	
1	7/1/2016	18:50	19:10	0.33	0.04	***							
2	7/5/2016	0:00	5:00	5.00	0.66	3 Month	7/5/2016	3:55	6:40	2.75	0.762	0.087	
3	7/7/2016	16:50	18:50	2.00	0.76	1 Year	7/7/2016	17:45	20:15	2.50	4.399	0.458	
4	7/9/2016	2:35	23:50	21.25	0.07	***							
5	7/10/2016	15:00	17:35	2.58	0.06	***							
6	7/14/2016	4:20	17:50	13.50	0.35	3 Month							
7	7/18/2016	17:00	17:40	0.67	0.18	1 Month							
8	7/25/2016	16:10	20:50	4.67	0.61	1 Year							
9	7/29/2016	3:45	19:55	16.17	0.41	***							
10	7/30/2016 - 7/31/2016	19:10	3:40	8.50	0.02	***							
11	7/31/2016	21:45	23:45	2.00	0.52	3 Month							

TOTAL MONTH FLOW VOLUME = 0.545

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Sea Street @ South Water Street

LOCATION: 024

NPDES Permit Outfall #:

July YEAR: 2016

MONTH: 66

Average Low Temp:

84

Average High Temp:

3.68

Measured Rainfall:

0.00

Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP			DURATION (hours)
1	7/1/2016	18:50	19:10	0.33	0.04 ***		7/5/2016	3:45	4:35	0.83	13.426	0.466
2	7/5/2016	0:00	5:00	5.00	0.66 3 Month							
3	7/7/2016	16:50	18:50	2.00	0.76 1 Year		7/7/2016	17:30	18:30	1.00	11.726	0.407
4	7/9/2016	2:35	23:50	21.25	0.07 ***							
5	7/10/2016	15:00	17:35	2.58	0.06 ***							
6	7/14/2016	4:20	17:50	13.50	0.35 3 Month		7/14/2016	6:00	6:50	0.83	0.543	0.017
7	7/18/2016	17:00	17:40	0.67	0.18 1 Month							
8	7/25/2016	16:10	20:50	4.67	0.61 1 Year		7/25/2016	20:40	22:05	1.42	1.214	0.072
9	7/29/2016	3:45	19:55	16.17	0.41 ***							
10	7/30/2016 - 7/31/2016	19:10	3:40	8.50	0.02 ***							
11	7/31/2016	21:45	23:45	2.00	0.52 3 Month							
										TOTAL MONTH		0.962
										FLOW VOLUME =		

Note: Overflow occurs when Interceptor level reaches 65" in US & 81" in DS

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Intersection of State & N. Front Street
 025
 NPDES Permit Outfall #: 2016
 MONTH: July YEAR: 2016
 Average Low Temp: 66
 Average High Temp: 84
 Measured Rainfall: 3.68
 Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					OUTFALL Q Qavg (MGD)	OUTFALL Q volume (MG)
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)			
1	7/1/2016	18:50	19:10	0.33	0.04	***							
2	7/5/2016	0:00	5:00	5.00	0.66	3 Month							
3	7/7/2016	16:50	18:50	2.00	0.76	1 Year							
4	7/9/2016	2:35	23:50	21.25	0.07	***							
5	7/10/2016	15:00	17:35	2.58	0.06	***							
6	7/14/2016	4:20	17:50	13.50	0.35	3 Month							
7	7/18/2016	17:00	17:40	0.67	0.18	1 Month							
8	7/25/2016	16:10	20:50	4.67	0.61	1 Year							
9	7/29/2016	3:45	19:55	16.17	0.41	***							
10	7/30/2016 - 7/31/2016	19:10	3:40	8.50	0.02	***							
11	7/31/2016	21:45	23:45	2.00	0.52	3 Month							

TOTAL MONTH
 FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 21"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: George and Temple Regulator 34
 NPDES Permit Outfall #:
 MONTH: July YEAR: 2016
 Average Low Temp: 66
 Average High Temp: 84
 Measured Rainfall: 3.68
 Measured Snowfall: 0.00

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	7/1/2016	18:50	19:10	0.33	0.04	***						
2	7/5/2016	0:00	5:00	5.00	0.66	3 Month						
3	7/7/2016	16:50	18:50	2.00	0.76	1 Year		17:25	17:40	0.25	13.790	0.144
4	7/9/2016	2:35	23:50	21.25	0.07	***						
5	7/10/2016	15:00	17:35	2.58	0.06	***						
6	7/14/2016	4:20	17:50	13.50	0.35	3 Month						
7	7/18/2016	17:00	17:40	0.67	0.18	1 Month						
8	7/25/2016	16:10	20:50	4.67	0.61	1 Year						
9	7/29/2016	3:45	19:55	16.17	0.41	***						
10	7/30/2016 - 7/31/2016	19:10	3:40	8.50	0.02	***						
11	7/31/2016	21:45	23:45	2.00	0.52	3 Month						
TOTAL MONTH											FLOW VOLUME =	0.144

METER DATA

JUNE 2016

**GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CSO FLOW MONITORING PROGRAM
METER DATA SUMMARY - JUNE 2016**

MONTHLY RAINFALL SUMMARY

1.13 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, 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	0.189
CSO 005	REG 005	1	0.104
CSO 004	REG 004	1	0.113
CSO 003	REG 003	1	0.070
CSO 024	REG 024	1	0.244
CSO 009	REG 009	1	0.057
CSO 016	REG 016	1	0.584
CSO 015	REG 015	1	0.446
CSO 011	REGS 010A, 011, 026	1	0.270
CSO 012	REGS 012A, 012B, 028	1	0.001
CSO 025	REGS 025, 034	1	0.061
CSO 021	REG 021	1	0.008
CSO 020	REG 020	1	0.001
TOTAL		13	2.148

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - THROUGH JUNE 2016

<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	60	14.331	160.75	50
CSO 005	REG 005	11	0.591	61.93	23
CSO 004	REG 004	41	4.736	62.17	23
CSO 003	REG 003	124	35.990	157.84	49
CSO 024	REG 024	40	30.937	147.52	46
CSO 009	REG 009	80	3.868	140.40	45
CSO 016	REG 016	104	38.631	143.05	48
CSO 015	REG 015	87	11.360	140.55	45
CSO 011	REGS 010A, 011, 026	40	16.394	136.03	43
CSO 012	REGS 012A, 012B, 028	4	0.017	58.44	21
CSO 025	REGS 025, 034	20	2.212	62.08	23
CSO 021	REG 021	58	40.352	137.01	44
CSO 020	REG 020	10	0.275	120.46	39
TOTAL		679	199.694		

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>
CSO 006	REGS 006 A, 006 B	15	3.679	14	3.439
CSO 005	REG 005	7	0.394	6	0.308
CSO 004	REG 004	27	3.144	21	2.445
CSO 003	REG 003	32	9.410	30	8.793
CSO 024	REG 024	11	8.655	10	8.071
CSO 009	REG 009	24	1.137	21	1.031
CSO 016	REG 016	30	11.145	26	9.730
CSO 015	REG 015	26	3.336	23	3.018
CSO 011	REGS 010A, 011, 026	12	4.974	11	4.573
CSO 012	REGS 012A, 012B, 028	3	0.012	2	0.010
CSO 025	REGS 025, 034	13	1.470	10	1.147
CSO 021	REG 021	17	12.155	16	11.004
CSO 020	REG 020	3	0.094	3	0.085
TOTAL		218	59.510	192	53.569

(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 #: June YEAR: 2016
 MONTH: 59
 Average Low Temp: 77
 Average High Temp: 1.13
 Measured Rainfall: 0.00
 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	6/3/2016	9:40	10:20	0.67	0.03	***	6/5/2016	14:25	15:50	1.42	1.179	0.070
2	6/5/2016	7:35	20:40	13.08	0.77	6 Month						
3	6/8/2016	16:05	16:10	0.08	0.01	***						
4	6/11/2016	12:30	13:20	0.83	0.10	***						
5	6/21/2016	4:50	4:55	0.08	0.01	***						
6	6/27/2016	21:20	22:30	1.17	0.02	***						
7	6/28/16-6/29/16	4:40	4:00	23.33	0.19	***						

TOTAL MONTH FLOW VOLUME = 0.070

Note: Overflow occurs when Interceptor level reaches 46"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Ella T. Grasso Blvd. - 23 yards North of Legion Ave.
 004

NPDES Permit Outfall #:

MONTH: June YEAR: 2016

Average Low Temp: 59

Average High Temp: 77

Measured Rainfall: 1.13

Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					OUTFALL Q volume (MG)
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	
1	6/3/2016	9:40	10:20	0.67	0.03	***	6/5/2016	14:25	15:35	1.17	2.334	0.113
2	6/5/2016	7:35	20:40	13.08	0.77	6 Month						
3	6/8/2016	16:05	16:10	0.08	0.01	***						
4	6/11/2016	12:30	13:20	0.83	0.10	***						
5	6/21/2016	4:50	4:55	0.08	0.01	***						
6	6/27/2016	21:20	22:30	1.17	0.02	***						
7	6/28/16-6/29/16	4:40	4:00	23.33	0.19	***						
TOTAL MONTH											FLOW VOLUME =	0.113

Note: Overflow occurs when interceptor level reaches 43"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Derby Ave. 20 yrds East of Ella T. Grasso Blvd.
 NPDES Permit Outfall #: 005
 MONTH: June YEAR: 2016
 Average Low Temp: 59
 Average High Temp: 77
 Measured Rainfall: 1.13
 Measured Snowfall: 0.00

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	6/3/2016	9:40	10:20	0.67	0.03	***	6/5/2016	14:30	14:55	0.42	6.006	0.104
2	6/5/2016	7:35	20:40	13.08	0.77	6 Month						
3	6/8/2016	16:05	16:10	0.08	0.01	***						
4	6/11/2016	12:30	13:20	0.83	0.10	***						
5	6/21/2016	4:50	4:55	0.08	0.01	***						
6	6/27/2016	21:20	22:30	1.17	0.02	***						
7	6/28/16-6/29/16	4:40	4:00	23.33	0.19	***						

TOTAL MONTH FLOW VOLUME = 0.104

Note: Overflow occurs when Interceptor level reaches 71"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Whalley Ave. 30 yds from Fitch Street
 006
 MONTH: June YEAR: 2016
 NPDES Permit Outfall #: 59
 Average Low Temp: 77
 Average High Temp: 1.13
 Measured Rainfall: 0.00
 Measured Snowfall:

EVENT No.	RAINFALL EVENT							CSO EVENT				
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	6/3/2016	9:40	10:20	0.67	0.03	***						
2	6/5/2016	7:35	20:40	13:08	0.77	6 Month	6/5/2016	14:30	15:35	1.08	4.187	0.189
3	6/8/2016	16:05	16:10	0.08	0.01	***						
4	6/11/2016	12:30	13:20	0.83	0.10	***						
5	6/21/2016	4:50	4:55	0.08	0.01	***						
6	6/27/2016	21:20	22:30	1.17	0.02	***						
7	6/28/16-6/29/16	4:40	4:00	23:33	0.19	***						
											TOTAL MONTH	0.189
											FLOW VOLUME =	

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: 2016

Average Low Temp: 59

Average High Temp: 77

Measured Rainfall: 1.13

Measured Snowfall: 0.00

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	6/3/2016	9:40	10:20	0.67	0.03	***	6/5/2016	14:20	20:20	6.00	0.227	0.057
2	6/5/2016	7:35	20:40	13.08	0.77	6 Month						
3	6/8/2016	16:05	16:10	0.08	0.01	***						
4	6/11/2016	12:30	13:20	0.83	0.10	***						
5	6/21/2016	4:50	4:55	0.08	0.01	***						
6	6/27/2016	21:20	22:30	1.17	0.02	***						
7	6/28/16-6/29/16	4:40	4:00	23.33	0.19	***						

TOTAL MONTH FLOW VOLUME = 0.057

Note: Overflow occurs when Interceptor level reaches 30"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 011
 LOCATION: June YEAR: 2016
 NPDES Permit Outfall #: 59
 MONTH: 77
 Average Low Temp: 1.13
 Average High Temp: 0.00
 Measured Rainfall:
 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	6/3/2016	9:40	10:20	0.67	0.03	***	6/5/2016	14:35	15:35	1.00	6.479	0.270
2	6/5/2016	7:35	20:40	13.08	0.77	6 Month						
3	6/8/2016	16:05	16:10	0.08	0.01	***						
4	6/11/2016	12:30	13:20	0.83	0.10	***						
5	6/21/2016	4:50	4:55	0.08	0.01	***						
6	6/27/2016	21:20	22:30	1.17	0.02	***						
7	6/28/16-6/29/16	4:40	4:00	23.33	0.19	***						

TOTAL MONTH FLOW VOLUME = 0.270

Sum of 010A and 011

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 75 Mitchell Drive
 LOCATION: 012

NPDES Permit Outfall #:

MONTH: June YEAR: 2016

Average Low Temp: 59

Average High Temp: 77

Measured Rainfall: 1.13

Measured Snowfall: 0.00

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	6/3/2016	9:40	10:20	0.67	0.03	***	6/5/2016	14:45	14:55	0.17	0.029	0.000
2	6/5/2016	7:35	20:40	13.08	0.77	6 Month						
3	6/8/2016	16:05	16:10	0.08	0.01	***						
4	6/11/2016	12:30	13:20	0.83	0.10	***						
5	6/21/2016	4:50	4:55	0.08	0.01	***						
6	6/27/2016	21:20	22:30	1.17	0.02	***						
7	6/28/16-6/29/16	4:40	4:00	23.33	0.19	***						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 15 James Street

LOCATION: 015

NPDES Permit Outfall #:

June YEAR: 2016

MONTH: 59

Average Low Temp:

77

Average High Temp:

1.13

Measured Rainfall:

0.00

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	6/3/2016	9:40	10:20	0.67	0.03	***	6/5/2016	14:25	20:30	6.08	1.760	0.446
2	6/5/2016	7:35	20:40	13.08	0.77	6 Month						
3	6/8/2016	16:05	16:10	0.08	0.01	***						
4	6/11/2016	12:30	13:20	0.83	0.10	***						
5	6/21/2016	4:50	4:55	0.08	0.01	***						
6	6/27/2016	21:20	22:30	1.17	0.02	***						
7	6/28/16-6/29/16	4:40	4:00	23.33	0.19	***						

Expected capacity of siphon is between 24 and 30 MGD.

TOTAL MONTH FLOW VOLUME =

0.446

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Int. River & Poplar
 NPDES Permit Outfall #: 016
 MONTH: June YEAR: 2016
 Average Low Temp: 59
 Average High Temp: 77
 Measured Rainfall: 1.13
 Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)		
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)	OUTFALL Qavg (MGD)
1	6/3/2016	9:40	10:20	0.67	0.03	***	6/5/2016	14:20	20:35	6.25	2.241	0.584
2	6/5/2016	7:35	20:40	13.08	0.77	6 Month						
3	6/8/2016	16:05	16:10	0.08	0.01	***						
4	6/11/2016	12:30	13:20	0.83	0.10	***						
5	6/21/2016	4:50	4:55	0.08	0.01	***						
6	6/27/2016	21:20	22:30	1.17	0.02	***						
7	6/28/16-6/29/16	4:40	4:00	23.33	0.19	***						

TOTAL MONTH FLOW VOLUME = 0.584

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Clifton and Quininiac
 020
 NPDES Permit Outfall #: 2016
 MONTH: June YEAR: 2016
 Average Low Temp: 59
 Average High Temp: 77
 Measured Rainfall: 1.13
 Measured Snowfall: 0.00

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	6/3/2016	9:40	10:20	0.67	0.03	***	6/5/2016	14:40	14:45	0.08	0.130	0.000
2	6/5/2016	7:35	20:40	13.08	0.77	6 Month						
3	6/8/2016	16:05	16:10	0.08	0.01	***						
4	6/11/2016	12:30	13:20	0.83	0.10	***						
5	6/21/2016	4:50	4:55	0.08	0.01	***						
6	6/27/2016	21:20	22:30	1.17	0.02	***						
7	6/28/16-6/29/16	4:40	4:00	23.33	0.19	***						

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

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 638 Long Wharf Drive
 021
 NPDES Permit Outfall #: June YEAR: 2016
 MONTH: 59
 Average Low Temp: 77
 Average High Temp: 1.13
 Measured Rainfall: 0.00
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)		
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)	OUTFALL Qavg (MGD)
1	6/3/2016	9:40	10:20	0.67	0.03	***	6/5/2016	15:10	15:45	0.58	0.313	0.008
2	6/5/2016	7:35	20:40	13.08	0.77	6 Month						
3	6/8/2016	16:05	16:10	0.08	0.01	***						
4	6/11/2016	12:30	13:20	0.83	0.10	***						
5	6/21/2016	4:50	4:55	0.08	0.01	***						
6	6/27/2016	21:20	22:30	1.17	0.02	***						
7	6/28/16-6/29/16	4:40	4:00	23.33	0.19	***						

TOTAL MONTH FLOW VOLUME = 0.008

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Sea Street @ South Water Street
 024
 MONTH: June YEAR: 2016
 NPDES Permit Outfall #: 59
 Average Low Temp: 77
 Average High Temp: 1.13
 Measured Rainfall: 0.00
 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	6/3/2016	9:40	10:20	0.67	0.03	***	6/5/2016	14:50	16:00	1.17	5.016	0.244
2	6/5/2016	7:35	20:40	13.08	0.77	6 Month						
3	6/8/2016	16:05	16:10	0.08	0.01	***						
4	6/11/2016	12:30	13:20	0.83	0.10	***						
5	6/21/2016	4:50	4:55	0.08	0.01	***						
6	6/27/2016	21:20	22:30	1.17	0.02	***						
7	6/28/16-6/29/16	4:40	4:00	23.33	0.19	***						

TOTAL MONTH FLOW VOLUME = 0.244

Note: Overflow occurs when Interceptor level reaches 65" in US & 81" in DS

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Intersection of State & N. Front Street
 025
 NPDES Permit Outfall #: 2016
 MONTH: June YEAR: 2016
 Average Low Temp: 59
 Average High Temp: 77
 Measured Rainfall: 1.13
 Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Qavg volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	6/3/2016	9:40	10:20	0.67	0.03	***					
2	6/5/2016	7:35	20:40	13.08	0.77	6 Month					
3	6/8/2016	16:05	16:10	0.08	0.01	***					
4	6/11/2016	12:30	13:20	0.83	0.10	***					
5	6/21/2016	4:50	4:55	0.08	0.01	***					
6	6/27/2016	21:20	22:30	1.17	0.02	***					
7	6/28/16-6/29/16	4:40	4:00	23.33	0.19	***					

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 21"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: George and Temple Regulator 34
 NPDES Permit Outfall #: 2016
 MONTH: June YEAR: 2016
 Average Low Temp: 59
 Average High Temp: 77
 Measured Rainfall: 1.13
 Measured Snowfall: 0.00

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	6/3/2016	9:40	10:20	0.67	0.03	***	6/5/2016	14:30	14:45	0.25	5.843	0.061
2	6/5/2016	7:35	20:40	13.08	0.77	6 Month						
3	6/8/2016	16:05	16:10	0.08	0.01	***						
4	6/11/2016	12:30	13:20	0.83	0.10	***						
5	6/21/2016	4:50	4:55	0.08	0.01	***						
6	6/27/2016	21:20	22:30	1.17	0.02	***						
7	6/28/16-6/29/16	4:40	4:00	23.33	0.19	***						

TOTAL MONTH FLOW VOLUME = 0.061

METER DATA

MAY 2016

**GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CSO FLOW MONITORING PROGRAM
METER DATA SUMMARY - MAY 2016**

MONTHLY RAINFALL SUMMARY

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

No snow

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

One 1 year and one 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	2	0.146
CSO 005	REG 005	1	0.045
CSO 004	REG 004	2	0.179
CSO 003	REG 003	2	0.188
CSO 024	REG 024	1	0.297
CSO 009	REG 009	1	0.059
CSO 016	REG 016	3	0.405
CSO 015	REG 015	3	0.384
CSO 011	REGS 010A, 011, 026	2	0.487
CSO 012	REGS 012A, 012B, 028	1	0.001
CSO 025	REGS 025, 034	2	0.429
CSO 021	REG 021	2	0.432
CSO 020	REG 020	0	0.000
TOTAL		22	3.052

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CSO FLOW MONITORING PROGRAM
METER DATA SUMMARY - THROUGH MAY 2016

<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	59	14.142	159.62	49
CSO 005	REG 005	10	0.487	60.80	22
CSO 004	REG 004	40	4.623	61.04	22
CSO 003	REG 003	123	35.920	156.71	48
CSO 024	REG 024	39	30.693	146.39	45
CSO 009	REG 009	79	3.811	139.27	44
CSO 016	REG 016	103	38.047	141.92	47
CSO 015	REG 015	86	10.914	139.42	44
CSO 011	REGS 010A, 011, 026	39	16.124	134.90	42
CSO 012	REGS 012A, 012B, 028	3	0.016	57.31	20
CSO 025	REGS 025, 034	19	2.151	60.95	22
CSO 021	REG 021	57	40.344	135.88	43
CSO 020	REG 020	9	0.274	119.33	38
TOTAL		666	197.546		

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - TYPICAL YEAR ESTIMATES

CSO NUMBER	REGULATOR NUMBERS	ANNUAL CSO EVENTS BASED ON RAINFALL ⁽¹⁾	ANNUAL CSO VOLUME (MG) BASED ON RAINFALL ⁽²⁾	ANNUAL CSO EVENTS BASED ON MONTHS ⁽³⁾	ANNUAL CSO VOLUME (MG) BASED ON MONTHS ⁽⁴⁾
CSO 006	REGS 006 A, 006 B	15	3.656	14	3.463
CSO 005	REG 005	7	0.331	5	0.266
CSO 004	REG 004	27	3.126	22	2.494
CSO 003	REG 003	32	9.460	31	8.958
CSO 024	REG 024	11	8.653	10	8.185
CSO 009	REG 009	23	1.129	22	1.039
CSO 016	REG 016	30	11.064	26	9.789
CSO 015	REG 015	25	3.231	23	2.965
CSO 011	REGS 010A, 011, 026	12	4.933	11	4.604
CSO 012	REGS 012A, 012B, 028	2	0.012	2	0.010
CSO 025	REGS 025, 034	13	1.456	10	1.165
CSO 021	REG 021	17	12.253	16	11.258
CSO 020	REG 020	3	0.095	3	0.087
TOTAL		216	59.303	193	54.196

(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: May YEAR: 2016
 Average Low Temp: 49
 Average High Temp: 67
 Measured Rainfall: 3.65
 Measured Snowfall: 0.00

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	5/1/2016	10:20	20:30	10.17	0.18	***							
2	5/3/2016	2:40	12:50	10.17	0.54	***							
3	5/4/2016	16:40	20:15	3.58	0.12	***							
4	5/6/2016	4:25	20:00	15.58	0.54	***							
5	5/7/2016	8:10	21:15	13.08	0.36	1 month	5/7/2016	10:35	11:30	0.92	0.003	0.031	
6	5/8/2016	8:15	9:55	1.67	0.13	***							
7	5/13/2016	16:10	21:05	4.92	0.18	***							
8	5/14/2016	5:55	6:00	0.08	0.01	***							
9	5/15/2016	20:35	21:00	0.42	0.03	***							
10	5/24/2016	0:20	18:15	17.92	0.43	***							
11	5/25/2016	1:00	1:05	0.08	0.01	***							
12	5/30/2016	3:10	9:30	6.33	1.12	1 year	5/30/2016	3:45	5:30	1.75	0.007	0.157	

TOTAL MONTH FLOW VOLUME = 0.188

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: May YEAR: 2016

Average Low Temp: 49

Average High Temp: 67

Measured Rainfall: 3.65

Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)		
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)	OUTFALL Qavg (MGD)
1	5/1/2016	10:20	20:30	10.17	0.18	***						
2	5/3/2016	2:40	12:50	10.17	0.54	***						
3	5/4/2016	16:40	20:15	3.58	0.12	***						
4	5/6/2016	4:25	20:00	15.58	0.54	***						
5	5/7/2016	8:10	21:15	13.08	0.36	1 month		5/7/2016	10:35	11:25	0.83	0.008
6	5/8/2016	8:15	9:55	1.67	0.13	***						
7	5/13/2016	16:10	21:05	4.92	0.18	***						
8	5/14/2016	5:55	6:00	0.08	0.01	***						
9	5/15/2016	20:35	21:00	0.42	0.03	***						
10	5/24/2016	0:20	18:15	17.92	0.43	***						
11	5/25/2016	1:00	1:05	0.08	0.01	***						
12	5/30/2016	3:10	9:30	6.33	1.12	1 year		5/30/2016	3:45	5:10	1.42	0.010

TOTAL MONTH FLOW VOLUME = 0.179

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Derby Ave. 20 yds East of Ella T. Grasso Blvd.
 LOCATION: 005

NPDES Permit Outfall #: May YEAR: 2016

MONTH: 49

Average Low Temp: 67

Average High Temp: 3.65

Measured Rainfall: 0.00

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	5/1/2016	10:20	20:30	10.17	0.18	***						
2	5/3/2016	2:40	12:50	10.17	0.54	***						
3	5/4/2016	16:40	20:15	3.58	0.12	***						
4	5/6/2016	4:25	20:00	15.58	0.54	***						
5	5/7/2016	8:10	21:15	13.08	0.36	1 month						
6	5/8/2016	8:15	9:55	1.67	0.13	***						
7	5/13/2016	16:10	21:05	4.92	0.18	***						
8	5/14/2016	5:55	6:00	0.08	0.01	***						
9	5/15/2016	20:35	21:00	0.42	0.03	***						
10	5/24/2016	0:20	18:15	17.92	0.43	***						
11	5/25/2016	1:00	1:05	0.08	0.01	***						
12	5/30/2016	3:10	9:30	6.33	1.12	1 year	5/30/2016	3:45	4:10	0.42	0.009	0.045

TOTAL MONTH FLOW VOLUME = 0.045

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Whalley Ave. 30 yds from Fitch Street
 LOCATION: 006
 NPDES Permit Outfall #: May YEAR: 2016
 MONTH: 49
 Average Low Temp: 67
 Average High Temp: 3.65
 Measured Rainfall: 0.00
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	5/1/2016	10:20	20:30	10.17	0.18	***					
2	5/3/2016	2:40	12:50	10.17	0.54	***					
3	5/4/2016	16:40	20:15	3.58	0.12	***					
4	5/6/2016	4:25	20:00	15.58	0.54	***					
5	5/7/2016	8:10	21:15	13.08	0.36	1 month	5/7/2016	10:55	11:15	0.33	0.288
6	5/8/2016	8:15	9:55	1.67	0.13	***					0.004
7	5/13/2016	16:10	21:05	4.92	0.18	***					
8	5/14/2016	5:55	6:00	0.08	0.01	***					
9	5/15/2016	20:35	21:00	0.42	0.03	***					
10	5/24/2016	0:20	18:15	17.92	0.43	***					
11	5/25/2016	1:00	1:05	0.08	0.01	***					
12	5/30/2016	3:10	9:30	6.33	1.12	1 year	5/30/2016	3:55	5:00	1.08	3.146
										TOTAL MONTH FLOW VOLUME =	0.146

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Grand Avenue & James Street
 009

NPDES Permit Outfall #: May YEAR: 2016
 MONTH: 49
 Average Low Temp: 67
 Average High Temp: 3.65
 Measured Rainfall: 0.00
 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	5/1/2016	10:20	20:30	10.17	0.18	***							
2	5/3/2016	2:40	12:50	10.17	0.54	***							
3	5/4/2016	16:40	20:15	3.58	0.12	***							
4	5/6/2016	4:25	20:00	15.58	0.54	***							
5	5/7/2016	8:10	21:15	13.08	0.36	1 month							
6	5/8/2016	8:15	9:55	1.67	0.13	***							
7	5/13/2016	16:10	21:05	4.92	0.18	***							
8	5/14/2016	5:55	6:00	0.08	0.01	***							
9	5/15/2016	20:35	21:00	0.42	0.03	***							
10	5/24/2016	0:20	18:15	17.92	0.43	***							
11	5/25/2016	1:00	1:05	0.08	0.01	***							
12	5/30/2016	3:10	9:30	6.33	1.12	1 year	5/30/2016	3:45	4:50	1.08	0.005	0.059	

TOTAL MONTH FLOW VOLUME = 0.059

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

011

LOCATION:

NPDES Permit Outfall #:

MONTH:

May YEAR: 2016

Average Low Temp:

49

Average High Temp:

67

Measured Rainfall:

3.65

Measured Snowfall:

0.00

EVENT No.	DATE	RAINFALL EVENT						CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)		
1	5/1/2016	10:20	20:30	10.17	0.18	***							
2	5/3/2016	2:40	12:50	10.17	0.54	***							
3	5/4/2016	16:40	20:15	3.58	0.12	***							
4	5/6/2016	4:25	20:00	15.58	0.54	***							
5	5/7/2016	8:10	21:15	13.08	0.36	1 month	5/7/2016	10:25	11:15	0.83	0.015	0.153	
6	5/8/2016	8:15	9:55	1.67	0.13	***							
7	5/13/2016	16:10	21:05	4.92	0.18	***							
8	5/14/2016	5:55	6:00	0.08	0.01	***							
9	5/15/2016	20:35	21:00	0.42	0.03	***							
10	5/24/2016	0:20	18:15	17.92	0.43	***							
11	5/25/2016	1:00	1:05	0.08	0.01	***							
12	5/30/2016	3:10	9:30	6.33	1.12	1 year	5/30/2016	3:45	5:00	1.25	0.022	0.334	

TOTAL MONTH FLOW VOLUME =

Sum of 010A and 011

0.487

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 75 Mitchell Drive
 LOCATION: 012

NPDES Permit Outfall #:

MONTH: May YEAR: 2016

Average Low Temp: 49

Average High Temp: 67

Measured Rainfall: 3.65

Measured Snowfall: 0.00

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	5/1/2016	10:20	20:30	10.17	0.18	***							
2	5/3/2016	2:40	12:50	10.17	0.54	***							
3	5/4/2016	16:40	20:15	3.58	0.12	***							
4	5/6/2016	4:25	20:00	15.58	0.54	***							
5	5/7/2016	8:10	21:15	13.08	0.36	1 month							
6	5/8/2016	8:15	9:55	1.67	0.13	***							
7	5/13/2016	16:10	21:05	4.92	0.18	***							
8	5/14/2016	5:55	6:00	0.08	0.01	***							
9	5/15/2016	20:35	21:00	0.42	0.03	***							
10	5/24/2016	0:20	18:15	17.92	0.43	***							
11	5/25/2016	1:00	1:05	0.08	0.01	***							
12	5/30/2016	3:10	9:30	6.33	1.12	1 year	5/30/2015	3:55	4:10	0.25	0.000	0.001	

TOTAL MONTH FLOW VOLUME = 0.001

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 15 James Street
 LOCATION: 015

NPDES Permit Outfall #: May YEAR: 2016

MONTH: 49

Average Low Temp: 67

Average High Temp: 3.65

Measured Rainfall: 0.00

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	5/1/2016	10:20	20:30	10.17	0.18	***							
2	5/3/2016	2:40	12:50	10.17	0.54	***	5/3/2016	5:35	5:40	0.08	0.001	0.001	
3	5/4/2016	16:40	20:15	3.58	0.12	***							
4	5/6/2016	4:25	20:00	15.58	0.54	***							
5	5/7/2016	8:10	21:15	13.08	0.36	1 month	5/7/2016	10:20	11:10	0.83	0.018	0.181	
6	5/8/2016	8:15	9:55	1.67	0.13	***							
7	5/13/2016	16:10	21:05	4.92	0.18	***							
8	5/14/2016	5:55	6:00	0.08	0.01	***							
9	5/15/2016	20:35	21:00	0.42	0.03	***							
10	5/24/2016	0:20	18:15	17.92	0.43	***							
11	5/25/2016	1:00	1:05	0.08	0.01	***							
12	5/30/2016	3:10	9:30	6.33	1.12	1 year	5/30/2016	3:50	6:35	2.75	0.006	0.202	

Expected capacity of siphon is between 24 and 30 MGD.

TOTAL MONTH FLOW VOLUME =

0.384

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Int. River & Poplar 016
 NPDES Permit Outfall #: 2016
 MONTH: May YEAR: 2016
 Average Low Temp: 49
 Average High Temp: 67
 Measured Rainfall: 3.65
 Measured Snowfall: 0.00

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	5/1/2016	10:20	20:30	10.17	0.18 ***							
2	5/3/2016	2:40	12:50	10.17	0.54 ***		5/3/2016	4:40	5:50	1.17	0.001	0.013
3	5/4/2016	16:40	20:15	3.58	0.12 ***							
4	5/6/2016	4:25	20:00	15.58	0.54 ***							
5	5/7/2016	8:10	21:15	13.08	0.36 1 month		5/7/2016	10:00	11:05	1.08	0.009	0.123
6	5/8/2016	8:15	9:55	1.67	0.13 ***							
7	5/13/2016	16:10	21:05	4.92	0.18 ***							
8	5/14/2016	5:55	6:00	0.08	0.01 ***							
9	5/15/2016	20:35	21:00	0.42	0.03 ***							
10	5/24/2016	0:20	18:15	17.92	0.43 ***							
11	5/25/2016	1:00	1:05	0.08	0.01 ***							
12	5/30/2016	3:10	9:30	6.33	1.12 1 year		5/30/2016	3:50	4:20	0.50	0.045	0.269

TOTAL MONTH FLOW VOLUME = 0.405

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Clifton and Quinippiac
 020
 NPDES Permit Outfall #: May YEAR: 2016
 MONTH: 49
 Average Low Temp: 67
 Average High Temp: 3.65
 Measured Rainfall: 0.00
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q avg (MGD)	OUTFALL Q volume (MG)
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		
1	5/1/2016	10:20	20:30	10.17	0.18	***					
2	5/3/2016	2:40	12:50	10.17	0.54	***					
3	5/4/2016	16:40	20:15	3.58	0.12	***					
4	5/6/2016	4:25	20:00	15.58	0.54	***					
5	5/7/2016	8:10	21:15	13.08	0.36	1 month					
6	5/8/2016	8:15	9:55	1.67	0.13	***					
7	5/13/2016	16:10	21:05	4.92	0.18	***					
8	5/14/2016	5:55	6:00	0.08	0.01	***					
9	5/15/2016	20:35	21:00	0.42	0.03	***					
10	5/24/2016	0:20	18:15	17.92	0.43	***					
11	5/25/2016	1:00	1:05	0.08	0.01	***					
12	5/30/2016	3:10	9:30	6.33	1.12	1 year					

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

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 638 Long Wharf Drive
 021

NPDES Permit Outfall #: May YEAR: 2016

MONTH: 49

Average Low Temp: 67

Average High Temp: 3.65

Measured Rainfall: 0.00

EVENT No.	RAINFALL EVENT						CSO EVENT					
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/1/2016	10:20	20:30	10.17	0.18	***						
2	5/3/2016	2:40	12:50	10.17	0.54	***						
3	5/4/2016	16:40	20:15	3.58	0.12	***						
4	5/6/2016	4:25	20:00	15.58	0.54	***						
5	5/7/2016	8:10	21:15	13.08	0.36	1 month	5/7/2016	11:15	11:55	0.67	0.003	0.021
6	5/8/2016	8:15	9:55	1.67	0.13	***						
7	5/13/2016	16:10	21:05	4.92	0.18	***						
8	5/14/2016	5:55	6:00	0.08	0.01	***						
9	5/15/2016	20:35	21:00	0.42	0.03	***						
10	5/24/2016	0:20	18:15	17.92	0.43	***						
11	5/25/2016	1:00	1:05	0.08	0.01	***						
12	5/30/2016	3:10	9:30	6.33	1.12	1 year	5/30/2016	4:15	6:45	2.50	0.014	0.411

TOTAL MONTH FLOW VOLUME = 0.432

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Sea Street @ South Water Street
 024
 NPDES Permit Outfall #: 2016
 MONTH: May YEAR: 2016
 Average Low Temp: 49
 Average High Temp: 67
 Measured Rainfall: 3.65
 Measured Snowfall: 0.00

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	5/1/2016	10:20	20:30	10.17	0.18	***						
2	5/3/2016	2:40	12:50	10.17	0.54	***						
3	5/4/2016	16:40	20:15	3.58	0.12	***						
4	5/6/2016	4:25	20:00	15.58	0.54	***						
5	5/7/2016	8:10	21:15	13.08	0.36	1 month						
6	5/8/2016	8:15	9:55	1.67	0.13	***						
7	5/13/2016	16:10	21:05	4.92	0.18	***						
8	5/14/2016	5:55	6:00	0.08	0.01	***						
9	5/15/2016	20:35	21:00	0.42	0.03	***						
10	5/24/2016	0:20	18:15	17.92	0.43	***						
11	5/25/2016	1:00	1:05	0.08	0.01	***						
12	5/30/2016	3:10	9:30	6.33	1.12	1 year	5/30/2016	4:20	5:10	0.83	0.030	0.297

TOTAL MONTH FLOW VOLUME = 0.297

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Intersection of State & N. Front Street
 025
 NPDES Permit Outfall #: May YEAR: 2016
 MONTH: 49
 Average Low Temp: 67
 Average High Temp: 3.65
 Measured Rainfall: 0.00
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					OUTFALL Q volume (MG)
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	
1	5/1/2016	10:20	20:30	10:17	0.18	***						
2	5/3/2016	2:40	12:50	10:17	0.54	***						
3	5/4/2016	16:40	20:15	3:58	0.12	***						
4	5/6/2016	4:25	20:00	15:58	0.54	***						
5	5/7/2016	8:10	21:15	13:08	0.36	1 month						
6	5/8/2016	8:15	9:55	1:67	0.13	***						
7	5/13/2016	16:10	21:05	4:92	0.18	***						
8	5/14/2016	5:55	6:00	0:08	0.01	***						
9	5/15/2016	20:35	21:00	0:42	0.03	***						
10	5/24/2016	0:20	18:15	17:92	0.43	***						
11	5/25/2016	1:00	1:05	0:08	0.01	***						
12	5/30/2016	3:10	9:30	6:33	1.12	1 year						

TOTAL MONTH
 FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: George and Temple Regulator 34
 NPDES Permit Outfall #:
 MONTH: May YEAR: 2016
 Average Low Temp: 49
 Average High Temp: 67
 Measured Rainfall: 3.65
 Measured Snowfall: 0.00

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	5/1/2016	10:20	20:30	10.17	0.18 ***							
2	5/3/2016	2:40	12:50	10.17	0.54 ***							
3	5/4/2016	16:40	20:15	3.58	0.12 ***							
4	5/6/2016	4:25	20:00	15.58	0.54 ***							
5	5/7/2016	8:10	21:15	13.08	0.36 1 month		5/7/2016	10:30	10:50	0.33	0.006	0.023
6	5/8/2016	8:15	9:55	1.67	0.13 ***							
7	5/13/2016	16:10	21:05	4.92	0.18 ***							
8	5/14/2016	5:55	6:00	0.08	0.01 ***							
9	5/15/2016	20:35	21:00	0.42	0.03 ***							
10	5/24/2016	0:20	18:15	17.92	0.43 ***							
11	5/25/2016	1:00	1:05	0.08	0.01 ***							
12	5/30/2016	3:10	9:30	6.33	1.12 1 year		5/30/2016	3:40	4:10	0.50	0.042	0.406

TOTAL MONTH FLOW VOLUME = 0.429