



GREATER NEW HAVEN
Water Pollution Control Authority

CONSENT ORDER WC5509
Annual Progress Report
July 1, 2017 – June 30, 2018



ATTACHMENT "A"

GNHWPCA

CSO LTCP

ANNUAL STATUS REPORT

FY 2018

2018 ANNUAL REPORT
ATTACHMENT "A"

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CSO LONG TERM CONTROL PLAN ANNUAL STATUS REPORT
June 30, 2018

1997 EXISTING CONDITIONS MODEL							CALIBRATED 2016 CONDITIONS MODEL				2018 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 2013-2018	2018 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 @ Lambert Street	West River	Active	1.5	Truman Tank	Closed	0.0	1.5	CSO 002			Closed	Regulator Improvements & CSO Storage Tank	Inactive	0.00
CSO 003	3	3	E.T.G. Boulevard @ Orange Avenue	West River	Active	0.7	Truman Tank	Active	0.9	-0.2	CSO 003	CSO 003	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, 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	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		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	Sewer Separation	Closed	0.0	0.3	CSO 010			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		Inactive	0.00
CSO 011	11	14	Humphrey Street @ I-91	Mill River	Active	6.2	Sewer Separation	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	Sewer Separation	Active	0.2	0.8	CSO 012	CSO 012	Weir raised 6 inches in 2013, 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	Sewer Separation	Closed	0.0	0.1	CSO 013			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		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	Replaced duckbill in 2018	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	Sewer Separation	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	Sewer Separation	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	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	Sewer Separation	Active	1.5	-0.1	CSO 021	CSO 021	Sewer Separation Design Complete; Duckbill 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	Sewer Separation	Closed			CSO 022			Closed		Closed	0.00
CSO 023	22	28	Chestnut Street @ Water Street	New Haven Harbor	Closed	0.0	Sewer Separation	Closed	0.0	0.0	CSO 023			Closed		Closed	0.00
CSO 024	23	29	Boulevard Pump Station	New Haven Harbor	Active	3.2	Truman Tank	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	Sewer Separation	Active	1.0	0.4	CSO 025	CSO 025	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		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, Pump station upgrade is underway	Active	Pump Station Upgrade / Close CSO	Closed	0.00
CSO 027	25	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, 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	Pump Station Upgrade	Closed			CSO 029			Closed		Closed	0.00
CSO 030	27	37	Quinnipiac Pump Station	Quinnipiac River	Active	No model data	Pump Station Upgrade	Closed			CSO 030			Closed		Closed	0.00
CSO 031		38	South Frontage / Davenport	New Haven Harbor	Active	Discharges to CSO 025 outfall	Sewer Separation	Closed			CSO 031			Closed		Closed	0.00
CSO 032		39	Port Sea / Liberty	New Haven Harbor	Active	Discharges to CSO 025 outfall	Sewer Separation	Closed			CSO 032			Closed		Closed	0.00
CSO 033		40	Carlisle / Liberty	New Haven Harbor	Active	Discharges to CSO 025 outfall	Sewer Separation	Closed			CSO 033			Closed		Closed	0.00
CSO 034		41	George / Temple	New Haven Harbor	Active	Discharges to CSO 025 outfall	Sewer Separation	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		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)									14.3	11.7							
CSO VOLUME REDUCTION (%)									45%								
NUMBER OF ACTIVE CSO REGULATORS					40						18						
NUMBER OF INACTIVE / CLOSED CSO REGULATORS					5						27						
NUMBER OF ACTIVE CSO OUTFALLS					26						14						
NUMBER OF INACTIVE / CLOSED CSO OUTFALLS					5						17						

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 2018



FY 2018 DEEP LETTER CORRESPONDENCE

APPROVAL DATE	LETTER TYPE	CWF #	PROJECT	Amount	TO	FROM
07/11/17	Engineering Agreement Approval	441-C	GNHWPCA Contract No. 14-006 Change Order 2	\$200,000	Sid Holbrook	Denise Ruzicka, PE
09/05/17	Engineering Agreement Approval	TBD	Final Design Services for West River CSO Improvement Project/Amendment 1	\$24,939	Sid Holbrook	Denise Ruzicka, PE
09/20/17	I&I Analysis/Study Approval	689 PG	I/I Study for Mill River Sewershed Town of Hamden	\$0	Sid Holbrook	Denise Ruzicka, PE
11/08/17	Approval	TBD	2016-05 Improvements to Regulators 034 & 025	\$0	Sid Holbrook	Denise Ruzicka, PE
11/08/17	Approval	TBD	2016-02 Closing Regulators 012 & 020	\$0	Sid Holbrook	Denise Ruzicka, PE
12/15/17	Approval	TBD	2016-03 West River CSO Improvement Project	\$0	Sid Holbrook	Denise Ruzicka, PE
12/15/17	Approval	TBD	2016-07 CSO Reduction Utilizing Green Infrastructure	\$0	Sid Holbrook	Denise Ruzicka, PE
01/09/18	Draft LTCP Report	682-PG	Draft Report LTCP Response of Comments/Questions	\$0	Sid Holbrook	Steve Muollo, PE
01/19/18	Approval	689-PG	Sewer System Evaluation Survey for Woodbridge & East Haven	\$0	Sid Holbrook	Denise Ruzicka, PE
03/27/18	Engineering Agreement Approval	711-DC	Green Infrastructure Design 2016-07 Amendment 1 West River Watershed	\$7,800	Sid Holbrook	Denise Ruzicka, PE
05/14/18	Approval	682-PG	CSO Long Term Control Plan Update	\$0.00	Sid Holbrook	Denise Ruzicka, PE
05/16/18	Approval of Addenda	711-DC	CWF 2016-05 Improvements to Regulators 034 & 025	\$0.00	Sid Holbrook	Denise Ruzicka, PE
05/16/18	Approval of Addenda	711-DC	CWF 2016-02 Closing Regulators 012 & 020	\$0	Sid Holbrook	Denise Ruzicka, PE
05/23/18	Engineering Agreement Approval	711-DC	CWF 2016-05 Improvements to Regulators 034 & 025	\$65,654.70	Sid Holbrook	Denise Ruzicka, PE
05/23/18	Engineering Agreement Approval	711-DC	CWF 2016-02 Closing Regulators 012 & 020 Construction	\$212,258	Sid Holbrook	Denise Ruzicka, PE
06/05/18	Engineering Agreement Approval	711-DC	CWF 2016-07 CSO Reduction Utilizing Green Infrastructure Construction	\$276,640.00	Sid Holbrook	Denise Ruzicka, PE
06/05/18	Approval of Addenda	711-DC	CWF 2016-07 CSO Reduction Utilizing Green Infrastructure	\$0	Sid Holbrook	Denise Ruzicka, PE
06/05/18	Engineering Agreement Approval	711-DC	CWF 2016-05 Improvements to Regulators 034 & 025 Construction	\$65,655	Sid Holbrook	Denise Ruzicka, PE
06/05/18	Engineering Agreement Approval	711-DC	LTCP Technical Services Task Order MM12	\$13,505.38	Sid Holbrook	Denise Ruzicka, PE
06/05/18	Construction Contract Award	711-DC	Contract 2016-02 Closing of Regulators 012 & 020	\$0	Sid Holbrook	Denise Ruzicka, PE
06/05/18	Construction Contract Award	711-DC	Contract 2016-05 Closing of Regulators 025 & 034	\$93,138.50	Sid Holbrook	Denise Ruzicka, PE

ATTACHMENT "C"

DEEP / GNHWPCA

LETTER & EMAIL

CORRESPONDENCE

FY 2018



FY 2018 GNHWPCA LETTER & E-MAIL CORRESPONDENCE/TRANSMITTALS					
DATE	DOCUMENT TYPE	Ref/CWF #	PROJECT	TO	FROM
06/30/17	email	Concent Order	Annual Progress Report Consent Order WC5509 (hard copy from Sid followed)	D.Ruzica, G.Hicks	T.Sgroi
07/24/17	email	CSO Regulator	CSO Regulator Adjustment Letter	G.Hicks	T.Sgroi
10/31/17	email	CMOM	CMOM Corrective Action Plan Annual Report	J.Melcher / G.Hicks	G.Zrelak
02/12/18	email	EIE	Draft Milone and McBroom EIE Proposal	S.Muollo	T.Sgroi
02/21/18	email	EIE	EIE Clarification Response to G.Hicks	G.Hicks	T.Sgroi

ATTACHMENT "D"

**ANNUAL CSO FLOW
MONITORING DATA**

JUNE 2018

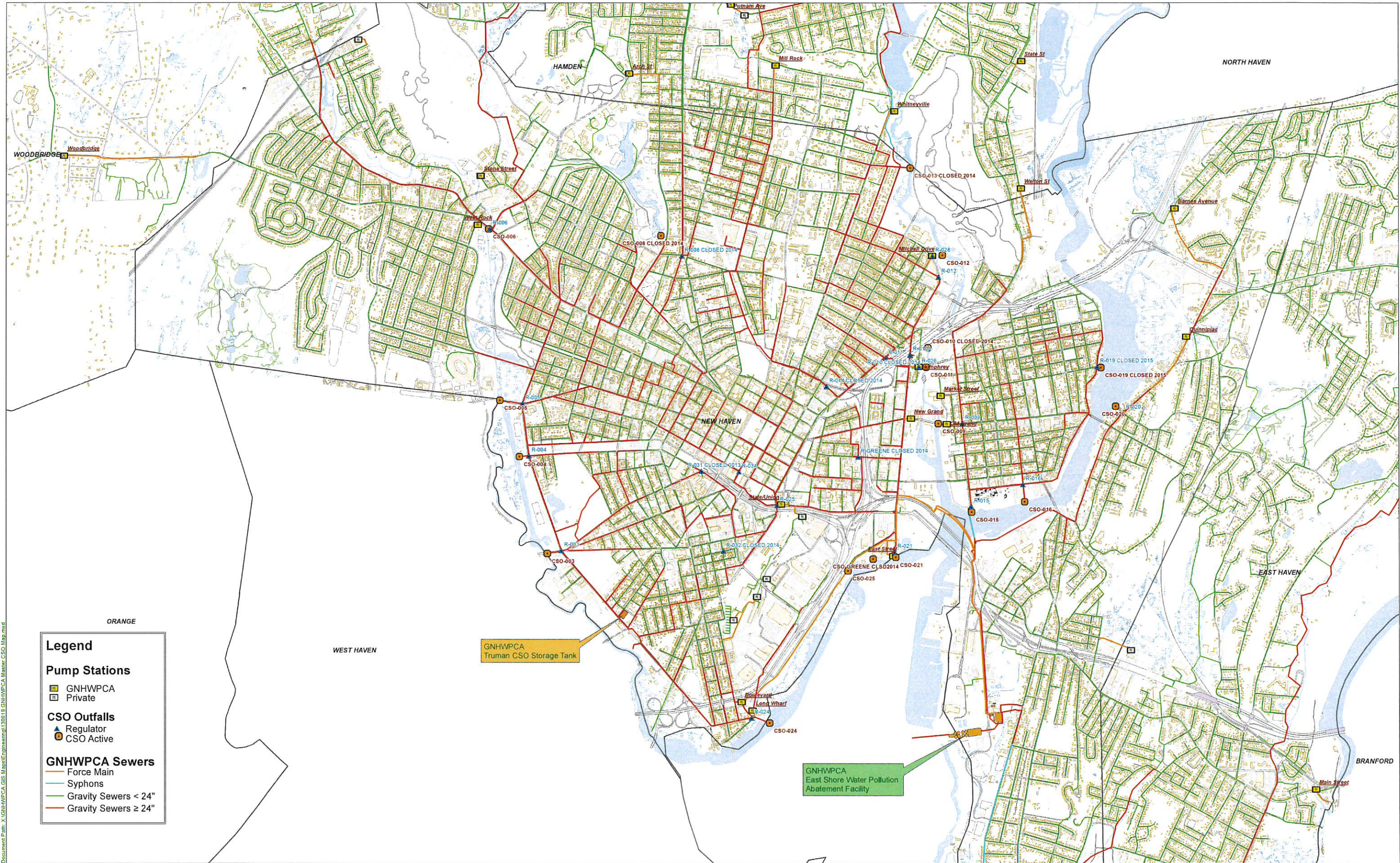
ATTACHMENT "D"

**JUNE 2018
ANNUAL CSO FLOW MONITORING PROGRAM DATA**

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UPDATED SEWER MAP



Document Path: X:\GNHWPCA\GIS_Maps\Engineering\190119_GNHWPCA_Master_CS0_Map.mxd

Legend

Pump Stations

- GNHWPCA
- Private

CSO Outfalls

- Regulator
- CSO Active

GNHWPCA Sewers

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



Date: 6/19/2015
 Author: [Name]
 Title: [Title]

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

1 inch = 1,250 feet
 6/19/2015

**REGULATOR & CSO
DESIGNATIONS & STATUS**

**GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
REGULATOR AND CSO DESIGNATIONS AND STATUS
30-Jun-18**

(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	#010 (A)	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	#014	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	Closed prior to 2008	#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	#026	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	#028	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	#032	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	#034	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, 2018**

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 at elevation 5.15
- 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 which is equal to the overflow elevation
- 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
- Meter OF-016 Sewer was installed in the 54 inch sewer two manholes downstream of Regulator 016 on 7/11/17 at an invert elevation of -0.03
- The regulator consists of an 3.8 foot long weir at an elevation of 2.35
- CSO start and stop times are based on depths greater than 28 inches at Meter OF-016 Sewer and 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

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 83 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 99 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 weir elevation was raised 18 inches to elevation 4.49 on 7/21/17
- The regulator consists of three weirs each 4.5 feet wide
- CSO start and stop times are based on depths greater than 83 inches at Meter OF-024 US Sewer, depths greater than 99 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 up to 14.4 inches and then the orifice equation

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 2017 – APRIL 2018

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - MAY 2017 THROUGH APRIL 2018

<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	11	4.805	38.16	12
CSO 005	REG 005	6	0.599	38.16	12
CSO 004	REG 004	18	4.172	38.16	12
CSO 003	REG 003	19	1.807	38.16	12
CSO 024	REG 024	6	2.858	38.16	12
CSO 009	REG 009	17	1.145	38.16	12
CSO 016	REG 016	11	5.353	38.16	12
CSO 015	REG 015	22	4.588	42.00	13
CSO 011	REGS 010A, 011, 026	10	4.766	38.16	12
CSO 012	REGS 012A, 012B, 028	4	0.352	38.16	12
CSO 025	REGS 025, 034	6	3.195	38.16	12
CSO 021	REG 021	13	10.576	38.16	12
CSO 020	REG 020	2	0.015	38.16	12
TOTAL		145	44.231		

METER DATA

APRIL 2018

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY			
CSO FLOW MONITORING PROGRAM			
METER DATA SUMMARY - APRIL 2018			
MONTHLY RAINFALL SUMMARY			
5.83 inches of rain (3.44 inches of rain in a typical month)			
3.0 inches of snowfall			
13 rain events (10 rain events in a typical month)			
One 2 year storm, one 1 month storm, all other storms less than 1 month return frequency			
CSO NUMBER	REGULATOR NUMBERS	CSO EVENTS	CSO VOLUME (MG)
CSO 006	REGS 006 A, 006 B	1	1.521
CSO 005	REG 005	1	0.053
CSO 004	REG 004	1	1.917
CSO 003	REG 003	1	0.357
CSO 024	REG 024	1	0.839
CSO 009	REG 009	1	0.164
CSO 016	REG 016	1	1.736
CSO 015	REG 015	2	0.649
CSO 011	REGS 010A, 011, 026	1	1.719
CSO 012	REGS 012A, 012B, 028	1	0.170
CSO 025	REGS 025, 034	2	1.737
CSO 021	REG 021	1	3.164
CSO 020	REG 020	0	0.000
TOTAL		14	14.026

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - 2 YEAR ROLLING AVERAGE - TYPICAL YEAR ESTIMATES

CSO NUMBER	REGULATOR NUMBERS	TYPICAL YEAR CSO EVENTS		TYPICAL YEAR CSO VOLUME (MG)		TYPICAL YEAR CSO VOLUME (MG)	
		BASED ON RAINFALL ⁽¹⁾	BASED ON MONTHS ⁽²⁾	BASED ON RAINFALL ⁽²⁾	BASED ON MONTHS ⁽²⁾	BASED ON RAINFALL ⁽⁴⁾	BASED ON MONTHS ⁽⁴⁾
CSO 006	REGS 006 A, 006 B	13	12	3,805	3,357	3,805	3,357
CSO 005	REG 005	7	6	0,543	0,479	0,543	0,479
CSO 004	REG 004	21	19	3,307	2,918	3,307	2,918
CSO 003	REG 003	25	22	2,220	1,959	2,220	1,959
CSO 024	REG 024	11	10	4,115	3,631	4,115	3,631
CSO 009	REG 009	23	20	1,134	1,000	1,134	1,000
CSO 016	REG 016	18	16	6,573	5,799	6,573	5,799
CSO 015	REG 015	28	25	4,239	3,740	4,239	3,740
CSO 011	REGS 010A, 011, 026	13	12	4,920	4,341	4,920	4,341
CSO 012	REGS 012A, 012B, 028	6	6	0,249	0,220	0,249	0,220
CSO 025	REGS 025, 034	9	8	2,493	2,200	2,493	2,200
CSO 021	REG 021	15	14	8,847	7,806	8,847	7,806
CSO 020	REG 020	4	4	0,027	0,024	0,027	0,024
TOTAL		188	166	42,446	37,447	42,446	37,447

(1) Estimated Typical Year CSO Events Based on Rainfall Methodology = Typical Year Rainfall (3.44 in x 12 = 41.28 in) x CSO Events in the last two years / Rainfall in the last two years
 (2) Estimated Typical Year CSO Volume (MG) Based on Rainfall Methodology = Typical Year Rainfall (3.44 in x 12 = 41.28 in) x CSO Volume (MG) in the last two years / Rainfall in the last two years
 (3) Estimated Typical Year CSO Events Based on Monthly Methodology = 12 x CSO Events in the last two years / Meter Months in the last two years
 (4) Estimated Typical Year CSO Volume (MG) Based on Monthly Methodology = 12 x CSO Volume (MG) in the last two years / Meter Months in the last two years

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Orange Ave. @ Int. of Ella T. Grasso Blvd.
 003
 NPDES Permit Outfall #:
 MONTH: February YEAR: 2018
 Average Low Temp: 24
 Average High Temp: 72
 Measured Rainfall: 5.83
 Measured Snowfall: 3.00

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	4/1/2018	6:10	6:40	0.50	0.02	***						
2	4/2/2018	12:55	13:35	0.67	0.32	1 MONTH						
3	4/3/2018	12:30	22:15	9.75	0.43	***						
4	4/4/2018	7:00	16:55	9.92	0.08	***						
5	4/6/2018	10:20	12:25	2.08	0.12	***						
6	4/10/2018	5:05	12:40	7.58	0.10	***						
7	4/15/2018 - 4/16/2018	19:20	14:00	18.67	3.26	2 YEAR	4/16/2018	7:20	16:00	8.67	0.990	0.357
8	4/17/2018	21:35	21:40	0.08	0.01	***						
9	4/19/2018	3:40	18:10	14.50	0.40	***						
10	4/25/2018 - 4/26/2018	4:55	1:05	20.17	0.64	***						
11	4/27/2018	10:35	19:00	8.42	0.34	***						
12	4/29/2018	4:55	8:25	3.50	0.10	***						
13	4/30/2018	10:50	10:55	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 0.357

Note: Overflow occurs when Interceptor level reaches 45"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Ella T. Grasso Blvd. - 23 yds North of Legion Ave.
 NPDES Permit Outfall #: 004
 MONTH: February YEAR: 2018
 Average Low Temp: 24
 Average High Temp: 72
 Measured Rainfall: 5.83
 Measured Snowfall: 3

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	4/1/2018	6:10	6:40	0.50	0.02	***						
2	4/2/2018	12:55	13:35	0.57	0.32	1 MONTH						
3	4/3/2018	12:30	22:15	9.75	0.43	***						
4	4/4/2018	7:00	16:55	9.92	0.08	***						
5	4/5/2018	10:20	12:25	2.08	0.12	***						
6	4/10/2018	5:05	12:40	7.58	0.10	***						
7	4/15/2018 - 4/16/2018	19:20	14:00	18.57	3.26	2 YEAR	4/16/2018	9:50	15:55	6.08	7.563	1.917
8	4/17/2018	21:35	21:40	0.08	0.01	***						
9	4/19/2018	3:40	18:10	14.50	0.40	***						
10	4/25/2018 - 4/26/2018	4:55	1:05	20.17	0.64	***						
11	4/27/2018	10:35	19:00	8.42	0.34	***						
12	4/29/2018	4:55	8:25	3.50	0.10	***						
13	4/30/2018	10:50	10:55	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 1.917

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: 2018

Average Low Temp: 24

Average High Temp: 72

Measured Rainfall: 5.83

Measured Snowfall: 3

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	4/1/2018	6:10	6:40	0.50	0.02	***						
2	4/2/2018	12:55	13:35	0.67	0.32	1 MONTH						
3	4/3/2018	12:30	22:15	9.75	0.43	***						
4	4/4/2018	7:00	16:55	9.92	0.08	***						
5	4/6/2018	10:20	12:25	2.08	0.12	***						
6	4/10/2018	5:05	12:40	7.58	0.10	***						
7	4/15/2018 - 4/16/2018	19:20	14:00	18.67	3.26	2 YEAR	4/16/2018	11:15	13:00	1.75	0.732	0.053
8	4/17/2018	21:35	21:40	0.08	0.01	***						
9	4/19/2018	3:40	18:10	14.50	0.40	***						
10	4/25/2018 - 4/25/2018	4:55	1:05	20.17	0.64	***						
11	4/27/2018	10:35	19:00	8.42	0.34	***						
12	4/29/2018	4:55	8:25	3.50	0.10	***						
13	4/30/2018	10:50	10:55	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 0.053

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 #:

February YEAR: 2018

24

MONTH:

Average Low Temp: 72

Average High Temp: 5.83

Measured Rainfall: 3

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	4/1/2018	6:10	6:40	0.50	0.02	***						
2	4/2/2018	12:55	13:35	0.67	0.32	1 MONTH						
3	4/3/2018	12:30	22:15	9.75	0.43	***						
4	4/4/2018	7:00	16:55	9.92	0.08	***						
5	4/6/2018	10:20	12:25	2.08	0.12	***						
6	4/10/2018	5:05	12:40	7.58	0.10	***						
7	4/15/2018 - 4/16/2018	19:20	14:00	18.67	3.26	2 YEAR	4/16/2018	9:00	13:50	4.83	0.815	0.164
8	4/17/2018	21:35	21:40	0.08	0.01	***						
9	4/19/2018	3:40	18:10	14.50	0.40	***						
10	4/25/2018 - 4/26/2018	4:55	1:05	20.17	0.64	***						
11	4/27/2018	10:35	19:00	8.42	0.34	***						
12	4/29/2018	4:55	8:25	3.50	0.10	***						
13	4/30/2018	10:50	10:55	0.08	0.01	***						

Note: Overflow occurs when interceptor level reaches 50"

TOTAL MONTH FLOW VOLUME = 0.164

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011
 NPDES Permit Outfall #: February YEAR: 2018
 MONTH: 24
 Average Low Temp: 72
 Average High Temp: 5.83
 Measured Rainfall: 3
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q.volum (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	4/1/2018	6:10	6:40	0.50	0.02	***					
2	4/2/2018	12:55	13:35	0.67	0.32	1 MONTH					
3	4/3/2018	12:30	22:15	9.75	0.43	***					
4	4/4/2018	7:00	16:55	9.92	0.08	***					
5	4/6/2018	10:20	12:25	2.08	0.12	***					
6	4/10/2018	5:05	12:40	7.58	0.10	***					
7	4/15/2018 - 4/16/2018	19:20	14:00	18.67	3.26	2 YEAR	4/16/2018	11:10	14:00	2.83	14.580
8	4/17/2018	21:35	21:40	0.08	0.01	***					
9	4/19/2018	3:40	18:10	14.50	0.40	***					
10	4/25/2018 - 4/26/2018	4:55	1:05	20.17	0.64	***					
11	4/27/2018	10:35	19:00	8.42	0.34	***					
12	4/29/2018	4:55	8:25	3.50	0.10	***					
13	4/30/2018	10:50	10:55	0.08	0.01	***					

TOTAL MONTH FLOW VOLUME = 1.719

Sum of 010A and 011

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 75 Mitchell Drive
 012

NPDES Permit Outfall #:

MONTH: February YEAR: 2018

24

Average Low Temp:

72

Average High Temp:

5.83

Measured Rainfall:

3

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	4/1/2018	6:10	6:40	0.50	0.02	***						
2	4/2/2018	12:55	13:35	0.67	0.32	1 MONTH						
3	4/3/2018	12:30	22:15	9.75	0.43	***						
4	4/4/2018	7:00	16:55	9.92	0.08	***						
5	4/6/2018	10:20	12:25	2.08	0.12	***						
6	4/10/2018	5:05	12:40	7.58	0.10	***						
7	4/15/2018 - 4/16/2018	19:20	14:00	18.67	3.26	2 YEAR	4/16/2018	11:35	14:05	2.83	1.442	0.170
8	4/17/2018	21:35	21:40	0.08	0.01	***						
9	4/19/2018	3:40	18:10	14.50	0.40	***						
10	4/25/2018 - 4/26/2018	4:55	1:05	20.17	0.64	***						
11	4/27/2018	10:35	19:00	8.42	0.34	***						
12	4/29/2018	4:55	8:25	3.50	0.10	***						
13	4/30/2018	10:50	10:55	0.08	0.01	***						

TOTAL MONTH
 FLOW VOLUME = 0.170

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 15 James Street
 015
 NPDES Permit Outfall #: February YEAR: 2018
 MONTH: 24
 Average Low Temp: 72
 Average High Temp: 5.83
 Measured Rainfall: 3
 Measured Snowfall:

EVENT No.	RAINFALL EVENT				CSO EVENT							
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Q avg (MGD)	OUTFALL Q volume (MG)
1	4/1/2018	6:10	6:40	0.50	0.02	***						
2	4/2/2018	12:55	13:35	0.67	0.32	1 MONTH						
3	4/3/2018	12:50	22:15	9.75	0.43	***						
4	4/4/2018	7:00	16:55	9.92	0.08	***						
5	4/6/2018	10:20	12:25	2.08	0.12	***						
6	4/10/2018	5:05	12:40	7.58	0.10	***						
7	4/15/2018 - 4/16/2018	19:20	14:00	18.67	3.26	2 YEAR	4/16/2018	9:00	14:45	5.75	2.458	0.589
8	4/17/2018	21:35	21:40	0.08	0.01	***						
9	4/19/2018	3:40	18:10	14.50	0.40	***						
10	4/25/2018 - 4/26/2018	4:55	1:05	20.17	0.64	***	4/25/2018	20:15	23:55	3.67	0.392	0.060
11	4/27/2018	10:35	19:00	8.42	0.34	***						
12	4/29/2018	4:55	8:25	3.50	0.10	***						
13	4/30/2018	10:50	10:55	0.08	0.01	***						
										TOTAL MONTH	0.649	
										FLOW VOLUME =		

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

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Int. River & Poplar

LOCATION: 016

NPDES Permit Outfall #:

MONTH: February YEAR: 2018

Average Low Temp:

24

Average High Temp:

72

Measured Rainfall:

5.83

Measured Snowfall:

3

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	4/1/2018	6:10	6:40	0.50	0.02	***							
2	4/2/2018	12:55	13:35	0.67	0.32	1 MONTH							
3	4/3/2018	12:30	22:15	9.75	0.43	***							
4	4/4/2018	7:00	16:55	9.92	0.08	***							
5	4/6/2018	10:20	12:25	2.08	0.12	***							
6	4/10/2018	5:05	12:40	7.58	0.10	***							
7	4/15/2018 - 4/16/2018	19:20	14:00	18.67	3.26	2 YEAR	4/16/2018	9:00	14:05	5.08	8.195	1.736	
8	4/17/2018	21:35	21:40	0.08	0.01	***							
9	4/19/2018	3:40	18:10	14.50	0.40	***							
10	4/25/2018 - 4/26/2018	4:55	1:05	20.17	0.64	***							
11	4/27/2018	10:35	19:00	8.42	0.34	***							
12	4/29/2018	4:55	8:25	3.50	0.10	***							
13	4/30/2018	10:50	10:55	0.08	0.01	***							

TOTAL MONTH FLOW VOLUME = 1.736

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Clifton and Quinmpiac

LOCATION: 020

NPDES Permit Outfall #:

MONTH: February YEAR: 2018

Average Low Temp: 24

Average High Temp: 72

Measured Rainfall: 5.83

Measured Snowfall: 3

EVENT NO.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Avg Q volume (MGD)	OUTFALL Q volume (MG)
1	4/1/2018	6:10	6:40	0.50	0.02	***						
2	4/2/2018	12:55	13:35	0.67	0.32	1 MONTH						
3	4/3/2018	12:30	22:15	9.75	0.43	***						
4	4/4/2018	7:00	16:55	9.92	0.08	***						
5	4/6/2018	10:20	12:25	2.08	0.12	***						
6	4/10/2018	5:05	12:40	7.58	0.10	***						
7	4/15/2018 - 4/16/2018	19:20	14:00	18.67	3.26	2 YEAR						
8	4/17/2018	21:35	21:40	0.08	0.01	***						
9	4/19/2018	3:40	18:10	14.50	0.40	***						
10	4/25/2018 - 4/26/2018	4:55	1:05	20.17	0.64	***						
11	4/27/2018	10:35	19:00	8.42	0.34	***						
12	4/29/2018	4:55	8:25	3.50	0.10	***						
13	4/30/2018	10:50	10:55	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 638 Long Wharf Drive
 021
 NPDES Permit Outfall #: February YEAR: 2018
 MONTH: 24
 Average Low Temp: 72
 Average High Temp: 5.83
 Measured Rainfall: 3
 Measured Snowfall: 3

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	4/1/2018	6:10	6:40	0.50	0.02	***						
2	4/2/2018	12:55	13:35	0.67	0.32	1 MONTH						
3	4/3/2018	12:30	22:15	9.75	0.43	***						
4	4/4/2018	7:00	16:55	9.92	0.08	***						
5	4/6/2018	10:20	12:25	2.08	0.12	***						
6	4/10/2018	5:05	12:40	7.58	0.10	***						
7	4/15/2018 - 4/16/2018	19:20	14:00	18.67	3.26	2 YEAR	4/16/2018	11:05	14:50	3.75	20.248	3.164
8	4/17/2018	21:35	21:40	0.08	0.01	***						
9	4/19/2018	3:40	18:10	14.50	0.40	***						
10	4/25/2018 - 4/26/2018	4:55	1:05	20.17	0.64	***						
11	4/27/2018	10:35	19:00	8.42	0.34	***						
12	4/29/2018	4:55	8:25	3.50	0.10	***						
13	4/30/2018	10:50	10:55	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 3.164

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Sea Street @ South Water Street
 024
 NPDES Permit Outfall #: February YEAR: 2018
 MONTH: 24
 Average Low Temp: 72
 Average High Temp: 5.83
 Measured Rainfall: 3
 Measured Snowfall: 3

EVENT NO.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qave (MGD)	OUTFALL Q volume (MG)
1	4/1/2018	6:10	6:40	0:50	0.02	***						
2	4/2/2018	12:55	13:35	0:67	0.32	1 MONTH						
3	4/3/2018	12:30	22:15	9:75	0.43	***						
4	4/4/2018	7:00	16:55	9:92	0.08	***						
5	4/5/2018	10:20	12:25	2:08	0.12	***						
6	4/10/2018	5:05	12:40	7:58	0.10	***						
7	4/15/2018 - 4/16/2018	19:20	14:00	18:67	3.26	2 YEAR	4/16/2018	11:10	14:25	3.25	6.196	0.839
8	4/17/2018	21:35	21:40	0:08	0.01	***						
9	4/19/2018	3:40	18:10	14:50	0.40	***						
10	4/25/2018 - 4/26/2018	4:55	1:05	20:17	0.64	***						
11	4/27/2018	10:35	19:00	8:42	0.34	***						
12	4/29/2018	4:55	8:25	3:50	0.10	***						
13	4/30/2018	10:50	10:55	0:08	0.01	***						

TOTAL MONTH FLOW VOLUME =

0.839

Note: Overflow occurs when Interceptor level reaches 83" in US & 99" in DS

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Intersection of State & N. Front Street
 025
 NPDES Permit Outfall #: February YEAR: 2018
 MONTH: 24
 Average Low Temp: 72
 Average High Temp: 5.83
 Measured Rainfall: 3
 Measured Snowfall: 3

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	4/1/2018	6:10	6:40	0.50	0.02	***					
2	4/2/2018	12:55	13:35	0.67	0.32	1 MONTH					
3	4/3/2018	12:30	22:15	9.75	0.43	***					
4	4/4/2018	7:00	16:55	9.92	0.08	***					
5	4/6/2018	10:20	12:25	2.08	0.12	***					
6	4/10/2018	5:05	12:40	7.58	0.10	***					
7	4/15/2018 - 4/16/2018	19:20	14:00	18.67	3.26	2 YEAR					
8	4/17/2018	21:35	21:40	0.08	0.01	***					
9	4/19/2018	3:40	18:10	14.50	0.40	***					
10	4/25/2018 - 4/26/2018	4:55	1:05	20.17	0.64	***					
11	4/27/2018	10:35	19:00	8.42	0.34	***					
12	4/29/2018	4:55	8:25	3.50	0.10	***					
13	4/30/2018	10:50	10:55	0.08	0.01	***					

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 #:
 MONTH: February YEAR: 2018
 Average Low Temp: 24
 Average High Temp: 72
 Measured Rainfall: 5.83
 Measured Snowfall: 3

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	4/1/2018	6:10	6:40	0.50	0.02	***						
2	4/2/2018	12:55	13:35	0.67	0.32	1 MONTH						
3	4/3/2018	12:30	22:15	9.75	0.43	***						
4	4/4/2018	7:00	16:55	9.92	0.08	***						
5	4/6/2018	10:20	12:25	2.08	0.12	***						
6	4/10/2018	5:05	12:40	7.58	0.10	***						
7	4/15/2018 - 4/16/2018	19:20	14:00	18.67	3.26	2 YEAR	4/16/2018	9:10	13:15	4.08	10.120	1.722
8	4/17/2018	21:35	21:40	0.08	0.01	***						
9	4/19/2018	3:40	18:10	14.50	0.40	***						
10	4/25/2018 - 4/26/2018	4:55	1:05	20.17	0.64	***	4/25/2018	20:10	20:25	0.25	1.420	0.015
11	4/27/2018	10:35	19:00	8.42	0.34	***						
12	4/29/2018	4:55	8:25	3.50	0.10	***						
13	4/30/2018	10:50	10:55	0.08	0.01	***						

TOTAL MONTH FLOW VOLUME = 1.737

METER DATA

MARCH 2018

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY			
CSO FLOW MONITORING PROGRAM			
METER DATA SUMMARY - MARCH 2018			
<u>MONTHLY RAINFALL SUMMARY</u>			
2.00 inches of rain (3.44 inches of rain in a typical month)			
18.3 inches of snowfall			
5 rain events (10 rain events in a typical month)			
All storms less than 1 month return frequency			
<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>
CSO 006	REGS 006 A, 006 B	0	0.000
CSO 005	REG 005	0	0.000
CSO 004	REG 004	0	0.000
CSO 003	REG 003	0	0.000
CSO 024	REG 024	0	0.000
CSO 009	REG 009	0	0.000
CSO 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	0	0.000
CSO 020	REG 020	0	0.000
TOTAL		0	0.000

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - 2 YEAR ROLLING AVERAGE - TYPICAL YEAR ESTIMATES

CSO NUMBER	REGULATOR NUMBERS	TYPICAL YEAR CSO EVENTS		TYPICAL YEAR CSO VOLUME (MG)		TYPICAL YEAR CSO VOLUME (MG)	
		BASED ON RAINFALL ⁽¹⁾	BASED ON RAINFALL ⁽²⁾	BASED ON RAINFALL ⁽³⁾	BASED ON RAINFALL ⁽⁴⁾	BASED ON MONTHS ⁽⁵⁾	BASED ON MONTHS ⁽⁶⁾
CSO 006	REGS 006 A, 006 B	13		3,047		12	2,617
CSO 005	REG 005	6		0,527		6	0,453
CSO 004	REG 004	23		2,295		20	1,972
CSO 003	REG 003	27		2,215		23	1,902
CSO 024	REG 024	12		3,993		10	3,430
CSO 009	REG 009	24		1,099		21	0,944
CSO 016	REG 016	19		6,285		17	5,398
CSO 015	REG 015	29		4,138		25	3,554
CSO 011	REGS 010A, 011, 026	15		4,065		13	3,491
CSO 012	REGS 012A, 012B, 028	6		0,162		6	0,139
CSO 025	REGS 025, 034	8		1,550		7	1,331
CSO 021	REG 021	16		7,310		14	6,279
CSO 020	REG 020	4		0,027		4	0,024
TOTAL		197		36,686		170	31,508

(1) Estimated Typical Year CSO Events Based on Rainfall Methodology = Typical Year Rainfall (3.44 in x 12 = 41.28 in) x CSO Events in the last two years / Rainfall in the last two years
 (2) Estimated Typical Year CSO Volume (MG) Based on Rainfall Methodology = Typical Year Rainfall (3.44 in x 12 = 41.28 in) x CSO Volume (MG) in the last two years / Rainfall in the last two years
 (3) Estimated Typical Year CSO Events Based on Monthly Methodology = 12 x CSO Events in the last two years / Meter Months in the last two years
 (4) Estimated Typical Year CSO Volume (MG) Based on Monthly Methodology = 12 x CSO Volume (MG) in the last two years / Meter Months in the last two years

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Orange Ave. @ Int. of Ella T. Grasso Blvd.
 003
 NPDES Permit Outfall #:
 MONTH: February YEAR: 2018
 Average Low Temp: 24
 Average High Temp: 62
 Measured Rainfall: 2.00
 Measured Snowfall: 18.30

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	3/1/2018 - 3/2/2018	21:50	19:05	21.25	0.87	***						
2	3/7/2018 - 3/8/2018	7:35	9:20	25.75	0.78	***						
3	3/13/2018	1:40	13:30	11.83	0.21	***						
4	3/21/2018 - 3/22/2018	12:35	3:25	14.83	0.09	***						
5	3/29/2018 - 3/30/2018	12:10	18:40	30.50	0.05	***						
											TOTAL MONTH	0.000
											FLOW VOLUME =	

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 #: 2018
 MONTH: February YEAR: 2018
 Average Low Temp: 24
 Average High Temp: 62
 Measured Rainfall: 2.00
 Measured Snowfall: 18.3

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	3/1/2018 - 3/2/2018	21:50	19:05	21.25	0.87	***						
2	3/7/2018 - 3/8/2018	7:55	9:20	25.75	0.78	***						
3	3/13/2018	1:40	13:30	11.83	0.21	***						
4	3/21/2018 - 3/22/2018	12:35	3:25	14.83	0.09	***						
5	3/29/2018 - 3/30/2018	12:10	18:40	30.50	0.05	***						

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 #: February YEAR: 2018
 MONTH: 24
 Average Low Temp: 62
 Average High Temp: 2.00
 Measured Rainfall: 18.3
 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	3/1/2018 - 3/2/2018	21:50	19:05	21.25	0.87	***						
2	3/7/2018 - 3/8/2018	7:35	9:20	25.75	0.78	***						
3	3/13/2018	1:40	13:30	11.83	0.21	***						
4	3/21/2018 - 3/22/2018	12:35	3:25	14.83	0.09	***						
5	3/29/2018 - 3/30/2018	12:10	18:40	30.50	0.05	***						
TOTAL MONTH											FLOW VOLUME =	0.000

Note: Overflow occurs when Interceptor level reaches 71"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 Grand Avenue & James Street
 LOCATION: 009
 NPDES Permit Outfall #: 009
 MONTH: February YEAR: 2018
 Average Low Temp: 24
 Average High Temp: 62
 Measured Rainfall: 2.00
 Measured Snowfall: 18.3

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Cavg (MGD)	OUTFALL Q ₁ volume (MG)
1	3/1/2018 - 3/2/2018	21:50	19:05	21.25	0.87	***						
2	3/7/2018 - 3/8/2018	7:35	9:20	25.75	0.78	***						
3	3/13/2018	1:40	13:30	11.83	0.21	***						
4	3/21/2018 - 3/22/2018	12:35	3:25	14.83	0.09	***						
5	3/29/2018 - 3/30/2018	12:10	18:40	30.50	0.05	***						
TOTAL MONTH											FLOW VOLUME =	0.000

Note: Overflow occurs when Interceptor level reaches 30"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011

NPDES Permit Outfall #:

February YEAR: 2018

MONTH: 24

Average Low Temp:

62

Average High Temp:

2.00

Measured Rainfall:

18.3

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Q avg (MGD)	OUTFALL Q volume (MG)
1	3/1/2018 - 3/2/2018	21:50	19:05	21.25	0.87	***						
2	3/7/2018 - 3/8/2018	7:55	9:20	25.75	0.78	***						
3	3/13/2018	1:40	13:30	11.83	0.21	***						
4	3/21/2018 - 3/22/2018	12:35	3:25	14.83	0.09	***						
5	3/29/2018 - 3/30/2018	12:10	18:40	30.50	0.05	***						

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 #: February YEAR: 2018
 MONTH: 24
 Average Low Temp: 62
 Average High Temp: 2.00
 Measured Rainfall: 18.3
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qvgs (MGD)	OUTFALL Q volume (MG)
1	3/1/2018 - 3/2/2018	21:50	19:05	21.25	0.87	***						
2	3/7/2018 - 3/8/2018	7:35	9:20	25.75	0.78	***						
3	3/13/2018	1:40	13:30	11.83	0.21	***						
4	3/21/2018 - 3/22/2018	12:35	3:25	14.83	0.09	***						
5	3/29/2018 - 3/30/2018	12:10	18:40	30.50	0.05	***						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 15 James Street
 NPDES Permit Outfall #: 015
 MONTH: February YEAR: 2018
 Average Low Temp: 24
 Average High Temp: 62
 Measured Rainfall: 2.00
 Measured Snowfall: 18.3

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	3/1/2018 - 3/2/2018	21:50	19:05	21.25	0.87	***						
2	3/7/2018 - 3/8/2018	7:35	9:20	25.75	0.78	***						
3	3/13/2018	1:40	13:30	11.83	0.21	***						
4	3/21/2018 - 3/22/2018	12:35	3:25	14.83	0.09	***						
5	3/29/2018 - 3/30/2018	12:10	18:40	30.50	0.05	***						

TOTAL MONTH FLOW VOLUME = 0.000

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

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Int. River & Poplar
 LOCATION: 016

NPDES Permit Outfall #:

MONTH: February YEAR: 2018

Average Low Temp: 24

Average High Temp: 62

Measured Rainfall: 2.00

Measured Snowfall: 18.3

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	3/1/2018 - 3/2/2018	21:50	19:05	21.25	0.87	***						
2	3/7/2018 - 3/8/2018	7:35	9:20	25.75	0.78	***						
3	3/13/2018	1:40	13:30	11.83	0.21	***						
4	3/21/2018 - 3/22/2018	12:35	3:25	14.83	0.09	***						
5	3/29/2018 - 3/30/2018	12:10	18:40	30.50	0.05	***						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Clifton and Quinnciac

LOCATION: 020

NPDES Permit Outfall #:

MONTH: February YEAR: 2018

Average Low Temp: 24

Average High Temp: 62

Measured Rainfall: 2.00

Measured Snowfall: 18.3

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	3/1/2018 - 3/2/2018	21:50	19:05	21.25	0.87	***						
2	3/7/2018 - 3/8/2018	7:35	9:20	25.75	0.78	***						
3	3/13/2018	1:40	13:30	11.83	0.21	***						
4	3/21/2018 - 3/22/2018	12:35	3:25	14.83	0.09	***						
5	3/29/2018 - 3/30/2018	12:10	18:40	30.50	0.05	***						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 638 Long Wharf Drive

LOCATION: 021

NPDES Permit Outfall #:

MONTH: February YEAR: 2018

24

62

2.00

18.3

Average Low Temp:

Average High Temp:

Measured Rainfall:

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	3/1/2018 - 3/2/2018	21:50	19:05	21.25	0.87	***					
2	3/7/2018 - 3/8/2018	7:35	9:20	25.75	0.78	***					
3	3/13/2018	1:40	13:30	11.83	0.21	***					
4	3/21/2018 - 3/22/2018	12:35	3:25	14.83	0.09	***					
5	3/29/2018 - 3/30/2018	12:10	18:40	30.50	0.05	***					

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: February YEAR: 2018
 Average Low Temp: 24
 Average High Temp: 62
 Measured Rainfall: 2.00
 Measured Snowfall: 18.3

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Q avg (MGD)	OUTFALL Q volume (MG)
1	3/1/2018 - 3/2/2018	21:50	19:05	21.25	0.87	***						
2	3/7/2018 - 3/8/2018	7:35	9:20	25.75	0.78	***						
3	3/13/2018	1:40	13:30	11.83	0.21	***						
4	3/21/2018 - 3/22/2018	12:35	3:25	14.83	0.09	***						
5	3/29/2018 - 3/30/2018	12:10	18:40	30.50	0.05	***						
TOTAL MONTH											FLOW VOLUME =	0.000

Note: Overflow occurs when Interceptor level reaches 85" in US & 99" in DS

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Intersection of State & N. Front Street
 025
 NPDES Permit Outfall #:
 MONTH: February YEAR: 2018
 Average Low Temp: 24
 Average High Temp: 62
 Measured Rainfall: 2.00
 Measured Snowfall: 18.3

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	3/1/2018 - 3/2/2018	21:50	19:05	21.25	0.87	***						
2	3/7/2018 - 3/8/2018	7:35	9:20	25.75	0.78	***						
3	3/13/2018	1:40	13:30	11.83	0.21	***						
4	3/21/2018 - 3/22/2018	12:35	3:25	14.83	0.09	***						
5	3/29/2018 - 3/30/2018	12:10	18:40	30.50	0.05	***						

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

LOCATION: February YEAR: 2018

NPDES Permit Outfall #: 24

MONTH: February YEAR: 2018

Average Low Temp: 62

Average High Temp: 2.00

Measured Rainfall: 18.3

Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Q avg (MGD)	OUTFALL Q volume (MG)
1	3/1/2018 - 3/2/2018	21:50	19:05	21.25	0.87	***						
2	3/7/2018 - 3/8/2018	7:35	9:20	25.75	0.78	***						
3	3/13/2018	1:40	13:30	11.83	0.21	***						
4	3/21/2018 - 3/22/2018	12:35	3:25	14.83	0.09	***						
5	3/29/2018 - 3/30/2018	12:10	18:40	30.50	0.05	***						

TOTAL MONTH FLOW VOLUME = 0.000

METER DATA

FEBRUARY 2018

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY			
CSO FLOW MONITORING PROGRAM			
METER DATA SUMMARY - FEBRUARY 2018			
<u>MONTHLY RAINFALL SUMMARY</u>			
5.76 inches of rain (3.44 inches of rain in a typical month)			
4.1 inches of snowfall			
13 rain events (10 rain events in a typical month)			
One 6 month, one 3 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	3	0.453
CSO 005	REG 005	1	0.003
CSO 004	REG 004	3	0.235
CSO 003	REG 003	3	0.635
CSO 024	REG 024	0	0.000
CSO 009	REG 009	3	0.072
CSO 016	REG 016	2	0.143
CSO 015	REG 015	3	0.750
CSO 011	REGS 010A, 011, 026	3	0.466
CSO 012	REGS 012A, 012B, 028	0	0.000
CSO 025	REGS 025, 034	0	0.000
CSO 021	REG 021	3	0.174
CSO 020	REG 020	0	0.000
TOTAL		24	2.931

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - 2 YEAR ROLLING AVERAGE - TYPICAL YEAR ESTIMATES

CSO NUMBER	REGULATOR NUMBERS	TYPICAL YEAR		TYPICAL YEAR		TYPICAL YEAR	
		CSO EVENTS BASED ON RAINFALL ⁽¹⁾	CSO VOLUME (MG) BASED ON RAINFALL ⁽²⁾	CSO EVENTS BASED ON MONTHS ⁽³⁾	CSO VOLUME (MG) BASED ON MONTHS ⁽⁴⁾	CSO EVENTS BASED ON MONTHS ⁽³⁾	CSO VOLUME (MG) BASED ON MONTHS ⁽⁴⁾
CSO 006	REGS 006 A, 006 B	13	3,022	12	2,617		
CSO 005	REG 005	6	0,522	6	0,453		
CSO 004	REG 004	23	2,276	20	1,972		
CSO 003	REG 003	27	2,208	24	1,913		
CSO 024	REG 024	12	3,960	10	3,430		
CSO 009	REG 009	24	1,090	21	0,944		
CSO 016	REG 016	20	6,348	17	5,499		
CSO 015	REG 015	29	4,133	26	3,580		
CSO 011	REGS 010A, 011, 026	14	4,031	13	3,491		
CSO 012	REGS 012A, 012B, 028	6	0,160	6	0,139		
CSO 025	REGS 025, 034	8	1,537	7	1,331		
CSO 021	REG 021	16	7,249	14	6,279		
CSO 020	REG 020	4	0,027	4	0,024		
TOTAL		197	36,536	171	31,645		

(1) Estimated Typical Year CSO Events Based on Rainfall Methodology = Typical Year Rainfall (3.44 in x 12 = 41.28 in) x CSO Events in the last two years / Rainfall in the last two years
 (2) Estimated Typical Year CSO Volume (MG) Based on Rainfall Methodology = Typical Year Rainfall (3.44 in x 12 = 41.28 in) x CSO Volume (MG) in the last two years / Rainfall in the last two years
 (3) Estimated Typical Year CSO Events Based on Monthly Methodology = 12 x CSO Events in the last two years / Meter Months in the last two years
 (4) Estimated Typical Year CSO Volume (MG) Based on Monthly Methodology = 12 x CSO Volume (MG) in the last two years / Meter Months in the last two years

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Orange Ave. @ Int. of Ella T. Grasso Blvd.
 003
LOCATION:
NPDES Permit Outfall #:
MONTH: February YEAR: 2018
 14
Average Low Temp: 65
Average High Temp: 5.76
Measured Rainfall: 4.10
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	2/1/2018 - 2/2/2018	19:25	0:40	5.25	0.12 ***							
2	2/4/2018 - 2/5/2018	16:30	18:10	25.67	1.04 3 Month	2/4/2018 - 2/5/2018	22:30	1:35	3.08	2.840	0.365	
3	2/7/2018	14:30	21:35	7.08	0.93 6 Month	2/7/2018	18:30	19:55	1.42	3.183	0.188	
4	2/10/2018 - 2/11/2018	15:40	20:20	28.67	1.43 1 Month	2/11/2018	14:55	15:55	1.00	1.963	0.082	
5	2/12/2018	15:45	15:55	0.17	0.03 ***							
6	2/15/2018	0:05	4:45	4.67	0.32 ***							
7	2/15/2018 - 2/16/2018	23:25	16:35	17.17	0.15 ***							
8	2/18/2018	10:15	11:45	1.50	0.49 1 Month							
9	2/19/2018 - 2/20/2018	16:40	5:15	12.58	0.18 ***							
10	2/22/2018	4:55	17:35	12.67	0.16 ***							
11	2/23/2018	14:50	19:25	4.58	0.12 ***							
12	2/24/2018	14:15	21:10	6.92	0.16 ***							
13	2/25/2018	4:40	14:45	10.08	0.63 ***							

TOTAL MONTH FLOW VOLUME = 0.635

Note: Overflow occurs when Interceptor level reaches 45"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Ella T. Grasso Blvd. - 23 yds North of Legion Ave.
 NPDES Permit Outfall #: 004
 MONTH: February YEAR: 2018
 Average Low Temp: 14
 Average High Temp: 65
 Measured Rainfall: 5.76
 Measured Snowfall: 4.1

EVENT No.	RAINFALL EVENT				CSO EVENT							
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Q avg (MGD)	OUTFALL Q volume (MG)
1	2/1/2018 - 2/2/2018	19:25	0:40	5.25	0.12	***						
2	2/4/2018 - 2/5/2018	16:30	18:10	25.67	1.04	3 Month	2/4/2018 - 2/5/2018	22:30	0:40	2.17	1.164	0.105
3	2/7/2018	14:30	21:35	7.08	0.93	6 Month	2/7/2018	18:35	19:35	1.00	1.609	0.067
4	2/10/2018 - 2/11/2018	15:40	20:20	28.67	1.43	1 Month	2/11/2018	14:55	15:50	0.92	1.649	0.063
5	2/12/2018	15:45	15:55	0.17	0.03	***						
6	2/15/2018	0:05	4:45	4.67	0.32	***						
7	2/15/2018 - 2/16/2018	23:25	16:35	17.17	0.15	***						
8	2/18/2018	10:15	11:45	1.50	0.49	1 Month						
9	2/19/2018 - 2/20/2018	16:40	5:15	12.58	0.18	***						
10	2/22/2018	4:55	17:35	12.67	0.16	***						
11	2/23/2018	14:50	19:25	4.58	0.12	***						
12	2/24/2018	14:15	21:10	6.92	0.16	***						
13	2/25/2018	4:40	14:45	10.08	0.63	***						

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.
 005

LOCATION:

NPDES Permit Outfall #:

MONTH:

Average Low Temp:

Average High Temp:

Measured Rainfall:

Measured Snowfall:

February YEAR: 2018
 14
 65
 5.76
 4.1

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	2/1/2018 - 2/2/2018	19:25	0:40	5.25	0.12	***						
2	2/4/2018 - 2/5/2018	16:30	18:10	25.67	1.04	3 Month						
3	2/7/2018	14:30	21:35	7.08	0.93	6 Month						
4	2/10/2018 - 2/11/2018	15:40	20:20	28.67	1.43	1 Month		15:00	15:10	0.17	0.412	0.003
5	2/12/2018	15:45	15:55	0.17	0.03	***						
6	2/15/2018	0:05	4:45	4.67	0.32	***						
7	2/15/2018 - 2/16/2018	23:25	16:35	17.17	0.15	***						
8	2/18/2018	10:15	11:45	1.50	0.49	1 Month						
9	2/19/2018 - 2/20/2018	16:40	5:15	12.58	0.18	***						
10	2/22/2018	4:55	17:35	12.67	0.16	***						
11	2/23/2018	14:50	19:25	4.58	0.12	***						
12	2/24/2018	14:15	21:10	6.92	0.16	***						
13	2/25/2018	4:40	14:45	10.08	0.63	***						

TOTAL MONTH FLOW VOLUME = 0.003

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 #:

MONTH: February

Average Low Temp: 14

Average High Temp: 65

Measured Rainfall: 5.76

Measured Snowfall: 4.1

YEAR: 2018

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	2/1/2018 - 2/2/2018	19:25	0:40	5.25	0.12	***	2/4/2018 - 2/5/2018	23:00	0:00	1.00	0.551	0.022
2	2/4/2018 - 2/5/2018	16:30	18:10	25.67	1.04	3 Month	2/7/2018	18:30	19:00	0.50	2.014	0.042
3	2/7/2018	14:30	21:35	7.08	0.93	6 Month	2/11/2018	15:00	15:25	0.42	0.480	0.008
4	2/10/2018 - 2/11/2018	15:40	20:20	28.67	1.43	1 Month						
5	2/12/2018	15:45	15:55	0.17	0.03	***						
6	2/15/2018	0:05	4:45	4.67	0.32	***						
7	2/15/2018 - 2/16/2018	23:25	16:35	17.17	0.15	***						
8	2/18/2018	10:15	11:45	1.50	0.49	1 Month						
9	2/19/2018 - 2/20/2018	16:40	5:15	12.58	0.18	***						
10	2/22/2018	4:55	17:35	12.67	0.16	***						
11	2/23/2018	14:50	19:25	4.58	0.12	***						
12	2/24/2018	14:15	21:10	6.92	0.16	***						
13	2/25/2018	4:40	14:45	10.08	0.63	***						

TOTAL MONTH
 FLOW VOLUME =

0.072

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: February YEAR: 2018
 Average Low Temp: 14
 Average High Temp: 65
 Measured Rainfall: 5.76
 Measured Snowfall: 4.1

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Q avg (MGD)	OUTFALL Q volume (MG)
1	2/1/2018 - 2/2/2018	19:25	0:40	5.25	0.12	***						
2	2/4/2018 - 2/5/2018	16:30	18:10	25.67	1.04	3 Month						
3	2/7/2018	14:30	21:35	7.08	0.93	6 Month						
4	2/10/2018 - 2/11/2018	15:40	20:20	28.67	1.43	1 Month						
5	2/12/2018	15:45	15:55	0.17	0.03	***						
6	2/15/2018	0:05	4:45	4.67	0.32	***						
7	2/15/2018 - 2/16/2018	23:25	16:35	17.17	0.15	***						
8	2/18/2018	10:15	11:45	1.50	0.49	1 Month						
9	2/19/2018 - 2/20/2018	16:40	5:15	12.58	0.18	***						
10	2/22/2018	4:55	17:35	12.67	0.16	***						
11	2/23/2018	14:50	19:25	4.58	0.12	***						
12	2/24/2018	14:15	21:10	6.92	0.16	***						
13	2/25/2018	4:40	14:45	10.08	0.63	***						

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 #: February 2018

MONTH: 14

Average Low Temp: 65

Average High Temp: 5.76

Measured Rainfall: 4.1

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	2/1/2018 - 2/2/2018	19:25	0:40	5.25	0.12	***						
2	2/4/2018 - 2/5/2018	16:30	18:10	25.67	1.04	3 Month	2/4/2018 - 2/5/2018	22:45	0:25	1.67	2.695	0.187
3	2/7/2018	14:30	21:35	7.08	0.93	6 Month	2/7/2018	18:30	19:35	1.08	3.022	0.137
4	2/10/2018 - 2/11/2018	15:40	20:20	28.67	1.43	1 Month	2/11/2018	15:00	15:55	0.92	3.730	0.142
5	2/12/2018	15:45	15:55	0.17	0.03	***						
6	2/15/2018	0:05	4:45	4.67	0.32	***						
7	2/15/2018 - 2/16/2018	23:25	16:35	17.17	0.15	***						
8	2/18/2018	10:15	11:45	1.50	0.49	1 Month						
9	2/19/2018 - 2/20/2018	16:40	5:15	12.58	0.18	***						
10	2/22/2018	4:55	17:35	12.67	0.16	***						
11	2/23/2018	14:50	19:25	4.58	0.12	***						
12	2/24/2018	14:15	21:10	6.92	0.16	***						
13	2/25/2018	4:40	14:45	10.08	0.63	***						

TOTAL MONTH FLOW VOLUME = 0.456

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011

NPDES Permit Outfall #: February YEAR: 2018

MONTH: 14

Average Low Temp: 65

Average High Temp: 5.75

Measured Rainfall: 4.1

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	2/1/2018 - 2/2/2018	19:25	0:40	5.25	0.12	***						
2	2/4/2018 - 2/5/2018	16:30	18:10	25.67	1.04	3 Month	2/4/2018 - 2/5/2018	22:45	0:25	1.67	2.695	0.187
3	2/7/2018	14:30	21:35	7.08	0.93	6 Month	2/7/2018	18:30	19:35	1.08	3.022	0.137
4	2/10/2018 - 2/11/2018	15:40	20:20	28.67	1.43	1 Month	2/11/2018	15:00	15:55	0.92	3.730	0.142
5	2/12/2018	15:45	15:55	0.17	0.03	***						
6	2/15/2018	0:05	4:45	4.67	0.32	***						
7	2/15/2018 - 2/16/2018	23:25	16:35	17.17	0.15	***						
8	2/18/2018	10:15	11:45	1.50	0.49	1 Month						
9	2/19/2018 - 2/20/2018	16:40	5:15	12.58	0.18	***						
10	2/22/2018	4:55	17:35	12.67	0.16	***						
11	2/23/2018	14:50	19:25	4.58	0.12	***						
12	2/24/2018	14:15	21:10	6.92	0.16	***						
13	2/25/2018	4:40	14:45	10.08	0.63	***						

TOTAL MONTH FLOW VOLUME = 0.465

Sum of 010A and 011

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 75 Mitchell Drive
 012

NPDES Permit Outfall #:

MONTH: February YEAR: 2018

Average Low Temp: 34

Average High Temp: 65

Measured Rainfall: 5.76

Measured Snowfall: 4.1

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q. volume (MGS)		
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)	OUTFALL Qavg (MGD)
1	2/1/2018 - 2/2/2018	19:25	0:40	5.25	0.12	***						
2	2/4/2018 - 2/5/2018	16:30	18:10	25.67	1.04	3 Month						
3	2/7/2018	14:30	21:35	7.08	0.99	6 Month						
4	2/10/2018 - 2/11/2018	15:40	20:20	28.67	1.43	1 Month						
5	2/12/2018	15:45	15:55	0.17	0.03	***						
6	2/15/2018	0:05	4:45	4.67	0.32	***						
7	2/15/2018 - 2/16/2018	23:25	16:35	17.17	0.15	***						
8	2/18/2018	10:15	11:45	1.50	0.49	1 Month						
9	2/19/2018 - 2/20/2018	16:40	5:15	12.58	0.18	***						
10	2/22/2018	4:55	17:35	12.67	0.16	***						
11	2/23/2018	14:50	19:25	4.58	0.12	***						
12	2/24/2018	14:15	21:10	6.92	0.16	***						
13	2/25/2018	4:40	14:45	10.08	0.63	***						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 15 James Street

LOCATION: 015

NPDES Permit Outfall #:

February YEAR: 2018

MONTH: 14

Average Low Temp: 65

Average High Temp: 5.76

Measured Rainfall: 4.1

Measured Snowfall:

EVENT No.	RAINFALL EVENT				CSO EVENT				OUTFALL Q. volume (MG)		
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START		STOP	DURATION (hours)
1	2/1/2018 - 2/2/2018	19:25	0:40	5.25	0.12	***					
2	2/4/2018 - 2/5/2018	16:30	18:10	25.67	1.04	3 Month	2/4/2018 - 2/5/2018	22:25	1:10	2.75	3.420
3	2/7/2018	14:30	21:35	7.08	0.93	6 Month	2/7/2018	18:25	20:20	1.92	3.533
4	2/10/2018 - 2/11/2018	15:40	20:20	28.67	1.43	1 Month	2/11/2018	15:00	15:50	0.83	2.196
5	2/12/2018	15:45	15:55	0.17	0.03	***					
6	2/15/2018	0:05	4:45	4.67	0.32	***					
7	2/15/2018 - 2/16/2018	23:25	16:35	17.17	0.15	***					
8	2/18/2018	10:15	11:45	1.50	0.49	1 Month					
9	2/19/2018 - 2/20/2018	16:40	5:15	12.58	0.18	***					
10	2/22/2018	4:55	17:35	12.67	0.16	***					
11	2/23/2018	14:50	19:25	4.58	0.12	***					
12	2/24/2018	14:15	21:10	6.92	0.16	***					
13	2/25/2018	4:40	14:45	10.08	0.63	***					

TOTAL MONTH FLOW VOLUME = 0.750

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

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Int. River & Poplar 016

NPDES Permit Outfall #:

MONTH: February YEAR: 2018

Average Low Temp: 14

Average High Temp: 65

Measured Rainfall: 5.76

Measured Snowfall: 4.1

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	2/1/2018 - 2/2/2018	19:25	0:40	5.25	0.12 ***								
2	2/4/2018 - 2/5/2018	16:30	18:10	25.57	1.04 3 Month								
3	2/7/2018	14:30	21:35	7.08	0.93 5 Month								
4	2/10/2018 - 2/11/2018	15:40	20:20	28.57	1.43 1 Month								
5	2/12/2018	15:45	15:55	0.17	0.03 ***								
6	2/15/2018	0:05	4:45	4.67	0.32 ***								
7	2/15/2018 - 2/16/2018	23:25	16:35	17.17	0.15 ***								
8	2/18/2018	10:15	11:45	1.50	0.49 1 Month								
9	2/19/2018 - 2/20/2018	16:40	5:15	12.58	0.18 ***								
10	2/22/2018	4:55	17:35	12.67	0.16 ***								
11	2/23/2018	14:50	19:25	4.58	0.12 ***								
12	2/24/2018	14:15	21:10	6.92	0.16 ***								
13	2/25/2018	4:40	14:45	10.08	0.63 ***								

TOTAL MONTH FLOW VOLUME = 0.143

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

Clifton and Quinniplac

LOCATION: 020

NPDES Permit Outfall #:

February YEAR: 2018

MONTH: 14

Average Low Temp: 65

Average High Temp: 5.76

Measured Rainfall: 4.1

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	2/1/2018 - 2/2/2018	19:25	0:40	5:25	0.12	***						
2	2/4/2018 - 2/5/2018	16:30	18:10	25:67	1.04	3 Month						
3	2/7/2018	14:30	21:35	7:08	0.93	6 Month						
4	2/10/2018 - 2/11/2018	15:40	20:20	28:67	1.43	1 Month						
5	2/12/2018	15:45	15:55	0:17	0.03	***						
6	2/15/2018	0:05	4:45	4:67	0.32	***						
7	2/15/2018 - 2/16/2018	23:25	16:35	17:17	0.15	***						
8	2/18/2018	10:15	11:45	1:50	0.49	1 Month						
9	2/19/2018 - 2/20/2018	16:40	5:15	12:58	0.18	***						
10	2/22/2018	4:55	17:35	12:67	0.16	***						
11	2/23/2018	14:50	19:25	4:58	0.12	***						
12	2/24/2018	14:15	21:10	6:92	0.16	***						
13	2/25/2018	4:40	14:45	10:08	0.63	***						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 638 Long Wharf Drive

LOCATION: 021

NPDES Permit Outfall #:

MONTH: February YEAR: 2018

14

Average Low Temp:

65

Average High Temp:

5.76

Measured Rainfall:

4.1

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	2/1/2018 - 2/2/2018	19:25	0:40	5.25	0.12	***						
2	2/4/2018 - 2/5/2018	16:30	18:10	25.67	1.04	3 Month	2/4/2018 - 2/5/2018	23:40	0:55	1.25	2.250	0.117
3	2/7/2018	14:30	21:35	7.08	0.93	6 Month	2/7/2018	19:15	19:55	0.67	1.815	0.050
4	2/10/2018 - 2/11/2018	15:40	20:20	28.67	1.43	1 Month	2/11/2018	15:45	16:15	0.50	0.316	0.007
5	2/12/2018	15:45	15:55	0.17	0.03	***						
6	2/15/2018	0:05	4:45	4.67	0.32	***						
7	2/15/2018 - 2/16/2018	23:25	16:35	17.17	0.15	***						
8	2/18/2018	10:15	11:45	1.50	0.49	1 Month						
9	2/19/2018 - 2/20/2018	16:40	5:15	12.58	0.18	***						
10	2/22/2018	4:55	17:35	12.67	0.16	***						
11	2/23/2018	14:50	19:25	4.58	0.12	***						
12	2/24/2018	14:15	21:10	6.92	0.16	***						
13	2/25/2018	4:40	14:45	10.08	0.63	***						

TOTAL MONTH FLOW VOLUME = 0.174

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Sea Street @ South Water Street

LOCATION: 024

NPDES Permit Outfall #:

MONTH: February YEAR: 2018

Average Low Temp: 14

Average High Temp: 65

Measured Rainfall: 5.76

Measured Snowfall: 4.1

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	2/1/2018 - 2/2/2018	19:25	0:40	5.25	0.12	***						
2	2/4/2018 - 2/5/2018	16:30	18:10	25.67	1.04	3 Month						
3	2/7/2018	14:30	21:35	7.08	0.93	6 Month						
4	2/10/2018 - 2/11/2018	15:40	20:20	28.67	1.43	1 Month						
5	2/12/2018	15:45	15:55	0.17	0.03	***						
6	2/15/2018	0:05	4:45	4.67	0.32	***						
7	2/15/2018 - 2/16/2018	23:25	16:35	17.17	0.15	***						
8	2/18/2018	10:15	11:45	1.50	0.49	1 Month						
9	2/19/2018 - 2/20/2018	16:40	5:15	12.58	0.18	***						
10	2/22/2018	4:55	17:35	12.67	0.16	***						
11	2/23/2018	14:50	19:25	4.58	0.12	***						
12	2/24/2018	14:15	21:10	6.92	0.15	***						
13	2/25/2018	4:40	14:45	10.08	0.63	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 83" in US & 99" in DS

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Intersection of State & N. Front Street
 025
LOCATION:
NPDES Permit Outfall #:
MONTH: February YEAR: 2018
 Average Low Temp: 14
 Average High Temp: 65
 Measured Rainfall: 5.76
 Measured Snowfall: 4.1

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	2/1/2018 - 2/2/2018	19:25	0:40	5.25	0.12	***						
2	2/4/2018 - 2/5/2018	16:30	18:10	25.67	1.04	3 Month						
3	2/7/2018	14:30	21:35	7.08	0.93	6 Month						
4	2/10/2018 - 2/11/2018	15:40	20:20	28.67	1.43	1 Month						
5	2/12/2018	15:45	15:55	0.17	0.03	***						
6	2/15/2018	0:05	4:45	4.67	0.32	***						
7	2/15/2018 - 2/16/2018	23:25	16:35	17.17	0.15	***						
8	2/18/2018	10:15	11:45	1.50	0.49	1 Month						
9	2/19/2018 - 2/20/2018	16:40	5:15	12.58	0.18	***						
10	2/22/2018	4:55	17:35	12.67	0.16	***						
11	2/23/2018	14:50	19:25	4.58	0.12	***						
12	2/24/2018	14:15	21:10	6.92	0.15	***						
13	2/25/2018	4:40	14:45	10.08	0.63	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches Z1"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 George and Temple
 Regulator 34

LOCATION:
 NPDES Permit Outfall #:

MONTH: February YEAR: 2018

Average Low Temp: 14

Average High Temp: 65

Measured Rainfall: 5.76

Measured Snowfall: 4.1

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	2/1/2018 - 2/2/2018	19:25	0:40	5.25	0.12	***						
2	2/4/2018 - 2/5/2018	16:30	18:10	25.67	1.04	3 Month						
3	2/7/2018	14:30	21:35	7.08	0.93	6 Month						
4	2/10/2018 - 2/11/2018	15:40	20:20	28.67	1.43	1 Month	2/11/2018	15:05	15:10	0.08	0.005	0.000
5	2/12/2018	15:45	15:55	0.17	0.03	***						
6	2/15/2018	0:05	4:45	4.67	0.32	***						
7	2/15/2018 - 2/16/2018	23:25	16:35	17.17	0.15	***						
8	2/18/2018	10:15	11:45	1.50	0.49	1 Month						
9	2/19/2018 - 2/20/2018	16:40	5:15	12.58	0.18	***						
10	2/22/2018	4:55	17:35	12.67	0.16	***						
11	2/23/2018	14:50	19:25	4.58	0.12	***						
12	2/24/2018	14:15	21:10	6.92	0.16	***						
13	2/25/2018	4:40	14:45	10.08	0.63	***						

TOTAL MONTH FLOW VOLUME = 0.000

METER DATA

JANUARY 2018

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY			
CSO FLOW MONITORING PROGRAM			
METER DATA SUMMARY - JANUARY 2018			
<u>MONTHLY RAINFALL SUMMARY</u>			
1.81 inches of rain (3.44 inches of rain in a typical month)			
11.3 inches of snowfall			
9 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	2	0.008
CSO 003	REG 003	2	0.026
CSO 024	REG 024	0	0.000
CSO 009	REG 009	0	0.000
CSO 016	REG 016	1	0.008
CSO 015	REG 015	1	0.138
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	0.979
CSO 020	REG 020	0	0.000
TOTAL		7	1.159

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - 2 YEAR ROLLING AVERAGE - TYPICAL YEAR ESTIMATES

CSO NUMBER	REGULATOR NUMBERS	TYPICAL YEAR		TYPICAL YEAR		TYPICAL YEAR	
		CSO EVENTS BASED ON RAINFALL ⁽¹⁾	CSO VOLUME (MG) BASED ON RAINFALL ⁽²⁾	CSO EVENTS BASED ON MONTHS ⁽³⁾	CSO VOLUME (MG) BASED ON MONTHS ⁽⁴⁾	CSO EVENTS BASED ON MONTHS ⁽³⁾	CSO VOLUME (MG) BASED ON MONTHS ⁽⁴⁾
CSO 006	REGS 006 A, 006 B	14	3,114	12	2,668		
CSO 005	REG 005	6	0,560	6	0,480		
CSO 004	REG 004	23	2,421	20	2,074		
CSO 003	REG 003	28	2,029	24	1,738		
CSO 024	REG 024	14	4,605	12	3,945		
CSO 009	REG 009	24	1,076	21	0,922		
CSO 016	REG 016	21	7,630	18	6,537		
CSO 015	REG 015	30	4,177	26	3,579		
CSO 011	REGS 010A, 011, 026	15	3,941	13	3,376		
CSO 012	REGS 012A, 012B, 028	6	0,162	6	0,139		
CSO 025	REGS 025, 034	9	1,567	8	1,343		
CSO 021	REG 021	16	8,508	14	7,289		
CSO 020	REG 020	5	0,029	4	0,025		
TOTAL		207	39,789	178	34,087		

(1) Estimated Typical Year CSO Events Based on Rainfall Methodology = Typical Year Rainfall (3.44 in x 12 = 41.28 in) x CSO Events in the last two years / Rainfall in the last two years
 (2) Estimated Typical Year CSO Volume (MG) Based on Rainfall Methodology = Typical Year Rainfall (3.44 in x 12 = 41.28 in) x CSO Volume (MG) in the last two years / Rainfall in the last two years
 (3) Estimated Typical Year CSO Events Based on Monthly Methodology = 12 x CSO Events in the last two years / Meter Months in the last two years
 (4) Estimated Typical Year CSO Volume (MG) Based on Monthly Methodology = 12 x CSO Volume (MG) in the last two years / Meter Months in the last two years

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 Orange Ave. @ Int. of Ella T. Grasso Blvd.
 LOCATION: 003
 NPDES Permit Outfall #: 003
 MONTH: January YEAR: 2018
 Average Low Temp: 0
 Average High Temp: 55
 Measured Rainfall: 1.81
 Measured Snowfall: 11.30

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	1/7/2018	13:20	14:10	0.83	0.03	***						
2	1/8/2018	11:40	11:45	0.08	0.01	***						
3	1/9/2018	8:35	11:05	2.50	0.02	***						
4	1/12/2018 - 1/13/2018	11:40	4:35	16.92	0.69	***	1/12/2018	20:40	21:10	0.50	0.710	0.015
5	1/17/2018	2:45	15:55	13.17	0.15	***						
6	1/22/2018	0:50	3:35	2.75	0.03	***						
7	1/23/2018	7:20	14:10	6.83	0.64	***	1/23/2018	10:35	11:15	0.67	0.394	0.011
8	1/28/2018	3:15	11:55	8.67	0.16	***						
9	1/30/2018	11:45	12:45	1.00	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.026

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: January YEAR: 2017
 Average Low Temp: 0
 Average High Temp: 55
 Measured Rainfall: 1.81
 Measured Snowfall: 11.3

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	1/7/2018	13:20	14:10	0.83	0.03	***						
2	1/8/2018	11:40	11:45	0.08	0.01	***						
3	1/9/2018	8:35	11:05	2.50	0.02	***						
4	1/12/2018 - 1/13/2018	11:40	4:35	16.92	0.69	***	1/12/2018	20:40	20:55	0.25	0.181	0.002
5	1/17/2018	2:45	15:55	13.17	0.15	***						
6	1/22/2018	0:50	3:35	2.75	0.03	***						
7	1/23/2018	7:20	14:10	6.83	0.64	***	1/23/2018	10:35	11:05	0.50	0.275	0.006
8	1/28/2018	3:15	11:55	8.67	0.16	***						
9	1/30/2018	11:45	12:45	1.00	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.008

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 #: 005
 MONTH: January YEAR: 2017
 Average Low Temp: 0
 Average High Temp: 55
 Measured Rainfall: 1.81
 Measured Snowfall: 11.3

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q _i volume (MG)
1	1/7/2018	13:20	14:10	0.83	0.03	***						
2	1/8/2018	11:40	11:45	0.08	0.01	***						
3	1/9/2018	8:35	11:05	2.50	0.02	***						
4	1/12/2018 - 1/13/2018	11:40	4:35	16.92	0.69	***						
5	1/17/2018	2:45	15:55	13.17	0.15	***						
6	1/22/2018	0:50	3:35	2.75	0.03	***						
7	1/23/2018	7:20	14:10	6.88	0.64	***						
8	1/28/2018	3:15	11:55	8.67	0.15	***						
9	1/30/2018	11:45	12:45	1.00	0.08	***						

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: January YEAR: 2017
 Average Low Temp: 0
 Average High Temp: 55
 Measured Rainfall: 1.81
 Measured Snowfall: 11.3

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	1/7/2018	13:20	14:10	0.83	0.03	***						
2	1/8/2018	11:40	11:45	0.08	0.01	***						
3	1/9/2018	8:35	11:05	2.50	0.02	***						
4	1/12/2018 - 1/13/2018	11:40	4:35	16.92	0.69	***						
5	1/17/2018	2:45	15:55	13.17	0.15	***						
6	1/22/2018	0:50	3:35	2.75	0.03	***						
7	1/23/2018	7:20	14:10	6.83	0.64	***						
8	1/28/2018	3:15	11:55	8.67	0.16	***						
9	1/30/2018	11:45	12:45	1.00	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 27"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 Grand Avenue & James Street
 009

LOCATION:

NPDES Permit Outfall #:

January YEAR: 2017

MONTH:

Average Low Temp: 0

Average High Temp: 55

Measured Rainfall: 1.81

Measured Snowfall: 11.3

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT						
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	1/7/2018	13:20	14:10	0.83	0.03	***						
2	1/8/2018	11:40	11:45	0.08	0.01	***						
3	1/9/2018	8:35	11:05	2.50	0.02	***						
4	1/12/2018 - 1/13/2018	11:40	4:35	16.92	0.69	***						
5	1/17/2018	2:45	15:55	13.17	0.15	***						
6	1/22/2018	0:50	3:35	2.75	0.03	***						
7	1/23/2018	7:20	14:10	6.83	0.64	***						
8	1/28/2018	3:15	11:55	8.67	0.16	***						
9	1/30/2018	11:45	12:45	1.00	0.08	***						

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 #:
 MONTH: January YEAR: 2017
 Average Low Temp: 0
 Average High Temp: 55
 Measured Rainfall: 1.81
 Measured Snowfall: 11.3

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	1/7/2018	13:20	14:10	0.83	0.03	***						
2	1/8/2018	11:40	11:45	0.08	0.01	***						
3	1/9/2018	8:35	11:05	2.50	0.02	***						
4	1/12/2018 - 1/13/2018	11:40	4:35	16.92	0.69	***						
5	1/17/2018	2:45	15:55	13.17	0.15	***						
6	1/22/2018	0:50	3:35	2.75	0.03	***						
7	1/23/2018	7:20	14:10	6.83	0.64	***						
8	1/28/2018	3:15	11:55	8.67	0.16	***						
9	1/30/2018	11:45	12:45	1.00	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.000

Sum of D10A and 011

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 75 Mitchell Drive
 032
 NPDES Permit Outfall #: 2017
 MONTH: January YEAR: 2017
 Average Low Temp: 0
 Average High Temp: 55
 Measured Rainfall: 1.81
 Measured Snowfall: 11.3

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Q _{avg} (MGD)	OUTFALL Q _{volume} (MG)
1	1/7/2018	13:20	14:10	0.83	0.03 ***						
2	1/8/2018	11:40	11:45	0.08	0.01 ***						
3	1/9/2018	8:35	11:05	2.50	0.02 ***						
4	1/12/2018 - 1/13/2018	11:40	4:35	16.92	0.69 ***						
5	1/17/2018	2:45	15:55	13.17	0.15 ***						
6	1/22/2018	0:50	3:35	2.75	0.03 ***						
7	1/23/2018	7:20	14:10	6.83	0.64 ***						
8	1/28/2018	3:15	11:55	8.67	0.16 ***						
9	1/30/2018	11:45	12:45	1.00	0.08 ***						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 15 James Street
 NPDES Permit Outfall #: 015
 MONTH: January YEAR: 2017
 Average Low Temp: 0
 Average High Temp: 55
 Measured Rainfall: 1.81
 Measured Snowfall: 11.3

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	1/7/2018	13:20	14:10	0.83	0.03	***						
2	1/8/2018	11:40	11:45	0.08	0.01	***						
3	1/9/2018	8:35	11:05	2.50	0.02	***						
4	1/12/2018 - 1/13/2018	11:40	4:35	16.92	0.69	***	1/12/2018	16:45	21:10	4.42	3.576	0.138
5	1/17/2018	2:45	15:55	13.17	0.15	***						
6	1/22/2018	0:50	3:35	2.75	0.03	***						
7	1/23/2018	7:20	14:10	6.83	0.64	***						
8	1/28/2018	3:15	11:55	8.67	0.16	***						
9	1/30/2018	11:45	12:45	1.00	0.08	***						
TOTAL MONTH											FLOW VOLUME =	0.138

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

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Int. River & Poplar

LOCATION: 016

NPDES Permit Outfall #:

MONTH: January YEAR: 2017

Average Low Temp: 0

Average High Temp: 55

Measured Rainfall: 1.81

Measured Snowfall: 11.3

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Q avg (MGD)	OUTFALL Q volume (MG)
1	1/7/2018	13:20	14:10	0.83	0.03	***	1/12/2018 - 1/13/2018	13:55	5:00	15.08	0.013	0.008
2	1/8/2018	11:40	11:45	0.08	0.01	***						
3	1/9/2018	8:35	11:05	2.50	0.02	***						
4	1/12/2018 - 1/13/2018	11:40	4:35	16.92	0.69	***						
5	1/17/2018	2:45	15:55	13.17	0.15	***						
6	1/22/2018	0:50	3:35	2.75	0.03	***						
7	1/23/2018	7:20	14:10	6.83	0.64	***						
8	1/28/2018	3:15	11:55	8.67	0.16	***						
9	1/30/2018	11:45	12:45	1.00	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.008

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Clifton and Quinnpiac
 NPDES Permit Outfall #: 020
 MONTH: January YEAR: 2017
 Average Low Temp: 0
 Average High Temp: 55
 Measured Rainfall: 1.81
 Measured Snowfall: 11.3

EVENT NO.	DATE	RAINFALL EVENT				CSO EVENT						
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Q avg (MGD)	OUTFALL Q volume (MG)
1	1/7/2018	13:20	14:10	0.83	0.03	***						
2	1/8/2018	11:40	11:45	0.08	0.01	***						
3	1/9/2018	8:35	11:05	2.50	0.02	***						
4	1/12/2018 - 1/13/2018	11:40	4:35	16.92	0.59	***						
5	1/17/2018	2:45	15:55	13.17	0.15	***						
6	1/22/2018	0:50	3:35	2.75	0.03	***						
7	1/23/2018	7:20	14:10	6.83	0.64	***						
8	1/28/2018	3:15	11:55	8.67	0.16	***						
9	1/30/2018	11:45	12:45	1.00	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 638 Long Wharf Drive
 O21
 NPDES Permit Outfall #: 2017
 MONTH: January YEAR: 2017
 Average Low Temp: 0
 Average High Temp: 55
 Measured Rainfall: 1.81
 Measured Snowfall: 11.3

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	1/7/2018	13:20	14:10	0.83	0.03	***						
2	1/8/2018	11:40	11:45	0.08	0.01	***						
3	1/9/2018	8:35	11:05	2.50	0.02	***						
4	1/12/2018 - 1/13/2018	11:40	4:35	16.92	0.69	***	1/12/2018	17:25	21:55	4.50	5.219	0.979
5	1/17/2018	2:45	15:55	13.17	0.15	***						
6	1/22/2018	0:50	3:35	2.75	0.03	***						
7	1/23/2018	7:20	14:10	6.83	0.64	***						
8	1/28/2018	3:15	11:55	8.67	0.16	***						
9	1/30/2018	11:45	12:45	1.00	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.979

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Sea Street @ South Water Street
 NPDES Permit Outfall #: 024
 MONTH: January YEAR: 2017
 Average Low Temp: 0
 Average High Temp: 55
 Measured Rainfall: 1.81
 Measured Snowfall: 11.3

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Q. volume (MGD)	OUTFALL Q. volume (MG)
1	1/7/2018	13:20	14:10	0.83	0.03	***						
2	1/8/2018	11:40	11:45	0.08	0.01	***						
3	1/9/2018	8:35	11:05	2.50	0.02	***						
4	1/12/2018 - 1/13/2018	11:40	4:35	16.92	0.69	***						
5	1/17/2018	2:45	15:55	13.17	0.15	***						
6	1/22/2018	0:50	3:35	2.75	0.03	***						
7	1/23/2018	7:20	14:10	6.83	0.64	***						
8	1/28/2018	3:15	11:55	8.67	0.16	***						
9	1/30/2018	11:45	12:45	1.00	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 83" in US & 99" 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: 0
 Average High Temp: 55
 Measured Rainfall: 1.81
 Measured Snowfall: 11.3

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Clavg (MGD)	OUTFALL volume (MG)
		START	STOP	DURATION (hours)	TOTAL FREQUENCY	DATE	START	STOP	DURATION (hours)		
1	1/7/2018	13:20	14:10	0.83	0.03 ***						
2	1/8/2018	11:40	11:45	0.08	0.01 ***						
3	1/9/2018	8:35	11:05	2.50	0.02 ***						
4	1/12/2018 - 1/13/2018	11:40	4:35	16.92	0.69 ***						
5	1/17/2018	2:45	15:55	13.17	0.15 ***						
6	1/22/2018	0:50	3:35	2.75	0.03 ***						
7	1/23/2018	7:20	14:10	6.83	0.64 ***						
8	1/28/2018	3:15	11:55	8.67	0.16 ***						
9	1/30/2018	11:45	12:45	1.00	0.08 ***						

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: January YEAR: 2017
 Average Low Temp: 0
 Average High Temp: 55
 Measured Rainfall: 1.81
 Measured Snowfall: 11.3

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	1/7/2018	13:20	14:10	0.83	0.03 ***						
2	1/8/2018	11:40	11:45	0.08	0.01 ***						
3	1/9/2018	8:35	11:05	2.50	0.02 ***						
4	1/12/2018 - 1/13/2018	11:40	4:35	16.92	0.69 ***						
5	1/17/2018	2:45	15:55	13.17	0.15 ***						
6	1/22/2018	0:50	3:35	2.75	0.03 ***						
7	1/23/2018	7:20	14:10	6.83	0.64 ***						
8	1/28/2018	3:15	11:55	8.67	0.16 ***						
9	1/30/2018	11:45	12:45	1.00	0.08 ***						

TOTAL MONTH FLOW VOLUME = 0.000

METER DATA

DECEMBER 2017

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY			
CSO FLOW MONITORING PROGRAM			
METER DATA SUMMARY - DECEMBER 2017			
<u>MONTHLY RAINFALL SUMMARY</u>			
1.36 inches of rain (3.44 inches of rain in a typical month)			
6.9 inches of snowfall			
8 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	1	0.001
CSO 003	REG 003	1	0.004
CSO 024	REG 024	0	0.000
CSO 009	REG 009	0	0.000
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	0	0.000
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 - 2 YEAR ROLLING AVERAGE - TYPICAL YEAR ESTIMATES

CSO NUMBER	REGULATOR NUMBERS	TYPICAL YEAR		TYPICAL YEAR		TYPICAL YEAR	
		CSO EVENTS BASED ON RAINFALL ⁽¹⁾	CSO VOLUME (MG) BASED ON RAINFALL ⁽²⁾	CSO EVENTS BASED ON MONTHS ⁽³⁾	CSO VOLUME (MG) BASED ON MONTHS ⁽³⁾	CSO EVENTS BASED ON MONTHS ⁽³⁾	CSO VOLUME (MG) BASED ON MONTHS ⁽³⁾
CSO 006	REGS 006 A, 006 B	15	3,322	13	2,841		
CSO 005	REG 005	7	0,589	6	0,504		
CSO 004	REG 004	23	2,621	20	2,241		
CSO 003	REG 003	27	2,116	24	1,809		
CSO 024	REG 024	15	4,910	13	4,199		
CSO 009	REG 009	25	1,101	21	0,942		
CSO 016	REG 016	21	7,728	18	6,609		
CSO 015	REG 015	30	4,191	26	3,584		
CSO 011	REGS 010A, 011, 026	16	4,253	14	3,637		
CSO 012	REGS 012A, 012B, 028	6	0,163	6	0,139		
CSO 025	REGS 025, 034	9	1,699	8	1,433		
CSO 021	REG 021	16	10,833	14	9,264		
CSO 020	REG 020	5	0,030	5	0,026		
TOTAL		210	43,526	180	37,219		

(1) Estimated Typical Year CSO Events Based on Rainfall Methodology = Typical Year Rainfall (3.44 in x 12 = 41.28 in) x CSO Events in the last two years / Rainfall in the last two years

(2) Estimated Typical Year CSO Volume (MG) Based on Rainfall Methodology = Typical Year Rainfall (3.44 in x 12 = 41.28 in) x CSO Volume (MG) in the last two years / Rainfall in the last two years

(3) Estimated Typical Year CSO Events Based on Monthly Methodology = 12 x CSO Events in the last two years / Meter Months in the last two years

(4) Estimated Typical Year CSO Volume (MG) Based on Monthly Methodology = 12 x CSO Volume (MG) in the last two years / Meter Months in the last two years

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Orange Ave. @ Int. of Ella T. Grasso Blvd.
 NPDES Permit Outfall #: 003
 MONTH: December YEAR: 2017
 Average Low Temp: 8
 Average High Temp: 59
 Measured Rainfall: 1.36
 Measured Snowfall: 6.90

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	12/1/2017	0:05	1:15	1.17	0.04	***						
2	12/5/2017 - 12/6/2017	21:35	1:05	3.50	0.38	***						
3	12/10/2017	10:35	11:45	1.17	0.28	***						
4	12/12/2017	8:40	14:35	5.92	0.05	***						
4	12/14/2017	11:05	12:00	0.92	0.05	***						
6	12/16/2017	8:55	12:00	3.08	0.09	***						
7	12/23/2017	9:00	21:40	12.67	0.44	***						
8	12/25/2017	3:40	9:30	5.83	0.13	***						
											TOTAL MONTH FLOW VOLUME =	0.004

Note: Overflow occurs when Interceptor level reaches 45"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Ella T. Grasso Blvd. - 23 yds North of Legion Ave.
 NPDES Permit Outfall #: 004
 MONTH: December YEAR: 2017
 Average Low Temp: 8
 Average High Temp: 59
 Measured Rainfall: 1.36
 Measured Snowfall: 6.9

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	12/1/2017	0:05	1:15	1.17	0.04	***						
2	12/5/2017 - 12/6/2017	21:35	1:05	3.50	0.33	***			22:45	22:55	0.17	0.084
3	12/10/2017	10:35	11:45	1.17	0.23	***						
4	12/12/2017	8:40	14:35	5.92	0.05	***						
4	12/14/2017	11:05	12:00	0.92	0.05	***						
6	12/16/2017	8:55	12:00	3.08	0.09	***						
7	12/23/2017	9:00	21:40	12.67	0.44	***						
8	12/25/2017	3:40	9:30	5.83	0.13	***						

TOTAL MONTH FLOW VOLUME = 0.001

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 #: 8
MONTH: December YEAR: 2017
 Average Low Temp: 59
 Average High Temp: 1.36
 Measured Rainfall: 6.9
 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	12/1/2017	0:05	1:15	1.17	0.04	***						
2	12/5/2017 - 12/6/2017	21:35	1:05	3.50	0.33	***						
3	12/10/2017	10:35	11:45	1.17	0.23	***						
4	12/12/2017	8:40	14:35	5.92	0.05	***						
4	12/14/2017	11:05	12:00	0.92	0.05	***						
6	12/16/2017	8:55	12:00	3.08	0.09	***						
7	12/23/2017	9:00	21:40	12.67	0.44	***						
8	12/25/2017	3:40	9:30	5.83	0.13	***						

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: December YEAR: 2017
 Average Low Temp: 8
 Average High Temp: 59
 Measured Rainfall: 1.36
 Measured Snowfall: 6.9

EVENT No.	DATE	RAINFALL EVENT						CSO EVENT				
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Q avg (MGD)	OUTFALL Q volume (MG)
1	12/1/2017	0:05	1:15	1.17	0.04	***						
2	12/5/2017 - 12/6/2017	21:35	1:05	3.50	0.33	***						
3	12/10/2017	10:35	11:45	1.17	0.23	***						
4	12/12/2017	8:40	14:35	5.92	0.05	***						
4	12/14/2017	11:05	12:00	0.92	0.05	***						
6	12/16/2017	8:55	12:00	3.08	0.09	***						
7	12/23/2017	9:00	21:40	12.67	0.44	***						
8	12/25/2017	3:40	9:30	5.83	0.13	***						

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: December YEAR: 2017

Average Low Temp: 8

Average High Temp: 59

Measured Rainfall: 1.36

Measured Snowfall: 6.9

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	12/1/2017	0:05	1:45	1.17	0.04	***					
2	12/5/2017 - 12/6/2017	21:35	1:05	3.50	0.33	***					
3	12/10/2017	10:35	11:45	1.17	0.23	***					
4	12/12/2017	8:40	14:35	5.92	0.05	***					
4	12/14/2017	11:05	12:00	0.92	0.05	***					
6	12/16/2017	8:55	12:00	3.08	0.09	***					
7	12/23/2017	9:00	21:40	12.67	0.44	***					
8	12/25/2017	3:40	9:30	5.83	0.13	***					

TOTAL MONTH
 FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 30"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011

NPDES Permit Outfall #: 8

MONTH: December YEAR: 2017

Average Low Temp: 59

Average High Temp: 1.36

Measured Rainfall: 6.9

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	12/1/2017	0:05	1:15	1.17	0.04	***						
2	12/5/2017 - 12/6/2017	21:35	1:05	3.50	0.33	***						
3	12/10/2017	10:35	11:45	1.17	0.23	***						
4	12/12/2017	8:40	14:35	5.92	0.05	***						
4	12/14/2017	11:05	12:00	0.92	0.05	***						
6	12/16/2017	8:55	12:00	3.08	0.09	***						
7	12/23/2017	9:00	21:40	12.67	0.44	***						
8	12/25/2017	3:40	9:30	5.83	0.13	***						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 75 Mitchell Drive

LOCATION: 012

NPDES Permit Outfall #:

MONTH: December **YEAR:** 2017

Average Low Temp: 8

Average High Temp: 59

Measured Rainfall: 1.36

Measured Snowfall: 6.9

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q. volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	12/1/2017	0:05	1:15	1.17	0.04	***					
2	12/5/2017 - 12/6/2017	21:35	1:05	3.50	0.33	***					
3	12/10/2017	10:35	11:45	1.17	0.23	***					
4	12/12/2017	8:40	14:35	5.92	0.05	***					
4	12/14/2017	11:05	12:00	0.92	0.05	***					
6	12/16/2017	8:55	12:00	3.08	0.09	***					
7	12/23/2017	9:00	21:40	12.67	0.44	***					
8	12/25/2017	3:40	9:30	5.83	0.13	***					

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 15 James Street
 015
 NPDES Permit Outfall #: 2017
 MONTH: December YEAR: 2017
 Average Low Temp: 8
 Average High Temp: 59
 Measured Rainfall: 1.36
 Measured Snowfall: 6.9

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	12/1/2017	0:05	1:15	1.17	0.04	***					
2	12/5/2017 - 12/6/2017	21:35	1:05	3.50	0.33	***					
3	12/10/2017	10:35	11:45	1.17	0.23	***					
4	12/12/2017	8:40	14:35	5.92	0.05	***					
4	12/14/2017	11:05	12:00	0.92	0.05	***					
6	12/16/2017	8:55	12:00	3.08	0.09	***					
7	12/23/2017	9:00	21:40	12.67	0.44	***					
8	12/25/2017	3:40	9:30	5.83	0.13	***					

TOTAL MONTH FLOW VOLUME = 0.000

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

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Int. River & Poplar
 016
 NPDES Permit Outfall #: 8
 MONTH: December YEAR: 2017
 Average Low Temp: 59
 Average High Temp: 1.36
 Measured Rainfall: 6.9
 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	12/1/2017	0:05	1:15	1.17	0.04	***					
2	12/5/2017 - 12/6/2017	21:35	1:05	3.50	0.33	***					
3	12/10/2017	10:35	11:45	1.17	0.23	***					
4	12/12/2017	8:40	14:35	5.92	0.05	***					
4	12/14/2017	11:05	12:00	0.92	0.05	***					
6	12/16/2017	8:55	12:00	3.08	0.09	***					
7	12/23/2017	9:00	21:40	12.67	0.44	***					
8	12/25/2017	3:40	9:30	5.83	0.13	***					

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 Clifton and Quinmiplac
 LOCATION: 020
 NPDES Permit Outfall #: 8
 MONTH: December YEAR: 2017
 Average Low Temp: 59
 Average High Temp: 1.36
 Measured Rainfall: 6.9
 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	12/1/2017	0:05	1:15	1.17	0.04	***						
2	12/5/2017 - 12/6/2017	21:35	1:05	3.50	0.33	***						
3	12/10/2017	10:35	11:45	1.17	0.23	***						
4	12/12/2017	8:40	14:35	5.92	0.05	***						
4	12/14/2017	11:05	12:00	0.92	0.05	***						
6	12/16/2017	8:55	12:00	3.08	0.09	***						
7	12/23/2017	9:00	21:40	12.67	0.44	***						
8	12/25/2017	3:40	9:30	5.83	0.13	***						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

638 Long Wharf Drive
 LOCATION: 021

NPDES Permit Outfall #:

December YEAR: 2017

MONTH: 8

Average Low Temp:

59

Average High Temp:

1.36

Measured Rainfall:

6.9

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	12/1/2017	0:05	1:15	1.17	0.04	***					
2	12/5/2017 - 12/6/2017	21:35	1:05	3.50	0.33	***					
3	12/10/2017	10:35	11:45	1.17	0.23	***					
4	12/12/2017	8:40	14:35	5.92	0.05	***					
4	12/14/2017	11:05	12:00	0.92	0.05	***					
6	12/16/2017	8:55	12:00	3.08	0.09	***					
7	12/23/2017	9:00	21:40	12.67	0.44	***					
8	12/25/2017	3:40	9:30	5.83	0.13	***					

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Intersection of State & N. Front Street
 025
 NPDES Permit Outfall #: 8
 MONTH: December YEAR: 2017
 Average Low Temp: 59
 Average High Temp: 1.36
 Measured Rainfall: 6.9
 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	12/3/2017	0:05	1:15	1.17	0.04	***					
2	12/5/2017 - 12/6/2017	21:35	1:05	3.50	0.33	***					
3	12/10/2017	10:35	11:45	1.17	0.23	***					
4	12/12/2017	8:40	14:35	5.92	0.05	***					
4	12/14/2017	11:05	12:00	0.92	0.05	***					
6	12/16/2017	8:55	12:00	3.08	0.09	***					
7	12/23/2017	9:00	21:40	12.67	0.44	***					
8	12/25/2017	3:40	9:30	5.83	0.13	***					
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 #: 8
 MONTH: December YEAR: 2017
 Average Low Temp: 59
 Average High Temp: 1.96
 Measured Rainfall: 6.9
 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	12/1/2017	0:05	1:15	1.17	0.04	***						
2	12/5/2017 - 12/6/2017	21:35	1:05	3.50	0.33	***						
3	12/10/2017	10:35	11:45	1.17	0.23	***						
4	12/12/2017	8:40	14:35	5.92	0.05	***						
4	12/14/2017	11:05	12:00	0.92	0.05	***						
6	12/16/2017	8:55	12:00	3.08	0.09	***						
7	12/23/2017	9:00	21:40	12.67	0.44	***						
8	12/25/2017	3:40	9:30	5.83	0.13	***						

TOTAL MONTH FLOW VOLUME = 0.000

METER DATA

NOVEMBER 2017

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY			
CSO FLOW MONITORING PROGRAM			
METER DATA SUMMARY - NOVEMBER 2017			
MONTHLY RAINFALL SUMMARY			
2.15 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 3 month, 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	0	0.000
CSO 003	REG 003	0	0.000
CSO 024	REG 024	0	0.000
CSO 009	REG 009	0	0.000
CSO 016	REG 016	0	0.000
CSO 015	REG 015	2	0.284
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		2	0.284

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - 2 YEAR ROLLING AVERAGE - TYPICAL YEAR ESTIMATES

CSO NUMBER	REGULATOR NUMBERS	TYPICAL YEAR		TYPICAL YEAR		TYPICAL YEAR	
		CSO EVENTS BASED ON RAINFALL ⁽¹⁾	CSO VOLUME (MG) BASED ON RAINFALL ⁽²⁾	CSO EVENTS BASED ON MONTHS ⁽³⁾	CSO VOLUME (MG) BASED ON MONTHS ⁽⁴⁾	CSO EVENTS BASED ON MONTHS ⁽³⁾	CSO VOLUME (MG) BASED ON MONTHS ⁽⁴⁾
CSO 006	REGS 006 A, 006 B	15	3.377	13	3.026		
CSO 005	REG 005	7	0.573	7	0.514		
CSO 004	REG 004	23	2.667	21	2.389		
CSO 003	REG 003	27	2.096	25	1.878		
CSO 024	REG 024	15	4.972	14	4.455		
CSO 009	REG 009	25	1.055	23	0.945		
CSO 016	REG 016	22	7.923	20	7.099		
CSO 015	REG 015	31	4.106	28	3.679		
CSO 011	REGS 010A, 011, 026	16	4.187	14	3.752		
CSO 012	REGS 012A, 012B, 028	6	0.155	6	0.139		
CSO 025	REGS 025, 034	9	1.647	9	1.476		
CSO 021	REG 021	17	10.849	15	9.720		
CSO 020	REG 020	5	0.028	5	0.026		
TOTAL		213	43.608	191	39.070		

(1) Estimated Typical Year CSO Events Based on Rainfall Methodology = Typical Year Rainfall (3.44 in x 12 = 41.28 in) x CSO Events in the last two years / Rainfall in the last two years

(2) Estimated Typical Year CSO Volume (MG) Based on Rainfall Methodology = Typical Year Rainfall (3.44 in x 12 = 41.28 in) x CSO Volume (MG) in the last two years / Rainfall in the last two years

(3) Estimated Typical Year CSO Events Based on Monthly Methodology = 12 x CSO Events in the last two years / Meter Months in the last two years

(4) Estimated Typical Year CSO Volume (MG) Based on Monthly Methodology = 12 x CSO Volume (MG) in the last two years / Meter Months in the last two years

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Orange Ave. @ Int. of Ella T. Grasso Blvd.
 NPDES Permit Outfall #: 003
 MONTH: November YEAR: 2017
 Average Low Temp: 22
 Average High Temp: 72
 Measured Rainfall: 2.15
 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	11/5/2017	11:05	17:50	6.75	0.14	***					
2	11/6/2017	2:35	9:55	7.33	0.02	***					
3	11/7/2017 - 11/8/2017	16:40	0:45	8.08	0.66	***					
4	11/10/2017	0:10	0:55	0.75	0.02	***					
5	11/13/2017	10:50	10:55	0.08	0.01	***					
6	11/14/2017	11:00	11:05	0.08	0.01	***					
7	11/16/2017	8:30	15:50	7.33	0.37	3 Month					
8	11/18/2017	16:20	22:50	6.50	0.15	***					
9	11/19/2017	2:40	8:20	5.67	0.22	***					
10	11/22/2017	6:35	11:00	4.42	0.55	***					

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 46"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Elia T. Grasso Blvd. - 23 yds North of Legion Ave.
 NPDES Permit Outfall #: 004
 MONTH: November YEAR: 2017
 Average Low Temp: 22
 Average High Temp: 72
 Measured Rainfall: 2.15
 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	11/5/2017	11:05	17:50	6.75	0.14	***						
2	11/6/2017	2:35	9:55	7.33	0.02	***						
3	11/7/2017 - 11/8/2017	16:40	0:45	8.08	0.66	***						
4	11/10/2017	0:10	0:55	0.75	0.02	***						
5	11/13/2017	10:50	10:55	0.08	0.01	***						
6	11/14/2017	11:00	11:05	0.08	0.01	***						
7	11/16/2017	8:30	15:50	7.33	0.37	3 Month						
8	11/18/2017	16:20	22:50	6.50	0.15	***						
9	11/19/2017	2:40	8:20	5.67	0.22	***						
10	11/22/2017	6:35	11:00	4.42	0.55	***						

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 #: 2017
 MONTH: November YEAR: 2017
 Average Low Temp: 22
 Average High Temp: 72
 Measured Rainfall: 2.15
 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	11/5/2017	11:05	17:50	6.75	0.14	***						
2	11/6/2017	2:35	9:55	7.33	0.02	***						
3	11/7/2017 - 11/8/2017	16:40	0:45	8.08	0.66	***						
4	11/10/2017	0:10	0:55	0.75	0.02	***						
5	11/13/2017	10:50	10:55	0.08	0.01	***						
6	11/14/2017	11:00	11:05	0.08	0.01	***						
7	11/16/2017	8:30	15:50	7.33	0.37	3 Month						
8	11/18/2017	16:20	22:50	6.50	0.15	***						
9	11/19/2017	2:40	8:20	5.67	0.22	***						
10	11/22/2017	6:35	11:00	4.42	0.55	***						

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: 2017
 Average Low Temp: 22
 Average High Temp: 72
 Measured Rainfall: 2.15
 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	11/5/2017	11:05	17:50	6.75	0.14	***						
2	11/6/2017	2:35	9:55	7.33	0.02	***						
3	11/7/2017 - 11/8/2017	16:40	0:45	8.08	0.66	***						
4	11/10/2017	0:10	0:55	0.75	0.02	***						
5	11/13/2017	10:50	10:55	0.08	0.01	***						
6	11/14/2017	11:00	11:05	0.08	0.01	***						
7	11/16/2017	8:30	15:50	7.33	0.37	3 Month						
8	11/18/2017	16:20	22:50	6.50	0.15	***						
9	11/19/2017	2:40	8:20	5.67	0.22	***						
10	11/22/2017	6:35	11:00	4.42	0.55	***						

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

November YEAR: 2017

MONTH: 22

Average Low Temp: 72

Average High Temp: 72

Measured Rainfall: 2.15

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	11/5/2017	11:05	17:50	6.75	0.14	***						
2	11/6/2017	2:35	9:55	7.33	0.02	***						
3	11/7/2017 - 11/8/2017	16:40	0:45	8.08	0.66	***						
4	11/10/2017	0:10	0:55	0.75	0.02	***						
5	11/13/2017	10:50	10:55	0.08	0.01	***						
6	11/14/2017	11:00	11:05	0.08	0.01	***						
7	11/16/2017	8:30	15:50	7.33	0.37	3 Month						
8	11/18/2017	16:20	22:50	6.50	0.15	***						
9	11/19/2017	2:40	8:20	5.67	0.22	***						
10	11/22/2017	6:35	11:00	4.42	0.55	***						

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 #:

2017

November YEAR:

22

Average Low Temp:

72

Average High Temp:

2.15

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 _i volume (MG)
1	11/5/2017	11:05	17:50	6.75	0.14	***						
2	11/6/2017	2:35	9:55	7.33	0.02	***						
3	11/7/2017 - 11/8/2017	16:40	0:45	8.08	0.66	***						
4	11/10/2017	0:10	0:55	0.75	0.02	***						
5	11/13/2017	10:50	10:55	0.08	0.01	***						
6	11/14/2017	11:00	11:05	0.08	0.01	***						
7	11/16/2017	8:30	15:50	7.33	0.37	3 Month						
8	11/18/2017	16:20	22:50	6.50	0.15	***						
9	11/19/2017	2:40	8:20	5.67	0.22	***						
10	11/22/2017	6:35	11:00	4.42	0.55	***						

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: November YEAR: 2017

Average Low Temp: 22

Average High Temp: 72

Measured Rainfall: 2.15

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	11/5/2017	11:05	17:50	6.75	0.14	***						
2	11/6/2017	2:35	9:55	7.33	0.02	***						
3	11/7/2017 - 11/8/2017	16:40	0:45	8.08	0.66	***						
4	11/10/2017	0:10	0:55	0.75	0.02	***						
5	11/13/2017	10:50	10:55	0.08	0.01	***						
6	11/14/2017	11:00	11:05	0.08	0.01	***						
7	11/16/2017	8:30	15:50	7.33	0.37	3 Month						
8	11/18/2017	16:20	22:50	6.50	0.15	***						
9	11/19/2017	2:40	8:20	5.67	0.22	***						
10	11/22/2017	6:35	11:00	4.42	0.55	***						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 15 James Street 015
 NPDES Permit Outfall #: 015
 MONTH: November YEAR: 2017
 Average Low Temp: 22
 Average High Temp: 72
 Measured Rainfall: 2.15
 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	11/5/2017	11:05	17:50	6.75	0.14 ***							
2	11/6/2017	2:35	9:55	7.33	0.02 ***							
3	11/7/2017 - 11/8/2017	16:40	0:45	8.08	0.66 ***							
4	11/10/2017	0:10	0:55	0.75	0.02 ***							
5	11/13/2017	10:50	10:55	0.08	0.01 ***							
6	11/14/2017	11:00	11:05	0.08	0.01 ***							
7	11/16/2017	8:50	15:50	7.33	0.37 3 Month	11/16/2017	9:25	10:40	1.25	4.736	0.247	
8	11/18/2017	16:20	22:50	6.50	0.15 ***							
9	11/19/2017	2:40	8:20	5.67	0.22 ***							
10	11/22/2017	6:35	11:00	4.42	0.55 ***	11/22/2017	8:45	9:20	0.58	1.523	0.037	

TOTAL MONTH FLOW VOLUME = 0.284

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

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Int. River & Poplar
 016

NPDES Permit Outfall #:

MONTH: November YEAR: 2017

Average Low Temp:

22

Average High Temp:

72

Measured Rainfall:

2.15

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	11/5/2017	11:05	17:50	6.75	0.14	***						
2	11/6/2017	2:35	9:55	7.33	0.02	***						
3	11/7/2017 - 11/8/2017	16:40	0:45	8.08	0.66	***						
4	11/10/2017	0:10	0:55	0.75	0.02	***						
5	11/13/2017	10:50	10:55	0.08	0.01	***						
6	11/14/2017	11:00	11:05	0.08	0.01	***						
7	11/16/2017	8:30	15:50	7.33	0.37	3 Month						
8	11/18/2017	16:20	22:50	6.50	0.15	***						
9	11/19/2017	2:40	8:20	5.67	0.22	***						
10	11/22/2017	6:35	11:00	4.42	0.55	***						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Clifton and Quinncipiac
 020
 NPDES Permit Outfall #: 2017
 MONTH: November YEAR: 2017
 Average Low Temp: 22
 Average High Temp: 72
 Measured Rainfall: 2.15
 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	11/5/2017	11:05	17:50	6.75	0.14	***						
2	11/6/2017	2:35	9:55	7.33	0.02	***						
3	11/7/2017 - 11/8/2017	16:40	0:45	8.08	0.66	***						
4	11/10/2017	0:10	0:55	0.75	0.02	***						
5	11/13/2017	10:50	10:55	0.08	0.01	***						
6	11/14/2017	11:00	11:05	0.08	0.01	***						
7	11/16/2017	8:30	15:50	7.33	0.37	3 Month						
8	11/18/2017	16:20	22:50	6.50	0.15	***						
9	11/19/2017	2:40	8:20	5.67	0.22	***						
10	11/22/2017	6:35	11:00	4.42	0.55	***						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

638 Long Wharf Drive

021

LOCATION:

NPDES Permit Outfall #:

MONTH:

Average Low Temp:

Average High Temp:

Measured Rainfall:

Measured Snowfall:

November YEAR: 2017

22

72

2.15

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	11/5/2017	11:05	17:50	6.75	0.14	***						
2	11/6/2017	2:35	9:55	7.33	0.02	***						
3	11/7/2017 - 11/8/2017	16:40	0:45	8.08	0.66	***						
4	11/10/2017	0:10	0:55	0.75	0.02	***						
5	11/13/2017	10:50	10:55	0.08	0.01	***						
6	11/14/2017	11:00	11:05	0.08	0.01	***						
7	11/16/2017	8:30	15:50	7.33	0.37	3 Month						
8	11/18/2017	16:20	22:50	6.50	0.15	***						
9	11/19/2017	2:40	8:20	5.67	0.22	***						
10	11/22/2017	6:35	11:00	4.42	0.55	***						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 Sea Street @ South Water Street
 LOCATION: 024
 NPDES Permit Outfall #: 2017
 MONTH: November YEAR: 2017
 Average Low Temp: 22
 Average High Temp: 72
 Measured Rainfall: 2.15
 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	11/5/2017	11:05	17:50	6.75	0.14	***					
2	11/6/2017	2:35	9:55	7.33	0.02	***					
3	11/7/2017 - 11/8/2017	16:40	0:45	8.08	0.66	***					
4	11/10/2017	0:10	0:55	0.75	0.02	***					
5	11/13/2017	10:50	10:55	0.08	0.01	***					
6	11/14/2017	11:00	11:05	0.08	0.01	***					
7	11/16/2017	8:30	15:50	7.33	0.37	3 Month					
8	11/18/2017	16:20	22:50	6.50	0.15	***					
9	11/19/2017	2:40	8:20	5.67	0.22	***					
10	11/22/2017	6:35	11:00	4.42	0.55	***					

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 83" in US & 99" in DS

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Intersection of State & N. Front Street
 025
 NPDES Permit Outfall #: 22
 MONTH: November YEAR: 2017
 Average Low Temp: 72
 Average High Temp: 72
 Measured Rainfall: 2.15
 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	11/5/2017	11:05	17:50	6.75	0.14	***					
2	11/6/2017	2:35	9:55	7.33	0.02	***					
3	11/7/2017 - 11/8/2017	16:40	0:45	8.08	0.66	***					
4	11/10/2017	0:10	0:55	0.75	0.02	***					
5	11/13/2017	10:50	10:55	0.08	0.01	***					
6	11/14/2017	11:00	11:05	0.08	0.01	***					
7	11/16/2017	8:30	15:50	7.33	0.37	3 Month					
8	11/18/2017	16:20	22:50	6.50	0.15	***					
9	11/19/2017	2:40	8:20	5.67	0.22	***					
10	11/22/2017	6:35	11:00	4.42	0.55	***					
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 #: 22
 MONTH: November YEAR: 2017
 Average Low Temp: 72
 Average High Temp: 72
 Measured Rainfall: 2.15
 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	11/5/2017	11:05	17:50	6.75	0.14	***						
2	11/6/2017	2:35	9:55	7.33	0.02	***						
3	11/7/2017 - 11/8/2017	16:40	0:45	8.08	0.66	***						
4	11/10/2017	0:10	0:55	0.75	0.02	***						
5	11/13/2017	10:50	10:55	0.08	0.01	***						
6	11/14/2017	11:00	11:05	0.08	0.01	***						
7	11/16/2017	8:30	15:50	7.33	0.57	13 Month						
8	11/18/2017	16:20	22:50	6.50	0.15	***						
9	11/19/2017	2:40	8:20	5.67	0.22	***						
10	11/22/2017	6:35	11:00	4.42	0.55	***						

TOTAL MONTH FLOW VOLUME = 0.000

METER DATA

OCTOBER 2017

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY		
CSO FLOW MONITORING PROGRAM		
METER DATA SUMMARY - OCTOBER 2017		
<u>MONTHLY RAINFALL SUMMARY</u>		
6.07 inches of rain (3.44 inches of rain in a typical month)		
No snowfall		
8 rain events (10 rain events in a typical month)		
One 5 year, one 1 year, all other storms less than 1 month return frequency		
<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO VOLUME (MG)</u>
CSO 006	REGS 006 A, 006 B	2.246
CSO 005	REG 005	0.086
CSO 004	REG 004	1.416
CSO 003	REG 003	0.359
CSO 024	REG 024	1.658
CSO 009	REG 009	0.475
CSO 016	REG 016	2.068
CSO 015	REG 015	1.276
CSO 011	REGS 010A, 011, 026	1.836
CSO 012	REGS 012A, 012B, 028	0.124
CSO 025	REGS 025, 034	1.445
CSO 021	REG 021	4.340
CSO 020	REG 020	0.010
TOTAL	26	17.339

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - 2 YEAR ROLLING AVERAGE - TYPICAL YEAR ESTIMATES

CSO NUMBER	REGULATOR NUMBERS	TYPICAL YEAR CSO EVENTS		TYPICAL YEAR CSO VOLUME (MG)		TYPICAL YEAR CSO VOLUME (MG)	
		BASED ON RAINFALL ⁽¹⁾	BASED ON MONTHS ⁽²⁾	BASED ON RAINFALL ⁽²⁾	BASED ON MONTHS ⁽²⁾	BASED ON MONTHS ⁽⁴⁾	BASED ON MONTHS ⁽⁴⁾
CSO 006	REGS 006 A, 006 B	15	14	3,511	3,511	3,121	3,121
CSO 005	REG 005	7	7	0,578	0,578	0,514	0,514
CSO 004	REG 004	24	21	2,815	2,815	2,502	2,502
CSO 003	REG 003	28	25	2,224	2,224	1,977	1,977
CSO 024	REG 024	15	14	5,013	5,013	4,455	4,455
CSO 009	REG 009	26	23	1,067	1,067	0,948	0,948
CSO 016	REG 016	23	20	8,089	8,089	7,189	7,189
CSO 015	REG 015	30	27	4,018	4,018	3,571	3,571
CSO 011	REGS 010A, 011, 026	16	14	4,222	4,222	3,752	3,752
CSO 012	REGS 012A, 012B, 028	6	6	0,156	0,156	0,139	0,139
CSO 025	REGS 025, 034	10	9	1,694	1,694	1,506	1,506
CSO 021	REG 021	17	16	11,440	11,440	10,167	10,167
CSO 020	REG 020	5	5	0,029	0,029	0,026	0,026
TOTAL		218	194	44,828	44,828	39,837	39,837

(1) Estimated Typical Year CSO Events Based on Rainfall Methodology = Typical Year Rainfall (3.44 in x 12 = 41.28 in) x CSO Events in the last two years / Rainfall in the last two years

(2) Estimated Typical Year CSO Volume (MG) Based on Rainfall Methodology = Typical Year Rainfall (3.44 in x 12 = 41.28 in) x CSO Volume (MG) in the last two years / Rainfall in the last two years

(3) Estimated Typical Year CSO Events Based on Monthly Methodology = 12 x CSO Events in the last two years / Meter Months in the last two years

(4) Estimated Typical Year CSO Volume (MG) Based on Monthly Methodology = 12 x CSO Volume (MG) in the last two years / Meter Months in the last two years

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Orange Ave. @ Int. of Ella T. Grasso Blvd.
 003
 NPDES Permit Outfall #: 35
 MONTH: October YEAR: 2017
 Average Low Temp: 35
 Average High Temp: 80
 Measured Rainfall: 6.07
 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	10/6/2017	0:45	0:50	0.08	0.01	***						
2	10/8/2017	9:00	10:35	1.58	0.33	***						
3	10/9/2017	5:20	15:35	10.25	0.13	***						
4	10/11/2017 - 10/12/2017	19:30	2:55	7.42	0.16	***						
5	10/16/2017	2:55	3:00	0.08	0.01	***						
6	10/24/2017 - 10/25/2017	14:40	3:50	13.17	2.71	15 YEAR	10/24/2017 - 10/25/2017	19:55	3:00	7.08	0.723	0.214
7	10/25/2017 - 10/26/2017	18:00	8:15	14.25	0.12	***						
8	10/29/2017 - 10/30/2017	8:10	10:00	25.83	2.60	1 YEAR	10/29/2017	10:55	23:50	12.92	0.270	0.145

TOTAL MONTH FLOW VOLUME = 0.359

Note: Overflow occurs when Interceptor level reaches 46"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Derby Ave. 20 Yrds East of Ella T. Grasso Blvd.
 LOCATION: 005
 NPDES Permit Outfall #: 35
 MONTH: October YEAR: 2017
 Average Low Temp: 80
 Average High Temp: 80
 Measured Rainfall: 6.07
 Measured Snowfall:

EVENT No.	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)			
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START		STOP	DURATION (hours)	OUTFALL Cavg (MGD)
1	10/6/2017	0:45	0:50	0.03	0.01	***						
2	10/8/2017	9:00	10:35	1.58	0.33	***						
3	10/9/2017	5:20	15:35	10.25	0.13	***						
4	10/11/2017 - 10/12/2017	19:30	2:55	7.42	0.16	***						
5	10/16/2017	2:55	3:00	0.08	0.01	***						
6	10/24/2017 - 10/25/2017	14:40	3:50	13.17	2.71	5 YEAR	10/24/2017	22:05	23:00	0.92	1.480	0.057
7	10/25/2017 - 10/26/2017	18:00	8:15	14.25	0.12	***						
8	10/29/2017 - 10/30/2017	8:10	10:00	25.83	2.60	1 YEAR	10/29/2017	21:25	23:05	1.67	0.424	0.029

TOTAL MONTH FLOW VOLUME = 0.086

Note: Overflow occurs when Interceptor level reaches 7.1"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: W/halley Ave. 30 yds from Fitch Street
 006
 NPDES Permit Outfall #: 35
 MONTH: October YEAR: 2017
 Average Low Temp: 35
 Average High Temp: 80
 Measured Rainfall: 6.07
 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	10/6/2017	0:45	0:50	0:08	0.01	***					
2	10/8/2017	9:00	10:35	1:58	0.33	***					
3	10/9/2017	5:20	15:35	10:25	0.13	***					
4	10/11/2017 - 10/12/2017	19:30	2:55	7:42	0.16	***					
5	10/16/2017	2:55	3:00	0:08	0.01	***					
6	10/24/2017 - 10/25/2017	14:40	3:50	13:17	2.71	5 YEAR	10/24/2017 - 10/25/2017	20:05	2:20	6.25	4.563
7	10/25/2017 - 10/26/2017	18:00	8:15	14:25	0.12	***					
8	10/29/2017 - 10/30/2017	8:10	10:00	25:83	2.60	1 YEAR	10/29/2017 - 10/30/2017	20:00	0:55	4.92	5.788

TOTAL MONTH FLOW VOLUME = 2.246

Note: Overflow occurs when Interceptor level reaches 27"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Grand Avenue & James Street

LOCATION: 009

NPDES Permit Outfall #:

MONTH: October YEAR: 2017

Average Low Temp: 35

Average High Temp: 80

Measured Rainfall: 6.07

Measured Snowfall:

EVENT No.	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)		
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START		STOP	DURATION (hours)
1	10/6/2017	0:45	0:50	0.08	0.01	***					
2	10/8/2017	9:00	10:35	1.58	0.33	***					
3	10/9/2017	5:20	15:35	10.25	0.13	***					
4	10/11/2017 - 10/12/2017	19:30	2:55	7.42	0.16	***					
5	10/16/2017	2:55	3:00	0.08	0.01	***					
6	10/24/2017 - 10/25/2017	14:40	3:50	13.17	2.71	5 YEAR	10/24/2017 - 10/25/2017	21:40	1:45	4.08	1.356
7	10/25/2017 - 10/26/2017	18:00	8:15	14.25	0.12	***					
8	10/29/2017 - 10/30/2017	8:10	10:00	25.83	2.60	1 YEAR	10/29/2017	21:10	23:00	1.83	3.193

TOTAL MONTH FLOW VOLUME = 0.475

Note: Overflow occurs when Interceptor level reaches 30"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 547 East Street
 LOCATION: 010A
 NPDES Permit Outfall #: 2017
 MONTH: October YEAR: 2017
 Average Low Temp: 35
 Average High Temp: 80
 Measured Rainfall: 6.07
 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	10/6/2017	0:45	0:50	0.08	0.01	***						
2	10/8/2017	9:00	10:35	1.58	0.33	***						
3	10/9/2017	5:20	15:35	10.25	0.13	***						
4	10/11/2017 - 10/12/2017	19:30	2:55	7.42	0.16	***						
5	10/16/2017	2:55	3:00	0.08	0.01	***						
6	10/24/2017 - 10/25/2017	14:40	3:50	13.17	2.71	5 YEAR	10/24/2017 - 10/25/2017	22:25	1:35	3.17	3.283	0.433
7	10/25/2017 - 10/26/2017	18:00	8:15	14.25	0.12	***						
8	10/29/2017 - 10/30/2017	8:10	10:00	25.83	2.60	1 YEAR	10/29/2017	21:35	23:30	1.92	3.398	0.271

TOTAL MONTH FLOW VOLUME = 0.704

Note: Overflow occurs when Interceptor level reaches 62"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011

NPDES Permit Outfall #:

October YEAR: 2017

MONTH: 35

Average Low Temp: 80

Average High Temp: 6.07

Measured Rainfall:

Measured Snowfall:

EVENT No.	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)			
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START		STOP	DURATION (hours)	OUTFALL Qavg (MGD)
1	10/6/2017	0:45	0:50	0.08	0.01	***						
2	10/8/2017	9:00	10:35	1.58	0.33	***						
3	10/9/2017	5:20	15:35	10.25	0.13	***						
4	10/11/2017 - 10/12/2017	19:30	2:55	7.42	0.16	***						
5	10/15/2017	2:55	3:00	0.08	0.01	***						
6	10/24/2017 - 10/25/2017	14:40	3:50	13.17	2.71	5 YEAR	10/24/2017 - 10/25/2017	23:50	2:10	2.33	2.846	0.277
7	10/25/2017 - 10/26/2017	18:00	8:15	14.25	0.12	***						
8	10/29/2017 - 10/30/2017	8:10	10:00	25.83	2.60	1 YEAR	10/29/2017 - 10/30/2017	21:10	0:25	3.25	6.317	0.855

TOTAL MONTH FLOW VOLUME =

1.132

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

011

LOCATION:

NPDES Permit Outfall #:

October YEAR: 2017

35

Average Low Temp:

80

Average High Temp:

6.07

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	10/6/2017	0:45	0:50	0:08	0.01	***						
2	10/8/2017	9:00	10:35	1:58	0.33	***						
3	10/9/2017	5:20	15:35	10:25	0.13	***						
4	10/11/2017 - 10/12/2017	19:30	2:55	7:42	0.16	***						
5	10/16/2017	2:55	3:00	0:08	0.01	***						
6	10/24/2017 - 10/25/2017	14:40	3:50	13:17	2.71	5 YEAR	10/24/2017 - 10/25/2017	22:25	2:10	3:75	6.129	0.710
7	10/25/2017 - 10/26/2017	18:00	8:15	14:25	0.12	***						
8	10/29/2017 - 10/30/2017	8:10	10:00	25:83	2.60	1 YEAR	10/29/2017 - 10/30/2017	21:10	0:25	3:25	9.715	1.126

TOTAL MONTH FLOW VOLUME =

1.836

Sum of 010A and 011

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 75 Mitchell Drive

LOCATION: 012

NPDES Permit Outfall #:

MONTH: October YEAR: 2017

Average Low Temp: 35

Average High Temp: 80

Measured Rainfall: 6.07

Measured Snowfall:

EVENT No.	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)			
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START		STOP	DURATION (hours)	OUTFALL Qavg (MGD)
1	10/6/2017	0:45	0:50	0.08	0.01	***						
2	10/8/2017	9:00	10:35	1.58	0.33	***						
3	10/9/2017	5:20	15:35	10.25	0.13	***						
4	10/11/2017 - 10/12/2017	19:30	2:55	7.42	0.16	***						
5	10/16/2017	2:55	3:00	0.08	0.01	***						
6	10/24/2017 - 10/25/2017	14:40	3:50	13.17	2.71	5 YEAR	10/24/2017 - 10/25/2017	22:20	1:40	3.33	0.472	0.066
7	10/25/2017 - 10/26/2017	18:00	8:15	14.25	0.12	***		21:30	23:45	2.25	0.619	0.058
8	10/29/2017 - 10/30/2017	8:10	10:00	25.83	2.60	1 YEAR	10/29/2017					

TOTAL MONTH FLOW VOLUME = 0.124

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 15 James Street
 NPDES Permit Outfall #: 015
 MONTH: October YEAR: 2017
 Average Low Temp: 35
 Average High Temp: 80
 Measured Rainfall: 6.07
 Measured Snowfall:

EVENT No.	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)		
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START		STOP	DURATION (hours)
1	10/6/2017	0:45	0:50	0.08	0.01	***					
2	10/8/2017	9:00	10:35	1.58	0.33	***	10/8/2017	10:00	10:35	0.58	5.023
3	10/9/2017	5:20	15:35	10.25	0.13	***					
4	10/11/2017 - 10/12/2017	19:30	2:55	7.42	0.16	***					
5	10/16/2017	2:55	3:00	0.08	0.01	***					
6	10/24/2017 - 10/25/2017	14:40	3:50	13.17	2.71	15 YEAR	10/24/2017 - 10/25/2017	22:10	2:35	4.42	4.304
7	10/25/2017 - 10/26/2017	18:00	8:15	14.25	0.12	***					
8	10/29/2017 - 10/30/2017	8:10	10:00	25.83	2.60	1 YEAR	10/29/2017 - 10/30/2017	18:20	0:25	6.08	1.426

TOTAL MONTH FLOW VOLUME = 1.276

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

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Int. River & Poplar 016
 NPDES Permit Outfall #: 016
 MONTH: October YEAR: 2017
 Average Low Temp: 35
 Average High Temp: 80
 Measured Rainfall: 6.07
 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	10/6/2017	0:45	0:50	0:08	0.01	***						
2	10/8/2017	9:00	10:35	1:58	0.33	***						
3	10/9/2017	5:20	15:35	10:25	0.13	***						
4	10/11/2017 - 10/12/2017	19:30	2:55	7:42	0.16	***						
5	10/16/2017	2:55	3:00	0:08	0.01	***						
6	10/24/2017 - 10/25/2017	14:40	3:50	13:17	2.71	5 YEAR	10/24/2017 - 10/25/2017	22:05	1:25	3.33	5.781	0.803
7	10/25/2017 - 10/26/2017	18:00	8:15	14:25	0.12	***						
8	10/29/2017 - 10/30/2017	8:10	10:00	25:83	2.60	1 YEAR	10/29/2017	20:25	23:55	3.50	8.673	1.265

TOTAL MONTH FLOW VOLUME = 2.068

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Clifton and Quinmpiac
 020
 NPDES Permit Outfall #: 2017
 MONTH: October YEAR: 2017
 Average Low Temp: 35
 Average High Temp: 80
 Measured Rainfall: 6.07
 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	10/6/2017	0:45	0:50	0.08	0.01	***						
2	10/8/2017	9:00	10:35	1.58	0.33	***						
3	10/9/2017	5:20	15:35	10.25	0.13	***						
4	10/11/2017 - 10/12/2017	19:30	2:55	7.42	0.16	***						
5	10/16/2017	2:55	3:00	0.08	0.01	***						
6	10/24/2017 - 10/25/2017	14:40	3:50	13.17	2.71	5 YEAR						
7	10/25/2017 - 10/26/2017	18:00	8:15	14.25	0.12	***						
8	10/29/2017 - 10/30/2017	8:10	10:00	25.83	2.60	1 YEAR						
										TOTAL MONTH	0.010	
										FLOW VOLUME =	0.010	

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 638 Long Wharf Drive
 021
 NPDES Permit Outfall #: 35
 MONTH: October YEAR: 2017
 Average Low Temp: 80
 Average High Temp: 6.07
 Measured Rainfall:
 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	10/6/2017	0:45	0:50	0.08	0.01	***					
2	10/8/2017	9:00	10:35	1.58	0.33	***					
3	10/9/2017	5:20	15:35	10.25	0.13	***					
4	10/11/2017 - 10/12/2017	19:30	2:55	7.42	0.16	***					
5	10/16/2017	2:55	3:00	0.08	0.01	***					
6	10/24/2017 - 10/25/2017	14:40	3:50	13.17	2.71	5 YEAR	10/24/2017 - 10/25/2017	20:40	3:30	6.83	9.444
7	10/25/2017 - 10/26/2017	18:00	8:15	14.25	0.12	***					
8	10/29/2017 - 10/30/2017	8:10	10:00	25.83	2.60	1 YEAR	10/29/2017 - 10/30/2017	11:45	0:50	13.08	3.028

TOTAL MONTH FLOW VOLUME = 4.340

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Sea Street @ South Water Street
 024
 NPDES Permit Outfall #: 2017
 MONTH: October YEAR: 2017
 Average Low Temp: 35
 Average High Temp: 80
 Measured Rainfall: 6.07
 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	10/6/2017	0:45	0:50	0:08	0.01	***						
2	10/8/2017	9:00	10:35	1:58	0.33	***						
3	10/9/2017	5:20	15:35	10:25	0.13	***						
4	10/11/2017 - 10/12/2017	19:30	2:55	7:42	0.16	***						
5	10/16/2017	2:55	3:00	0:08	0.01	***						
6	10/24/2017 - 10/25/2017	14:40	3:50	13:17	2.71	1 YEAR	10/24/2017 - 10/25/2017	22:10	2:05	3:92	5.980	0.976
7	10/25/2017 - 10/26/2017	18:00	8:15	14:25	0.12	***						
8	10/29/2017 - 10/30/2017	8:10	10:00	25:83	2.60	1 YEAR	10/29/2017	20:50	23:55	3:08	5.311	0.682

TOTAL MONTH FLOW VOLUME = 1.658

Note: Overflow occurs when Interceptor level reaches 83" in US & 99" in DS

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Intersection of State & N. Front Street
LOCATION: 025
NPDES Permit Outfall #: 2017
MONTH: October YEAR: 2017
Average Low Temp: 35
Average High Temp: 80
Measured Rainfall: 6.07
Measured Snowfall:

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	10/6/2017	0:45	0:50	0:08	0.01 ***						
2	10/8/2017	9:00	10:35	1:58	0.33 ***						
3	10/9/2017	5:20	15:35	10:25	0.13 ***						
4	10/11/2017 - 10/12/2017	19:30	2:55	7:42	0.16 ***						
5	10/16/2017	2:55	3:00	0:08	0.01 ***						
6	10/24/2017 - 10/25/2017	14:40	3:50	13:17	2.71 5 YEAR						
7	10/25/2017 - 10/26/2017	18:00	8:15	14:25	0.12 ***						
8	10/29/2017 - 10/30/2017	8:10	10:00	25:83	2.60 1 YEAR						

TOTAL MONTH
FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches Z1*

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG George and Temple

LOCATION: Regulator 34

NPDES Permit Outfall #:

MONTH: October YEAR: 2017

Average Low Temp: 35

Average High Temp: 80

Measured Rainfall: 6.07

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 Q. volume (MG)
1	10/6/2017	0:45	0:50	0.08	0.01	***						
2	10/8/2017	9:00	10:35	1.58	0.33	***						
3	10/9/2017	5:20	15:35	10.25	0.13	***						
4	10/11/2017 - 10/12/2017	19:30	2:55	7.42	0.16	***						
5	10/16/2017	2:55	3:00	0.08	0.01	***						
6	10/24/2017 - 10/25/2017	14:40	3:50	13.17	2.71	5 YEAR	10/24/2017 - 10/25/2017	22:05	1:05	2.92	14.015	0.875
7	10/25/2017 - 10/26/2017	18:00	8:15	14.25	0.12	***		21:15	23:10	1.92	7.475	0.570
8	10/29/2017 - 10/30/2017	8:10	10:00	25.83	2.60	1 YEAR	10/29/2017					

METER DATA

SEPTEMBER 2017

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - SEPTEMBER 2017

MONTHLY RAINFALL SUMMARY

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

No snowfall

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

All storms less than 1 month return frequency

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>
CSO 006	REGS 006 A, 006 B	0	0.000
CSO 005	REG 005	0	0.000
CSO 004	REG 004	0	0.000
CSO 003	REG 003	2	0.033
CSO 024	REG 024	0	0.000
CSO 009	REG 009	0	0.000
CSO 016	REG 016	0	0.000
CSO 015	REG 015	1	0.084
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	0.040
CSO 020	REG 020	0	0.000
TOTAL		4	0.157

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

METER DATA SUMMARY - THROUGH SEPTEMBER 2017

CSO NUMBER	REGULATOR NUMBERS	CSO EVENTS	CSO VOLUME (MG)	RAINFALL (IN)	METER MONTHS
CSO 006	REGS 006 A, 006 B	74	16,489	204.05	65
CSO 005	REG 005	17	1,258	105.23	38
CSO 004	REG 004	66	6,703	105.47	38
CSO 003	REG 003	156	38,269	201.14	64
CSO 024	REG 024	55	35,160	190.82	61
CSO 009	REG 009	112	5,041	183.70	60
CSO 016	REG 016	125	45,285	186.35	63
CSO 015	REG 015	121	14,912	180.01	59
CSO 011	REGS 010A, 011, 026	54	20,298	179.33	58
CSO 012	REGS 012A, 012B, 028	10	0.160	101.74	36
CSO 025	REGS 025, 034	28	2,939	105.38	38
CSO 021	REG 021	75	46,866	180.31	59
CSO 020	REG 020	15	0.311	163.76	54
TOTAL		908	233,691		

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - TYPICAL YEAR ESTIMATES

CSO NUMBER	REGULATOR NUMBERS	ANNUAL CSO EVENTS		ANNUAL CSO VOLUME (MG)		ANNUAL CSO VOLUME (MG)	
		BASED ON RAINFALL ⁽¹⁾	BASED ON RAINFALL ⁽²⁾	BASED ON RAINFALL ⁽²⁾	BASED ON MONTHS ⁽³⁾	BASED ON MONTHS ⁽⁴⁾	BASED ON MONTHS ⁽⁴⁾
CSO 006	REGS 006 A, 006 B	15		3.335		14	3.044
CSO 005	REG 005	7		0.493		5	0.397
CSO 004	REG 004	26		2.623		21	2.117
CSO 003	REG 003	32		7.852		29	7.175
CSO 024	REG 024	12		7.604		11	6.917
CSO 009	REG 009	25		1.133		22	1.008
CSO 016	REG 016	28		10.029		24	8.626
CSO 015	REG 015	28		3.419		25	3.033
CSO 011	REGS 010A, 011, 026	12		4.671		11	4.200
CSO 012	REGS 012A, 012B, 028	4		0.065		3	0.053
CSO 025	REGS 025, 034	11		1.151		9	0.928
CSO 021	REG 021	17		10.727		15	9.532
CSO 020	REG 020	4		0.078		3	0.069
TOTAL		217		53.102		189	47.030

(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.
004

September 2017 Notes:

The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17

LOCATION:

Cleaning of the Truman CSO Storage Tank was completed on 9/11/17

NPDES Permit Outfall #:

Meter OF-009 Sewer was removed on 9/12/17 to allow cleaning of the James Street sewer

MONTH:

September YEAR: 2017

Average Low Temp:

60

Average High Temp:

77

Measured Rainfall:

1.74

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	9/2/2017 - 9/3/2017	22:50	14:55	16.08	0.70	***					
2	9/5/2017	21:25	21:40	0.25	0.11	***					
3	9/6/2017 - 9/7/2017	5:10	13:50	32.67	0.72	***					
4	9/19/2017	13:20	17:55	4.58	0.18	***					
5	9/30/2017	2:50	3:50	1.00	0.03	***					

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.
005

September 2017 Notes:

The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17

LOCATION:

Cleaning of the Truman CSO Storage Tank was completed on 9/11/17

NPDES Permit Outfall #:

Meter OF-009 Sewer was removed on 9/12/17 to allow cleaning of the James Street s

MONTH: September YEAR: 2017

Average Low Temp: 60

Average High Temp: 77

Measured Rainfall: 1.74

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 (MIG)
1	9/2/2017 - 9/3/2017	22:50	14:55	16.08	0.70	***						
2	9/5/2017	21:25	21:40	0.25	0.11	***						
3	9/6/2017 - 9/7/2017	5:10	13:50	32.67	0.72	***						
4	9/19/2017	13:20	17:55	4.58	0.18	***						
5	9/30/2017	2:50	3:50	1.00	0.03	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 71"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION:

NPDES Permit Outfall #:

MONTH:

Average Low Temp:

Average High Temp:

Measured Rainfall:

Measured Snowfall:

Whalley Ave. 30 yds from Fitch Street
006

September YEAR: 2017

60

77

1.74

September 2017 Notes:

The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17

Cleaning of the Truman CSO Storage Tank was completed on 9/11/17

Meter OF-009 Sewer was removed on 9/12/17 to allow cleaning of the James Street set

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	9/2/2017 - 9/3/2017	22:50	14:55	16.08	0.70	***						
2	9/5/2017	21:25	21:40	0.25	0.11	***						
3	9/6/2017 - 9/7/2017	5:10	13:50	32.67	0.72	***						
4	9/19/2017	13:20	17:55	4.58	0.18	***						
5	9/30/2017	2:50	3:50	1.00	0.03	***						
											TOTAL MONTH	0.000
											FLOW VOLUME =	

Note: Overflow occurs when Interceptor level reaches 27"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION:

NPDES Permit Outfall #:

MONTH:

Average Low Temp:

Average High Temp:

Measured Rainfall:

Measured Snowfall:

Grand Avenue & James Street
009

September YEAR: 2017

60

77

1.74

September 2017 Notes:

The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17

Cleaning of the Truman CSO Storage Tank was completed on 9/11/17

Meter OF-009 Sewer was removed on 9/12/17 to allow cleaning of the James Street sewer

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	9/2/2017 - 9/3/2017	22:50	14:55	16.08	0.70	***						
2	9/5/2017	21:25	21:40	0.25	0.11	***						
3	9/6/2017 - 9/7/2017	5:10	13:50	32.67	0.72	***						
4	9/19/2017	13:20	17:55	4.58	0.18	***						
5	9/30/2017	2:50	3:50	1.00	0.03	***						
											TOTAL MONTH	0.000
											FLOW VOLUME =	

Note: Overflow occurs when Interceptor level reaches 30"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011

NPDES Permit Outfall #: 2017

MONTH: September

Average Low Temp: 60

Average High Temp: 77

Measured Rainfall: 1.74

Measured Snowfall:

September 2017 Notes:

The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17

Cleaning of the Truman CSO Storage Tank was completed on 9/11/17

Meter OF-009 Sewer was removed on 9/12/17 to allow cleaning of the James Street sew

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	9/2/2017 - 9/3/2017	22:50	14:55	16.08	0.70	***						
2	9/5/2017	21:25	21:40	0.25	0.11	***						
3	9/6/2017 - 9/7/2017	5:10	13:50	32.67	0.72	***						
4	9/19/2017	13:20	17:55	4.58	0.18	***						
5	9/30/2017	2:50	3:50	1.00	0.03	***						

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: September YEAR: 2017
 Average Low Temp: 60
 Average High Temp: 77
 Measured Rainfall: 1.74
 Measured Snowfall:

September 2017 Notes:

The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17
 Cleaning of the Truman CSO Storage Tank was completed on 9/11/17
 Meter OF-009 Sewer was removed on 9/12/17 to allow cleaning of the James Street sewer

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q. volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	9/2/2017 - 9/3/2017	22:50	14:55	16.08	0.70	***					
2	9/5/2017	21:25	21:40	0.25	0.11	***					
3	9/6/2017 - 9/7/2017	5:10	13:50	32.67	0.72	***					
4	9/19/2017	13:20	17:55	4.58	0.18	***					
5	9/30/2017	2:50	3:50	1.00	0.03	***					

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

15 James Street
015

LOCATION:

NPDES Permit Outfall #:

MONTH:

Average Low Temp:

Average High Temp:

Measured Rainfall:

Measured Snowfall:

September 2017 Notes:

The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17

Cleaning of the Truman CSO Storage Tank was completed on 9/11/17

Meter OF-009 Sewer was removed on 9/12/17 to allow cleaning of the James Street sewer

September YEAR: 2017

60

77

1.74

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	9/2/2017 - 9/3/2017	22:50	14:55	16.08	0.70	***						
2	9/5/2017	21:25	21:40	0.25	0.11	***						
3	9/6/2017 - 9/7/2017	5:10	13:50	32.67	0.72	***	9/6/2017 - 9/7/2017	23:20	23:40	1.75	0.008	0.084
4	9/19/2017	13:20	17:55	4.58	0.18	***						
5	9/30/2017	2:50	3:50	1.00	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.084

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

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

Int. River & Poplar
016

LOCATION:

NPDES Permit Outfall #:

MONTH:

Average Low Temp:

Average High Temp:

Measured Rainfall:

Measured Snowfall:

September 2017 Notes:

The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17

Cleaning of the Truman CSO Storage Tank was completed on 9/11/17

Meter OF-009 Sewer was removed on 9/12/17 to allow cleaning of the James Street sewer

September YEAR: 2017

60

77

1.74

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	9/2/2017 - 9/3/2017	22:50	14:55	16.08	0.70	***						
2	9/5/2017	21:25	21:40	0.25	0.11	***						
3	9/6/2017 - 9/7/2017	5:10	13:50	32.67	0.72	***						
4	9/19/2017	13:20	17:55	4.58	0.18	***						
5	9/30/2017	2:50	3:50	1.00	0.03	***						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

Clifton and Quinmpiac

September 2017 Notes:

LOCATION: 020

The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17

NPDES Permit Outfall #:

Cleaning of the Truman CSO Storage Tank was completed on 9/13/17

MONTH:

September YEAR: 2017

Meter OF-009 Sewer was removed on 9/12/17 to allow cleaning of the James Street st

Average Low Temp:

60

Average High Temp:

77

Measured Rainfall:

1.74

Measured Snowfall:

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	9/2/2017 - 9/3/2017	22:50	14:55	16.08	0.70	***						
2	9/5/2017	21:25	21:40	0.25	0.11	***						
3	9/6/2017 - 9/7/2017	5:10	13:50	32.67	0.72	***						
4	9/19/2017	13:20	17:55	4.58	0.18	***						
5	9/30/2017	2:50	3:50	1.00	0.03	***						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

638 Long Wharf Drive

LOCATION:

021

NPDES Permit Outfall #:

September YEAR: 2017

MONTH:

60

Average Low Temp:

77

Average High Temp:

1.74

Measured Rainfall:

Measured Snowfall:

September 2017 Notes:

The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17

Cleaning of the Truman CSO Storage Tank was completed on 9/11/17

Meter OF-009 Sewer was removed on 9/12/17 to allow cleaning of the James Street sew

EVENT NO.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	9/2/2017 - 9/3/2017	22:50	14:55	16.08	0.70	***						
2	9/5/2017	21:25	21:40	0.25	0.11	***						
3	9/6/2017 - 9/7/2017	5:10	13:50	32.67	0.72	***	9/7/2017	0:30	1:40	1.17	0.814	0.040
4	9/19/2017	13:20	17:55	4.58	0.18	***						
5	9/30/2017	2:50	3:50	1.00	0.03	***						

TOTAL MONTH FLOW VOLUME = 0.040

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Sea Street @ South Water Street
 NPDES Permit Outfall #: 024
 MONTH: September YEAR: 2017
 Average Low Temp: 60
 Average High Temp: 77
 Measured Rainfall: 1.74
 Measured Snowfall:

September 2017 Notes:
 The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17
 Cleaning of the Truman CSO Storage Tank was completed on 9/11/17
 Meter OF-009 Sewer was removed on 9/12/17 to allow cleaning of the James Street sea

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Avg Q volume (MGD)	OUTFALL Q volume (MG)
1	9/2/2017 - 9/3/2017	22:50	14:55	16.08	0.70	***						
2	9/5/2017	21:25	21:40	0.25	0.11	***						
3	9/6/2017 - 9/7/2017	5:10	13:50	32.67	0.72	***						
4	9/19/2017	13:20	17:55	4.58	0.18	***						
5	9/30/2017	2:50	3:50	1.00	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 83" in US & 99" in DS

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

Intersection of State & N. Front Street

September 2017 Notes:

LOCATION: 025

The Truman CSO Storage Tank is offline for cleaning beginning 8/29/17

NPDES Permit Outfall #:

Cleaning of the Truman CSO Storage Tank was completed on 9/11/17

MONTH: September

YEAR: 2017

Meter OF-009 Sewer was removed on 9/12/17 to allow cleaning of the James Street sewer

Average Low Temp: 60

Average High Temp: 77

Measured Rainfall: 1.74

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	9/2/2017 - 9/3/2017	22:50	14:55	16.08	0.70	***							
2	9/5/2017	21:25	21:40	0.25	0.11	***							
3	9/6/2017 - 9/7/2017	5:10	13:50	32.67	0.72	***							
4	9/19/2017	13:20	17:55	4.58	0.18	***							
5	9/30/2017	2:50	3:50	1.00	0.03	***							

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

September 2017 Notes:

The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17
Cleaning of the Truman CSO Storage Tank was completed on 9/11/17

NPDES Permit Outfall #:

2017

Meter OF-009 Sewer was removed on 9/12/17 to allow cleaning of the James Street sewer

MONTH:

September YEAR:

2017

Average Low Temp:

60

Average High Temp:

77

Measured Rainfall:

1.74

Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	9/2/2017 - 9/3/2017	22:50	14:55	16.08	0.70	***						
2	9/5/2017	21:25	21:40	0.25	0.11	***						
3	9/6/2017 - 9/7/2017	5:10	13:50	32.67	0.72	***						
4	9/19/2017	13:20	17:55	4.58	0.18	***						
5	9/30/2017	2:50	3:50	1.00	0.03	***						

TOTAL MONTH FLOW VOLUME = 0.000

METER DATA

AUGUST 2017

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - AUGUST 2017

MONTHLY RAINFALL SUMMARY

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

No snowfall

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

Two 2 year storms, one 3 month storm, all other storms less than 1 month return frequency

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>
CSO 006	REGS 006 A, 006 B	1	0.330
CSO 005	REG 005	1	0.456
CSO 004	REG 004	2	0.492
CSO 003	REG 003	2	0.266
CSO 024	REG 024	1	0.126
CSO 009	REG 009	3	0.360
CSO 016	REG 016	2	0.867
CSO 015	REG 015	2	0.512
CSO 011	REGS 010A, 011, 026	1	0.626
CSO 012	REGS 012A, 012B, 028	1	0.058
CSO 025	REGS 025, 034	1	0.012
CSO 021	REG 021	1	0.737
CSO 020	REG 020	1	0.005
TOTAL		19	4.847

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - THROUGH AUGUST 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	74	16,489	202.31	64
CSO 005	REG 005	17	1,258	103.49	37
CSO 004	REG 004	66	6,703	103.73	37
CSO 003	REG 003	154	38,236	199.40	63
CSO 024	REG 024	55	35,160	189.08	60
CSO 009	REG 009	112	5,041	181.96	59
CSO 016	REG 016	125	45,285	184.61	62
CSO 015	REG 015	120	14,828	178.27	58
CSO 011	REGS 010A, 011, 026	54	20,298	177.59	57
CSO 012	REGS 012A, 012B, 028	10	0.160	100.00	35
CSO 025	REGS 025, 034	28	2,939	103.64	37
CSO 021	REG 021	74	46,826	178.57	58
CSO 020	REG 020	15	0.311	162.02	53
TOTAL		904	233,534		

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - TYPICAL YEAR ESTIMATES

CSO NUMBER	REGULATOR NUMBERS	ANNUAL CSO EVENTS		ANNUAL CSO VOLUME (MG)		ANNUAL CSO VOLUME (MG)	
		BASED ON RAINFALL ⁽¹⁾	BASED ON RAINFALL ⁽²⁾	BASED ON RAINFALL ⁽²⁾	BASED ON RAINFALL ⁽²⁾	BASED ON MONTHS ⁽⁴⁾	BASED ON MONTHS ⁽⁴⁾
CSO 006	REGS 006 A, 006 B	15		3.364		14	3.092
CSO 005	REG 005	7		0.502		6	0.408
CSO 004	REG 004	26		2.667		21	2.174
CSO 003	REG 003	32		7.914		29	7.283
CSO 024	REG 024	12		7.674		11	7.032
CSO 009	REG 009	25		1.143		23	1.025
CSO 016	REG 016	28		10.123		24	8.765
CSO 015	REG 015	28		3.433		25	3.068
CSO 011	REGS 010A, 011, 026	13		4.717		11	4.273
CSO 012	REGS 012A, 012B, 028	4		0.066		3	0.055
CSO 025	REGS 025, 034	11		1.170		9	0.953
CSO 021	REG 021	17		10.822		15	9.688
CSO 020	REG 020	4		0.079		3	0.070
TOTAL		218		53.595		192	47.816

(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: Ella T. Grasso Blvd. - 23 yds North of Legion Ave.
 NPDES Permit Outfall #: 004
 MONTH: August YEAR: 2017

August 2017 Notes:
 The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17
 The overflow weir at Regulator 024 was raised 18 inches on 7/27/17

Average Low Temp: 80
 Average High Temp: 63
 Measured Rainfall: 3.46
 Measured Snowfall:

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	8/2/2017	18:05	19:00	0.92	0.95	1/3 MONTH					
2	8/5/2017	6:40	8:55	2.25	1.10	2 YEAR	7:30	9:10	1.67	6.916	0.480
3	8/7/2017 - 8/8/17	13:35	2:05	12.50	0.23	***					
4	8/12/2017	2:05	4:05	2.00	0.23	***					
5	8/15/2017	3:10	4:35	1.42	0.08	***					
6	8/18/2017	10:45	20:55	10.17	1.03	2 YEAR	11:25	11:55	0.50	0.564	0.012
7	8/22/17 - 8/23/17	23:40	1:45	2.08	0.17	***					
8	8/29/17 - 8/30/17	19:35	3:25	7.83	0.27	***					
TOTAL MONTH										FLOW VOLUME =	0.492

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.

August 2017 Notes:

LOCATION:

005

The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17

NPDES Permit Outfall #:

80

The overflow weir at Regulator 024 was raised 18 inches on 7/27/17

MONTH:

August YEAR: 2017

Average Low Temp:

63

Average High Temp:

80

Measured Rainfall:

3.46

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	8/2/2017	18:05	19:00	0.92	0.35	3 MONTH	8/5/2017	7:30	8:30	1.00	10.942	0.456
2	8/5/2017	6:40	8:55	2.25	1.10	2 YEAR						
3	8/7/2017 - 8/8/17	15:35	2:05	12.50	0.23	***						
4	8/12/2017	2:05	4:05	2.00	0.23	***						
5	8/15/2017	3:10	4:35	1.42	0.08	***						
6	8/18/2017	10:45	20:55	10.17	1.03	2 YEAR						
7	8/22/17 - 8/23/17	23:40	1:45	2.08	0.17	***						
8	8/29/17 - 8/30/17	19:35	3:25	7.83	0.27	***						

TOTAL MONTH FLOW VOLUME = 0.456

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: August YEAR: 2017
 Average Low Temp: 80
 Average High Temp: 63
 Measured Rainfall: 3.46
 Measured Snowfall:

August 2017 Notes:
 The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17
 The overflow weir at Regulator 024 was raised 18 inches on 7/27/17

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	8/2/2017	18:05	19:00	0.92	0.35	8/5/2017	7:55	8:45	1.17	6.794	0.330
2	8/5/2017	6:40	8:55	2.25	1.10						
3	8/7/2017 - 8/8/17	13:35	2:05	12.50	0.23						
4	8/12/2017	2:05	4:05	2.00	0.23						
5	8/15/2017	3:10	4:35	1.42	0.08						
6	8/18/2017	10:45	20:55	10.17	1.03						
7	8/22/17 - 8/23/17	23:40	1:45	2.08	0.17						
8	8/29/17 - 8/30/17	19:35	3:25	7.83	0.27						

TOTAL MONTH FLOW VOLUME = 0.330

Note: Overflow occurs when Interceptor level reaches 27"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

Grand Avenue & James Street

August 2017 Notes:

LOCATION: 009

The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17

NPDES Permit Outfall #: 80

The overflow weir at Regulator 024 was raised 18 inches on 7/27/17

MONTH: August YEAR: 2017

Average Low Temp: 80

Average High Temp: 63

Measured Rainfall: 3.45

Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)	OUTFALL Qavg (MGD)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP			DURATION (hours)
1	8/2/2017	18:05	19:00	0.92	0.35	3 MONTH	8/2/2017	18:35	18:50	0.25	0.516	0.005
2	8/5/2017	6:40	8:55	2.25	1.10	2 YEAR	8/5/2017	7:30	8:30	1.00	4.286	0.179
3	8/7/2017 - 8/8/17	13:35	2:05	12.50	0.23	***						
4	8/12/2017	2:05	4:05	2.00	0.23	***						
5	8/15/2017	3:10	4:35	1.42	0.08	***						
6	8/18/2017	10:45	20:55	10.17	1.03	2 YEAR	8/18/2017	11:15	11:55	0.67	6.337	0.176
7	8/22/17 - 8/23/17	23:40	1:45	2.08	0.17	***						
8	8/29/17 - 8/30/17	19:35	3:25	7.83	0.27	***						
										TOTAL MONTH		0.360
										FLOW VOLUME =		

Note: Overflow occurs when Interceptor level reaches 30"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

547 East Street

LOCATION:

010A

NPDES Permit Outfall #:

2017

August YEAR:

Average Low Temp:

80

Average High Temp:

63

Measured Rainfall:

3.46

Measured Snowfall:

August 2017 Notes:

The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17

The overflow weir at Regulator 024 was raised 18 inches on 7/27/17

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	8/2/2017	18:05	19:00	0.92	0.35	3 MONTH	8/5/2017	7:45	8:25	0.67	5.342	0.148
2	8/5/2017	6:40	8:55	2.25	1.10	2 YEAR						
3	8/7/2017 - 8/8/17	13:35	2:05	12.50	0.23	***						
4	8/12/2017	2:05	4:05	2.00	0.23	***						
5	8/15/2017	3:10	4:35	1.42	0.08	***						
6	8/18/2017	10:45	20:55	10.17	1.03	2 YEAR						
7	8/22/17 - 8/23/17	23:40	1:45	2.08	0.17	***						
8	8/29/17 - 8/30/17	19:35	3:25	7.83	0.27	***						
										TOTAL MONTH	0.148	
										FLOW VOLUME =		

Note: Overflow occurs when Interceptor level reaches 62"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011
 NPDES Permit Outfall #: August YEAR: 2017
 MONTH: 80
 Average Low Temp: 63
 Average High Temp: 3.46
 Measured Rainfall:
 Measured Snowfall:

August 2017 Notes:

The Truman CSO Storage Tank is offline for cleaning beginning 6/25/17
 The overflow weir at Regulator 024 was raised 18 inches on 7/27/17

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	8/2/2017	18:05	19:00	0.92	0.35	3 MONTH					
2	8/5/2017	6:40	8:55	2.25	1.10	2 YEAR		7:35	8:45	1.17	9.841
3	8/7/2017 - 8/8/17	13:35	2:05	12.50	0.23	***					
4	8/12/2017	2:05	4:05	2.00	0.23	***					
5	8/15/2017	3:10	4:35	1.42	0.08	***					
6	8/18/2017	10:45	20:55	10.17	1.03	2 YEAR					
7	8/22/17 - 8/23/17	23:40	1:45	2.08	0.17	***					
8	8/29/17 - 8/30/17	19:35	3:25	7.83	0.27	***					

TOTAL MONTH FLOW VOLUME = 0.478

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011 August 2017 Notes:
 NPDES Permit Outfall #: The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17
 MONTH: August YEAR: 2017 The overflow weir at Regulator 024 was raised 18 inches on 7/27/17

Average Low Temp: 80
 Average High Temp: 63
 Measured Rainfall: 3.46
 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	8/2/2017	18:05	19:00	0.92	0.35	3 MONTH						
2	8/5/2017	6:40	8:55	2.25	1.10	2 YEAR						
3	8/7/2017 - 8/8/17	13:35	2:05	12.50	0.23	***						
4	8/12/2017	2:05	4:05	2.00	0.23	***						
5	8/15/2017	3:10	4:35	1.42	0.08	***						
6	8/18/2017	10:45	20:55	10.17	1.03	2 YEAR						
7	8/22/17 - 8/23/17	23:40	1:45	2.08	0.17	***						
8	8/29/17 - 8/30/17	19:35	3:25	7.83	0.27	***						
											TOTAL MONTH	
											FLOW VOLUME =	0.626

Sum of 010A and 011

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Int. River & Poplar
 LOCATION: 016
 NPDES Permit Outfall #: August YEAR: 2017
 MONTH: 80
 Average Low Temp: 63
 Average High Temp: 3.46
 Measured Rainfall:
 Measured Snowfall:

August 2017 Notes:
 The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17
 The overflow weir at Regulator 024 was raised 18 inches on 7/27/17

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	8/2/2017	18:05	19:00	0.92	0.35	3 MONTH						
2	8/5/2017	6:40	8:55	2.25	1.10	2 YEAR	8/5/2017	7:40	8:35	0.92	7.958	0.304
3	8/7/2017 - 8/8/17	13:35	2:05	12.50	0.23	***						
4	8/12/2017	2:05	4:05	2.00	0.23	***						
5	8/15/2017	3:10	4:35	1.42	0.08	***						
6	8/18/2017	10:45	20:55	10.17	1.03	2 YEAR	8/18/2017	11:10	11:55	0.75	18.002	0.563
7	8/22/17 - 8/23/17	23:40	1:45	2.08	0.17	***						
8	8/29/17 - 8/30/17	19:35	3:25	7.83	0.27	***						

TOTAL MONTH FLOW VOLUME = 0.867

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

Clifton and Quininiac

LOCATION:

020

NPDES Permit Outfall #:

August YEAR: 2017

MONTH:

Average Low Temp:

80

Average High Temp:

63

Measured Rainfall:

3.46

Measured Snowfall:

August 2017 Notes:

The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17

The overflow weir at Regulator 024 was raised 18 inches on 7/27/17

EVENT NO.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	8/2/2017	18:05	19:00	0.92	0.35	3 MONTH					
2	8/5/2017	6:40	8:55	2.25	1.10	2 YEAR					
3	8/7/2017 - 8/8/17	13:35	2:05	12.50	0.23	***					
4	8/12/2017	2:05	4:05	2.00	0.23	***					
5	8/15/2017	3:10	4:35	1.42	0.08	***					
6	8/18/2017	10:45	20:35	10.17	1.03	2 YEAR		11:35	11:50	0.25	0.441
7	8/22/17 - 8/23/17	23:40	1:45	2.08	0.17	***					
8	8/29/17 - 8/30/17	19:35	3:25	7.83	0.27	***					

TOTAL MONTH FLOW VOLUME = 0.005

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
LOCATION: Sea Street @ South Water Street
NPDES Permit Outfall #: 024
MONTH: August YEAR: 2017
Average Low Temp: 80
Average High Temp: 63
Measured Rainfall: 3.46
Measured Snowfall:

August 2017 Notes:
 The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17
 The overflow weir at Regulator 024 was raised 18 inches on 7/27/17

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	8/2/2017	18:05	19:00	0.92	0.35	3 MONTH	8/5/2017	7:40	8:05	0.42	7.260	0.126
2	8/5/2017	6:40	8:55	2.25	1.10	2 YEAR						
3	8/7/2017 - 8/8/17	13:35	2:05	12.50	0.23	***						
4	8/12/2017	2:05	4:05	2.00	0.23	***						
5	8/15/2017	3:10	4:35	1.42	0.08	***						
6	8/18/2017	10:45	20:55	10.17	1.03	2 YEAR						
7	8/22/17 - 8/25/17	23:40	1:45	2.08	0.17	***						
8	8/29/17 - 8/30/17	19:35	3:25	7.83	0.27	***						
										TOTAL MONTH	FLOW VOLUME =	0.126

Note: Overflow occurs when interceptor level reaches 83" in US & 99" in DS

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG George and Temple
LOCATION: Regulator 34
NPDES Permit Outfall #: August YEAR: 2017
MONTH: August YEAR: 2017
Average Low Temp: 80
Average High Temp: 63
Measured Rainfall: 3.46
Measured Snowfall:

August 2017 Notes:

The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17
 The overflow weir at Regulator 024 was raised 18 inches on 7/27/17

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	8/2/2017	18:05	19:00	0.92	0.35	3 MONTH					
2	8/5/2017	6:40	8:55	2.25	1.10	2 YEAR					
3	8/7/2017 - 8/8/17	13:35	2:05	12.50	0.23	***					
4	8/12/2017	2:05	4:05	2.00	0.23	***					
5	8/15/2017	3:10	4:35	1.42	0.08	***					
6	8/18/2017	10:45	20:55	10.17	1.03	2 YEAR	8/18/2017	11:20	11:35	0.25	1.196
7	8/22/17 - 8/23/17	23:40	1:45	2.08	0.17	***					
8	8/29/17 - 8/30/17	19:35	3:25	7.83	0.27	***					

TOTAL MONTH FLOW VOLUME = 0.012

METER DATA

JULY 2017

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - JULY 2017

MONTHLY RAINFALL SUMMARY

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

No snowfall

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

The rain gauge was not operational for two significant rain events on 7/7/17 and 7/11/17

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	0.005
CSO 005	REG 005	0	0.000
CSO 004	REG 004	2	0.038
CSO 003	REG 003	1	0.083
CSO 024	REG 024	1	0.085
CSO 009	REG 009	2	0.013
CSO 016	REG 016	0	0.000
CSO 015	REG 015	2	0.251
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	0.381
CSO 020	REG 020	0	0.000
TOTAL		10	0.856

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - THROUGH JULY 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	73	16.159	198.85	63
CSO 005	REG 005	16	0.802	100.03	36
CSO 004	REG 004	64	6.211	100.27	36
CSO 003	REG 003	152	37.970	195.94	62
CSO 024	REG 024	54	35.034	185.62	59
CSO 009	REG 009	109	4.681	178.50	58
CSO 016	REG 016	123	44.418	181.15	61
CSO 015	REG 015	118	14.316	174.81	57
CSO 011	REGS 010A, 011, 026	53	19.672	174.13	56
CSO 012	REGS 012A, 012B, 028	9	0.102	96.54	34
CSO 025	REGS 025, 034	27	2.927	100.18	36
CSO 021	REG 021	73	46.089	175.11	57
CSO 020	REG 020	14	0.306	158.56	52
TOTAL		885	228.687		

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	3.354	14	3.078
CSO 005	REG 005	7	0.331	5	0.267
CSO 004	REG 004	26	2.556	21	2.070
CSO 003	REG 003	32	7.998	29	7.349
CSO 024	REG 024	12	7.789	11	7.126
CSO 009	REG 009	25	1.082	23	0.968
CSO 016	REG 016	28	10.119	24	8.738
CSO 015	REG 015	28	3.380	25	3.014
CSO 011	REGS 010A, 011, 026	13	4.662	11	4.215
CSO 012	REGS 012A, 012B, 028	4	0.044	3	0.036
CSO 025	REGS 025, 034	11	1.206	9	0.976
CSO 021	REG 021	17	10.862	15	9.703
CSO 020	REG 020	4	0.080	3	0.071
TOTAL		218	53.383	191	47.541
(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: July YEAR: 2017
 Average Low Temp: 81
 Average High Temp: 65
 Measured Rainfall: 2.01
 Measured Snowfall:

July 2017 Notes:
 The rain gauge was not operational between 6/30/17 and 7/12/17
 Reported daily rainfall totals are from Tweed New Haven Airport
 The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17
 The overflow weir at Regulator 024 was raised 18 inches on 7/27/17

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT						
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Cavg (MGD)	OUTFALL Q volume (MG)
1	7/6/2017				0.03							
2	7/7/2017				0.95							
3	7/11/2017				0.52							
4	7/13/2017	17:00	20:35	3.58	0.13 ***							
5	7/14/2017	8:25	14:40	6.25	0.05 ***							
6	7/24/2017	4:50	14:10	9.33	0.33 ***							
											TOTAL MONTH	0.083
											FLOW VOLUME =	0.083

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.
004

July 2017 Notes:

The rain gauge was not operational between 6/30/17 and 7/12/17
Reported daily rainfall totals are from Tweed New Haven Airport
The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17
The overflow weir at Regulator 024 was raised 18 inches on 7/27/17

July YEAR: 2017

81

65

2.01

Average Low Temp:

Average High Temp:

Measured Rainfall:

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	7/6/2017				0.03																
2	7/7/2017				0.95																
3	7/11/2017				0.52																
4	7/13/2017	17:00	20:35	3.58	0.13	***															
5	7/14/2017	8:25	14:40	6.25	0.05	***															
6	7/24/2017	4:50	14:10	9.33	0.33	***															

TOTAL MONTH FLOW VOLUME = 0.038

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 #: 2017
 MONTH: July
 Average Low Temp: 81
 Average High Temp: 65
 Measured Rainfall: 2.01
 Measured Snowfall:

July 2017 Notes:
 The rain gauge was not operational between 6/30/17 and 7/12/17
 Reported daily rainfall totals are from Tweed New Haven Airport
 The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17
 The overflow weir at Regulator 024 was raised 18 inches on 7/27/17

EVENT No.	DATE	RAINFALL EVENT			CSO EVENT			OUTFALL Qavg (MGD)	OUTFALL Q, volume (MG)
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE		
1	7/6/2017				0.03				
2	7/7/2017				0.95				
3	7/11/2017				0.52				
4	7/13/2017	17:00	20:35	3.58	0.13 ***				
5	7/14/2017	8:25	14:40	6.25	0.05 ***				
6	7/24/2017	4:50	14:10	9.33	0.33 ***				

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 71"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Whatley Ave. 30 yds from Fitch Street
 LOCATION: 006
 NPDES Permit Outfall #: July YEAR: 2017
 MONTH: 81
 Average Low Temp: 65
 Average High Temp: 2.01
 Measured Rainfall:
 Measured Snowfall:

July 2017 Notes:
 The rain gauge was not operational between 6/30/17 and 7/12/17
 Reported daily rainfall totals are from Tweed New Haven Airport
 The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17
 The overflow weir at Regulator 024 was raised 18 inches on 7/27/17

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	7/16/2017				0.03		7/7/2017	12:45	13:00	0.25	0.466	0.005
2	7/7/2017				0.95							
3	7/11/2017				0.52							
4	7/13/2017	17:00	20:35	3.58	0.13	***						
5	7/14/2017	8:25	14:40	6.25	0.05	***						
6	7/24/2017	4:50	14:10	9.33	0.33	***						

TOTAL MONTH FLOW VOLUME = 0.005

Note: Overflow occurs when interceptor level reaches 27"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

Grand Avenue & James Street

LOCATION: 009

NPDES Permit Outfall #:

MONTH: July

Average Low Temp: 81

Average High Temp: 65

Measured Rainfall: 2.01

Measured Snowfall:

July 2017 Notes:

The rain gauge was not operational between 6/30/17 and 7/12/17
 Reported daily rainfall totals are from Tweed New Haven Airport
 The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17
 The overflow weir at Regulator 024 was raised 18 inches on 7/27/17

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	7/6/2017				0.03								
2	7/7/2017				0.95								
3	7/11/2017				0.52								
4	7/13/2017	17:00	20:35	3.58	0.13	***							
5	7/14/2017	8:25	14:40	6.25	0.05	***							
6	7/24/2017	4:50	14:10	9.33	0.33	***							
											TOTAL MONTH	0.013	
											FLOW VOLUME =		

Note: Overflow occurs when Interceptor level reaches 30"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011
 NPDES Permit Outfall #: 2017
 MONTH: 81
 Average Low Temp: 65
 Average High Temp: 65
 Measured Rainfall: 2.01
 Measured Snowfall:

July 2017 Notes:

The rain gauge was not operational between 6/30/17 and 7/12/17
 Reported daily rainfall totals are from Tweed New Haven Airport
 The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17
 The overflow weir at Regulator 024 was raised 18 inches on 7/27/17

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q _v volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	START	STOP	DURATION (hours)		OUTFALL Q _{avg} (MGD)
1	7/6/2017				0.03						
2	7/7/2017				0.95						
3	7/11/2017				0.52						
4	7/13/2017	17:00	20:35	3.58	0.13 ***						
5	7/14/2017	8:25	14:40	6.25	0.05 ***						
6	7/24/2017	4:50	14:10	9.33	0.33 ***						

TOTAL MONTH FLOW VOLUME = 0.000

Sum of 010A and 011

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 75 Mitchell Drive
 NPDES Permit Outfall #: 012
 MONTH: July YEAR: 2017
 Average Low Temp: 81
 Average High Temp: 65
 Measured Rainfall: 2.01
 Measured Snowfall:

July 2017 Notes:

The rain gauge was not operational between 6/30/17 and 7/12/17
 Reported daily rainfall totals are from Tweed New Haven Airport
 The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17
 The overflow weir at Regulator 024 was raised 18 inches on 7/27/17

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	7/6/2017				0.03						
2	7/7/2017				0.95						
3	7/11/2017				0.52						
4	7/13/2017	17:00	20:35	3.58	0.13	***					
5	7/14/2017	8:25	14:40	6.25	0.05	***					
6	7/24/2017	4:50	14:10	9.33	0.39	***					

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Int. River & Poplar
 LOCATION: 016
 NPDES Permit Outfall #: 2017
 MONTH: July YEAR: 2017
 Average Low Temp: 81
 Average High Temp: 65
 Measured Rainfall: 2.01
 Measured Snowfall:

July 2017 Notes:

The rain gauge was not operational between 6/30/17 and 7/12/17
 Reported daily rainfall totals are from Tweed New Haven Airport
 The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17
 The overflow weir at Regulator-024 was raised 18 inches on 7/27/17

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	7/6/2017				0.03						
2	7/7/2017				0.95						
3	7/11/2017				0.52						
4	7/13/2017	17:00	20:35	3.58	0.13 ***						
5	7/14/2017	8:25	14:40	6.25	0.05 ***						
6	7/24/2017	4:50	14:10	9.33	0.33 ***						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

Clifton and Quinnciac

LOCATION:

020

NPDES Permit Outfall #:

2017

July YEAR:

MONTH:

81

Average Low Temp:

65

Average High Temp:

2.01

Measured Rainfall:

2.01

Measured Snowfall:

July 2017 Notes:

The rain gauge was not operational between 6/30/17 and 7/12/17
 Reported daily rainfall totals are from Tweed New Haven Airport
 The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17
 The overflow weir at Regulator 024 was raised 18 inches on 7/27/17

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)		
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)	OUTFALL Cavg (MGD)
1	7/6/2017				0.03							
2	7/7/2017				0.95							
3	7/11/2017				0.52							
4	7/13/2017	17:00	20:35	3.58	0.13	***						
5	7/14/2017	8:25	14:40	6.25	0.05	***						
6	7/24/2017	4:50	14:10	9.33	0.33	***						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 638 Long Wharf Drive
 021
 NPDES Permit Outfall #: 2017
 MONTH: July YEAR: 2017
 Average Low Temp: 81
 Average High Temp: 65
 Measured Rainfall: 2.01
 Measured Snowfall:

July 2017 Notes:
 The rain gauge was not operational between 6/30/17 and 7/12/17
 Reported daily rainfall totals are from Tweed New Haven Airport
 The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17
 The overflow weir at Regulator 024 was raised 18 inches on 7/27/17

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	7/6/2017				0.03																	
2	7/7/2017				0.95																	
3	7/11/2017				0.52																	
4	7/13/2017	17:00	20:35	3.58	0.13	***																
5	7/14/2017	8:25	14:40	6.25	0.05	***																
6	7/24/2017	4:50	14:10	9.33	0.33	***																
											TOTAL MONTH FLOW VOLUME =		0.381									

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

Sea Street @ South Water Street
024

July 2017 Notes:

The rain gauge was not operational between 6/30/17 and 7/12/17
Reported daily rainfall totals are from Tweed New Haven Airport
The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17
The overflow weir at Regulator 024 was raised 18 inches on 7/27/17

LOCATION:

NPDES Permit Outfall #:

2017

July YEAR:

MONTH:

81

Average Low Temp:

65

Average High Temp:

2.01

Measured Rainfall:

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	7/6/2017				0.03		7/7/2017	13:05	14:40	1.58	1.288	0.085
2	7/7/2017				0.95							
3	7/11/2017				0.52							
4	7/13/2017	17:00	20:35	3.58	0.13 ***							
5	7/14/2017	8:25	14:40	6.25	0.05 ***							
6	7/24/2017	4:50	14:10	9.33	0.33 ***							

TOTAL MONTH FLOW VOLUME = 0.085

Note: Overflow occurs when interceptor level reaches 65" in US & 81" in DS
Until 7/21/17 then below
Overflow occurs when interceptor level reaches 83" in US & 99" in DS

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
LOCATION: Intersection of State & N. Front Street
 025
NPDES Permit Outfall #: 2017
MONTH: July YEAR: 2017
Average Low Temp: 81
Average High Temp: 65
Measured Rainfall: 2.01
Measured Snowfall:

July 2017 Notes:

The rain gauge was not operational between 6/30/17 and 7/12/17
 Reported daily rainfall totals are from Tweed New Haven Airport
 The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17
 The overflow weir at Regulator 024 was raised 18 inches on 7/27/17

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	7/6/2017				0.03							
2	7/7/2017				0.95							
3	7/11/2017				0.52							
4	7/13/2017	17:00	20:35	3.58	0.13	***						
5	7/14/2017	8:25	14:40	6.25	0.05	***						
6	7/24/2017	4:50	14:10	9.33	0.33	***						
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 #: 2017
 MONTH: 81
 Average Low Temp: 65
 Average High Temp: 2.01
 Measured Rainfall:
 Measured Snowfall:

July 2017 Notes:
 The rain gauge was not operational between 6/30/17 and 7/12/17
 Reported daily rainfall totals are from Tweed New Haven Airport
 The Truman CSO Storage Tank is offline for cleaning beginning 6/29/17
 The overflow weir at Regulator 024 was raised 18 inches on 7/27/17

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	7/6/2017				0.03							
2	7/7/2017				0.95							
3	7/11/2017				0.52							
4	7/13/2017	17:00	20:35	3.58	0.13	***						
5	7/14/2017	8:25	14:40	6.25	0.05	***						
6	7/24/2017	4:50	14:10	9.33	0.33	***						

TOTAL MONTH FLOW VOLUME = 0.000

METER DATA

JUNE 2017

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY			
CSO FLOW MONITORING PROGRAM			
METER DATA SUMMARY - JUNE 2017			
MONTHLY RAINFALL SUMMARY			
2.16 inches of rain (3.44 inches of rain in a typical month)			
No snowfall			
11 rain events (10 rain events in a typical month)			
Three one month storms, all other storms less than 1 month return frequency			
CSO NUMBER	REGULATOR NUMBERS	CSO EVENTS	CSO VOLUME (MG)
CSO 006	REGS 006 A, 006 B	1	0.019
CSO 005	REG 005	0	0.000
CSO 004	REG 004	3	0.027
CSO 003	REG 003	3	0.014
CSO 024	REG 024	1	0.150
CSO 009	REG 009	3	0.014
CSO 016	REG 016	2	0.060
CSO 015	REG 015	4	0.394
CSO 011	REGS 010A, 011, 026	2	0.106
CSO 012	REGS 012A, 012B, 028	0	0.000
CSO 025	REGS 025, 034	1	0.001
CSO 021	REG 021	1	0.076
CSO 020	REG 020	0	0.000
TOTAL		21	0.861

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - THROUGH JUNE 2017

CSO NUMBER	REGULATOR NUMBERS	CSO EVENTS	CSO VOLUME (MG)	RAINFALL (IN)	METER MONTHS
CSO 006	REGS 006 A, 006 B	72	16.154	196.84	62
CSO 005	REG 005	16	0.802	98.02	35
CSO 004	REG 004	62	6.173	98.26	35
CSO 003	REG 003	151	37.887	193.93	61
CSO 024	REG 024	53	34.949	183.61	58
CSO 009	REG 009	107	4.668	176.49	57
CSO 016	REG 016	123	44.418	179.14	60
CSO 015	REG 015	116	14.065	172.80	56
CSO 011	REGS 010A, 011, 026	53	19.672	172.12	55
CSO 012	REGS 012A, 012B, 028	9	0.102	94.53	33
CSO 025	REGS 025, 034	27	2.927	98.17	35
CSO 021	REG 021	72	45.708	173.10	56
CSO 020	REG 020	14	0.306	156.55	51
TOTAL		875	227.831		

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	3.387	14	3.127
CSO 005	REG 005	7	0.338	5	0.275
CSO 004	REG 004	26	2.593	21	2.116
CSO 003	REG 003	32	8.063	30	7.453
CSO 024	REG 024	12	7.855	11	7.231
CSO 009	REG 009	25	1.092	23	0.983
CSO 016	REG 016	28	10.233	25	8.884
CSO 015	REG 015	28	3.359	25	3.014
CSO 011	REGS 010A, 011, 026	13	4.717	12	4.292
CSO 012	REGS 012A, 012B, 028	4	0.045	3	0.037
CSO 025	REGS 025, 034	11	1.230	9	1.004
CSO 021	REG 021	17	10.897	15	9.795
CSO 020	REG 020	4	0.081	3	0.072
TOTAL		218	53.808	193	48.210
(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: June YEAR: 2017
 Average Low Temp: 76
 Average High Temp: 59
 Measured Rainfall: 2.16
 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	5/31/2017 - 6/1/2017	23:45	2:15	2.50	0.43	1 MONTH						
2	6/4/2017 - 6/5/2017	15:55	6:05	14.17	0.33	***						
3	6/12/2017	11:00	11:05	0.08	0.04	***						
4	6/13/2017	11:25	11:30	0.08	0.01	***						
5	6/16/2017 - 6/17/2017	12:15	2:50	14.58	0.06	***						
6	6/18/2017	13:30	13:35	0.08	0.01	***						
7	6/19/2017 - 6/20/2017	18:20	4:30	10.17	0.61	1 MONTH	6/19/2017	19:15	21:10	1.92	0.124	0.010
8	6/24/2017	6:55	9:05	2.47	0.52	1 MONTH	6/24/2017	8:45	9:45	1.00	0.018	0.001
9	6/25/2017	16:00	16:05	0.08	0.01	***						
10	6/27/2017	7:20	8:25	1.08	0.14	***						
11	6/30/2017	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	6/30/2017	20:55	21:55	1.00	0.081	0.003

TOTAL MONTH FLOW VOLUME = 0.014

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: June YEAR: 2017
 Average Low Temp: 76
 Average High Temp: 59
 Measured Rainfall: 2.16
 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	5/31/2017 - 6/1/2017	23:45	2:15	2.50	0.43	1 MONTH					
2	6/4/2017 - 6/5/2017	15:55	6:05	14.17	0.33	***					
3	6/12/2017	11:00	11:05	0.08	0.04	***					
4	6/13/2017	11:25	11:30	0.08	0.01	***					
5	6/16/2017 - 6/17/2017	12:15	2:50	14.58	0.06	***					
6	6/18/2017	13:30	13:35	0.08	0.01	***					
7	6/19/2017 - 6/20/2017	18:20	4:30	10.17	0.61	1 MONTH	6/19/2017	19:15	20:55	1.67	0.226
8	6/24/2017	6:55	9:05	2.17	0.52	1 MONTH	6/24/2017	8:55	9:25	0.50	0.165
9	6/25/2017	16:00	16:05	0.08	0.01	***					
10	6/27/2017	7:20	8:25	1.08	0.14	***					
11	6/30/2017	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	6/30/2017	20:55	21:35	0.67	0.272

TOTAL MONTH FLOW VOLUME = 0.027

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 #: June YEAR: 2017
 MONTH: 76
 Average Low Temp: 59
 Average High Temp: 2.15
 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	5/31/2017 - 6/1/2017	23:45	2:15	2.50	0.43	1 MONTH						
2	6/4/2017 - 6/5/2017	15:55	6:05	14.17	0.33	***						
3	6/12/2017	11:00	11:05	0.08	0.04	***						
4	6/13/2017	11:25	11:30	0.08	0.01	***						
5	6/16/2017 - 6/17/2017	12:15	2:50	14.58	0.06	***						
6	6/18/2017	13:30	13:35	0.08	0.01	***						
7	6/19/2017 - 6/20/2017	18:20	4:30	10.17	0.61	1 MONTH						
8	6/24/2017	6:55	9:05	2.17	0.52	1 MONTH						
9	6/25/2017	16:00	16:05	0.08	0.01	***						
10	6/27/2017	7:20	8:25	1.08	0.14	***						
11	6/30/2017	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA						

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 #: June YEAR: 2017
 MONTH: 76
 Average Low Temp: 59
 Average High Temp: 2.16
 Measured Rainfall:
 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 Q volume (MGD)	
1	5/31/2017 - 6/1/2017	23:45	2:15	2.50	0.43	1 MONTH						
2	6/4/2017 - 6/5/2017	15:55	6:05	14.17	0.33	***						
3	6/12/2017	11:00	11:05	0.08	0.04	***						
4	6/13/2017	11:25	11:30	0.08	0.01	***						
5	6/16/2017 - 6/17/2017	12:15	2:50	14.58	0.06	***						
6	6/18/2017	13:30	13:35	0.08	0.01	***						
7	6/19/2017 - 6/20/2017	18:20	4:30	10.17	0.51	1 MONTH						
8	6/24/2017	6:55	9:05	2.17	0.52	1 MONTH						
9	6/25/2017	16:00	16:05	0.08	0.01	***						
10	6/27/2017	7:20	8:25	1.08	0.14	***						
11	6/30/2017	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	6/30/2017	21:00	21:25	0.42	1.086	0.019

TOTAL MONTH 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 #:

June YEAR: 2017

MONTH: 76

Average Low Temp:

59

Average High Temp:

2.16

Measured Rainfall:

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		
1	5/31/2017 - 6/1/2017	23:45	2:15	2.50	0.43	1 MONTH	6/1/2017	0:10	0:30	0.33	0.003
2	6/4/2017 - 6/5/2017	15:55	6:05	14.17	0.33	***					
3	6/12/2017	11:00	11:05	0.08	0.04	***					
4	6/13/2017	11:25	11:30	0.08	0.01	***					
5	6/16/2017 - 6/17/2017	12:15	2:50	14.58	0.06	***					
6	6/18/2017	13:30	13:35	0.08	0.01	***					
7	6/19/2017 - 6/20/2017	18:20	4:30	10.17	0.61	1 MONTH					
8	6/24/2017	6:55	9:05	2.17	0.52	1 MONTH	6/24/2017	8:10	9:15	1.08	0.010
9	6/25/2017	16:00	16:05	0.08	0.01	***					
10	6/27/2017	7:20	8:25	1.08	0.14	***					
11	6/30/2017	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	6/30/2017	20:50	21:00	0.17	0.001

TOTAL MONTH FLOW VOLUME = 0.014

Note: Overflow occurs when interceptor level reaches 30"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011
 NPDES Permit Outfall #: 2017
 MONTH: June YEAR: 2017
 Average Low Temp: 76
 Average High Temp: 59
 Measured Rainfall: 2.16
 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	5/31/2017 - 6/1/2017	23:45	2:15	2.50	0.43	1 MONTH						
2	6/4/2017 - 6/5/2017	15:55	6:05	14.17	0.33	***						
3	6/12/2017	11:00	11:05	0.08	0.04	***						
4	6/13/2017	11:25	11:30	0.08	0.01	***						
5	6/16/2017 - 6/17/2017	12:15	2:50	14.58	0.06	***						
6	6/18/2017	13:30	13:35	0.08	0.01	***						
7	6/19/2017 - 6/20/2017	18:20	4:30	10.17	0.61	1 MONTH	6/19/2017	19:00	20:50	1.83	0.921	0.070
8	6/24/2017	6:55	9:05	2.17	0.52	1 MONTH						
9	6/25/2017	16:00	16:05	0.08	0.01	***						
10	6/27/2017	7:20	8:25	1.08	0.14	***						
11	6/30/2017	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	6/30/2017	21:00	21:50	0.50	1.732	0.036

TOTAL MONTH FLOW VOLUME = 0.106

Sum of 010A and 011

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 75 Mitchell Drive
 012
 NPDES Permit Outfall #: 2017
 MONTH: June YEAR: 2017
 Average Low Temp: 76
 Average High Temp: 59
 Measured Rainfall: 2.16
 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	5/31/2017 - 6/1/2017	23:45	2:15	2:50	0.43	1 MONTH						
2	6/4/2017 - 6/5/2017	15:55	6:05	14:17	0.33	***						
3	6/12/2017	11:00	11:05	0:08	0.04	***						
4	6/13/2017	11:25	11:30	0:08	0.01	***						
5	6/16/2017 - 6/17/2017	12:15	2:50	14:58	0.06	***						
6	6/18/2017	13:30	13:35	0:08	0.01	***						
7	6/19/2017 - 6/20/2017	18:20	4:30	10:17	0.61	1 MONTH						
8	6/24/2017	6:55	9:05	2:17	0.52	1 MONTH						
9	6/25/2017	16:00	16:05	0:08	0.01	***						
10	6/27/2017	7:20	8:25	1:08	0.14	***						
11	6/30/2017	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 15 James Street 015
 NPDES Permit Outfall #: June YEAR: 2017
 MONTH: 76
 Average Low Temp: 59
 Average High Temp: 2.16
 Measured Rainfall:
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Qave (MGD)	OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP			DURATION (hours)
1	5/31/2017 - 6/1/2017	23:45	2:15	2.50	0.43	1 MONTH	6/1/2017	0:20	0:50	0.50	0.386	0.008
2	6/4/2017 - 6/5/2017	15:55	6:05	14.17	0.33	***						
3	6/12/2017	11:00	11:05	0.08	0.04	***						
4	6/13/2017	11:25	11:30	0.08	0.01	***						
5	6/16/2017 - 6/17/2017	12:15	2:50	14.58	0.06	***						
6	6/18/2017	13:30	13:35	0.08	0.01	***						
7	6/19/2017 - 6/20/2017	18:20	4:30	10.17	0.61	1 MONTH	6/19/2017	19:15	21:00	1.75	1.440	0.105
8	6/24/2017	6:55	9:05	2.17	0.52	1 MONTH	6/24/2017	8:15	9:35	1.33	3.851	0.214
9	6/25/2017	16:00	16:05	0.08	0.01	***						
10	6/27/2017	7:20	8:25	1.08	0.14	***						
11	6/30/2017	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	6/30/2017	21:00	21:25	0.42	3.853	0.067
TOTAL MONTH											FLOW VOLUME =	0.394

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

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG InL River & Poplar

LOCATION: 016

NPDES Permit Outfall #:

MONTH: June YEAR: 2017

Average Low Temp: 76

Average High Temp: 59

Measured Rainfall: 2.16

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	5/31/2017 - 6/1/2017	23:45	2:15	2.50	0.43	1 MONTH	6/1/2017	0:25	1:15	0.83	1.371	0.048
2	6/4/2017 - 6/5/2017	15:55	6:05	14.17	0.33	***						
3	6/12/2017	11:00	11:05	0.08	0.04	***						
4	6/13/2017	11:25	11:30	0.08	0.01	***						
5	6/16/2017 - 6/17/2017	12:15	2:50	14.58	0.06	***						
6	6/18/2017	13:30	13:35	0.08	0.01	***						
7	6/19/2017 - 6/20/2017	18:20	4:30	10.17	0.61	1 MONTH	6/24/2017	8:40	9:25	0.75	0.386	0.012
8	6/24/2017	6:55	9:05	2.17	0.52	1 MONTH						
9	6/25/2017	16:00	16:05	0.08	0.01	***						
10	6/27/2017	7:20	8:25	1.08	0.14	***						
11	6/30/2017	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA						

TOTAL MONTH FLOW VOLUME = 0.060

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Clifton and Quinmpiac

LOCATION: 020

NPDES Permit Outfall #:

June YEAR: 2017

MONTH:

76

Average Low Temp:

59

Average High Temp:

2.16

Measured Rainfall:

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	5/31/2017 - 6/1/2017	23:45	2:15	2.50	0.43	1 MONTH						
2	6/4/2017 - 6/5/2017	15:55	6:05	14.17	0.33	***						
3	6/12/2017	11:00	11:05	0.08	0.04	***						
4	6/13/2017	11:25	11:30	0.08	0.01	***						
5	6/16/2017 - 6/17/2017	12:15	2:50	14.58	0.06	***						
6	6/18/2017	13:30	13:35	0.08	0.01	***						
7	6/19/2017 - 6/20/2017	18:20	4:30	10.17	0.61	1 MONTH						
8	6/24/2017	6:55	9:05	2.17	0.52	1 MONTH						
9	6/25/2017	16:00	16:05	0.08	0.01	***						
10	6/27/2017	7:20	8:25	1.08	0.14	***						
11	6/30/2017	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

638 Long Wharf Drive
021

LOCATION:

NPDES Permit Outfall #:

MONTH:

Average Low Temp:

Average High Temp:

Measured Rainfall:

Measured Snowfall:

June YEAR: 2017

76

59

2.16

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/31/2017 - 6/1/2017	23:45	2:15	2.50	0.43	1 MONTH						
2	6/4/2017 - 6/5/2017	15:55	6:05	14.17	0.33	***						
3	6/12/2017	11:00	11:05	0.08	0.04	***						
4	6/13/2017	11:25	11:30	0.08	0.01	***						
5	6/16/2017 - 6/17/2017	12:15	2:50	14.58	0.06	***						
6	6/18/2017	13:30	13:35	0.08	0.01	***						
7	6/19/2017 - 6/20/2017	18:20	4:30	10.17	0.61	1 MONTH	6/19/2017	20:30	21:20	0.83	2.183	0.076
8	6/24/2017	6:55	9:05	2.17	0.52	1 MONTH						
9	6/25/2017	16:00	16:05	0.08	0.01	***						
10	6/27/2017	7:20	8:25	1.08	0.14	***						
11	6/30/2017	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA						

TOTAL MONTH
FLOW VOLUME = 0.076

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Sea Street @ South Water Street
 024
 NPDES Permit Outfall #: June YEAR: 2017
 MONTH: 76
 Average Low Temp: 59
 Average High Temp: 59
 Measured Rainfall: 2.16
 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	5/31/2017 - 6/1/2017	23:45	2:15	2:50	0.43	1 MONTH						
2	6/4/2017 - 6/5/2017	15:55	6:05	14:17	0.33	***						
3	6/12/2017	11:00	11:05	0:08	0.04	***						
4	6/13/2017	11:25	11:30	0:08	0.01	***						
5	6/16/2017 - 6/17/2017	12:15	2:50	14:58	0.06	***						
6	6/18/2017	13:30	13:35	0:08	0.01	***						
7	6/19/2017 - 6/20/2017	18:20	4:30	10:17	0.61	1 MONTH	6/19/2017	20:05	20:40	0.58	6.179	0.150
8	6/24/2017	6:55	9:05	2:17	0.52	1 MONTH						
9	6/25/2017	16:00	16:05	0:08	0.01	***						
10	6/27/2017	7:20	8:25	1:08	0.14	***						
11	6/30/2017	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA						
TOTAL MONTH											FLOW VOLUME =	0.150

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 #: June YEAR: 2017
 MONTH: 76
 Average Low Temp: 59
 Average High Temp: 2.16
 Measured Rainfall:
 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	5/31/2017 - 6/1/2017	23:45	2:15	2:50	0.43	1 MONTH						
2	6/4/2017 - 6/5/2017	15:55	6:05	14:17	0.33	***						
3	6/12/2017	11:00	11:05	0:08	0.04	***						
4	6/13/2017	11:25	11:30	0:08	0.01	***						
5	6/16/2017 - 6/17/2017	12:15	2:50	14:58	0.06	***						
6	6/18/2017	13:30	13:35	0:08	0.01	***						
7	6/19/2017 - 6/20/2017	18:20	4:30	10:17	0.61	1 MONTH						
8	6/24/2017	6:55	9:05	2:17	0.52	1 MONTH						
9	6/25/2017	16:00	16:05	0:08	0.01	***						
10	6/27/2017	7:20	8:25	1:08	0.14	***						
11	6/30/2017	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA						

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 #: 76
 MONTH: June YEAR: 2017
 Average Low Temp: 59
 Average High Temp: 2.16
 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	5/31/2017 - 6/1/2017	23:45	2:15	2.50	0.43	1 MONTH						
2	6/4/2017 - 6/5/2017	15:55	6:05	14.17	0.39	***						
3	6/12/2017	11:00	11:05	0.08	0.04	***						
4	6/13/2017	11:25	11:30	0.08	0.01	***						
5	6/16/2017 - 6/17/2017	12:15	2:50	14.58	0.06	***						
6	6/18/2017	13:30	13:35	0.08	0.01	***						
7	6/19/2017 - 6/20/2017	18:20	4:30	10.17	0.51	1 MONTH	6/19/2017	20:05	20:10	0.08	0.260	0.001
8	6/24/2017	6:55	9:05	2.17	0.52	1 MONTH						
9	6/25/2017	16:00	16:05	0.08	0.01	***						
10	6/27/2017	7:20	8:25	1.08	0.14	***						
11	6/30/2017	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA						

TOTAL MONTH FLOW VOLUME = 0.001

METER DATA

MAY 2017

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

MONTHLY RAINFALL SUMMARY

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

No. snowfall

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

Three one month storms, all other storms less than 1 month return frequency

CSO NUMBER	REGULATOR NUMBERS	CSO EVENTS	CSO VOLUME (MG)
CSO 006	REGS 006 A, 006 B	2	0.231
CSO 005	REG 005	1	0.001
CSO 004	REG 004	2	0.058
CSO 003	REG 003	2	0.030
CSO 024	REG 024	0	0.000
CSO 009	REG 009	3	0.047
CSO 016	REG 016	1	0.471
CSO 015	REG 015	2	0.250
CSO 011	REGS 010A, 011, 026	1	0.013
CSO 012	REGS 012A, 012B, 028	0	0.000
CSO 025	REGS 025, 034	0	0.000
CSO 021	REG 021	2	0.685
CSO 020	REG 020	0	0.000
TOTAL		16	1.786

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - THROUGH MAY 2017

CSO NUMBER	REGULATOR NUMBERS	CSO EVENTS	CSO VOLUME (MG)	RAINFALL (IN)	METER MONTHS
CSO 006	REGS 006 A, 006 B	71	16.135	194.68	61
CSO 005	REG 005	16	0.802	95.86	34
CSO 004	REG 004	59	6.146	96.10	34
CSO 003	REG 003	148	37.873	191.77	60
CSO 024	REG 024	52	34.799	181.45	57
CSO 009	REG 009	104	4.654	174.33	56
CSO 016	REG 016	121	44.358	176.98	59
CSO 015	REG 015	112	13.671	170.64	55
CSO 011	REGS 010A, 011, 026	51	19.566	169.96	54
CSO 012	REGS 012A, 012B, 028	9	0.102	92.37	32
CSO 025	REGS 025, 034	26	2.926	96.01	34
CSO 021	REG 021	71	45.632	170.94	55
CSO 020	REG 020	14	0.306	154.39	50
TOTAL		854	226.970		

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	3,420	14	3,174
CSO 005	REG 005	7	0,345	6	0,283
CSO 004	REG 004	25	2,639	21	2,169
CSO 003	REG 003	32	8,151	30	7,575
CSO 024	REG 024	12	7,915	11	7,326
CSO 009	REG 009	25	1,102	22	0,997
CSO 016	REG 016	28	10,344	25	9,022
CSO 015	REG 015	27	3,306	24	2,983
CSO 011	REGS 010A, 011, 026	12	4,751	11	4,348
CSO 012	REGS 012A, 012B, 028	4	0,046	3	0,038
CSO 025	REGS 025, 034	11	1,258	9	1,033
CSO 021	REG 021	17	11,017	15	9,956
CSO 020	REG 020	4	0,082	3	0,073
TOTAL		216	54,293	192	48,904
(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 #: May YEAR: 2017
 MONTH: 49
 Average Low Temp: 68
 Average High Temp: 4.05
 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	5/5/2017 - 5/7/17	5:20	18:10	60.83	0.93	1 MONTH	5/5/2017	12:55	16:35	3.67	0.168	0.026
2	5/13/2017 - 5/14/17	12:20	2:50	14.50	0.97	1 MONTH						
3	5/22/2017	3:50	20:40	16.83	0.47	***						
4	5/24/2017	6:35	7:25	0.83	0.03	***						
5	5/25/2017 - 5/26/17	6:10	7:55	25.75	1.38	1 MONTH	5/26/2017	0:20	6:05	5.75	0.016	0.004
6	5/29/2017	5:50	15:20	9.50	0.19	***						
7	5/31/2017	1:00	21:30	20.50	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.030

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 #:

May YEAR: 2017

49

Average Low Temp:

68

Average High Temp:

4.05

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	5/5/2017 - 5/7/17	5:20	18:10	60.83	0.93	1 MONTH	5/5/2017	12:55	16:25	3.50	0.239	0.035
2	5/13/2017 - 5/14/17	12:20	2:50	14.50	0.97	1 MONTH						
3	5/22/2017	3:50	20:40	16.83	0.47	***						
4	5/24/2017	6:35	7:25	0.83	0.03	***						
5	5/25/2017 - 5/26/17	6:10	7:55	25.75	1.38	1 MONTH	5/26/2017	0:10	5:50	5.67	0.099	0.023
6	5/29/2017	5:50	15:20	9.50	0.19	***						
7	5/31/2017	1:00	21:30	20.50	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.058

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

MONTH: May YEAR: 2017

NPDES Permit Outfall #: 49

Average Low Temp: 68

Average High Temp: 4.05

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	5/5/2017 - 5/7/17	5:20	18:10	60.83	0.93	1 MONTH	5/5/2017	13:05	13:15	0.17	0.209	0.001
2	5/13/2017 - 5/14/17	12:20	2:50	14.50	0.97	1 MONTH						
3	5/22/2017	3:50	20:40	16.83	0.47	***						
4	5/24/2017	6:35	7:25	0.83	0.03	***						
5	5/25/2017 - 5/26/17	6:10	7:55	25.75	1.38	1 MONTH						
6	5/29/2017	5:50	15:20	9.50	0.19	***						
7	5/31/2017	1:00	21:30	20.50	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.001

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 #: May YEAR: 2017
 MONTH: 49
 Average Low Temp: 68
 Average High Temp: 4.05
 Measured Rainfall:
 Measured Snowfall:

EVENT No.	RAINFALL EVENT							CSO EVENT				
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Avg (MGD)	OUTFALL Q. volume (MG)
1	5/5/2017 - 5/7/17	5:20	18:10	60.83	0.93	1 MONTH	5/5/2017	13:05	16:05	3.00	1.700	0.213
2	5/13/2017 - 5/14/17	12:20	2:50	14.50	0.97	1 MONTH						
3	5/22/2017	3:50	20:40	16.83	0.47	***						
4	5/24/2017	6:35	7:25	0.83	0.03	***						
5	5/25/2017 - 5/26/17	6:10	7:55	25.75	1.38	1 MONTH	5/26/2017	4:50	5:35	0.75	0.576	0.018
6	5/29/2017	5:50	15:20	9.50	0.19	***						
7	5/31/2017	1:00	21:50	20.50	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.231

Note: Overflow occurs when Interceptor level reaches 27"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Grand Avenue & James Street

LOCATION: 009

NPDES Permit Outfall #:

MONTH: May YEAR: 2017

Average Low Temp: 49

Average High Temp: 68

Measured Rainfall: 4.05

Measured Snowfall:

EVENT No.	RAINFALL EVENT				CSO EVENT				OUTFALL Q. volume (MG)			
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START		STOP	DURATION (hours)	OUTFALL Qavg (MGD)
1	5/5/2017 - 5/7/17	5:20	18:10	60.83	0.93	1 MONTH	5/5/2017	12:50	15:40	2.83	0.252	0.036
2	5/13/2017 - 5/14/17	12:20	2:50	14.50	0.97	1 MONTH	5/13/2017 - 5/14/17	22:05	0:00	1.92	0.090	0.007
3	5/22/2017	3:50	20:40	16.83	0.47	***						
4	5/24/2017	6:35	7:25	0.83	0.03	***						
5	5/25/2017 - 5/26/17	6:10	7:55	25.75	1.38	1 MONTH	5/26/2017	4:10	4:50	0.33	0.275	0.004
6	5/29/2017	5:50	15:20	9.50	0.19	***						
7	5/31/2017	1:00	21:30	20.50	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.047

Note: Overflow occurs when Interceptor level reaches 30"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011
 NPDES Permit Outfall #: May YEAR: 2017
 MONTH: 49
 Average Low Temp: 68
 Average High Temp: 4.05
 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	5/5/2017 - 5/7/17	5:20	18:10	60.83	0.93	1 MONTH	5/5/2017	13:05	13:50	0.75	0.013	0.013
2	5/13/2017 - 5/14/17	12:20	2:50	14.50	0.97	1 MONTH						
3	5/22/2017	3:50	20:40	16.83	0.47	***						
4	5/24/2017	6:35	7:25	0.83	0.03	***						
5	5/25/2017 - 5/26/17	6:10	7:55	25.75	1.38	1 MONTH						
6	5/29/2017	5:50	15:20	9.50	0.19	***						
7	5/31/2017	1:00	21:30	20.50	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.013

Sum of 010A and 011

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 75 Mitchell Drive

LOCATION: 012

NPDES Permit Outfall #:

MONTH: May YEAR: 2017

Average Low Temp: 49

Average High Temp: 68

Measured Rainfall: 4.05

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	5/5/2017 - 5/7/17	5:20	18:10	60.83	0.93 1 MONTH					
2	5/13/2017 - 5/14/17	12:20	2:50	14.50	0.97 1 MONTH					
3	5/22/2017	3:50	20:40	16.83	0.47 ***					
4	5/24/2017	6:35	7:25	0.83	0.03 ***					
5	5/25/2017 - 5/26/17	6:10	7:55	25.75	1.38 1 MONTH					
6	5/29/2017	5:50	15:20	9.50	0.19 ***					
7	5/31/2017	1:00	21:30	20.50	0.08 ***					

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 15 James Street

LOCATION: 015

NPDES Permit Outfall #:

MONTH: May YEAR: 2017

49

68

4.05

Average Low Temp:

Average High Temp:

Measured Rainfall:

Measured Snowfall:

EVENT No.	RAINFALL EVENT				CSO EVENT				OUTFALL Q. volume (MG)			
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START		STOP	DURATION (hours)	OUTFALL Qavg (MGD)
1	5/5/2017 - 5/7/17	5:20	18:10	60.83	0.93	1 MONTH	5/5/2017	13:00	14:00	1.00	3.133	0.131
2	5/13/2017 - 5/14/17	12:20	2:50	14.50	0.97	1 MONTH	5/5/2017	15:10	15:55	0.75	2.951	0.092
3	5/22/2017	3:50	20:40	16.83	0.47	***	5/13/2017 - 5/14/17	23:50	0:15	0.42	1.533	0.027
4	5/24/2017	6:35	7:25	0.83	0.03	***						
5	5/25/2017 - 5/26/17	6:10	7:55	25.75	1.38	1 MONTH						
6	5/29/2017	5:50	15:20	9.50	0.19	***						
7	5/31/2017	1:00	21:30	20.50	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.250

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

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Int. River & Poplar 016
 NPDES Permit Outfall #: 016
 MONTH: May YEAR: 2017
 Average Low Temp: 49
 Average High Temp: 68
 Measured Rainfall: 4.05
 Measured Snowfall:

EVENT No.	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)			
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START		STOP	DURATION (hours)	OUTFALL Qavg (MGD)
1	5/5/2017 - 5/7/17	5:20	18:10	60.83	0.93	1 MONTH	5/5/2017	13:05	15:55	2.83	3.986	0.471
2	5/13/2017 - 5/14/17	12:20	2:50	14.50	0.97	1 MONTH						
3	5/22/2017	3:50	20:40	16.83	0.47	***						
4	5/24/2017	6:35	7:25	0.83	0.08	***						
5	5/25/2017 - 5/26/17	6:10	7:55	25.75	1.38	1 MONTH						
6	5/29/2017	5:50	15:20	9.50	0.19	***						
7	5/31/2017	1:00	21:30	20.50	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.471

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Clifton and Quimpiac
 NPDES Permit Outfall #: 020
 MONTH: May YEAR: 2017
 Average Low Temp: 49
 Average High Temp: 68
 Measured Rainfall: 4.05
 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	5/5/2017 - 5/7/17	5:20	18:10	60.83	0.93	1 MONTH						
2	5/13/2017 - 5/14/17	12:20	2:50	14.50	0.97	1 MONTH						
3	5/22/2017	3:50	20:40	16.83	0.47	***						
4	5/24/2017	6:35	7:25	0.83	0.03	***						
5	5/25/2017 - 5/26/17	6:10	7:55	25.75	1.38	1 MONTH						
6	5/29/2017	5:50	15:20	9.50	0.19	***						
7	5/31/2017	1:00	21:30	20.50	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 638 Long Wharf Drive

LOCATION: 021

NPDES Permit Outfall #:

MONTH: May YEAR: 2017

Average Low Temp: 49

Average High Temp: 68

Measured Rainfall: 4.05

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	5/5/2017 - 5/7/17	5:20	18:10	60.83	0.93	1 MONTH	5/5/2017	13:30	16:45	3.25	5.302	0.680
2	5/13/2017 - 5/14/17	12:20	2:50	14.50	0.97	1 MONTH						
3	5/22/2017	3:50	20:40	16.83	0.47	***						
4	5/24/2017	6:35	7:25	0.83	0.03	***						
5	5/25/2017 - 5/26/17	6:10	7:55	25.75	1.38	1 MONTH	5/26/2017	5:45	6:00	0.25	0.459	0.005
6	5/29/2017	5:50	15:20	9.50	0.19	***						
7	5/31/2017	1:00	21:30	20.50	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.685

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Sea Street @ South Water Street
 OZA
 MONTH: May YEAR: 2017
 Average Low Temp: 49
 Average High Temp: 68
 Measured Rainfall: 4.05
 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	5/5/2017 - 5/7/17	5:20	18:10	60.83	0.93	1 MONTH						
2	5/13/2017 - 5/14/17	12:20	2:50	14.50	0.97	1 MONTH						
3	5/22/2017	3:50	20:40	16.83	0.47	***						
4	5/24/2017	6:35	7:25	0.83	0.03	***						
5	5/25/2017 - 5/26/17	6:10	7:55	25.75	1.38	1 MONTH						
6	5/29/2017	5:50	15:20	9.50	0.19	***						
7	5/31/2017	1:00	21:30	20.50	0.08	***						
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: May YEAR: 2017
 Average Low Temp: 49
 Average High Temp: 68
 Measured Rainfall: 4.05
 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	5/5/2017 - 5/7/17	5:20	18:10	60.83	0.93	1 MONTH						
2	5/13/2017 - 5/14/17	12:20	2:50	14.50	0.97	1 MONTH						
3	5/22/2017	3:50	20:40	16.83	0.47	****						
4	5/24/2017	6:35	7:25	0.83	0.03	****						
5	5/25/2017 - 5/26/17	6:10	7:55	25.75	1.38	1 MONTH						
6	5/29/2017	5:50	15:20	9.50	0.19	****						
7	5/31/2017	1:00	21:30	20.50	0.08	****						

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 #: May YEAR: 2017
 MONTH: 49
 Average Low Temp: 68
 Average High Temp: 68
 Measured Rainfall: 4.05
 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	5/5/2017 - 5/7/17	5:20	18:10	60.83	0.93	1 MONTH						
2	5/13/2017 - 5/14/17	12:20	2:50	14.50	0.97	1 MONTH						
3	5/22/2017	3:50	20:40	16.83	0.47	***						
4	5/24/2017	6:35	7:25	0.83	0.03	***						
5	5/25/2017 - 5/26/17	6:10	7:55	25.75	1.38	1 MONTH						
6	5/29/2017	5:50	15:20	9.50	0.19	***						
7	5/31/2017	1:00	21:30	20.50	0.08	***						

TOTAL MONTH FLOW VOLUME = 0.000