



Greater New Haven Water Pollution Control Authority

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June 30, 2021

Mr. George V. Hicks, P.E,
Department of Energy and Environmental Protection
Planning & Standards Division
Bureau of Water Protection and Land Reuse
79 Elm Street
Hartford, CT 06106-5127

Subject: GNHWPCA Annual Progress Report
Consent Order WC5509

Dear Mr. Hicks:

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

Please find the following attachments as summary of our progress:

Attachment "A" is an updated version of the CSO LTCP Table, the general format of this table was approved by DEEP on 9/14/11. We have updated the Table based on the results contained in the 2016 CSO LTCP Update Report as well as changes made to the combined sewer system during the previous year. This report was approved by DEEP on May 14, 2018.

Attachment "B" is a listing of Approval / Denial letters the Authority has received from the DEEP between July 1, 2020 and the date of this letter.

Attachment "C" is a listing of emails and letters between DEEP, EPA and the Authority from July 1, 2020 to the time of this letter. The emails are limited to those which include a transmission of documents or critical information relevant to the consent order and/or moving projects to construction through the CWF program. Please note that Attachments "C" is not intended to be comprehensive listings of all correspondence between GNHWPCA and DEEP. Rather they are those communications that contain material and substantive information on the relative subjects.

Mr. George V. Hicks, P.E.
June 30, 2021
Page 2 of 2

Attachment "D" includes calibrated flow monitoring results obtained from all Permitted CSO outfalls between May 2020 and April 2021. A current CSO Map has also been included as part of this attachment.

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

Sincerely,

Greater New Haven Water Pollution Control Authority

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

Sidney J. Holbrook

Executive Director

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

w/ Attachments

ATTACHMENT “A”

GNHWPCA

CSO LTCP

ANNUAL STATUS REPORT

FY 2021

2021 ANNUAL REPORT
ATTACHMENT "A"

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CSO LONG TERM CONTROL PLAN ANNUAL STATUS REPORT
June 9, 2021

1997 EXISTING CONDITIONS MODEL						CALIBRATED 2016 CONDITIONS MODEL				2021 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 2013-2021	2021 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 - Phase 1	Active	Wet Weather Improvements - Phase 2	Active w/ Treatment	No model data
CSO 002	2	2	E.T.G. Boulevard @ Lambertson Street	West River	Active	1.5	Truman Tank	Closed	0.0	1.5	CSO 002	CSO 002		Closed		Closed	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 completed in 2020 - weir raised 16 inches	Active	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 completed in 2020 - weir raised 24 inches	Active	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 completed in 2020 - weir raised 42 inches	Active	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 & CSO Storage Tank	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 in 2014	Closed		Closed	0.00
CSO 010 (A)		13	East Street @ I-91	Mill River	Active	Discharges to CSO 011 outfall		Active	Discharges to CSO 011 outfall	Discharges to CSO 011 outfall	CSO 010 (A)	R 010 (A)	Closed in 2020	Closed		Closed	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		Active	0.2	0.8	CSO 012	CSO 012	Closed in 2018	Closed		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 in 2014	Closed		Closed	0.00
CSO 013 (A)		17	East Rock Road @ Everitt Street		Active	Discharges to CSO 013 outfall		Closed			CSO 013 (A)			Closed		Closed	0.00
CSO 014	14	18	Trumbull Street @ Orange Street	Mill River	Active	Discharges to CSO 011 outfall		Closed			CSO 014		Closed in 2014	Closed		Closed	0.00
CSO 015	15	19	James Street Siphon	Quinnipiac River	Active	1.5		Active	0.7	0.8	CSO 015	CSO 015	Replaced duckbill in 2021	Active	Sewer Separation & CSO Storage Tank	Inactive	0.00
CSO 016	16	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	17	21	Grand Avenue @ Front Street	Quinnipiac River	Closed	0.0		Closed	0.0	0.0	CSO 017			Closed		Closed	0.00
CSO 018	18	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	19	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	20	24	Quinnipiac Avenue @ Clifton Street	Quinnipiac River	Active	0.1		Active	0.1	0.0	CSO 020	CSO 020	Closed in 2019	Closed		Closed	0.00
CSO 021	21	25	East Street Pump Station	New Haven Harbor	Active	1.4	Sewer Separation	Active	1.5	-0.1	CSO 021	CSO 021	Major Pump Station Design Underway; Replaced duckbill in 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	22	27	Allen Place	New Haven Harbor	Active	No model data	Sewer Separation	Closed			CSO 022			Closed		Closed	0.00
CSO 023	23	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	24	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; Replaced duckbills in 2021	Active	Major Pump Station Upgrade & CSO Storage Tank	Inactive	0.00
CSO 025	25	30	Union Pump Station	New Haven Harbor	Active	1.4	Sewer Separation	Active	1.0	0.4	CSO 025	CSO 025	Weir raised 9.15 feet in 2019	Active	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	26	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	Closed in 2019	Closed		Closed	0.00
CSO 027	27	34	East / Ives	Mill River	Active	0.4		Closed	0.0	0.4	CSO 027			Closed		Closed	0.00
CSO 028	28	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	Closed in 2018	Closed		Closed	0.00
CSO 029	29	36	Barnes Pump Station	Quinnipiac River	Active	No model data	Pump Station Upgrade	Closed			CSO 029			Closed		Closed	0.00
CSO 030	30	37	Quinnipiac Pump Station	Quinnipiac River	Active	No model data	Pump Station Upgrade	Closed			CSO 030			Closed		Closed	0.00
CSO 031	31	38	South Frontage / Davenport	New Haven Harbor	Active	Discharges to CSO 025 outfall	Sewer Separation	Closed			CSO 031		Closed in 2013	Closed		Closed	0.00
CSO 032	32	39	Port Sea / Liberty	New Haven Harbor	Active	Discharges to CSO 025 outfall	Sewer Separation	Closed			CSO 032		Closed in 2014	Closed		Closed	0.00
CSO 033	33	40	Carlisle / Liberty	New Haven Harbor	Active	Discharges to CSO 025 outfall	Sewer Separation	Closed			CSO 033			Closed		Closed	0.00
CSO 034	34	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	Closed in 2019	Closed		Closed	0.00
CSO 035	35	42	Woodward Pump Station	New Haven Harbor	Active	No model data		Closed			CSO 035			Closed		Closed	0.00
(not assigned)	36	43	Greene Street	New Haven Harbor	Active	0.3		Closed	0.0	0.3	(not assigned)		Closed in 2014	Closed		Closed	0.00
N/A	37	44	Middletown / Front	Quinnipiac River	Closed	0.0		Closed	0.0	0.0	N/A			Closed		Closed	0.00
N/A	38	45	State / James	Mill River	Closed	0.0		Closed	0.0	0.0	N/A			Closed		Closed	0.00
CSO VOLUME (MG)						26.0			14.3	11.7							0.00
CSO VOLUME REDUCTION (%)						0.0			45%								100%
NUMBER OF ACTIVE CSO REGULATORS						40			18					12			0
NUMBER OF INACTIVE / CLOSED CSO REGULATORS						5			27					33			45
NUMBER OF ACTIVE CSO OUTFALLS						26			14					12			0
NUMBER OF INACTIVE / CLOSED CSO OUTFALLS						5			17					19			31

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

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

ATTACHMENT “B”

**DEEP LETTER
CORRESPONDENCE**

FY 2021



FY 2021 DEEP LETTER CORRESPONDENCE						
APPROVAL DATE	LETTER TYPE	CWF #	PROJECT	Amount	TO	FROM
10/22/20	Approval	227CSL	I/I Rehab Middle Thorp Dr & Paradis Ave		Sid Holbrook	Jennifer Perry, PE
11/13/20	Approval	CWF 227CSL	I/I Rehabilitation Hamden & East Haven, Approval of Construction Phase Services Scope	\$649,138	Sid Holbrook	Jennifer Perry, PE
12/30/20	Authorization to Award	227CSL	I/I Rehab Middle Thorp Dr & Paradis Ave	\$5,323,493	Sid Holbrook	Jennifer Perry, PE
01/14/21	SSES Approval		SSES Mill River Sewershed Areas 7,1,15,22		Sid Holbrook	Jennifer Perry, PE
01/29/21	Approval	227CSL	I/I Rehab Middle Thorp Dr & Paradis Ave - Approval Const Admin and Inspection Draft Scope	\$649,138	Sid Holbrook	Jennifer Perry, PE
02/10/21	Email / Easement	227 CSL	I/I Rehabilitation Hamden & East Haven - Recorded Temporary Easement from CT DEEP dated 1/25/2021		Mario Ricoszi	Allyson Clarke
03/16/21	Email / EIE Notice		Environmental Impact Evaluation - CSO LTCP		Michael Smart, New Haven	Casey Chartier
05/03/21	Approval		CSO LTCP Engineering Agreement Approval	\$498,557	Sid Holbrook	Jennifer Perry, PE

ATTACHMENT "C"

DEEP / GNHWPCA

LETTER & EMAIL

CORRESPONDENCE

FY 2021



FY 2021 GNHWPCA LETTER & E-MAIL CORRESPONDENCE/TRANSMITTALS					
DATE	DOCUMENT TYPE	Ref/CWF #	PROJECT	TO	FROM
06/23/20	Email	Consent Order	Annual Progress Report 2019-2020 (hard copy mailed dated 6/30/20)	George Hicks / Jennifer Perry	Tom Sgroi
07/18/20	Email chain	CWF 727D	Funding Design of East St Pump Station Design	George Hicks	Tom Sgroi
08/08/20	Email	CSO	Annual Report to EPA Jack Melcher cc George	Jack Melcher / George Hicks	Tom Sgroi
08/10/20	Email	COP	Compliance Certification Form 202001655-COP	Colin Clark	Mario Ricozzi
08/14/20	Email	CWF 227CSL	I/I Rehabilitation Hamden & East Haven, Temporary Easement Survey	Allyson Clarke/ Brian Florek	Mario Ricozzi
09/03/20	Email	CSO	CSO Discharge Progress Ltr copy (6/11/20)	George Hicks	Tom Sgroi
09/30/20	Email Chain	N/A	Near Term Construction Projects	George Hicks	Tom Sgroi
10/15/20	Email	CWF 227CSL	I/I Rehabilitation Hamden & East Haven, Request to Award Construction Contract	Patricia Reilly	Mario Ricozzi
11/12/20	Email Chain	CWF 718PG	I/I Study/SSES Grant Closure	George Hicks	Tom Sgroi
11/20/20	Email	N/A	Save the Sound Notice of Intent to file Suit	George Hicks / Jennifer Perry	Tom Sgroi
12/10/20	Email Chain	CWF 227CSL	Grant Award Authorization Status	Jennifer Perry	Tom Sgroi
01/12/21	Email	CWF 227CSL	I/I Rehabilitation Hamden & East Haven, Request Final Approval of Const. Phase Services Scope	Stephen Muollo	Mario Ricozzi
04/15/21	Email	CWF TBD-PG	I/I Study SSES Mill River Sewershed Areas 6, 9, & 13 Draft Scope	Casey Chartier	Mario Ricozzi
04/15/21	Email	CWF TBD-PG	CSO LTCP Update Draft Scope of Services	Casey Chartier	Mario Ricozzi
04/26/21	CWF Application	CWF TBD-PG	CWF Planning Grant Application - CSO LTCP Update and SSES Mill River Areas 6, 9, & 13	Susan Hawkins	Sid Holbrook
04/26/21	CWF Application	CWF TBD-PG	CWF Planning Grant Application - CSO LTCP Update and SSES Mill River Areas 6, 9, & 14	Marie Moylan Hoadley (Treas)	Sid Holbrook
05/06/21	Email	CWF TBD-PG	CSO LTCP Update Final Scope of Services	Casey Chartier	Mario Ricozzi
05/06/21	Email	CWF 727D	Request for Sole Sourcing of Process Air Compressor Equipment	Casey Chartier / Catharine Chu	Mario Ricozzi

ATTACHMENT “D”

**ANNUAL CSO FLOW
MONITORING DATA**

JUNE 2021

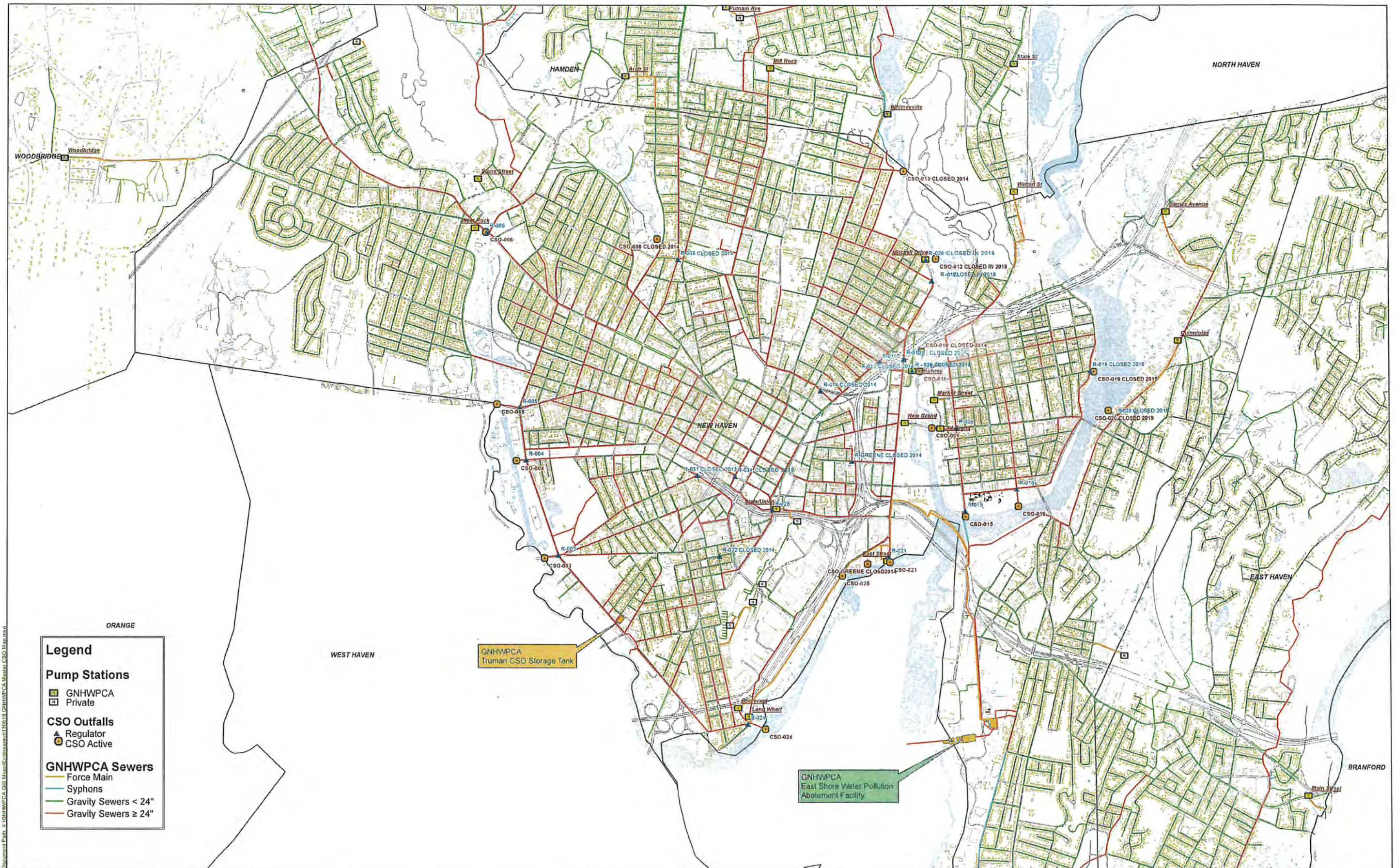
ATTACHMENT "D"

**JUNE 2021
ANNUAL CSO FLOW MONITORING PROGRAM DATA**

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UPDATED SEWER MAP



Legend

Pump Stations

- GNHWPCA
- Private

CSO Outfalls

- Regulator
- CSO Active

GNHWPCA Sewers

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



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

1 inch = 1,250 feet

Document Path: X:\GNHWPCA GIS Master\GIS\Information\130519 GNHWPCA Master CSO Map.mxd

**REGULATOR & CSO
DESIGNATIONS & STATUS**

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

REGULATOR AND CSO DESIGNATIONS AND STATUS

6/8/2021

(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 raised 16 inches in 2020
#004	E.T. Grasso Boulevard @ Legion Av	West River	Active	#004	Active	#004	Weir raised 24 inches in 2020
#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	Weir raised 42 inches in 2020
#008	Munson St @ Orchard St	Mill River	Active	#008	Closed in 2014	#008	Closed in 2014
#009	Grande Av @ James St	Mill River	Active	#009	Active	#009	Weir raised 8 inches in 2015
#010	East St @ I-91 (2 Weirs/2 Regulators)	Mill River	Active	#010	Closed in 2014	#010	Closed in 2014
#010 (A)	East St @ I-91 (2 Weirs/2 Regulators)	Mill River	Active	#011	Active	#010 (A)	Closed in 2020
#011	Humphrey St @ I-91	Mill River	Active	#011	Active	#011	Active
#012	Mitchell Dr east of Nicoll St	Mill River	Active	#012	Closed in 2018	#012	Closed in 2018
#013	Everitt St @ East Rock Rd	Mill River	Active	#013	Closed in 2014	#013	Closed in 2014
#013 (A)	East Rock Rd @ Everitt St	Mill River	Active	None	Closed prior to 2008	None	Closed prior to 2008
#014	Trumbull St @ Orange St	Mill River	Active	#011	Active	#014	Closed in 2014
#015	James St Siphon	Quinnipiac River	Active	#015	Active	#015	Active
#016	Poplar St @ River St	Quinnipiac River	Active	#016	Active	#016	Weir repaired in 2014
#019	Pine St @ North Front St	Quinnipiac River	Active	#019	Closed in 2015	#019	Closed in 2015
#020	Quinnipiac Av @ Clifton St	Quinnipiac River	Active	#020	Closed in 2019	#020	Closed in 2019
#021	East St Pump Station	New Haven Harbor	Active	#021	Active	#021	Active
#021 (A)	Chapel/Hamilton	New Haven Harbor	Active	None	Closed prior to 2008	None	Closed prior to 2008
#024	Boulevard Pump Station (Sea St)	New Haven Harbor	Active	#024	Active	#024	Weir raised 1.5 feet in 2017
#025	Union Pump Station (Union & State St)	New Haven Harbor	Active	#025	Active	#025	Weir raised 9.15 feet in 2019
#025 (A)	Elm/University Place	New Haven Harbor	Active	None	Closed prior to 2008	None	Closed prior to 2008
#025 (B)	Grove/Whitney	New Haven Harbor	Active	None	Closed prior to 2008	None	Closed prior to 2008
#026	Humphrey Pump Station	Mill River	Active	#011	Active	#026	Closed in 2019
#027	East/Ives	Mill River	Active	None	Closed prior to 2008	None	Closed prior to 2008
#028	Mitchell Pump Station	Mill River	Active	#012	Closed in 2018	#028	Closed in 2018
#031	S. Frontage/Davenport	New Haven Harbor	Active	None	Closed in 2013	None	Closed in 2013
#032	Port Sea/Liberty	New Haven Harbor	Active	#025	Active	#032	Closed in 2014
#033	Carlisle/Liberty	New Haven Harbor	Active	None	Closed prior to 2008	None	Closed prior to 2008
#034	George/Temple	New Haven Harbor	Active	#025	Active	#034	Closed in 2019
	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
				11	ACTIVE CSOs	11	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 WATER POLLUTION CONTROL AUTHORITY
CSO FLOW MONITORING PROGRAM
METER LOCATION SUMMARY
JUNE 8, 2021

ALL ELEVATIONS REFER TO NAVD88 DATUM

METERS OF-003 SEWER AND OF-003 REGULATOR

- Meter OF-003 Sewer was installed in the 72 inch wide by 67 inch high Boulevard Trunk Sewer downstream of Regulator 003 in June 2012 at an invert elevation of 1.34 feet. The new overflow depth in the sewer is 67 inches when the new overflow weir is set at the maximum overflow elevation of 6.51 feet.
- Meter OF-003 Overflow was installed in the 54 inch overflow pipe in June 2012 at an invert elevation of 1.70 feet. This meter was removed in August 2019 during construction of the new regulator as a part of project CWF 2016 -03. The new Meter OF-003 Regulator was installed in the new Regulator 003 structure in January 2020 to measure depth on the sewer side of the new overflow weir (and potentially depth and velocity on the drain side of the new overflow weir in the future). Regulator weir height is 66 inches.
- The old regulator consisted of a 5 foot long transverse weir in the 72 inch wide by 67 inch high Boulevard Trunk Sewer at elevation 5.15 feet. The old regulator weir was removed to an elevation of 3.95 feet to accommodate peak CSO design flows. The new structure was constructed over the 54 inch CSO Outfall 003 and consists of three concrete weirs at the approximate elevation of the old weir (5.18 feet) equipped with guide rails to add up to four 4 inch stop logs each. The new overflow weir has a total length of 12 feet three inches (13.92 feet per CSL) and a maximum overflow elevation of 6.51 feet. The bottom of the roof slab is at elevation 7.26 feet leaving a 9 inch clear opening over the stop logs.
- CSO start and stop times are based on depths on the sewer side of the overflow weir greater than the overflow weir elevation of 66 inches as measured at the new Meter OF-003 Regulator.
- CSO volumes are calculated using the Weir Formula for depths over the weir of up to 9 inches and the Orifice Equation for depths over the weir greater than 9 inches.
- Check the SCADA data to confirm that the Boulevard Pump Station is pumping at maximum flow of 27 to 33 MGD and that the Truman CSO Storage Tank was in service during any CSO events.

METERS OF-004 SEWER AND OF-004 REGULATOR

- Meter OF-004 Sewer was installed in the 72 inch wide by 64 inch high Boulevard Trunk Sewer downstream of Regulator 004 in June 2012 at an invert elevation of 3.00 feet. The new overflow depth in the sewer is 73 inches when the new overflow weir is set at the maximum overflow elevation of 8.71 feet.

- Meter OF-004 Overflow was installed in the 5 foot wide by 3 foot high box culvert overflow in June 2012 at an invert elevation of 3.01 feet. This meter was removed in August 2019 during construction of the new regulator as a part of project CWF 2016 -03. The new Meter OF-004 Regulator was installed in the new Regulator 004 structure in January 2020 to measure depth on the sewer side of the new overflow weir (and potentially depth and velocity on the drain side of the new overflow weir in the future). Regulator weir height is 101 inches.
- The old regulator consisted of three weirs; each two feet wide at an elevation of 5.92 feet. The weirs were raised 8 inches in July 2014 to elevation 6.59 feet. The old regulator weir was removed to an elevation of 5.92 feet to accommodate peak CSO design flows. The new regulator structure was constructed over the 5 foot wide by 3 foot high box culvert CSO 004 Outfall and consists of a concrete weir at the approximate elevation of the old weir (6.71 feet) equipped with guide rails to add up to four 6 inch stop logs. The new overflow weir has a total length of 4 feet (between elevations 6.71 feet and 8.71 feet). Above the maximum overflow elevation of 8.71 feet the total weir length is 8.88 feet. The bottom of the roof slab is at elevation 11.21 feet leaving a 30 inch clear opening over the stop logs.
- CSO start and stop times are based on depths on the sewer side of the overflow weir greater than the overflow weir elevation of 101 inches as measured at the new Meter OF-004 Regulator.
- CSO volumes are calculated using the Weir Formula for depths over the weir of up to 30 inches and the Orifice Equation for depths over the weir greater than 30 inches.
- Check the SCADA data to confirm that the Boulevard Pump Station is pumping at maximum flow of 27 to 33 MGD and that the Truman CSO Storage Tank was in service during any CSO events.

METERS OF-005 SEWER AND OF-005 OVERFLOW

- Meter OF-005 Sewer was installed in the 60 inch wide by 57 inch high Boulevard Trunk Sewer at Regulator 005 in June 2012 at an elevation of 3.85 feet. Overflow depth is 82 inches.
- Meter OF-005 Overflow was installed in the 48 inch overflow pipe in June 2012 at an invert elevation of 7.35 feet (downstream of the 36 inch drain connection).
- Meter OF-005 Overflow was reinstalled in the 48 inch overflow pipe in November 2013 at an invert elevation of 7.35 feet (upstream of the 36 inch drain connection).
- A new brick overflow weir was constructed in the 48 inch overflow pipe upstream of Meter OF-005 Overflow in July 2014 at an elevation of 10.25 feet.
- CSO start and stop times are based on a depth greater than 82 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.
- Check the SCADA data to confirm that the Boulevard Pump Station is pumping at maximum flow of 27 to 33 MGD and that the Truman CSO Storage Tank was in service during any CSO events.

METERS OF-006 SEWER AND OF-006 REGULATOR

- Meter OF-006 Sewer was installed in the 36 inch sewer upstream of the 60 inch wide by 57 inch high Boulevard Trunk Sewer and the two overflow pipes in June 2012 at an invert elevation of 7.20 feet. The new overflow depth in the sewer is 72 inches when the new overflow weir is set at the maximum overflow elevation of 13.02 feet.
- Meters OF-006 Overflows AA and BB were installed in the twin 24 inch overflow pipes in July 2012 at an invert elevation of 9.49 feet, which is equal to the overflow elevation. These meters were removed in August 2019 during construction of the new regulator as a part of project CWF 2016 -03. The new Meter OF-006 Regulator was installed in the new Regulator 006 structure in January 2020 to measure depth on the sewer side of the new overflow weir (and potentially depth and velocity on the drain side of the new overflow weir in the future). Regulator weir height is 42 inches.
- The new Regulator 006 structure was constructed downstream of the two 24 inch overflow pipes and consists of a concrete weir at the approximate elevation of the old weir (9.52 feet) equipped with guide rails to add up to seven 6 inch stop logs. The new overflow weir has a total length of 4 feet (between elevations 9.52 feet and 13.02 feet). Above the maximum overflow elevation of 13.02 feet the total weir length is 5.96 feet. The bottom of the roof slab is at elevation 14.52 feet leaving an 18 inch clear opening over the stop logs.
- CSO start and stop times are based on depths on the sewer side of the overflow weir greater than the overflow weir elevation of 42 inches as measured at the new Meter OF-006 Regulator.
- CSO volumes are calculated using the Weir Formula for depths over the weir of up to 18 inches and the Orifice Equation for depths over the weir greater than 18 inches.
- Check the SCADA data to confirm that the Boulevard Pump Station is pumping at maximum flow of 27 to 33 MGD and that the Truman CSO Storage Tank was in service during any CSO events.

METERS OF-009 SEWER AND OF-009 OVERFLOW

- Meter OF-009 Overflow was installed in the 30 inch wide by 45 inch high overflow pipe in October 2012 at an invert elevation of 2.65 feet.
- The regulator consists of a 5.5 foot long weir at an elevation of 4.65 feet. The weir was rebuilt in January 2013. The overflow was raised 8 inches to elevation 5.32 feet in June 2015. Regulator weir height is 32 inches.
- Meter OF-009 Sewer was installed in the 35 inch wide by 52 inch high James Street sewer one manhole upstream of Regulator 009 in July 2015 at an invert elevation of 2.81 feet. The overflow depth is 30 inches.
- CSO start and stop times are based on a depth greater than 30 inches at Meter OF-009 Sewer 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. A new check valve was installed in CSO Outfall 009 in July 2020.
- Check the meter data at Meter OF-015 DS to confirm that the James Street siphon is operating at maximum flow of 24 MGD during any CSO events.

METER OF-010 SEWER

- Meter OF-010 Sewer was installed in the 54 inch East Street sewer at Regulator 010A in September 2012 at an invert elevation of 7.42 feet. The overflow depth to CSO Outfall 011 was 62 inches.
- The regulator was a 114 inch wide weir at elevation 12.62 feet.
- Regulator 010A was closed in March 2020.
- Meter OF-010 Sewer was left in place to measure flows in the East Street sewer upstream of the East Street Pump Station.

METERS OF-011-631 AND OF-011-819

- Four meters were installed in December 2012 to estimate CSOs at Regulator 011.
- Meter OF-011-997 was installed in the 30 inch sewer on State Street upstream of Regulator 011. This meter was removed in September 2013. Metered flows were very consistent and relatively small.
- Meter OF-011-609 was installed in the 25 inch wide by 37 inch high sewer on Humphrey Street upstream of Regulator 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 Regulator 011.
- Meter OF-011-819 was installed in the 42 inch discharge pipe in Humphrey Street downstream of Regulator 011. The capacity of the 42 inch sewer is approximately 18 to 20 MGD.
- CSO start and stop times at Regulator 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 Regulator 011 are estimated using the resultant flows as calculated above.

HUMPHREY STREET PUMP STATION

- Regulator 026 was a 10 inch overflow pipe from the Humphrey Street Pump Station wetwell to CSO Outfall 011.
- CSO Regulator 026 was closed in September 2019 as a part of the Humphrey Street Pump Station upgrade project.

CSO REGULATOR 012 AND CSO OUTFALL 012

- Meters OF-012 Overflows A and B were installed in the twin 18 inch overflow pipes in October 2012 at an invert elevation of 13.05 feet. These meters were removed in September 2014.
- New 6 inch high weirs were installed in each 18 inch overflow pipes in May 2013 at an elevation of 13.65 feet.
- Meter OF-012 Sewer was installed in the 36 inch wide by 55 inch high sewer in Mitchell Drive, three manholes downstream of Regulator 012, at an invert elevation of 9.89 feet. The overflow depth was 36 inches.
- CSO Regulator 012 and CSO Outfall 012 were closed in October 2018 as a part of project CWF 2016-02.

MITCHELL DRIVE PUMP STATION

- Regulator 028 was a 15 inch overflow pipe from the Mitchell Drive Pump Station wetwell to CSO Outfall 012.
- CSO Regulator 028 was closed in October 2018 as a part of the Mitchell Drive Pump Station upgrade project.

METERS OF-015 US AND OF-015 DS

- Meter OF-015 US was installed in the 45 inch James Street sewer upstream of Regulator 015 in October 2012 at an invert elevation of -1.21 feet.
- Meter OF-015 DS was installed in the 48 inch sewer to the James Street siphon inlet works building downstream of Regulator 015 in October 2012 at an invert elevation of -2.15 feet. The 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 feet.
- CSO start and stop times are based on depths greater than 40.5 inches at Meter OF-015 DS.
- CSO volumes are calculated by subtracting the Meter 015 DS flows from the Meter 015 US flows.
- A new check valve was installed in the chamber just upstream of CSO Outfall 015 in July 2020 to replace the defective duckbill.
- Check the meter data at Meter OF-015 DS to confirm that the James Street siphon is operating at maximum flow of 24 MGD during any CSO events.

METERS OF-016 SEWER AND OF-016 OVERFLOW DS

- Meter OF-016 Overflow was installed in the 48 inch wide by 60 inch high overflow pipe in Poplar Street in August 2012 at an invert elevation of -0.43 feet. A redundant depth and velocity meter (Meter OF-016 Overflow DS) was installed in the overflow pipe one manhole downstream from Meter OF-016 Overflow in October 2019 at an invert elevation of -0.57 feet. Regulator weir height is 35 inches. The data from Meter OF-016 Overflow DS confirmed that the depth and
- S:\PROJECTS\CONSENT ORDER REPORTING\2-ANNUAL PROGRESS REPORTS - DUE JUNE
30\2021\Working Documents\210608 Meter Location Summary.docx

velocity measurements at Meter OF-016 Overflow were being influenced by local hydraulic conditions. Meter OF-016 Overflow was removed in January 2020.

- Meter OF-016 Sewer was installed in the 54 inch sewer two manholes downstream of Regulator 016 in River Street in July 2017 at an invert elevation of -0.03 feet. The overflow depth is 28.5 inches.
- The regulator consists of a 3.8 foot long brick weir at an elevation of 2.35 feet.
- CSO start and stop times are based on depths greater than 28.5 inches at Meter OF-016 Sewer and positive velocities at Meter OF-016 Overflow DS.
- CSO volumes are calculated based on depths and velocities at Meter OF-016 Overflow DS, the hydraulic elements chart and the Continuity Equation.
- A new check valve was installed in the chamber just upstream of CSO Outfall 016 in 2018 to replace the defective duckbill.
- Check the meter data at Meter OF-015 DS to confirm that the James Street siphon is operating at maximum flow of 24 MGD during any CSO events.

CSO REGULATOR 020 AND CSO OUTFALL 020

- Meter OF-020 Overflow (depth sensor) was installed in the 15 inch overflow pipe in Clifton Street at Regulator 020 in March 2013 at an invert elevation of 12.90 feet.
- Meter OF-020 Sewer was installed in the 24 inch sewer in Quinnipiac Avenue at Regulator 020 in March 2013 at an invert elevation of 10.45 feet. The overflow depth was 30 inches.
- The regulator was a 15 inch pipe.
- CSO Regulator 020 and CSO Outfall 020 were closed in July 2019 as a part of project CWF 2016-02.

METERS OF-021 AND E ST PS SEWER

- Meter E St PS Sewer was installed in the 62 inch wide by 67 inch high East Street sewer upstream of Regulator 021 in September 2012 at an invert elevation of -0.95 feet. The overflow elevation is 90 inches.
- Meter OF-021 was installed in Regulator 021 at the East Street Pump Station in November 2012 at an invert elevation of -2.21 feet. The meter records the depths on the sewer side over the overflow weir. Regulator weir height is 32.5 inches.
- The regulator is twin 84 inch wide steel plate weirs at elevation 5.29 feet.
- There is a duckbill on the overflow pipe in a chamber just upstream of CSO Outfall 021 that was installed in 2015.
- CSO start and stop times are based on a depth above the overflow weir elevation of 32.5 inches at Regulator 021 as measured by Meter OF-021.
- CSO volumes are calculated based on depths over the twin 84 inch weirs at Regulator 021 using the Weir Formula.

- Check the SCADA data to confirm that the East Street Pump Station is pumping at maximum flow of 40 to 45 MGD during any CSO events.
- Check the SCADA data to confirm that the Union Pump Station is pumping at maximum flow of 20 to 22 MGD during any CSO events.

METERS OF-024 US, OF-024 DS AND OF-024 WEIR WALL

- Meter OF-024 US was installed in the 84 inch wide by 69 inch high Boulevard Trunk Sewer upstream of Regulator 024 in July 2012 at an invert elevation of -2.22 feet. The overflow depth is 83 inches.
- Meter OF-024 DS was installed in the 48 inch sewer to the Boulevard Pump Station downstream of Regulator 024 in July 2012 at an invert elevation of -3.19 feet. The overflow depth is 99 inches.
- The regulator consists of three weirs each 4.5 feet wide at an elevation of 2.99 feet. The weir elevation was raised 18 inches to elevation 4.49 feet in July 2017.
- Meter OF-024 Weir Wall was installed in Regulator 024 in October 2012 to measure the depth on the sewer side of the weir at Regulator 024. Regulator weir height is 12 inches.
- CSO start and stop times are based on depths above the overflow weir elevation of 12 inches as measured at Meter 024 Weir Wall.
- CSO volumes are calculated by subtracting the Meter OF-024 DS flows from the Meter OF-024 US flows.
- A new influent gate was installed at the Boulevard Pump Station in March 2019 to prevent the level in the wetwell from reaching the walkways. When wetwell levels exceed 180 inches the gate starts to close to maintain wetwell levels at 180 inches.
- Check the SCADA data to confirm that the Boulevard Pump Station is pumping at maximum flow of 27 to 33 MGD and that the Truman CSO Storage Tank was in service during any CSO events.

METERS OF-025 STATE, OF-025 FRONTAGE, OF-025 COLUMBUS AND OF-025 REGULATOR

- Meter OF-025 State was installed in the 48 inch wide by 60 inch high sewer on State Street upstream of Regulator 025 in September 2013 at an invert of 3.87 feet. The rim elevation is 15.35 feet. The distance from the rim to the invert is 138 inches.
- Meter OF-025 Frontage was installed in the 30 inch sewer on North Frontage Road upstream of Regulator 025 in September 2013 at an invert of 1.95 feet. The rim elevation is 16.45 feet. The distance from the rim to the invert is 174 inches.
- Meter OF-025 Columbus was installed in the 30 inch sewer on Columbus Avenue upstream of Regulator 025 in November 2013 at an invert of -1.78 feet. The rim elevation is 9.95 feet. The distance from the rim to the invert is 141 inches.
- Meter OF-025 Weir was installed in Regulator 025 in November 2013. This meter was removed in December 2018 during construction of the new regulator as a part of project CWF 2016-05.

The new Meter OF-025 Regulator was installed in the new Regulator 025 structure in July 2019 to measure depths on the sewer side and the storm side of the new overflow weir.

- The old regulator was a 45 inch long overflow weir made up of stainless steel plates at an overflow elevation of 5.35 feet. The old regulator weir was removed. The new regulator structure was constructed above the old regulator structure and consists of a concrete weir at 11.91 feet equipped with guide rails to add up to five 6 inch stop logs. The new overflow weir has a total length of 9 feet and a maximum overflow elevation of 14.41 feet. Regulator weir height is 48 inches. The bottom of the roof slab is at elevation 16.66 feet leaving a 27 inch clear opening over the stop logs.
- CSO start and stop times are based on depths on the sewer side of the overflow weir greater than the overflow weir elevation of 48 inches as measured at the new Meter OF-025 Regulator.
- CSO volumes are calculated using the Weir Formula for depths over the weir of up to 27 inches and the Orifice Equation for depths over the weir greater than 27 inches.
- Check the SCADA data to confirm that the Union Pump Station is pumping at maximum flow of 20 to 22 MGD during any CSO events.
- Check the SCADA data to confirm that the East Street Pump Station is pumping at maximum flow of 40 to 45 MGD during any CSO events.

METER REGULATOR 034 – GEORGE

- Meter Regulator 034 - George was installed in the 36 inch wide by 48 inch high sewer on George Street upstream of Regulator 034 in September 2013 at an invert of 11.89 feet. The rim elevation is 20.45 feet. The distance from the rim to the invert is 103 inches. Meter Regulator 034-George was left in place to measure flows in the George Street Sewer upstream of Regulator 025 and the Union Pump Station.
- Meter Regulator 034 - Temple was installed in the 25 inch wide by 37 inch high sewer on Temple Street upstream of Regulator 034 in September 2013 at an invert of 12.52 feet. The rim elevation is 20.95 feet. The distance from the rim to the invert is 102 inches. Meter Regulator 034 – Temple was removed in October 2019.
- Meter Regulator 034 - Weir was installed in Regulator 034 in November 2013. Sensors were metering the depths on each side of the overflow weir. Meter Regulator 034 - Weir was removed in January 2019.
- The overflow weir consisted of wood stop logs, 6.6 feet long, at an overflow elevation of 11.65 feet. The overflow elevation was raised two feet by adding stop logs to elevation 13.65 feet in August 2014.
- CSO Regulator 034 was closed in January 2019 as a part of project CWF 2016-05.

METER GNH1

- Meter GNH1 was installed in the 72 inch wide by 64 inch high Boulevard Trunk Sewer downstream of the Truman Tank Diversion Chamber in June 2012 at an invert elevation of 0.25 feet. The overflow depth is 36 inches.
- The regulator is a 10 foot long 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 and SCADA depths in the Truman Tank.
- CSO storage volumes are calculated based on SCADA depths in the Truman Tank. Each foot of depth in each cell equates to 122,500 gallons.

METER DATA

SUMMARY

MAY 2020 - APRIL 2021

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - MAY 2020 THROUGH APRIL 2021

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>	<u>RAINFALL (IN)</u>	<u>METER MONTHS</u>
CSO 006	REG 006	1	0.011	36.16	12
CSO 005	REG 005	1	0.072	36.16	12
CSO 004	REG 004	2	0.151	36.16	12
CSO 003	REG 003	3	0.136	36.16	12
CSO 024	REG 024	1	0.861	36.16	12
CSO 009	REG 009	15	0.898	36.16	12
CSO 016	REG 016	26	4.765	36.16	12
CSO 015	REG 015	29	3.831	36.16	12
CSO 011	REG 011	5	0.305	36.16	12
CSO 025	REG 025	0	0	36.16	12
CSO 021	REG 021	13	7.427	36.16	12
TOTAL		96	18.457		

METER DATA

APRIL 2021

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY			
CSO FLOW MONITORING PROGRAM			
METER DATA SUMMARY - APRIL 2021			
MONTHLY RAINFALL SUMMARY			
3.18 inches of rain (3.44 inches of rain in a typical month)			
No snow			
9 rain events (10 rain events in a typical month)			
One 6 month storm. All other storms less than 1 month return frequency.			
<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>
CSO 006	REG 006	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	1	0.861
CSO 009	REG 009	0	0.000
CSO 016	REG 016	1	0.122
CSO 015	REG 015	2	0.872
CSO 011	REG 011	0	0.000
CSO 025	REG 025	0	0.000
CSO 021	REG 021	1	0.217
TOTAL		5	2.072

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - STCP 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	REG 006	1	0.009	1	0.008		
CSO 005	REG 005	2	0.072	2	0.067		
CSO 004	REG 004	3	0.153	3	0.143		
CSO 003	REG 003	4	0.244	4	0.227		
CSO 024	REG 024	2	0.868	2	0.808		
CSO 009	REG 009	17	0.993	16	0.924		
CSO 016	REG 016	31	6.572	29	6.113		
CSO 015	REG 015	33	3.910	31	3.637		
CSO 011	REG 011	5	0.294	5	0.274		
CSO 025	REG 025	0	0.000	0	0.000		
CSO 021	REG 021	14	7.583	13	7.053		
TOTAL		111	20.699	104	19.252		

(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 #: April YEAR: 2021
 MONTH: 42
 Average Low Temp: 59
 Average High Temp: 3.18
 Measured Rainfall: 0.00
 Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q. volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	4/11/2021	21:15	21:20	0.08	0.01	**					
2	4/12/2021	2:50	16:25	13.58	0.04	**					
3	4/15/2021	6:35	23:35	17.00	2.07	6 month					
4	4/16/2021	2:25	17:05	14.67	0.14	**					
5	4/17/2021	12:45	12:50	0.08	0.01	**					
6	4/21/2021	11:10	18:00	6.83	0.27	**					
7	4/25/2021	4:45	10:55	6.17	0.59	**					
8	4/28/2021	21:05	21:10	0.08	0.01	**					
9	4/29/2021	4:45	15:35	10.83	0.04	**					

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when interceptor level reaches 67"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Ella T. Grasso Blvd. - 23 yds North of Legion Ave.
LOCATION: 004
NPDES Permit Outfall #:
MONTH: April YEAR: 2021
Average Low Temp: 42
Average High Temp: 59
Measured Rainfall: 3.18
Measured Snowfall: 0

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	4/11/2021	21:15	21:20	0.08	0.01	**						
2	4/12/2021	2:50	16:25	13.58	0.04	**						
3	4/15/2021	6:35	23:35	17.00	2.07	6 month						
4	4/16/2021	2:25	17:05	14.67	0.14	**						
5	4/17/2021	12:45	12:50	0.08	0.01	**						
6	4/21/2021	11:10	18:00	6.83	0.27	**						
7	4/25/2021	4:45	10:55	6.17	0.59	**						
8	4/28/2021	21:05	21:10	0.08	0.01	**						
9	4/29/2021	4:45	15:35	10.83	0.04	**						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 73"

FLOW MONITORING REPORT SUMMARY TABLE

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

LOCATION:

NPDES Permit Outfall #:

MONTH: April YEAR: 2021

Average Low Temp: 42

Average High Temp: 59

Measured Rainfall: 3.18

Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT						CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)	
1	4/11/2021	21:15	21:20	0.08	0.01	**							
2	4/12/2021	2:50	16:25	13.58	0.04	**							
3	4/15/2021	6:35	23:35	17.00	2.07	6 month							
4	4/16/2021	2:25	17:05	14.67	0.14	**							
5	4/17/2021	12:45	12:50	0.08	0.01	**							
6	4/21/2021	11:10	18:00	6.83	0.27	**							
7	4/25/2021	4:45	10:55	6.17	0.59	**							
8	4/28/2021	21:05	21:10	0.08	0.01	**							
9	4/29/2021	4:45	15:35	10.83	0.04	**							

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when interceptor level reaches 82"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Whalley Ave. 30 yds from Fitch Street
 006
 NPDES Permit Outfall #: April YEAR: 2021
 MONTH: 42
 Average Low Temp: 59
 Average High Temp: 3.18
 Measured Rainfall: 0
 Measured Snowfall: 0

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	4/11/2021	21:15	21:20	0.08	0.01	**						
2	4/12/2021	2:50	16:25	13.58	0.04	**						
3	4/15/2021	6:35	23:35	17.00	2.07	6 month						
4	4/16/2021	2:25	17:05	14.67	0.14	**						
5	4/17/2021	12:45	12:50	0.08	0.01	**						
6	4/21/2021	11:10	18:00	6.83	0.27	**						
7	4/25/2021	4:45	10:55	6.17	0.59	**						
8	4/28/2021	21:05	21:10	0.08	0.01	**						
9	4/29/2021	4:45	15:35	10.83	0.04	**						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when interceptor level reaches 72"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Grand Avenue & James Street
 009

NPDES Permit Outfall #:

MONTH: April YEAR: 2021

Average Low Temp:

42

Average High Temp:

59

Measured Rainfall:

3.18

Measured Snowfall:

0

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	4/11/2021	21:15	21:20	0.08	0.01	**						
2	4/12/2021	2:50	16:25	13.58	0.04	**						
3	4/15/2021	6:35	23:35	17.00	2.07	6 month						
4	4/16/2021	2:25	17:05	14.67	0.14	**						
5	4/17/2021	12:45	12:50	0.08	0.01	**						
6	4/21/2021	11:10	18:00	6.83	0.27	**						
7	4/25/2021	4:45	10:55	6.17	0.59	**						
8	4/28/2021	21:05	21:10	0.08	0.01	**						
9	4/29/2021	4:45	15:35	10.83	0.04	**						
											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 #:

MONTH: April YEAR: 2021

Average Low Temp: 42

Average High Temp: 59

Measured Rainfall: 3.18

Measured Snowfall: 0

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	4/11/2021	21:15	21:20	0.08	0.01	**						
2	4/12/2021	2:50	16:25	13.58	0.04	**						
3	4/15/2021	6:35	23:35	17.00	2.07	6 month						
4	4/16/2021	2:25	17:05	14.67	0.14	**						
5	4/17/2021	12:45	12:50	0.08	0.01	**						
6	4/21/2021	11:10	18:00	6.83	0.27	**						
7	4/25/2021	4:45	10:55	6.17	0.59	**						
8	4/28/2021	21:05	21:10	0.08	0.01	**						
9	4/29/2021	4:45	15:35	10.83	0.04	**						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 15 James Street
 NPDES Permit Outfall #: 015
 MONTH: April YEAR: 2021
 Average Low Temp: 42
 Average High Temp: 59
 Measured Rainfall: 3.18
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	4/11/2021	21:15	21:20	0.08	0.01	**						
2	4/12/2021	2:50	16:25	13.58	0.04	**						
3	4/15/2021	6:35	23:35	17:00	2.07	6 month	4/15/2021	16:55	22:10	4.67	4.19	0.814
4	4/16/2021	2:25	17:05	14.67	0.14	**						
5	4/17/2021	12:45	12:50	0.08	0.01	**						
6	4/21/2021	11:10	18:00	6.83	0.27	**	4/21/2021	16:20	16:40	0.33	4.15	0.058
7	4/25/2021	4:45	10:55	6.17	0.59	**						
8	4/28/2021	21:05	21:10	0.08	0.01	**						
9	4/29/2021	4:45	15:35	10.83	0.04	**						

TOTAL MONTH FLOW VOLUME = 0.872

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: April YEAR: 2021

Average Low Temp: 42

Average High Temp: 59

Measured Rainfall: 3.18

Measured Snowfall: 0

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	4/11/2021	21:15	21:20	0.08	0.01	**						
2	4/12/2021	2:50	16:25	13.58	0.04	**						
3	4/15/2021	6:35	23:35	17.00	2.07	6 month	4/15/2021	19:20	21:35	2.25	1.30	0.122
4	4/16/2021	2:25	17:05	14.67	0.14	**						
5	4/17/2021	12:45	12:50	0.08	0.01	**						
6	4/21/2021	11:10	18:00	6.83	0.27	**						
7	4/25/2021	4:45	10:55	6.17	0.59	**						
8	4/28/2021	21:05	21:10	0.08	0.01	**						
9	4/29/2021	4:45	15:35	10.83	0.04	**						

TOTAL MONTH FLOW VOLUME = 0.122

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 638 Long Wharf Drive
 021
 NPDES Permit Outfall #: 021
 MONTH: April YEAR: 2021
 Average Low Temp: 42
 Average High Temp: 59
 Measured Rainfall: 3.18
 Measured Snowfall: 0

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	4/11/2021	21:15	21:20	0.08	0.01	**							
2	4/12/2021	2:50	16:25	13.58	0.04	**							
3	4/15/2021	6:35	23:35	17.00	2.07	6 month	4/15/2021	18:00	21:20	2.42	2.16	0.217	
4	4/16/2021	2:25	17:05	14.67	0.14	**							
5	4/17/2021	12:45	12:50	0.08	0.01	**							
6	4/21/2021	11:10	18:00	6.83	0.27	**							
7	4/25/2021	4:45	10:55	6.17	0.59	**							
8	4/28/2021	21:05	21:10	0.08	0.01	**							
9	4/29/2021	4:45	15:35	10.83	0.04	**							

TOTAL MONTH FLOW VOLUME = 0.217

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Sea Street @ South Water Street
 024
 NPDES Permit Outfall #: 2021
 MONTH: April YEAR: 2021
 Average Low Temp: 42
 Average High Temp: 59
 Measured Rainfall: 3.18
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	4/11/2021	21:15	21:20	0.08	0.01	**						
2	4/12/2021	2:50	16:25	13.58	0.04	**						
3	4/15/2021	6:35	23:35	17.00	2.07	6 month	4/15/2021	19:10	21:55	2.75	7.51	0.861
4	4/16/2021	2:25	17:05	14.67	0.14	**						
5	4/17/2021	12:45	12:50	0.08	0.01	**						
6	4/21/2021	11:10	18:00	6.83	0.27	**						
7	4/25/2021	4:45	10:55	6.17	0.59	**						
8	4/28/2021	21:05	21:10	0.08	0.01	**						
9	4/29/2021	4:45	15:35	10.83	0.04	**						
TOTAL MONTH											FLOW VOLUME =	0.861

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
NPDES Permit Outfall #: 025
MONTH: April **YEAR:** 2021
Average Low Temp: 42
Average High Temp: 59
Measured Rainfall: 3.18
Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	4/11/2021	21:15	21:20	0:08	0.01	**					
2	4/12/2021	2:50	16:25	13:58	0.04	**					
3	4/15/2021	6:35	23:35	17:00	2.07	6 month					
4	4/16/2021	2:25	17:05	14:57	0.14	**					
5	4/17/2021	12:45	12:50	0:08	0.01	**					
6	4/21/2021	11:10	18:00	6:83	0.27	**					
7	4/25/2021	4:45	10:55	6:17	0.59	**					
8	4/28/2021	21:05	21:10	0:08	0.01	**					
9	4/29/2021	4:45	15:35	10:83	0.04	**					

TOTAL MONTH
FLOW VOLUME = 0.000

METER DATA

MARCH 2021

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY			
CSO FLOW MONITORING PROGRAM			
METER DATA SUMMARY - MARCH 2021			
<u>MONTHLY RAINFALL SUMMARY</u>			
3.19 inches of rain (3.44 inches of rain in a typical month)			
1 inch of snow			
7 rain events (10 rain events in a typical month)			
Two 1 month storms. All other storms less than 1 month return frequency.			
<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>
CSO 006	REG 006	0	0.000
CSO 005	REG 005	0	0.000
CSO 004	REG 004	0	0.000
CSO 003	REG 003	0	0.000
CSO 024	REG 024	0	0.000
CSO 009	REG 009	1	0.063
CSO 016	REG 016	1	0.486
CSO 015	REG 015	1	0.113
CSO 011	REG 011	0	0.000
CSO 025	REG 025	0	0.000
CSO 021	REG 021	0	0.101
TOTAL		3	0.763

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - STCP 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	REG 006	1	0.009	1	0.009		0.009
CSO 005	REG 005	3	0.077	2	0.071		0.071
CSO 004	REG 004	3	0.163	3	0.152		0.152
CSO 003	REG 003	4	0.260	4	0.242		0.242
CSO 024	REG 024	1	0.186	1	0.173		0.173
CSO 009	REG 009	18	1.059	17	0.986		0.986
CSO 016	REG 016	32	6.902	30	6.422		6.422
CSO 015	REG 015	34	3.419	31	3.182		3.182
CSO 011	REG 011	5	0.314	5	0.292		0.292
CSO 025	REG 025	0	0.000	0	0.000		0.000
CSO 021	REG 021	14	7.899	13	7.350		7.350
TOTAL		114	20.289	106	18.878		18.878

(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 #: 003
 MONTH: March YEAR: 2021
 Average Low Temp: 33
 Average High Temp: 51
 Measured Rainfall: 3.19
 Measured Snowfall: 1

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	3/12/2021	6:05	6:10	0.08	0.01	**						
2	3/18/2021	11:35	21:00	9.42	1.00	1 month						
3	3/19/2021	1:10	1:40	0.50	0.02	**						
4	3/24/2021-3/25/2021	20:40	5:00	8.33	0.66	**						
5	3/26/2021	2:50	3:40	0.83	0.11	**						
6	3/28/2021	10:40	23:05	12.42	0.89	1 month						
7	3/31/2021-4/1/2021	16:40	3:25	10.75	0.50	**						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when interceptor level reaches 67"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 Ella T. Grasso Blvd. - 23 yds North of Legion Ave.
LOCATION: 004
NPDES Permit Outfall #:
MONTH: March YEAR: 2021
 33
 51
Average Low Temp: 3.19
Average High Temp:
Measured Rainfall: 1
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	3/12/2021	6:05	6:10	0.08	0.01	**					
2	3/18/2021	11:35	21:00	9.42	1.00	1 month					
3	3/19/2021	1:10	1:40	0.50	0.02	**					
4	3/24/2021-3/25/2021	20:40	5:00	8.33	0.66	**					
5	3/26/2021	2:50	3:40	0.83	0.11	**					
6	3/28/2021	10:40	23:05	12.42	0.89	1 month					
7	3/31/2021-4/1/2021	16:40	3:25	10.75	0.50	**					
TOTAL MONTH										FLOW VOLUME =	0.000

Note: Overflow occurs when Interceptor level reaches 73"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Derby Ave. 20 yds East of Ella T. Grasso Blvd.
 LOCATION: 005
 NPDES Permit Outfall #: 33
 MONTH: March YEAR: 2021
 Average Low Temp: 51
 Average High Temp: 3.19
 Measured Rainfall: 1
 Measured Snowfall: 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	3/12/2021	6:05	6:10	0.08	0.01 **							
2	3/18/2021	11:35	21:00	9.42	1.00 1 month							
3	3/19/2021	1:10	1:40	0.50	0.02 **							
4	3/24/2021-3/25/2021	20:40	5:00	8.33	0.66 **							
5	3/26/2021	2:50	3:40	0.83	0.11 **							
6	3/28/2021	10:40	23:05	12.42	0.89 1 month							
7	3/31/2021-4/1/2021	16:40	3:25	10.75	0.50 **							

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when interceptor level reaches 82"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Whalley Ave. 30 yds from Fitch Street
 006
 NPDES Permit Outfall #: 2021
 MONTH: March YEAR: 2021
 Average Low Temp: 33
 Average High Temp: 51
 Measured Rainfall: 3.19
 Measured Snowfall: 1

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q. volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	3/12/2021	6:05	6:10	0.08	0.01	**					
2	3/18/2021	11:35	21:00	9.42	1.00	1 month					
3	3/19/2021	1:10	1:40	0.50	0.02	**					
4	3/24/2021-3/25/2021	20:40	5:00	8.33	0.66	**					
5	3/26/2021	2:50	3:40	0.83	0.11	**					
6	3/28/2021	10:40	23:05	12.42	0.89	1 month					
7	3/31/2021-4/1/2021	16:40	3:25	10.75	0.50	**					

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 72"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Grand Avenue & James Street
 009
 NPDES Permit Outfall #: 33
 MONTH: March YEAR: 2021
 Average Low Temp: 51
 Average High Temp: 3.19
 Measured Rainfall: 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	3/12/2021	6:05	6:10	0:08	0.01 **							
2	3/18/2021	11:35	21:00	9:42	1.00 1 month							
3	3/19/2021	1:10	1:40	0:50	0.02 **							
4	3/24/2021-3/25/2021	20:40	5:00	8:33	0.66 **							
5	3/26/2021	2:50	3:40	0:83	0.11 **							
6	3/28/2021	10:40	23:05	12:42	0.89 1 month	3/28/2021	21:10	21:30	0:33	4.53	0.063	
7	3/31/2021-4/1/2021	16:40	3:25	10:75	0.50 **							

TOTAL MONTH FLOW VOLUME = 0.063

Note: Overflow occurs when interceptor level reaches 30"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011
 NPDES Permit Outfall #: March YEAR: 2021
 MONTH: 33
 Average Low Temp: 51
 Average High Temp: 3.19
 Measured Rainfall: 1
 Measured Snowfall: 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	3/12/2021	6:05	6:10	0:08	0.01	**						
2	3/18/2021	11:35	21:00	9:42	1.00	1 month						
3	3/19/2021	1:10	1:40	0:50	0.02	**						
4	3/24/2021-3/25/2021	20:40	5:00	8:33	0.66	**						
5	3/26/2021	2:50	3:40	0:83	0.11	**						
6	3/28/2021	10:40	23:05	12:42	0.89	1 month						
7	3/31/2021-4/1/2021	16:40	3:25	10:75	0.50	**						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 15 James Street
 015
 NPDES Permit Outfall #:
 MONTH: March YEAR: 2021
 33
 51
 Average Low Temp:
 Average High Temp:
 Measured Rainfall: 3.19
 Measured Snowfall: 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	3/12/2021	6:05	6:10	0.08	0.01	**						
2	3/18/2021	11:35	21:00	9.42	1.00	1 month						
3	3/19/2021	1:10	1:40	0.50	0.02	**						
4	3/24/2021-3/25/2021	20:40	5:00	8.33	0.66	**						
5	3/26/2021	2:50	3:40	0.83	0.11	**						
6	3/28/2021	10:40	23:05	12.42	0.89	1 month	3/28/2021	11:35	22:00	2.59	4.520	0.486
7	3/31/2021-4/1/2021	16:40	3:25	10.75	0.50	**						

TOTAL MONTH FLOW VOLUME = 0.486

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

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Intc River & Poplar
 LOCATION: 016

NPDES Permit Outfall #:

MONTH: March YEAR: 2021

Average Low Temp: 33

Average High Temp: 51

Measured Rainfall: 3.19

Measured Snowfall: 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	3/12/2021	6:05	6:10	0.08	0.01	**						
2	3/18/2021	11:35	21:00	9.42	1.00	1 month						
3	3/19/2021	1:10	1:40	0.50	0.02	**						
4	3/24/2021-3/25/2021	20:40	5:00	8.33	0.66	**						
5	3/26/2021	2:50	3:40	0.83	0.11	**						
6	3/28/2021	10:40	23:05	12.42	0.89	1 month	3/28/2021	11:35	21:55	1.42	1.91	0.113
7	3/31/2021-4/1/2021	16:40	3:25	10.75	0.50	**						

TOTAL MONTH FLOW VOLUME = 0.113

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 638 Long Wharf Drive

LOCATION: 021

NPDES Permit Outfall #:

MONTH: March YEAR: 2021

Average Low Temp: 33

Average High Temp: 51

Measured Rainfall: 3.19

Measured Snowfall: 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	3/12/2021	6:05	6:10	0:08	0.01	**						
2	3/18/2021	11:35	21:00	9:42	1.00	1 month						
3	3/19/2021	1:10	1:40	0:50	0.02	**						
4	3/24/2021-3/25/2021	20:40	5:00	8:33	0.66	**						
5	3/26/2021	2:50	3:40	0:83	0.11	**						
6	3/28/2021	10:40	23:05	12:42	0.89	1 month						
7	3/31/2021-4/1/2021	16:40	3:25	10:75	0.50	**						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 Sea Street @ South Water Street
 024
 LOCATION:
 NPDES Permit Outfall #: 024
 MONTH: March YEAR: 2021
 Average Low Temp: 33
 Average High Temp: 51
 Measured Rainfall: 3.19
 Measured Snowfall: 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	3/12/2021	6:05	6:10	0:08	0.01	**						
2	3/18/2021	11:35	21:00	9:42	1.00	1 month						
3	3/19/2021	1:10	1:40	0:50	0.02	**						
4	3/24/2021-3/25/2021	20:40	5:00	8:33	0.66	**						
5	3/26/2021	2:50	3:40	0:83	0.11	**						
6	3/28/2021	10:40	23:05	12:42	0.89	1 month						
7	3/31/2021-4/1/2021	16:40	3:25	10:75	0.50	**						

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 #: 33
 MONTH: March YEAR: 2021
 Average Low Temp: 51
 Average High Temp: 3.19
 Measured Rainfall: 1
 Measured Snowfall: 1

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q avg volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	3/12/2021	6:05	6:10	0.08	0.01	**					
2	3/18/2021	11:35	21:00	9.42	1.00	1 month					
3	3/19/2021	1:10	1:40	0.50	0.02	**					
4	3/24/2021-3/25/2021	20:40	5:00	8.33	0.66	**					
5	3/26/2021	2:50	3:40	0.83	0.11	**					
6	3/28/2021	10:40	23:05	12.42	0.89	1 month					
7	3/31/2021-4/1/2021	16:40	3:25	10.75	0.50	**					

TOTAL MONTH
 FLOW VOLUME = 0.000

METER DATA

FEBRUARY 2021

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - FEBRUARY 2021

MONTHLY RAINFALL SUMMARY

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

21 inches of snow

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

One 1 month storm. All other storms less than 1 month return frequency.

CSO NUMBER	REGULATOR NUMBERS	CSO EVENTS	CSO VOLUME (MG)
CSO 006	REG 006	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	3	0.349
CSO 015	REG 015	3	0.260
CSO 011	REG 011	0	0.000
CSO 025	REG 025	0	0.000
CSO 021	REG 021	1	0.101
TOTAL		7	0.710

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - STCP ROLLING AVERAGE - TYPICAL YEAR ESTIMATES

CSO NUMBER	REGULATOR NUMBERS	TYPICAL YEAR		TYPICAL YEAR		TYPICAL YEAR	
		CSO EVENTS BASED ON RAINFALL ⁽³⁾	CSO VOLUME (MG) BASED ON RAINFALL ⁽²⁾	CSO EVENTS BASED ON MONTHS ⁽⁴⁾	CSO VOLUME (MG) BASED ON MONTHS ⁽⁴⁾	CSO EVENTS BASED ON MONTHS ⁽⁴⁾	CSO VOLUME (MG) BASED ON MONTHS ⁽⁴⁾
CSO 006	REG 006	1	0.010	1	0.009		
CSO 005	REG 005	3	0.082	3	0.076		
CSO 004	REG 004	4	0.175	3	0.163		
CSO 003	REG 003	5	0.278	4	0.259		
CSO 024	REG 024	1	0.199	1	0.185		
CSO 009	REG 009	18	1.077	17	1.002		
CSO 016	REG 016	33	6.946	31	6.465		
CSO 015	REG 015	35	3.559	33	3.312		
CSO 011	REGS 010A, 011	6	0.336	5	0.313		
CSO 025	REG 025	0	0.000	0	0.000		
CSO 021	REG 021	15	8.368	14	7.788		
TOTAL		120	21.030	111	19.572		

(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: 2021
 Average Low Temp: 26
 Average High Temp: 39
 Measured Rainfall: 3.54
 Measured Snowfall: 21

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	2/2/2021	3:30	17:15	13.75	0.30	**						
2	2/5/2021	9:45	10:30	0.75	0.02	**						
3	2/8/2021	12:50	14:55	2.08	0.27	**						
4	2/10/2021	10:30	13:05	2.58	0.08	**						
5	2/11/2021	10:05	10:10	0.08	0.03	**						
6	2/16/2021	2:00	10:50	8.83	0.97	1 month						
7	2/20/2021	7:50	11:25	3.58	0.26	**						
8	2/22/2021	12:20	18:00	5.67	0.59	**						
9	2/23/2021	13:15	14:20	1.08	0.02	**						
10	2/27/2021	5:10	14:40	9.50	0.61	**						
11	2/28/2021-3/1/2021	16:20	12:50	20.50	0.39	**						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 67"

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: 2021
 Average Low Temp: 26
 Average High Temp: 39
 Measured Rainfall: 3.54
 Measured Snowfall: 21

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	2/2/2021	3:30	17:15	13.75	0.30	**						
2	2/5/2021	9:45	10:30	0.75	0.02	**						
3	2/8/2021	12:50	14:55	2.08	0.27	**						
4	2/10/2021	10:30	13:05	2.58	0.08	**						
5	2/11/2021	10:05	10:10	0.08	0.03	**						
6	2/16/2021	2:00	10:50	8.83	0.97	1 month						
7	2/20/2021	7:50	11:25	3.58	0.26	**						
8	2/22/2021	12:20	18:00	5.67	0.59	**						
9	2/23/2021	13:15	14:20	1.08	0.02	**						
10	2/27/2021	5:10	14:40	9.50	0.61	**						
11	2/28/2021-3/1/2021	16:20	12:50	20.50	0.39	**						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when interceptor level reaches 73"

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: February YEAR: 2021
 Average Low Temp: 26
 Average High Temp: 39
 Measured Rainfall: 3.54
 Measured Snowfall: 21

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	2/2/2021	3:30	17:15	13.75	0.30	**						
2	2/5/2021	9:45	10:30	0.75	0.02	**						
3	2/8/2021	12:50	14:55	2.08	0.27	**						
4	2/10/2021	10:30	13:05	2.58	0.08	**						
5	2/11/2021	10:05	10:10	0.08	0.03	**						
6	2/16/2021	2:00	10:50	8.83	0.97	1 month						
7	2/20/2021	7:50	11:25	3.58	0.26	**						
8	2/22/2021	12:20	18:00	5.67	0.59	**						
9	2/23/2021	13:15	14:20	1.08	0.02	**						
10	2/27/2021	5:10	14:40	9.50	0.61	**						
11	2/28/2021-3/1/2021	16:20	12:50	20.50	0.39	**						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 82"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Whalley Ave. 30 yds from Fitch Street
 NPDES Permit Outfall #: 006
 MONTH: February YEAR: 2021
 Average Low Temp: 26
 Average High Temp: 39
 Measured Rainfall: 3.54
 Measured Snowfall: 21

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q. volume (MG)
1	2/2/2021	3:30	17:15	13.75	0.30	**						
2	2/5/2021	9:45	10:30	0.75	0.02	**						
3	2/8/2021	12:50	14:55	2.08	0.27	**						
4	2/10/2021	10:30	13:05	2.58	0.08	**						
5	2/11/2021	10:05	10:10	0.08	0.03	**						
6	2/16/2021	2:00	10:50	8.83	0.97	1 month						
7	2/20/2021	7:50	11:25	3.58	0.26	**						
8	2/22/2021	12:20	18:00	5.67	0.59	**						
9	2/23/2021	13:15	14:20	1.08	0.02	**						
10	2/27/2021	5:10	14:40	9.50	0.61	**						
11	2/28/2021-3/1/2021	16:20	12:50	20.50	0.39	**						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 72"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Grand Avenue & James Street
 009

NPDES Permit Outfall #:

MONTH: February YEAR: 2021

Average Low Temp: 26

Average High Temp: 39

Measured Rainfall: 3.54

Measured Snowfall: 21

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	2/2/2021	3:30	17:15	13.75	0.30	**						
2	2/5/2021	9:45	10:30	0.75	0.02	**						
3	2/8/2021	12:50	14:55	2.08	0.27	**						
4	2/10/2021	10:30	13:05	2.58	0.08	**						
5	2/11/2021	10:05	10:10	0.08	0.03	**						
6	2/16/2021	2:00	10:50	8.83	0.97	1 month						
7	2/20/2021	7:50	11:25	3.58	0.26	**						
8	2/22/2021	12:20	18:00	5.67	0.59	**						
9	2/23/2021	13:15	14:20	1.08	0.02	**						
10	2/27/2021	5:10	14:40	9.50	0.61	**						
11	2/28/2021-3/1/2021	16:20	12:50	20.50	0.39	**						
TOTAL MONTH											FLOW VOLUME =	0.000

Note: Overflow occurs when Interceptor level reaches 30"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 011
 LOCATION: February 2021
 NPDES Permit Outfall #: 26
 MONTH: February 2021
 Average Low Temp: 39
 Average High Temp: 39
 Measured Rainfall: 3.54
 Measured Snowfall: 21

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	2/2/2021	3:30	17:15	13.75	0.30	**						
2	2/5/2021	9:45	10:30	0.75	0.02	**						
3	2/8/2021	12:50	14:55	2.08	0.27	**						
4	2/10/2021	10:30	13:05	2.58	0.08	**						
5	2/11/2021	10:05	10:10	0.08	0.03	**						
6	2/16/2021	2:00	10:50	8.83	0.97	1 month						
7	2/20/2021	7:50	11:25	3.58	0.26	**						
8	2/22/2021	12:20	18:00	5.67	0.59	**						
9	2/23/2021	13:15	14:20	1.08	0.02	**						
10	2/27/2021	5:10	14:40	9.50	0.61	**						
11	2/28/2021-3/1/2021	16:20	12:50	20.50	0.39	**						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 15 James Street
LOCATION: 015
NPDES Permit Outfall #: February YEAR: 2021
MONTH: 26
Average Low Temp: 39
Average High Temp: 3.54
Measured Rainfall: 21
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	2/2/2021	3:30	17:15	13.75	0.30	**						
2	2/5/2021	9:45	10:30	0.75	0.02	**						
3	2/8/2021	12:50	14:55	2.08	0.27	**						
4	2/10/2021	10:30	13:05	2.58	0.08	**						
5	2/11/2021	10:05	10:10	0.08	0.03	**						
6	2/16/2021	2:00	10:50	8.83	0.97	1 month	2/16/2021	5:45	7:00	1.25	3.255	0.170
7	2/20/2021	7:50	11:25	3.58	0.26	**						
8	2/22/2021	12:20	18:00	5.67	0.59	**	2/22/2021	16:00	17:15	1.25	1.030	0.054
9	2/23/2021	13:15	14:20	1.08	0.02	**						
10	2/27/2021	5:10	14:40	9.50	0.61	**	2/27/2021	12:35	13:55	1.33	0.651	0.036
11	2/28/2021-3/1/2021	16:20	12:50	20.50	0.39	**						

TOTAL MONTH FLOW VOLUME = 0.260

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:

February YEAR: 2021
 26
 39
 3.54
 21

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	2/2/2021	3:30	17:15	13.75	0.30	**						
2	2/5/2021	9:45	10:30	0.75	0.02	**						
3	2/8/2021	12:50	14:55	2.08	0.27	**						
4	2/10/2021	10:30	13:05	2.58	0.08	**						
5	2/11/2021	10:05	10:10	0.08	0.03	**						
6	2/16/2021	2:00	10:50	8.83	0.97	1 month	2/16/2021	5:45	7:00	1.25	2.397	0.125
7	2/20/2021	7:50	11:25	3.58	0.26	**	2/22/2021	16:15	17:20	1.08	2.198	0.099
8	2/22/2021	12:20	18:00	5.67	0.59	**						
9	2/23/2021	13:15	14:20	1.08	0.02	**						
10	2/27/2021	5:10	14:40	9.50	0.61	**	2/27/2021	12:40	13:50	0.75	3.993	0.125
11	2/28/2021-3/1/2021	16:20	12:50	20.50	0.39	**						

TOTAL MONTH FLOW VOLUME = 0.349

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

638 Long Wharf Drive
021

LOCATION:

NPDES Permit Outfall #:

MONTH:

February

YEAR: 2021

Average Low Temp:

Average High Temp:

Measured Rainfall:

Measured Snowfall:

26

39

3.54

21

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	2/2/2021	3:30	17:15	13.75	0.30	**						
2	2/5/2021	9:45	10:30	0.75	0.02	**						
3	2/8/2021	12:50	14:55	2.08	0.27	**						
4	2/10/2021	10:30	13:05	2.58	0.08	**						
5	2/11/2021	10:05	10:10	0.08	0.03	**						
6	2/16/2021	2:00	10:50	8.83	0.97	1 month	2/16/2021	5:40	8:20	8.83	0.907	0.101
7	2/20/2021	7:50	11:25	3.58	0.26	**						
8	2/22/2021	12:20	18:00	5.67	0.59	**						
9	2/23/2021	13:15	14:20	1.08	0.02	**						
10	2/27/2021	5:10	14:40	9.50	0.61	**						
11	2/28/2021-3/1/2021	16:20	12:50	20.50	0.39	**						

TOTAL MONTH FLOW VOLUME = 0.101

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Sea Street @ South Water Street
 024
 NPDES Permit Outfall #: 2021
 MONTH: February YEAR: 2021
 Average Low Temp: 26
 Average High Temp: 39
 Measured Rainfall: 3.54
 Measured Snowfall: 21

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Avg Q (MGD)	OUTFALL Q volume (MG)
1	2/2/2021	3:30	17:15	13.75	0.30	**						
2	2/5/2021	9:45	10:30	0.75	0.02	**						
3	2/8/2021	12:50	14:55	2.08	0.27	**						
4	2/10/2021	10:30	13:05	2.58	0.08	**						
5	2/11/2021	10:05	10:10	0.08	0.03	**						
6	2/16/2021	2:00	10:50	8.83	0.97	1 month						
7	2/20/2021	7:50	11:25	3.58	0.26	**						
8	2/22/2021	12:20	18:00	5.67	0.59	**						
9	2/23/2021	13:15	14:20	1.08	0.02	**						
10	2/27/2021	5:10	14:40	9.50	0.61	**						
11	2/28/2021-3/1/2021	16:20	12:50	20.50	0.39	**						

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 #: February YEAR: 2021
 MONTH: 26
 Average Low Temp: 39
 Average High Temp: 3.54
 Measured Rainfall: 21
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT				OUTFALL	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	Qavg (MGD)	OUTFALL volume (MG)
1	2/2/2021	3:30	17:15	13.75	0.30	**						
2	2/5/2021	9:45	10:30	0.75	0.02	**						
3	2/8/2021	12:50	14:55	2.08	0.27	**						
4	2/10/2021	10:30	13:05	2.58	0.08	**						
5	2/11/2021	10:05	10:10	0.08	0.03	**						
6	2/16/2021	2:00	10:50	8.83	0.97	1 month						
7	2/20/2021	7:50	11:25	3.58	0.26	**						
8	2/22/2021	12:20	18:00	5.67	0.59	**						
9	2/23/2021	13:15	14:20	1.08	0.02	**						
10	2/27/2021	5:10	14:40	9.50	0.61	**						
11	2/28/2021-3/1/2021	16:20	12:50	20.50	0.39	**						

TOTAL MONTH FLOW VOLUME = 0.000

METER DATA

JANUARY 2021

**GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CSO FLOW MONITORING PROGRAM
METER DATA SUMMARY - JANUARY 2021**

MONTHLY RAINFALL SUMMARY

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

1.5 inches of snow

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

One 1 month storm. All other storms less than 1 month return frequency.

CSO NUMBER	REGULATOR NUMBERS	CSO EVENTS	CSO VOLUME (MG)
CSO 006	REG 006	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	1	0.071
CSO 015	REG 015	1	0.109
CSO 011	REG 011	0	0.000
CSO 025	REG 025	0	0.000
CSO 021	REG 021	0	0.000
TOTAL		2	0.180

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

METER DATA SUMMARY - STCP 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 ⁽⁴⁾	CSO VOLUME (MG) BASED ON MONTHS ⁽⁴⁾
CSO 006	REG 006	1	0.011	1	0.010		
CSO 005	REG 005	3	0.089	3	0.082		
CSO 004	REG 004	4	0.190	4	0.175		
CSO 003	REG 003	5	0.302	5	0.279		
CSO 024	REG 024	1	0.216	1	0.199		
CSO 009	REG 009	20	1.169	18	1.079		
CSO 016	REG 016	33	7.193	30	6.640		
CSO 015	REG 015	35	3.604	32	3.327		
CSO 011	REGS 010A, 011	6	0.365	6	0.337		
CSO 025	REG 025	0	0.000	0	0.000		
CSO 021	REG 021	15	8.985	14	8.294		
TOTAL		123	22.124	114	20.422		

(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: January YEAR: 2021
 Average Low Temp: 26
 Average High Temp: 39
 Measured Rainfall: 1.56
 Measured Snowfall: 1.50

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	1/1/2021-1/2/2021	20:35	5:20	8.75	0.30	**					
2	1/4/2021	0:15	10:55	10.67	0.12	**					
3	1/15/2021-1/16/2021	22:55	9:50	10.92	0.98	1 month					
4	1/27/2021	11:20	11:55	0.58	0.16	**					

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 67"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Ella T. Grasso Blvd. - 23 yds North of Legion Ave.

LOCATION: 004

NPDES Permit Outfall #:

MONTH: January YEAR: 2021

Average Low Temp: 26

Average High Temp: 39

Measured Rainfall: 1.56

Measured Snowfall: 1.5

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q _{avg} (MGD)	OUTFALL Q _t volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP			DURATION (hours)
1	1/1/2021-1/2/2021	20:35	5:20	8.75	0.30 **							
2	1/4/2021	0:15	10:55	10.67	0.12 **							
3	1/15/2021-1/16/2021	22:55	9:50	10.92	0.98 1 month							
4	1/27/2021	11:20	11:55	0.58	0.16 **							

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 73"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 Derby Ave. 20 yds East of Ella T. Grasso Blvd.
LOCATION: 005
NPDES Permit Outfall #:
MONTH: January YEAR: 2021
 Average Low Temp: 26
 Average High Temp: 39
 Measured Rainfall: 1.56
 Measured Snowfall: 1.5

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	1/1/2021-1/2/2021	20:35	5:20	8.75	0.30 **						
2	1/4/2021	0:15	10:55	10.67	0.12 **						
3	1/15/2021-1/16/2021	22:55	9:50	10.92	0.98 1 month						
4	1/27/2021	11:20	11:55	0.58	0.15 **						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 82"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Grand Avenue & James Street
 009

NPDES Permit Outfall #:

January YEAR: 2021

26

Average Low Temp:

39

Average High Temp:

1.56

Measured Rainfall:

1.5

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	1/1/2021-1/2/2021	20:35	5:20	8.75	0.30 **						
2	1/4/2021	0:15	10:55	10.67	0.12 **						
3	1/15/2021-1/16/2021	22:55	9:50	10.92	0.98 1 month						
4	1/27/2021	11:20	11:55	0.58	0.16 **						
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 #: January YEAR: 2021
MONTH: 26
Average Low Temp: 39
Average High Temp: 1.56
Measured Rainfall: 1.5
Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q _{avg} (MGD)	OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP			DURATION (hours)
1	1/1/2021-1/2/2021	20:35	5:20	8.75	0.30 **							
2	1/4/2021	0:15	10:55	10.67	0.12 **							
3	1/15/2021-1/16/2021	22:55	9:50	10.92	0.98 1 month							
4	1/27/2021	11:20	11:55	0.58	0.16 **							

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 15 James Street
 015
 NPDES Permit Outfall #:
 MONTH: January YEAR: 2021
 Average Low Temp: 26
 Average High Temp: 39
 Measured Rainfall: 1.56
 Measured Snowfall: 1.5

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	1/1/2021-1/2/2021	20:35	5:20	8.75	0.30 **							
2	1/4/2021	0:15	10:55	10.67	0.12 **							
3	1/15/2021-1/16/2021	22:55	9:50	10.92	0.98 1 month		1/16/2021	5:10	7:30	1.50	1.736	0.109
4	1/27/2021	11:20	11:55	0.58	0.16 **							
TOTAL MONTH											FLOW VOLUME =	0.109

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: 2021

Average Low Temp: 26

Average High Temp: 39

Measured Rainfall: 1.56

Measured Snowfall: 1.5

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)		
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)	OUTFALL Qavg (MGD)
1	1/1/2021-1/2/2021	20:35	5:20	8.75	0.30	**						
2	1/4/2021	0:15	10:55	10.67	0.12	**						
3	1/15/2021-1/16/2021	22:55	9:50	10.92	0.98	1 month	1/16/2021	6:25	7:35	1.17	1.464	0.071
4	1/27/2021	11:20	11:55	0.58	0.16	**						

TOTAL MONTH FLOW VOLUME = 0.071

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
LOCATION: 638 Long Wharf Drive
 021

NPDES Permit Outfall #:

MONTH: January YEAR: 2021

26

39

1.56

1.5

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	1/1/2021-1/2/2021	20:35	5:20	8.75	0.30	**					
2	1/4/2021	0:15	10:55	10.67	0.12	**					
3	1/15/2021-1/16/2021	22:55	9:50	10.92	0.98	1 month					
4	1/27/2021	11:20	11:55	0.58	0.16	**					

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Sea Street @ South Water Street
 024
 NPDES Permit Outfall #: 2021
 MONTH: January YEAR: 2021
 Average Low Temp: 26
 Average High Temp: 39
 Measured Rainfall: 1.56
 Measured Snowfall: 1.5

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q _{avg} (MGD)	OUTFALL Q _{volume} (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP			DURATION (hours)
1	1/1/2021-1/2/2021	20:35	5:20	8.75	0.30	**						
2	1/4/2021	0:15	10:55	10.67	0.12	**						
3	1/15/2021-1/16/2021	22:55	9:50	10.92	0.98	1 month						
4	1/27/2021	11:20	11:55	0.58	0.16	**						
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 #: 2021
 MONTH: January YEAR: 2021
 Average Low Temp: 26
 Average High Temp: 39
 Measured Rainfall: 1.56
 Measured Snowfall: 1.5

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Qavg (MGD)	OUTFALL volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP			DURATION (hours)
1	1/1/2021-1/2/2021	20:35	5:20	8.75	0.30 **							
2	1/4/2021	0:15	10:55	10.67	0.12 **							
3	1/15/2021-1/16/2021	22:55	9:50	10.92	0.98 1 month							
4	1/27/2021	11:20	11:55	0.58	0.16 **							

TOTAL MONTH FLOW VOLUME = 0.000

METER DATA

DECEMBER 2020

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - DECEMBER 2020

MONTHLY RAINFALL SUMMARY

3.71 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 3 month and one 1 month storms. All other storms less than 1 month return frequency.

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>
CSO 006	REG 006	0	0.000
CSO 005	REG 005	0	0.000
CSO 004	REG 004	0	0.000
CSO 003	REG 003	0	0.000
CSO 024	REG 024	0	0.000
CSO 009	REG 009	1	0.008
CSO 016	REG 016	2	0.377
CSO 015	REG 015	2	0.786
CSO 011	REG 011	1	0.015
CSO 025	REG 025	0	0.000
CSO 021	REG 021	2	0.079
TOTAL		8	1.265

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - STOP 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	REG 006	1	0.011	1	0.011	0.011	0.011
CSO 005	REG 005	3	0.092	3	0.089	0.089	0.089
CSO 004	REG 004	4	0.197	4	0.190	0.190	0.190
CSO 003	REG 003	5	0.314	5	0.302	0.302	0.302
CSO 024	REG 024	1	0.224	1	0.216	0.216	0.216
CSO 009	REG 009	21	1.215	20	1.169	1.169	1.169
CSO 016	REG 016	33	7.402	32	7.122	7.122	7.122
CSO 015	REG 015	35	3.632	34	3.495	3.495	3.495
CSO 011	REGS 010A, 011	6	0.379	6	0.365	0.365	0.365
CSO 025	REG 025	0	0.000	0	0.000	0.000	0.000
CSO 021	REG 021	16	9.338	15	8.985	8.985	8.985
TOTAL		126	22.806	121	21.944	21.944	21.944

(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 #: December YEAR: 2020
 MONTH: 31
 Average Low Temp: 44
 Average High Temp: 3.71
 Measured Rainfall: 0.00
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		
1	12/4/2020-12/5/2020	16:45	15:15	22.50	1.73	3 month					
2	12/12/2020	12:35	15:00	2.42	0.06	**					
3	12/14/2020	8:45	15:45	7.00	0.14	**					
4	12/17/2020	14:15	14:20	0.08	0.01	**					
5	12/20/2020	14:35	14:40	0.08	0.01	**					
6	12/21/2020	10:00	11:20	1.33	0.23	**					
7	12/25/2020	0:15	14:00	13.75	1.21	1 month					
8	12/31/2020	4:30	11:25	6.92	0.32	**					

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when interceptor level reaches 67"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Ella T. Grasso Blvd. - 23 yds North of Legion Ave.
LOCATION: 004
NPDES Permit Outfall #:
MONTH: December YEAR: 2020
Average Low Temp: 31
Average High Temp: 44
Measured Rainfall: 3.71
Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	12/4/2020-12/5/2020	16:45	15:15	22.50	1.73	3 month						
2	12/12/2020	12:35	15:00	2.42	0.06	**						
3	12/14/2020	8:45	15:45	7.00	0.14	**						
4	12/17/2020	14:15	14:20	0.08	0.01	**						
5	12/20/2020	14:35	14:40	0.08	0.01	**						
6	12/21/2020	10:00	11:20	1.33	0.23	**						
7	12/25/2020	0:15	14:00	13.75	1.21	1 month						
8	12/31/2020	4:30	11:25	6.92	0.32	**						
TOTAL MONTH											FLOW VOLUME =	0.000

Note: Overflow occurs when interceptor level reaches 73"

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: December YEAR: 2020

Average Low Temp: 31

Average High Temp: 44

Measured Rainfall: 3.71

Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	12/4/2020-12/5/2020	16:45	15:15	22.50	1.73	3 month					
2	12/12/2020	12:35	15:00	2.42	0.06	**					
3	12/14/2020	8:45	15:45	7.00	0.14	**					
4	12/17/2020	14:15	14:20	0.08	0.01	**					
5	12/20/2020	14:35	14:40	0.08	0.01	**					
6	12/21/2020	10:00	11:20	1.33	0.23	**					
7	12/25/2020	0:15	14:00	13.75	1.21	1 month					
8	12/31/2020	4:30	11:25	6.92	0.32	**					

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when interceptor level reaches 82"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Whalley Ave. 30 yds from Fitch Street
 006
 NPDES Permit Outfall #: December YEAR: 2020
 MONTH: 31
 Average Low Temp: 44
 Average High Temp: 3.71
 Measured Rainfall: 0
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	12/4/2020-12/5/2020	16:45	15:15	22.50	1.73	3 month					
2	12/12/2020	12:35	15:00	2.42	0.06	**					
3	12/14/2020	8:45	15:45	7.00	0.14	**					
4	12/17/2020	14:15	14:20	0.08	0.01	**					
5	12/20/2020	14:35	14:40	0.08	0.01	**					
6	12/21/2020	10:00	11:20	1.33	0.23	**					
7	12/25/2020	0:15	14:00	13.75	1.21	1 month					
8	12/31/2020	4:30	11:25	6.92	0.32	**					
TOTAL MONTH										FLOW VOLUME =	0.000

Note: Overflow occurs when Interceptor level reaches 72"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Grand Avenue & James Street
LOCATION: .009

NPDES Permit Outfall #: December YEAR: 2020
 MONTH: 31
 Average Low Temp: 44
 Average High Temp: 3.71
 Measured Rainfall: 0
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q. volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	12/4/2020-12/5/2020	16:45	15:15	22.50	1.73	3 month					
2	12/12/2020	12:35	15:00	2.42	0.06	**					
3	12/14/2020	8:45	15:45	7.00	0.14	**					
4	12/17/2020	14:15	14:20	0.08	0.01	**					
5	12/20/2020	14:35	14:40	0.08	0.01	**					
6	12/21/2020	10:00	11:20	1.33	0.23	**					
7	12/25/2020	0:15	14:00	13.75	1.21	1 month	12/25/2020	5:10	5:30	0.33	0.579
8	12/31/2020	4:30	11:25	6.92	0.32	**					
										TOTAL MONTH	0.008
										FLOW VOLUME =	

Note: Overflow occurs when interceptor level reaches 30"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

011

LOCATION:

NPDES Permit Outfall #:

December 2020

MONTH:

Average Low Temp:

31

Average High Temp:

44

Measured Rainfall:

3.71

Measured Snowfall:

0

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	12/4/2020-12/5/2020	16:45	15:15	22.50	1.73	3 month					
2	12/12/2020	12:35	15:00	2.42	0.06	**					
3	12/14/2020	8:45	15:45	7.00	0.14	**					
4	12/17/2020	14:15	14:20	0.08	0.01	**					
5	12/20/2020	14:35	14:40	0.08	0.01	**					
6	12/21/2020	10:00	11:20	1.33	0.23	**					
7	12/25/2020	0:15	14:00	13.75	1.21	1 month	12/25/2020	5:15	5:30	0.25	1.410
8	12/31/2020	4:30	11:25	6.92	0.32	**					

TOTAL MONTH FLOW VOLUME = 0.015

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 15 James Street 015
 NPDES Permit Outfall #: December YEAR: 2020
 MONTH: 31
 Average Low Temp: 44
 Average High Temp: 3.71
 Measured Rainfall: 0
 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	12/4/2020-12/5/2020	16:45	15:15	22.50	1.73	3 month	12/5/2020	6:00	8:35	1.58	3.520	0.232
2	12/12/2020	12:35	15:00	2.42	0.06	**						
3	12/14/2020	8:45	15:45	7.00	0.14	**						
4	12/17/2020	14:15	14:20	0.08	0.01	**						
5	12/20/2020	14:35	14:40	0.08	0.01	**						
6	12/21/2020	10:00	11:20	1.33	0.23	**						
7	12/25/2020	0:15	14:00	13.75	1.21	1 month	12/25/2020	3:35	6:30	1.52	6.940	0.554
8	12/31/2020	4:30	11:25	6.92	0.32	**						
TOTAL MONTH											FLOW VOLUME =	0.786

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:

December 31 2020

MPDES Permit Outfall #:

MONTH:

Average Low Temp:

Average High Temp:

Measured Rainfall:

Measured Snowfall:

EVENT No.	RAINFALL EVENT								CSO EVENT			
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	12/4/2020-12/5/2020	16:45	15:15	22.50	1.73	3 month	12/5/2020	5:50	9:10	2.50	3.050	0.318
2	12/12/2020	12:35	15:00	2.42	0.06	**						
3	12/14/2020	8:45	15:45	7.00	0.14	**						
4	12/17/2020	14:15	14:20	0.08	0.01	**						
5	12/20/2020	14:35	14:40	0.08	0.01	**						
6	12/21/2020	10:00	11:20	1.33	0.23	**						
7	12/25/2020	0:15	14:00	13.75	1.21	1 month	12/25/2020	5:15	5:40	0.42	3.410	0.059
8	12/31/2020	4:30	11:25	6.92	0.32	**						

TOTAL MONTH FLOW VOLUME = 0.377

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 638 Long Wharf Drive
 LOCATION: 021
 NPDES Permit Outfall #: December YEAR: 2020
 MONTH: 31
 Average Low Temp: 44
 Average High Temp: 3.71
 Measured Rainfall: 0
 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	12/4/2020-12/5/2020	16:45	15:15	22.50	1.73	3 month	12/5/2020	8:10	8:55	0.75	2.508	0.078
2	12/12/2020	12:35	15:00	2.42	0.06	**						
3	12/14/2020	8:45	15:45	7.00	0.14	**						
4	12/17/2020	14:15	14:20	0.08	0.01	**						
5	12/20/2020	14:35	14:40	0.08	0.01	**						
6	12/21/2020	10:00	11:20	1.33	0.23	**						
7	12/25/2020	0:15	14:00	13.75	1.21	1 month	12/25/2020	5:55	6:10	0.25	0.135	0.001
8	12/31/2020	4:30	11:25	6.92	0.32	**						

TOTAL MONTH FLOW VOLUME = 0.079

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Sea Street @ South Water Street
LOCATION: 024
NPDES Permit Outfall #: December YEAR: 2020
MONTH: 31
 Average Low Temp: 44
 Average High Temp: 3.71
 Measured Rainfall: 0
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q. volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	12/4/2020-12/5/2020	16:45	15:15	22.50	1.73	3 month					
2	12/12/2020	12:35	15:00	2.42	0.06	**					
3	12/14/2020	8:45	15:45	7.00	0.14	**					
4	12/17/2020	14:15	14:20	0.08	0.01	**					
5	12/20/2020	14:35	14:40	0.08	0.01	**					
6	12/21/2020	10:00	11:20	1.33	0.23	**					
7	12/25/2020	0:15	14:00	13.75	1.21	1 month					
8	12/31/2020	4:30	11:25	6.92	0.32	**					

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:

Average Low Temp:

Average High Temp:

Measured Rainfall:

Measured Snowfall:

December 2020
31
44
3.71
0

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q Qavg (MGD)	OUTFALL volume (MG)
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		
1	12/4/2020-12/5/2020	16:45	15:15	22.50	1.73	3 month					
2	12/12/2020	12:35	15:00	2.42	0.06	**					
3	12/14/2020	8:45	15:45	7.00	0.14	**					
4	12/17/2020	14:15	14:20	0.08	0.01	**					
5	12/20/2020	14:35	14:40	0.08	0.01	**					
6	12/21/2020	10:00	11:20	1.33	0.23	**					
7	12/25/2020	0:15	14:00	13.75	1.21	1 month					
8	12/31/2020	4:30	11:25	6.92	0.32	**					

TOTAL MONTH
FLOW VOLUME =

0.000

METER DATA

NOVEMBER 2020

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY			
CSO FLOW MONITORING PROGRAM			
METER DATA SUMMARY - NOVEMBER 2020			
<u>MONTHLY RAINFALL SUMMARY</u>			
4.79 inches of rain (3.44 inches of rain in a typical month)			
No snowfall			
11 rain events (10 rain events in a typical month)			
One 6 month, one 3 month and two 1 month storms. All other storms less than 1 month return frequency.			
<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>
CSO 006	REG 006	0	0.000
CSO 005	REG 005	0	0.000
CSO 004	REG 004	0	0.000
CSO 003	REG 003	1	0.011
CSO 024	REG 024	0	0.000
CSO 009	REG 009	3	0.116
CSO 016	REG 016	5	1.495
CSO 015	REG 015	5	0.839
CSO 011	REG 011	2	0.134
CSO 025	REG 025	0	0.000
CSO 021	REG 021	4	0.906
TOTAL		20	3.501

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - STCP 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 ⁽³⁾	BASED ON RAINFALL ⁽⁴⁾	BASED ON MONTHS ⁽⁴⁾
CSO 006	REG 006	1	1	0.013	0.013	0.012	0.012
CSO 005	REG 005	3	3	0.102	0.102	0.097	0.097
CSO 004	REG 004	5	4	0.218	0.218	0.207	0.207
CSO 003	REG 003	6	5	0.346	0.346	0.329	0.329
CSO 024	REG 024	1	1	0.248	0.248	0.236	0.236
CSO 009	REG 009	22	21	1.331	1.331	1.267	1.267
CSO 016	REG 016	34	33	7.732	7.732	7.358	7.358
CSO 015	REG 015	37	35	3.106	3.106	2.955	2.955
CSO 011	REGS 010A, 011	6	5	0.401	0.401	0.382	0.382
CSO 025	REG 025	0	0	0.000	0.000	0.000	0.000
CSO 021	REG 021	15	14	10.210	10.210	9.716	9.716
TOTAL		130	123	23.706	23.706	22.559	22.559

(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: 003
 MONTH: November YEAR: 2020
 Average Low Temp: 39
 Average High Temp: 58
 Measured Rainfall: 4.79
 Measured Snowfall: 0.00

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	11/1/2020	13:00	18:40	5.67	0.49	**						
2	11/9/2020	12:20	12:25	0.08	0.01	**						
3	11/11/2020	13:05	23:25	10.33	0.53	1 month						
4	11/12/2020	1:15	10:20	9.08	0.11	**						
5	11/12/2020	17:10	18:30	1.33	0.10	**						
6	11/13/2020	6:50	15:50	9.00	0.11	**						
7	11/15/2020	18:55	21:40	2.75	0.15	**						
8	11/22/2020-11/23/2020	22:35	0:25	1.83	0.07	**						
9	11/23/2020	3:20	10:15	6.92	1.17	3 month						
10	11/26/2020	3:05	9:55	6.83	1.18	6 month		11/26/2020	9:30	9:40	0.17	1.610
11	11/30/2020	9:00	19:35	10.58	0.87	1 month						0.011

TOTAL MONTH FLOW VOLUME = 0.011

Note: Overflow occurs when Interceptor level reaches 67"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Ella T. Grasso Blvd. - 23 yds North of Legion Ave.
 004

LOCATION:
NPDES Permit Outfall #:
MONTH: November YEAR: 2020
 Average Low Temp: 39
 Average High Temp: 58
 Measured Rainfall: 4.79
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	11/1/2020	13:00	18:40	5.67	0.49	**						
2	11/9/2020	12:20	12:25	0.08	0.01	**						
3	11/11/2020	13:05	23:25	10.33	0.53	1 month						
4	11/12/2020	1:15	10:20	9.08	0.11	**						
5	11/12/2020	17:10	18:30	1.33	0.10	**						
6	11/13/2020	6:50	15:50	9.00	0.11	**						
7	11/15/2020	18:55	21:40	2.75	0.15	**						
8	11/22/2020-11/23/2020	22:35	0:25	1.83	0.07	**						
9	11/23/2020	3:20	10:15	6.92	1.17	3 month						
10	11/26/2020	3:05	9:55	6.83	1.18	6 month						
11	11/30/2020	9:00	19:35	10.58	0.87	1 month						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when interceptor level reaches 73"

FLOW MONITORING REPORT SUMMARY TABLE

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

LOCATION:
NPDES Permit Outfall #:
MONTH: November YEAR: 2020
 Average Low Temp: 39
 Average High Temp: 58
 Measured Rainfall: 4.79
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	11/1/2020	13:00	18:40	5.67	0.49	**						
2	11/9/2020	12:20	12:25	0.08	0.01	**						
3	11/11/2020	13:05	23:25	10.33	0.53	1 month						
4	11/12/2020	1:15	10:20	9.08	0.11	**						
5	11/12/2020	17:10	18:30	1.33	0.10	**						
6	11/13/2020	6:50	15:50	9.00	0.11	**						
7	11/15/2020	18:55	21:40	2.75	0.15	**						
8	11/22/2020-11/23/2020	22:35	0:25	1.83	0.07	**						
9	11/23/2020	3:20	10:15	6.92	1.17	3 month						
10	11/26/2020	3:05	9:55	6.83	1.18	6 month						
11	11/30/2020	9:00	19:35	10.58	0.87	1 month						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 82"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

Whalley Ave. 30 yds from Fitch Street
006

LOCATION:

NPDES Permit Outfall #:

MONTH:

Average Low Temp:

Average High Temp:

Measured Rainfall:

Measured Snowfall:

November 2020
39
58
4.79
0

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Clave (MGD)	OUTFALL Q _i volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP			DURATION (hours)
1	11/1/2020	13:00	18:40	5.67	0.49	**						
2	11/9/2020	12:20	12:25	0.08	0.01	**						
3	11/11/2020	13:05	23:25	10.33	0.53	1 month						
4	11/12/2020	1:15	10:20	9.08	0.11	**						
5	11/12/2020	17:10	18:30	1.33	0.10	**						
6	11/13/2020	6:50	15:50	9.00	0.11	**						
7	11/15/2020	18:55	21:40	2.75	0.15	**						
8	11/22/2020-11/23/2020	22:35	0:25	1.83	0.07	**						
9	11/23/2020	3:20	10:15	6.92	1.17	3 month						
10	11/26/2020	3:05	9:55	6.83	1.18	6 month						
11	11/30/2020	9:00	19:35	10.58	0.87	1 month						

TOTAL MONTH
FLOW VOLUME =

0.000

Note: Overflow occurs when Interceptor level reaches 72"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Grand Avenue & James Street
 NPDES Permit Outfall #: 009
 MONTH: November YEAR: 2020
 Average Low Temp: 39
 Average High Temp: 58
 Measured Rainfall: 4.79
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)		
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)	OUTFALL Qavg (MGD)
1	11/1/2020	13:00	18:40	5.67	0.49**							
2	11/9/2020	12:20	12:25	0.08	0.01**							
3	11/11/2020	13:05	23:25	10.33	0.53 1 month							
4	11/12/2020	1:15	10:20	9.08	0.11**							
5	11/12/2020	17:10	18:30	1.33	0.10**							
6	11/13/2020	6:50	15:50	9.00	0.11**							
7	11/15/2020	18:55	21:40	2.75	0.15**							
8	11/22/2020-11/23/2020	22:35	0:25	1.83	0.07**							
9	11/23/2020	3:20	10:15	6.92	1.17 3 month	11/23/2020	5:50	6:05	0.25	1.330	0.014	
10	11/26/2020	3:05	9:55	6.83	1.18 6 month	11/26/2020	7:55	9:00	1.42	1.690	0.100	
11	11/30/2020	9:00	19:35	10.58	0.87 1 month	11/30/2020	13:10	13:30	0.33	0.110	0.002	

TOTAL MONTH FLOW VOLUME = 0.116

Note: Overflow occurs when Interceptor level reaches 30"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

011

LOCATION:

NPDES Permit Outfall #:

MONTH:

Average Low Temp:

Average High Temp:

Measured Rainfall:

Measured Snowfall:

November 2020
 39
 58
 4.79
 0

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	11/1/2020	13:00	18:40	5.67	0.49	**						
2	11/9/2020	12:20	12:25	0.08	0.01	**						
3	11/11/2020	13:05	23:25	10.33	0.53	1 month						
4	11/12/2020	1:15	10:20	9.08	0.11	**						
5	11/12/2020	17:10	18:30	1.33	0.10	**						
6	11/13/2020	6:50	15:50	9.00	0.11	**						
7	11/15/2020	18:55	21:40	2.75	0.15	**						
8	11/22/2020-11/23/2020	22:35	0:25	1.83	0.07	**						
9	11/23/2020	3:20	10:15	6.92	1.17	3 month						
10	11/26/2020	3:05	9:55	6.83	1.18	6 month						
11	11/30/2020	9:00	19:35	10.58	0.87	1 month						
											TOTAL MONTH FLOW VOLUME =	0.134

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 15 James Street
 LOCATION: 015
 NPDES Permit Outfall #:
 MONTH: November YEAR: 2020
 Average Low Temp: 39
 Average High Temp: 58
 Measured Rainfall: 4.79
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)		
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)	OUTFALL Qavg (MGD)
1	11/1/2020	13:00	18:40	5.67	0.49	**	11/1/2020	17:35	18:15	0.67	1.348	0.037
2	11/9/2020	12:20	12:25	0.08	0.01	**						
3	11/11/2020	13:05	23:25	10.33	0.53	1 month	11/11/2020	21:20	22:20	1.00	2.187	0.091
4	11/12/2020	1:15	10:20	9.08	0.11	**						
5	11/12/2020	17:10	18:30	1.33	0.10	**						
6	11/13/2020	6:50	15:50	9.00	0.11	**						
7	11/15/2020	18:55	21:40	2.75	0.15	**						
8	11/22/2020-11/23/2020	22:35	0:25	1.83	0.07	**						
9	11/23/2020	3:20	10:15	6.92	1.17	3 month	11/23/2020	4:40	9:35	4.92	1.220	0.250
10	11/26/2020	3:05	9:55	6.83	1.18	6 month	11/26/2020	7:20	10:20	3.00	2.584	0.323
11	11/30/2020	9:00	19:35	10.58	0.87	1 month	11/30/2020	12:45	16:00	2.33	1.420	0.138

TOTAL MONTH FLOW VOLUME = 0.839

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: November YEAR: 2020

Average Low Temp: 39

Average High Temp: 58

Measured Rainfall: 4.79

Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					OUTFALL Q volume (MG)
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	
1	11/1/2020	13:00	18:40	5.67	0.49	**	11/1/2020	17:50	18:05	0.25	2.437	0.025
2	11/9/2020	12:20	12:25	0.08	0.01	**						
3	11/11/2020	13:05	23:25	10.33	0.53	1 month	11/11/2020	21:15	22:20	1.08	3.050	0.137
4	11/12/2020	1:15	10:20	9.08	0.11	**						
5	11/12/2020	17:10	18:30	1.33	0.10	**						
6	11/13/2020	6:50	15:50	9.00	0.11	**						
7	11/15/2020	18:55	21:40	2.75	0.15	**						
8	11/22/2020-11/23/2020	22:35	0:25	1.83	0.07	**						
9	11/23/2020	3:20	10:15	6.92	1.17	3 month	11/23/2020	4:35	9:00	4.42	2.159	0.397
10	11/26/2020	3:05	9:55	6.83	1.18	6 month	11/26/2020	7:15	10:15	3.00	5.522	0.690
11	11/30/2020	9:00	19:35	10.58	0.87	1 month	11/30/2020	12:40	14:40	2.00	2.950	0.246

TOTAL MONTH FLOW VOLUME = 1.495

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 2020
39
58
4.79
0

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT							
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Caves (MGD)	OUTFALL Q volume (MG)		
1	11/1/2020	13:00	18:40	5.67	0.49	**								
2	11/9/2020	12:20	12:25	0.08	0.01	**								
3	11/11/2020	13:05	23:25	10.33	0.53	1 month			11/11/2020	22:00	22:05	0.08	0.658	0.002
4	11/12/2020	1:15	10:20	9.08	0.11	**								
5	11/12/2020	17:10	18:30	1.33	0.10	**								
6	11/13/2020	6:50	15:50	9.00	0.11	**								
7	11/15/2020	18:55	21:40	2.75	0.15	**								
8	11/22/2020-11/23/2020	22:35	0:25	1.83	0.07	**								
9	11/23/2020	3:20	10:15	6.92	1.17	3 month			11/23/2020	9:00	9:40	0.67	3.286	0.091
10	11/26/2020	3:05	9:55	6.83	1.18	6 month			11/26/2020	8:05	10:35	2.50	6.209	0.647
11	11/30/2020	9:00	19:35	10.58	0.87	1 month			11/30/2020	13:35	16:30	1.58	2.516	0.166

TOTAL MONTH FLOW VOLUME = 0.906

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Sea Street @ South Water Street

LOCATION: 024

NPDES Permit Outfall #:

MONTH: November YEAR: 2020

Average Low Temp: 39

Average High Temp: 58

Measured Rainfall: 4.79

Measured Snowfall: 0

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	11/1/2020	13:00	18:40	5.67	0.49	**						
2	11/9/2020	12:20	12:25	0.08	0.01	**						
3	11/11/2020	13:05	23:25	10.33	0.53	1 month						
4	11/12/2020	1:15	10:20	9.08	0.11	**						
5	11/12/2020	17:10	18:30	1.33	0.10	**						
6	11/13/2020	6:50	15:50	9.00	0.11	**						
7	11/15/2020	18:55	21:40	2.75	0.15	**						
8	11/22/2020-11/23/2020	22:35	0:25	1.83	0.07	**						
9	11/23/2020	3:20	10:15	6.92	1.17	3 month						
10	11/26/2020	3:05	9:55	6.83	1.18	6 month						
11	11/30/2020	9:00	19:35	10.58	0.87	1 month						
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 #: November YEAR: 2020
 MONTH: 39
 Average Low Temp: 58
 Average High Temp: 4.79
 Measured Rainfall: 0
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)		
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)	OUTFALL Qavg (MGD)
1	11/1/2020	13:00	18:40	5.67	0.49	**						
2	11/9/2020	12:20	12:25	0.08	0.01	**						
3	11/11/2020	13:05	23:25	10:33	0.53	1 month						
4	11/12/2020	1:15	10:20	9.08	0.11	**						
5	11/12/2020	17:10	18:30	1.33	0.10	**						
6	11/13/2020	6:50	15:50	9.00	0.11	**						
7	11/15/2020	18:55	21:40	2.75	0.15	**						
8	11/22/2020-11/23/2020	22:35	0:25	1.83	0.07	**						
9	11/23/2020	3:20	10:15	6.92	1.17	3 month						
10	11/26/2020	3:05	9:55	6.83	1.18	6 month						
11	11/30/2020	9:00	19:35	10.58	0.87	1 month						

TOTAL MONTH
 FLOW VOLUME = 0.000

METER DATA

OCTOBER 2020

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - OCTOBER 2020

MONTHLY RAINFALL SUMMARY

4.22 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 6 month and one 1 month storms. All other storms less than 1 month return frequency.

CSO NUMBER	REGULATOR NUMBERS	CSO EVENTS	CSO VOLUME (MG)
CSO 006	REG 006	1	0.011
CSO 005	REG 005	1	0.072
CSO 004	REG 004	1	0.138
CSO 003	REG 003	1	0.071
CSO 024	REG 024	0	0.000
CSO 009	REG 009	1	0.220
CSO 016	REG 016	2	0.341
CSO 015	REG 015	3	0.147
CSO 011	REG 011	1	0.127
CSO 025	REG 025	0	0.000
CSO 021	REG 021	1	2.327
TOTAL		12	3.454

GREATHER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - STCP 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 006	REG 006	1		0.015		1	0.013
CSO 005	REG 005	4		0.118		4	0.107
CSO 004	REG 004	5		0.251		5	0.228
CSO 003	REG 003	5		0.385		5	0.349
CSO 024	REG 024	1		0.286		1	0.259
CSO 009	REG 009	21		1.382		19	1.254
CSO 016	REG 016	33		6.942		30	6.300
CSO 015	REG 015	36		2.473		32	2.244
CSO 011	REGS 010A, 011	4		0.286		4	0.259
CSO 025	REG 025	0		0.000		0	0.000
CSO 021	REG 021	12		10.579		11	9.600
TOTAL		123		22.715		112	20.614

(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: October YEAR: 2020
 Average Low Temp: 48
 Average High Temp: 64
 Measured Rainfall: 4.22
 Measured Snowfall: 0.00

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	10/2/2020	10:20	10:50	0.50	0.02	**						
2	10/12/2020	4:55	23:40	18.75	0.16	**						
3	10/13/2020	1:10	17:15	16.08	0.94	6 month						
4	10/15/2020-10/17/2020	11:40	7:50	20.17	1.05	**						
5	10/25/2020	18:00	18:05	0.08	0.01	**						
6	10/28/2020	5:20	12:55	7.58	0.34	**						
7	10/29/2020	8:20	22:45	14.42	1.27	1 month						
8	10/30/2020	0:00	13:50	13.83	0.43	**						
TOTAL MONTH											FLOW VOLUME =	0.071

Note: Overflow occurs when interceptor level reaches 67"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 Ella T. Grasso Blvd. - 23 yds North of Legion Ave.
 LOCATION: 004
 NPDES Permit Outfall #: 004
 MONTH: October YEAR: 2020
 Average Low Temp: 48
 Average High Temp: 64
 Measured Rainfall: 4.22
 Measured Snowfall: 0

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	10/2/2020	10:20	10:50	0.50	0.02	**							
2	10/12/2020	4:55	23:40	18.75	0.16	**							
3	10/13/2020	1:10	17:15	16.08	0.94	6 month							
4	10/16/2020-10/17/2020	11:40	7:50	20.17	1.05	**							
5	10/26/2020	18:00	18:05	0.08	0.01	**							
6	10/28/2020	5:20	12:55	7.58	0.34	**							
7	10/29/2020	8:20	22:45	14.42	1.27	1 month							
8	10/30/2020	0:00	13:50	13.83	0.43	**							
											TOTAL MONTH		
											FLOW VOLUME =	0.138	

Note: Overflow occurs when Interceptor level reaches 73"

FLOW MONITORING REPORT SUMMARY TABLE

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

LOCATION: 005

NPDES Permit Outfall #:

MONTH: October YEAR: 2020

Average Low Temp: 48

Average High Temp: 64

Measured Rainfall: 4.22

Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT						CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)	
1	10/2/2020	10:20	10:50	0.50	0.02	**							
2	10/12/2020	4:55	23:40	18.75	0.16	**							
3	10/13/2020	1:10	17:15	16.08	0.94	6 month							
4	10/16/2020-10/17/2020	11:40	7:50	20.17	1.05	**	10/13/2020	11:55	12:25	0.50	3.476	0.072	
5	10/26/2020	18:00	18:05	0.08	0.01	**							
6	10/28/2020	5:20	12:55	7.58	0.34	**							
7	10/29/2020	8:20	22:45	14.42	1.27	1 month							
8	10/30/2020	0:00	13:50	13.83	0.43	**							
											TOTAL MONTH	FLOW VOLUME =	0.072

Note: Overflow occurs when Interceptor level reaches 82"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Whalley Ave. 30 yds from Fitch Street
LOCATION: 006
NPDES Permit Outfall #: October YEAR: 2020
MONTH: 48
Average Low Temp: 54
Average High Temp: 4.22
Measured Rainfall:
Measured Snowfall: 0

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	10/2/2020	10:20	10:50	0.50	0.02**							
2	10/12/2020	4:55	23:40	18.75	0.16**							
3	10/13/2020	1:10	17:15	16.08	0.94	6 month	10/13/2020	12:00	12:10	0.17	1.602	0.011
4	10/16/2020-10/17/2020	11:40	7:50	20.17	1.05**							
5	10/26/2020	18:00	18:05	0.08	0.01**							
6	10/28/2020	5:20	12:55	7.58	0.34**							
7	10/29/2020	8:20	22:45	14.42	1.27	1 month						
8	10/30/2020	0:00	13:50	13.83	0.43**							
TOTAL MONTH FLOW VOLUME =											0.011	

Note: Overflow occurs when Interceptor level reaches 72"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Grand Avenue & James Street
 NPDES Permit Outfall #: 009
 MONTH: October YEAR: 2020
 Average Low Temp: 48
 Average High Temp: 64
 Measured Rainfall: 4.22
 Measured Snowfall: 0

EVENT No.	RAINFALL EVENT				CSO EVENT							
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	10/2/2020	10:20	10:50	0.50	0.02	**						
2	10/12/2020	4:55	23:40	18.75	0.16	**						
3	10/13/2020	1:10	17:15	16.08	0.94	6 month						
4	10/16/2020-10/17/2020	11:40	7:50	20.17	1.05	**	10/13/2020	11:40	12:15	0.58	9.049	0.220
5	10/26/2020	18:00	18:05	0.08	0.01	**						
6	10/28/2020	5:20	12:55	7.58	0.34	**						
7	10/29/2020	8:20	22:45	14.42	1.27	1 month						
8	10/30/2020	0:00	13:50	13.83	0.43	**						

TOTAL MONTH FLOW VOLUME = 0.220

Note: Overflow occurs when Interceptor level reaches 30"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

011

LOCATION:

NPDES Permit Outfall #:

October 2020

MONTH:

48

64

4.22

0

Average Low Temp:

Average High Temp:

Measured Rainfall:

Measured Snowfall:

0

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	10/2/2020	10:20	10:50	0.50	0.02 **								
2	10/12/2020	4:55	23:40	18.75	0.16 **								
3	10/13/2020	1:10	17:15	16.08	0.94 6 month								
4	10/16/2020-10/17/2020	11:40	7:50	20.17	1.05 **								
5	10/26/2020	18:00	18:05	0.08	0.01 **								
6	10/28/2020	5:20	12:55	7.58	0.34 **								
7	10/29/2020	8:20	22:45	14.42	1.27 1 month								
8	10/30/2020	0:00	13:50	13.83	0.43 **								
											TOTAL MONTH	0.127	
											FLOW VOLUME =		

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 15 James Street
 LOCATION: 015
 NPDES Permit Outfall #:
 MONTH: October YEAR: 2020
 Average Low Temp: 48
 Average High Temp: 64
 Measured Rainfall: 4.22
 Measured Snowfall: 0

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	10/2/2020	10:20	10:50	0.50	0.02	**						
2	10/12/2020	4:55	23:40	18.75	0.16	**						
3	10/13/2020	1:10	17:15	16.08	0.94	6 month						
4	10/16/2020-10/17/2020	11:40	7:50	20.17	1.05	**	10/13/2020	11:35	13:15	1.67	0.611	0.042
5	10/26/2020	18:00	18:05	0.08	0.01	**	10/17/2020	0:25	1:20	0.92	1.320	0.047
6	10/28/2020	5:20	12:55	7.58	0.34	**						
7	10/29/2020	8:20	22:45	14.42	1.27	1 month	10/29/2020	14:10	14:55	0.75	1.791	0.058
8	10/30/2020	0:00	13:50	13.83	0.43	**						

TOTAL MONTH FLOW VOLUME = 0.147

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:

October 2020

48

64

4.22

0

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	10/2/2020	10:20	10:50	0.50	0.02	**						
2	10/12/2020	4:55	23:40	18.75	0.16	**						
3	10/13/2020	1:10	17:15	16.08	0.94	6 month						
4	10/16/2020-10/17/2020	11:40	7:50	20.17	1.05	**						
5	10/26/2020	18:00	18:05	0.08	0.01	**						
6	10/28/2020	5:20	12:55	7.58	0.34	**						
7	10/29/2020	8:20	22:45	14.42	1.27	1 month						
8	10/30/2020	0:00	13:50	13.83	0.43	**						
											TOTAL MONTH	0.341
											FLOW VOLUME =	

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 638 Long Wharf Drive
 021
 NPDES Permit Outfall #: 021
 MONTH: October YEAR: 2020
 Average Low Temp: 48
 Average High Temp: 64
 Measured Rainfall: 4.22
 Measured Snowfall: 0

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	10/2/2020	10:20	10:50	0.50	0.02	**						
2	10/12/2020	4:55	23:40	18.75	0.16	**						
3	10/13/2020	1:10	17:15	16.08	0.94	6 month						
4	10/16/2020-10/17/2020	11:40	7:50	20.17	1.05	**		10/13/2020	12:05	14:00	1.92	29.140
5	10/26/2020	18:00	18:05	0.08	0.01	**						
6	10/28/2020	5:20	12:55	7.58	0.34	**						
7	10/29/2020	8:20	22:45	14.42	1.27	1 month						
8	10/30/2020	0:00	13:50	13.83	0.43	**						

TOTAL MONTH FLOW VOLUME = 2.327

FLOW MONITORING REPORT SUMMARY TABLE

Sea Street @ South Water Street

024

CSO EVENTS LOG

LOCATION:

NPDES Permit Outfall #:

MONTH:

Average Low Temp:

Average High Temp:

Measured Rainfall:

Measured Snowfall:

October 2020

48

64

4.22

0

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q. volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	10/2/2020	10:20	10:50	0.50	0.02	**					
2	10/12/2020	4:55	23:40	18.75	0.16	**					
3	10/13/2020	1:10	17:15	16.08	0.94	6 month					
4	10/16/2020-10/17/2020	11:40	7:50	20.17	1.05	**					
5	10/26/2020	18:00	18:05	0.08	0.01	**					
6	10/28/2020	5:20	12:55	7.58	0.34	**					
7	10/29/2020	8:20	22:45	14.42	1.27	1 month					
8	10/30/2020	0:00	13:50	13.83	0.43	**					
										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
 LOCATION: 025
 NPDES Permit Outfall #: October YEAR: 2020
 MONTH: 48
 Average Low Temp: 64
 Average High Temp: 4.22
 Measured Rainfall: 0
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL		
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	Qavg (MGD)	OUTFALL volume (MG)
1	10/2/2020	10:20	10:50	0.50	0.02	**						
2	10/12/2020	4:55	23:40	18.75	0.16	**						
3	10/13/2020	1:10	17:15	16.08	0.94	6 month						
4	10/16/2020-10/17/2020	11:40	7:50	20.17	1.05	**						
5	10/26/2020	18:00	18:05	0.08	0.01	**						
6	10/28/2020	5:20	12:55	7.58	0.34	**						
7	10/29/2020	8:20	22:45	14.42	1.27	1 month						
8	10/30/2020	0:00	13:50	13.83	0.43	**						

TOTAL MONTH FLOW VOLUME = 0.000

METER DATA

SEPTEMBER 2020

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY			
CSO FLOW MONITORING PROGRAM			
METER DATA SUMMARY - SEPTEMBER 2020			
<u>MONTHLY RAINFALL SUMMARY</u>			
2,78 inches of rain (3.44 inches of rain in a typical month)			
No snowfall			
6 rain events (10 rain events in a typical month)			
Two 3 month storms. All other storms less than 1 month return frequency.			
<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>
CSO 006	REG 006	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	2	0.031
CSO 016	REG 016	3	0.089
CSO 015	REG 015	3	0.227
CSO 011	REG 011	0	0.000
CSO 025	REG 025	0	0.000
CSO 021	REG 021	2	0.232
TOTAL		10	0.579

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - STCP 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	REG 006	0	0.000	0	0.000	0	0.000
CSO 005	REG 005	3	0.026	3	0.026	3	0.023
CSO 004	REG 004	5	0.080	4	0.069	4	0.069
CSO 003	REG 003	5	0.336	4	0.293	4	0.293
CSO 024	REG 024	2	0.330	1	0.288	1	0.288
CSO 009	REG 009	23	1.261	20	1.100	20	1.100
CSO 016	REG 016	35	7.506	31	6.545	31	6.545
CSO 015	REG 015	37	2.635	32	2.297	32	2.297
CSO 011	REGS 010A, 011	3	0.136	3	0.119	3	0.119
CSO 025	REG 025	0	0.000	0	0.000	0	0.000
CSO 021	REG 021	12	8.674	11	7.564	11	7.564
TOTAL		124	20.985	108	18.299	108	18.299

(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 #: September YEAR: 2020
 MONTH: 59
 Average Low Temp: 75
 Average High Temp: 2.78
 Measured Rainfall: 0.00
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT						CSO EVENT				
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	9/2/2020	7:20	12:50	5.50	0.43	**						
2	9/3/2020	1:55	5:20	3.42	0.03	**						
3	9/3/2020	23:05	23:55	0.83	0.43	3 month						
4	9/10/2020	6:10	10:35	4.42	0.57	**						
5	9/10/2020	17:55	20:20	2.42	0.53	3 month						
6	9/29/2002-9/30/2020	19:20	6:35	11.25	0.79	**						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 67"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Ella T. Grasso Blvd. - 23 yds North of Legion Ave.

004

LOCATION:

NPDES Permit Outfall #:

September YEAR: 2020

59

75

2.78

0

Average Low Temp:

Average High Temp:

Measured Rainfall:

Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT						CSO EVENT				
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	9/2/2020	7:20	12:50	5.50	0.43	**						
2	9/3/2020	1:55	5:20	3.42	0.03	**						
3	9/3/2020	23:05	23:55	0.83	0.43	3 month						
4	9/10/2020	6:10	10:35	4.42	0.57	**						
5	9/10/2020	17:55	20:20	2.42	0.53	3 month						
6	9/29/2002-9/30/2020	19:20	6:35	11.25	0.79	**						
											TOTAL MONTH FLOW VOLUME =	0.000

Note: Overflow occurs when Interceptor level reaches 73"

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: September YEAR: 2020
 Average Low Temp: 59
 Average High Temp: 75
 Measured Rainfall: 2.78
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT						CSO EVENT				
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	9/2/2020	7:20	12:50	5.50	0.43	**						
2	9/3/2020	1:55	5:20	3.42	0.03	**						
3	9/3/2020	23:05	23:55	0.83	0.43	3 month						
4	9/10/2020	6:10	10:35	4.42	0.57	**						
5	9/10/2020	17:55	20:20	2.42	0.53	3 month						
6	9/29/2002-9/30/2020	19:20	6:35	11.25	0.79	**						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 82"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Whalley Ave. 30 yds from Fitch Street
 006
 NPDES Permit Outfall #: 2020
 MONTH: September
 Average Low Temp: 59
 Average High Temp: 75
 Measured Rainfall: 2.78
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT						CSO EVENT				
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	9/2/2020	7:20	12:50	5.50	0.43	**						
2	9/3/2020	1:55	5:20	3.42	0.03	**						
3	9/3/2020	23:05	23:55	0.83	0.43	3 month						
4	9/10/2020	6:10	10:35	4.42	0.57	**						
5	9/10/2020	17:55	20:20	2.42	0.53	3 month						
6	9/29/2002-9/30/2020	19:20	6:35	11.25	0.79	**						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 72"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 Grand Avenue & James Street
 009

LOCATION:

NPDES Permit Outfall #:

MONTH: September YEAR: 2020

Average Low Temp: 59

Average High Temp: 75

Measured Rainfall: 2.78

Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP			DURATION (hours)
1	9/2/2020	7:20	12:50	5.50	0.43	**						
2	9/3/2020	1:55	5:20	3.42	0.03	**						
3	9/3/2020	23:05	23:55	0.83	0.43	3 month	9/3/2020-9/4/2020	23:55	0:15	0.33	1.713	0.024
4	9/10/2020	6:10	10:35	4.42	0.57	**						
5	9/10/2020	17:55	20:20	2.42	0.53	3 month						
6	9/29/2002-9/30/2020	19:20	6:35	11.25	0.79	**	9/29/2020	23:40	23:55	0.25	0.676	0.007
TOTAL MONTH											FLOW VOLUME =	0.031

Note: Overflow occurs when interceptor level reaches 30"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

011

LOCATION:

NPDES Permit Outfall #:

September 2020

59

Average Low Temp:

75

Average High Temp:

2.78

Measured Rainfall:

0

Measured Snowfall:

0

EVENT No.	DATE	RAINFALL EVENT						CSO EVENT				
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	9/2/2020	7:20	12:50	5.50	0.43	**						
2	9/3/2020	1:55	5:20	3.42	0.03	**						
3	9/3/2020	23:05	23:55	0.83	0.43	3 month						
4	9/10/2020	6:10	10:35	4.42	0.57	**						
5	9/10/2020	17:55	20:20	2.42	0.53	3 month						
6	9/29/2002-9/30/2020	19:20	6:35	11.25	0.79	**						

TOTAL MONTH FLOW VOLUME = 0.000

Sum of 010A and 011

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 15 James Street
 LOCATION: 015
 NPDES Permit Outfall #: September 2020
 MONTH: 59
 Average Low Temp: 75
 Average High Temp: 2.78
 Measured Rainfall: 0
 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	9/2/2020	7:20	12:50	5.50	0.43 **							
2	9/3/2020	1:55	5:20	3.42	0.03 **							
3	9/3/2020	23:05	23:55	0.83	0.43 3 month		9/3/2020-9/4/2020	23:55	1:00	1.08	3.232	0.146
4	9/10/2020	6:10	10:35	4.42	0.57 **							
5	9/10/2020	17:55	20:20	2.42	0.53 3 month		9/10/2020	18:30	0:25	0.25	0.425	0.004
6	9/29/2002-9/30/2020	19:20	6:35	11.25	0.79 **		9/29/2020-9/30/2020	23:50	0:20	0.50	3.698	0.077
											TOTAL MONTH	0.227
											FLOW VOLUME =	

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

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG 638 Long Wharf Drive

LOCATION: 021

NPDES Permit Outfall #:

MONTH: September YEAR: 2020

Average Low Temp: 59

Average High Temp: 75

Measured Rainfall: 2.78

Measured Snowfall: 0

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	9/2/2020	7:20	12:50	5.50	0.43	**						
2	9/3/2020	1:55	5:20	3.42	0.03	**						
3	9/3/2020	23:05	23:55	0.83	0.43	3 month	9/4/2020	0:35	1:00	0.42	0.592	0.010
4	9/10/2020	6:10	10:35	4.42	0.57	**						
5	9/10/2020	17:55	20:20	2.42	0.53	3 month						
6	9/29/2002-9/30/2020	19:20	6:35	11.25	0.79	**	9/30/2020	0:10	1:10	1.00	5.329	0.222

TOTAL MONTH FLOW VOLUME = 0.232

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Sea Street @ South Water Street

LOCATION: 024

NPDES Permit Outfall #:

MONTH: September YEAR: 2020

Average Low Temp: 59

Average High Temp: 75

Measured Rainfall: 2.78

Measured Snowfall: 0

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	9/2/2020	7:20	12:50	5.50	0.43	**						
2	9/3/2020	1:55	5:20	3.42	0.03	**						
3	9/3/2020	23:05	23:55	0.83	0.43	3 month						
4	9/10/2020	6:10	10:35	4.42	0.57	**						
5	9/10/2020	17:55	20:20	2.42	0.53	3 month						
6	9/29/2002-9/30/2020	19:20	6:35	11.25	0.79	**						
											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: September YEAR: 2020
 Average Low Temp: 59
 Average High Temp: 75
 Measured Rainfall: 2.78
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	9/2/2020	7:20	12:50	5.50	0.43	**					
2	9/3/2020	1:55	5:20	3.42	0.09	**					
3	9/3/2020	23:05	23:55	0.83	0.43	3 month					
4	9/10/2020	6:10	10:35	4.42	0.57	**					
5	9/10/2020	17:55	20:20	2.42	0.53	3 month					
6	9/29/2002-9/30/2020	19:20	6:35	11.25	0.79	**					

TOTAL MONTH
FLOW VOLUME = 0.000

METER DATA

AUGUST 2020

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY			
CSO FLOW MONITORING PROGRAM			
METER DATA SUMMARY - AUGUST 2020			
MONTHLY RAINFALL SUMMARY			
3.05 inches of rain (3.44 inches of rain in a typical month)			
No snowfall			
11 rain events (10 rain events in a typical month)			
One 1 year and one 6 month storms. All other storms less than 1 month return frequency.			
CSO NUMBER	REGULATOR NUMBERS	CSO EVENTS	CSO VOLUME (MG)
CSO 006	REG 006	0	0.000
CSO 005	REG 005	0	0.000
CSO 004	REG 004	1	0.013
CSO 003	REG 003	0	0.000
CSO 024	REG 024	0	0.000
CSO 009	REG 009	2	0.332
CSO 016	REG 016	2	0.744
CSO 015	REG 015	2	0.244
CSO 011	REG 011	1	0.029
CSO 025	REG 025	0	0.000
CSO 021	REG 021	2	3.464
TOTAL		10	4.826

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - STCP 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	REG 006	0	0.000	0	0.000	0	0.000
CSO 005	REG 005	3	0.029	3	0.026	3	0.026
CSO 004	REG 004	5	0.089	5	0.078	5	0.078
CSO 003	REG 003	5	0.375	5	0.330	5	0.330
CSO 024	REG 024	2	0.368	2	0.324	2	0.324
CSO 009	REG 009	22	1.354	20	1.191	20	1.191
CSO 016	REG 016	34	8.216	30	7.230	30	7.230
CSO 015	REG 015	36	2.550	32	2.244	32	2.244
CSO 011	REGS 010A, 011	3	0.152	3	0.134	3	0.134
CSO 025	REG 025	0	0.000	0	0.000	0	0.000
CSO 021	REG 021	10	9.275	9	8.162	9	8.162
TOTAL		121	22.408	107	19.718	107	19.718

(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 #: August YEAR: 2020
 MONTH: 64
 Average Low Temp: 83
 Average High Temp: 3.05
 Measured Rainfall: 0.00
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Q _{avg} (MGD)	OUTFALL Q volume (MG)
1	8/3/2020	22:40	23:15	0.58	0.02	**						
2	8/4/2020	13:55	14:40	0.75	0.05	**						
3	8/7/2020	8:50	13:15	4.42	0.03	**						
4	8/16/2020	11:25	18:05	6.67	0.48	**						
5	8/17/2020	18:35	23:15	4.67	0.16	**						
6	8/18/2020	2:05	6:10	4.08	0.81	6 month						
7	8/19/2020	11:30	12:45	1.25	0.15	**						
8	8/24/2020	17:30	17:35	0.08	0.01	**						
9	8/27/2020	16:00	20:25	4.42	1.14	1 year						
10	8/28/2020	10:50	10:55	0.08	0.01	**						
11	8/29/2020	6:20	23:20	17.00	0.19	**						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 67"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 Ella T. Grasso Blvd. - 23 yds North of Legion Ave.
 004

LOCATION:

NPDES Permit Outfall #:

MONTH: August YEAR: 2020

Average Low Temp: 64

Average High Temp: 83

Measured Rainfall: 3.05

Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	8/3/2020	22:40	23:15	0.58	0.02	**						
2	8/4/2020	13:55	14:40	0.75	0.05	**						
3	8/7/2020	8:50	13:15	4.42	0.03	**						
4	8/16/2020	11:25	18:05	6.67	0.48	**						
5	8/17/2020	18:35	23:15	4.67	0.16	**						
6	8/18/2020	2:05	6:10	4.08	0.81	6 month						
7	8/19/2020	11:30	12:45	1.25	0.15	**						
8	8/24/2020	17:30	17:35	0.08	0.01	**						
9	8/27/2020	16:00	20:25	4.42	1.14	1 year	8/27/2020	17:35	17:50	0.25	1.259	0.013
10	8/28/2020	10:50	10:55	0.08	0.01	**						
11	8/29/2020	6:20	23:20	17.00	0.19	**						

TOTAL MONTH FLOW VOLUME = 0.013

Note: Overflow occurs when Interceptor level reaches 73"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Derby Ave. 20 yds East of Ella T. Grasso Blvd.
 LOCATION: 005
 NPDES Permit Outfall #: August YEAR: 2020
 MONTH: 64
 Average Low Temp: 83
 Average High Temp: 3.05
 Measured Rainfall: 0
 Measured Snowfall: 0

EVENT No.	RAINFALL EVENT					CSO EVENT						
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q, volume (MG)
1	8/3/2020	22:40	23:15	0.58	0.02	**						
2	8/4/2020	13:55	14:40	0.75	0.05	**						
3	8/7/2020	8:50	13:15	4.42	0.03	**						
4	8/16/2020	11:25	18:05	6.67	0.48	**						
5	8/17/2020	18:35	23:15	4.67	0.16	**						
6	8/18/2020	2:05	6:10	4.08	0.81	6 month						
7	8/19/2020	11:30	12:45	1.25	0.15	**						
8	8/24/2020	17:30	17:35	0.08	0.01	**						
9	8/27/2020	16:00	20:25	4.42	1.14	1 year						
10	8/28/2020	10:50	10:55	0.08	0.01	**						
11	8/29/2020	6:20	23:20	17.00	0.19	**						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 82"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Whalley Ave. 30 yds from Fitch Street
 LOCATION: 006
 NPDES Permit Outfall #: 006
 MONTH: August YEAR: 2020
 Average Low Temp: 64
 Average High Temp: 83
 Measured Rainfall: 3.05
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	8/3/2020	22:40	23:15	0.58	0.02	**						
2	8/4/2020	13:55	14:40	0.75	0.05	**						
3	8/7/2020	8:50	13:15	4.42	0.03	**						
4	8/16/2020	11:25	18:05	6.67	0.48	**						
5	8/17/2020	18:35	23:15	4.67	0.16	**						
6	8/18/2020	2:05	6:10	4.08	0.81	6 month						
7	8/19/2020	11:30	12:45	1.25	0.15	**						
8	8/24/2020	17:30	17:35	0.08	0.01	**						
9	8/27/2020	16:00	20:25	4.42	1.14	1 year						
10	8/28/2020	10:50	10:55	0.08	0.01	**						
11	8/29/2020	6:20	23:20	17.00	0.19	**						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 72"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 Grand Avenue & James Street
 009
LOCATION:
 NPDES Permit Outfall #:
 MONTH: August YEAR: 2020
 Average Low Temp: 64
 Average High Temp: 83
 Measured Rainfall: 3.05
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT				
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	8/3/2020	22:40	23:15	0.58	0.02	**					
2	8/4/2020	13:55	14:40	0.75	0.05	**					
3	8/7/2020	8:50	13:15	4.42	0.03	**					
4	8/16/2020	11:25	18:05	6.67	0.48	**					
5	8/17/2020	18:35	23:15	4.67	0.16	**					
6	8/18/2020	2:05	6:10	4.08	0.81	6 month	3:20	3:40	0.33	1.888	0.026
7	8/19/2020	11:30	12:45	1.25	0.15	**					
8	8/24/2020	17:50	17:35	0.08	0.01	**					
9	8/27/2020	16:00	20:25	4.42	1.14	1 year	16:20	18:00	1.67	4.412	0.306
10	8/28/2020	10:50	10:55	0.08	0.01	**					
11	8/29/2020	6:20	23:20	17.00	0.19	**					

TOTAL MONTH FLOW VOLUME = 0.332

Note: Overflow occurs when Interceptor level reaches 30"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011

NPDES Permit Outfall #: August YEAR: 2020

MONTH: 64

Average Low Temp: 83

Average High Temp: 3.05

Measured Rainfall: 0

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	8/3/2020	22:40	23:15	0.58	0.02	**						
2	8/4/2020	13:55	14:40	0.75	0.05	**						
3	8/7/2020	8:50	13:15	4.42	0.03	**						
4	8/16/2020	11:25	18:05	6.67	0.48	**						
5	8/17/2020	18:35	23:15	4.67	0.16	**						
6	8/18/2020	2:05	6:10	4.08	0.81	6 month						
7	8/19/2020	11:30	12:45	1.25	0.15	**						
8	8/24/2020	17:30	17:35	0.08	0.01	**						
9	8/27/2020	16:00	20:25	4.42	1.14	1 year	8/27/2020	17:40	17:55	0.25	2.815	0.029
10	8/28/2020	10:50	10:55	0.08	0.01	**						
11	8/29/2020	6:20	23:20	17.00	0.19	**						

TOTAL MONTH FLOW VOLUME =

0.029

Sum of 010A and 011

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 15 James Street
 015

LOCATION:

NPDES Permit Outfall #:

August YEAR: 2020

MONTH: August

Average Low Temp: 64

Average High Temp: 83

Measured Rainfall: 3.05

Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	8/3/2020	22:40	23:15	0.58	0.02	**						
2	8/4/2020	13:55	14:40	0.75	0.05	**						
3	8/7/2020	8:50	13:15	4.42	0.03	**						
4	8/16/2020	11:25	18:05	6.67	0.48	**						
5	8/17/2020	18:35	23:15	4.67	0.16	**						
6	8/18/2020	2:05	6:10	4.08	0.81	6 month	8/18/2020	2:30	4:00	1.50	2.050	0.135
7	8/19/2020	11:30	12:45	1.25	0.15	**						
8	8/24/2020	17:30	17:35	0.08	0.01	**						
9	8/27/2020	16:00	20:25	4.42	1.14	1 year	8/27/2020	16:20	18:45	2.42	1.078	0.109
10	8/28/2020	10:50	10:55	0.08	0.01	**						
11	8/29/2020	6:20	23:20	17.00	0.19	**						

TOTAL MONTH FLOW VOLUME =

0.244

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

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 638 Long Wharf Drive
 021
 NPDES Permit Outfall #: August YEAR: 2020
 MONTH: 64
 Average Low Temp: 83
 Average High Temp: 3.05
 Measured Rainfall: 0
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	8/3/2020	22:40	23:15	0.58	0.02	**						
2	8/4/2020	13:55	14:40	0.75	0.05	**						
3	8/7/2020	8:50	13:15	4.42	0.03	**						
4	8/16/2020	11:25	18:05	6.67	0.48	**						
5	8/17/2020	18:35	23:15	4.67	0.16	**						
6	8/18/2020	2:05	6:10	4.08	0.81	6 month	8/18/2020	3:45	5:10	1.42	7.284	0.430
7	8/19/2020	11:30	12:45	1.25	0.15	**						
8	8/24/2020	17:30	17:35	0.08	0.01	**						
9	8/27/2020	16:00	20:25	4.42	1.14	1 year	8/27/2020	16:45	20:15	3.50	20.800	3.034
10	8/28/2020	10:50	10:55	0.08	0.01	**						
11	8/29/2020	6:20	23:20	17.00	0.19	**						

TOTAL MONTH FLOW VOLUME = 3.464

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Sea Street @ South Water Street
 NPDES Permit Outfall #: 024
 MONTH: August YEAR: 2020
 Average Low Temp: 64
 Average High Temp: 83
 Measured Rainfall: 3.05
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT						CSO EVENT				
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	8/3/2020	22:40	23:15	0.58	0.02	**						
2	8/4/2020	13:55	14:40	0.75	0.05	**						
3	8/7/2020	8:50	13:15	4.42	0.03	**						
4	8/16/2020	11:25	18:05	6.67	0.48	**						
5	8/17/2020	18:35	23:15	4.67	0.16	**						
6	8/18/2020	2:05	6:10	4.08	0.81	6 month						
7	8/19/2020	11:30	12:45	1.25	0.15	**						
8	8/24/2020	17:30	17:35	0.08	0.01	**						
9	8/27/2020	16:00	20:25	4.42	1.14	1 year						
10	8/28/2020	10:50	10:55	0.08	0.01	**						
11	8/29/2020	6:20	23:20	17.00	0.19	**						

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
 MONTH: August YEAR: 2020
 Average Low Temp: 64
 Average High Temp: 83
 Measured Rainfall: 3.05
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT					CSO EVENT					
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg volume (MGD)	OUTFALL Q volume (MG)
1	8/3/2020	22:40	23:15	0.58	0.02	**						
2	8/4/2020	13:55	14:40	0.75	0.05	**						
3	8/7/2020	8:50	13:15	4.42	0.03	**						
4	8/16/2020	11:25	18:05	6.67	0.48	**						
5	8/17/2020	18:35	23:15	4.67	0.16	**						
6	8/18/2020	2:05	6:10	4.08	0.81	6 month						
7	8/19/2020	11:30	12:45	1.25	0.15	**						
8	8/24/2020	17:30	17:35	0.08	0.01	**						
9	8/27/2020	16:00	20:25	4.42	1.14	1 year						
10	8/28/2020	10:50	10:55	0.08	0.01	**						
11	8/29/2020	6:20	23:20	17.00	0.19	**						

TOTAL MONTH FLOW VOLUME = 0.000

METER DATA

JULY 2020

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - JULY 2020

MONTHLY RAINFALL SUMMARY

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

No snowfall

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

Three 6 month storms, one 3 month storm, an one 1 month storm. All other storms less than 1 month return frequency.

<u>CSO NUMBER</u>	<u>REGULATOR NUMBERS</u>	<u>CSO EVENTS</u>	<u>CSO VOLUME (MG)</u>
CSO 006	REG 006	0	0.000
CSO 005	REG 005	0	0.000
CSO 004	REG 004	0	0.000
CSO 003	REG 003	1	0.054
CSO 024	REG 024	0	0.000
CSO 009	REG 009	3	0.063
CSO 016	REG 016	3	0.411
CSO 015	REG 015	4	0.109
CSO 011	REG 011	0	0.000
CSO 025	REG 025	0	0.000
CSO 021	REG 021	0	0.000
TOTAL		11	0.637

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - STCP 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	REG 006	0	0.000	0	0.000	0	0.000
CSO 005	REG 005	4	0.033	3	0.029	3	0.029
CSO 004	REG 004	4	0.076	4	0.067	4	0.067
CSO 003	REG 003	6	0.429	5	0.377	5	0.377
CSO 024	REG 024	2	0.421	2	0.370	2	0.370
CSO 009	REG 009	21	0.901	19	0.792	19	0.792
CSO 016	REG 016	35	7.950	31	6.987	31	6.987
CSO 015	REG 015	37	2.442	33	2.146	33	2.146
CSO 011	REGS 010A, 011	2	0.117	2	0.103	2	0.103
CSO 025	REG 025	0	0.000	0	0.000	0	0.000
CSO 021	REG 021	8	3.856	7	3.389	7	3.389
TOTAL		119	16.225	105	14.261	105	14.261

(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 #: July YEAR: 2020
 MONTH: 71
 Average Low Temp: 85
 Average High Temp: 2.80
 Measured Rainfall: 0.00
 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	7/1/2020	17:40	21:30	3.83	0.42	6 month					
2	7/2/2020	4:20	4:25	0.08	0.01	**					
3	7/3/2020	15:00	20:15	5.25	0.59	1 month					
4	7/8/2020	14:50	16:30	1.67	0.20	**					
5	7/10/2020	12:45	23:55	11.17	0.09	**					
6	7/11/2020	21:50	21:55	0.08	0.01	**					
7	7/17/2020	13:00	15:15	2.25	0.03	**					
8	7/20/2020	4:25	4:30	0.08	0.01	**					
9	7/22/2020	5:20	6:00	0.67	0.02	**					
10	7/22/2020	20:40	21:55	1.25	0.10	**					
11	7/23/2020	21:40	23:10	1.50	0.52	6 month	7/23/2020	22:50	23:05	0.25	5.216
12	7/30/2020	16:35	17:15	0.67	0.33	6 month					
13	7/31/2020	2:25	5:40	3.25	0.47	3 month					

TOTAL MONTH FLOW VOLUME = 0.054

Note: Overflow occurs when Interceptor level reaches 67"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Ella T. Grasso Blvd. - 23 yds North of Legion Ave.
 004
 MONTH: July YEAR: 2020
 Average Low Temp: 71
 Average High Temp: 85
 Measured Rainfall: 2.80
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q. volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	7/1/2020	17:40	21:30	3.83	0.42	6 month					
2	7/2/2020	4:20	4:25	0.08	0.01	**					
3	7/3/2020	15:00	20:15	5.25	0.59	1 month					
4	7/8/2020	14:50	16:30	1.67	0.20	**					
5	7/10/2020	12:45	23:55	11.17	0.09	**					
6	7/11/2020	21:50	21:55	0.08	0.01	**					
7	7/17/2020	13:00	15:15	2.25	0.03	**					
8	7/20/2020	4:25	4:30	0.08	0.01	**					
9	7/22/2020	5:20	6:00	0.67	0.02	**					
10	7/22/2020	20:40	21:55	1.25	0.10	**					
11	7/23/2020	21:40	23:10	1.50	0.52	6 month					
12	7/30/2020	16:35	17:15	0.67	0.33	6 month					
13	7/31/2020	2:25	5:40	3.25	0.47	3 month					

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 73"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Derby Ave. 20 yds East of Ella T. Grasso Blvd.
 LOCATION: 005
 NPDES Permit Outfall #: July YEAR: 2020
 MONTH: 71
 Average Low Temp: 85
 Average High Temp: 2.80
 Measured Rainfall: 0
 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	7/1/2020	17:40	21:30	3.83	0.42	6 month					
2	7/2/2020	4:20	4:25	0.08	0.01	**					
3	7/3/2020	15:00	20:15	5.25	0.59	1. month					
4	7/8/2020	14:50	16:30	1.67	0.20	**					
5	7/10/2020	12:45	23:55	11.17	0.09	**					
6	7/11/2020	21:50	21:55	0.08	0.01	**					
7	7/17/2020	13:00	15:15	2.25	0.03	**					
8	7/20/2020	4:25	4:30	0.08	0.01	**					
9	7/22/2020	5:20	6:00	0.67	0.02	**					
10	7/22/2020	20:40	21:55	1.25	0.10	**					
11	7/23/2020	21:40	23:10	1.50	0.52	6 month					
12	7/30/2020	16:35	17:15	0.67	0.33	6 month					
13	7/31/2020	2:25	5:40	3.25	0.47	3 month					

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 82"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Whalley Ave. 30 yds from Fitch Street
 006
 NPDES Permit Outfall #: July YEAR: 2020
 MONTH: 71
 Average Low Temp: 85
 Average High Temp: 2.80
 Measured Rainfall: 0
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	7/1/2020	17:40	21:30	3.83	0.42	6 month					
2	7/2/2020	4:20	4:25	0.08	0.01	**					
3	7/3/2020	15:00	20:15	5.25	0.59	1 month					
4	7/8/2020	14:50	16:30	1.67	0.20	**					
5	7/10/2020	12:45	23:55	11.17	0.09	**					
6	7/13/2020	21:50	21:55	0.08	0.01	**					
7	7/17/2020	13:00	15:15	2.25	0.03	**					
8	7/20/2020	4:25	4:30	0.08	0.01	**					
9	7/22/2020	5:20	6:00	0.67	0.02	**					
10	7/22/2020	20:40	21:55	1.25	0.10	**					
11	7/23/2020	21:40	23:10	1.50	0.52	6 month					
12	7/30/2020	16:35	17:15	0.67	0.33	6 month					
13	7/31/2020	2:25	5:40	3.25	0.47	3 month					

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 72"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 Grand Avenue & James Street

LOCATION: 009

NPDES Permit Outfall #:

MONTH: July YEAR: 2020

Average Low Temp: 71

Average High Temp: 85

Measured Rainfall: 2.80

Measured Snowfall: 0

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	7/1/2020	17:40	21:30	3.83	0.42	6 month						
2	7/2/2020	4:20	4:25	0.08	0.01	**						
3	7/3/2020	15:00	20:15	5.25	0.59	1 month	7/3/2020	15:10	17:25	2.25	0.538	0.050
4	7/8/2020	14:50	16:30	1.67	0.20	**						
5	7/10/2020	12:45	23:55	11.17	0.09	**						
6	7/11/2020	21:50	21:55	0.08	0.01	**						
7	7/17/2020	13:00	15:15	2.25	0.03	**						
8	7/20/2020	4:25	4:30	0.08	0.01	**						
9	7/22/2020	5:20	6:00	0.67	0.02	**						
10	7/22/2020	20:40	21:55	1.25	0.10	**						
11	7/23/2020	21:40	23:10	1.50	0.52	6 month	7/23/2020	22:50	23:10	0.33	0.448	0.006
12	7/30/2020	16:35	17:15	0.67	0.33	6 month						
13	7/31/2020	2:25	5:40	3.25	0.47	3 month	7/31/2020	3:00	3:15	0.25	0.662	0.007

TOTAL MONTH FLOW VOLUME = 0.063

Note: Overflow occurs when Interceptor level reaches 30"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011
 NPDES Permit Outfall #: July YEAR: 2020
 MONTH: 71
 Average Low Temp: 85
 Average High Temp: 2.80
 Measured Rainfall: 0
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q. volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	7/1/2020	17:40	21:30	3.83	0.42	6 month					
2	7/2/2020	4:20	4:25	0.08	0.01	**					
3	7/3/2020	15:00	20:15	5.25	0.59	1 month					
4	7/8/2020	14:50	16:30	1.67	0.20	**					
5	7/10/2020	12:45	23:55	11.17	0.09	**					
6	7/11/2020	21:50	21:55	0.08	0.01	**					
7	7/17/2020	13:00	15:15	2.25	0.03	**					
8	7/20/2020	4:25	4:30	0.08	0.01	**					
9	7/22/2020	5:20	6:00	0.67	0.02	**					
10	7/22/2020	20:40	21:55	1.25	0.10	**					
11	7/23/2020	21:40	23:10	1.50	0.52	6 month					
12	7/30/2020	16:35	17:15	0.67	0.33	6 month					
13	7/31/2020	2:25	5:40	3.25	0.47	3 month					

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 15 James Street 015
 NPDES Permit Outfall #: 015
 MONTH: July YEAR: 2020
 Average Low Temp: 71
 Average High Temp: 85
 Measured Rainfall: 2.80
 Measured Snowfall: 0

EVENT No.	RAINFALL EVENT						CSO EVENT					
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Cavg (MGD)	OUTFALL Q volume (MG)
1	7/1/2020	17:40	21:30	3.83	0.42	6 month	7/1/2020	21:40	21:55	0.25	1.013	0.011
2	7/2/2020	4:20	4:25	0.08	0.01	**						
3	7/3/2020	15:00	20:15	5.25	0.59	1 month	7/3/2020	15:15	18:05	2.83	0.171	0.016
4	7/8/2020	14:50	16:30	1.67	0.20	**						
5	7/10/2020	12:45	23:55	11.17	0.09	**						
6	7/11/2020	21:50	21:55	0.08	0.01	**						
7	7/17/2020	13:00	15:15	2.25	0.03	**						
8	7/20/2020	4:25	4:30	0.08	0.01	**						
9	7/22/2020	5:20	6:00	0.67	0.02	**						
10	7/22/2020	20:40	21:55	1.25	0.10	**						
11	7/23/2020	21:40	23:10	1.50	0.52	6 month	7/23/2020	22:50	23:40	0.83	3.417	0.071
12	7/30/2020	16:35	17:15	0.67	0.33	6 month						
13	7/31/2020	2:25	5:40	3.25	0.47	3 month	7/31/2020	3:00	3:40	0.67	0.650	0.011

TOTAL MONTH FLOW VOLUME = 0.109

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Int. River & Poplar 016
 NPDES Permit Outfall #: 016
 MONTH: July YEAR: 2020
 Average Low Temp: 71
 Average High Temp: 85
 Measured Rainfall: 2.80
 Measured Snowfall: 0

EVENT No.	RAINFALL EVENT				CSO EVENT				OUTFALL Q. volume (MG)		
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START		STOP	DURATION (hours)
1	7/1/2020	17:40	21:30	3.83	0.42	6 month					
2	7/2/2020	4:20	4:25	0.08	0.01	**					
3	7/3/2020	15:00	20:15	5.25	0.59	1 month	7/3/2020	15:10	18:05	2.92	1.679
4	7/8/2020	14:50	16:30	1.67	0.20	**					
5	7/10/2020	12:45	23:55	11.17	0.09	**					
6	7/11/2020	21:50	21:55	0.08	0.01	**					
7	7/17/2020	13:00	15:15	2.25	0.03	**					
8	7/20/2020	4:25	4:30	0.08	0.01	**					
9	7/22/2020	5:20	6:00	0.67	0.02	**					
10	7/22/2020	20:40	21:55	1.25	0.10	**					
11	7/23/2020	21:40	23:10	1.50	0.52	6 month	7/23/2020	22:50	23:20	0.50	5.251
12	7/30/2020	16:35	17:15	0.67	0.33	6 month					
13	7/31/2020	2:25	5:40	3.25	0.47	3 month	7/31/2020	2:55	3:40	0.75	3.126

TOTAL MONTH FLOW VOLUME = 0.411

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 638 Long Wharf Drive
 021

LOCATION: NPDES Permit Outfall #:

MONTH: July YEAR: 2020

Average Low Temp: 71

Average High Temp: 85

Measured Rainfall: 2.80

Measured Snowfall: 0

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	7/1/2020	17:40	21:30	3.83	0.42	6 month					
2	7/2/2020	4:20	4:25	0.08	0.01	**					
3	7/3/2020	15:00	20:15	5.25	0.59	1 month					
4	7/8/2020	14:50	16:30	1.67	0.20	**					
5	7/10/2020	12:45	23:55	11.17	0.09	**					
6	7/11/2020	21:50	21:55	0.08	0.01	**					
7	7/17/2020	13:00	15:15	2.25	0.03	**					
8	7/20/2020	4:25	4:30	0.08	0.01	**					
9	7/22/2020	5:20	6:00	0.67	0.02	**					
10	7/22/2020	20:40	21:55	1.25	0.10	**					
11	7/23/2020	21:40	23:10	1.50	0.52	6 month					
12	7/30/2020	16:35	17:15	0.67	0.33	6 month					
13	7/31/2020	2:25	5:40	3.25	0.47	3 month					

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Sea Street @ South Water Street

LOCATION: 024

NPDES Permit Outfall #:

July YEAR: 2020

MONTH: 71

Average Low Temp: 85

Average High Temp: 2.80

Measured Rainfall: 0

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 avg (MGD)	
1	7/1/2020	17:40	21:30	3.83	0.42	6 month						
2	7/2/2020	4:20	4:25	0.08	0.01	**						
3	7/3/2020	15:00	20:15	5.25	0.59	1 month						
4	7/8/2020	14:50	16:30	1.67	0.20	**						
5	7/10/2020	12:45	23:55	11.17	0.09	**						
6	7/11/2020	21:50	21:55	0.08	0.01	**						
7	7/17/2020	13:00	15:15	2.25	0.03	**						
8	7/20/2020	4:25	4:30	0.08	0.01	**						
9	7/22/2020	5:20	6:00	0.67	0.02	**						
10	7/22/2020	20:40	21:55	1.25	0.10	**						
11	7/23/2020	21:40	23:10	1.50	0.52	6 month						
12	7/30/2020	16:35	17:15	0.67	0.33	6 month						
13	7/31/2020	2:25	5:40	3.25	0.47	3 month						

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
 MONTH: July YEAR: 2020
 Average Low Temp: 71
 Average High Temp: 85
 Measured Rainfall: 2.80
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	7/1/2020	17:40	21:30	3.83	0.42	6 month					
2	7/2/2020	4:20	4:25	0.08	0.01	**					
3	7/3/2020	15:00	20:15	5.25	0.59	1 month					
4	7/8/2020	14:50	16:30	1.67	0.20	**					
5	7/10/2020	12:45	23:55	11.17	0.09	**					
6	7/11/2020	21:50	21:55	0.08	0.01	**					
7	7/17/2020	13:00	15:15	2.25	0.03	**					
8	7/20/2020	4:25	4:30	0.08	0.01	**					
9	7/22/2020	5:20	6:00	0.67	0.02	**					
10	7/22/2020	20:40	21:55	1.25	0.10	**					
11	7/23/2020	21:40	23:10	1.50	0.52	6 month					
12	7/30/2020	16:35	17:15	0.67	0.33	6 month					
13	7/31/2020	2:25	5:40	3.25	0.47	3 month					

TOTAL MONTH
 FLOW VOLUME = 0.000

METER DATA

JUNE 2020

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY		
CSO FLOW MONITORING PROGRAM		
METER DATA SUMMARY - JUNE 2020		
<u>MONTHLY RAINFALL SUMMARY</u>		
2.17 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 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	REG 006	0
CSO 005	REG 005	0
CSO 004	REG 004	0
CSO 003	REG 003	0
CSO 024	REG 024	0
CSO 009	REG 009	2
CSO 016	REG 016	3
CSO 015	REG 015	3
CSO 011	REG 011	0
CSO 025	REG 025	0
CSO 021	REG 021	0
TOTAL		8
		0.470

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - STCP ROLLING AVERAGE - TYPICAL YEAR ESTIMATES

CSO NUMBER	REGULATOR NUMBERS	TYPICAL YEAR CSO EVENTS		TYPICAL YEAR CSO VOLUME (MG)		TYPICAL YEAR CSO EVENTS		TYPICAL YEAR CSO VOLUME (MG)	
		BASED ON RAINFALL ⁽¹⁾	BASED ON RAINFALL ⁽²⁾	BASED ON RAINFALL ⁽¹⁾	BASED ON RAINFALL ⁽²⁾	BASED ON MONTHS ⁽³⁾	BASED ON MONTHS ⁽³⁾	BASED ON MONTHS ⁽⁴⁾	BASED ON MONTHS ⁽⁴⁾
CSO 006	REG 006	0	0.000	0	0.000	0	0.000	0	0.000
CSO 005	REG 005	4	0.038	4	0.038	4	0.038	4	0.038
CSO 004	REG 004	4	0.088	4	0.088	4	0.088	4	0.078
CSO 003	REG 003	4	0.373	4	0.373	4	0.373	4	0.332
CSO 024	REG 024	2	0.486	2	0.486	2	0.486	2	0.432
CSO 009	REG 009	18	0.897	18	0.897	16	0.798	16	0.798
CSO 016	REG 016	34	8.238	34	8.238	30	7.330	30	7.330
CSO 015	REG 015	34	2.569	34	2.569	30	2.286	30	2.286
CSO 011	REGS 010A, 011	2	0.135	2	0.135	2	0.120	2	0.120
CSO 025	REG 025	0	0.000	0	0.000	0	0.000	0	0.000
CSO 021	REG 021	9	4.444	9	4.444	8	3.954	8	3.954
TOTAL		112	17.268	100	17.268	100	15.364	100	15.364

(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: YEAR: 2020
 Average Low Temp: 2.16
 Average High Temp: 0.00
 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	6/3/2020	20:55	22:00	1.08	0.16	**					
2	6/5/2020-6/6/2020	2:05	3:00	24.92	0.55	**					
3	6/11/2020	15:00	17:00	2.00	0.16	**					
4	6/12/2020	1:55	2:00	0.08	0.01	**					
5	6/27/2020	14:25	16:55	2.50	0.50	1 month					
6	6/28/2020	17:35	18:15	0.67	0.33	1 month					
7	6/29/2020	18:35	18:50	0.25	0.02	**					
8	6/30/2020	12:45	15:20	2.58	0.43	**					

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 67"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Ella T. Grasso Blvd. - 23 yards North of Legion Ave.
 004
 MONTH: 0 YEAR: 2020
 NPDES Permit Outfall #: 0
 Average Low Temp: 0
 Average High Temp: 0
 Measured Rainfall: 2.16
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	6/3/2020	20:55	22:00	1.08	0.16	**					
2	6/5/2020-6/6/2020	2:05	3:00	24.92	0.55	**					
3	6/11/2020	15:00	17:00	2.00	0.16	**					
4	6/12/2020	1:55	2:00	0.08	0.01	**					
5	6/27/2020	14:25	16:55	2.50	0.50	1 month					
6	6/28/2020	17:35	18:15	0.67	0.33	1 month					
7	6/29/2020	18:35	18:50	0.25	0.02	**					
8	6/30/2020	12:45	15:20	2.58	0.43	**					

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 73"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Derby Ave. 20 ydris East of Ella T. Grasso Blvd.
 LOCATION: 005
 NPDES Permit Outfall #: 0 YEAR: 2020
 MONTH: 0
 Average Low Temp: 0
 Average High Temp: 0
 Measured Rainfall: 2.16
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)		
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)	OUTFALL Qavg (MGD)
1	6/3/2020	20:55	22:00	1.08	0.16	**						
2	6/5/2020-6/6/2020	2:05	3:00	24.92	0.55	**						
3	6/11/2020	15:00	17:00	2.00	0.16	**						
4	6/12/2020	1:55	2:00	0.08	0.01	**						
5	6/27/2020	14:25	16:55	2.50	0.50	1 month						
6	6/28/2020	17:35	18:15	0.67	0.33	1 month						
7	6/29/2020	18:35	18:50	0.25	0.02	**						
8	6/30/2020	12:45	15:20	2.58	0.43	**						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 82"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Whalley Ave. 30 yds from Fitch Street
 006
 NPDES Permit Outfall #: 0
 MONTH: 0 YEAR: 2020
 Average Low Temp: 0
 Average High Temp: 0
 Measured Rainfall: 2.16
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP			DURATION (hours)
1	6/3/2020	20:55	22:00	1.08	0.16	**						
2	6/5/2020-6/6/2020	2:05	3:00	24.92	0.55	**						
3	6/11/2020	15:00	17:00	2.00	0.16	**						
4	6/12/2020	1:55	2:00	0.08	0.01	**						
5	6/27/2020	14:25	16:55	2.50	0.50	1 month						
6	6/28/2020	17:35	18:15	0.67	0.33	1 month						
7	6/29/2020	18:35	18:50	0.25	0.02	**						
8	6/30/2020	12:45	15:20	2.58	0.43	**						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 72"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Grand Avenue & James Street
 009
 NPDES Permit Outfall #: 0
 MONTH: 0 YEAR: 2020
 Average Low Temp: 0
 Average High Temp: 0
 Measured Rainfall: 2.16
 Measured Snowfall: 0

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	6/3/2020	20:55	22:00	1.08	0.16	**						
2	6/5/2020-6/6/2020	2:05	3:00	24.92	0.55	**						
3	6/11/2020	15:00	17:00	2.00	0.16	**						
4	6/12/2020	1:55	2:00	0.08	0.01	**						
5	6/27/2020	14:25	16:55	2.50	0.50	1 month						
6	6/28/2020	17:35	18:15	0.67	0.33	1 month	6/28/2020	18:10	18:20	0.17	1.580	0.011
7	6/29/2020	18:35	18:50	0.25	0.02	**						
8	6/30/2020	12:45	15:20	2.58	0.43	**	6/30/2020	12:40	13:20	0.67	1.937	0.054
										TOTAL MONTH	FLOW VOLUME =	0.065

Note: Overflow occurs when Interceptor level reaches 30"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG

LOCATION: 011
 NPDES Permit Outfall #: 0
 MONTH: 0 YEAR: 2020
 Average Low Temp: 0
 Average High Temp: 0
 Measured Rainfall: 2.16
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	6/3/2020	20:55	22:00	1.08	0.16	**					
2	6/5/2020-6/6/2020	2:05	3:00	24.92	0.55	**					
3	6/11/2020	15:00	17:00	2.00	0.16	**					
4	6/12/2020	1:55	2:00	0.08	0.01	**					
5	6/27/2020	14:25	16:55	2.50	0.50	1 month					
6	6/28/2020	17:35	18:15	0.67	0.33	1 month					
7	6/29/2020	18:35	18:50	0.25	0.02	**					
8	6/30/2020	12:45	15:20	2.58	0.43	**					

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 15 James Street
 015
 NPDES Permit Outfall #: 0
 MONTH: 0 YEAR: 2020
 Average Low Temp: 0
 Average High Temp: 0
 Measured Rainfall: 2.16
 Measured Snowfall: 0

EVENT No.	RAINFALL EVENT				CSO EVENT				OUTFALL Q. volume (MG)		
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START		STOP	DURATION (hours)
1	6/3/2020	20:55	22:00	1.08	0.16	**					
2	6/5/2020-6/6/2020	2:05	3:00	24.92	0.55	***					
3	6/11/2020	15:00	17:00	2.00	0.16	**					
4	6/12/2020	1:55	2:00	0.08	0.01	**					
5	6/27/2020	14:25	16:55	2.50	0.50	1 month	6/27/2020	15:35	16:30	0.92	1.788
6	6/28/2020	17:35	18:15	0.67	0.33	1 month	6/28/2020	18:20	18:50	0.50	0.555
7	6/29/2020	18:35	18:50	0.25	0.02	**					
8	6/30/2020	12:45	15:20	2.58	0.43	**	6/30/2020	12:50	13:50	1.00	1.085
										TOTAL MONTH	0.125
										FLOW VOLUME =	

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

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Int. River & Poplar
 016
 NPDES Permit Outfall #: 0
 MONTH: 0 YEAR: 2020
 Average Low Temp: 0
 Average High Temp: 0
 Measured Rainfall: 2.16
 Measured Snowfall: 0

EVENT No.	RAINFALL EVENT				CSO EVENT				OUTFALL Q. volume (MG)		
	DATE	START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START		STOP	DURATION (hours)
1	6/3/2020	20:55	22:00	1.08	0.16	**					
2	6/5/2020-6/6/2020	2:05	3:00	24.92	0.55	**					
3	6/11/2020	15:00	17:00	2.00	0.16	**					
4	6/12/2020	1:55	2:00	0.08	0.01	**					
5	6/27/2020	14:25	16:55	2.50	0.50	1 month	6/27/2020	15:30	16:25	0.92	2.201
6	6/28/2020	17:35	18:15	0.67	0.33	1 month	6/28/2020	18:15	18:35	0.33	2.276
7	6/29/2020	18:35	18:50	0.25	0.02	**					
8	6/30/2020	12:45	15:20	2.58	0.43	**	6/30/2020	12:45	13:45	1.00	3.943

TOTAL MONTH FLOW VOLUME = 0.280

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 638 Long Wharf Drive
 021
 NPDES Permit Outfall #: 0
 MONTH: 0 YEAR: 2020
 Average Low Temp: 0
 Average High Temp: 0
 Measured Rainfall: 2.16
 Measured Snowfall: 0

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	6/3/2020	20:55	22:00	1.08	0.16	**					
2	6/5/2020-6/6/2020	2:05	3:00	24.92	0.55	**					
3	6/11/2020	15:00	17:00	2.00	0.16	**					
4	6/12/2020	1:55	2:00	0.08	0.01	**					
5	6/27/2020	14:25	16:55	2.50	0.50	1 month					
6	6/28/2020	17:35	18:15	0.67	0.33	1 month					
7	6/29/2020	18:35	18:50	0.25	0.02	**					
8	6/30/2020	12:45	15:20	2.58	0.43	**					

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Sea Street @ South Water Street
 024
 NPDES Permit Outfall #: 0
 MONTH: 0 YEAR: 2020
 Average Low Temp: 0
 Average High Temp: 0
 Measured Rainfall: 2.16
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q _v volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	6/3/2020	20:55	22:00	1.08	0.16	**					
2	6/5/2020-6/6/2020	2:05	3:00	24.92	0.55	**					
3	6/11/2020	15:00	17:00	2.00	0.16	**					
4	6/12/2020	1:55	2:00	0.08	0.01	**					
5	6/27/2020	14:25	16:55	2.50	0.50	1 month					
6	6/28/2020	17:35	18:15	0.67	0.33	1 month					
7	6/29/2020	18:35	18:50	0.25	0.02	**					
8	6/30/2020	12:45	15:20	2.58	0.43	**					

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
 MONTH: 0 YEAR: 2020
 NPDES Permit Outfall #: 0
 Average Low Temp: 0
 Average High Temp: 0
 Measured Rainfall: 2.16
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Clavg (MGD)	OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP			DURATION (hours)
1	6/3/2020	20:55	22:00	1.08	0.16	**						
2	6/5/2020-6/6/2020	2:05	3:00	24.92	0.55	**						
3	6/11/2020	15:00	17:00	2.00	0.16	**						
4	6/12/2020	1:55	2:00	0.08	0.01	**						
5	6/27/2020	14:25	16:55	2.50	0.50	1 month						
6	6/28/2020	17:35	18:15	0.67	0.33	1 month						
7	6/29/2020	18:35	18:50	0.25	0.02	**						
8	6/30/2020	12:45	15:20	2.58	0.43	**						

TOTAL MONTH
 FLOW VOLUME = 0.000

METER DATA

MAY 2020

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - MAY 2020

MONTHLY RAINFALL SUMMARY

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

No snowfall

12 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	REG 006	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	REG 011	0	0.000
CSO 025	REG 025	0	0.000
CSO 021	REG 021	0	0.000
TOTAL		0	0.000

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CSO FLOW MONITORING PROGRAM

METER DATA SUMMARY - STCP 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	REG 006	0	0.000	0	0.000	0	0.000
CSO 005	REG 005	5	0.043	5	0.041	5	0.041
CSO 004	REG 004	5	0.099	5	0.094	5	0.094
CSO 003	REG 003	5	0.423	5	0.398	5	0.398
CSO 024	REG 024	3	0.551	2	0.518	2	0.518
CSO 009	REG 009	15	0.851	14	0.802	14	0.802
CSO 016	REG 016	31	8.629	29	8.124	29	8.124
CSO 015	REG 015	31	2.595	29	2.443	29	2.443
CSO 011	REGS 010A, 011	3	0.153	2	0.144	2	0.144
CSO 025	REG 025	0	0.000	0	0.000	0	0.000
CSO 021	REG 021	10	5.040	10	4.745	10	4.745
TOTAL		107	18.384	101	17.309	101	17.309

(1) Estimated Typical Year CSO Events Based on Rainfall Methodology = Typical Year Rainfall x CSO Events since the STCP improvements / Rainfall since the STCP improvements

(2) Estimated Typical Year CSO Volume Based on Rainfall Methodology = Typical Year Rainfall x CSO Volume since the STCP improvements / Rainfall since the STCP improvements

(3) Estimated Typical Year CSO Events Based on Monthly Methodology = 12 months x CSO Events since the STCP improvements / Meter Months since the STCP improvements

(4) Estimated Typical Year CSO Volume Based on Monthly Methodology = 12 months x CSO Volume since the STCP improvements / Meter Months since the STCP improvements

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Orange Ave. @ Int. of Ella T. Grasso Blvd.
 003
 NPDES Permit Outfall #: May YEAR: 2020
 MONTH: 58
 Average Low Temp: 75.5
 Average High Temp: 1.17
 Measured Rainfall: 0.00
 Measured Snowfall:

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q. volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	5/2/2020	1:00	1:05	0.08	0.01	**					
2	5/3/2020	6:05	6:10	0.08	0.01	**					
3	5/4/2020	1:15	2:00	0.75	0.06	**					
4	5/6/2020	18:50	22:05	3.25	0.05	**					
5	5/8/200-5/9/2020	14:15	2:45	12.50	0.48	**					
6	5/11/2020	19:15	19:25	0.17	0.02	**					
7	5/15/2020	2:25	6:00	3.58	0.17	**					
8	5/15/2020-5/16/2020	22:40	3:25	4.75	0.30	**					
9	5/21/2020	9:10	9:15	0.08	0.01	**					
10	5/23/2020	9:50	10:20	0.50	0.04	**					
11	5/25/2020	9:40	9:45	0.08	0.01	**					
12	5/29/2020	0:40	0:45	0.08	0.01	**					

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 67"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Ella T. Grasso Blvd. - 23 yds North of Legion Ave.
LOCATION: 004
NPDES Permit Outfall #: May YEAR: 2020
MONTH: May 58
Average Low Temp: 75.5
Average High Temp: 1.17
Measured Rainfall: 0
Measured Snowfall: 0

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	5/2/2020	1:00	1:05	0.08	0.01	**						
2	5/3/2020	6:05	6:10	0.08	0.01	**						
3	5/4/2020	1:15	2:00	0.75	0.06	**						
4	5/6/2020	18:50	22:05	3.25	0.05	**						
5	5/8/200-5/9/2020	14:15	2:45	12.50	0.48	**						
6	5/11/2020	19:15	19:25	0.17	0.02	**						
7	5/15/2020	2:25	6:00	3.58	0.17	**						
8	5/15/2020-5/16/2020	22:40	3:25	4.75	0.30	**						
9	5/21/2020	9:10	9:15	0.08	0.01	**						
10	5/23/2020	9:50	10:20	0.50	0.04	**						
11	5/25/2020	9:40	9:45	0.08	0.01	**						
12	5/29/2020	0:40	0:45	0.08	0.01	**						

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 73"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Derby Ave. 20 yds East of Ella T. Grasso Blvd.
 LOCATION: 005
 NPDDES Permit Outfall #: May YEAR: 2020
 MONTH: May 58
 Average Low Temp: 75.5
 Average High Temp: 1.17
 Measured Rainfall: 0
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	5/2/2020	1:00	1:05	0.08	0.01	**					
2	5/3/2020	6:05	6:10	0.08	0.01	**					
3	5/4/2020	1:15	2:00	0.75	0.06	**					
4	5/6/2020	18:50	22:05	3.25	0.05	**					
5	5/8/200-5/9/2020	14:15	2:45	12.50	0.48	**					
6	5/11/2020	19:15	19:25	0.17	0.02	**					
7	5/15/2020	2:25	6:00	3.58	0.17	**					
8	5/15/2020-5/16/2020	22:40	3:25	4.75	0.30	**					
9	5/21/2020	9:10	9:15	0.08	0.01	**					
10	5/23/2020	9:50	10:20	0.50	0.04	**					
11	5/25/2020	9:40	9:45	0.08	0.01	**					
12	5/29/2020	0:40	0:45	0.08	0.01	**					

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 82"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Whalley Ave. 30 yds from Fitch Street.
 NPDES Permit Outfall #: 006
 MONTH: May YEAR: 2020
 Average Low Temp: 58
 Average High Temp: 75.5
 Measured Rainfall: 1.17
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	5/2/2020	1:00	1:05	0.08	0.01	**					
2	5/3/2020	6:05	6:10	0.08	0.01	**					
3	5/4/2020	1:15	2:00	0.75	0.06	**					
4	5/6/2020	18:50	22:05	3.25	0.05	**					
5	5/8/200-5/9/2020	14:15	2:45	12.50	0.48	**					
6	5/11/2020	19:15	19:25	0.17	0.02	**					
7	5/15/2020	2:25	6:00	3.58	0.17	**					
8	5/15/2020-5/16/2020	22:40	3:25	4.75	0.30	**					
9	5/21/2020	9:10	9:15	0.08	0.01	**					
10	5/23/2020	9:50	10:20	0.50	0.04	**					
11	5/25/2020	9:40	9:45	0.08	0.01	**					
12	5/29/2020	0:40	0:45	0.08	0.01	**					

TOTAL MONTH FLOW VOLUME = 0.000

Note: Overflow occurs when Interceptor level reaches 72"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG Grand Avenue & James Street

009

LOCATION: Grand Avenue & James Street

NPDES Permit Outfall #: 009

MONTH: May YEAR: 2020

Average Low Temp: 58

Average High Temp: 75.5

Measured Rainfall: 1.17

Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT						CSO EVENT				
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/2/2020	1:00	1:05	0:08	0.01	**						
2	5/3/2020	6:05	6:10	0:08	0.01	**						
3	5/4/2020	1:15	2:00	0:75	0.06	**						
4	5/6/2020	18:50	22:05	3:25	0.05	**						
5	5/8/200-5/9/2020	14:15	2:45	12.50	0.48	**						
6	5/11/2020	19:15	19:25	0:17	0.02	**						
7	5/15/2020	2:25	6:00	3:58	0.17	**						
8	5/15/2020-5/16/2020	22:40	3:25	4:75	0.30	**						
9	5/21/2020	9:10	9:15	0:08	0.01	**						
10	5/23/2020	9:50	10:20	0:50	0.04	**						
11	5/25/2020	9:40	9:45	0:08	0.01	**						
12	5/29/2020	0:40	0:45	0:08	0.01	**						
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 #: May: 2020
 MONTH: May: 58:
 Average Low Temp: 75.5
 Average High Temp: 1.17
 Measured Rainfall: 0
 Measured Snowfall: 0

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	5/2/2020	1:00	1:05	0:08	0.01	**						
2	5/3/2020	6:05	6:10	0:08	0.01	**						
3	5/4/2020	1:15	2:00	0:75	0.06	**						
4	5/6/2020	18:50	22:05	3:25	0.05	**						
5	5/8/200-5/9/2020	14:15	2:45	12:50	0.48	**						
6	5/11/2020	19:15	19:25	0:17	0.02	**						
7	5/15/2020	2:25	6:00	3:58	0.17	**						
8	5/15/2020-5/16/2020	22:40	3:25	4:75	0.30	**						
9	5/21/2020	9:10	9:15	0:08	0.01	**						
10	5/23/2020	9:50	10:20	0:50	0.04	**						
11	5/25/2020	9:40	9:45	0:08	0.01	**						
12	5/29/2020	0:40	0:45	0:08	0.01	**						

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: 15 James Street
 015
 NPDES Permit Outfall #: May YEAR: 2020
 MONTH: May 58
 Average Low Temp: 75.5
 Average High Temp: 1.17
 Measured Rainfall: 0
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT						CSO EVENT				
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/2/2020	1:00	1:05	0:08	0.01	**						
2	5/3/2020	6:05	6:10	0:08	0.01	**						
3	5/4/2020	1:15	2:00	0:75	0.06	**						
4	5/6/2020	18:50	22:05	3:25	0.05	**						
5	5/8/200-5/9/2020	14:15	2:45	12.50	0.48	**						
6	5/11/2020	19:15	19:25	0:17	0.02	**						
7	5/15/2020	2:25	6:00	3:58	0.17	**						
8	5/15/2020-5/16/2020	22:40	3:25	4:75	0.30	**						
9	5/21/2020	9:10	9:15	0:08	0.01	**						
10	5/23/2020	9:50	10:20	0:50	0.04	**						
11	5/25/2020	9:40	9:45	0:08	0.01	**						
12	5/29/2020	0:40	0:45	0:08	0.01	**						

TOTAL MONTH FLOW VOLUME = 0.000

Expected capacity of the siphon is 24 MGD.
 Weir Height 40.5"

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 LOCATION: Int. River & Poplar 016
 NPDES Permit Outfall #: May YEAR: 2020
 MONTH: May 58
 Average Low Temp: 75.5
 Average High Temp: 1.17
 Measured Rainfall: 0
 Measured Snowfall: 0

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	5/2/2020	1:00	1:05	0:08	0.01	**						
2	5/3/2020	6:05	6:10	0:08	0.01	**						
3	5/4/2020	1:15	2:00	0:75	0.06	**						
4	5/6/2020	18:50	22:05	3:25	0.05	**						
5	5/8/200-5/9/2020	14:15	2:45	12:50	0.48	**						
6	5/11/2020	19:15	19:25	0:17	0.02	**						
7	5/15/2020	2:25	6:00	3:58	0.17	**						
8	5/15/2020-5/16/2020	22:40	3:25	4:75	0.30	**						
9	5/21/2020	9:10	9:15	0:08	0.01	**						
10	5/23/2020	9:50	10:20	0:50	0.04	**						
11	5/25/2020	9:40	9:45	0:08	0.01	**						
12	5/29/2020	0:40	0:45	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 #: May YEAR: 2020
 MONTH: May 58
 Average Low Temp: 75.5
 Average High Temp: 1.17
 Measured Rainfall: 0
 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	5/2/2020	1:00	1:05	0:08	0.01 **					
2	5/3/2020	6:05	6:10	0:08	0.01 **					
3	5/4/2020	1:15	2:00	0:75	0.06 **					
4	5/6/2020	18:50	22:05	3:25	0.05 **					
5	5/8/200-5/9/2020	14:15	2:45	12:50	0.48 **					
6	5/11/2020	19:15	19:25	0:17	0.02 **					
7	5/15/2020	2:25	6:00	3:58	0.17 **					
8	5/15/2020-5/16/2020	22:40	3:25	4:75	0.30 **					
9	5/21/2020	9:10	9:15	0:08	0.01 **					
10	5/23/2020	9:50	10:20	0:50	0.04 **					
11	5/25/2020	9:40	9:45	0:08	0.01 **					
12	5/29/2020	0:40	0:45	0:08	0.01 **					

TOTAL MONTH FLOW VOLUME = 0.000

FLOW MONITORING REPORT SUMMARY TABLE

CSO EVENTS LOG
 Sea Street @ South Water Street
 024
 LOCATION:
 NPDES Permit Outfall #:
 MONTH: May YEAR: 2020
 Average Low Temp: 58
 Average High Temp: 75.5
 Measured Rainfall: 1.17
 Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT						CSO EVENT				
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP	DURATION (hours)	OUTFALL Qavg (MGD)	OUTFALL Q volume (MG)
1	5/2/2020	1:00	1:05	0:08	0.01	**						
2	5/3/2020	6:05	6:10	0:08	0.01	**						
3	5/4/2020	1:15	2:00	0:75	0.06	**						
4	5/6/2020	18:50	22:05	3:25	0.05	**						
5	5/8/200-5/9/2020	14:15	2:45	12:50	0.48	**						
6	5/11/2020	19:15	19:25	0:17	0.02	**						
7	5/15/2020	2:25	6:00	3:58	0.17	**						
8	5/15/2020-5/16/2020	22:40	3:25	4:75	0.30	**						
9	5/21/2020	9:10	9:15	0:08	0.01	**						
10	5/23/2020	9:50	10:20	0:50	0.04	**						
11	5/25/2020	9:40	9:45	0:08	0.01	**						
12	5/29/2020	0:40	0:45	0:08	0.01	**						

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
LOCATION: 025
NPDES Permit Outfall #:
MONTH: May YEAR: 2020
Average Low Temp: 58
Average High Temp: 75.5
Measured Rainfall: 1.17
Measured Snowfall: 0

EVENT No.	DATE	RAINFALL EVENT				CSO EVENT				OUTFALL Q volume (MG)	
		START	STOP	DURATION (hours)	TOTAL	FREQUENCY	DATE	START	STOP		DURATION (hours)
1	5/2/2020	1:00	1:05	0:08	0.01	**					
2	5/3/2020	6:05	6:10	0:08	0.01	**					
3	5/4/2020	1:15	2:00	0:75	0.06	**					
4	5/6/2020	18:50	22:05	3:25	0.05	**					
5	5/8/200-5/9/2020	14:15	2:45	12:50	0.48	**					
6	5/11/2020	19:15	19:25	0:17	0.02	**					
7	5/15/2020	2:25	6:00	3:58	0.17	**					
8	5/15/2020-5/16/2020	22:40	3:25	4:75	0.30	**					
9	5/21/2020	9:10	9:15	0:08	0.01	**					
10	5/23/2020	9:50	10:20	0:50	0.04	**					
11	5/25/2020	9:40	9:45	0:08	0.01	**					
12	5/29/2020	0:40	0:45	0:08	0.01	**					

TOTAL MONTH
FLOW VOLUME = 0.000