Haverhill

Robert E. Ward, Interim DPW Director
Water/Wastewater Division
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April 27, 2022

Ms. Elizabeth Kudarauskas
U.S. EPA - Region 1
5 Post Office Square, Suite 100
Boston, MA 02109-3912

Subject: City of Haverhill, MA NPDES Permit #MA 0101621
Consent Decree Submittal (Civil Action No. 16-11698-IT)
Compliance Report Number 11 – July 1, 2021 through December 31, 2021

Dear Ms. Kudarauskas:

Enclosed is Compliance Report No. 11 as required by Section IX.67 of the Consent Decree. This report is for the July 1, 2021 through December 31, 2021 reporting period.

If you require additional information, please call me at (978) 374-2382.

Sincerely,

Robert E. Ward
Interim DPW Director

Enclosure

cc: Chief, Environmental Enforcement Section, U.S. DOJ
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CITY OF HAVERHILL, MASSACHUSETTS

NPDES PERMIT No. MA0101621

CONSENT DECREE

(Civil Action No. 16-11698-IT, 11/10/16)

COMPLIANCE REPORT No. 11

JULY THROUGH DECEMBER 2021

APRIL 2022

CITY OF HAVERHILL, MASSACHUSETTS

NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM

PERMIT No. MA0101621

CONSENT DECREE

(Civil Action No. 16-11698-IT, 11/10/2016)

COMPLIANCE REPORT No. 11

JULY THROUGH DECEMBER 2021

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INTRODUCTION

1.1 BACKGROUND

The United States Environmental Protection Agency (EPA), Massachusetts Department of Environmental Protection (MassDEP), and the City of Haverhill entered into a Consent Decree to require the City to take measures necessary to meet the requirements of the Clean Waters Act and the Massachusetts Clean Water Act, and to achieve and maintain compliance with the Small Municipal Separate Stormwater Sewer System (MS4) General Permit and the Publicly Owned Treatment Works (POTW) Permit, and all applicable federal and state regulations. The effective date of the Consent Decree is November 10, 2016.

As part of the Consent Decree, the City is required to submit a Compliance Report to EPA and MassDEP for the previous six-month period, referred to as a "Reporting Period." The bi-annual Reporting Periods run from January through June, and July through December, with the Compliance Reports due on April 30th and October 31st for the previous period.

The goal of this Compliance Report is to provide the EPA and MassDEP an updated summary of the work performed by the City to achieve and maintain compliance over the course of the Reporting Period.

1.2 UNFORESEEN CHALLENGES

Since March 2020, the City continues to face both external and internal challenges that impact their ability to perform required tasks as originally scheduled. During the reporting period, the Coronavirus (COVID-19) pandemic continues to impede the collection systems operations activities due to reduced daily productivity levels because of the coronavirus safety protocols that remain in place.

1.2.1 Vacant Positions

As reported previously, the Collection System Supervisor position remains vacant. Every effort continues to be made to fill this critical role with a permanent hire. The Wastewater Facility Manager is working as the interim Collection System Supervisor to complete critical tasks with assistance from the Haverhill support staff. A new Water/Wastewater Engineer position is currently advertised for hire. This position will be responsible for engineering and project management tasks for the department.

1.3 REPORT ORGANIZATION

The Compliance Report is divided into several sections including:

- IDDE Program
- SSO and Building/Private Party Backup Events
- Construction Site Inspection and Enforcement Program
- General Status
- Secondary Treatment Bypass
- CMOM Corrective Action Plan (per MassDEP request)

Each section summarizes the City's actions, activities, and events that have occurred over the previous Reporting Period in accordance with the Consent Decree.

1.4 CERTIFICATION STATEMENT

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Robert E. Ward
Interim DPW Director
City of Haverhill, Massachusetts

4/27/22
(date)

SECTION 2

IDDE PROGRAM

2.1 INTRODUCTION

The City identified and inspected 1,200 stormwater outfalls (13 of these outfalls are shared stormwater/combined sewer overflow (CSO) outfalls) as part of the 2014/2015 Stormwater Outfall Inspection Report. Based on the findings, the City established a draft schedule of prioritized inspections.

In 2017, the City prepared the "Illicit Discharge Detection and Elimination (IDDE) Manual." The manual identified the procedures that the City will follow to continue their comprehensive inspections of its stormwater outfalls, upstream system investigations, and enforcement procedures when an illicit connection is identified. Most recently, the IDDE Manual was updated in 2020 to be in compliance with the City's MS4 permit.

The IDDE Manual can be found on the City's Stormwater website at:
www.cityofhaverhill.com/departments/storm_water_program/index.php

2.2 CURRENT REVISED PRIORITY LISTING

The City continues to conduct IDDE sampling and update priorities based on field investigation and lab analysis testing results. The current IDDE investigation priorities as of December 2021 are shown in Table 2-1. The current priorities categories reflect the following inventory: 6 Problem Priority outfalls; 3 High Priority outfalls; and 39 Low Priority outfalls. Table 2-1 has been updated with the most recent sampling results for each outfall. The priority listing of outfalls, with sample results, is available at the City's stormwater website.

2.3 IDDE INVESTIGATION PROGRESS REPORTING

Table 2-2 shows the City's progress to date on their IDDE investigations during the reporting period (July through December 2021). Three catchments were investigated for potential illicit connections, no illicit connections were found, these outfall catchment areas have been updated on Table 2-2 and IDDE catchment investigation maps in Appendix B. Table 2-3 shows the City's current list of priority outfalls for maintenance.

Using GIS, the City identified a total of 26.12 miles of storm drain piping and 2,617 drainage manholes and catch basins in the tributary area upstream of the outfalls included in the Priorities List as Problem, High, Low priorities. The total length investigated is included and updated from previous reporting for a cumulative percentage investigated. Some outfalls are considered fully investigated if there is no flow in an upstream asset.

During this reporting period, three catchment investigations were completed, 135 outfall inspections were completed, 32 outfall maintenance inspections were completed and closed, repairs were made to remove an illicit discharge at high priority outfall PL0891, and five (5) low priority outfalls were inspected and sampled. The inspections are located in Appendix A.

Table 2-1

PRIORITIZED LIST OF OUTFALL SUB-AREA INVESTIGATIONS

(BASED ON OUTFALL INSPECTION PROGRAM)

2014-2020 Dry-Weather MS4/Stormwater Outfall Inspection Program

Summary of Water Quality Testing of Dry Weather Flow at MS4/CSO Outfalls

Outfall Information					Field Inspection Information				Dry-Weather Flow Characteristics					Field Parameter Test Results								Coliform Laboratory Sampling/Analysis					
							Dry Weather																				
GIS Identifier	Diameter	Material	Outfall Location	Owner-ship	Date	Previous Rainfall	< 24 hours	<48 hours	Flow Description	Odor	Color	Floatables	Turbity	Sample Time	Sample Temp (F)	pH	Conductivity	Ammonia (mg/l)	Surfactants (mg/l)	Chlorine (mg/l)	Sample Date for Bacteria	Previous Rainfall (inches)	Previous Rainfall (Date)	Previous Rainfall (End Time)	E.Coli (MPN/ 100 ml)	Entrocuccus (MPN/ 100 ml)
Problem Priority																										
UNK0955	36"	RCP	South Main St(Dominator Plaza)	City	9/16/2020	.01" ON 9/13/2020			TRICKLE	NONE	CLEAR	NONE	NONE	725	62.2	7	1630	0.13	0.1	0	9/16/2020	0.1	9/13/2020		>2400	
PL0891	30"	RCP	Main St @ Marsh Ave	City	6/9/2020	0.01" ON 6/6/20			MODERATE	DETERGENT	NONE	NONE	CLEAR	1011	58	7.9	1200	0.17	2.19	0.02	6/9/2020	0.01	6/6/2020		>2400	
MR1109	12"	RCP	350 Water Street	City	11/9/2020	.01" ON 11/3/2020			TRICKLE	NONE	NONE	NONE	NONE	930	59.3	7.31	3	0	0	0	12/10/2015	0.1	12/3/2015		1413.6	> 2420
UNK1767	36"	CMP	Tudor Ct	City	6/23/2020	.02" ON 6/11/2020			TRICKLE	NONE	CLEAR	NONE	CLEAR	750	64	7	453	0.07	0	0	6/23/2020	0.2	6/11/2020		>2400	
UNK0951	48"	RCP	61 Brook St	City	8/27/2020	.4" ON 8/23/2020			NONE	NONE	CLEAR	NONE	CLEAR	900	65.5	7.98	334	0	0.25		10/14/2014				>2419.6	
DPI0946	48"	RCP	High School	City	11/5/2015	0.02" ON 11/1/15			TRICKLE	NONE	NONE	NONE	NONE	815	56.4	7.22	849	0	0.25	0	12/10/2015	0.1	2/3/2015		>2420	
High Priority																										
LR1260	3'x4'	OTHER, Blocks	140 Hale Street	City	9/28/2015	0.10" ON 9/13/15			NO INFORMATION	NONE	NONE	NONE	NONE	1040	69.9	7.1	927	0	0.5	0	11/4/2015	0.02	11/1/2015		1986.3	
UNK1166	34"	RCP	8 Franzone Dr	City	6/11/2020	0.01 ON 6/11/2020			SUBSTANTIAL	NONE	CLEAR	NONE	CLEAR	831	62	6.5	1000	0.09	0	0.03	6/11/2020	0.01	6/11/2020		461.1	
UNK1177	48"	RCP	Franzone Dr	City	6/11/2020	0.01" ON 6/11/2020			SUBSTANTIAL	NONE	CLEAR	NONE	CLEAR	925	63	6.1	1000	0.1	0.15	0.01	6/11/2020	0.01	6/11/2020		770.1	
Low Priority																										
BZB0847	15"	RCP	Fermanagh St	City	10/20/2014	0.02" ON 10/19/14			TRICKLE	NONE	CLEAR	NONE	NONE	1306	60	7.7	287	0	1		11/13/2014	0.06	11/7/2014		770.1	
MR20718	10"	RCP	1 Water Street	City	8/14/2015	0.57" ON 8/11/15			NO INFORMATION	NONE	NONE	NONE	NONE	1000	78	7.99	2		0	0	8/31/2015	0.19	8/23/2015		556	631
MR1164	36	RCP	Water Street	City	8/25/2015	0.36" ON 8/21/15				NONE	CLEAR	NONE	NONE		72.2	7.6	2	0	0	0	08/31/2015	0.19	08/23/2015		461	< 10
FBO0638	12"	RCP	Hilldale Ave.	City	6/27/2015	0.04" ON 6/27/15			TRICKLE	NONE	NONE	NONE	NONE	945	64.5	6.91	453	0	0	0	7/7/2015	0.02	7/4/2015		435.2	
PL1222	36"	RCP	West Gile St.	City	5/20/2015	0.07" ON 5/19/15			NO INFORMATION	NONE	NONE	NONE	NONE	825	65.4	7	548	0	0.25	0	6/5/2015	1.38	6/2/15		410.6	
UNK0661	24"	RCP	Parkridge Rd.	City	9/26/2014	0.36" ON 9/21/14			TRICKLE	NONE		NONE	NONE		67.1	7.84	815	0	0		11/13/2014	0.06	11/7/2014		365.4	
MR0982	18"	CLAY	20 Back Lane	City	10/14/2015	0.02" ON 10/13/15			NO INFORMATION	NONE	NONE	NONE	NONE	1150	63.1	7.25	3	0	0	0	11/4/2015	0.02	11/1/15		547.5	183.5
MR23912	8"	STEEL	120 Merrimack St	City	8/27/2015	0.19" ON 8/23/15			TRICKLE	NONE	NONE	NONE	NONE	915	55.1	6.71	6	0	0	0	8/31/2015	0.19	8/23/2015		12.1	148
MR1140	15"	RCP	River St	City	11/4/2021	1.9" on 10/31/2021			TRICKLE	NONE	NONE	OTHER	CLOUDY	1045	42.6	8.18	484	0	0		11/13/2014	0.06	11/7/2014		62.4	
LRO0995	18"	RCP	Newark St	City	11/4/2021	1.9" on 10/31/2021			TRICKLE	NONE	CLEAR	NONE	CLEAR	915	71.4	7.41	120	0	0		10/14/2014	0.18	10/11/2014		52	
MR0834	48"	RCP	Merrimac River (Bradley Ave)	City	9/19/2014	0.02" ON 9/16/14			MODERATE	NONE	CLEAR	NONE	NONE	831	50	7.6	295	0	0		11/13/2014	0.06	11/7/2014		43.2	
UNK0883	12"	CMP	Ferry Rd	City	9/24/2014	0.36" ON 9/21/14			TRICKLE	NONE	CLEAR	NONE	NONE	925	64.7	7.41	224	0	0.25		10/20/2014	0.02	10/18/2014		28.8	
MR0662	18"	RCP	Parkridge Rd.	City	9/25/2014	0.36" ON 9/21/14			TRICKLE	NONE	CLEAR	NONE	NONE	1120	65.4	7.5	475	0	0.25		10/6/2014	0.12	10/4/14		23.8	
LR0963	15"	HDPE	Alvanos St	City	9/11/2014	0.5" ON 9/8/14			MODERATE	NONE	CLEAR	NONE	SLIGHT CLOUDINESS	1015	68.1	7.87	855	0	0.25		9/16/2014	0.18	9/13/2014		22.6	
CB1198	NA	RCP	Research Dr	City	11/4/2014	0.25" ON 11/2/14			MODERATE	NONE	CLEAR	NONE	CLEAR	1003	50.2	7.06	208	0	0.25		11/13/2014	0.06	11/7/2014		21.3	
MR0770	36"	RCP	Merrimac River (River St)	City	9/23/2014	0.36" ON 9/21/14			TRICKLE	NONE	CLEAR	NONE	CLEAR	930	60.6	7.86	713	0	0.25		9/30/2014	0.01	9/29/2014		19.9	
UNK1836	36"	RCP	Computer Dr	City	11/6/2014	0.25" ON 11/2/14			MODERATE	NONE	CLEAR	NONE	CLEAR	850	53.7	7.48	3	0	0.5		11/13/2014	0.06	11/7/2014		18.3	
FP7115	12"	RCP	Brickett Ln	City	5/18/2015	0.03" ON 5/12/15			NO INFORMATION	NONE	BROWN	OTHER	CLOUDY	920	56	7.4	6	0	0.5	0.25	5/22/2015	0.07	5/19/15		8.4	
DPI0969	15"	RCP	Diana Road	City	6/4/2015	1.38" ON 6/2/15			MODERATE	NONE	NONE	NONE	NONE	1035	65.3	7.22	610	0	0	0.25	6/5/2015	1.38	6/2/2015		5.2	

Outfall Information					Field Inspection Information				Dry-Weather Flow Characteristics					Field Parameter Test Results							Coliform Laboratory Sampling/Analysis					
							Dry Weather																			
GIS Identifier	Diameter	Material	Outfall Location	Owner-ship	Date	Previous Rainfall	< 24 hours	<48 hours	Flow Description	Odor	Color	Floatables	Turbity	Sample Time	Sample Temp (F)	pH	Conductivity	Ammonia (mg/l)	Surfactants (mg/l)	Chlorine (mg/l)	Sample Date for Bacteria	Previous Rainfall (inches)	Previous Rainfall (Date)	Previous Rainfall (End Time)	E.Coli (MPN/ 100 ml)	Entrocuccus (MPN/ 100 ml)
DPO0657	45"	RCP	44 Sarah J Circle	City	6/9/2015	0.1" ON 6/6/15			TRICKLE	NONE	NONE	NONE	SLIGHT CLOUDINESS	925	65.4	6.94	206	0	0	0	7/7/2015	0.02	7/4/15		4.1	
UNK1011	24"	RCP	Lake Street	City	6/8/2015	0.1" ON 6/6/15			TRICKLE	NONE	NONE	NONE	NONE	915	59.3	6.95	794	0	0.25	0	6/12/2015	0.1	6/6/2015		3.1	
UNK0627	15"	RCP	Haley Rd	City	5/21/2015	0.07" ON 5/19/15			NO INFORMATION	NONE	NONE	NONE	NONE	840	64.5	6.82	791	0	0	0.25	5/22/2015	0.07	5/19/15		2	
DPI0947	18"	RCP	177 Brook Street	City	10/31/2015	0.66" ON 10/29/15			MODERATE	RANCID/ SOUR	NONE	NONE	NONE	800	52.3	7.4	283	0	0	0	12/10/2015	0.1	12/3/15		1	
UNK1189	NA	NA	Primrose St (Dpw)	City	11/4/2021	1.9" on 10/31/2021			TRICKLE	NONE	CLEAR	NONE	CLEAR	1025	64.7	7.86	343	0	0	0	9/16/2014	0.18	9/13/2014		<1	
TS0984	24"	RCP	Newton Rd	City	5/11/2015	0.03" ON 5/12/15			MODERATE	NONE	BROWN	NONE	SLIGHT CLOUDINESS	1111	62.2	6.81	76	0	0	0.25	5/22/2015	0.07	5/19/15		<1	
TS0989	24"	RCP	Newton Rd	City	5/18/2015	0.03" ON 5/12/15			SUBSTANTIAL	NONE	Clear	NONE	SLIGHT CLOUDINESS	1100	63.3	7.2	48	0	0	0.25	5/22/2015	0.07	5/19/15		<1	
UNK1020	24"	RCP	River St	Private	9/30/2014	0.36" ON 9/21/14			TRICKLE	NONE	NONE		SLIGHT CLOUDINESS	840	44.9	7.77	301	0	0		11/13/2014	0.06	11/7/2014		34.1	
UNK1750	24"	RCP	36 Magnavista	City	5/18/2015	0.03" ON 5/12/15			TRICKLE	NONE	NONE	NONE	NONE	955	64.7	7.6	574	0	0	0.25	5/22/2015	0.07	5/19/2015		<1	
UNK1040	24"	RCP	Gile St.	City	11/4/2021	1.9" on 10/31/2021			TRICKLE	NONE	NONE	NONE	NONE	930	63.1	7.3	877	0	0	0	5/22/2015	0.07	5/19/2015		<1	
UNK0902	40"	CMP	Shelley Rd	City	11/4/2021	1.9" on 10/31/2021			MODERATE	NONE	CLEAR	NONE	CLEAR		62.6	7.02	1567	0	0							
UNK1680	15"	HDPE	Colonial Farm Road	Private	6/27/2015	0.04" ON 6/27/15			TRICKLE	NONE	BROWN	NONE	NONE		66.9	6.9	238	0	0	0						
DPI1007	54"	CMP	Kenilworth Ln	City	10/10/2014	0.08" ON 10/8/14			TRICKLE	NONE	CLEAR	OTHER (DIRT/DEBRIS)	CLEAR	1040	51.5	7.86	471	0	0.25							
UNK0848	18"	RCP	Woodrow Ave	City	9/26/2019	0.01" ON 9/23/19			NO FLOW																	
FBO0723	18"	RCP	Hanna Ridge Rd.	City	7/31/2019	1.2" ON 7/23/19			MODERATE	NONE	NONE	NONE	CLEAR	923	76.6	7.77	440	0	<0.05	0	7/31/2019	1.2	7/23/2019	1045	8.5	
UNK0888	NA	NA	West Lowell Street	City	6/12/2015	0.1" ON 6/6/15			MODERATE																	
UNK1188	32"	RCP	Primrose Street	City	7/16/2019	0.45" ON 7/12/19			TRICKLE	NONE	NONE	NONE	CLEAR	930	73.9	7.48	855	0.5	<0.05	0	7/16/2019	0.45	7/12/2019	2045	770.1	
MR38714	6"	PVC	Parkridge Rd.	City	3/9/2016	0.01" ON 3/4/16			TRICKLE																	
MR38718	18"	RCP	Merrimack River	City	9/26/2019	0.01" ON 9/23/19			TRICKLE	NONE	NONE	NONE	CLEAR	1013	68.1	8.01	509	0	<0.05	0	9/29/2019	0.01	9/23/2019	2240	>2400	
LR39512	48"	RCP	Little River	City	7/31/2019	1.2" ON 7/23/19			NO FLOW																	

NOTE: Data exceeds one of the parameter thresholds that suggest it should be added to the IDDE program

Laboratory Sampling Dates in Red are the samples taken with less than 48 hours of dry weather.

TABLE 2-2
SUMMARY OF IDDE INVESTIGATIONS OF SYSTEMS WITH POTENTIAL ILLICIT CONNECTIONS BY BASIN
(BASED ON OUTFALL INSPECTION PROGRAM)
2014-2021 Dry-Weather MS4/Stormwater Outfall Inspection Program
IDDE INVESTIGATION PRIORITIES

		Current Report Period						Completed to Date			
		July 2021 - December 2021						Including this Reporting Period			
Basin ID	Outfall ID	Existing Length of Pipe (ft)	Number of Manholes and Catch Basins	Upstream Length of Pipe (ft)	Percent Completed	Number of Manholes and Catch Basins	Percent Completed	Upstream Length of Pipe (ft)	Percent Completed	Number of Manholes and Catch Basins	Percent Completed
Buswell Brook	BZB0847	1,697	24					1,697	100%	24	100%
Buswell Brook TOTAL		**1,697**	**24**	**0**	**0%**	**0**	**0%**	**1,697**	**100%**	**24**	**100%**
Creek Brook	CB1193	70	0					70	100%		
	CB1198	144	5					144	100%	5	100
	CB1710	71	0					71	100%		
Creek Brook Outlet TOTAL		**285**	**5**	**0**	**0%**	**0**	**0%**	**285**	**100%**	**5**	**100%**
Detention Pond Outlet	DPO0657	422	7								
	DPO0696	61	2					61	100%	2	100%
	DPO1079	37	0								
Detention Pond Outlet TOTAL		**520**	**9**	**0**	**0%**	**0**	**0%**	**61**	**12%**	**2**	**22%**
Detention Pond Inlet	DPI0946	7,421	172					7,421	100%	172	1
	DPI0947	1,360	11								
	DPI0969	1,515	22								
	DPI1007	1,634	0								
	DPI1074	694	14								
	DPI1094	22	0					22	100%		
Detention Pond Inlet TOTAL		**12,646**	**219**	**0**	**0%**	**0**	**0%**	**7,443**	**59%**	**172**	**79%**
Fishing Brook	**FBO0638**	**852**	**15**					**852**	**100%**	**15**	**100%**
Fishing Brook TOTAL		**852**	**15**	**0**	**0%**	**0**	**0%**	**852**	**100%**	**15**	**100%**
Frey's Pond	FP7115	72	3								
Frey's Pond TOTAL		**72**	**3**	**0**	**0%**	**0**	**0%**	**0**	**0%**	**0**	**0%**
Johnston's Creek	JC1028	1,397	12					1,397	100%	12	100%
Johnston's Creek TOTAL		**1,397**	**12**	**0**	**0%**	**0**	**0%**	**1,397**	**100%**	**12**	**100%**
Little River	LR0952	7,268	88								
	LR0963	703	11								
	LR0993	539	4					539	100%	4	100%
	LR0995	822	0								
	LR1103	4,418	4					4,418	100%	4	100%
	LR1260[1]	26,134	614					26,134	100%	622	100%
Little River TOTAL		**39,884**	**721**	**0**	**0%**	**0**	**0%**	**31,091**	**78%**	**630**	**87%**

		Current Report Period						Completed to Date			
		July 2021 - December 2021						Including this Reporting Period			
Basin ID	Outfall ID	Existing Length of Pipe (ft)	Number of Manholes and Catch Basins	Upstream Length of Pipe (ft)	Percent Completed	Number of Manholes and Catch Basins	Percent Completed	Upstream Length of Pipe (ft)	Percent Completed	Number of Manholes and Catch Basins	Percent Completed
Merrimack River	MR0662	210	5								
	MR0770	2,980	47								
	MR0834	756	8	756	100%	8	100%	756	100%	8	100%
	MR0982	128	10					128	100%	10	100%
	MR1109	941	12					941	100%	12	100%
	MR1138	289	18					289	100%	18	100%
	MR1140	90	2								
	MR1141[2]	3,899	104					3,899	100%	104	100%
	MR1164	1,746	116					1,746	100%	116	100%
	MR20718	NA									
	MR23912	0	1								
	MR38718	1713	30	1713	100%	30	100%	1,713	100%	30	100%
	MR24314	541	24					541	100%	24	100%
Merrimack River TOTAL		**13,293**	**377**	**2,469**	**19%**	**38**	**10%**	**10,013**	**75%**	**322**	**85%**
Pentucket Lake	PL0891	5,463	128					5,463	100%	128	100%
	PL1222[1]	3,292	102					3,292	100%	102	100%
Pentucket Lake TOTAL		**8,755**	**230**	**0**	**0%**	**0**	**0%**	**8,755**	**100%**	**230**	**100%**
Tilton Swamp	TS0984	52	1	52	100%	1	100%	52	100%	1	100%
	TS0989	3,893	47								
Tilton Swamp		**3,945**	**48**	**52**	**1%**	**1**	**2%**	**52**	**1%**	**1**	**2%**
Unknown	UNK0627	254	8								
	UNK0661	410	11					410	100%	11	100%
	UNK0668	854	18								
	UNK0788	869	16					869	100%	16	100%
	UNK0836	842	12								
	UNK0883	570	7								
	UNK0898	91	0					91	100%		
	UNK0902	54	2								
	UNK0951	1,910	34					1,910	100%	34	100%
	UNK0953	225	0					225	100%		
	UNK0954	81	0					81	100%		
	UNK0955	6058	146					6,058	100%	146	100%
	UNK1011	5306	44								
	UNK1020	71	2								
	UNK1040	1414	21								
	UNK1063	49	0								
	UNK1166	1079	28					1,079	100%	28	100%
	UNK1177	156	3					156	100%	3	100%
	UNK1188	25926	470					25,926	100%	470	100%
	UNK1189	2043	17					2,043	100%	17	100%
	UNK1680	719	8								
	UNK1750	1239	23					1,239	100%	23	100%

		Current Report Period						Completed to Date			
		July 2021 - December 2021						Including this Reporting Period			
Basin ID	Outfall ID	Existing Length of Pipe (ft)	Number of Manholes and Catch Basins	Upstream Length of Pipe (ft)	Percent Completed	Number of Manholes and Catch Basins	Percent Completed	Upstream Length of Pipe (ft)	Percent Completed	Number of Manholes and Catch Basins	Percent Completed
Unknown	UNK1767	2077	52					2,077	100%	52	100%
	UNK1835	761	10					761	100%	10	100%
	UNK1836	1179	22								
	UNK1886	20	0					20	100%		
	UNK1887	20	0					20	100%		
	UNK1888	21	0					21	100%		
	UNK1889	21	0					21	100%		
Unknown TOTAL		**54,319**	**954**	**0**	**0%**	**0**	**0%**	**43,007**	**79%**	**810**	**85%**
West Meadow Brook	WMB0738	80	0					80	100%		
	WMB0739	80	0					80	100%		
	WMB0740	82	0					82	100%		
	WMB0759	20	0					20	100%		
West Meadow Brook TOTAL		**262**	**0**					**262**	**100%**		
GRAND TOTAL		**137,927**	**2,617**	**2,521**	**2%**	**39**	**1%**	**104,915**	**76%**	**2,223**	**85%**
		26.12mi.		**0.48mi.**				**19.87mi.**			

[1] **Estimate Base upon Percentage of Manholes Inspected**

[2] **Catchment includes State owned drainage and outfall. City inspected City owned drainage.**

TABLE 2-3
OUTFALL MAINTENANCE PRIORITY TABLE
July through December 2021

Outfall ID	Work Order Number	High Priority		Medium Priority	Low Priority					Inspection Date	Re-Inspection Date
		Could Not Locate	Buried	Fully Submerged in Sediment	Partially Submerged in Sediment	Fully Submerged in Water	Partially Submerged in Water	Abnormal Vegatation	Outfall Damage		
DPI1056	ST00000521	X								06/20/18	
KL1227	ST00001275	X								06/18/18	
LR1101	ST00001276	X								06/18/18	
UNK1015	ST00001278	X								06/18/18	
UNK1016	ST00001279	X								06/18/18	
UNK1035	ST00001280	X								06/20/18	
DPI0942	ST00000517		X							08/08/18	
LR1150	ST00001282		X							06/18/19	
MR1224	ST00000540		X								
UNK0888	ST00000478		X							03/28/19	
UNK0889	ST00000554		X							08/08/18	
UNK0905	ST00000556		X							08/08/18	
UNK0997	ST00000560		X							08/08/18	
UNK1033	ST00000562		X							06/20/18	
UNK1136	STI0001311		X							08/10/18	
UNK1207	STI0001312		X							03/19/19	
UNK1221	ST00000568		X							08/13/18	
UNK1907	STI0001313		X							08/13/18	
UNK35912	STI0001314		X							08/10/18	
UNK1773	ST00000575		X							03/28/19	
UNK1774	ST00000576		X							08/15/18	
CB1196	ST00000510			X						03/28/19	
DPI0655	ST00000514			X						03/28/19	
DPI1008	ST00000520			X						04/02/19	
DPO1154	ST00000524			X						03/28/19	
JP1179	ST00000530			X						04/02/19	
KL1230	ST00001152			X						03/19/19	07/01/21
LR0844	ST00000083			X						03/28/19	
LR1118	ST00001283			X						03/19/19	
MR1278	ST00000541			X						04/03/19	
MR24329	ST00000544			X						04/02/19	
SB11512	ST00000545			X						08/23/18	
TS0987	ST00000548			X						03/28/19	
UNK0064	ST00000551			X						04/02/19	
UNK0782	ST00000553			X						03/28/19	
UNK0935	ST00000558			X						03/19/19	
UNK1017	ST00000561			X						03/28/19	
UNK1076	ST00000563			X						03/19/19	
UNK1137	ST00000564			X						03/28/19	
UNK1183	ST00000566			X						03/28/19	
UNK1678	ST00000572			X						03/19/19	07/01/21
UNK1748	ST00000573			X						03/19/19	
UNK1772	ST00000574			X						03/28/19	
UNK1906	ST00000580			X						03/19/19	
UNK25513	ST00000583			X						03/19/19	
UNK31513	ST00000584			X						03/19/19	
CB1148	ST00000591				X					08/06/19	07/01/21
CB1199	ST00000595				X					08/06/19	
CB1200	ST00000596				X					08/06/19	
CB1201	ST00000597				X					08/06/19	
CL0681	ST00000600				X					04/09/19	
CL0683	ST00000601				X					04/09/19	07/01/21
CL0690	ST00000602				X					04/09/19	07/01/21
CL0701	ST00000603				X					04/09/19	
CLO0688	ST00000605				X					04/09/19	07/01/21
DPI0634	ST00000606				X					04/09/19	
DPI0841	ST00000608				X					04/09/19	
DPI0965	ST00000609				X					04/09/19	
DPI1001	ST00000612				X					04/09/19	07/01/21
DPI1081	ST00000615				X						
DPI1090	ST00000617				X					04/09/19	
FP7114	ST00000629				X					04/09/19	
KL30718	ST00000634				X					04/11/19	

Table 2-3 Continued

Outfall ID	Work Order Number	High Priority		Medium Priority	Low Priority					Inspection Date	Re-Inspection Date
		Could Not Locate	Buried	Fully Submerged in Sediment	Partially Submerged in Sediment	Fully Submerged in Water	Partially Submerged in Water	Abnormal Vegatation	Outfall Damage		
LR0931	ST00000635				X					04/11/19	
LR1099	ST00000636				X					04/11/19	
LR1102	ST00000637				X					04/11/19	
LR1251	ST00000641				X					04/11/19	07/01/21
MR23513	ST00000650				X					08/01/21	
MR23514	ST00000651				X						
MR23515	ST00000652				X						
MR23516	ST00000653				X						
MR23517	ST00000654				X						
MR23518	ST00000655				X						
MR23519	ST00000656				X						
MR23520	ST00000657				X						
MR23522	ST00000659				X						
MR23523	ST00000660				X						
MR23524	ST00000661				X						
MR23525	ST00000662				X						
MR24316	ST00000663				X					04/11/19	
MR24318	ST00000664				X						
MR24718	ST00000665				X					04/11/19	
MR5112	ST00000666				X					04/11/19	07/01/21
SB1117	ST00000668				X					04/23/19	
UNK0626	ST00000674				X					04/23/19	
UNK0663	ST00000677				X					04/23/19	07/01/21
UNK0756	ST00000691				X					04/23/19	
UNK0882	ST00000700				X					04/23/19	07/01/21
UNK0885	ST00000701				X					04/23/19	
UNK0950	ST00000706				X					04/23/19	
UNK0962	ST00000709				X						
UNK1000	ST00000710				X					04/23/19	
UNK1005	ST00000711				X					04/23/19	
UNK1006	ST00000712				X					04/23/19	
UNK1111	ST00000717				X					04/23/19	
UNK1123	ST00000718				X					04/25/19	
UNK1158	ST00000721				X					04/25/19	07/01/21
UNK1160	ST00000722				X					04/25/19	
UNK1170	ST00000724				X					04/25/19	07/01/21
UNK1174	ST00000726				X					04/25/19	
UNK1205	ST00000732				X					04/25/19	
UNK1213	ST00000734				X					04/25/19	
UNK1263	ST00000736				X					04/25/19	
UNK1265	ST00000737				X					04/25/19	
UNK13512	ST00000738				X					04/25/19	
UNK16715	ST00000741				X					07/01/21	
UNK1684	ST00000742				X					04/25/19	
UNK1685	ST00000743				X					07/30/19	07/01/21
UNK1686	ST00000744				X					07/30/19	
UNK1738	ST00000751				X					05/01/21	
UNK1801	ST00000758				X					07/30/19	
UNK1802	ST00000759				X					07/03/19	
UNK1806	ST00000760				X						
UNK1864	ST00000767				X						
UNK1865	ST00000768				X					06/01/21	07/01/21
UNK1867	ST00000770				X						
UNK1868	ST00000771				X					04/30/19	07/01/21
UNK1880	ST00000772				X					04/30/19	07/01/21
UNK1891	ST00000773				X					04/30/19	
UNK1896	ST00000774				X					04/30/19	07/01/21
UNK1899	ST00000775				X					07/30/19	
UNK1900	ST00000776				X					07/30/19	
UNK24721	ST00000780				X					08/02/19	
UNK32717	ST00000791				X					05/03/19	
UNK34712	ST00000793				X						
UNK34713	ST00000794				X					05/03/19	
UNK26725	ST00001286				X					05/03/19	
UNK26726	ST00000784				X						
UNK29512	ST00000787				X					05/03/19	07/01/21
CB0977	ST00001288							X			

Table 2-3 Continued

Outfall ID	Work Order Number	High Priority		Medium Priority	Low Priority					Inspection Date	Re-Inspection Date
		Could Not Locate	Buried	Fully Submerged in Sediment	Partially Submerged in Sediment	Fully Submerged in Water	Partially Submerged in Water	Abnormal Vegatation	Outfall Damage		
DPO0657	ST00001291							X		05/03/19	
FB0715	ST00001293							X			
UNK0906	ST00001294							X			
UNK1901	ST00001295							X		05/03/19	07/01/21
UNK1902	ST00001296							X		05/03/19	
UNK5113	ST00001297							X		07/01/21	
CB1198	ST00001298					X				05/03/19	07/01/21
DPI0945	ST00000519					X				05/03/19	
DPI1133	ST00000522					X				05/03/19	
MR20719	ST00000542					X					
TS0989	ST00000549					X				04/30/19	
KL26714	ST00000533					X					
DPI0970	ST00000610						X				
DPI1007	ST00000614						X				
DPI1084	ST00000616						X				
DPI1125	ST00000618						X				
DPI1131	ST00000619						X			05/03/19	
DPI1162	ST00000621						X			05/03/19	
DPI1197	ST00001299						X				
FBO0719	ST00000627						X			04/30/19	07/01/21
KL1178	ST00000633						X			04/30/19	
LR1260	ST00000642						X				
TS0984	ST00000670						X			04/30/19	
TS33514	ST00000673						X			04/30/19	
UNK0665	ST00000678						X			05/03/19	
UNK0666	ST00000679						X			05/03/19	
UNK0729	ST00000689						X				
UNK0730	ST00000690						X			05/03/19	07/01/21
UNK0902	ST00000703						X			07/30/19	07/01/21
UNK0955	ST00000708						X				
UNK1168	ST00000723						X				
UNK1176	ST00000728						X			07/03/19	
UNK1177	ST00000729						X			06/24/19	
UNK1188	ST00001301						X			04/30/19	
UNK1206	ST00000733						X			05/03/19	
UNK1220	ST00000735						X				
UNK1695	ST00000745						X			04/30/19	
UNK1696	ST00000746						X			04/30/19	07/01/21
UNK1749	ST00000752						X			04/30/19	
UNK1767	ST00000755						X			06/01/21	07/01/21
UNK1823	ST00000761						X			07/01/21	
UNK1829	ST00000762						X			06/01/21	07/01/21
UNK1835	ST00000763						X			05/03/19	07/01/21
UNK1910	ST00000777						X			05/03/19	07/01/21
UNK6316	ST00001303						X			05/03/19	
UNK8312	ST00000797						X				
UNK1775	ST00000756						X			08/02/19	07/01/21
LR0979	ST00001304								X	04/30/19	
MR0607	ST00001305								X	05/03/19	
TS0983	ST00001307								X	04/30/19	
UNK1173	ST00001308								X		
MR0927	ST00001309										
UNK1189	ST00001310										
Unknown Ownership Outfalls											

2.4 IDENTIFIED ILLICIT CONNECTIONS AND CURRENT RESOLUTION STATUS

The ongoing and cumulative status of the City's efforts to remove any identified illicit connections or discharges is summarized in Table 2-4. One identified illicit discharge has been resolved and removed from the summary list on Table 2-4.

- Merrimack River Basin Outfalls
  - MR1138 was removed from illicit discharge list on Table 2-4 due to no dry weather flow on multiple visits.
  - MR1140 was sampled and tested for the surfactants parameter with a non-detect result, see Appendix C. This outfall will be removed from Low Priority in the following reporting period.
  - MR38718 had CCTV conducted and it was determined that flow is sourced from an upstream diverted stream flow; additional sampling will be conducted when weather allows.
- Little River Basin Outfalls
  - LRO0995 was sampled and tested for the surfactants parameter with a non-detect result, see Appendix C. This outfall will be removed from Low Priority in the following reporting period.
- Unknown Basin Outfalls
  - UNK0951 remains a High Priority due to physical damage to the storm drain catchment. Work on this outfall will begin when weather permits.
  - UNK1040, UNK1189, and UNK09002 were sampled and tested for the surfactants parameter with a non-detect result, see Appendix C. These outfalls will be removed in the following reporting period.
- Pentucket Lake Basin Outfalls
  - PL0891 was determined to be high in bacteria and surfactants, with the surfactants being attributed to a broken service lateral at an upstream laundromat. The owner of the laundromat repaired the broken service lateral in December 2021. The outfall will be resampled for surfactants and other parameters when weather allows in the next reporting period.

TABLE 2-4
SUMMARY OF ILLICIT DISCHARGES IDENTIFIED BY BASIN AND CURRENT STATUS
(July through December 2021)

Description		Illicit Discharge/Connection Verified				Ongoing Illicit Discharge Removal Activities					Final Illicit Connection Removal Actions				Assessment: Is the City in compliance with the schedule?
CD Requirement		67.a.iii.1			67.a.iii.2	67a.iii.7		67.a.iii.8		67.a.iii.9	67.a.iii.3	67.a.iii.4	67.a.iii.5	67.a.iii.6	
Basin ID	Outfall ID	Date Verified	Address Location	Type of Discharge[1]	Estimated Flow	Removed?	Reasons Why Not	Schedule for Removal	Reason why expedited	Legal Actions against Private Property Owners	Actions Taken (with Dates)	Date Connection Eliminated	Est. Cost of Removal	Estimated Volume Removed (gallons)	
Little River	LR1260	10/26/2017	29 Union Street	Single family broken sewer	400 gpd	not removed	gave extension	Was removed on 2/24/18			Catchment investigation completed on 10/10/2020.			60,000	
Merrimack River	MR1164	11/19/2016	Market Basket Parking Lot	groundwater into drain	Seasonal Flow/ Not able to estimate	N/A	N/A	N/A	N/A	N/A	This dry weather flow appears to be from a groundwater discharge into the drainage system across a parking lot. Additional testing is required to confirm bacteria source is groundwater.	N/A	N/A	N/A	Yes, the City is in compliance with resolving this "illicit discharge."
	MR1109	12/21/2020	350 Water St	IDDE conducted and needs further investigation to determine the source.	500 gpd	not removed	verifying bacteria counts				CCTV conducted on 12/21/2020 no defects found. Flow appears to be from top of catchment from depression/wetland flowing through drain. Additional CCTV required in nearby sewer lines to confirm no infiltration.				Yes, the City is in compliance.
Pentucket Lake	PL0891	10/5/2016	Marsh Avenue	Leaking sewer/ exfiltration	Not able to estimate	X	Sewer replacement costs/lengths are extensive; cost exceeds discretionary funds; new fund required in next fiscal year to complete project	2021	This connection is being removed as quickly as possible and dependent on the availability of funds within the fiscal year.	NOV	10/5/18-10/10/18: SMH-2190 point repair and manhole rehabilitation complete. 10/11/18-10/16/18: Installation of CIPP main line liner on Main St. 10/17/18-10/23/18: Installation of CIPP main line liner on Marsh Ave. 10/24/18: Began installing CIPP of sewer laterals. Groundwater too high causing flooding in homes. Project on hold until mid-end March. Project is complete. 6/9/2020: Illicit connection located at lateral from laundromat, owner notified to repair, repaired as of December 2021, followup testing to be completed next reporting period.	-	$ 446,000	-	Marsh Ave sewer repair project was bid and awarded to National Water Main Cleaning Co. and contract had to be extended to 6/30/19 due to high groundwater. Project was completed by the end of June 2019 but after review of CCTV, it was determined that more CCTV needs to be conducted and 1 defect in lining needs to be repaired.
Unknown	UNK0951	11/1/2017	Brook Street	Leaking sewer running through drain	Not able to estimate	not removed	Not able to fix due to weather	As soon as weather permits	-	-	Section of sewer was dug up and replaced. Further inspections in 2020 showed no dry weather flow. The City will continue to monitor for dry weather flow	4/17/2018	$ 4,277	-	Yes, the City is in compliance.
	UNK0955	10/14/2016	South Main St	Contaminated private line discharges to City line.	Not able to estimate	not removed	unable to complete investigation due to weather	As soon as weather permits			Drain manholes will be exposed and CCTV'd when weather permits to identify source of illicit flow. CCTV conducted showing no infiltration from shopping plaza, additional CCTV will continue in upcoming reporting period.				
	UNK1166	6/11/2020	Franzone Dr	Upstream contamination needs additional IDDE	10gpm est	not removed	CCTV to be completed in next reporting period								
	UNK1188	12/25/2012	34 Columbia Pk., 66 Columbia Pk., 74 Columbia Pk., 80 Columbia Pk., 90-92 Columbia Pk.	5 Single family	N/A	N/A	N/A	N/A	N/A	N/A	5-house sewer services through a drain pipe that were dripping. Install a PVC sleeve through drain	6/8/2016	$ 13,000	26,481	City is in compliance. 60 day deadline was not applicable until November 2016.
	UNK1767	6/23/2020	Tudor Ct	IDDE conducted. CCTV needs to be completed. High ammonia from private pipe. Dye tested home and their wastes go to sewer.	N/A	not removed	CCTV to be completed in next reporting period								
Detention Pond Outlet	DPO0696	6/12/2015	Pamela Lane	Private drain and outfall DPI0697 that discharge to detention pond and not contaminated.	Not able to estimate	N/A	N/A	N/A	N/A	N/A	No Flow present on multiple inpsections in 2020. City will continue to monitor for dry weather flow.	N/A	N/A	N/A	
											Grand Total =		$ 463,277	86,481	

SECTION 3

3.1 SSO AND BUILDING/PRIVATE PARTY BACKUP EVENTS

A chronological list of the sanitary sewer overflows (SSO) and building/private party backup events that occurred during this Reporting Period (July through December 2021), are listed in Table 3-1 and shown in Figure 3-1.

Over the Reporting Period, there were a total of eight reportable SSO events associated with the City's sewer collection system and are listed in Table 3-1. Four of the eight reported SSOs associated with the City have occurred previously and were addressed as follows:

- SSO-21-07 16 South Brook Street CCTV Line & Clean main
- SSO-21-09 40 South Porter Street Instruct Plant Staff
- SSO-21-13 36 People Place Bubbler System Repair
- SSO-21-14 785 Washington Street CCTV Line

It is important to note that the SSO's associated with the City collection system operations continue to not be a result of pipe capacity deficiencies and the City continues to make significant progress in reducing the number of SSOs that occur in the system, which are attributed to City operations. For this six-month reporting period, the City had seven SSOs that were directly attributable to unanticipated City collection system conditions. The EPA reported annual average SSOs in a typical nationwide system is about four SSOs per 100 miles. Accordingly, Haverhill continues to have fewer SSOs than the national average.

TABLE 3-1
SANITARY SEWER OVERFLOW EVENTS
JULY THROUGH DECEMBER 2021

MAINTSTAR WORK ORDER	WW00002036	WW00002037	WW00002038	WW00002051	WW00002068	WW00002071	WW00002076	WW00002077
SSO ID	SSO-21-07	SSO-21-08	SSO-21-09	SSO-21-10	SSO-21-11	SSO-21-12	SSO-21-13	SSO-21-14
SSO ADDRESS	16 South Brook Street	16 Brookline Avenue	40 South Porter Street	117 Linwood Street	354 South Main Street	60 Morgan Drive	36 People Place	785 Washington Street
START DATE/TIME	7/4/2021 12:00	7/12/2021 18:00	7/13/2021 7:15	8/9/2021 9:00	10/26/2021 17:45	11/21/2021 12:15	12/5/2021 16:00	12/18/2021 23:00
END DATE/TIME	7/4/2021 12:25	7/12/2021 18:30	7/13/2021 7:30	8/9/2021 10:00	10/26/2021 18:30	11/21/2021 12:40	12/5/2021 17:30	12/18/2021 23:45
DATE REPORTED EPA/DEP	7/4/2021 13:30	7/13/2021	7/13/2021 13:00	8/10/2021 14:30	10/27/2021 13:00	11/22/2021 10:15	12/6/2021 11:30	12/19/2021 18:15
WHO NOTIFIED	Paul Jessel	Paul Jessel	Isaiah Lewis	Paul Jessel	Isaiah Lewis	Isaiah Lewis	Isaiah Lewis	Isaiah Lewis
REASON FOR OCCURRENCE	Sewer Main Blocked	Sewer Main Blocked	TWAS Tank Overflowed	Sewer Main Blocked	Sewer Main Blocked	Sewer Main Blocked	Lift Station Failure	Sewer Main Blocked
DATE OF LAST SSO OCCURRENCE	6/30/2016	First Occurrence	2/3/2020 14:45	First Occurrence	First Occurrence	First Occurrence	10/11/2003	7/29/2009
SSO EST. VOL.	Unknown	1000	500	250	50	200	100	200
RECEIVING WATERS IF SEWERAGE ENTERED	NA	NA	CB_Sump	NO	NA	NA	Unknown Wetland	Unknown Wetland
METHOD USE TO ESTIMATE VOLUME	Visual	Visual	Visual	Visual	Visual	Visual	Visual	Visual
NEAREST CB LOCATION ID	CB-3488	CB-6483	CB-7981	CB-8563	NONE	CB-4622	CB-3227	CB-2467
DISTANCE TO NEAREST CB (FT.)	131	189	75	797	NONE	94	10	115
NAME OF RECEIVE WATER WHETHER OR NOT THERE WAS A RELEASE	Merrimack River	Merrimack River	Merrimack River	Merrimack River	Merrimack River	Unknown	Unknown	Unknown
ENTERED CB (YES OR NO)	NO	YES	YES	NO	NO	NO	YES	NO
MEASURED TAKEN STOP SSO	Flushed Sewer Main	Flushed Sewer Main	Placed bladder in drain line and used vac truck	Flushed Sewer Main	Flushed Sewer Main	Flushed Sewer Main	JETVAC and repair bubbler	Flushed Sewer Main
DECONTAMINATE	YES	YES	YES	YES	YES	YES	YES	YES
MEASURED TAKEN TO PREVENT FUTURE OVERFLOWS	CCTV Line & Clean main	CCTV Line & Clean main Vac out CB next day	Instructed Plant Staff	CCTV Line	CCTV Line	CCTV Line	Bubbler System Repair	CCTV Line
SEWERAGE LOCATION INTO STREAM	NA	NA	NA	NA	NA	NA	NA	NA
SSO OWNERSHIP CITY OR PRIVATE	CITY	CITY	CITY	CITY	CITY	PRIVATE	CITY	CITY

Roads, surface water, and town boundaries from MassGIS and NH GRANIT. SSO and facility locations from City of Haverhill. Map produced by Wright-Pierce.

ATKINSON, NH

PLAISTOW, NH

MERRIMAC

WEST NEWBURY

GROVELAND

METHUEN

SALEM, NH

NORTH ANDOVER

BOXFORD

AMESBURY ROAD

NORTH BROADWAY

BROADWAY

KENOZA AVENUE

KENOZA LAKE

S MAIN STREET

WILLOW AVENUE

KINGSBURY AVENUE

Merrimack River

Captain Pond

Crystal Lake

Chadwick Pond

SSO-21-13

SSO-21-09

SSO-21-08

SSO-21-07

SSO-21-11

SSO-21-14

SSO-21-10

SSO-21-12

Legend

- SSO
- Water Treatment Facility
- WPAF

N

0 0.25 0.5 1 Miles

SSO and Building/Private Party Backup Locations

July through December, 2021

City of Haverhill, MA

Haverhill

DATE: March 2022

FIGURE: 3-1

JMN W:\GIS_Development\Projects\MA\Haverhill\13703_EPA-ConsentDecree\MXDs\SSOs_Jul-Dec2021_11x17.mxd

SECTION 4

4.1 CONSTRUCTION SITE INSPECTION AND ENFORCEMENT PROGRAM

At the June 26, 2018, Haverhill City Council meeting, the Council passed and adopted a Pre and Post Construction Stormwater Management Ordinance (Ch. 219) as required by the Consent Decree and MS4 Stormwater permit.

The City permitted three projects under this ordinance in 2021. The first project consists of the redevelopment of an existing church property. The second is the development of a new residential subdivision – Sylvan Hill Crossing. And the third is a collection of "Approval Not Required" lots, which were found to cumulatively exceed the one-acre disturbance threshold of the ordinance. The work on both residential projects is underway.

Thus far, projects meeting the one acre and MS4 connection requirements have been exempt under the Ordinance due to their being permitted by the Conservation Commission per Massachusetts Stormwater regulations and Wetlands Protection Act. In addition, the Ordinance has served as a deterrent, as there have been instances where projects have been redesigned to reduce proposed disturbances to less than one acre.

SECTION 5

GENERAL STATUS

5.1 INTRODUCTION

This section summarizes the actions taken by the City of Haverhill to achieve Consent Decree compliance within the Reporting Period.

For the eleventh reporting period (July through December 2021), there is one deliverable and/or activity due within that timeframe to achieve compliance. The deliverable/activity is shown in Table 5-1 below.

In June 2021, The City Council passed a Loan Authorization for $7,037,000, for sewer improvements. This project includes replacing sewer lines in various locations, installing a cured-in-place lining in a 54-inch sewer main, and rehabbing sewer lines in other various locations. The City is currently finalizing the design plans.

A Request for Qualifications (RFQ) for the preliminary design of the City's Water Pollution Abatement Facility's Rehabilitation and Upgrade Project was prepared and advertised with a November 11, 2021 submission deadline. The City is currently reviewing the qualifications and will be conducting interviews in the first quarter of 2022.

The City has entered into a contract with a new Computerized Maintenance Management System (CMMS), CityWorks and is working with its consultant to implement the system. The system will be utilized to develop consequence of failure and likelihood of failure values through CCTV inspection work and will be integrated into the City's long-term capital improvement plan. CityWorks will also have reporting capabilities for outfall inspection and investigation, catch basin cleaning and inspection, and any corrective or preventative maintenance associated with sewer and stormwater (lift station checks, cleaning of sewer lines, etc.). CityWorks will also be utilized within the wastewater treatment plant for corrective and preventative maintenance.

Outfall Inspection Program work orders generated from the City's CMMS from July through December 2021 are attached to this Compliance Report in Appendix A.

TABLE 5-1

SUBMISSIONS WITHIN CURRENT REPORTING PERIOD

Part	*Activity*	Due Date	Submittal Date
Effective Date of Consent Decree (11/10/2016)			
IX	Compliance Reporting		
	Compliance Report No. 10	10/31/2021	10/26/2021

5.2 ISSUES OF NONCOMPLIANCE

The City is in compliance with the requirements of this Consent Decree.

5.3 LOOKING AHEAD - SIX MONTH FORECAST

The anticipated future deliverables required under the Consent Decree for the next Reporting Period, January through June 2022, are shown in Table 5-2.

TABLE 5-2
FUTURE DELIVERABLES DURING THE PROCEEDING REPORTING PERIOD (JANUARY THROUGH JUNE 2022)

Part	*Activity*	*Trigger Event*	*# Days Due Post Trigger Event*	Due Dates
Effective Date of Consent Decree		11/10/2016		
M	CSO Monitoring			
	Annual CSO Activation Report	12/31/21	90	3/31/22
IX	Compliance Reporting			
	Compliance Report No. 11	10/31/2021	180	4/31/2022

SECTION 6

SECONDARY TREATMENT BYPASS

6.1 INTRODUCTION

The intent of this section is to summarize the secondary treatment bypass events that occurred at the City of Haverhill's Water Pollution Abatement Facility during the reporting period, July through December 2021.

6.2 BYPASS EVENTS

There was one secondary treatment bypass event that occurred during the reporting period, which is listed in Table 6-1, this was the first secondary treatment bypass activation to occur since September 7, 2017. The table provides the following information as required under the Consent Decree:

- The date(s) of the Bypass
- The date(s) when the Bypass occurred, and the rainfall totals (inches)
- The presence, or absence of snowmelt
- The total plant influent flow (MGD)
- The total secondary treatment Bypass volume (MG)
- The start/stop time for each Bypass event, and plant flows at both the start and stop of the Bypass event
- The type and number of unit operations and processes that went offline, and the reason of each
- The total gallons of septage received on each Bypass event day
- During the time of Bypass, additional operations information
    - Influent and Effluent total suspended solids
    - The mean cell residence time for each aeration tank
    - The sludge blanket depth in the secondary clarifiers
    - The mixed liquor suspended solids in the aeration tanks

TABLE 6-1
SECONDARY TREATMENT BYPASS EVENTS

Bypass Event	#	2017-01	
Date of Bypass		7/4/2021	
Date of Rainfall		7/4/2021	7/5/2021
Weather Rainfall	Inches	1.41	0.13
snow melt	(y/n)	No	No
Influent Flow	MGD	17.68	9.00
Bypass Flow Total	MG	0.04	0.00
Q, bypass start time		1:26 AM	
Plant Flows @ Start	MGD	60.25	
Q, bypass stop time		1:36 AM	
Plant Flows @ Stop	MGD	62.14	
Max Influent Flow		64.16	15.13
Influent Septage Received	Gallons	0	0
Influent TSS	mg/L	116	209
Effluent TSS	mg/L	12.60	5.80
Aeration Basin #1 Sludge Volume Index	ml/g	-	178
MLSS Lab	mg/L	-	1,966
Mean Cell Residence Time	Days	-	-
Aeration Basin #2 Sludge Volume Index	ml/g	-	193
MLSS Lab	mg/L	-	2,434
Mean Cell Residence Time	Days	-	-
Aeration Basin #3 Sludge Volume Index	ml/g	-	223
MLSS Lab	mg/L	-	1932
Mean Cell Residence Time	Days	-	-
Aeration Basins Online	#	3	3
Secondary Clarifier #1 Depth of Blanket	ft	15.0	1.0
Secondary Clarifier #2 Depth of Blanket	ft	6.5	1.0
Secondary Clarifier #3 Depth of Blanket	ft	15.0	0.5
Secondary Clarifiers Online	#	3	3

Note:

Gaps for requested data are due to secondary treatment bypass events occurring on a non-sampling days.

For each Bypass Event that occurs during the Reporting Period, the corresponding monthly total suspended solids (TSS) surplus and deficit are shown below in Table 6-2.

TABLE 6-2

WPAF MONTHLY TOTAL SUSPENDED SOLIDS (TSS) SURPLUS & DEFICITS

Month/Year	Influent TSS (lbs)	Sludge Disposal (lbs)	Effluent TSS (lbs)	Surplus/Deficit (lbs)
July 2021	790,601	786,433	18,409	-14,241

Additional secondary treatment bypass information is attached to this report in Appendix D.

SECTION 7

CMOM CORRECTIVE ACTION PLAN

7.1 INTRODUCTION

Pursuant to the Consent Decree, the City of Haverhill submitted the Capacity, Management, Operation, and Maintenance Program Assessment Corrective Action Plan (CMOM), dated February 22, 2017, to MassDEP and EPA. In their review letter dated August 3, 2017, MassDEP requested that a summary of the status of CMOM-Related corrective actions that occurred during the reporting period be included in the Compliance Report.

7.2 CMOM CORRECTIVE ACTIONS

The CMOM identified 27 deficiencies, their recommended corrective actions, and an implementation schedule, which are listed below in Table 7-1.

7.3 ADDITIONAL CMOM-RELATED ACTIVITIES

In conjunction with the corrective activities, the City has also performed additional activities as outlined and recommended in the CMOM Program, which includes collection system maintenance and construction activities. The expenses related to collection system maintenance activities performed from July through December 2021 (Reporting Period 11) are listed in Table 7-2 below.

Action #	Deficiency	Recommended Corrective Action	Implementation Schedule	Status
1	The City does not have a formal long-term plan to mitigate SSO.	The recommendations in the Wastewater Treatment Plant & Collection System Staffing Analysis (Woodard & Curran, 2017), Collection System CIP and Sewer Inspection SOP (Appendices B and F), and the Pump Station Evaluation (Wright Pierce, 2016) will serve as a long-term plan to reduce the causes of SSOs.	Ongoing/ Complete	The City has a capital improvement plan which includes recommendations from the Wastewater Treatment Plant & Collection System Staffing Analysis, Collection System CIP and Sewer Inspection SOP, and the Pump Station Evaluation. These include long-term plans to reduce the causes of SSOs. A majority of SSOs are caused by unanticipated sewer blockages. Every effort is taken to minimize the overflow and to take corrective action to prevent reoccurrences. The City has made great strides in order to reduce the number of SSOs over the years, which has seen a downward trend in the annual occurrences. The City's Standard Operating Procedure (SOP) for all SSO calls are to CCTV the sewer segment and to verify that previous corrective actions for recurring SSOs are sufficient. If there are three occurrences within a year, the sewer segment or street is placed on a bi-annual preventative maintenance schedule (PM). This is one of the reasons that SSOs have been reduced from year to year. The City is working to compile all SOP's into one document.

Action #	Deficiency	Recommended Corrective Action	Implementation Schedule	Status
2	The City does not have a comprehensive system to prioritize investigations, repairs, and rehabilitation.	Use the risk-based methods described in Appendices B and F from Capacity, Management, Operations and Maintenance (CMOM), Program Assessment and Corrective Action Plan prepared by Woodard & Curran (February 2017) to prioritize investigations, repairs, and rehabilitation.	Ongoing/Complete	A PEF was submitted to complete planning and implementation of various CMOM corrective action plans including pipe inspections. The City has also began adding CCTV and LOF pipe ratings to their new CMMS software (Utility Cloud). The City is finalizing the purchase of a new CMMS. The CMMS will be GIS centric with the ability to indicate CoF and LoF values as an attribute to the sewer segment. This will be done Citywide and will be used for capital planning. The City will continue utilizing Engineering services for risk-base methods whenever there is a water, sewer, or other infrastructure project as their standard operating procedure. The City has hired an Asset Manager who will update, revise, and develop further CoF and LoF values that will be used to develop the City's long-range CIP. The City will use this data and incorporate it into a capital asset planning tool. The city received an Asset Management Grant, part of which will be going towards updating the Woodard & Curran corrective action plan from 2017 with new criticality insights as sewer and stormwater investigations have become more frequent. The grant will also go towards a new CMMS/EAMS. The new software will be GIS centric, able to store our CCTV data, and provide risk-based insights on assets that can be utilized in capital planning.
3	The City does not have updated job descriptions that match technical requirements for a modern collection system utility.	Update job descriptions for the revised organizational structure proposed in the Wastewater Treatment Plant & Collection System Staffing Analysis (Woodard & Curran, 2017)	Within one year after EPA approves the CMOM Action Plan	Complete.

Action #	Deficiency	Recommended Corrective Action	Implementation Schedule	Status
4	Although the City training program includes some key safety training, staff would benefit from a formalized safety and technical training program.	Implement a staff training program using the guidelines outlined in Appendix C.	Within **one year** after EPA approves the CMOM Action Plan	The City is in contact with Innovative Safety Services, NEWWTA, and others, to schedule yearly training, focusing on safety and operations and maintenance. All Wastewater employees are encouraged to seek any additional training, including management and leadership training, at the City's cost. The City has contracted with United Alliance Safety Services to oversee their Health and Safety programs. The contract includes critical training, safety audits, and the development of an updated Health and Safety Plan.
5	Although the City uses MaintStar to track customer complaints, they do not use the database to prioritize preventative maintenance.	Annually review customer complaint data using GIS to identify areas that may require further investigation.	Within **one year** after EPA approves the CMOM Action Plan Complete	Ongoing See response to Action #2 above
6	The City lacks a comprehensive, risk-based approach to maintenance planning.	Use the risk-based methods described in Appendices B and F from CMOM Program Assessment and Corrective Action Plan prepared by Woodard & Curran, February 2017 to prioritize investigations, repairs, and rehabilitation.	Ongoing/Complete	The City's Asset Manager will use the risk base approach from Appendix B and F from the CMOM Program Assessment and Corrective Action Plan prepared by Woodard & Curran, February 2017, along with developing a CIP. See response to item 1 above.
7	Local limits need to be updated.	Perform a local limits study and update the limits table in the ordinance (per Appendix E, Sewer Ordinance Review from CMOM Program Assessment and Corrective Action Plan prepared by Woodard & Curran, February 2017).	Within **one year** after EPA approves the CMOM Action Plan	Final NPDES Permit went into effect on January 1, 2020. Local limits evaluation was finalized and submitted to EPA for review on June 23, 2021. The City is awaiting EPA review and comments.

Action #	Deficiency	Recommended Corrective Action	Implementation Schedule	Status
8	The City needs to improve implementation and enforcement of their Sewer Use Ordinance (SUO).	Improve implementation and enforcement of the SUO. Begin mapping Food Service Establishments in GIS and building database of grease trap inspectional data.	Within **one year** after EPA approves the CMOM Action Plan	Utility Cloud (CMMS) has been updated to reflect all food service establishments (FSE) and is updated as new permits are submitted. The City hired Watermark Environmental Inc. to conduct FSE annual FOG inspections and to update Utility Cloud system with pass/fail designations. In December of 2020, the City completed draft updates to the SUO for FOG inspection implementation and enforcement; as well as an update to the Enforcement Response Plan. These drafts are being reviewed before seeking City Council Approval
9	The City should update recordkeeping pertaining to private systems.	Input private lift stations into CMMS to track issues & contact information.	Within **three months** after EPA approves the CMOM Action Plan	Complete.
10	The City does not have a finalized version of their capital improvement plan – which will include pump station upgrades, collection system rehabilitation, and WWTP upgrades.	The City should finalize their CIP and appropriate funds as necessary.	Within **three months** after EPA approves the CMOM Action Plan	Complete, and as part of the annual budget process, the City updates the CIP each year. The CIP is used to develop the wastewater 5-year financial plan. The CIP includes pump station upgrades, collection system rehabilitation, and WWTP upgrades. In order to fund the CIP, the City has raised sewer user rates by 40% over the last four years.
11	The City has not verified that other air relief valves do not exist. Maintenance of air relief valves has not been performed historically.	Review record drawings and inspect force main routes to confirm location of air relief valves. If located, enter in GIS and schedule routine maintenance in CMMS.	Within **one year** after EPA approves the CMOM Action Plan	Ongoing.
12	The City does not have a standard procedure for maintaining safety training records.	The City will utilize their CMMS program to organize safety training records.	Within **one year** after EPA approves the CMOM Action Plan	Complete. Training is currently tracked by administration staff in a Microsoft Access File.

Action #	Deficiency	Recommended Corrective Action	Implementation Schedule	Status
13	The City has a general emergency response plan (ERP). The Division recently completed an ERP for responding to SSOs. The Division lacks ERP for other collection system emergencies.	Develop ERP for collections-specific emergencies, in particular those affecting critical assets. For example, there should be an SOP for providing backup power to pump stations during a system-wide power outage.	Within **one year** after EPA approves the CMOM Action Plan	Complete. The City took ownership of a new vac-truck in the Spring of 2021. The ERP has been updated to incorporate the utilization of the vac-truck. The City has combined Power Outage, Sanitary Sewer Overflows, and Marginal Pump Station High Flow Management, into one document. This document is being circulated for staff review.
14	The City does not have formal emergency response training.	Implement a program for training and practicing emergency response.	Within **one year** after EPA approves the CMOM Action Plan	The Wastewater Staff have been trained and additional training will be documented into the City's Access File. For minor emergencies, the staff prepares in advance of a weather event (e.g., setting up bypass pumps at the Marginal Pump Station, verifying that equipment has fuel (gasoline, diesel, or propane), along with procuring rental generators. The need for training is incorporated into these routine preparations. The City has contracted with United Alliance to assist with training needs
15	The City has a hydraulic model for interceptors and CSOs, but there is no city-wide hydraulic model.	Although developing a comprehensive hydraulic model is not a high priority, Woodard & Curran recommends building out the model as required to address capacity issues and plan for new development as the need arises.	As Needed	The City's GIS system is updated on an ongoing basis which will provide a good foundation for a future model.

Action #	Deficiency	Recommended Corrective Action	Implementation Schedule	Status
16	The City does not have adequate staff to perform sufficient preventative maintenance on all 36 pump stations part of the collection system.	Follow the recommendations of the Wastewater Treatment Plant & Collection System Staffing Analysis (Woodard & Curran, 2017) to assign sufficient resources to keep up with required maintenance.	Within **one year** after EPA approves the CMOM Action Plan	The City developed a job description for a new Collection System MEO/laborer and hired a qualified candidate. The City outsources many tasks. See response to Item #19. The Mission Systems improve the monitoring of pump stations resulting in reduced staff time for routine inspections (weekly vs. daily) and more time on preventative maintenance.
17	Although there is generally sufficient redundancy of pumps and level controls, some stations require specific upgrades related to redundancy.	The City will utilize the recommendations of the Pump Station Evaluation (Wright Pierce, 2016) to evaluate future rehabilitation.	Ongoing	The replacement/upgrades to the Carleton Street and North Avenue Pump Stations are complete and online. The City will be standardizing all their pump stations during upgrades and additional pump stations will be recommended for rehabilitation/upgrades as outlined in the Pump Station CIP. Mission alarms are currently installed in twenty-three (23 out of 36) lift stations. The remaining thirteen are budgeted in FY22. Lift stations with bubblers will be changed to Vega Radar level control with backup floats. Six stations have been in the upgrade process during this reporting period
18	Not all pump stations have communication ability. Lack of communication at pump stations has contributed to SSOs.	The City will utilize the recommendations of the SCADA Study (Woodard & Curran, 2011) and Pump Station Evaluation (Wright Pierce, 2016) to evaluate communication improvements.	Ongoing	All pump stations have the ability to communicate alarms. City has selected the use of Mission Alarm and Monitoring Systems for communication. Currently, 23 out of the City's 36 pump stations have Mission Systems. The City received bids and selected a contractor to install Mission Systems in seven additional stations during this reporting period. This will bring the total to 30 stations by the end of FY22.The final six stations will be completed before the end of FY23.

Action #	Deficiency	Recommended Corrective Action	Implementation Schedule	Status
19	11 pump stations do not have working backup power, though most of these have connections for a portable generator or are small enough to pump out.	The City will utilize the recommendations of the SCADA Study (Woodard & Curran, 2011) and Pump Station Evaluation (Wright Pierce, 2016) to evaluate emergency power improvements. Develop an ERP to address a system-wide power outage including monitoring fuel supplies, mobilizing portable generators, and pumping out with trucks.	Ongoing ERP for system wide power outage will be developed within **three month**s after EPA approves the CMOM Action Plan	Completed. There are currently **nine** stations without backup generators. The ERP will be updated to include new generator at the North Avenue Station and the use of the City's new vac-truck. See response to item #14 ERP has been updated and needs to be review by staff.
20	There is currently no schedule for cleaning sewer lines on a system-wide basis.	The City will utilize a 20-year plan to inspect all sewer pipes calculated to have a consequence of failure value ≥ 3 (approximately 57% of system). See the Collection System CIP (Appendix B) for additional information.	Will begin to implement program within **six months** after EPA approves the CMOM Action Plan	The City has purchased their own vac truck. Sewers are designed to achieve self-cleaning velocities. The City has used the Vac-Truck to clean the City's sewers as necessary. The City has added flushing PM's with more flushing being conducted with 246 sewer mains cleaned.
21	The City does not have a dedicated location for offloading and dewatering sewer cleanings. The City does not have an enclosed location for storage of their sewer maintenance vehicles.	The City will purchase a dewatering dumpster for sewer cleanings. The City will construct a facility for storage of sewer maintenance vehicles.	Within **three years** after EPA approves the CMOM Action Plan	Dewatering dumpsters – Complete. Maintenance Vehicle Facility is included the WWTP secondary upgrade project.
22	The City does not have a list of assets located on right-of-ways. The City has also not developed an SOP for maintenance of right-of-ways and easements.	Identify off-street assets using GIS. Schedule preventative maintenance for maintaining accessibility in CMMS. Develop SOPs for specific easements as necessary, including contacting property owners to obtain keys, etc.	Within **two years** after EPA approves the CMOM Action Plan	The City has inputted easements into GIS and assets. These assets will be populated, and SOPs will be made, as well as the development of a preventative maintenance plan. The City has developed sewer segments that are contained within the easements along with a PM schedule. The City will be moving from MaintStar and UtilityCloud to a new CMMS. These PM's will be inputted into new CMMS and begin soon

Action #	Deficiency	Recommended Corrective Action	Implementation Schedule	Status
23	There is no systematic program for uncovering manholes that have been paved over.	Develop an SOP which includes: • Identification of paved over manholes as part of routine inspections • Add paved-over manholes to GIS. • Adding work orders to CMMS for raising paved-over manholes.	Within **two years** after EPA approves the CMOM Action Plan	The City's highway department distributes a street paving list to each department. The engineering department investigates those streets and puts a list together of buried manholes. This list is then given to the Highway Department and they raise the manholes. Paved over manholes are added to GIS on an ongoing basis as they are discovered.
24	Although the City has identified areas with high measured inflow, building inspections have not been performed.	The City will perform trial building inspections to a sample of 10% of buildings located in Areas 14 & 23 Infiltration and Inflow Report (CDM Smith, 2011). Sample brochures will be sent out to buildings where inspections are not successfully completed.	Within **two years** after EPA approves the CMOM Action Plan	The City is considering this as part of their Phase 3 CSO work, however, recommended corrective action is only practical in separated sewer areas.
25	The City lacks public education materials associated with roof leaders and sump pumps.	The City will consider using a public education campaign to inform residents of proper plumbing in areas of separated sewer.	Within **one year** after EPA approves the CMOM Action Plan	Complete. The City has I/I brochures available to the public on their website.
26	The City does not have a system-wide manhole inspection program.	Perform manhole inspections using NASSCO Level 1 MACP. Prioritize and schedule using the risk-based approach described in Appendices B and F rehabilitation. The City plans to complete manhole inspections while performing pipe inspections.	Will begin to implement program within **six months a**fter EPA approves the CMOM Action Plan	Manhole inspections are ongoing as part of pipe inspections. As the City contracts with engineering firms for CCTV work, their scope will also include manhole inspections. The City has implemented NAASCO MACP sewer inspection standards and requires contractors to be NAASCO certified when performing inspections. In addition, MACP Level 1 form has been created in the City's CMMS Utility Cloud. The City will ask CCTV vendors to perform a MACP level 1 when they CCTV a sewer segment. 50 MACP level 1 inspections were done in 2021. Level 1 inspections consist of a basic visual inspection of various sections of a manhole and a condition of that section ranging from "poor" to "good" or "sound".

TABLE 7-2

CMOM-RELATED EXPENSES THAT OCCURRED

DURING REPORTING PERIOD 11

(JULY THROUGH DECEMBER 2021)

Account	Funds Expended during Reporting Period 11	Account Description
Lift Station Operation and Maintenance	$82,356	Used to fund costs for all maintenance and repair of the wastewater collection system. Haverhill's system includes approximately 200 miles of gravity sewer which includes 8-inch up to 72-inch pipe, 36 pumping stations and 3 siphons under the Merrimack River.
Sewer Assessment & Inspection	$21,878	Used to fund cleaning, CCTV inspection, and assessment of sewer lines and grit removal.
Service Contracts	$37,312	Used to fund the annual service contracts for various items in the wastewater department.
Wastewater Infrastructure	$34,000	This account is use for sewer repair miscellaneous items. This is an annual appropriation funded from current year revenues.
Wastewater Capital	$0	Funds are used for expenditures greater than $10,000 with a life greater than 3-years. This is an annual appropriation funded from current year revenues.
Storm Water - Capital	$111,665	Funds capital expenditures greater than $10,000 with a life greater than 3-years. Funds are annual appropriations from user rates and fees.
Stormwater Expense	$92,208	Funds various expenses related to stormwater system operation and maintenance, street sweeping, federal and state permit requirements, and the downtown flood system. There is currently no revenue source for stormwater expenditures.
Total Spent During Reporting Period	$379,418	

APPENDIX A

CMMS GENERATED WORK ORDERS – OUTFALL INVESTIGATIONS AND INSPECTIONS

JULY 2021

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK7514	**OUTFALL ID:**	UNK7514
Date/Time:	2021-07-07 10:59		
Temperature: °F	81	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	CROSS COUNTRY		
Previous Precipitation Date/End Time:	2021-07-06 3:05:00	**Amount (inches):**	0.1

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA					
ASSET ID:	UNK7513			**OUTFALL ID:**	UNK7513
Date/Time:	2021-07-07 10:37				
Temperature: °F	81			**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	CROSS COUNTRY				
Previous Precipitation Date/End Time:	2021-07-06 3:05:00	**Amount (inches):**	0.1		
Pictures					

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	15	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	PL1262	**OUTFALL ID:**	PL1262
Date/Time:	2021-07-07 9:59		
Temperature: °F	75	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-07-06 3:05:00	**Amount (inches):**	0.1

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	Partially

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	PL1261	**OUTFALL ID:**	PL1261
Date/Time:	2021-07-07 10:18		
Temperature: °F	81	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-07-06 3:05:00	**Amount (inches):**	0.1

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	Partially

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	AS

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	PL1256	**OUTFALL ID:**	PL1256
Date/Time:	2021-07-07 13:30		
Temperature: °F	82	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-07-06 3:05:00	**Amount (inches):**	0.1

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	6	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA					
ASSET ID:	PL1255			**OUTFALL ID:**	PL1255
Date/Time:	2021-07-07 13:12				
Temperature: °F	75			**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	CROSBY ST				
Previous Precipitation Date/End Time:	2021-07-06 3:05:00		**Amount (inches):**	0.1	
Pictures					

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	18	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	PL1252	**OUTFALL ID:**	PL1252
Date/Time:	2021-07-07 10:50		
Temperature: °F	81	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-07-06 3:05:00	**Amount (inches):**	0.1

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	18	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	PL1182	**OUTFALL ID:**	PL1182
Date/Time:	2021-07-07 11:08		
Temperature: °F	84	**Inspector(s):**	Holly Tang
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-07-05 3:05:00	**Amount (inches):**	0.1

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	24	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**	No			
Is Inlet Pipe No.1 Flowing?	No		**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	PL1181	**OUTFALL ID:**	PL1181
Date/Time:	2021-07-07 14:05		
Temperature: °F	81	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-07-06 3:05:00	**Amount (inches):**	0.1

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	PL1129	**OUTFALL ID:**	PL1129
Date/Time:	2021-07-07 9:44		
Temperature: °F	74	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	GALE AVE		
Previous Precipitation Date/End Time:	2021-07-06 3:50:00	**Amount (inches):**	0.1

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Poly Vinyl Chloride	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	KL30718	**OUTFALL ID:**	KL30718
Date/Time:	2021-07-07 8:19		
Temperature: °F	72	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	CROSS COUNTRY		
Previous Precipitation Date/End Time:	2021-07-06 3:05:00	**Amount (inches):**	0.1

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Ductile Iron	Circle	6	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

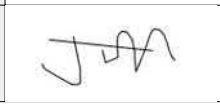
Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK57512	**OUTFALL ID:**	UNK57512
Date/Time:	2021-07-07 13:37		
Temperature: °F	86	**Inspector(s):**	Jesse Middleton
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-07-06 3:05:00	**Amount (inches):**	0.01
Pictures			

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	10	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**	No			
Is Inlet Pipe No.1 Flowing?	No		**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK5113	**OUTFALL ID:**	UNK5113
Date/Time:	2021-07-15 8:46		
Temperature: °F	72	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	SEVEN SISTER RD		
Previous Precipitation Date/End Time:	2021-07-14 3:45:00	**Amount (inches):**	0.01

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	18	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK1720	**OUTFALL ID:**	UNK1720
Date/Time:	2021-07-15 8:26		
Temperature: °F	72	**Inspector(s):**	Holly Tang
Street Name/Structure Location:	EVES WAY		
Previous Precipitation Date/End Time:	2021-07-14 3:45:00	**Amount (inches):**	0.01

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

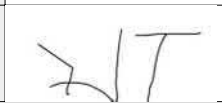
Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete		12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**	No			
Is Inlet Pipe No.1 Flowing?	No		**Estimated GPM:**	

Comments :

Signature of Inspector :



Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK1717	**OUTFALL ID:**	UNK1717
Date/Time:	2021-07-15 8:53		
Temperature: °F	72	**Inspector(s):**	Holly Tang
Street Name/Structure Location:	SEVEN SISTER RD		
Previous Precipitation Date/End Time:	2021-07-14 3:45:00	**Amount (inches):**	0.01

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Rectangle	18	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**	No			
Is Inlet Pipe No.1 Flowing?	No		**Estimated GPM:**	

Comments :	
Signature of Inspector :	HFT

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK34713	**OUTFALL ID:**	UNK34713
Date/Time:	2021-07-15 9:06		
Temperature: °F	73	**Inspector(s):**	Holly Tang
Street Name/Structure Location:	CROSS COUNTRY		
Previous Precipitation Date/End Time:	2021-07-14 3:45:00	**Amount (inches):**	0.01

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	16	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**	No			
Is Inlet Pipe No.1 Flowing?	No		**Estimated GPM:**	

Comments :	
Signature of Inspector :	

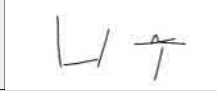
Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	MR36312	**OUTFALL ID:**	MR36312
Date/Time:	2021-07-15 10:20		
Temperature: °F	75	**Inspector(s):**	Holly Tang
Street Name/Structure Location:	CROSS COUNTRY		
Previous Precipitation Date/End Time:	2021-07-13 3:45:00	**Amount (inches):**	0.01

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		HDPP	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**	No			
Is Inlet Pipe No.1 Flowing?	No		**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA					
ASSET ID:	MR5112			**OUTFALL ID:**	MR5112
Date/Time:	2021-07-15 8:34				
Temperature: °F	72			**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	SEVEN SISTER RD				
Previous Precipitation Date/End Time:	2021-07-14 3:45:00	**Amount (inches):**	0.01		
Pictures					

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	Partially
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS			
Indicator	**Indicator Present?**	**Indicator Description**	
Asset Damage	None		
Deposits/Stains	None		
Pool Quality	None		
Pipe Algae/Growth	None		
***Do physical indicators suggest an illicit discharge is present (Y/N):**			
Is Inlet Pipe No.1 Flowing?		**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK34712	**OUTFALL ID:**	UNK34712
Date/Time:	2021-07-15 9:10		
Temperature: °F		**Inspector(s):**	
Street Name/Structure Location:	CROSS COUNTRY		
Previous Precipitation Date/End Time:		**Amount (inches):**	

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Rectangle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**	No			
Is Inlet Pipe No.1 Flowing?	No		**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	DPI0960	**OUTFALL ID:**	DPI0960
Date/Time:	2021-07-15 9:43		
Temperature: °F	72	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-07-14 3:45:00	**Amount (inches):**	0.01

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	24	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	DPI18712	**OUTFALL ID:**	DPI18712
Date/Time:	2021-07-16 11:16		
Temperature: °F	84	**Inspector(s):**	Jesse Middleton|Andrew Salois
Street Name/Structure Location:	CROSS COUNTRY		
Previous Precipitation Date/End Time:	2021-07-14 3:45:00	**Amount (inches):**	0.01

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Rectangle	10	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**	No			
Is Inlet Pipe No.1 Flowing?	No		**Estimated GPM:**	

Comments :	
Signature of Inspector :	JM

Haverhill IDDE Inspection Form
Outfall

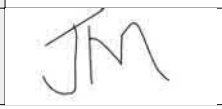
SECTION 1: BACKGROUND DATA					
ASSET ID:	UNK28312			**OUTFALL ID:**	UNK28312
Date/Time:	2021-07-16 13:52				
Temperature: °F	88			**Inspector(s):**	Jesse Middleton|Andrew Salois
Street Name/Structure Location:	GROVELAND RD				
Previous Precipitation Date/End Time:	2021-07-14 3:45:00	**Amount (inches):**	0.01		
Pictures					

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	15	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**	No			
Is Inlet Pipe No.1 Flowing?	No		**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK1728	**OUTFALL ID:**	UNK1728
Date/Time:	2021-07-16 8:53		
Temperature: °F	72	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-07-21 3:45:00	**Amount (inches):**	0.01

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	18	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

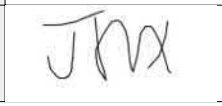
SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK1729	**OUTFALL ID:**	UNK1729
Date/Time:	2021-07-16 10:34		
Temperature: °F	83	**Inspector(s):**	Jesse Middleton|Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-07-14 3:45:00	**Amount (inches):**	0.01
Pictures			

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	10	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**	No			
Is Inlet Pipe No.1 Flowing?	No		**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK1797	**OUTFALL ID:**	UNK1797
Date/Time:	2021-07-16 13:46		
Temperature: °F	88	**Inspector(s):**	Jesse Middleton|Andrew Salois
Street Name/Structure Location:	GROVELAND RD		
Previous Precipitation Date/End Time:	2021-07-14 3:45:00	**Amount (inches):**	0.01

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	15	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**	No			
Is Inlet Pipe No.1 Flowing?	No		**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK1798	**OUTFALL ID:**	UNK1798
Date/Time:	2021-07-16 13:37		
Temperature: °F	88	**Inspector(s):**	Jesse Middleton|Andrew Salois
Street Name/Structure Location:	GROVELAND RD		
Previous Precipitation Date/End Time:	2021-07-14 3:44:00	**Amount (inches):**	0.01

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	15	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**	No			
Is Inlet Pipe No.1 Flowing?	No		**Estimated GPM:**	

Comments :

Signature of Inspector :

AUGUST 2021

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK13512	**OUTFALL ID:**	UNK13512
Date/Time:	2021-08-09 8:50		
Temperature: °F	70	**Inspector(s):**	Holly Tang
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-05 14:20:00	**Amount (inches):**	0.8

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		HDPP	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**	No			
Is Inlet Pipe No.1 Flowing?	No		**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK12313	**OUTFALL ID:**	UNK12313
Date/Time:	2021-08-13 12:45:00		
Temperature: °F	93	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK9514	**OUTFALL ID:**	UNK9514
Date/Time:	2021-08-18 13:22		
Temperature: °F	73	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	SRYBNY AVE		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	AS

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK19512	**OUTFALL ID:**	UNK19512
Date/Time:	2021-08-17 10:41		
Temperature: °F	68	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	CORLISS HILL RD		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	Partially

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK18312	**OUTFALL ID:**	UNK18312
Date/Time:	2021-08-26 10:20		
Temperature: °F	83	**Inspector(s):**	Jesse Middleton|Andrew Salois
Street Name/Structure Location:	TITCOMB ST		
Previous Precipitation Date/End Time:	2021-08-24 3:20:00	**Amount (inches):**	0.4

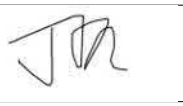
Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Poly Vinyl Chloride	Circle	6	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**	No			
Is Inlet Pipe No.1 Flowing?	No		**Estimated GPM:**	

Comments :

Signature of Inspector :



Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK19912	**OUTFALL ID:**	UNK19912
Date/Time:	2021-08-17 10:36		
Temperature: °F	69	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	CORLISS HILL RD		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		ACCMP	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK19913	**OUTFALL ID:**	UNK19913
Date/Time:	2021-08-17 10:35		
Temperature: °F	69	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	CORLISS HILL RD		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		ACCMP	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK26716	**OUTFALL ID:**	UNK26716
Date/Time:	2021-08-16 14:11		
Temperature: °F	75	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	KENOZA ST		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Corrugated Metal	Circle	36	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK26718	**OUTFALL ID:**	UNK26718
Date/Time:	2021-08-16 14:08		
Temperature: °F		**Inspector(s):**	
Street Name/Structure Location:	KENOZA ST		
Previous Precipitation Date/End Time:		**Amount (inches):**	

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Corrugated Metal	Circle	36	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK26719	**OUTFALL ID:**	UNK26719
Date/Time:	2021-08-16 14:04		
Temperature: °F	75	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	KENOZA ST		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	Partially

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK26723	**OUTFALL ID:**	UNK26723
Date/Time:	2021-08-16 13:24		
Temperature: °F	77	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	KENOZA ST		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		HDPE	Circle	15	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	CC0767	**OUTFALL ID:**	CC0767
Date/Time:	2021-08-16 12:33		
Temperature: °F	69	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	WINDMILL RD		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	CC0792	**OUTFALL ID:**	CC0792
Date/Time:	2021-08-16 12:46		
Temperature: °F	75	**Inspector(s):**	Holly Tang
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	18	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**	No			
Is Inlet Pipe No.1 Flowing?	No		**Estimated GPM:**	

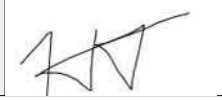
Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA					
ASSET ID:	CC0793			**OUTFALL ID:**	CC0793
Date/Time:	2021-08-16 12:37				
Temperature: °F	75			**Inspector(s):**	Holly Tang
Street Name/Structure Location:	POWDERMILL RD				
Previous Precipitation Date/End Time:	2021-08-10 5:10:00		**Amount (inches):**	0.4	
Pictures					

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**	No			
Is Inlet Pipe No.1 Flowing?	No		**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	DPI0841	**OUTFALL ID:**	DPI0841
Date/Time:	2021-08-18 13:09		
Temperature: °F	73	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	SRYBNY AVE		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4
Pictures			

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	12 e	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	DPI1008	**OUTFALL ID:**	DPI1008
Date/Time:	2021-08-12 13:55		
Temperature: °F	90	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4
Pictures			

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	10	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

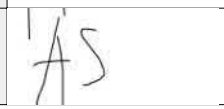
SECTION 1: BACKGROUND DATA			
ASSET ID:	DPI1056	**OUTFALL ID:**	DPI1056
Date/Time:	2021-08-13 9:44		
Temperature: °F	82	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	WAINWRIGHT AVE		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4
Pictures			

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	DPI1085	**OUTFALL ID:**	DPI1085
Date/Time:	2021-08-13 9:21		
Temperature: °F	81	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

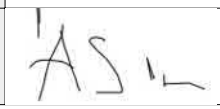
Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :



Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	DPI1110	**OUTFALL ID:**	DPI1110
Date/Time:	2021-08-16 9:47		
Temperature: °F	65	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Poly Vinyl Chloride	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	AS

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	DPI18713	**OUTFALL ID:**	DPI18713
Date/Time:	2021-08-16 9:34		
Temperature: °F	66	**Inspector(s):**	Holly Tang
Street Name/Structure Location:	CROSS COUNTRY		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	24	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**	No			
Is Inlet Pipe No.1 Flowing?	No		**Estimated GPM:**	

Comments :	
Signature of Inspector :	LH

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	DPO0845	**OUTFALL ID:**	DPO0845
Date/Time:	2021-08-18 13:17		
Temperature: °F	73	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA					
ASSET ID:	UNK26724			**OUTFALL ID:**	UNK26724
Date/Time:	2021-08-16 13:30				
Temperature: °F	77			**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	KENOZA ST				
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4		
Pictures					

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Poly Vinyl Chloride	Circle	15	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS			
Indicator	**Indicator Present?**	**Indicator Description**	
Asset Damage	None		
Deposits/Stains	None		
Pool Quality	None		
Pipe Algae/Growth	None		
***Do physical indicators suggest an illicit discharge is present (Y/N):**			
Is Inlet Pipe No.1 Flowing?		**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK28313	**OUTFALL ID:**	UNK28313
Date/Time:	2021-08-12 9:28		
Temperature: °F	77	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	SALEM ST		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	48	In Water:	Partially
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK29112	**OUTFALL ID:**	UNK29112
Date/Time:	2021-08-17 10:30		
Temperature: °F	69	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:			
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Corrugated Metal	Circle	24	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK29512	**OUTFALL ID:**	UNK29512
Date/Time:	2021-08-16 9:42		
Temperature: °F	65	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:			
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA					
ASSET ID:	UNK25917			**OUTFALL ID:**	UNK25917
Date/Time:	2021-08-16 13:04				
Temperature: °F	75			**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	KENOZA ST				
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4		
Pictures					

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	24	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK31112	**OUTFALL ID:**	UNK31112
Date/Time:	2021-08-09 8:07		
Temperature: °F	68	**Inspector(s):**	Holly Tang
Street Name/Structure Location:	CROSS COUNTRY		
Previous Precipitation Date/End Time:	2021-08-05 14:20:00	**Amount (inches):**	0.8

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	30	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**	No			
Is Inlet Pipe No.1 Flowing?	No		**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK31512	**OUTFALL ID:**	UNK31512
Date/Time:	2021-08-18 10:40		
Temperature: °F	73	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	NEWARK ST		
Previous Precipitation Date/End Time:	2021-08-10 5:19:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	Partially

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA					
ASSET ID:	UNK31912			**OUTFALL ID:**	UNK31912
Date/Time:	2021-08-18 11:05				
Temperature: °F	73			**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	NEWARK ST				
Previous Precipitation Date/End Time:	2021-08-10 5:10:00		**Amount (inches):**	0.4	
Pictures					

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Unknown	Circle	24	In Water:	No
					With Sediment:	Fully

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	Fully submerged sediment maintenance needed upstream asset not flowing
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK32713	**OUTFALL ID:**	UNK32713
Date/Time:	2021-08-26 10:22		
Temperature: °F	83	**Inspector(s):**	Jesse Middleton|Andrew Salois
Street Name/Structure Location:	TITCOMB ST		
Previous Precipitation Date/End Time:	2021-08-24 3:20:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Poly Vinyl Chloride	Circle	6	In Water:	Partially
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**	No			
Is Inlet Pipe No.1 Flowing?	No		**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK36712	**OUTFALL ID:**	UNK36712
Date/Time:	2021-08-16 9:25		
Temperature: °F	64	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	GOODALE ST		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Poly Vinyl Chloride	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS			
Indicator	**Indicator Present?**	**Indicator Description**	
Asset Damage	None		
Deposits/Stains	None		
Pool Quality	None		
Pipe Algae/Growth	None		
***Do physical indicators suggest an illicit discharge is present (Y/N):**			
Is Inlet Pipe No.1 Flowing?		**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK37112	**OUTFALL ID:**	UNK37112
Date/Time:	2021-08-16 10:43		
Temperature: °F	66	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	36	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK39515	**OUTFALL ID:**	UNK39515
Date/Time:	2021-08-26 11:27		
Temperature: °F	82	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:			
Previous Precipitation Date/End Time:	2021-08-24 3:20:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Rectangle	48	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS			
Indicator	**Indicator Present?**	**Indicator Description**	
Asset Damage	None		
Deposits/Stains	None		
Pool Quality	None		
Pipe Algae/Growth	None		
***Do physical indicators suggest an illicit discharge is present (Y/N):**			
Is Inlet Pipe No.1 Flowing?		**Estimated GPM:**	

Comments :	
Signature of Inspector :	AS

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK45512	**OUTFALL ID:**	UNK45512
Date/Time:	2021-08-09 9:32		
Temperature: °F	68	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	LILAC LN		
Previous Precipitation Date/End Time:	2021-08-05 14:20:00	**Amount (inches):**	0.8

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	6	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK59912	**OUTFALL ID:**	UNK59912
Date/Time:	2021-08-16 10:13		
Temperature: °F	66	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	MERRILL ST		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Poly Vinyl Chloride	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	DPO1124	**OUTFALL ID:**	DPO1124
Date/Time:	2021-08-13 9:36		
Temperature: °F	82	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	EMR59512	**OUTFALL ID:**	EMR59512
Date/Time:	2021-08-17 9:04		
Temperature: °F	66	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	THOMPSON RD		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		ACCMP	Circle	20	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	FB0639	**OUTFALL ID:**	FB0639
Date/Time:	2021-08-18 13:47:00		
Temperature: °F	75	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	HILLDALE AVE		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Cast Iron	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

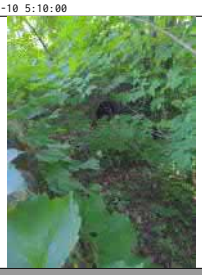
Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	FB0840	**OUTFALL ID:**	FB0840
Date/Time:	2021-08-17 10:23		
Temperature: °F	68	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	WHITTIER RD		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures



SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Corrugated Iron	Circle	24	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	FB20319	**OUTFALL ID:**	FB20319
Date/Time:	2021-08-17 10:20		
Temperature: °F	68	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	WHITTIER RD		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	24	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	FBO0637	**OUTFALL ID:**	FBO0637
Date/Time:	2021-08-18 13:34		
Temperature: °F	73	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

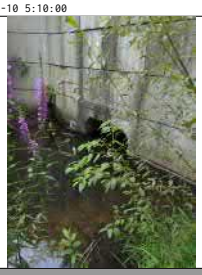
Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	FBO0638	**OUTFALL ID:**	FBO0638
Date/Time:	2021-08-18 13:37		
Temperature: °F	73	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

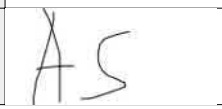


SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Rectangle		In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :



Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	FP7113	**OUTFALL ID:**	FP7113
Date/Time:	2021-08-16 8:51		
Temperature: °F	61	**Inspector(s):**	Holly Tang
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	42	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**	No			
Is Inlet Pipe No.1 Flowing?	No		**Estimated GPM:**	

Comments :	
Signature of Inspector :	HA

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	FP7115	**OUTFALL ID:**	FP7115
Date/Time:	2021-08-16 8:40		
Temperature: °F	64	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	FP7116	**OUTFALL ID:**	FP7116
Date/Time:	2021-08-16 8:34		
Temperature: °F	64	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

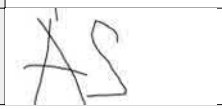
Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :



Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	FP7117	**OUTFALL ID:**	FP7117
Date/Time:	2021-08-16 8:24		
Temperature: °F	64	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	Partially

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	FP7118	**OUTFALL ID:**	FP7118
Date/Time:	2021-08-16 8:29		
Temperature: °F	64	**Inspector(s):**	Holly Tang
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	30	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	JC1023	**OUTFALL ID:**	JC1023
Date/Time:	2021-08-12 8:52		
Temperature: °F	77	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	JC1025	**OUTFALL ID:**	JC1025
Date/Time:	2021-08-12 8:33		
Temperature: °F	77	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	18	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	JC1027	**OUTFALL ID:**	JC1027
Date/Time:	2021-08-12 8:44		
Temperature: °F	77	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	18	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	KL0769	**OUTFALL ID:**	KL0769
Date/Time:	2021-08-09 13:38:00		
Temperature: °F	70	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-05 14:20:00	**Amount (inches):**	0.8

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Poly Vinyl Chloride	Circle	24	In Water:	Partially
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	KL0930	**OUTFALL ID:**	KL0930
Date/Time:	2021-08-16 9:17		
Temperature: °F	66	**Inspector(s):**	Holly Tang
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Poly Vinyl Chloride	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**	No			
Is Inlet Pipe No.1 Flowing?	No		**Estimated GPM:**	

Comments :	
Signature of Inspector :	HT

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA					
ASSET ID:	KL1231			**OUTFALL ID:**	KL1231
Date/Time:	2021-08-09 13:16				
Temperature: °F	70			**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country				
Previous Precipitation Date/End Time:	2021-08-05 14:20:00		**Amount (inches):**	0.8	
Pictures					

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Poly Vinyl Chloride	Circle	24	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	LR0966	**OUTFALL ID:**	LR0966
Date/Time:	2021-08-09 8:26		
Temperature: °F	68	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-05 14:20:00	**Amount (inches):**	0.8

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	6	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	LR0979	**OUTFALL ID:**	LR0979
Date/Time:	2021-08-18 9:11		
Temperature: °F	67	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Cast Iron	Circle	24	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA					
ASSET ID:	LR1118			**OUTFALL ID:**	LR1118
Date/Time:	2021-08-18 9:19				
Temperature: °F	73			**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country				
Previous Precipitation Date/End Time:	2021-08-10 5:10:00		**Amount (inches):**	0.4	
Pictures					

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle		In Water:	No
					With Sediment:	Fully

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	Inspected upstream catchment not flowing
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	LR1150	**OUTFALL ID:**	LR1150
Date/Time:	2021-08-18 9:42		
Temperature: °F	75	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Poly Vinyl Chloride	Circle	18	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	AS

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	LR3115	**OUTFALL ID:**	LR3115
Date/Time:	2021-08-18 10:07		
Temperature: °F	73	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		ACCMP	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	LR55912	**OUTFALL ID:**	LR55912
Date/Time:	2021-08-18 9:44		
Temperature: °F	75	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:			
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Poly Vinyl Chloride	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	LRO0877-1	**OUTFALL ID:**	LRO0877-1
Date/Time:	2021-08-18 10:29		
Temperature: °F	73	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	ROSEMONT ST		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	Partially
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA					
ASSET ID:	LRO0995			**OUTFALL ID:**	LRO0995
Date/Time:	2021-08-18 10:50				
Temperature: °F	73			**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	NEWARK ST				
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4		
Pictures					

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Cast Iron	Circle	18	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	Possible ground well
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	LS45112	**OUTFALL ID:**	LS45112
Date/Time:	2021-08-09 13:05:00		
Temperature: °F	70	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	CROSS COUNTRY		
Previous Precipitation Date/End Time:	2021-08-05 14:20:00	**Amount (inches):**	0.8
Pictures			

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	24	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	MR0770	**OUTFALL ID:**	MR0770
Date/Time:	2021-08-13 13:30:00		
Temperature: °F	93	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4
Pictures			

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	36	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	MR0771	**OUTFALL ID:**	MR0771
Date/Time:	2021-08-13 13:35:00		
Temperature: °F	93	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Corrugated Metal	Circle	18	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	MR1151	**OUTFALL ID:**	MR1151
Date/Time:	2021-08-13 9:50		
Temperature: °F	82	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Corrugated Metal	Circle	36	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	MR1275	**OUTFALL ID:**	MR1275
Date/Time:	2021-08-13 10:15		
Temperature: °F	82	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	RIVERDALE TER		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Poly Vinyl Chloride	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	MR23513	**OUTFALL ID:**	MR23513
Date/Time:	2021-08-12 10:37		
Temperature: °F	77	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	WWTP		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

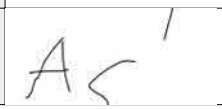
Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	42	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :



Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	MR23514	**OUTFALL ID:**	MR23514
Date/Time:	2021-08-12 10:20		
Temperature: °F	77	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	WWTP		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA					
ASSET ID:	MR23515			**OUTFALL ID:**	MR23515
Date/Time:	2021-08-12 10:26				
Temperature: °F	77			**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	WWTP				
Previous Precipitation Date/End Time:	2021-08-10 5:10:00		**Amount (inches):**	0.4	
Pictures					

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	MR23520	**OUTFALL ID:**	MR23520
Date/Time:	2021-08-12 11:08		
Temperature: °F	82	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	WWTP		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	18	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA					
ASSET ID:	MR23522			**OUTFALL ID:**	MR23522
Date/Time:	2021-08-12 11:15				
Temperature: °F	82			**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	WWTP				
Previous Precipitation Date/End Time:	2021-08-10 5:10:00		**Amount (inches):**	0.4	
Pictures					

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	MR23523	**OUTFALL ID:**	MR23523
Date/Time:	2021-08-12 11:22		
Temperature: °F	82	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:			
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	MR60712	**OUTFALL ID:**	MR60712
Date/Time:	2021-08-17 8:47		
Temperature: °F	66	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	PB1804	**OUTFALL ID:**	PB1804
Date/Time:	2021-08-12 12:31		
Temperature: °F	82	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	SALEM ST		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK0663	**OUTFALL ID:**	UNK0663
Date/Time:	2021-08-12 13:47		
Temperature: °F	90	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Poly Vinyl Chloride	Circle	6	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK0885	**OUTFALL ID:**	UNK0885
Date/Time:	2021-08-16 10:06		
Temperature: °F	68	**Inspector(s):**	Holly Tang
Street Name/Structure Location:	MERRILL ST		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Corrugated Metal	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**	No			
Is Inlet Pipe No.1 Flowing?	No		**Estimated GPM:**	

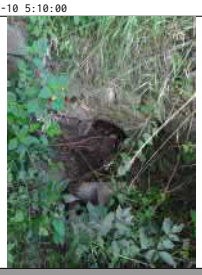
Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK0886	**OUTFALL ID:**	UNK0886
Date/Time:	2021-08-17 8:37		
Temperature: °F	66	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures



SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	18	In Water:	No
					With Sediment:	Partially

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK0887	**OUTFALL ID:**	UNK0887
Date/Time:	2021-08-17 8:58		
Temperature: °F	66	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	EAST BROADWAY		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	24	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK0935	**OUTFALL ID:**	UNK0935
Date/Time:	2021-08-17 10:11		
Temperature: °F	68	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Corrugated Metal	Circle	8	In Water:	Partially
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK0961	**OUTFALL ID:**	UNK0961
Date/Time:	2021-08-09 8:12		
Temperature: °F	68	**Inspector(s):**	Holly Tang
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-05 14:20:00	**Amount (inches):**	0.8

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	30	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**	No			
Is Inlet Pipe No.1 Flowing?	No		**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK0962	**OUTFALL ID:**	UNK0962
Date/Time:	2021-08-09 9:11		
Temperature: °F	68	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-05 14:20:00	**Amount (inches):**	0.8

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Corrugated Iron	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK0964	**OUTFALL ID:**	UNK0964
Date/Time:	2021-08-09 9:17		
Temperature: °F	68	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-05 14:20:00	**Amount (inches):**	0.8

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK0999	**OUTFALL ID:**	UNK0999
Date/Time:	2021-08-09 9:01		
Temperature: °F	70	**Inspector(s):**	Holly Tang
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-05 14:20:00	**Amount (inches):**	0.8

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

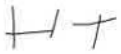
Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	24	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**	No			
Is Inlet Pipe No.1 Flowing?	No		**Estimated GPM:**	

Comments :

Signature of Inspector :



Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK1015	**OUTFALL ID:**	UNK1015
Date/Time:	2021-08-12 13:08		
Temperature: °F	82	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Poly Vinyl Chloride	Circle	6	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK1088	**OUTFALL ID:**	UNK1088
Date/Time:	2021-08-26 11:22		
Temperature: °F	82	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-24 3:20:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	Partially
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA					
ASSET ID:	UNK1108			**OUTFALL ID:**	UNK1108
Date/Time:	2021-08-26 11:36:00				
Temperature: °F	86			**Inspector(s):**	Jesse Middleton|Andrew Salois
Street Name/Structure Location:	Cross Country				
Previous Precipitation Date/End Time:	2021-08-24 3:20:00	**Amount (inches):**	0.4		
Pictures					

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		HDPE	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**	No			
Is Inlet Pipe No.1 Flowing?	No		**Estimated GPM:**	

Comments :	
Signature of Inspector :	JM

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK1112	**OUTFALL ID:**	UNK1112
Date/Time:	2021-08-18 12:58		
Temperature: °F	73	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	HILLDALE AVE		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	42	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK1157	**OUTFALL ID:**	UNK1157
Date/Time:	2021-08-16 13:43		
Temperature: °F	75	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	KENOZA ST		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4
Pictures			

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	Partially
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK1158	**OUTFALL ID:**	UNK1158
Date/Time:	2021-08-12 13:17		
Temperature: °F	90	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	20	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK1160	**OUTFALL ID:**	UNK1160
Date/Time:	2021-08-26 9:39		
Temperature: °F	79	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-24 3:20:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK1170	**OUTFALL ID:**	UNK1170
Date/Time:	2021-08-12 9:15		
Temperature: °F	77	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	LAWRENCE RD		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	24	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK1177	**OUTFALL ID:**	UNK1177
Date/Time:	2021-08-13 9:10		
Temperature: °F	81	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	48	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK1213	**OUTFALL ID:**	UNK1213
Date/Time:	2021-08-09 8:36		
Temperature: °F	68	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-05 14:20:00	**Amount (inches):**	0.8

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	6	In Water:	No
					With Sediment:	Partially

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK1219	**OUTFALL ID:**	UNK1219
Date/Time:	2021-08-13 11:07		
Temperature: °F	84	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	18	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK1695	**OUTFALL ID:**	UNK1695
Date/Time:	2021-08-18 9:28		
Temperature: °F	73	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4
Pictures			

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	Partially
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS			
Indicator	**Indicator Present?**	**Indicator Description**	
Asset Damage	None		
Deposits/Stains	None		
Pool Quality	None		
Pipe Algae/Growth	None		
***Do physical indicators suggest an illicit discharge is present (Y/N):**			
Is Inlet Pipe No.1 Flowing?		**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK1696	**OUTFALL ID:**	UNK1696
Date/Time:	2021-08-09 8:00		
Temperature: °F	68	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-05 14:20:00	**Amount (inches):**	0.8

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK1721	**OUTFALL ID:**	UNK1721
Date/Time:	2021-08-16 11:09		
Temperature: °F	68	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	SEVEN SISTER RD		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Reinforced Concrete	Circle	24	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK1761	**OUTFALL ID:**	UNK1761
Date/Time:	2021-08-13 9:07		
Temperature: °F	85	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK1769	**OUTFALL ID:**	UNK1769
Date/Time:	2021-08-13 8:48		
Temperature: °F	81	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4
Pictures			

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	24	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK1770	**OUTFALL ID:**	UNK1770
Date/Time:	2021-08-13 8:52		
Temperature: °F	81	**Inspector(s):**	Holly Tang
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	24	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**	No			
Is Inlet Pipe No.1 Flowing?	No		**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK1778	**OUTFALL ID:**	UNK1778
Date/Time:	2021-08-12 8:23		
Temperature: °F	77	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	GROVELAND RD		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	18	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK1796	**OUTFALL ID:**	UNK1796
Date/Time:	2021-08-12 9:08		
Temperature: °F	77	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	GROVELAND RD		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	18	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK1799	**OUTFALL ID:**	UNK1799
Date/Time:	2021-08-12 8:14		
Temperature: °F	77	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK1801	**OUTFALL ID:**	UNK1801
Date/Time:	2021-08-12 9:49		
Temperature: °F	77	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	VALLEYVIEW FARM RD		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**	
Outfall Pipe		Unknown	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS				
Indicator	**Indicator Present?**	**Indicator Description**		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK1802	**OUTFALL ID:**	UNK1802
Date/Time:	2021-08-12 12:39		
Temperature: °F	82	**Inspector(s):**	Holly Tang
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Poly Vinyl Chloride	Circle	12	In Water:	Partially
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**	No			
Is Inlet Pipe No.1 Flowing?	No		**Estimated GPM:**	

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK1808	**OUTFALL ID:**	UNK1808
Date/Time:	2021-08-12 9:31		
Temperature: °F	77	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	SALEM ST		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	18	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK1809	**OUTFALL ID:**	UNK1809
Date/Time:	2021-08-12 9:24		
Temperature: °F	77	**Inspector(s):**	Andrew Salois
Street Name/Structure Location:	SALEM ST		
Previous Precipitation Date/End Time:	2021-08-10 5:10:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	None			
Pool Quality	None			
Pipe Algae/Growth	None			
***Do physical indicators suggest an illicit discharge is present (Y/N):**				
Is Inlet Pipe No.1 Flowing?			**Estimated GPM:**	

Comments :

Signature of Inspector :

APPENDIX B

IDDE PROGRAM SUPPORTING DOCUMENTS

MR0834 Catchment Investigation 7/30/2021

Legend

- Discharge point
- Manhole within catchment
- Catch basins within catchment
- Catch basin lateral within catchment
- Garvity main within catchment
- Catch basin
- Discharge point
- Sewer manhole
- Storm water manhole
- Culvert
- Sewer main
- Stormwater main

Catchment Detials:
2 manholes
6 catch basins
776' of pipe within catchment
No dry weather flow

N

0 35 70 140 210 280 Feet

TS0984 Catchment Investigation 10/13/2021

Legend

- Discharge point
- Catch basins within catchment
- Catchment Area

Catchment Detials:
0 manholes
1 catch basin
52' of pipe within catchment
No dry weather flow

N

0 15 30 60 90 120 Feet

MR38718 Catchment Investigation 10/13/2021

Legend

- Discharge point
- Manhole within catchment
- Catch basins within catchment
- Catch basin lateral within catchment
- Garvity main within catchment
- Catch basin
- Discharge point
- Sewer manhole
- Storm water manhole
- Culvert
- Sewer main
- Stormwater main
- Combined sewer/storm main

Catchment Detials:
10 manholes
20 catch basins
1,912' of pipe within catchment
No dry weather flow

N

0 55 110 220 330 440 Feet

APPENDIX C

LAB RESULTS FOR ILLICIT CONNECTIONS

ANALYTICAL REPORT

Lab Number:	L2160973
Client:	City of Haverhill-WWTP 40 South Porter Street Haverhill, MA 01835
ATTN:	Jesse Middleton
Phone:	(978) 374-2382
Project Name:	MS4
Project Number:	Not Specified
Report Date:	11/18/21

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: MS4
Project Number: Not Specified

Lab Number: L2160973
Report Date: 11/18/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2160973-01	MR1140	WATER	Not Specified	11/04/21 10:45	11/05/21
L2160973-02	UNK1189	WATER	Not Specified	11/04/21 11:00	11/05/21
L2160973-03	LRO0995	WATER	Not Specified	11/04/21 11:00	11/05/21
L2160973-04	UNK0902	WATER	Not Specified	11/04/21 11:30	11/05/21
L2160973-05	UNK1040	WATER	Not Specified	11/04/21 11:45	11/05/21

Project Name:	MS4	**Lab Number:**	L2160973
Project Number:	Not Specified	**Report Date:**	11/18/21

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: MS4 **Lab Number:** L2160973
Project Number: Not Specified **Report Date:** 11/18/21

Case Narrative (continued)

Surfactants, MBAS

L2160973-01, -02, and -04: The sample has an elevated detection limit due to limited sample volume available for analysis.

WG1567955: A Matrix Spike could not be performed due to insufficient sample volume available for analysis.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Cristin Walker

Title: Technical Director/Representative Date: 11/18/21

INORGANICS
&
MISCELLANEOUS

Project Name: MS4
Project Number: Not Specified

Lab Number: L2160973
Report Date: 11/18/21

SAMPLE RESULTS

Lab ID: L2160973-01
Client ID: MR1140
Sample Location: Not Specified

Date Collected: 11/04/21 10:45
Date Received: 11/05/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Surfactants, MBAS	ND		mg/l	0.100	--	2	11/06/21 05:15	11/06/21 06:40	121,5540C	KA

Project Name: MS4
Project Number: Not Specified

Lab Number: L2160973
Report Date: 11/18/21

SAMPLE RESULTS

Lab ID: L2160973-02
Client ID: UNK1189
Sample Location: Not Specified

Date Collected: 11/04/21 11:00
Date Received: 11/05/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Surfactants, MBAS	ND		mg/l	0.100	--	2	11/06/21 05:15	11/06/21 06:41	121,5540C	KA

Project Name: MS4
Project Number: Not Specified

Lab Number: L2160973
Report Date: 11/18/21

SAMPLE RESULTS

Lab ID: L2160973-03
Client ID: LRO0995
Sample Location: Not Specified

Date Collected: 11/04/21 11:00
Date Received: 11/05/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Surfactants, MBAS	ND		mg/l	0.050	--	1	11/06/21 05:15	11/06/21 06:41	121,5540C	KA

Project Name: MS4
Project Number: Not Specified

Lab Number: L2160973
Report Date: 11/18/21

SAMPLE RESULTS

Lab ID: L2160973-04
Client ID: UNK0902
Sample Location: Not Specified

Date Collected: 11/04/21 11:30
Date Received: 11/05/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Surfactants, MBAS	ND		mg/l	0.100	--	2	11/06/21 05:15	11/06/21 06:42	121,5540C	KA

Project Name: MS4
Project Number: Not Specified

Lab Number: L2160973
Report Date: 11/18/21

SAMPLE RESULTS

Lab ID: L2160973-05
Client ID: UNK1040
Sample Location: Not Specified

Date Collected: 11/04/21 11:45
Date Received: 11/05/21
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Surfactants, MBAS	ND		mg/l	0.050	--	1	11/06/21 05:15	11/06/21 06:43	121,5540C	KA

Project Name: MS4 **Lab Number:** L2160973

Project Number: Not Specified **Report Date:** 11/18/21

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-05 Batch: WG1567955-1										
Surfactants, MBAS	ND		mg/l	0.050	--	1	11/06/21 05:15	11/06/21 06:38	121,5540C	KA

Lab Control Sample Analysis

Batch Quality Control

Project Name: MS4

Project Number: Not Specified

Lab Number: L2160973

Report Date: 11/18/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG1567955-2								
Surfactants, MBAS	98		-		90-110	-		

Lab Duplicate Analysis

Batch Quality Control

Project Name: MS4

Project Number: Not Specified

Lab Number: L2160973

Report Date: 11/18/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1567955-3 QC Sample: L2160973-05 Client ID: UNK1040						
Surfactants, MBAS	ND	ND	mg/l	NC		32

Project Name: MS4
Project Number: Not Specified

Lab Number: L2160973
Report Date: 11/18/21

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2160973-01A	Plastic 250ml unpreserved	A	7	7	2.8	Y	Absent		MBAS-5540(2)
L2160973-02A	Plastic 250ml unpreserved	A	7	7	2.8	Y	Absent		MBAS-5540(2)
L2160973-03A	Plastic 500ml unpreserved	A	7	7	2.8	Y	Absent		MBAS-5540(2)
L2160973-04A	Plastic 250ml unpreserved	A	7	7	2.8	Y	Absent		MBAS-5540(2)
L2160973-05A	Plastic 500ml unpreserved	A	7	7	2.8	Y	Absent		MBAS-5540(2)

*Values in parentheses indicate holding time in days

Project Name: MS4 **Lab Number:** L2160973

Project Number: Not Specified **Report Date:** 11/18/21

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report

Project Name:	MS4	**Lab Number:**	L2160973
Project Number:	Not Specified	**Report Date:**	11/18/21

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the reporting limit (RL) for the sample.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: Data Usability Report

Project Name:	MS4	**Lab Number:**	L2160973
Project Number:	Not Specified	**Report Date:**	11/18/21

Data Qualifiers

the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: Data Usability Report

Project Name: MS4 **Lab Number:** L2160973

Project Number: Not Specified **Report Date:** 11/18/21

REFERENCES

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 11/5/21

ALPHA Job #: L2168973

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Project Information

Project Name: MS4

Project Location:

Project #:

Project Manager: Jesse Middleton

ALPHA Quote #:

Report Information - Data Deliverables

☐ ADEx ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

Client Information

Client: City of Haverhill

Address: 40 So Porter St

Phone: 978-374-2382

Email: jamiddleton@haverhillwater.com

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

Additional Project Information:

Turn-Around Time

☐ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due:

ANALYSIS

VOC: ☐ 8260 ☐ 624 ☐ 524.2
SVOC: ☐ ABN ☐ PAH
METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15
METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13
EPH: ☐ Ranges & Targets ☐ Ranges Only
VPH: ☐ Ranges & Targets ☐ Ranges Only
☐ PCB ☐ PEST
TPH: ☐ Quant Only ☐ Fingerprint
MBAS

SAMPLE INFO

Filtration
☐ Field
☐ Lab to do

Preservation
☐ Lab to do

Sample Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	MBAS	TOTAL # BOTTLES
60973-01	MR1140	11/4/21	1045 AM	WW	JM	X	
-02	UNK 1189	11/4/21	1100 AM	WW	JM	X	
-03	LRO 0995	11/4/21	1110 AM	WW	JM	X	
-04	UNK0902	11/4/21	1130 AM	WW	JM	X	
-05	UNK 1040	11/4/21	1145 AM	WW	JM	X	

	MBAS	
Container Type	P	
Preservative	A	

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
Jesse Middleton	11/5/21 1750	AAL	11/5/21 1205
AAL 11/5/21	11/5/21 1950		11/5/21 1755
			11/5 1810

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

APPENDIX D

SECONDARY TREATMENT BYPASS EVENT INFORMATION

APPENDIX D
SECONDARY TREATMENT BYPASS EVENT INFORMATION

In addition to the information provided in Table 6-1, for the single secondary treatment bypass event that occurred during the reporting period, per the request of the Massachusetts Department of Environmental Protection, the following information is provided:

- Table 6-1 Secondary Treatment Bypass Events from Compliance Report No. 11
- State NPDES Monthly Report (July 2021)
- Each Bypass Event Includes the following:
    - Daily Log
    - Comments Logbook
    - Notable Operations Data
        - SCADA Influent Flow Trend Graph
        - SCADA Bypass Flow Trend Graph
        - Capacity of Secondary Treatment System

TABLE 6-1
SECONDARY TREATMENT BYPASS EVENTS

Bypass Event	#	2017-01	
Date of Bypass		7/4/2021	
Date of Rainfall		7/4/2021	7/5/2021
Weather Rainfall	Inches	1.41	0.13
snow melt	(y/n)	No	No
Influent Flow	MGD	17.68	9.00
Bypass Flow Total	MG	0.04	0.00
Q, bypass start time		1:26 AM	
Plant Flows @ Start	MGD	60.25	
Q, bypass stop time		1:36 AM	
Plant Flows @ Stop	MGD	62.14	
Max Influent Flow		64.16	15.13
Influent Septage Received	Gallons	0	0
Influent TSS	mg/L	116	209
Effluent TSS	mg/L	12.60	5.80
Aeration Basin #1 Sludge Volume Index	ml/g	-	178
MLSS Lab	mg/L	-	1,966
Mean Cell Residence Time	Days	-	-
Aeration Basin #2 Sludge Volume Index	ml/g	-	193
MLSS Lab	mg/L	-	2,434
Mean Cell Residence Time	Days	-	-
Aeration Basin #3 Sludge Volume Index	ml/g	-	223
MLSS Lab	mg/L	-	1932
Mean Cell Residence Time	Days	-	-
Aeration Basins Online	#	3	3
Secondary Clarifier #1 Depth of Blanket	ft	15.0	1.0
Secondary Clarifier #2 Depth of Blanket	ft	6.5	1.0
Secondary Clarifier #3 Depth of Blanket	ft	15.0	0.5
Secondary Clarifiers Online	#	3	3

Note:

Gaps for requested data are due to secondary treatment bypass events occuring on a non-sampling days.

MONTHLY STATE NPDES REPORT

JULY 2021

		Septage		Snow																		
	Q, tot	Recd	Rainfall	Melt	Q, byp	Q, sec	Actual Setpt	Graph Setpt	TRC	ecal C	MLSS	MLSS	MLSS	Sec Effl	Sec Effl	SVI	SVI	SVI	ec lbs ae	ec lbs ae	#of AT	# of SST
	MGD	GPD	ins.	yes/no	MGD	MGD	Byp set, MG	Byp set, MG	mg/l	/100m	AT #1	AT #2	AT #3	OD, mg	SS, mg	AT #1	AT #2	AT #3	OB metho	s formul	on line	on line
07/01/21	18.12	0	0.40		0.00	18.12	35.0	inactivated	0.12	23	2,032	2,444	1,856	17.89	6.40	192	205	199	97,386	79,213	3	3
07/02/21	12.31	30,000	0.69		0.00	12.31	35.0	inactivated	0.31	21	1,718	1,910	1,594			198	209	194	104,003	65,327	3	3
07/03/21	15.77	0	0.15		0.00	15.77	35.0	inactivated	0.32												3	3
07/04/21	17.72	0	1.41		0.04	17.68	35.0	activated	0.38					17.30	12.60						3	3
07/05/21	9.00	0	0.13		0.00	9.00	35.0		0.21	2	1,966	2,434	1,932	3.23	5.80	178	193	223	99,993	79,213	3	3
07/06/21	10.17	28,500	0.17		0.00	10.17	35.0	inactivated	0.27	2	1,822	2,188	1,942	3.55	3.60	176	201	196	111,377	74,460	3	3
07/07/21	11.20	8,000			0.00	11.20	35.0	inactivated	0.30	6	1,896	2,496	2,040	4.25	5.20	190	204	196	104,222	80,464	3	3
07/08/21	13.99	34,500	0.69		0.00	13.99	35.0	inactivated	0.32	16	1,328	1,280	1,298	13.64	4.60	173	172	185	114,652	48,864	3	3
07/09/21	31.94	24,500	0.26		0.00	31.94	35.0	inactivated	0.33	3	1,988	2,296	1,966			181	209	224	103,541	78,188	3	3
07/10/21	16.85	10,000	2.53		0.00	16.85	35.0	inactivated	0.24												3	3
07/11/21	13.70	0	0.05		0.00	13.70	35.0	inactivated	0.16					3.46	3.40						3	3
07/12/21	31.15	39,000	0.15		0.00	31.15	35.0		0.17	98	1,422	1,358	1,424	7.50	8.00	155	169	176	92,662	52,592	3	3
07/13/21	20.13	35,500	1.36		0.00	20.13	35.0	inactivated	0.22	16	1,880	1,830	1,828	5.21	5.00	165	164	170	100,761	69,280	3	3
07/14/21	16.87	40,000	0.30		0.00	16.87	35.0		0.33	4	1,958	1,954	2,026	4.75	5.00	163	169	188	123,717	74,284	3	3
07/15/21	15.06	46,000	0.02		0.00	15.06	35.0		0.44	5	2,008	2,048	1,982	2.80	2.80	174	176	227	120,650	75,535	3	3
07/16/21	13.65	40,500			0.00	13.65	35.0		0.41	14	2,126	2,218	2,196			179	176	187	124,409	81,815	3	3
07/17/21	12.46	8,500			0.00	12.46	35.0		0.42												3	3
07/18/21	17.92	0	0.02		0.00	17.92	35.0		0.31					3.94	4.20						3	3
07/19/21	13.10	24,500	0.66		0.00	13.10	35.0	inactivated	0.21	5	2,206	2,228	2,282	3.97	3.00	195	197	202	123,559	84,017	3	3
07/20/21	12.58	35,800	0.02		0.00	12.58	35.0	inactivated	0.34	9	2,204	2,252	2,298	3.49	1.80	186	187	205	126,516	84,493	3	3
07/21/21	17.01	28,000	0.38		0.00	17.01	35.0	inactivated	0.26	12	1,764	1,678	1,770	5.58	4.40	187	191	186	118,943	65,202	3	3
07/22/21	11.91	63,750			0.00	11.91	35.0	inactivated	0.35	6	2,110	2,136	2,022	4.89	2.40	199	201	213	113,057	78,413	3	3
07/23/21	11.40	36,500			0.00	11.40	35.0	inactivated	0.34	6	2,090	2,156	2,122			201	204	212	111,771	79,664	3	3
07/24/21	10.39	5,000	0.05		0.00	10.39	35.0	inactivated	0.29												3	3
07/25/21	12.09	0			0.00	12.09	35.0		0.30					3.30	2.40						3	3
07/26/21	10.42	41,500	0.31		0.00	10.42	35.0		0.15	6	2,060	2,290	2,238	4.31	2.20	218	227	259	109,798	82,416	3	3
07/27/21	13.81	48,500			0.00	13.81	35.0	inactivated	0.21	12	2,006	2,294	2,102	1.57	3.20	214	227	219	106,172	80,089	3	3
07/28/21	10.29	31,000	0.42		0.00	10.29	35.0		0.28	12	2,094	2,270	2,110	9.60	5.00	201	207	232	109,868	80,990	3	3
07/29/21	13.94	49,500	0.02		0.00	13.94	35.0	inactivated	0.25	11	1,962	2,206	2,128	4.35	2.40	214	199	230	102,499	78,763	3	3
07/30/21	20.91	42,000	1.36		0.00	20.91	35.0	inactivated	0.20	86	1,722	1,652	1,590			186	182	195	108,694	62,100	3	3
07/31/21	12.23	5,000			0.00	12.23	35.0	inactivated	0.23												3	3
Average	15.10								0.28	10	1,926	2,074	1,943	6.12	4.45	188	194	205	110,375	74,336		
Minimum	9.00								0.12													
Maximum	31.94								0.44													
Total	468.09	756,050	11.55		0.04	468.05													100,000	for 2ats 2ssts		
Operating Range									0.4-	88/10	2200	2200		30	30	50-150	186		125,000	for 2ats 3ssts		
									0.7	260/1	1500	1500		45	45	142	161		150,000	for 3ats 3ssts		

rainfall amounts are for a 24 hour period ending at 7am of the day that the amount is recorded comment added on 5-13-14 by fgh

BYPASS EVENT: 2021-1

HA L, MA - WWTP - DAILY LOG 5

Date: 07/04/21

	SENIOR OPERATOR:	Primary Operator:	Centrifuge	Secondary Operator
1st	Mark Brasier			
2nd	Walter Alce			
3rd	Alce/Brasier			
	Joe Schena			

WEATHER: Snowmelt
Hi: 57 Lo: 55 Ob: 56
Rain: 1.41 Snow:
Conditions: Cloudy snowcover

LAB

INFLUE	Q,Daily Total	MAX	MIN
	17.72	*64.16*	8.47
Q,byp	start/stop times am or pm & Q	1:26am 60.25mgd	:36am 62.14mgd
Q,byp	Status	activated	
Q,bypa	0.04	Q to 2nd	17.68

PRIMARY SCUM LEVEL: SCREENINGS CARTS:

	Old	New	Plant	Pump Station	Grit quty
1st	3.69	10.21	4		0 yd3
2nd	5.60	10.21	4	2	
3rd	5.10	10.21	4	2	

PLANT (*1600) POWER
End 1st_____KVA (06)_____KW (06)
End 2rd_____KVA (06)_____KW (06
End 3rd_____KVA (06)_____KW (06

Centrifuge:	35
Primary:	3579
Secondary:	3844
Aeration:	5592
Total:	12868

12 Mid PUMP STATION (*450) POWER
12 Mid Start 1st _____KW(06) _____KVA(07)
12 Mid Start 2nd_____KW(06) _____KVA(07)
12 Mid Start 3rd_____KW(06) _____KVA(07)

COLLECTOR SPEED

	#1	#2	#3
1st___	slow	slow	slow
2nd__	slow	slow	slow
3rd___	slow	slow	slow
PSTs on-line		3	

AERATION: Dissolved Oxygen
ATs on-line 3

#1_____ AT#1 infl do avg	4.5
#3_____ AT#1 effl do avg	4.1
#4_____ AT#2 infl do avg	7.9
#6_____ AT#2 effl do avg	5.2

Gravity Thickeners DOB: Torque:

	#1	#2	#1	#2
1st	0.0	3	OFF	HIGH Torque
2nd	0	3	off	high
3rd	0	3	off	high

Weekly Septage Pumped Gals

SEPTAGE LEVEL
1st_____ 7.07 ft
2nd_____ft
3rd_____ft

Cl2 vol	Tank #1	Tank #2
1st		1903
2nd		1841
3rd		1828
Total	207	Gallons

TWAS LEVELS:

	#1	#2	#3
1st	F	F	13
2nd	14	14	13
3rd	14	14	13

	Cl2	Time	Q(MGD)	Hold(min)
TRC 1	0.40	9:10 pm	38.20	18
TRC 2	0.47	7:31 am	8.93	79
TRC 3	0.27	2:10 PM	13.30	53

Dosage Setpoint
Effluent Cl2, mg/l 2.10

Inplant _____/_____/_____
_____/_____/_____

CHLORINE RESIDUAL: 0.38 mg/l

CHEMICALS:
Sodium Hypo_____8
Polymer dry ___ 98
Hydroxide_____ 0
Polymer 3003
Alpha Lox 15_____drums

SECONDARY SCUM:

#1	#2	#1	#2	#1	#2
5.0	6.9	6.1	6.5	6.4	3.1

RAS# _____ SC# _____	RAS# _____ SC# _____	RAS# _____ SC# _____	_____
2.89	2.97	2.74	0.00

SECONDARY CLARIFIERS
SSTs on-line 3

Depth of Blankets Daily average

#1	#2	#3
3.52	2.9	2.6

DOB by Operators

	#1		#2		#3	
1st	15.5	6.5	15.5	5.5	13.5	2.5
2nd	3.0	2.0	4.5	2.0	1.0	1.0
3rd	1.5	1.5	1.5	1.5	1.5	1.0

comments logbook for 7/4/2021
3/22/2022 7:33:45 AM

	Note
1	6:23:00 AM CONTROL_ROOM Plant checks , D A F # 1 shut down (previous shift) , emptied Composite Samples , Chemical inventory , Hypo Residual , Weath S Rates set @ 3.50 M G D , 17 S Brook St Sewer call ,Main St Pump Station Alarm , notified Sam, Final Readings.....Mb
2	6:06:00 PM CONTROL_ROOM Primary and secondary plant checks, pump station check; reset SF-2, exercised RAS pumps, increased RAS pumps #1 and 2 to 3 16 South B. street, operated step screens in local when needed, emptied grit hopper, JS in for the weekend lab, cleaning crew ons decreased hypo dosage, final readings..WA
3	7:34:00 PM CONTROL_ROOM activated by pass system for approximatelty 10 mins numerous attempts to activate flow control weir gate.....

LOGIN

PLANT INFLUENT FLOW

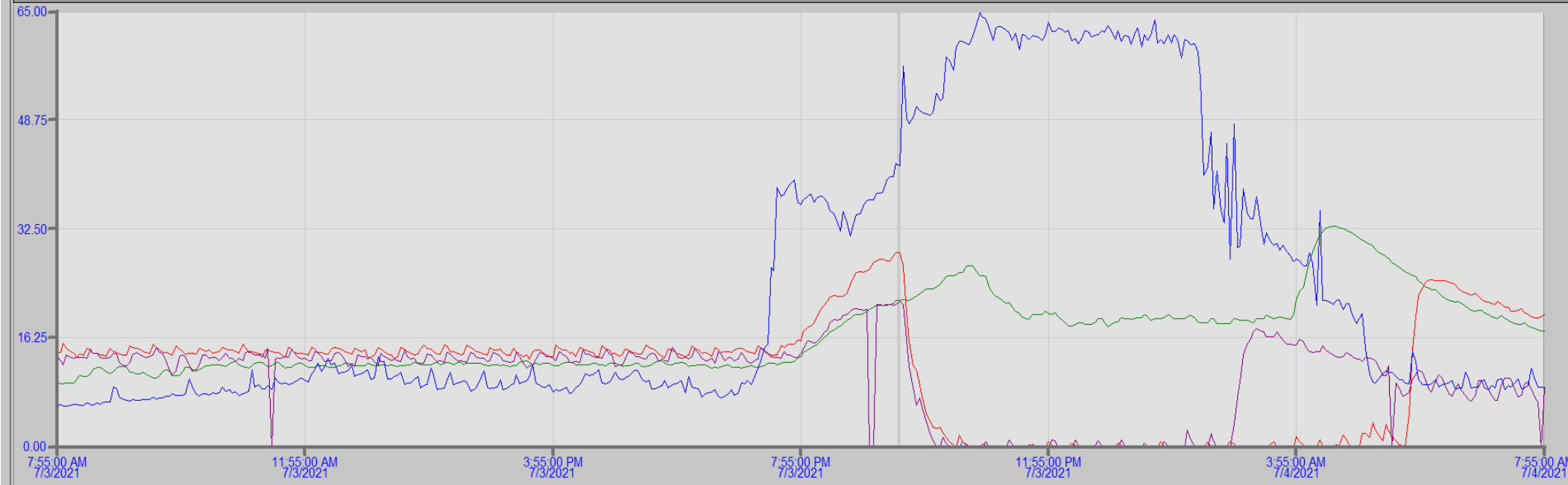
CITY OF HAVERHILL, MA - WWTF

INF. FLOW 11.32 MGD

CSO OVERVIEW | ALARMS | HISTORY MENU | MAIN MENU

3/22/2022

7:55:11 AM



DESCRIPTION	VALUE	MAX	MIN	AVG	UNITS	TAG
INFLUENT FLOW (F_CV)	42.06	65.00	5.97	24.12	MGD	WWTP.WW_SCADA.INFLUENT_FLOW.F_CV
SECONDARY CLARIFIER 1 SLUDGE BLANKET (F_CV)	5.39	8.10	2.31	4.13	FEET	WWTP.WW_SCADA.SEC_CLAR_1_SLUDGE_BLANKET.F_CV
SECONDARY CLARIFIER 2 SLUDGE BLANKET (F_CV)	7.13	7.13	0.00	2.72	FEET	WWTP.WW_SCADA.SEC_CLAR_2_SLUDGE_BLANKET.F_CV
SECONDARY CLARIFIER 3 SLUDGE BLANKET (F_CV)	5.30	5.34	0.00	2.56	FEET	WWTP.WW_SCADA.SEC_CLAR_3_SLUDGE_BLANKET.F_CV

Set to Current

Set Starting Time

◀◀ ◀ ▶ ▶▶

15 MIN | 1 HR | 4 HR | 8 HR | 1 DAY | 1 WEEK | 1 MONTH | 3 MONTHS | 1 YEAR

Ack	Time In	Date In	Description	Value	Stat
	07:49:23.919	3/22/2022	AERATION TRAIN 1 EFFLUENT DO HIGH	NORMAL	CFN
✓	20:17:47.677	3/21/2022	PRIMARY SYSTEM COMMON ALARM	ON	CFN
✓	17:25:27.504	3/21/2022	GRAVITY THICKENER NO.1 HIGH TORQUE	ALARM	CFN
✓	11:47:42.161	3/18/2022	MAIN ST WETWELL HIGH LEVEL	HIGH LEVEL	CFN
✓	11:11:31.757	3/18/2022	MAIN ST WETWELL LOW_LOW LEVEL	SH-HIGH LEVEL	CFN
✓	12:24:32.504	3/15/2022	MAIN ST WETWELL LOW LEVEL	HIGH LEVEL	CFN

Total Alarms: 16 | Filter: Off | Sort: Time In, Descending | Shelved: False | Run

LOGIN

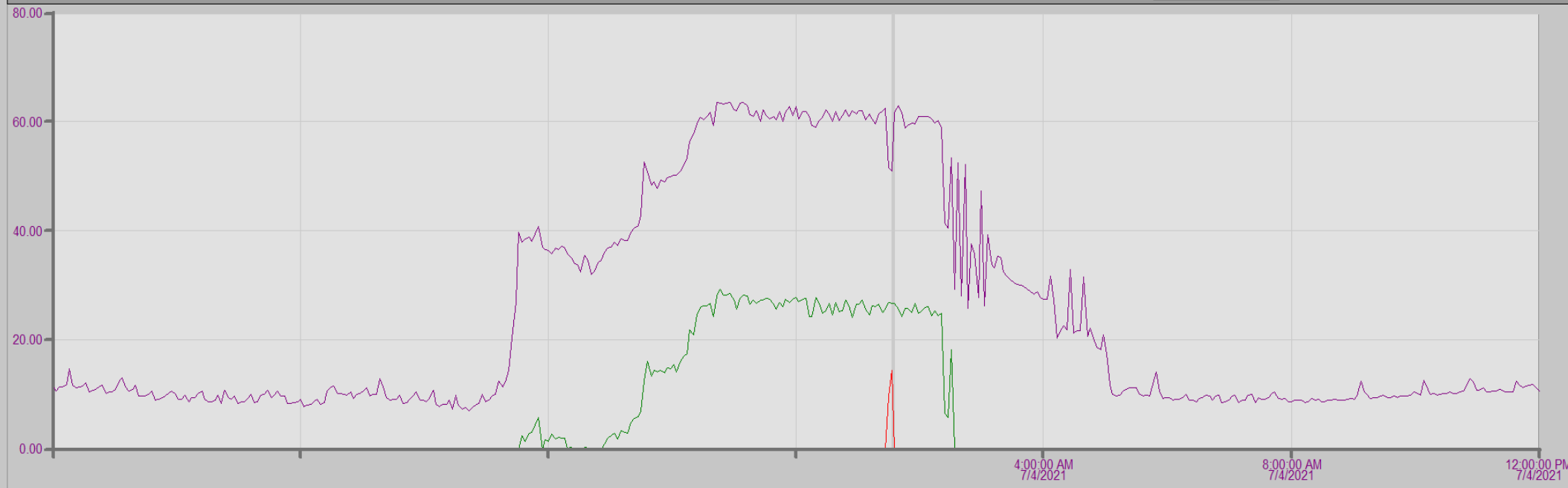
BYPASS MULTI TREND

CITY OF HAVERHILL, MA - WWTF

INF. FLOW 11.68 MGD

CSO OVERVIEW | ALARMS | 3/22/2022

HISTORY MENU | MAIN MENU | 7:56:55 AM



DESCRIPTION	VALUE	MAX	MIN	AVG	UNITS	TAG
SECONDARY FLOW RATE (F_CV)	55.10	63.69	7.10	24.46	MGD	WWTP.WW_SCADA.SECONDARY_FLOW_RATE.F_CV
BYPASS FLOW (F_CV)	8.91	29.42	0.00	0.05	MGD	WWTP.WW_SCADA.BYPASS_FLOW.F_CV
BYPASS FLOW AUTO SP (F_CV)	26.63	29.35	-8.15	5.08	MGD	WWTP.WW_SCADA.BYPASS_FLOW_AUTO_SP.F_CV
BYPASS CHLORINE (F_CV)	0.00	0.00	0.00	0.00	PPM	WWTP.WW_SCADA.BYPASS_CHLORINE.F_CV

Set to Current

Set Starting Time

◀◀ ◀ ▶ ▶▶

15 MIN | 1 HR | 4 HR | 8 HR | 1 DAY | 1 WEEK | 1 MONTH | 3 MONTHS | 1 YEAR

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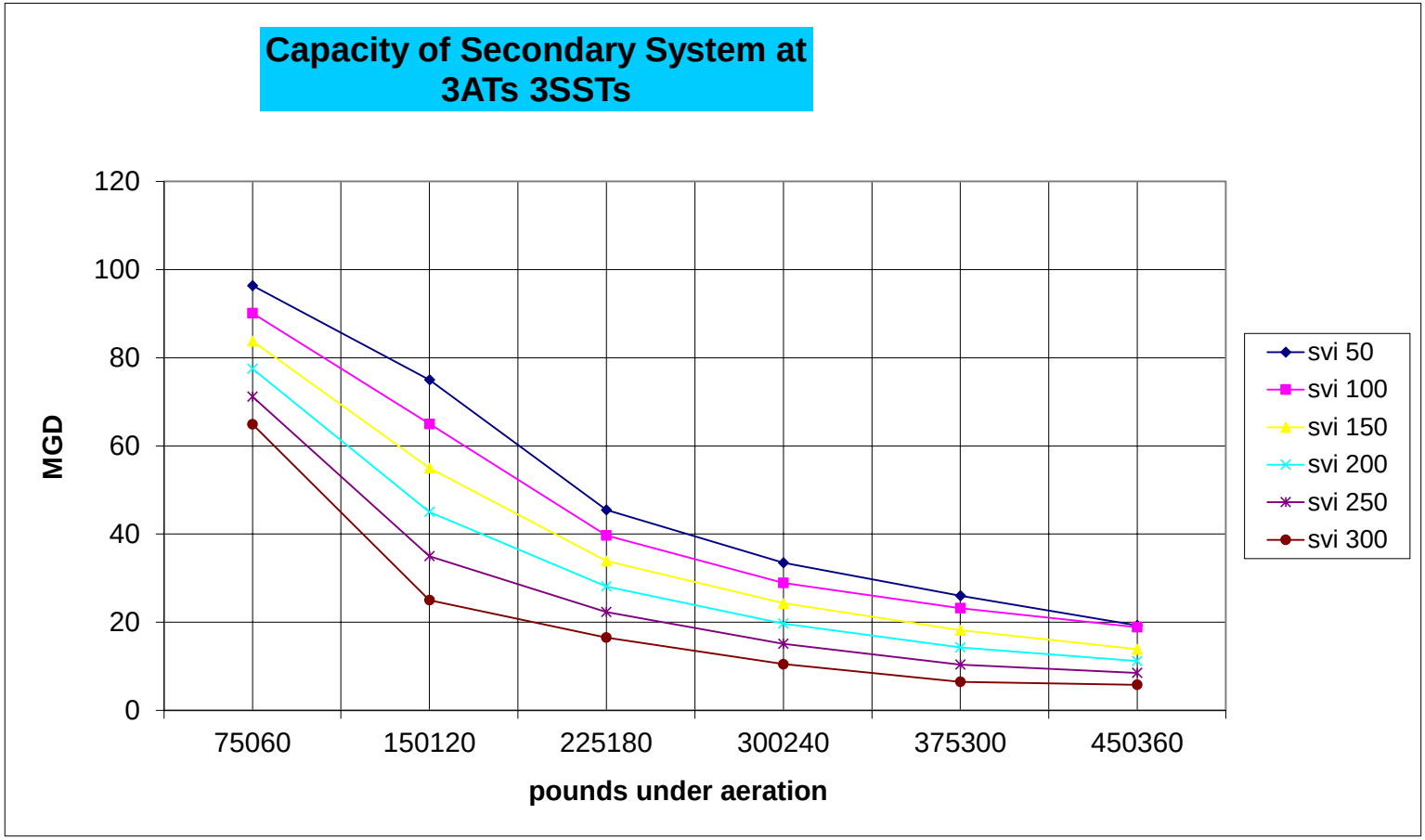
✓	11:11:31.757	3/18/2022	MAIN ST WETWELL LOW_LOW LEVEL	H-HIGH LEVEL	CFN
✓	12:24:32.504	3/15/2022	MAIN ST WETWELL LOW LEVEL	HIGH LEVEL	CFN

Total Alarms: 16 | Filter: Off | Sort: Time In, Descending | Shelved: False | Run



			7/5/2021	7/5/2021	7/5/2021		
date:	7/4/2021	Flow, MG	SVI	MLSS	lbs	sr oper	setting selected, MG
bypass start time:	1:26 AM	60	198	2111	100,000	MB	35
bypass stop time:	1:36 AM	62					


HAVERHILL
PENTUCKET
SETTLED 1640. INSTITUTED A CITY. 1870.