Haverhill

Robert E. Ward, Deputy DPW Director
Water/Wastewater Division
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April 28, 2020

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 7 – July 1, 2019 through December 31, 2019

Dear Ms. Kudarauskas:

Enclosed is Compliance Report No. 7 as required by Section IX.67 of the Consent Decree. This report is for the July 1, 2019 through December 31, 2019 reporting period.

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

Sincerely,

Robert E. Ward
Deputy DPW Director

Enclosures

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. 7

JULY THROUGH DECEMBER 2019

APRIL 2020

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. 7

JULY THROUGH DECEMBER 2019

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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 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.

1.3 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
Deputy DPW Director
City of Haverhill, Massachusetts

4-28-20
(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 revised to include the EPA New England Bacterial Source Tracking Protocol and is currently being reviewed by a consultant to ensure compliance with the new MS4 permit. The City has begun implementing a new computerized maintenance management system (CMMS) for stormwater work orders. Staff have been using this web based CMMS to fill out inspection forms in the field using mobile devices.

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 review and update its list of IDDE Investigation Priorities as field investigations are performed. The revisions include private outfalls that were confirmed and removed from the list. The City will continue to determine ownership of drainage outfalls and remove privately owned outfalls from its list of future outfall investigations and responsibilities under the IDDE program. As the City confirms the ownership of these outfalls, private outfalls owners will be notified as conditions warrant. For some discharges that were originally identified

as MS4 drain system outfalls in the 2014/2015 Outfall Inspection Report, the City has completed additional investigations and determined that these points are culverts with no connections. Accordingly, they have been removed from the list of City owned MS4 infrastructure and the IDDE Investigation Priorities List.

The Revised IDDE Investigation Priorities as of December 2019 is shown in Table 2-1. There are now 26 outfalls with a High, Medium, or Low Priority; 24 Outfalls with non-bacteria indicators; and 7 outfalls requiring follow-up investigations. This list of priorities may change as the investigations progress. Table 2-1 lists the priority outfalls along with their worst case sample results. All sample results for each outfall are shown in the outfall investigation maps located on the City's Stormwater website.

It is important to note that these IDDE priorities were developed based on the City's November 2016 Consent Decree requirements. The 2016 NPDES General Massachusetts MS4 Stormwater Permit for Haverhill requires a different approach to prioritizing system investigations. The priority list will be updated, as the City develops its Stormwater Management Plan, and revises its IDDE Manual, to meet the requirements of the new NPDES permit.

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 2019).

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 Low, Medium, and High priorities. As the other priorities are investigated, their characteristics will be added to the table. These characteristics, such as lengths of pipe and number of structures, have and will continue to change due to field investigations and updated MS4 mapping. The identified lengths of drain pipe and number of manholes for each basin are shown in Table 2-2, as well as the number of each that have been addressed by the IDDE investigations during the reporting period. A cumulative total for the IDDE Program is also included and has been updated from the previous Compliance Reports.

Investigations by the City were performed using a bottom up approach to look for dry-weather-flows. Manholes and piping were investigated upstream from the outfall until there was no more flow during dry-weather. For some outfalls, the entire inventory of pipes, catch basins, and manholes in that catchment area may not have been physically inspected, however, because there was no upstream observed dry-weather-flow, the City assumed that there are no illicit connections further upstream and is marking that catchment's investigations as 100% complete.

As summarized in Table 2-2, the City has currently addressed 57% of the identified drain piping and 63% of the identified catch basins and manholes for the High, Medium, and Low Priorities. Table 2-2 lists both the upstream basin investigations that took place over the reporting period and the total to date.

Over the Compliance Reporting Period (July through December 2019), the City has continued to re-inspect, locate and/or unbury outfalls on the Outfall Maintenance Priority Table (Table 2-3). 17 outfalls were re-inspected, located, and/or cleared of sediment. The City has completed inspections of all high and medium priority maintenance outfalls and is now working on completing inspections of all low priority maintenance outfalls. Also, five outfalls were inspected on the "Needs Follow-up Testing" section of Table 2-1. Two of these outfalls had no dry weather flows during inspections and will be removed from the list. The other three had dry weather flows and were sampled. FBO0723 showed no signs of contamination and the sample results came out clean. UNK1188 had high ammonia and bacteria results and will be added to the low priority lists. MR38718 had high bacteria results and will be added to the high priority list. The results of these inspections are shown in Table 2-1. IDDE inspection supporting documentation is included in Appendix A.

Previously, the City set a goal of sampling and investigating all high, medium, and low priorities by the end of 2019; and all "other priority" areas by the end of 2023. Though the City has made progress on completing the required sampling and investigations of outfalls, there remains ten high priority, five medium priority, and eleven low priority outfalls that require follow-up IDDE sampling and investigations. The City remains committed in completing all of the investigations as required by the Consent Decree, however the City's Wastewater Division is currently

experiencing unprecedented challenges that impacts their ability to perform the required tasks as originally scheduled.

Internally, the Collection System Supervisor's position is currently vacant. This position is responsible for the City's MS4 and IDDE investigations, as well as day-to-day collection system operations. Since the position became vacant, the City has been attempting to fill this critical position, however qualified candidates are very few and far between, and to-date has been unsuccessful in finding the correct candidate. During the search to fill the position, the City did offer the position to a good candidate, however the position was declined for another position that paid $10,000/year less but was closer to their residence. In addition, during the reporting period, the City's Compliance Coordinator had resigned their position and went to work for the MWRA, however the position has since been filled.

Externally, at the time of this report, the Coronavirus (COVID-19) pandemic is sweeping the nation and the world, which has been detrimental to the City's revenues. Surging unemployment numbers resulting from the pandemic has led to many citizen's neglecting or delaying payment on their municipal bills, which has led to massive shortfalls in revenue. These shortfalls in revenue force adjustments to the City's current and future budgets, which will ultimately limit the City's IDDE program from seeking outsourcing services from third party vendors.

Due to position vacancies and the Covid-19 pandemic, the City is requesting an extension to complete the high, medium, and low priority outfalls by December 31, 2021. At this time, the City intends to hold the completion date for all "other priority" outfalls by the end of 2023.

Table 2-1
PRIORITIZED LIST OF OUTFALL SUB-AREA INVESTIGATIONS
(BASED ON OUTFALL INSPECTION PROGRAM)
2014-2019 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)	Entrococcus (MPN/ 100 ml)
High Priority																										
UNK0955	36"	RCP	South Main St(Dominator Plaza)	City	9/29/2014	0.36" ON 9/21/14			MODERATE	NONE	CLEAR	NONE	NONE	1058	69.2	7.54	1673	0	0.5		9/21/2015	0.1	9/13/2015		>48,000	
MR24314	24"	RCP	Groveland Street/Water Street	City	9/2/2015	0.19" ON 8/23/15			NO INFORMATION	RANCID/SOUR	BROWN, YELLOW	GREASE	CLOUDY	800	70.1	7.6	1009	0	3	0	9/9/2015	0.19	8/23/2015		>24,000	>24,190
PL0891	30"	RCP	Main St @ Marsh Ave	City	10/6/2014	0.12" ON 10/4/14			TRICKLE	SEWERAGE	GRAY	OTHER (DEBRIS)	CLOUDY	840	50	7.36	1123	0	3		9/9/2015	0.19	8/23/2015		>24,000	
MR1109	12"	RCP	350 Water Street	City	10/26/2015	0.06" ON 10/25/15			TRICKLE	``	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	10/10/2014	0.08" ON 10/8/14			TRICKLE	NONE	CLEAR	DEBRIS	CLEAR	1055	60.6	7.41	373	0	0.25		10/14/2014				2,420	
UNK0951	48"	RCP	61 Brook St	City	9/29/2014	0.36" ON 9/21/14			MODERATE	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	
MR1141	36"	RCP	Merrimac River (River St)	State	9/23/2014	0.36" ON 9/21/14			TRICKLE	NONE	CLEAR	OTHER (DIRT)	CLEAR	945	62	7.88	694	0	0.25		9/30/2014	0.01	9/29/2014		>2,420	
DPO0696	12"	RCP	Pamela Lane	City	6/5/2015	1.38" ON 6/2/15			MODERATE	NONE	NONE	NONE	NONE	1010	64.2	6.75	365	0	0	0	6/12/2015	0.1	6/6/2015		>2,419	
MR1138	36"	RCP	Merrimac River (River St)	City	9/23/2014	0.36" ON 9/21/14			TRICKLE	NONE	CLEAR	OTHER (DIRT)	CLEAR	920	58.6	7.24	613	0	0		9/30/2014	0.01	9/29/2014		2420	
Medium 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	9/30/2014	0.03" ON 9/30/14			MODERATE	NONE	CLEAR	NONE	CLEAR	850	59.5	7.25	1437	0	0		10/6/2014	0.12	10/4/2014		1299.7	
UNK1177	48"	RCP	Franzone Dr	City	9/30/2014	0.03" ON 9/30/14			TRICKLE	NONE	CLEAR	NONE	NONE	1105	59	7.05	1537	0	0.25		10/6/2014	0.12	10/4/2014		1299.7	
JC1028	15"	RCP	Kaii Way	City	10/7/2014	0.12" ON 10/4/14			TRICKLE	NONE	CLEAR	NONE	CLEAR	950	67.3	7.4	433	0	0		10/20/2014	0.02	10/18/2014		1046.2	
LR0993	16"	CMP	100 Newark Street	City	11/7/2015	0.02" ON 11/1/15			MODERATE	NONE	NONE	NONE	NONE	840	59.6	6.81	765	0	0	0	12/1/2015	0.39	11/28/2015		1046.2	33.6
Low Priority																										
UNK1835	15"	PVC	Broadway	City	6/10/2015	0.1" ON 6/6/15			NO INFORMATION	NONE	NONE	NONE	NONE	935	69	7.08	240	0	0	0	6/12/2015	0.1	6/6/2015		980.4	
LR1103	15"	RCP	Bennington St	City	9/10/2014	0.5" ON 9/7/14			TRICKLE	NONE	CLEAR	NONE	NONE	830	68.1	7.35	683	0	0		9/16/2014	0.18	9/13/2014		920.8	
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	
UNK1063	15"	RCP	Crystal Ct.	City	5/26/2015	0.07" ON 5/19/15			TRICKLE	NONE	NONE	NONE	NONE	1015	66	7.6	49	0	0	0	6/5/2015	1.38	6/2/2015		344.8	
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
Other Priorities (based on non-bacteria results)																										
MR1140	15"	RCP	River St	City	9/23/2014	0.36" ON 9/21/14			TRICKLE	NONE	BROWN	OTHER	CLOUDY		42.6	8.18	484	0	0		11/13/2014	0.06	11/7/2014		62.4	
LRO0995	18"	RCP	Newark St	City	9/10/2014	0.5" ON 9/7/14			TRICKLE	NONE	CLEAR	NONE	CLEAR	915	71.4	7.41	120	0	0.75		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		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		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		X	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	
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		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	9/12/2014	0.01" ON 9/9/14			TRICKLE	NONE	CLEAR	NONE	CLEAR	1025	64.7	7.86	343	0	0.25		9/16/2014	0.18	9/13/2014		<1	
TS0984	24"	RCP		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		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	5/20/2015	0.07" ON 5/19/15			TRICKLE	NONE	ORANGE	NONE	SLIGHT CLOUDINESS	930	63.1	7.3	877	0	0.25	0	5/22/2015	0.07	5/19/2015		<1	
UNK0902	40"	CMP	Shelley Rd	City	9/24/2014	0.36" ON 9/21/14			MODERATE	NONE	CLEAR	OTHER (RUST)	CLEAR		62.6	7.02	1567	0	0.25							
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							
Needs Follow-up Testing																										
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		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

Laborary 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)
2014-2019 Dry-Weather MS4/Stormwater Outfall Inspection Program
REVISED (December 2019) IDDE INVESTIGATION PRIORITIES

				Current Report Period				Completed to Date			
				July 2019 to December 2019				Including this Reporting Period			
Basin ID	Outfall ID	Existing System Estimates		Upstream Basin Investigations				Upstream Basin Investigations			
		Length of Pipe (ft)	Number of Manholes and Catch Basins	Length of Pipe (ft)	Percent Completed	Number of Manholes and Catch Basins	Percent Completed	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								
	CB1710	71	0					71	100%		
Creek Brook Outlet TOTAL		**285**	**5**	**0**	**0%**	**0**	**0%**	**141**	**49%**	**0**	**0%**
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%**	**852**	**100%**	**15**	**100%**
Fishing Brook TOTAL		**852**	**15**	**852**	**100%**	**15**	**100%**	**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					6,214	24%	146	24%
Little River TOTAL		**39,884**	**721**	**0**	**0%**	**0**	**0%**	**11,171**	**28%**	**154**	**21%**

TABLE 2-2 CONTINUED

				Current Report Period				Completed to Date			
				July 2019 to December 2019				Including this Reporting Period			
Basin ID	Outfall ID	Existing System Estimates		Upstream Basin Investigations				Upstream Basin Investigations			
		Length of Pipe (ft)	Number of Manholes and Catch Basins	Length of Pipe (ft)	Percent Completed	Number of Manholes and Catch Basins	Percent Completed	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								
	MR0982	**128**	**10**	**128**	**100%**	**10**	**100%**	**128**	**100%**	**10**	**100%**
	MR1109	941	12								
	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%**	**1,746**	**100%**	**116**	**100%**
	MR20718	NA									
	MR23912	0	1								
	MR38718	1713	30								
	MR24314	541	24					541	100%	24	100%
Merrimack River TOTAL		**13,293**	**377**	**1,874**	**14%**	**126**	**33%**	**6,603**	**50%**	**272**	**72%**
Pentucket Lake	PL0891	5,463	128					5,463	100%	128	100%
	PL1222[1]	**3,292**	**102**	**3,292**	**100%**	**102**	**100%**	**3,292**	**100%**	**102**	**100%**
Pentucket Lake TOTAL		**8,755**	**230**	**3,292**	**38%**	**102**	**44%**	**8,755**	**100%**	**230**	**100%**
Tilton Swamp	TS0984	52	1								
	TS0989	3,893	47								
Tilton Swamp		**3,945**	**48**	**0**	**0%**	**0**	**0%**	**0**	**0%**	**0**	**0%**
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	6,058	146					6,058	100%	146	100%
	UNK1011	5306	44								
	UNK1020	71	2								
	UNK1040	1,414	21								
	UNK1063	49	0								
	UNK1166	1,079	28					1,079	100%	28	100%
	UNK1177	156	3					156	100%	3	100%
	UNK1188	25,926	470					25,926	100%	470	100%
	UNK1189	2,043	17								
	UNK1680	719	8								
	UNK1750	1,239	23								
	UNK1767	2,077	52					2,077	100%	52	100%

			Current Report Period				Completed to Date			
			July 2019 to December 2019				Including this Reporting Period			
Basin ID	Outfall ID	Existing System Estimates	Upstream Basin Investigations				Upstream Basin Investigations			
		Length of Pipe (ft)	Number of Manholes and Catch Basins	Length of Pipe (ft)	Percent Completed	Number of Manholes and Catch Basins	Percent Completed	Length of Pipe (ft)	Percent Completed	Number of Manholes and Catch Basins	Percent Completed
Unknown	**UNK1835**	**761**	**10**	**761**	**100%**	**10**	**100%**	**761**	**100%**	**10**	**100%**
	UNK1836	1,179	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**	**761**	**1%**	**10**	**1%**	**39,725**	**73%**	**770**	**81%**
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**	**0**	**0%**	**0**	**0%**	**262**	**100%**	**0**	**0%**
GRAND TOTAL		**137,927**	**2,617**	**6,779**	**5%**	**253**	**10%**	**78,107**	**57%**	**1,651**	**63%**
		26.12mi.		**1.28mi.**				**14.79mi.**			

[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 2019

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								June-18	
KL1227	ST00001275	X								June-18	
LR1101	ST00001276	X								June-18	
UNK1015	ST00001278	X								June-18	
UNK1016	ST00001279	X								June-18	
UNK1035	ST00001280	X								June-18	
DPI0942	ST00000517		X							August-18	
DPI0943	ST00001281		X							August-18	March-19
DPI0944	ST00000518		X							August-18	March-19
LR1150	ST00001282		X							June-19	
MR0778	ST00000536		X							August-18	
UNK0888	ST00000478		X							March-19	
UNK0889	ST00000554		X							August-18	
UNK0905	ST00000556		X							August-18	
UNK0997	ST00000560		X							August-18	
UNK1033	ST00000562		X							June-18	
UNK1136	STI0001311		X							August-18	
UNK1207	STI0001312		X							March-19	
UNK1221	ST00000568		X							August-18	
UNK1907	STI0001313		X							August-18	
UNK35912	STI0001314		X							August-18	
UNK1773	ST00000575		X							March-19	
UNK1774	ST00000576		X							August-18	
BZB0959	ST00000508			X						April-19	
CB1196	ST00000510			X						March-19	
DPI0655	ST00000514			X						March-19	
DPI1008	ST00000520			X						April-19	
DPO1154	ST00000524			X						March-19	
FP7112	ST00000529			X						March-19	
JP1179	ST00000530			X						April-19	
KL1230	ST00001152			X						March-19	
LR0844	ST00000083			X						March-19	
LR1118	ST00001283			X						March-19	
MR1278	ST00000541			X						April-19	
MR24329	ST00000544			X						April-19	
SB11512	ST00000545			X						August-18	
TS0987	ST00000548			X						March-19	
UNK0064	ST00000551			X						April-19	
UNK0782	ST00000553			X						March-19	
UNK0935	ST00000558			X						March-19	
UNK1017	ST00000561			X						March-19	
UNK1076	ST00000563			X						March-19	
UNK1137	ST00000564			X						March-19	
UNK1183	ST00000566			X						March-19	
UNK1678	ST00000572			X						March-19	
UNK1748	ST00000573			X						March-19	
UNK1772	ST00000574			X						March-19	
UNK1906	ST00000580			X						March-19	
UNK25513	ST00000583			X						March-19	
UNK31513	ST00000584			X						March-19	
CB1148	ST00000591				X					August-19	
CB1199	ST00000595				X					August-19	
CB1200	ST00000596				X					August-19	
CB1201	ST00000597				X					August-19	
CL0681	ST00000600				X					April-19	
CL0683	ST00000601				X					April-19	
CL0690	ST00000602				X					April-19	
CL0701	ST00000603				X					April-19	
CLO0688	ST00000605				X					April-19	
DPI0634	ST00000606				X					April-19	
DPI0841	ST00000608				X					April-19	
DPI0965	ST00000609				X					April-19	
DPI1001	ST00000612				X					April-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		
DPI1004	ST00000613				X					July-19	
DPI1081	ST00000615				X						
DPI1090	ST00000617				X					April-19	
FBO0721	ST00000628				X					April-19	
FP7114	ST00000629				X					April-19	
FP7115	ST00000630				X					April-19	
KL30718	ST00000634				X					April-19	
LR0931	ST00000635				X					April-19	
LR1099	ST00000636				X					April-19	
LR1102	ST00000637				X					April-19	
LR1251	ST00000641				X					April-19	
MR23513	ST00000650				X						
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					April-19	
MR24318	ST00000664				X						
MR24718	ST00000665				X					April-19	
MR5112	ST00000666				X					April-19	
PL1181	ST00000667				X					April-19	
SB1117	ST00000668				X					April-19	
UNK0626	ST00000674				X					April-19	
UNK0663	ST00000677				X					April-19	
UNK0669	ST00000682				X						
UNK0756	ST00000691				X					April-19	
UNK0882	ST00000700				X					April-19	
UNK0885	ST00000701				X					April-19	
UNK0950	ST00000706				X					April-19	
UNK0962	ST00000709				X						
UNK1000	ST00000710				X					April-19	
UNK1005	ST00000711				X					April-19	
UNK1006	ST00000712				X					April-19	
UNK1111	ST00000717				X					April-19	
UNK1123	ST00000718				X					April-19	
UNK1158	ST00000721				X					April-19	
UNK1160	ST00000722				X					April-19	
UNK1170	ST00000724				X					April-19	
UNK1174	ST00000726				X					April-19	
UNK1205	ST00000732				X					April-19	
UNK1213	ST00000734				X					April-19	
UNK1263	ST00000736				X					April-19	
UNK1265	ST00000737				X					April-19	
UNK13512	ST00000738				X					April-19	
UNK16715	ST00000741				X						
UNK1684	ST00000742				X					April-19	
UNK1685	ST00000743				X					July-19	
UNK1686	ST00000744				X					July-19	
UNK1738	ST00000751				X						
UNK1801	ST00000758				X					July-19	
UNK1802	ST00000759				X					July-19	
UNK1806	ST00000760				X						
UNK1864	ST00000767				X						
UNK1865	ST00000768				X						
UNK1867	ST00000770				X						
UNK1868	ST00000771				X					April-19	
UNK1880	ST00000772				X					April-19	
UNK1891	ST00000773				X					April-19	
UNK1896	ST00000774				X					April-19	
UNK1899	ST00000775				X					July-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		
UNK1900	ST00000776				X					July-19	
UNK24721	ST00000780				X					August-19	
UNK32717	ST00000791				X					May-19	
UNK34712	ST00000793				X						
UNK34713	ST00000794				X					May-19	
UNK26725	ST00001286				X					May-19	
UNK26726	ST00000784				X						
UNK29512	ST00000787				X					May-19	
CB0976	ST00001287							X		May-19	
CB0977	ST00001288							X			
CB1147	ST00001289							X		August-19	
DPO0657	ST00001291							X		May-19	
DPO1007	ST00001292							X		August-19	
FB0715	ST00001293							X			
UNK0906	ST00001294							X			
UNK1901	ST00001295							X		May-19	
UNK1902	ST00001296							X		May-19	
UNK5113	ST00001297							X			
CB1198	ST00001298					X				May-19	
DPI0945	ST00000519					X				May-19	
DPI1133	ST00000522					X				May-19	
MR20719	ST00000542					X					
TS0989	ST00000549					X				April-19	
KL26714	ST00000533					X					
DPI0970	ST00000610						X				
DPI1007	ST00000614						X				
DPI1084	ST00000616						X				
DPI1125	ST00000618						X				
DPI1131	ST00000619						X			May-19	
DPI1162	ST00000621						X			May-19	
DPI1197	ST00001299						X				
FBO0719	ST00000627						X			April-19	
KL1178	ST00000633						X			April-19	
LR1260	ST00000642						X				
TS0984	ST00000670						X			April-19	
TS33514	ST00000673						X			April-19	
UNK0665	ST00000678						X			May-19	
UNK0666	ST00000679						X			May-19	
UNK0728	ST00000688						X			May-19	
UNK0729	ST00000689						X				
UNK0730	ST00000690						X			May-19	
UNK0902	ST00000703						X			July-19	
UNK0955	ST00000708						X				
UNK1168	ST00000723						X				
UNK1176	ST00000728						X			July-19	
UNK1177	ST00000729						X			June-19	
UNK1188	ST00001301						X			April-19	
UNK1206	ST00000733						X			May-19	
UNK1220	ST00000735						X				
UNK1695	ST00000745						X			April-19	
UNK1696	ST00000746						X			April-19	
UNK1749	ST00000752						X			April-19	
UNK1767	ST00000755						X				
UNK1823	ST00000761						X				
UNK1829	ST00000762						X				
UNK1835	ST00000763						X			May-19	
UNK1910	ST00000777						X			May-19	
UNK6316	ST00001303						X			May-19	
UNK8312	ST00000797						X				
UNK1775	ST00000756						X			August-19	
LR0979	ST00001304								X	April-19	
MR0607	ST00001305								X	May-19	
TS0983	ST00001307								X	April-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.

The status of the twelve most recently identified illicit connections is as follows:

- Pentucket Lake Basin
  - Outfall PL0891: This catchment area is located on Marsh Avenue and Main Street, and the source of dry weather flow was determined to be from a sewer exfiltrating into an under drain. Correction action has been designed, bid, and the notice of award has been issued to National Water Main. To date the following work has been completed:
    - Cleaning and CCTV inspections of all sewer laterals and mains in the project areas
    - Point repair and rehabilitation of SMH-2190
    - Installation of CIPP main line liner on Main Street
    - Installation of CIPP main line liner on Marsh Avenue
    - Installation of all CIPP sewer lateral liners

    Due to high groundwater levels causing flooding in a home during lining of sewer laterals, the project was on hold until groundwater levels lower and weather permits. Also, during inspection and CCTV of sewers, it was discovered that three sewer lateral connections tied into the top of the sewer main. Due to the angle of the connection, the service laterals cannot be lined. Therefore, the lateral connections were dug and replaced. After review of post lining CCTV, it was determined that a number of segments need to be inspected again because the CCTV does not show the entire extents of the pipes. National Water Main has completed CCTV and no defects were found. The cost of this project is approximately $446,000. Since completion of this project, PL0891 was resampled on 9/26/2019 and bacteria results are still high. The City plans to conduct IDDE sampling and inspection of the entire flowing catchment area. See inspection report in Appendix A and map of progress in Appendix C.

- Merrimack River Basin

- Outfall MR1109: The City conducted IDDE investigations on 10/22/2018. High enterococci results start in segment DMH-366:DMH-364. Raccoons and animal feces have been observed in pipes upstream of this segment. Sewer main adjacent to DMH-366:DMH-364 was CCTV'd on 1/4/2019 and has no signs of infiltration crack, or fractures. The City will seek assistance from a consultant regarding next steps. See map of progress in Appendix C.
- Outfall MR0982: The City conducted IDDE investigations on 7/30/2019. CCTV was conducted on 9/17/2019 but a reversal is still needed for segment DMH-893:CB-1241. It is suspected that contamination is coming from an upstream stream that is flowing into CB-1241. See inspection reports in Appendix B and map of progress in Appendix C.
- Outfall MR1164: The City conducted IDDE investigation on 7/29/2019 and CCTV was completed in November 2019. The source of contamination is unknown. Need to further investigate connections in segment DMH-1336:DMH-1156. See inspection reports in Appendix B and map of progress in Appendix C.
- Outfall MR38718: The City sampled this outfall on 9/26/2019 and there was high bacteria results. The City focused on mapping the catchment area because there was no catchment mapped in GIS. This mapping was completed in November 2019 along with CCTV of the main drain lines. The City plans to complete IDDE sampling and investigation. See inspection report in Appendix A and map of progress in Appendix C.

- Unknown or Unnamed Basins
  - Outfall UNK 1166: The City conducted IDDE investigations on 6/24/2019. High E.coli sample results occurred at UNK1166. Also on 6/24/2019, the outfall UNK1177, located just upstream of UNK1166, was sampled and high E.coli sample results were observed. It is suspected that contamination at UNK1166 is caused by UNK1177. CCTV was completed in September 2019 and as a result, there was one connection in the culvert that needs further investigation. See map of progress in Appendix C.

- Outfall UNK1177: The City conducted IDDE investigations on 6/24/2019. High E.coli sample results occurred at UNK1177 and from segment DMH-7485:Culvert Inlet. CCTV was conducted in July and September 2019. There were no connections in the drain. It is suspected that the source of contamination is from an upstream private outfall. See map of progress in Appendix C.
- Outfall UNK1835: The City conducted IDDE investigations on 7/17/2019. During this investigation there was no dry weather flow. See inspection report in Appendix A and map of progress in Appendix C.

- Little River Basin
  - Outfall LR0993: The City conducted IDDE investigations on 5/7/2019. High surfactant sample results occurred at segment CB-1377:CB-1376 and high ammonia sample results occurred at segment CB-1378:CB-1379. CCTV showed no connections to segments and sewer mains are not located near drains. Source of contamination is unknown. The City will seek assistance from a consultant regarding next steps. See map of progress in Appendix C.

- Buswell Brook Basin
  - Outfall BZB0847: The City conducted IDDE investigations on 6/10/2019. High E.coli sample results occurred at segments DMH-546:CB-2775, CB-2775:CB-2770, CB-2770:DMH-545, DMH-545:CB-2767, CB-2767:CB-2768, and DMH-545:CB-2765. High ammonia sample results occurred at segments BZB0847:DMH-546, DMH-546:CB-2775, CB-2775:CB-2770, CB-2770:DMH-545, and DMH-545:CB-2765. CCTV was completed in September 2019 and as a result, there are two unknown connections that need further investigations. An attempt to determine the source of the connection in segment CB-2770:CB-2775 was made on 12/9/2019 but the source is still unknown and needs further investigation. See map of progress in Appendix C.

- Fishing Brook
  - Outfall FBO0639: The City conducted IDDE investigations on 7/16/2019. CCTV was completed on 9/10/2019 showing no connections or infiltration. High bacteria results

are coming from CB-175. Contamination is suspected to be from farm runoff. During IDDE investigations, there was runoff going into CB-175 that was coming from a farm. See inspection reports in Appendix B and map of progress in Appendix C.

- Pentucket Lake
  - Outfall PL1222: The City conducted IDDE investigations on 8/21/2019. Some CCTV was completed in November and December 2019. The City needs to finish CCTV and investigate the connections in CB-7355 and CB-801. See inspection reports in Appendix B and map of progress in Appendix C.

TABLE 2-4
SUMMARY OF ILLICIT DISCHARGES IDENTIFIED BY BASIN AND CURRENT STATUS
(January through June 2019)

Description		Illicit Discharge/Connection Verified				Ongoing Illicit Discharge Removal Activities					Final Illicit Connection Removal Actions				
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 (gpd)	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)	Assessment: Is the City in compliance with the schedule?
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						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".
	MR1141	12/20/2018	River St	Sewer pipe joint offset leaking in DMH	Not able to estimate	Yes		Was repaired 5/16/2019			Sewer pipe joint and DMH were repaired on 5/16/2019	5/16/2019	$500	Not able to estimate	Yes, the City is in compliance
	MR1109		350 Water St	IDDE conducted and needs further investigation to determine the source.											
	MR1138	10/20/2017	River St	Upstream contamination from culvert inlet.											
	MR24314	7/27/2016	15 Groveland St., 19 Groveland St, 312 Water St	3 Single family	N/A		N/A	N/A	N/A		New gravity sewer installed on Nov 11, 2016 and 3 homes removed from drain system	11/4/2016	$ 12,788	26,377	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	Fiscal Year 2019	This connection is being removed as quickly as possible and dependent on the availability of funds within the fiscal year.	N/A	10/5/18-10/10/18: SMH-2190 point repair and manhole rehibilitation 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. Post lining CCTV was reviewed and determined that more CCTV needs to be conducted and 1 defect in lining needs to be repaired.	-	-	-	Marsh Ave sewer repair project was bidded 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	4/17/2018	$ 4,277	-	Yes, the City is in compliance
	UNK0788	7/27/2016	West Lowell Ave	Possible contamination from leaching septic system	Not able to estimate	N/A	N/A	N/A	N/A	N/A	City drain was disconnected from culvert and residence was connected to City sewer.	Jun-18	$ 16,700	-	Yes, the City is in compliance
	UNK1767	7/16/2018	Tudor Ct	IDDE conducted. CCTV needs to be completed. High ammonia from private pipe. Dye tested home and their wastes go to sewer.											

Description		Illicit Discharge/Connection Verified				Ongoing Illicit Discharge Removal Activities					Final Illicit Connection Removal Actions				
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 (gpd)	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)	Assessment: Is the City in compliance with the schedule?
	UNK0955	10/14/2016	South Main St	Contaminated private line discharges to City line.											
	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	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.
Detention Pond Outlet	DPO0696	6/12/2015	Pamela Lane	Private drain and outfall DPI0697 that discharge to detention pond and not contaminated. Contaminated detention pond.											

[1] Type of Discharge single-family residential, multifamily residential, commercial, industrial, exfiltration from a sanitary sewer

Current Report Period Total =	$ -	-
Grand Total =	$ 47,265	112,858

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 2019), are listed in Table 3-1 and shown in Figure 3-1.

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

- SSO 19-7: Sewer line was flushed to relieve blockage; vac truck company scheduled to clean debris in SMH.
- SSO 19-8: Sewer line was flushed; SMH to be repaired.
- SSO 19-9: Sewer line was flushed; SMH to be repaired; additional CCTV.
- SSO 19-10: Solenoid valve was replaced on treatment plant ejector pumps.
- SSO 19-11: Sewer line to be CCTV'ed; bricks from SMH found in pipe.
- SSO 19-12: Bubbler control system air compressors were repaired. Backup floats to be installed at pump station.

It is important to note that the SSO's associated with the City's 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 attributed to City operations. For this six-month reporting period, the City had seven SSOs that were directly attributable to unanticipated 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 2019

SSO Ownership City or Private	CITY	CITY	CITY	CITY	CITY	CITY
MaintStar Work Order	WW00001696		WW00001704	WW000024109	WW00001696	WW00001774
SSO ID	SSO-19-07	SSO-19-08	SSO-19-09	SSO-19-10	SSO-19-11	SSO-19-12
SSO Address	BETHANY AVE	SOUTH WEBSTER CSO	SOUTH WEBSTER CSO	40 SOUTH PORTER ST	SOUTH WEBSTER CSO	34 DANIELLE DR
Start Date/Time	7/23/19 7:10 AM	8/2/19 12:24 AM	8/5/19 9:54 PM	8/7/19 9:30 AM	8/30/19 5:30 AM	12/6/19 9:00 PM
End Date/Time	7/23/19 8:15 AM	8/2/19 12:33 AM	8/6/19 7:59 AM	8/7/19 9:40 AM	8/30/19 7:30 AM	12/6/19 11:00 PM
Date Reported EPA/DEP	7/23/2019	8/2/2019	8/6/2019	8/7/2019	8/30/2019	12/8/2019
Who notified	RESIDENT	FLOW METER EMAIL NOTIFICATION	FLOW METER EMAIL NOTIFICATION	OPERATIONS STAFF	FLOW METER EMAIL NOTIFICATION	RESIDENT
Reason for occurrence	SEWER SYSTEM BLOCKAGE	SEWER SYSTEM BLOCKAGE	SEWER SYSTEM BLOCKAGE	PUMP STATION FAILURE	SEWER SYSTEM BLOCKAGE	PUMP STATION FAILURE
Date of last SSO occurrence	6/6/2019	10/16/2018	8/2/2019	8/8/2018	8/5/2019	9/6/2015
SSO est. vol.	5,000	280	250	10	10,000	500
Receiving Waters if sewerage entered	MERRIMACK RIVER	MERRIMACK RIVER	MERRIMACK RIVER	NONE	MERRIMACK RIVER	WEST MEADOW BROOK
Method Use to Estimate volume	VISUAL	LEVEL METER/ FLOW OVER WEIR	LEVEL METER/ FLOW OVER WEIR	VISUAL	LEVEL METER/ FLOW OVER WEIR	VISUAL
Nearest CB location ID	CB-3358	N/A	N/A	CB-7980	N/A	CB-2182
Distance to Nearest CB (ft.)	138	N/A	N/A	63	N/A	11
Name of receive Water whether or not there was a release	MERRIMACK RIVER	MERRIMACK RIVER	MERRIMACK RIVER	MERRIMACK RIVER	MERRIMACK RIVER	WEST MEADOW BROOK
Entered CB Yes or No	YES	NO	NO	YES	NO	YES
Measure Taken to Stop SSO	FLUSHED CITY SEWER	BLOCKAGE RELIEVED ITSELF	FLUSHED CITY SEWER	EQUIPMENT WAS REPAIRED	REMOVED DEBRIS IN SEWER	PUT PUMPS IN MANUAL AND PUMPED DOWN STATION
Decontaminate	YES	NO	NO	YES	NO	YES
Measures taken to prevent future overflows	CITY SEWER FLUSHED TO RELIEVE BLOCKAGE, VAC TRUCK COMPANY SCHEDULED TO CLEAN DEBRIS IN SMH	SMH NEEDS TO BE REPAIRED. FLUSHED CITY LINE.	SMH NEEDS TO BE REPAIRED. FLUSHED CITY LINE. NEED TO CCTV LINE AGAIN.	REPLACED SOLENOID VALVE ON EJECTOR PUMPS	SEWER WILL BE CCTVd. FLOW METER COMPANY WAS ON SITE MOVING FLOW METER EQUIPMENT. FOUND BRICKS FROM SMH IN SEWER.	AIR COMPRESSORS WERE FIXED. PUMP STATION NEEDS BACKUP FLOATS.
SEWERAGE LOCATION INTO STREAM	MR1165	LR1743	LR1743	NONE	LR1743	UNK0667

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

NORTH ANDOVER

BOXFORD

SALEM, NH

AMESBURY ROAD

NORTH BROADWAY

BROADWAY

KENOZA AVENUE

WTF

KENOZA LAKE

495

SSO-19-12

SSO-19-07

SSO-19-13

SSP-19-08
SSO-10-09
SSO-19-11

SSO-19-10

Merrimack River

S MAIN STREET

WILLOW AVENUE

KINGSBURY AVENUE

Legend

- SSO
- WTF — Water Treatment Facility
- WPAF

N

0 0.25 0.5 1 Miles

SSO and Building/Private Party Backup Locations

July through December, 2019

City of Haverhill, MA

Haverhill

DATE:	FIGURE:
April 2020	3-1

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SECTION 4

4.1 CONSTRUCTION SITE INSPECTION AND ENFORCEMENT PROGRAM

At their June 26, 2018 Haverhill City Council meeting, the Council passed and adopted a Pre and Post Construction Stormwater Management Ordinance as required as part of the Consent Decree.

Currently, there are two projects within the City that are one acre or more of land disturbance, however both projects did not require an individual stormwater permit as they were exempt under Section 219-7H of the City Code. Stormwater discharges resulting from the activities that are wholly subject to jurisdiction under the Wetlands Protection Act and demonstrate compliance with the Massachusetts Stormwater Management Standards as reflected in an Order of Conditions issued by the Conservation Commission are exempt from obtaining a stormwater permit under Chapter 219.

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 seventh Reporting Period (July through December 2019) there were two deliverables and/or activities due within that timeframe to achieve compliance. Those two deliverables/activities are shown in Table 5-1 below.

The City has made progress related to their Combined Sewer Overflow Final Long-Term Control Plan. During the reporting period approximately 50,000 linear feet of both cleaning and CCTV inspection was performed on the four areas of the dry weather connector pipes, Bradford Interceptor, Locke Street area, and Middle Siphon, which represented approximately 90% of the pipelines to be inspected as part of the project. In addition, 90% design plans and specifications for the CSO Dry Weather Connector Pipe Improvements were submitted by the Engineer, with bidding anticipated to occur in Spring 2020 and construction completed by the end of 2021.

Construction continued on the Odor Control and Administration Building HVAC Improvements at the City's Water Pollution Abatement Facility.

Upgrades to the Carleton Street and North Avenue Pump Stations were complete and placed online.

Work orders generated from the City's computerized maintenance management system, MaintStar, for the outfall inspection (prefix STI) programs from July through December 2019 are attached to this Compliance Report in Appendix A. Work orders generated for outfall investigations (prefix ST) during this reporting period are attached in Appendix B.

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. 6	10/31/2019	10/29/2019
C	Illicit Discharge Prohibition and Removal from MS4 System		
	Eliminate all sources known as of Effective Date to cause pollutants in stormwater	Per letter to EPA dated 12/28/17, the City requested extension for all high, medium, and low areas to be complete by 12/31/19. The City requests an extension to complete all high, medium, and low areas to be completed by December 31, 2021. All remaining areas by 2023.	Refer to Section 2.3; the City requests additional extension for all high, medium, and low areas due to internal and external hardships.

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 to June 2020, are shown in Table 5-2.

TABLE 5-2
FUTURE DELIVERABLES DURING THE PROCEEDING REPORTING PERIOD (JANUARY THROUGH JUNE 2020)

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	4/30/20	Annually	5/1/2019
IX	Compliance Reporting			
	Compliance Report No. 8	4/30/20	180	10/31/2020

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 2019.

6.2 BYPASS EVENTS

There were no secondary treatment bypass events that occurred during the reporting period. Particularly of note, this is the fourth consecutive reporting period (two years), that the secondary treatment bypass facilities have not been activated. They have not been activated since September 7, 2017.

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 Reporting.

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. Table 7-1 also provides an updated status for each corrective action.

7.3 ADDITIONAL CMOM-RELATED ACTIVITIES

In addition to 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 collection system maintenance activities that were performed from July through December 2019 (Reporting Period 7) and their associated costs are listed in Table 7-2 below.

Construction activities that occurred during the reporting period include sewer repair and replacement included under the Phase II Water Transmission Main and Distribution Improvements, DWSRF #4397. The total bid price for the sewer work within the contract was approximately $2,000,000. Funds expended for calendar year 2019 is $572,746, which represents approximately 29% of the work completed.

The City continues to install Mission Alarm and monitoring systems at its wastewater pump stations. Seven Mission Systems were installed last year at a cost of $37,450 and two were included as part of the Carleton Street and North Avenue Pump Stations Upgrades. There are now sixteen wastewater pump stations equipped with Mission Systems.

As stated previously in Section 5, during the reporting period approximately 50,000 linear feet of both cleaning and CCTV inspection was performed on the four areas of the dry weather connector pipes, Bradford Interceptor, Locke Street area, and Middle Siphon, which represented approximately 90% of the pipelines to be inspected as part of the CSO Final Long Term Control Plan Project.

Maps showing areas within the City that CCTV work was performed is attached to this report in Appendix D.

Table 7-1
CMOM Corrective Action Plans & Status

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	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 which is the long-term plan to reduce the causes of SSOs. A majority of SSO's 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 total occurrences.
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	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 has also added sewer rehab/repair work to the Water Departments Phase II water main replacement project. This included CCTV and inspection of about 19,000 ft of sewer, a sewer rehab recommendation technical memorandum from an Engineering firm, and design of all excavation sewer repairs. This investigation, recommendation, and design cost the City about $134,000. This project began in September 2019 and is expected to cost about $1.8 million.
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

Table 7-1
CMOM Corrective Action Plans & Status

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 contact with innovative safety to put a training schedule in place. The city plans to get all necessary training done to be OSHA compliant
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 - The city investigates customer complaints as they are received to determine appropriate action (i.e., schedule CCTV inspection, schedule further investigation, perform work to address issue, schedule preventative maintenance, add to capital improvements plan, etc.) A Preventative Maintenance schedule has been developed and tracked within MaintStar.
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 has been using GIS to analyze the current collection system and to prioritize investigations. The City will also be performing another assessment study of certain areas in the City. Also, the City has begun implementing a new CMMS software that is map based. This software will include easy access to CCTV, pipe ratings, CoF, and LoF. Collection System Personnel have been certified in NASSCO PACP. All CCTV vendors must submit video with PACP data, which is used for recommending spot repair locations.
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	A draft of the local limits evaluation is complete. The City is expecting a new NPDES permit in the fall of 2019 which will impact the local limits evaluation. The evaluation will be finalized once the appeal of the NPDES permit is resolved.

Table 7-1
CMOM Corrective Action Plans & Status

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	An excel database of all Food Service Establishments has been created. The City has hired an engineering firm to conduct all Food Service Establishment Inspections. Using the excel database, the City has begun implementing a new CMMS software (Utility Cloud) to manage FOG inspections. This is expected to go live in the near future.
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	The CIP is complete. 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 to fund the CIP. The CIP includes pump station upgrades, collection system rehabilitation, and WWTP upgrades.
11	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	See status of Action #10.
12	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	
13	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. The City is utilizing their MaintStar along with problem code training.
14	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.

Table 7-1
CMOM Corrective Action Plans & Status

Action #	Deficiency	Recommended Corrective Action	Implementation Schedule	Status
15	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 city is working with Innovative Safety to put a training schedule in place. The city plans to get all necessary training done to be OSHA compliant.
16	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.
17	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
18	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. The City is planning for Carleton Street PS and North Ave PS to be in construction by EOY 2019.	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.
19	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 pumping stations have the ability to communicate alarms. City has selected the use of Mission Alarm and Monitoring Systems for communication. Currently, 16 out of the City's 36 pump stations have Mission Systems. The City has budgeted money to install Mission RTU alarms at 5+/- additional stations this fiscal year (the number of stations will depend on the bid price). The City will be continuing to install Mission Systems until all Collection System Assets are equipped, which is estimated to be complete within the next five years.

Table 7-1
CMOM Corrective Action Plans & Status

Action #	Deficiency	Recommended Corrective Action	Implementation Schedule	Status
20	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	Complete
21	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 focused on cleaning major interceptors and siphons to increase capacity within the system and increase storage. The Middle Siphons, Middle Interceptor, Bradford Interceptor, and all the combined sewers in the Locke St CSO catchment area were cleaned in 2019. The City is also looking into purchasing their own vac truck.
22	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	The City currently rents dumpsters and stores them at the Wastewater Treatment Plant. These dumpsters are watertight and covered. Cleaning debris is dewatered at the septage receiving area and then offloaded into the dumpsters.
23	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. These assets will be populated, and SOPs will be made.

Table 7-1
CMOM Corrective Action Plans & Status

Action #	Deficiency	Recommended Corrective Action	Implementation Schedule	Status
24	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 contractor and the contractor raises the manholes. Paved over manholes are added to GIS on an ongoing basis as they are discovered.
25	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.
26	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	The City is considering this as part of their Phase 3 CSO work.
27	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	As the City contracts CCTV, they will contract manhole inspections. The City has implemented MACP whenever contractors are hired to inspect sewer manholes. In addition, MACP Level 1 form has been created in the City's CMMS Utility Cloud.

TABLE 7-2

CMOM-RELATED ACTIVITIES THAT OCCURRED

DURING REPORTING PERIOD 7

(JULY THROUGH DECEMBER 2019)

Month	Project	Costs
July	Equipment Maintenance	$30
	Sewer & Drain Assessment, Inspection, Cleaning, and Maintenance	$7,230
	Sewer & Drain Repairs, Replacement, and Materials	$48,680
August	Catch Basin Cleaning	$20,800
	CMMS Software	$11,400
	CSO Flow Metering	$9,570
	Engineering Services for Sewer Rehab & Repair	$860
	Pretreatment Local Limits	$5,540
	Pretreatment Sampling	$2,100
	Sewer & Drain Assessment, Inspection, Cleaning, and Maintenance	$35,250
	Sewer & Drain Repairs, Replacement, and Materials	$12,890
	Sewer Pump Station Generator Maintenance	$3,070
	Street Sweeping	$36,750
September	CMMS Software	$380
	CSO Flow Metering	$4,790
	Easement Plan Review and Survey	
	Engineering Services for Sewer Rehab & Repair	$3,130
	Merrimack River Clean up	$10,000
	MS4 Sampling,	$2,630
	Sewer & Drain Assessment, Inspection, Cleaning, and Maintenance	$4,320
	Sewer Pump Station Operation & Maintenance	$1,210
	Vehicle Repair maintenance	$18,490

October	CSO Flow Metering	$4,790
	Engineering Services for Sewer Rehab & Repair	$8,730
	MS4 Sampling,	$240
	Pretreatment Local Limits	$780
	Public Education	$3,470
	Sewer & Drain Assessment, Inspection, Cleaning, and Maintenance	$18,470
	Sewer & Drain Repairs, Replacement, and Materials	$1,450
	Sewer Pump Station Generator Maintenance	$240
	Sewer Pump Station Operation & Maintenance	$890
	Street Sweeping	$15,790
	Vehicle Repair maintenance	$650
November	CMMS Software	$20,790
	CSO Flow Metering	$4,790
	Engineering Services for Sewer Rehab & Repair	$5,210
	Pretreatment Local Limits	$140
	Sewer & Drain Assessment, Inspection, Cleaning, and Maintenance	$15,040
	Sewer & Drain Repairs, Replacement, and Materials	$4,120
	Sewer Pump Station Generator Maintenance	$2,350
	Vehicle Repair maintenance	$130
December	CMMS Software	$5,680
	CSO Flow Metering	$4,790
	Engineering Services for Sewer Rehab & Repair	$430
	Pretreatment Local Limits	$280
	Sewer & Drain Assessment, Inspection, Cleaning, and Maintenance	$17,840
	Sewer & Drain Repairs, Replacement, and Materials	$29,420
	Sewer Pump Station Operation & Maintenance	$3,690
	Vehicle Repair maintenance	$140
Total Spent During Reporting Period		$409,460


HAVERHILL
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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. 7

JULY THROUGH DECEMBER 2019

APPENDICES

APRIL 2020

APPENDIX A

CMMS GENERATED WORK ORDERS – OUTFALL INSPECTIONS

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	PL0891	OUTFALL ID:	PL0891
Date/Time:	2019-09-26 8:52:00		
Temperature: °F	63	Inspector(s):	Carrie Prescott|Samuel Marinez|Zebulan Day|Justin Mazzotta
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2019-09-23 22:40:00	Amount (inches):	0.01
Pictures			

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe	CB-3318	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?	Yes	Trickle	Estimated GPM:	1

SECTION 4: OUTFALL PIPE PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 5: OUTFALL PIPE SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:	2019-09-26 8:59:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	63.8		EXTECH EC500
pH	7.55		EXTECH EC500
Specific Conductivity (uS)	1000		EXTECH EC500
Salinity (ppm S)	510		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0.25	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	>2400	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	SM

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA

ASSET ID:	FB0723	**OUTFALL ID:**	FB0723
Date/Time:	2019-07-31 9:29:00		
Temperature: °F	80	**Inspector(s):**	Carrie Prescott|Erin McGuire
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2019-07-23 10:45:00	**Amount (inches):**	1.2

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe	DMH-59	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	Flow Line			
Pool Quality	None			
Pipe Algae/Growth	Green			
*Do physical indicators suggest an illicit discharge is present (Y/N):	No			
Is Inlet Pipe No.1 Flowing?	Yes	Moderate	Estimated GPM:	3

SECTION 4: OUTFALL PIPE PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 5: OUTFALL PIPE SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:	2019-07-31 9:32:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	75.6		EXTECH EC500
pH	7.77		EXTECH EC500
Specific Conductivity (uS)	440		EXTECH EC500
Salinity (ppm S)	220		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	8.5	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	CP

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA					
ASSET ID:	UNK1835			OUTFALL ID:	UNK1835
Date/Time:	2019-07-17 8:18:00				
Temperature: °F	70			Inspector(s):	Carrie Prescott
Street Name/Structure Location:	BROADWAY				
Previous Precipitation Date/End Time:	2019-07-14 16:00:00		Amount (inches):	0.02	
Pictures					

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe	DMH-9706	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:	

SECTION 4: OUTFALL PIPE PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 5: OUTFALL PIPE SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNK0848	OUTFALL ID:	UNK0848
Date/Time:	2019-09-26 9:15:00		
Temperature: °F	75	Inspector(s):	Carrie Prescott|Samuel Marinez|Zebulan Day
Street Name/Structure Location:	WOODROW AVE		
Previous Precipitation Date/End Time:	2019-09-11 15:00:00	Amount (inches):	0.02
Pictures			

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe	unknown	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:	

SECTION 4: OUTFALL PIPE PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 5: OUTFALL PIPE SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	SM

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA

ASSET ID:	UNK1188	**OUTFALL ID:**	UNK1188
Date/Time:	2019-07-16 9:29:00		
Temperature: °F	80	**Inspector(s):**	Carrie Prescott]Evelynn Cousey
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2019-07-12 20:45:00	**Amount (inches):**	0.45

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe	CB-6070	Reinforced Concrete	Circle	36	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?	Yes	Trickle	Estimated GPM:	2

SECTION 4: OUTFALL PIPE PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 5: OUTFALL PIPE SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:	2019-07-16 9:30:00		
Parameter	**Result**	**Typical EPA Benchmarks**	**Equipment**
Temperature (degrees F)	73.9		EXTECH EC500
pH	7.48		EXTECH EC500
Specific Conductivity (uS)	855		EXTECH EC500
Salinity (ppm S)	465		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0.5	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	770.1	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	CP

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA

ASSET ID:	LR39512	**OUTFALL ID:**	LR39512
Date/Time:	2019-07-31 9:04		
Temperature: °F	80	**Inspector(s):**	Carrie Prescott|Erin McGuire
Street Name/Structure Location:	CROSS COUNTRY		
Previous Precipitation Date/End Time:	2019-07-23 10:45:00	**Amount (inches):**	1.2

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material		Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe		Other	Barrel block	Square	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):	No			
Is Inlet Pipe No.1 Flowing?	No		Estimated GPM:	

SECTION 4: OUTFALL PIPE PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 5: OUTFALL PIPE SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	**Result**	**Typical EPA Benchmarks**	**Equipment**
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	CP

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA

ASSET ID:	MR38718	**OUTFALL ID:**	MR38718
Date/Time:	2019-09-26 9:56:00		
Temperature: °F	65	**Inspector(s):**	Carrie Prescott|Samuel Marinez|Zebulan Day|Justin Mazzotta
Street Name/Structure Location:	MERRIMACK RIVER		
Previous Precipitation Date/End Time:	2019-09-23 22:40:00	**Amount (inches):**	0.01

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe	Unknown	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?	Yes	Trickle	Estimated GPM:	2

SECTION 4: OUTFALL PIPE PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 5: OUTFALL PIPE SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:	2019-09-26 10:13:00		
Parameter	**Result**	**Typical EPA Benchmarks**	**Equipment**
Temperature (degrees F)	68.1		EXTECH EC500
pH	8.01		EXTECH EC500
Specific Conductivity (uS)	509		EXTECH EC500
Salinity (ppm S)	232		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	>2400	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)	0.1		To be sent to lab

Comments :	
Signature of Inspector :	SM

APPENDIX B

CMMS GENERATED WORK ORDERS – OUTFALL INVESTIGATIONS

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	PL1222	OUTFALL ID:	PL1222
Date/Time:	2019-08-21 7:37:00		
Temperature: °F	66	Inspector(s):	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Derek Beckworth|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2019-08-18 22:15:00	Amount (inches):	0.37

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe	DMH-5693	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):	No			
Is Inlet Pipe No.1 Flowing?	Yes	Moderate	Estimated GPM:	10

SECTION 4: OUTFALL PIPE PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	Yes	Clear	Faint
Turbidity	-	-	Slight Cloudiness
Floatables (Does Not Include Trash)	No		-

SECTION 5: OUTFALL PIPE SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:	2019-08-21 7:56:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	69.2		EXTECH EC500
pH	7.41		EXTECH EC500
Specific Conductivity (uS)	645		EXTECH EC500
Salinity (ppm S)	310		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/l	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	816.4	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	EC

Haverhill IDDE Inspection Form
Drain Manhole

SECTION 1: BACKGROUND DATA			
ASSET ID:	DMH-5693	OUTFALL ID:	
Date/Time:	2019-08-21 7:43:00		
Temperature: °F	75	Inspector(s):	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Pedro Rosario|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2019-08-18 22:15:00	Amount (inches):	0.37

Pictures

SECTION 2: OUTLET PIPE ASSET DESCRIPTION

Location	DMH Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
DMH Outlet Pipe	Excellent	Reinforced Concrete	Circle	48	In Water:	Partially
					With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	DMH-538	Reinforced Concrete	9:00	Circle	30	In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 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?	Yes	Moderate	Estimated GPM:	10

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:	2019-08-21 7:50:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	68.1		EXTECH EC500
pH	7.39		EXTECH EC500
Specific Conductivity (uS)	513		EXTECH EC500
Salinity (ppm S)	252		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	686.7	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 2	CB-7356	Reinforced Concrete	3:00	Circle	12	In Water:	No
						With Sediment:	No

SECTION 3B: INLET PIPE NO. 2 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.2 Flowing?	No		Estimated GPM:	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)		≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3	Unknown	PVC	4:00	Circle	4	In Water:	No
						With Sediment:	No

SECTION 3C: INLET PIPE NO. 3 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.3 Flowing?	No		Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Drain Manhole

SECTION 1: BACKGROUND DATA			
ASSET ID:	DMH-538	OUTFALL ID:	
Date/Time:	2019-08-21 8:00:00		
Temperature: *F	75	Inspector(s):	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Derek Beckworth|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	NORTH AVE		
Previous Precipitation Date/End Time:	2019-08-18 22:15:00	Amount (inches):	0.37
Pictures			

SECTION 2: OUTLET PIPE ASSET DESCRIPTION

Location	DMH Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
DMH Outlet Pipe	Poor	Reinforced Concrete	Circle	48	In Water:	No
					With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	CB-7355	Reinforced Concrete	12:00	Circle	48	In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 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?	Yes	Moderate	Estimated GPM:	10

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:	2019-08-21 8:00:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	70.5		EXTECH EC500
pH	7.18		EXTECH EC500
Specific Conductivity (uS)	355		EXTECH EC500
Salinity (ppm S)	181		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0.5	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	<1	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 2	DMH-8495	PVC	3:00	Circle	8	In Water:	No
						With Sediment:	No

SECTION 3B: INLET PIPE NO. 2 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.2 Flowing?	Yes	Moderate	Estimated GPM:	10

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:	2019-08-21 8:00:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	71.4		EXTECH EC500
pH	7.47		EXTECH EC500
Specific Conductivity (uS)	718		EXTECH EC500
Salinity (ppm S)	257	≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	816.4	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3						In Water:	
						With Sediment:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description
Asset Damage		
Deposits/Stains		
Pool Quality		
Pipe Algae/Growth		
*Do physical indicators suggest an illicit discharge is present (Y/N):		
Is Inlet Pipe No.3 Flowing?		Estimated GPM:

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description
Asset Damage		
Deposits/Stains		
Pool Quality		
Pipe Algae/Growth		
*Do physical indicators suggest an illicit discharge is present (Y/N):		
Is Inlet Pipe No.4 Flowing?		Estimated GPM:

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description
Asset Damage		
Deposits/Stains		
Pool Quality		
Pipe Algae/Growth		
*Do physical indicators suggest an illicit discharge is present (Y/N):		
Is Inlet Pipe No.5 Flowing?		Estimated GPM:

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	CPI

Haverhill IDDE Inspection Form
Catch Basin

SECTION 1: BACKGROUND DATA			
ASSET ID:	CB-7355	OUTFALL ID:	
Date/Time:	2019-08-21 8:02:00		
Temperature: °F	75	Inspector(s):	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Derek Beckworth|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	GILE ST		
Previous Precipitation Date/End Time:	2019-08-18 22:15:00	Amount (inches):	0.37

Pictures

SECTION 2: OUTLET PIPE ASSET DESCRIPTION						
Location	CB Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
CB Outlet Pipe	Fair	Reinforced Concrete	Circle	36	In Water:	No
					With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION							
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	unknown	Vitrified Clay	11:00	Circle	10	In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS				
Indicator	Indicator Present?	Indicator Description		
Asset Damage	Cracking			
Deposits/Stains	Oily			
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?	Yes	Trickle	Estimated GPM:	1

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:	2019-08-28 8:07:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	68.7		EXTECH EC500
pH	6.29		EXTECH EC500
Specific Conductivity (uS)	664		EXTECH EC500
Salinity (ppm S)	45.5		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	770.1	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION							
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 2	culvert inlet	Reinforced Concrete	3:00	Circle	24	In Water:	No
						With Sediment:	No

SECTION 3B: INLET PIPE NO. 2 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.2 Flowing?	Yes	Moderate	Estimated GPM:	5

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:	2019-08-21 8:07:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	72.6		EXTECH EC500
pH	7.2		EXTECH EC500
Specific Conductivity (uS)	282		EXTECH EC500
Salinity (ppm S)	195	≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	816.4	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3						In Water:	
						With Sediment:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.3 Flowing?			Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	EC

Haverhill IDDE Inspection Form
Culvert Inlet

SECTION 1: BACKGROUND DATA			
ASSET ID:	UNKNOWN:CB-7355	OUTFALL ID:	
Date/Time:	2019-08-21 8:27:00		
Temperature: °F	69	Inspector(s):	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Derek Beckworth|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2019-08-18 22:15:00	Amount (inches):	0.37

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION					
Location	Material	Shape	Diameter/Dimension (in.)	Submerged	
Culvert Inlet 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?	Yes	Moderate	Estimated GPM:	5

SECTION 4: OUTFALL PIPE PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 5: OUTFALL PIPE SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:	2019-08-21 8:25:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	70		EXTECH EC500
pH	7.1		EXTECH EC500
Specific Conductivity (uS)	238		EXTECH EC500
Salinity (ppm S)	113		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	727	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	EC 1

Haverhill IDDE Inspection Form
Drain Manhole

SECTION 1: BACKGROUND DATA			
ASSET ID:	DMH-8495	OUTFALL ID:	
Date/Time:	2019-08-21 8:25:00		
Temperature: °F	75	Inspector(s):	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Derek Beckworth|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	NORTH AVE		
Previous Precipitation Date/End Time:	2019-08-18 22:15:00	Amount (inches):	0.37
Pictures			

SECTION 2: OUTLET PIPE ASSET DESCRIPTION

Location	DMH Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
DMH Outlet Pipe	Fair	Reinforced Concrete	Circle	24	In Water:	No
					With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	CB-804	Corrugated Metal	9:00	Circle	8	In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 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:	

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 2	DMH-8494	Reinforced Concrete	12:00	Circle	24	In Water:	No
						With Sediment:	No

SECTION 3B: INLET PIPE NO. 2 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.2 Flowing?	Yes	Moderate	Estimated GPM:	10

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:	2019-08-21 8:40:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	71		EXTECH EC500
pH	7.47		EXTECH EC500
Specific Conductivity (uS)	436		EXTECH EC500
Salinity (ppm S)	303	≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	980.4	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3	CB-805	Vitrified Clay	9:00	Circle	8	In Water:	No
						With Sediment:	No

SECTION 3C: INLET PIPE NO. 3 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.3 Flowing?	No		Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	CP

Haverhill IDDE Inspection Form
Drain Manhole

SECTION 1: BACKGROUND DATA

ASSET ID:	DMH-8494	**OUTFALL ID:**	
Date/Time:	2019-08-21 8:41:00		
Temperature: °F	75	**Inspector(s):**	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Derek Beckworth|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	NORTH AVE		
Previous Precipitation Date/End Time:	2019-08-18 22:15:00	**Amount (inches):**	0.37

Pictures

SECTION 2: OUTLET PIPE ASSET DESCRIPTION

Location	DMH Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
DMH Outlet Pipe	Fair	Reinforced Concrete	Circle	24	In Water:	No
					With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	CB-802	Corrugated Metal	9:00	Circle	8	In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 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:	

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 2	DMH-1288	Reinforced Concrete	12:00	Circle	24	In Water:	No
						With Sediment:	No

SECTION 3B: INLET PIPE NO. 2 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.2 Flowing?	Yes	Moderate	Estimated GPM:	10

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:	2019-08-21 8:40:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	71.6		EXTECH EC500
pH	7.51		EXTECH EC500
Specific Conductivity (uS)	498		EXTECH EC500
Salinity (ppm S)	233	≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	1	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	686.7	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3	CB-803	Vitrified Clay	3:00	Circle	8	In Water:	No
						With Sediment:	No

SECTION 3C: INLET PIPE NO. 3 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.3 Flowing?	No		Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Drain Manhole

SECTION 1: BACKGROUND DATA

ASSET ID:	DMH-1288	**OUTFALL ID:**	
Date/Time:	2019-08-21 8:53:00		
Temperature: °F	75	**Inspector(s):**	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Derek Beckworth|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	NORTH AVE		
Previous Precipitation Date/End Time:	2019-08-18 22:15:00	**Amount (inches):**	0.37

Pictures

SECTION 2: OUTLET PIPE ASSET DESCRIPTION

Location	DMH Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
DMH Outlet Pipe	Fair	Vitrified Clay	Circle	24	In Water:	No
					With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	CB-799	Vitrified Clay	9:00	Circle	8	In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	Cracking			
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:	

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 2	DMH-9495	Vitrified Clay	11:00	Circle	18	In Water:	No
						With Sediment:	No

SECTION 3B: INLET PIPE NO. 2 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.2 Flowing?	Yes	Moderate	Estimated GPM:	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:	2019-08-21 8:58:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	73.9		EXTECH EC500
pH	7.38		EXTECH EC500
Specific Conductivity (uS)	515		EXTECH EC500
Salinity (ppm S)	252	≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	1299.7	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3	DMH-581	Vitrified Clay	12:00	Circle	24	In Water:	No
						With Sediment:	No

SECTION 3C: INLET PIPE NO. 3 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.3 Flowing?	Yes	Trickle	Estimated GPM:	1

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:	2019-08-21 8:59:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	72.5		EXTECH EC500
pH	7.61		EXTECH EC500
Specific Conductivity (uS)	333		EXTECH EC500
Salinity (ppm S)	151		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	686.7	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Drain Manhole

SECTION 1: BACKGROUND DATA

ASSET ID:	DMH-581	**OUTFALL ID:**	
Date/Time:	2019-08-21 8:54:00		
Temperature: °F	75	**Inspector(s):**	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Derek Beckworth|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	NORTH AVE		
Previous Precipitation Date/End Time:	2019-08-18 22:15:00	**Amount (inches):**	0.37

Pictures

SECTION 2: OUTLET PIPE ASSET DESCRIPTION

Location	DMH Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
DMH Outlet Pipe	Fair	Reinforced Concrete	Circle	24	In Water:	No
					With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	CB-808	Ductile Iron	9:00	Circle	8	In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	Cracking			
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:	

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 2	DMH-8493	Vitrified Clay	12:00	Circle	8	In Water:	No
						With Sediment:	No

SECTION 3B: INLET PIPE NO. 2 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.2 Flowing?	No		Estimated GPM:	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)		≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3	CB-801	Reinforced Concrete	3:00	Circle	8	In Water:	No
						With Sediment:	No

SECTION 3C: INLET PIPE NO. 3 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.3 Flowing?	Yes	Trickle	Estimated GPM:	1

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:	2019-08-21 8:55:08		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	73.7		EXTECH EC500
pH	7.58		EXTECH EC500
Specific Conductivity (uS)	338		EXTECH EC500
Salinity (ppm S)	165		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	1203.3	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	CP

Haverhill IDDE Inspection Form
Catch Basin

SECTION 1: BACKGROUND DATA			
ASSET ID:	CB-801	OUTFALL ID:	
Date/Time:	2019-08-21 9:08:00		
Temperature: °F	75	Inspector(s):	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Derek Beckworth|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	NORTH AVE		
Previous Precipitation Date/End Time:	2019-08-18 22:15:00	Amount (inches):	0.37
Pictures			

SECTION 2: OUTLET PIPE ASSET DESCRIPTION						
Location	CB Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
CB Outlet Pipe	Fair	PVC	Circle	6	In Water:	No
					With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION							
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	unknown	PVC	9:00	Circle	8	In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 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?	Yes	Moderate	Estimated GPM:	5

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:	2019-08-21 9:10:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	73		EXTECH EC500
pH	7.6		EXTECH EC500
Specific Conductivity (uS)	376		EXTECH EC500
Salinity (ppm S)	168		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	>2400	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION						
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged
Inlet Pipe No. 2						In Water:
						With Sediment:

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS				
Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.2 Flowing?			Estimated GPM:	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)		≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3						In Water:	
						With Sediment:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.3 Flowing?			Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	EC

Haverhill IDDE Inspection Form
Drain Manhole

SECTION 1: BACKGROUND DATA			
ASSET ID:	DMH-9495	OUTFALL ID:	
Date/Time:	2019-08-21 9:13:00		
Temperature: °F	75	Inspector(s):	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Derek Beckworth|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	CONCORD ST		
Previous Precipitation Date/End Time:	2019-08-18 22:15:00	Amount (inches):	0.37
Pictures			

SECTION 2: OUTLET PIPE ASSET DESCRIPTION						
Location	DMH Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
DMH Outlet Pipe	Good	Reinforced Concrete	Circle	18	In Water:	No
					With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION							
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	CB-3729	Reinforced Concrete	9:00	Circle	15	In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 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:	

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION							
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 2	DMH-8491	Reinforced Concrete	12:00	Circle	18	In Water:	No
						With Sediment:	No

SECTION 3B: INLET PIPE NO. 2 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.2 Flowing?	Yes	Moderate	Estimated GPM:	5

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:	2019-08-21 9:10:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	71.6		EXTECH EC500
pH	7.63		EXTECH EC500
Specific Conductivity (uS)	333		EXTECH EC500
Salinity (ppm S)	160	≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	547.5	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3	CB-7361	Reinforced Concrete	3:00	Circle	15	In Water:	No
						With Sediment:	No

SECTION 3C: INLET PIPE NO. 3 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.3 Flowing?	No		Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	CP

Haverhill IDDE Inspection Form
Drain Manhole

SECTION 1: BACKGROUND DATA					
ASSET ID:	DMH-8491			OUTFALL ID:	
Date/Time:	2019-08-21 9:26:00				
Temperature: °F	75			Inspector(s):	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Derek Beckworth|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	CONCORD ST				
Previous Precipitation Date/End Time:	2019-08-18 22:15:00		Amount (inches):	0.37	
Pictures					

SECTION 2: OUTLET PIPE ASSET DESCRIPTION						
Location	DMH Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
DMH Outlet Pipe	Fair	Vitrified Clay	Circle	15	In Water:	No
					With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION							
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	CB-3731	Other pipe, brick shelf from	9:00	Square	18	In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 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:	

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION							
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 2	DMH-9251	PVC	12:00	Circle	15	In Water:	No
						With Sediment:	No

SECTION 3B: INLET PIPE NO. 2 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.2 Flowing?	Yes	Moderate	Estimated GPM:	5

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:	2019-08-21 9:30:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	69.4		EXTECH EC500
pH	7.48		EXTECH EC500
Specific Conductivity (uS)	530		EXTECH EC500
Salinity (ppm S)	266	≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	517.2	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3	DMH-8490	Reinforced Concrete	2:00	Circle	12	In Water:	No
						With Sediment:	No

SECTION 3C: INLET PIPE NO. 3 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.3 Flowing?	No		Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	EL

Haverhill IDDE Inspection Form
Drain Manhole

SECTION 1: BACKGROUND DATA			
ASSET ID:	DMH-9251	OUTFALL ID:	
Date/Time:	2019-08-21 9:33:00		
Temperature: °F	75	Inspector(s):	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Derek Beckworth|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	CONCORD ST		
Previous Precipitation Date/End Time:	2019-08-18 22:15:00	Amount (inches):	0.37
Pictures			

SECTION 2: OUTLET PIPE ASSET DESCRIPTION

Location	DMH Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
DMH Outlet Pipe	Fair	Reinforced Concrete	Circle	18	In Water:	No
					With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	CB-3668	Reinforced Concrete	9:00	Circle	18	In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 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:	

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 2	CB-7393	Vitrified Clay	12:00	Circle	18	In Water:	No
						With Sediment:	No

SECTION 3B: INLET PIPE NO. 2 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.2 Flowing?	No		Estimated GPM:	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)		≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3	DMH-1166	Vitrified Clay	3:00	Circle	18	In Water:	No
						With Sediment:	No

SECTION 3C: INLET PIPE NO. 3 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.3 Flowing?	Yes	Moderate	Estimated GPM:	10

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:	2019-08-21 9:35:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	69.4		EXTECH EC500
pH	8.65		EXTECH EC500
Specific Conductivity (uS)	684		EXTECH EC500
Salinity (ppm S)	316		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	547.5	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

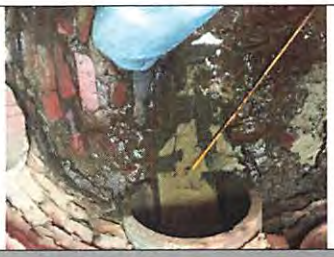
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Drain Manhole

SECTION 1: BACKGROUND DATA					
ASSET ID:	DMH-1166			OUTFALL ID:	
Date/Time:	2019-08-21 9:37:00				
Temperature: °F	74			Inspector(s):	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Derek Beckworth|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	CONCORD ST				
Previous Precipitation Date/End Time:	2019-08-18 22:15:00		Amount (inches):	0.37	
Pictures					

SECTION 2: OUTLET PIPE ASSET DESCRIPTION						
Location	DMH Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
DMH Outlet Pipe	Fair	Vitrified Clay	Circle	15	In Water:	No
					With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION							
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	DMH-1165	Vitrified Clay	9:00	Circle	15	In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 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?	Yes	Moderate	Estimated GPM:	5

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:	2019-08-21 9:48:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	68.9		EXTECH EC500
pH	7.35		EXTECH EC500
Specific Conductivity (uS)	702		EXTECH EC500
Salinity (ppm S)	322		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	579.4	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION							
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 2	CB-3637	Vitrified Clay	12:00	Circle	8	In Water:	No
						With Sediment:	No

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS				
Indicator	Indicator Present?	Indicator Description		
Asset Damage	Cracking			
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.2 Flowing?	No		Estimated GPM:	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)		≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3	CB-3636	Vitrified Clay	2:00	Circle	8	In Water:	No
						With Sediment:	No

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	Cracking			
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.3 Flowing?	No		Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	EC

Haverhill IDDE Inspection Form
Drain Manhole

SECTION 1: BACKGROUND DATA			
ASSET ID:	DMH-1165	OUTFALL ID:	
Date/Time:	2019-08-21 9:40:00		
Temperature: °F	74	Inspector(s):	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Derek Beckworth|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	CONCORD ST		
Previous Precipitation Date/End Time:	2019-08-18 22:15:00	Amount (inches):	0.37
Pictures			

SECTION 2: OUTLET PIPE ASSET DESCRIPTION					
Location	DMH Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged
DMH Outlet Pipe					In Water:
					With Sediment:

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION						
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged
Inlet Pipe No. 1						In Water:
						With Sediment:

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS			
Indicator	Indicator Present?	Indicator Description	
Asset Damage			
Deposits/Stains			
Pool Quality			
Pipe Algae/Growth			
*Do physical indicators suggest an illicit discharge is present (Y/N):			
Is Inlet Pipe No.1 Flowing?		Estimated GPM:	

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION						
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged
Inlet Pipe No. 2						In Water:
						With Sediment:

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS			
Indicator	Indicator Present?	Indicator Description	
Asset Damage			
Deposits/Stains			
Pool Quality			
Pipe Algae/Growth			
*Do physical indicators suggest an illicit discharge is present (Y/N):			
Is Inlet Pipe No.2 Flowing?		Estimated GPM:	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)		≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3						In Water:	
						With Sediment:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description
Asset Damage		
Deposits/Stains		
Pool Quality		
Pipe Algae/Growth		
*Do physical indicators suggest an illicit discharge is present (Y/N):		
Is Inlet Pipe No.3 Flowing?		Estimated GPM:

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description
Asset Damage		
Deposits/Stains		
Pool Quality		
Pipe Algae/Growth		
*Do physical indicators suggest an illicit discharge is present (Y/N):		
Is Inlet Pipe No.4 Flowing?		Estimated GPM:

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description
Asset Damage		
Deposits/Stains		
Pool Quality		
Pipe Algae/Growth		
*Do physical indicators suggest an illicit discharge is present (Y/N):		
Is Inlet Pipe No.5 Flowing?		Estimated GPM:

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	buried
Signature of Inspector :	

Haverhill IDDE Inspection Form
Catch Basin

SECTION 1: BACKGROUND DATA					
ASSET ID:	CB-3633			OUTFALL ID:	
Date/Time:	2019-08-21 9:49:00				
Temperature: °F	74			Inspector(s):	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Derek Beckworth|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	CONCORD ST				
Previous Precipitation Date/End Time:	2019-08-18 22:15:00		Amount (inches):	0.37	
Pictures					

SECTION 2: OUTLET PIPE ASSET DESCRIPTION						
Location	CB Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
CB Outlet Pipe	Fair	Reinforced Concrete	Circle	18	In Water:	Partially
					With Sediment:	Partially

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION							
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	CB-1863	Reinforced Concrete	2:00	Circle	18	In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 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?	Yes	Moderate	Estimated GPM:	10

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:	2019-08-21 9:50:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	69.2		EXTECH EC500
pH	7.1		EXTECH EC500
Specific Conductivity (uS)	720		EXTECH EC500
Salinity (ppm S)	365		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	>2400	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION							
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 2						In Water:	
						With Sediment:	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS				
Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.2 Flowing?			Estimated GPM:	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)		≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3						In Water:	
						With Sediment:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.3 Flowing?			Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description	
Asset Damage			
Deposits/Stains			
Pool Quality			
Pipe Algae/Growth			
*Do physical indicators suggest an illicit discharge is present (Y/N):			
Is Inlet Pipe No.6 Flowing?		Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity			
Floatables (Does Not Include Trash)			

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	LP

Haverhill IDDE Inspection Form
Catch Basin

SECTION 1: BACKGROUND DATA			
ASSET ID:	CB-1863	OUTFALL ID:	
Date/Time:	2019-08-21 9:54:00		
Temperature: *F	74	Inspector(s):	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Derek Beckworth|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	FAIRMOUNT AVE		
Previous Precipitation Date/End Time:	2019-08-18 22:15:00	Amount (inches):	0.37

Pictures

SECTION 2: OUTLET PIPE ASSET DESCRIPTION					
Location	CB Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged
CB Outlet Pipe	Fair	Reinforced Concrete	Circle	15	In Water: No With Sediment: No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION						
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged
Inlet Pipe No. 1	CB-1868	Reinforced Concrete	9:00	Circle	15	In Water: No With Sediment: No

SECTION 3A: INLET PIPE NO. 1 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?	Yes	Moderate	Estimated GPM:	5

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:	2019-08-21 9:59:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	67.2		EXTECH EC500
pH	6.85		EXTECH EC500
Specific Conductivity (uS)	759		EXTECH EC500
Salinity (ppm S)	362		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0.5	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	>2400	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION						
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged
Inlet Pipe No. 2						In Water: With Sediment:

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS				
Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.2 Flowing?			Estimated GPM:	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)		≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3						In Water:	
						With Sediment:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description	
Asset Damage			
Deposits/Stains			
Pool Quality			
Pipe Algae/Growth			
*Do physical indicators suggest an illicit discharge is present (Y/N):			
Is Inlet Pipe No.3 Flowing?			Estimated GPM:

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description	
Asset Damage			
Deposits/Stains			
Pool Quality			
Pipe Algae/Growth			
*Do physical indicators suggest an illicit discharge is present (Y/N):			
Is Inlet Pipe No.4 Flowing?			Estimated GPM:

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description	
Asset Damage			
Deposits/Stains			
Pool Quality			
Pipe Algae/Growth			
*Do physical indicators suggest an illicit discharge is present (Y/N):			
Is Inlet Pipe No.5 Flowing?			Estimated GPM:

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	EC

Haverhill IDDE Inspection Form
Catch Basin

SECTION 1: BACKGROUND DATA			
ASSET ID:	CB-1868	**OUTFALL ID:**	
Date/Time:	2019-08-21 10:03:00		
Temperature: °F	74	**Inspector(s):**	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Derek Beckworth|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2019-08-18 22:15:00	**Amount (inches):**	0.37
Pictures			

SECTION 2: OUTLET PIPE ASSET DESCRIPTION					
Location	**CB Interior Condition**	**Material**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**
CB Outlet Pipe	Fair	Reinforced Concrete	Circle	18	In Water: No With Sediment: No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Clock Postion (Outlet Pipe at 6:00)**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**
Inlet Pipe No. 1	CB-1869	Reinforced Concrete	11:00	Circle	18	In Water: No With Sediment: No

SECTION 3A: INLET PIPE NO. 1 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?	Yes	Moderate	**Estimated GPM:**	10

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	**Indicator Present (Yes/No)**	**Description**	**Severity**
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:	2019-08-21 10:10:00		
Parameter	**Result**	**Typical EPA Benchmarks**	**Equipment**
Temperature (degrees F)	71.9		EXTECH EC500
pH	7.04		EXTECH EC500
Specific Conductivity (uS)	750		EXTECH EC500
Salinity (ppm S)	369		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	0.06	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	>2400	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION						
Location	**Upstream Asset ID**	**Material**	**Clock Postion (Outlet Pipe at 6:00)**	**Shape**	**Diameter/Dimension (in.)**	**Submerged**
Inlet Pipe No. 2	unknown	PVC	5:00	Circle	4	In Water: No With Sediment: No

SECTION 3B: INLET PIPE NO. 2 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.2 Flowing?	No		**Estimated GPM:**	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	**Indicator Present (Yes/No)**	**Description**	**Severity**
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:			
Parameter	**Result**	**Typical EPA Benchmarks**	**Equipment**
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)		≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3						In Water:	
						With Sediment:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.3 Flowing?			Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

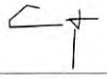
Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Catch Basin

SECTION 1: BACKGROUND DATA

ASSET ID:	CB-1869	**OUTFALL ID:**	
Date/Time:	2019-08-21 10:24:00		
Temperature: °F	74	**Inspector(s):**	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Derek Beckworth|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2019-08-18 22:15:00	**Amount (inches):**	0.37

Pictures

SECTION 2: OUTLET PIPE ASSET DESCRIPTION

Location	CB Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
CB Outlet Pipe	Poor	Reinforced Concrete	Circle	18	In Water:	No
					With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	CB-1870	Reinforced Concrete	2:00	Circle	18	In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 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?	Yes	Moderate	Estimated GPM:	10

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:	2019-08-21 10:24:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	71.6		EXTECH EC500
pH	6.96		EXTECH EC500
Specific Conductivity (uS)	782		EXTECH EC500
Salinity (ppm S)	363		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	1203.3	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 2						In Water:	
						With Sediment:	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.2 Flowing?			Estimated GPM:	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)		≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3						In Water:	
						With Sediment:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.3 Flowing?			Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	CP

Haverhill IDDE Inspection Form
Catch Basin

SECTION 1: BACKGROUND DATA			
ASSET ID:	CB-1870	OUTFALL ID:	
Date/Time:	2019-08-21 10:46:00		
Temperature: °F	74	Inspector(s):	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Derek Beckworth|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2019-08-18 22:15:00	Amount (inches):	0.37
Pictures			

SECTION 2: OUTLET PIPE ASSET DESCRIPTION						
Location	CB Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
CB Outlet Pipe	Good	Reinforced Concrete	Circle	18	In Water:	Fully
					With Sediment:	Fully

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION							
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	CB-1864	Reinforced Concrete	12:00	Circle	12	In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 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?	Yes	Moderate	Estimated GPM:	5

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:	2019-08-21 10:40:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	82.9		EXTECH EC500
pH	7.4		EXTECH EC500
Specific Conductivity (uS)	1190		EXTECH EC500
Salinity (ppm S)	549		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	93.3	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION						
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged
Inlet Pipe No. 2						In Water:
						With Sediment:

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS				
Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.2 Flowing?			Estimated GPM:	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)		≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3						In Water:	
						With Sediment:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.3 Flowing?			Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description	
Asset Damage			
Deposits/Stains			
Pool Quality			
Pipe Algae/Growth			
*Do physical indicators suggest an illicit discharge is present (Y/N):			
Is Inlet Pipe No.6 Flowing?		Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Catch Basin

SECTION 1: BACKGROUND DATA			
ASSET ID:	CB-1864	OUTFALL ID:	
Date/Time:	2019-08-21 10:55:00		
Temperature: °F	74	Inspector(s):	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Derek Beckworth|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2019-08-18 22:15:00	Amount (inches):	0.37
Pictures			

SECTION 2: OUTLET PIPE ASSET DESCRIPTION						
Location	CB Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
CB Outlet Pipe	Fair	Reinforced Concrete	Circle	18	In Water:	No
					With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION							
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	CB-9512	Vitrified Clay	8:00	Circle	8	In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 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:	

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION							
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 2	CB-1865	Reinforced Concrete	12:00	Circle	18	In Water:	No
						With Sediment:	No

SECTION 3B: INLET PIPE NO. 2 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.2 Flowing?	Yes	Moderate	Estimated GPM:	5

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:	2019-08-18 11:00:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	79.4		EXTECH EC500
pH	7		EXTECH EC500
Specific Conductivity (uS)	577		EXTECH EC500
Salinity (ppm S)	274	≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	143.9	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3						In Water:	
						With Sediment:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.3 Flowing?			Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description	
Asset Damage			
Deposits/Stains			
Pool Quality			
Pipe Algae/Growth			
*Do physical indicators suggest an illicit discharge is present (Y/N):			
Is Inlet Pipe No.6 Flowing?		Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity			
Floatables (Does Not Include Trash)			

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Catch Basin

SECTION 1: BACKGROUND DATA			
ASSET ID:	CB-1865	OUTFALL ID:	
Date/Time:	2019-08-21 11:03:00		
Temperature: °F	74	Inspector(s):	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Derek Beckworth|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2019-08-18 22:15:00	Amount (inches):	0.37
Pictures			

SECTION 2: OUTLET PIPE ASSET DESCRIPTION					
Location	CB Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged
CB Outlet Pipe	Poor	Reinforced Concrete	Circle	18	In Water: No With Sediment: No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION						
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged
Inlet Pipe No. 1	CB-9518	Reinforced Concrete	9:00	Circle	18	In Water: No With Sediment: No

SECTION 3A: INLET PIPE NO. 1 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?	Yes	Moderate	Estimated GPM:	10

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:	2019-08-21 11:05:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	77.3		EXTECH EC500
pH	7.77		EXTECH EC500
Specific Conductivity (uS)	257		EXTECH EC500
Salinity (ppm S)	119		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	6.3	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION						
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged
Inlet Pipe No. 2	CB-1867	Reinforced Concrete	12:00	Circle	18	In Water: No With Sediment: No

SECTION 3B: INLET PIPE NO. 2 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.2 Flowing?	Yes	Moderate	Estimated GPM:	10

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:	2019-08-21 11:05:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	77.1		EXTECH EC500
pH	6.7		EXTECH EC500
Specific Conductivity (uS)	664		EXTECH EC500
Salinity (ppm S)	330	≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	53.8	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3						In Water:	
						With Sediment:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.3 Flowing?			Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/l	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Catch Basin

SECTION 1: BACKGROUND DATA

ASSET ID:	CB-9518	**OUTFALL ID:**	PL1222
Date/Time:	2019-08-21 11:05:00		
Temperature: °F	74	**Inspector(s):**	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Derek Beckworth|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2019-08-18 22:15:00	**Amount (inches):**	0.37

Pictures

SECTION 2: OUTLET PIPE ASSET DESCRIPTION

Location	CB Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
CB Outlet Pipe	Good	Other Concrete Block	Circle	18	In Water:	No
					With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	unknown	Vitrified Clay	9:00	Circle	4	In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description	
Asset Damage	Chipping		
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:	

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 2	CB-1866	Vitrified Clay	12:00	Circle	10	In Water:	No
						With Sediment:	No

SECTION 3B: INLET PIPE NO. 2 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.2 Flowing?	No	Estimated GPM:	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)		≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3	unknown	Vitrified Clay	1:00	Circle	10	In Water:	No
						With Sediment:	No

SECTION 3C: INLET PIPE NO. 3 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.3 Flowing?	No		Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description	
Asset Damage			
Deposits/Stains			
Pool Quality			
Pipe Algae/Growth			
*Do physical indicators suggest an illicit discharge is present (Y/N):			
Is Inlet Pipe No.6 Flowing?			Estimated GPM:

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Catch Basin

SECTION 1: BACKGROUND DATA

ASSET ID:	CB-1867	**OUTFALL ID:**	
Date/Time:	2019-08-21 11:19:00		
Temperature: °F	74	**Inspector(s):**	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Pedro Rosario|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2019-08-18 22:15:00	**Amount (inches):**	0.37

Pictures

SECTION 2: OUTLET PIPE ASSET DESCRIPTION

Location	CB Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
CB Outlet Pipe	Fair	Reinforced Concrete	Circle	18	In Water:	No
					With Sediment:	Partially

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	CB-9517	Vitrified Clay	9:00	Circle	8	In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 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:	

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 2						In Water:	
						With Sediment:	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.2 Flowing?			Estimated GPM:	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)		≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3						In Water:	
						With Sediment:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.3 Flowing?			Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA

ASSET ID:	MR0982	**OUTFALL ID:**	MR0982
Date/Time:	2019-07-30 7:55:00		
Temperature: °F	75	**Inspector(s):**	Carrie Prescott|Andres Hurtado|Zebulan Day|Pedro Rosario|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2019-07-23 10:45:00	**Amount (inches):**	1.2

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe	DMH-Back Ln	Vitrified Clay	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?	Yes	Substantial	Estimated GPM:	10

SECTION 4: OUTFALL PIPE PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 5: OUTFALL PIPE SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:	2019-07-30 7:58:00		
Parameter	**Result**	**Typical EPA Benchmarks**	**Equipment**
Temperature (degrees F)	75.5		EXTECH EC500
pH	7.6		EXTECH EC500
Specific Conductivity (uS)	200		EXTECH EC500
Salinity (ppm S)	117		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)	78	> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	CP

Haverhill IDDE Inspection Form
Drain Manhole

SECTION 1: BACKGROUND DATA

ASSET ID:	DMH-9143	**OUTFALL ID:**	MR0982
Date/Time:	2019-07-30 8:04:00		
Temperature: °F	75	**Inspector(s):**	Carrie Prescott|Andres Hurtado|Zebulan Day|Pedro Rosario|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	RIVER RD		
Previous Precipitation Date/End Time:	2019-07-23 10:45:00	**Amount (inches):**	1.2

Pictures

SECTION 2: OUTLET PIPE ASSET DESCRIPTION

Location	DMH Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
DMH Outlet Pipe	Excellent	Vitrified Clay	Circle	24	In Water:	No
					With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	CB-8732	Reinforced Concrete	9:00	Circle	12	In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 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:	

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 2	DMH-back 1n	Reinforced Concrete	12:00	Circle	24	In Water:	No
						With Sediment:	No

SECTION 3B: INLET PIPE NO. 2 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.2 Flowing?	Yes	Substantial	Estimated GPM:	10

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:	2019-07-30 8:00:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	70.8		EXTECH EC500
pH	7.1		EXTECH EC500
Specific Conductivity (uS)	275		EXTECH EC500
Salinity (ppm S)	133	≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)	111.9	> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3	DMH-9144	Reinforced Concrete	3:00	Circle	12	In Water:	No
						With Sediment:	No

SECTION 3C: INLET PIPE NO. 3 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.3 Flowing?	No		Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Drain Manhole

SECTION 1: BACKGROUND DATA					
ASSET ID:				OUTFALL ID:	MR0982
Date/Time:	2019-07-30 8:08:00				
Temperature: °F	74			Inspector(s):	Carrie Prescott|Andres Hurtado|Zebulan Day|Pedro Rosario|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	Back Ln				
Previous Precipitation Date/End Time:	2019-07-23 10:45:00		Amount (inches):	1.2	
Pictures					

SECTION 2: OUTLET PIPE ASSET DESCRIPTION						
Location	DMH Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
DMH Outlet Pipe	Good	Reinforced Concrete	Circle	36	In Water:	Partially
					With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION							
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	DMH-893	Reinforced Concrete	9:00	Circle	12	In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 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?	Yes	Moderate	Estimated GPM:	3

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:	2019-07-30 8:02:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	68.7		EXTECH EC500
pH	7.09		EXTECH EC500
Specific Conductivity (uS)	252		EXTECH EC500
Salinity (ppm S)	105		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)	85.7	> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION							
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 2	DMH-9145	Reinforced Concrete	12:00	Circle	16	In Water:	No
						With Sediment:	No

SECTION 3B: INLET PIPE NO. 2 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.2 Flowing?	No		Estimated GPM:	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)		≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3						In Water:	
						With Sediment:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.3 Flowing?			Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	EM

Haverhill IDDE Inspection Form
Drain Manhole

SECTION 1: BACKGROUND DATA					
ASSET ID:	DMH-893			OUTFALL ID:	MR0982
Date/Time:	2019-07-30 8:10:00				
Temperature: °F	75			Inspector(s):	Carrie Prescott|Andres Hurtado|Zebulan Day|Pedro Rosario|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	RIVER RD				
Previous Precipitation Date/End Time:	2019-07-23 10:45:00		Amount (inches):	1.2	
Pictures					

SECTION 2: OUTLET PIPE ASSET DESCRIPTION						
Location	DMH Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
DMH Outlet Pipe					In Water:	
					With Sediment:	

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION							
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1						In Water:	
						With Sediment:	

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS			
Indicator	Indicator Present?	Indicator Description	
Asset Damage			
Deposits/Stains			
Pool Quality			
Pipe Algae/Growth			
*Do physical indicators suggest an illicit discharge is present (Y/N):			
Is Inlet Pipe No.1 Flowing?			Estimated GPM:

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION						
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged
Inlet Pipe No. 2						In Water:
						With Sediment:

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS			
Indicator	Indicator Present?	Indicator Description	
Asset Damage			
Deposits/Stains			
Pool Quality			
Pipe Algae/Growth			
*Do physical indicators suggest an illicit discharge is present (Y/N):			
Is Inlet Pipe No.2 Flowing?			Estimated GPM:

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)		≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3						In Water:	
						With Sediment:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.3 Flowing?			Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	Buried manhole or does not exist
Signature of Inspector :	

Haverhill IDDE Inspection Form
Catch Basin

SECTION 1: BACKGROUND DATA

ASSET ID:	CB-1241	**OUTFALL ID:**	MR0982
Date/Time:	2019-07-30 8:13:00		
Temperature: °F	75	**Inspector(s):**	Carrie Prescott|Andres Hurtado|Zebulan Day|Pedro Rosario|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	RIVER RD		
Previous Precipitation Date/End Time:	2019-07-23 10:45:00	**Amount (inches):**	1.2

Pictures

SECTION 2: OUTLET PIPE ASSET DESCRIPTION

Location	CB Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
CB Outlet Pipe	Poor	Reinforced Concrete	Circle	12	In Water:	Partially
					With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	Stream	Reinforced Concrete	3:00			In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
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?	Yes	Substantial	Estimated GPM:	10

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:	2019-07-30 8:16:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	70.1		EXTECH EC500
pH	7.06		EXTECH EC500
Specific Conductivity (uS)	241		EXTECH EC500
Salinity (ppm S)	117		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)	128.1	> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 2						In Water:	
						With Sediment:	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.2 Flowing?			Estimated GPM:	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)		≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3						In Water:	
						With Sediment:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.3 Flowing?			Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	stream flowing into structure
Signature of Inspector :	CP

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA

ASSET ID:	MR0982	**OUTFALL ID:**	MR0982
Date/Time:	2019-07-09 8:07:00		
Temperature: °F	67	**Inspector(s):**	Brett Baron|Andres Hurtado
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2019-07-06 18:20:00	**Amount (inches):**	0.14

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe	DMH 9143	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?	Yes	Moderate	Estimated GPM:	10

SECTION 4: OUTFALL PIPE PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 5: OUTFALL PIPE SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:	2019-07-09 8:12:00		
Parameter	**Result**	**Typical EPA Benchmarks**	**Equipment**
Temperature (degrees F)	63		EXTECH EC500
pH	7.32		EXTECH EC500
Specific Conductivity (uS)	240		EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	0.12	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	579.4	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :

Signature of Inspector : EC

Haverhill IDDE Inspection Form
Drain Manhole

SECTION 1: BACKGROUND DATA

ASSET ID:	DMH-9143	**OUTFALL ID:**	MR0982
Date/Time:	2019-07-09 8:17:00		
Temperature: °F	67	**Inspector(s):**	Brett Baron|Andres Hurtado|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	RIVER RD		
Previous Precipitation Date/End Time:	2019-07-06 18:20:00	**Amount (inches):**	0.14

Pictures

SECTION 2: OUTLET PIPE ASSET DESCRIPTION

Location	DMH Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
DMH Outlet Pipe	Excellent	Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	Cb8732	Reinforced Concrete	9:00	Circle	12	In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 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:	

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 2	DMH back In	Reinforced Concrete	12:00	Circle	18	In Water:	No
						With Sediment:	No

SECTION 3B: INLET PIPE NO. 2 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.2 Flowing?	Yes	Moderate	Estimated GPM:	10

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:	2019-07-09 8:20:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	63		EXTECH EC500
pH	6.88		EXTECH EC500
Specific Conductivity (uS)	340		EXTECH EC500
Salinity (ppm S)		≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	488.4	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3	CB-8733	Reinforced Concrete	3:00	Circle	12	In Water:	No
						With Sediment:	No

SECTION 3C: INLET PIPE NO. 3 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.3 Flowing?	No		Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	EL

Haverhill IDDE Inspection Form
Drain Manhole

SECTION 1: BACKGROUND DATA

ASSET ID:		OUTFALL ID:	MR0982
Date/Time:	2019-07-09 8:28:00		
Temperature: °F	67	Inspector(s):	Brett Baron|Andres Hurtado|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	Back Ln		
Previous Precipitation Date/End Time:	2019-07-06 18:20:00	Amount (inches):	0.14
Pictures			

SECTION 2: OUTLET PIPE ASSET DESCRIPTION

Location	DMH Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
DMH Outlet Pipe	Good	Reinforced Concrete	Circle	18	In Water:	No
					With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	Cb1241	Reinforced Concrete	9:00	Circle	12	In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 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?	Yes	Trickle	Estimated GPM:	10

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:	2019-07-09 8:29:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	63		EXTECH EC500
pH	7.25		EXTECH EC500
Specific Conductivity (uS)	276		EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	648.8	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 2						In Water:	
						With Sediment:	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.2 Flowing?			Estimated GPM:	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)		≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3						In Water:	
						With Sediment:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.3 Flowing?			Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	EC

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3						In Water:	
						With Sediment:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.3 Flowing?			Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	EC

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA			
ASSET ID:	MR1164	OUTFALL ID:	MR1164
Date/Time:	2019-07-29 7:50:00		
Temperature: °F	75	Inspector(s):	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Derek Beckworth|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2019-07-23 10:45:00	Amount (inches):	1.2
Pictures			

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION						
Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe	DMH-9712	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):	No			
Is Inlet Pipe No.1 Flowing?	Yes	Substantial	Estimated GPM:	10

SECTION 4: OUTFALL PIPE PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 5: OUTFALL PIPE SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:	2019-07-29 7:47:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	72.3		EXTECH EC500
pH	7.74		EXTECH EC500
Specific Conductivity (uS)	1080		EXTECH EC500
Salinity (ppm S)	477		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)	2419.6	> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	EM

Haverhill IDDE Inspection Form
Drain Manhole

SECTION 1: BACKGROUND DATA

ASSET ID:	DMH-9712	**OUTFALL ID:**	MR1164
Date/Time:	2019-07-29 8:00:00		
Temperature: °F	75	**Inspector(s):**	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Derek Beckworth|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	Wall St		
Previous Precipitation Date/End Time:	2019-07-23 10:45:00	**Amount (inches):**	1.2

Pictures

SECTION 2: OUTLET PIPE ASSET DESCRIPTION

Location	DMH Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
DMH Outlet Pipe	Excellent	Reinforced Concrete	Circle	36	In Water:	No
					With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	DMH-7738	Reinforced Concrete	12:00	Circle	36	In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 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?	Yes	Substantial	Estimated GPM:	10

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:	2019-07-29 8:00:00		
Parameter	**Result**	**Typical EPA Benchmarks**	**Equipment**
Temperature (degrees F)	72.1		EXTECH EC500
pH	7.71		EXTECH EC500
Specific Conductivity (uS)	917		EXTECH EC500
Salinity (ppm S)	453		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)	1203.3	> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 2	Unknown	Reinforced Concrete	2:00	Circle	12	In Water:	No
						With Sediment:	No

SECTION 3B: INLET PIPE NO. 2 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.2 Flowing?	No		Estimated GPM:	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	**Result**	**Typical EPA Benchmarks**	**Equipment**
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)		≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3						In Water:	
						With Sediment:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.3 Flowing?			Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	LD

Haverhill IDDE Inspection Form
Drain Manhole

SECTION 1: BACKGROUND DATA					
ASSET ID:	DMH-7738			OUTFALL ID:	
Date/Time:	2019-07-29 8:01:00				
Temperature: °F	70			Inspector(s):	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Derek Beckworth|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	Cross Country				
Previous Precipitation Date/End Time:	2019-07-23 10:45:00		Amount (inches):	1.2	
Pictures					

SECTION 2: OUTLET PIPE ASSET DESCRIPTION					
Location	DMH Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged
DMH Outlet Pipe					In Water:
					With Sediment:

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION						
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged
Inlet Pipe No. 1						In Water:
						With Sediment:

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS			
Indicator	Indicator Present?	Indicator Description	
Asset Damage			
Deposits/Stains			
Pool Quality			
Pipe Algae/Growth			
*Do physical indicators suggest an illicit discharge is present (Y/N):			
Is Inlet Pipe No.1 Flowing?		Estimated GPM:	

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION						
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged
Inlet Pipe No. 2						In Water:
						With Sediment:

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS			
Indicator	Indicator Present?	Indicator Description	
Asset Damage			
Deposits/Stains			
Pool Quality			
Pipe Algae/Growth			
*Do physical indicators suggest an illicit discharge is present (Y/N):			
Is Inlet Pipe No.2 Flowing?		Estimated GPM:	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)		≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3						In Water:	
						With Sediment:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description	
Asset Damage			
Deposits/Stains			
Pool Quality			
Pipe Algae/Growth			
*Do physical indicators suggest an illicit discharge is present (Y/N):			
Is Inlet Pipe No.3 Flowing?			Estimated GPM:

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description	
Asset Damage			
Deposits/Stains			
Pool Quality			
Pipe Algae/Growth			
*Do physical indicators suggest an illicit discharge is present (Y/N):			
Is Inlet Pipe No.4 Flowing?			Estimated GPM:

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description	
Asset Damage			
Deposits/Stains			
Pool Quality			
Pipe Algae/Growth			
*Do physical indicators suggest an illicit discharge is present (Y/N):			
Is Inlet Pipe No.5 Flowing?			Estimated GPM:

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description	
Asset Damage			
Deposits/Stains			
Pool Quality			
Pipe Algae/Growth			
*Do physical indicators suggest an illicit discharge is present (Y/N):			
Is Inlet Pipe No.6 Flowing?		Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity			
Floatables (Does Not Include Trash)			

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	Buried manhole.
Signature of Inspector :	CP

Haverhill IDDE Inspection Form
Drain Manhole

SECTION 1: BACKGROUND DATA			
ASSET ID:	DMH-1157	OUTFALL ID:	
Date/Time:	2019-07-29 8:05:00		
Temperature: °F	75	Inspector(s):	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Derek Beckworth|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	WATER ST		
Previous Precipitation Date/End Time:	2019-07-23 10:45:00	Amount (inches):	1.2

Pictures

SECTION 2: OUTLET PIPE ASSET DESCRIPTION

Location	DMH Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
DMH Outlet Pipe	Good	Reinforced Concrete	Circle	36	In Water:	No
					With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	CB-7336	Reinforced Concrete	12:00	Circle	24	In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 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?	Yes	Substantial	Estimated GPM:	10

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:	2019-07-29 8:10:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	72.6		EXTECH EC500
pH	7.68		EXTECH EC500
Specific Conductivity (uS)	873		EXTECH EC500
Salinity (ppm S)	428		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)	67	> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 2	DMH-1156	Reinforced Concrete	1:00	Circle	36	In Water:	No
						With Sediment:	No

SECTION 3B: INLET PIPE NO. 2 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.2 Flowing?	Yes	Moderate	Estimated GPM:	4

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:	2019-07-29 8:25:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	74.8		EXTECH EC500
pH	6.9		EXTECH EC500
Specific Conductivity (uS)	2.75		EXTECH EC500
Salinity (ppm S)	1.42	≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0.5	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	0.07	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)	831.16	> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3						In Water:	
						With Sediment:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.3 Flowing?			Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	EM

Haverhill IDDE Inspection Form
Drain Manhole

SECTION 1: BACKGROUND DATA

ASSET ID:	DMH-1156	**OUTFALL ID:**	
Date/Time:	2019-07-29 8:11:00		
Temperature: °F	70	**Inspector(s):**	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Derek Beckworth|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	BETHANY AVE		
Previous Precipitation Date/End Time:	2019-07-23 10:45:00	**Amount (inches):**	1.2

Pictures

SECTION 2: OUTLET PIPE ASSET DESCRIPTION

Location	DMH Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
DMH Outlet Pipe	Good	Reinforced Concrete	Circle	36	In Water:	No
					With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	CB-3358	Reinforced Concrete	10:00	Circle	12	In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 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:	

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 2	DMH-1336	Reinforced Concrete	12:00	Circle	36	In Water:	No
						With Sediment:	No

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage	None			
Deposits/Stains	Flow Line			
Pool Quality	Colors			
Pipe Algae/Growth	Brown			
*Do physical indicators suggest an illicit discharge is present (Y/N):	Yes	Brown		
Is Inlet Pipe No.2 Flowing?	Yes	Trickle	Estimated GPM:	1

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	Yes	Brown	Noticeable from a distance
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:	2019-07-29 8:20:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	77.1		EXTECH EC500
pH	7.89		EXTECH EC500
Specific Conductivity (uS)	2900		EXTECH EC500
Salinity (ppm S)	2.7	≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)	270	> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3	CB-3357	Reinforced Concrete	6:00	Circle	12	In Water:	No
						With Sediment:	No

SECTION 3C: INLET PIPE NO. 3 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.3 Flowing?	No		Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	Pipe segment part of CSO #040
Signature of Inspector :	CP

Haverhill IDDE Inspection Form
Drain Manhole

SECTION 1: BACKGROUND DATA

ASSET ID:	DMH-1336	**OUTFALL ID:**	
Date/Time:	2019-07-29 8:36:00		
Temperature: °F	77	**Inspector(s):**	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Derek Beckworth|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	BETHANY AVE		
Previous Precipitation Date/End Time:	2019-07-23 10:45:00	**Amount (inches):**	1.2

Pictures

SECTION 2: OUTLET PIPE ASSET DESCRIPTION

Location	DMH Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
DMH Outlet Pipe	Good	Reinforced Concrete	Circle	40	In Water:	No
					With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	SMH-1337	Reinforced Concrete	12:00	Circle	36	In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 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?	Yes	Trickle	Estimated GPM:	0.4

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:	2019-07-29 8:41:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	78.2		EXTECH EC500
pH	7.45		EXTECH EC500
Specific Conductivity (uS)	2.8		EXTECH EC500
Salinity (ppm S)	1.54		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)	1112.32	> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 2	CB-3803	Reinforced Concrete	3:00	Circle	30	In Water:	No
						With Sediment:	No

SECTION 3B: INLET PIPE NO. 2 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.2 Flowing?	No		Estimated GPM:	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)		≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3						In Water:	
						With Sediment:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.3 Flowing?			Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	EM

Haverhill IDDE Inspection Form
Drain Manhole

SECTION 1: BACKGROUND DATA			
ASSET ID:	SMH-1337	OUTFALL ID:	#N/A
Date/Time:	2019-07-29 8:53:00		
Temperature: °F	80	Inspector(s):	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Derek Beckworth|Erin McGuire|Evelynn Cousey
Street Name/Structure Location:	JAMES P GINTY BLVD		
Previous Precipitation Date/End Time:	2019-07-23 10:45:00	Amount (inches):	1.2
Pictures			

SECTION 2: OUTLET PIPE ASSET DESCRIPTION					
Location	DMH Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged
DMH Outlet Pipe					In Water: / With Sediment:

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION						
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged
Inlet Pipe No. 1						In Water: / With Sediment:

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS			
Indicator	Indicator Present?	Indicator Description	
Asset Damage			
Deposits/Stains			
Pool Quality			
Pipe Algae/Growth			
*Do physical indicators suggest an illicit discharge is present (Y/N):			
Is Inlet Pipe No.1 Flowing?			Estimated GPM:

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION						
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged
Inlet Pipe No. 2						In Water: / With Sediment:

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS			
Indicator	Indicator Present?	Indicator Description	
Asset Damage			
Deposits/Stains			
Pool Quality			
Pipe Algae/Growth			
*Do physical indicators suggest an illicit discharge is present (Y/N):			
Is Inlet Pipe No.2 Flowing?			Estimated GPM:

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)		≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3						In Water:	
						With Sediment:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description
Asset Damage		
Deposits/Stains		
Pool Quality		
Pipe Algae/Growth		
*Do physical indicators suggest an illicit discharge is present (Y/N):		
Is Inlet Pipe No.3 Flowing?		Estimated GPM:

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description
Asset Damage		
Deposits/Stains		
Pool Quality		
Pipe Algae/Growth		
*Do physical indicators suggest an illicit discharge is present (Y/N):		
Is Inlet Pipe No.4 Flowing?		Estimated GPM:

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description
Asset Damage		
Deposits/Stains		
Pool Quality		
Pipe Algae/Growth		
*Do physical indicators suggest an illicit discharge is present (Y/N):		
Is Inlet Pipe No.5 Flowing?		Estimated GPM:

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	No flow over CSO #040 weir.
Signature of Inspector :	CP

Haverhill IDDE Inspection Form
Outfall

SECTION 1: BACKGROUND DATA

ASSET ID:	FB00638	**OUTFALL ID:**	FB00638
Date/Time:	2019-07-16 7:50:00		
Temperature: °F	66	**Inspector(s):**	Carrie Prescott|Samuel Marinez|Zebulan Day|Pedro Rosario|Erin McGuire
Street Name/Structure Location:	Cross Country		
Previous Precipitation Date/End Time:	2019-07-12 19:40:00	**Amount (inches):**	0.4

Pictures

SECTION 2: OUTFALL PIPE ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Shape	Diameter/Dimension (in.)	Submerged	
Outfall Pipe	DMH-4642	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?	Yes	Substantial	Estimated GPM:	10

SECTION 4: OUTFALL PIPE PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 5: OUTFALL PIPE SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:	2019-07-16 7:56:00		
Parameter	**Result**	**Typical EPA Benchmarks**	**Equipment**
Temperature (degrees F)	69		EXTECH EC500
pH	8.75		EXTECH EC500
Specific Conductivity (uS)	320		EXTECH EC500
Salinity (ppm S)	171		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	0.06	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	686.7	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :

Signature of Inspector :

Haverhill IDDE Inspection Form
Drain Manhole

SECTION 1: BACKGROUND DATA			
ASSET ID:	DMH-4642	OUTFALL ID:	FB00638
Date/Time:	2019-07-16 8:50:00		
Temperature: °F	80	Inspector(s):	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Pedro Rosario|Evelynn Cousey
Street Name/Structure Location:	HILLDALE AVE		
Previous Precipitation Date/End Time:	2019-07-12 19:40:00	Amount (inches):	0.4

Pictures

SECTION 2: OUTLET PIPE ASSET DESCRIPTION

Location	DMH Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
DMH Outlet Pipe	Excellent	Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	DMH-7096	Reinforced Concrete	8:00	Circle	12	In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 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:	

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 2	DMH-4605	Reinforced Concrete	10:00	Circle	12	In Water:	No
						With Sediment:	No

SECTION 3B: INLET PIPE NO. 2 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.2 Flowing?	Yes	Moderate	Estimated GPM:	5

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:	2019-07-16 7:50:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	67.4		EXTECH EC500
pH	7.9		EXTECH EC500
Specific Conductivity (uS)	271		EXTECH EC500
Salinity (ppm S)	176	≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	920.8	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3	CB-227	Reinforced Concrete	11:00	Circle	12	In Water:	No
						With Sediment:	No

SECTION 3C: INLET PIPE NO. 3 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.3 Flowing?	No		Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4	DMH-4605	Reinforced Concrete	3:00	Circle	12	In Water:	No
						With Sediment:	No

SECTION 3D: INLET PIPE NO. 4 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.4 Flowing?	No		Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	CB

Haverhill IDDE Inspection Form
Drain Manhole

SECTION 1: BACKGROUND DATA					
ASSET ID:	DMH-4605			OUTFALL ID:	
Date/Time:	2019-07-16 8:00:00				
Temperature: °F	80			Inspector(s):	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Pedro Rosario|Evelynn Cousey
Street Name/Structure Location:	HILLDALE AVE				
Previous Precipitation Date/End Time:	2019-07-12 19:40:00		Amount (inches):	0.4	
Pictures					

SECTION 2: OUTLET PIPE ASSET DESCRIPTION						
Location	DMH Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
DMH Outlet Pipe	Excellent	Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION							
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	DMH-7097	Reinforced Concrete	12:00	Circle	12	In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 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?	Yes	Moderate	Estimated GPM:	5

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:	2019-07-16 8:00:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	69.4		EXTECH EC500
pH	7.6		EXTECH EC500
Specific Conductivity (uS)	330		EXTECH EC500
Salinity (ppm S)	165		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	<0.05	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	1119.9	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION							
Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 2						In Water:	
						With Sediment:	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS				
Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.2 Flowing?			Estimated GPM:	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)			
Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)			
Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)		≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3						In Water:	
						With Sediment:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.3 Flowing?			Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Drain Manhole

SECTION 1: BACKGROUND DATA			
ASSET ID:	DMH-7097	OUTFALL ID:	FBO0638
Date/Time:	2019-07-16 8:10:00		
Temperature: °F	80	Inspector(s):	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Pedro Rosario|Evelynn Cousey
Street Name/Structure Location:	HILLDALE AVE		
Previous Precipitation Date/End Time:	2019-07-12 19:40:00	Amount (inches):	0.4

Pictures

SECTION 2: OUTLET PIPE ASSET DESCRIPTION

Location	DMH Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
DMH Outlet Pipe	Excellent	Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1	CB-175	Reinforced Concrete	9:00	Circle	12	In Water:	No
						With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 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?	Yes	Moderate	Estimated GPM:	5

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor	No		
Color	No		
Turbidity	-	-	Clear
Floatables (Does Not Include Trash)	No		-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:	2019-07-16 8:10:00		
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)	70.5		EXTECH EC500
pH	7.93		EXTECH EC500
Specific Conductivity (uS)	342		EXTECH EC500
Salinity (ppm S)	158		EXTECH EC500
Chlorine (ppm)	0	≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)	0	≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)	0.08	≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)	1413.6	> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 2	CB-174	Reinforced Concrete	3:00	Circle	12	In Water:	No
						With Sediment:	No

SECTION 3B: INLET PIPE NO. 2 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.2 Flowing?	No		Estimated GPM:	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)		≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3						In Water:	
						With Sediment:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.3 Flowing?			Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

Comments :	
Signature of Inspector :	

Haverhill IDDE Inspection Form
Catch Basin

SECTION 1: BACKGROUND DATA			
ASSET ID:	CB-175	OUTFALL ID:	FB00638
Date/Time:	2019-07-16 8:15:00		
Temperature: °F	80	Inspector(s):	Carrie Prescott|Andres Hurtado|Samuel Marinez|Zebulan Day|Pedro Rosario|Evelynn Cousey
Street Name/Structure Location:	HILLDALE AVE		
Previous Precipitation Date/End Time:	2019-07-14 16:00:00	Amount (inches):	0.02
Pictures			

SECTION 2: OUTLET PIPE ASSET DESCRIPTION

Location	CB Interior Condition	Material	Shape	Diameter/Dimension (in.)	Submerged	
CB Outlet Pipe	Excellent	Reinforced Concrete	Circle	12	In Water:	No
					With Sediment:	No

SECTION 3A: INLET PIPE NO. 1 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 1						In Water:	
						With Sediment:	

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.1 Flowing?			Estimated GPM:	

SECTION 3A: INLET PIPE NO. 1 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3A: INLET PIPE NO. 1 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3B: INLET PIPE NO. 2 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 2						In Water:	
						With Sediment:	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.2 Flowing?			Estimated GPM:	

SECTION 3B: INLET PIPE NO. 2 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3B: INLET PIPE NO. 2 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)		≥ Reporting Limit	EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3C: INLET PIPE NO. 3 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 3						In Water:	
						With Sediment:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.3 Flowing?			Estimated GPM:	

SECTION 3C: INLET PIPE NO. 3 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3C: INLET PIPE NO. 3 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3D: INLET PIPE NO. 4 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 4						In Water:	
						With Sediment:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.4 Flowing?			Estimated GPM:	

SECTION 3D: INLET PIPE NO. 4 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3D: INLET PIPE NO. 4 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3E: INLET PIPE NO. 5 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 5						In Water:	
						With Sediment:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.5 Flowing?			Estimated GPM:	

SECTION 3E: INLET PIPE NO. 5 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3E: INLET PIPE NO. 5 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

SECTION 3F: INLET PIPE NO. 6 ASSET DESCRIPTION

Location	Upstream Asset ID	Material	Clock Postion (Outlet Pipe at 6:00)	Shape	Diameter/Dimension (in.)	Submerged	
Inlet Pipe No. 6						In Water:	
						With Sediment:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS

Indicator	Indicator Present?	Indicator Description		
Asset Damage				
Deposits/Stains				
Pool Quality				
Pipe Algae/Growth				
*Do physical indicators suggest an illicit discharge is present (Y/N):				
Is Inlet Pipe No.6 Flowing?			Estimated GPM:	

SECTION 3F: INLET PIPE NO. 6 PHYSICAL INDICATORS (ALL FLOWING ASSETS)

Indicator	Indicator Present (Yes/No)	Description	Severity
Odor			
Color			
Turbidity	-	-	
Floatables (Does Not Include Trash)			-

SECTION 3F: INLET PIPE NO. 6 SAMPLING/TESTING RESULTS (ALL FLOWING ASSETS)

Sample Date/Time:			
Parameter	Result	Typical EPA Benchmarks	Equipment
Temperature (degrees F)			EXTECH EC500
pH			EXTECH EC500
Specific Conductivity (uS)			EXTECH EC500
Salinity (ppm S)			EXTECH EC500
Chlorine (ppm)		≥ Reporting Limit	Hach Test Strips
Ammonia (mg/L)		≥ 0.5 mg/L	Hach Test Strips
Surfactants (mg/L)		≥ 0.25 mg/L	To be sent to Lab or CHEMets Detergents Kit K-9400
E.coli (cfu/100mL)		> 235 cfu/100mL	To be sent to lab
Enterococcus (cfu/100mL)		> 61 cfu/100mL	To be sent to lab
Phosphorus (mg/L)			To be sent to lab

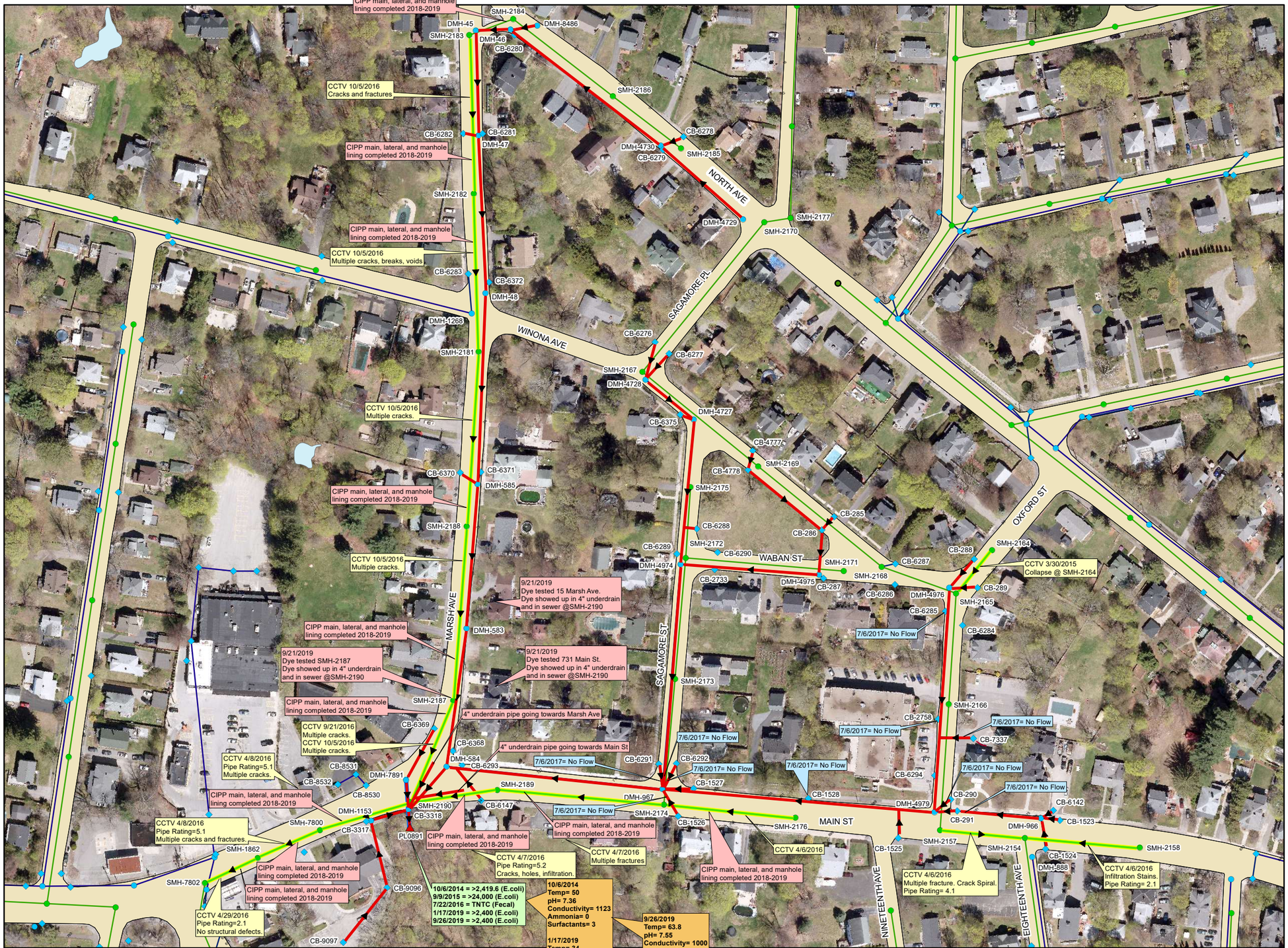
Comments :	Runoff coming from farm.
Signature of Inspector :	CR

APPENDIX C

IDDE PROGRAM SUPPORTING DOCUMENTS

Outfall PL0891

Summary of IDDE Investigations



Assets

- Culvert
- Sewer Gravity
- Sewer Force Main
- Stormwater
- Catchment Pipes
- Sewer CCTV
- Catchment CCTV
- Manhole Sampled
- Catch Basin Sampled
- Outfall Sampled

CCTV Comments

Miscellaneous Comments

Inspection Results

Bacteria Results

Other Sampling Parameter Results

- City Owned Road
- Private Owned Road
- State Owned Road

Dry weather flow samples collected in each DMH from the mainline pipe entering the DMH. Branch flow collected as noted on plans.

Each inspection result is noted with a date, flow/no flow (at time of inspection), sample parameter and concentration.

Pipes that are not highlighted in red do NOT connect to this drainage system

DMH and SMH invert elevations in NGVD 1929 Datum

N NE E SE S SW W NW

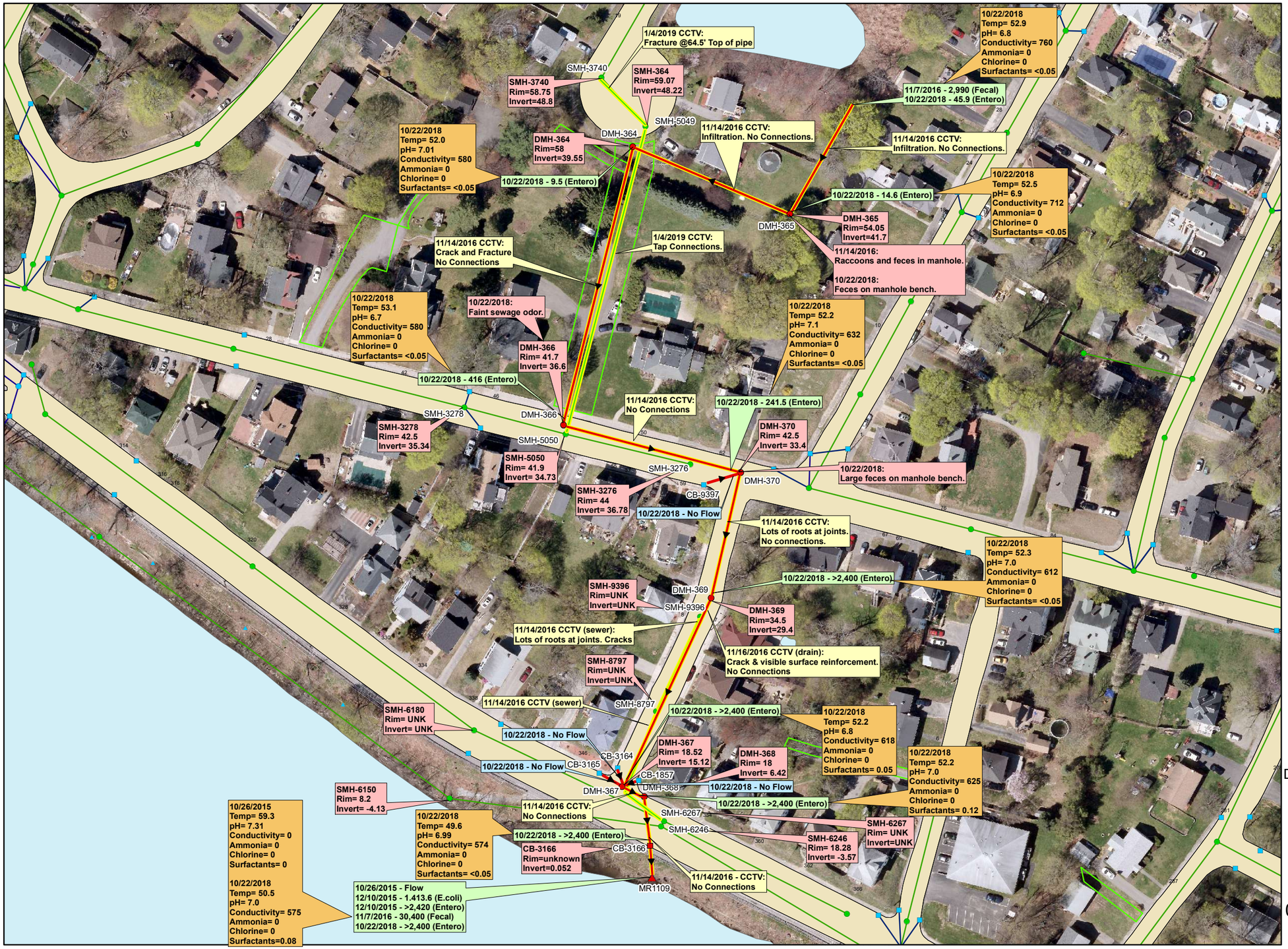
0 40 80 160 240 320 400 Feet

December 11, 2019

This map was produced from the City of Haverhill's Geographic Information System.
The City expressly disclaims any liability that may result from use of this map.

Outfall MR1109

Summary of IDDE Investigations



Assets

- Sewer
- Stormwater
- Catchment Pipes
- Sewer CCTV
- Catchment CCTV
- Manhole Sampled
- Catch Basin Sampled
- Outfall Sampled

CCTV Comments

Miscellaneous Comments

Inspection Results

Bacteria Results

Other Sampling Parameter Results

- City Owned Road
- Private Owned Road
- State Owned Road

Dry weather flow samples collected in each DMH from the mainline pipe entering the DMH. Branch flow collected as noted on plans.

Each inspection result is noted with a date, flow/no flow (at time of inspection), sample parameter and concentration.

Pipes that are not highlighted in red do NOT connect to this drainage system

DMH and SMH invert elevations in NGVD 1929 Datum

N

W E

S

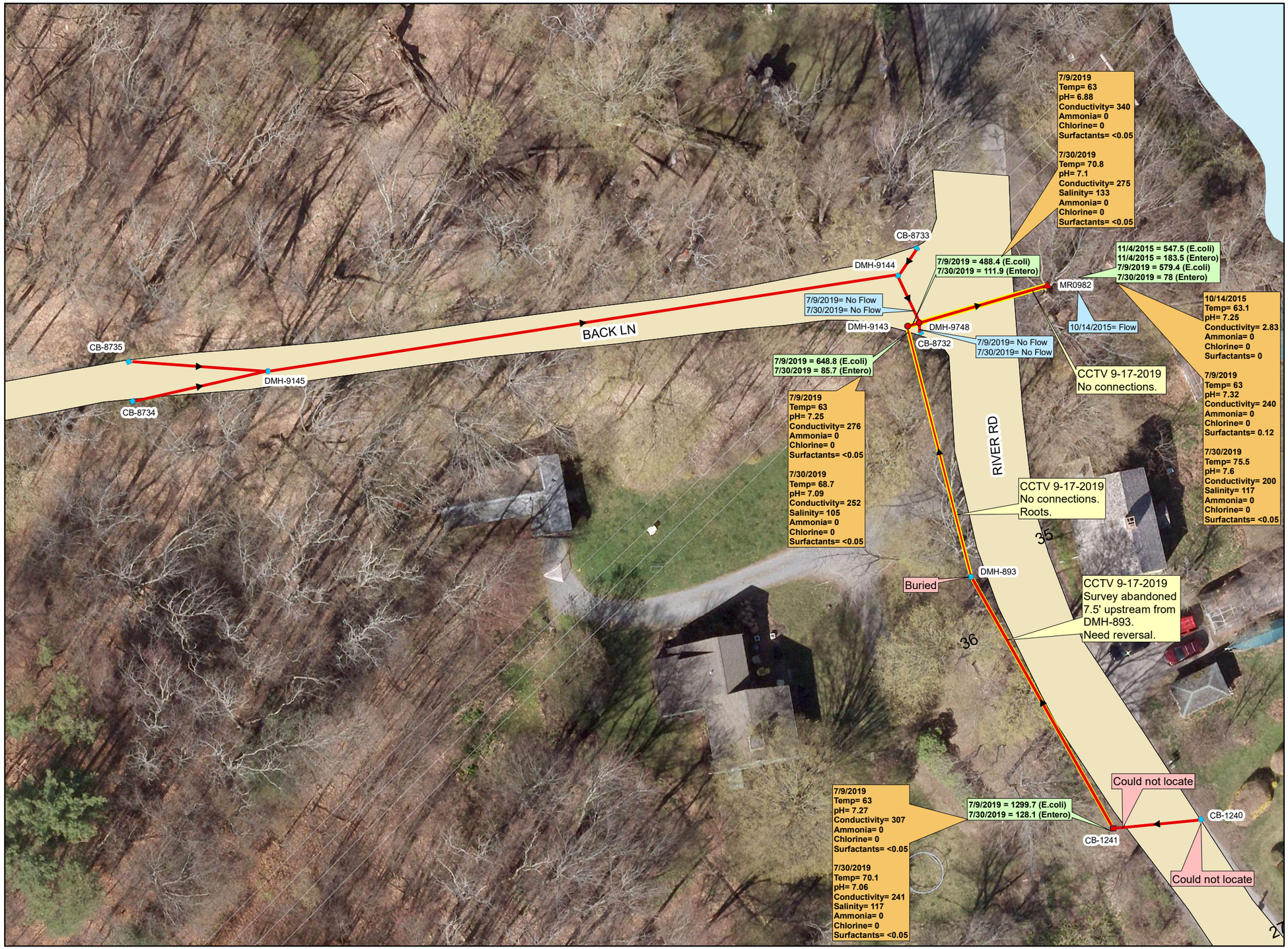
0 37.5 75 150 225 300 Feet

June 25, 2019

This map was produced rom the City of Haverhill's Geographic Information System.
The City expressly disclaims any liability that may result from use of this map.

Outfall MR0982

Summary of IDDE Investigations



Assets

- Culvert
- Sewer
- Stormwater
- Catchment Pipes
- Sewer CCTV
- Catchment CCTV
- Manhole Sampled
- Catch Basin Sampled
- Outfall Sampled

CCTV Comments

Miscellaneous Comments

Inspection Results

Bacteria Results

Other Sampling Parameter Results

- City Owned Road
- Private Owned Road
- State Owned Road

Dry weather flow samples collected in each DMH from the mainline pipe entering the DMH. Branch flow collected as noted on plans.

Each inspection result is noted with a date, flow/no flow (at time of inspection), sample parameter and concentration.

Pipes that are not highlighted in red do NOT connect to this drainage system

DMH and SMH invert elevations in NGVD 1929 Datum

N W E S

Feet

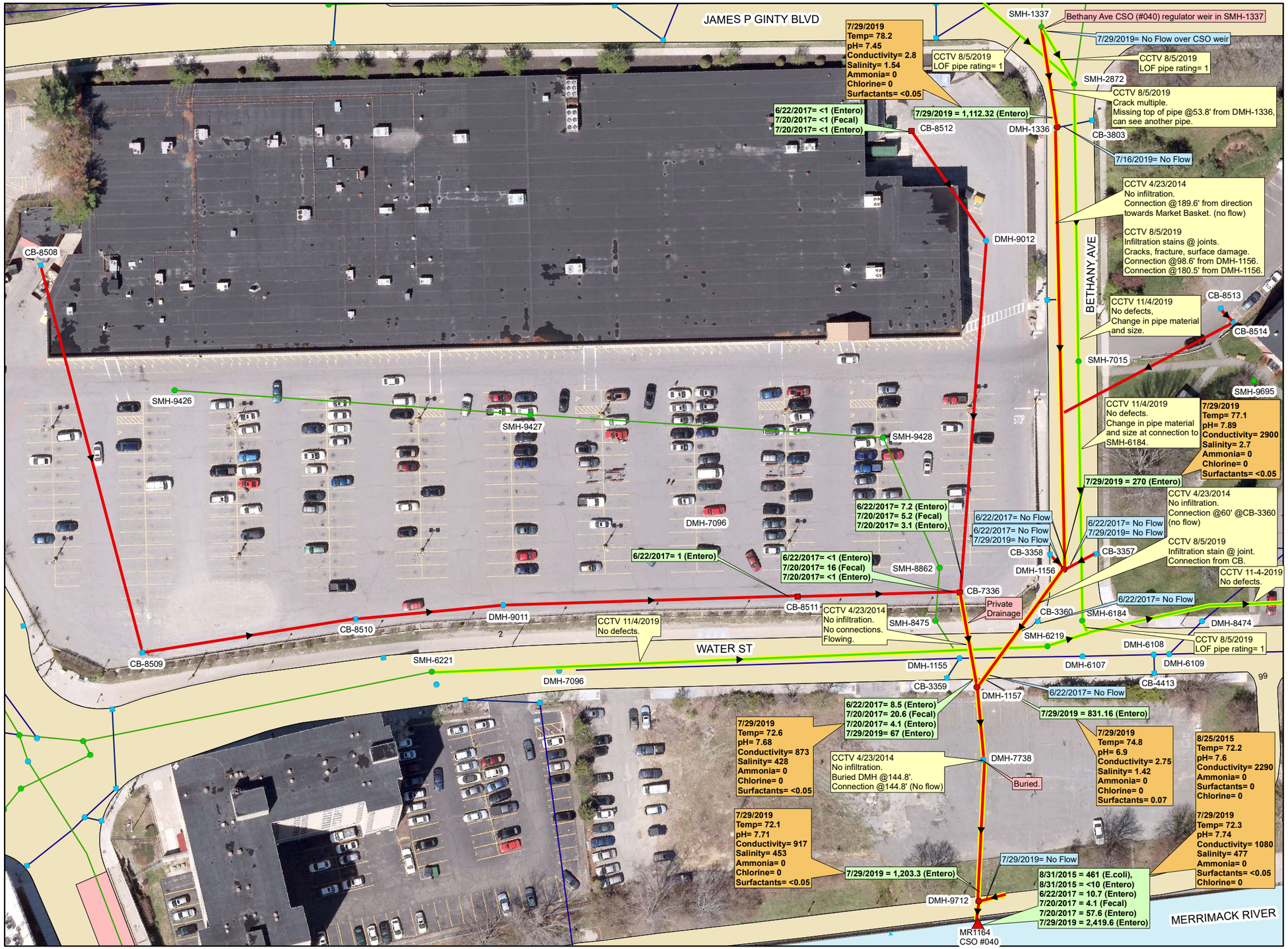
0 510 20 30 40 50

December 23, 2019

This map was produced from the City of Haverhill's Geographic Information System.
The City expressly disclaims any liability that may result from use of this map.

Outfall MR1164 / Bethany Ave CSO #040

Summary of IDDE Investigations



Assets

- Culvert
- Sewer Gravity
- Sewer Force Main
- Stormwater
- Catchment Pipes
- Sewer CCTV
- Catchment CCTV
- Manhole Sampled
- Catch Basin Sampled
- Outfall Sampled

CCTV Comments

Miscellaneous Comments

Inspection Results

Bacteria Results

Other Sampling Parameter Results

- City Owned Road
- Private Owned Road
- State Owned Road

Dry weather flow samples collected in each DMH from the mainline pipe entering the DMH. Branch flow collected as noted on plans.

Each inspection result is noted with a date, flow/no flow (at time of inspection), sample parameter and concentration.

Pipes that are not highlighted in red do NOT connect to this drainage system

DMH and SMH invert elevations in NGVD 1929 Datum

N W E S

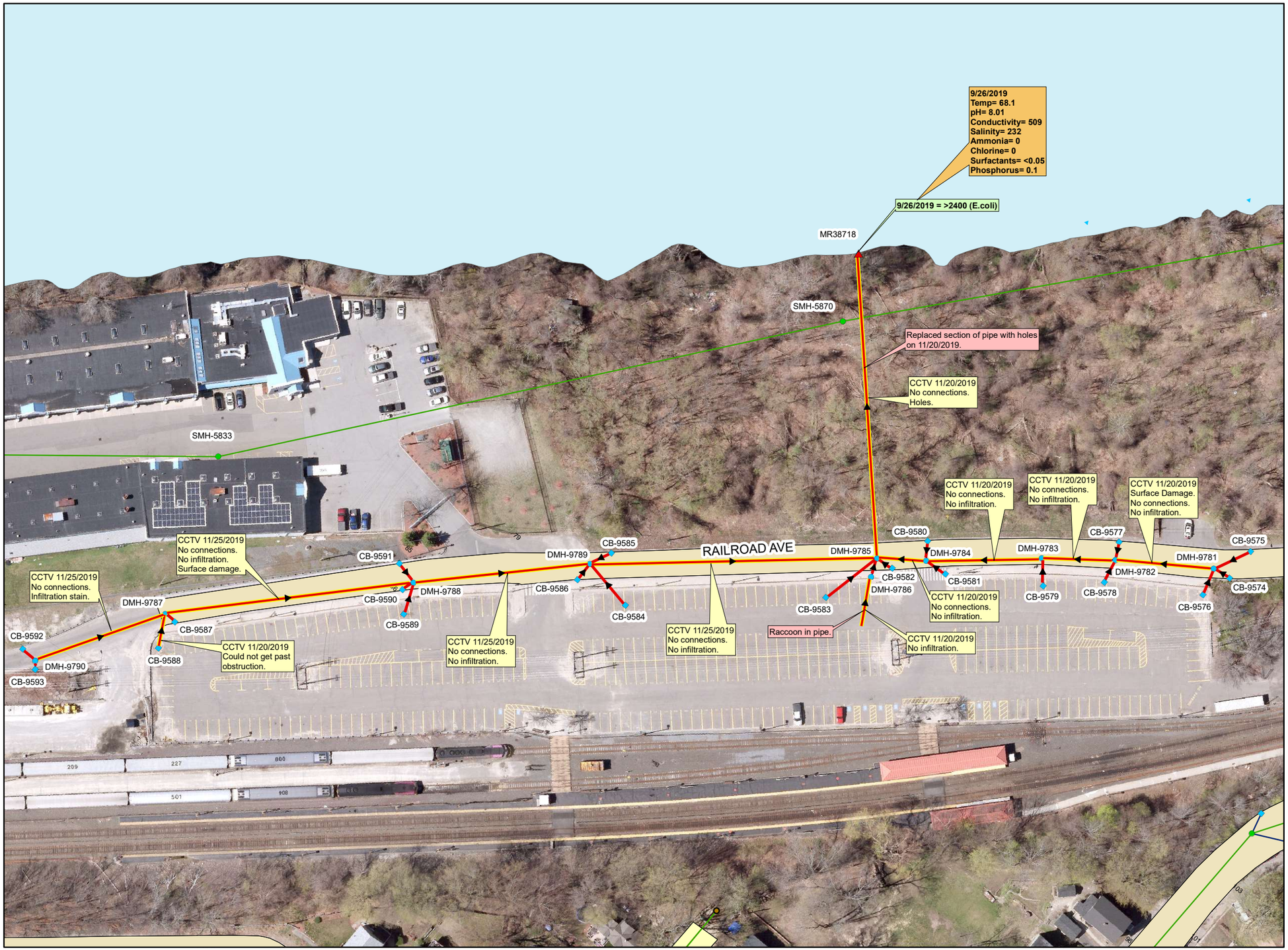
0 15 30 60 90 120 150 Feet

December 23, 2019

This map was produced from the City of Haverhill's Geographic Information System.
The City expressly disclaims any liability that may result from use of this map.

Outfall MR38718

Summary of IDDE Investigations



Assets

- Culvert
- Sewer
- Stormwater
- Catchment Pipes
- Sewer CCTV
- Catchment CCTV
- Manhole Sampled
- Catch Basin Sampled
- Outfall Sampled

CCTV Comments

Miscellaneous Comments

Inspection Results

Bacteria Results

Other Sampling Parameter Results

- City Owned Road
- Private Owned Road
- State Owned Road

Dry weather flow samples collected in each DMH from the mainline pipe entering the DMH. Branch flow collected as noted on plans.

Each inspection result is noted with a date, flow/no flow (at time of inspection), sample parameter and concentration.

Pipes that are not highlighted in red do NOT connect to this drainage system

DMH and SMH invert elevations in NGVD 1929 Datum

N W E S

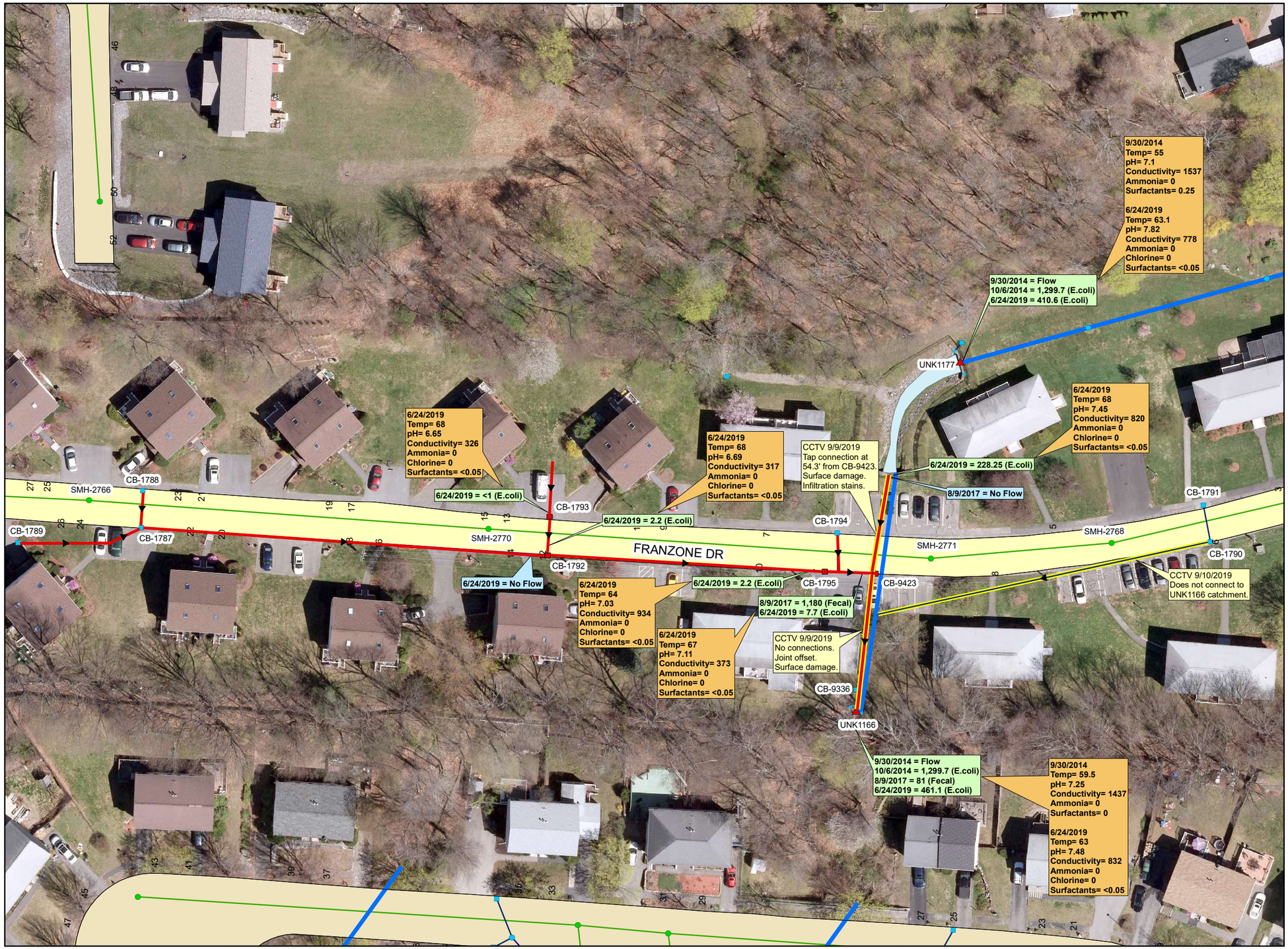
0 20 40 80 120 160 200 Feet

December 24, 2019

This map was produced from the City of Haverhill's Geographic Information System.
The City expressly disclaims any liability that may result from use of this map.

Outfall UNK1166

Summary of IDDE Investigations



Assets

- Culvert
- Sewer
- Stormwater
- Catchment Pipes
- Sewer CCTV
- Catchment CCTV
- Manhole Sampled
- Catch Basin Sampled
- Outfall Sampled

CCTV Comments

Miscellaneous Comments

Inspection Results

Bacteria Results

Other Sampling Parameter Results

- City Owned Road
- Private Owned Road
- State Owned Road

Dry weather flow samples collected in each DMH from the mainline pipe entering the DMH. Branch flow collected as noted on plans.

Each inspection result is noted with a date, flow/no flow (at time of inspection), sample parameter and concentration.

Pipes that are not highlighted in red do NOT connect to this drainage system

DMH and SMH invert elevations in NGVD 1929 Datum

N E S W

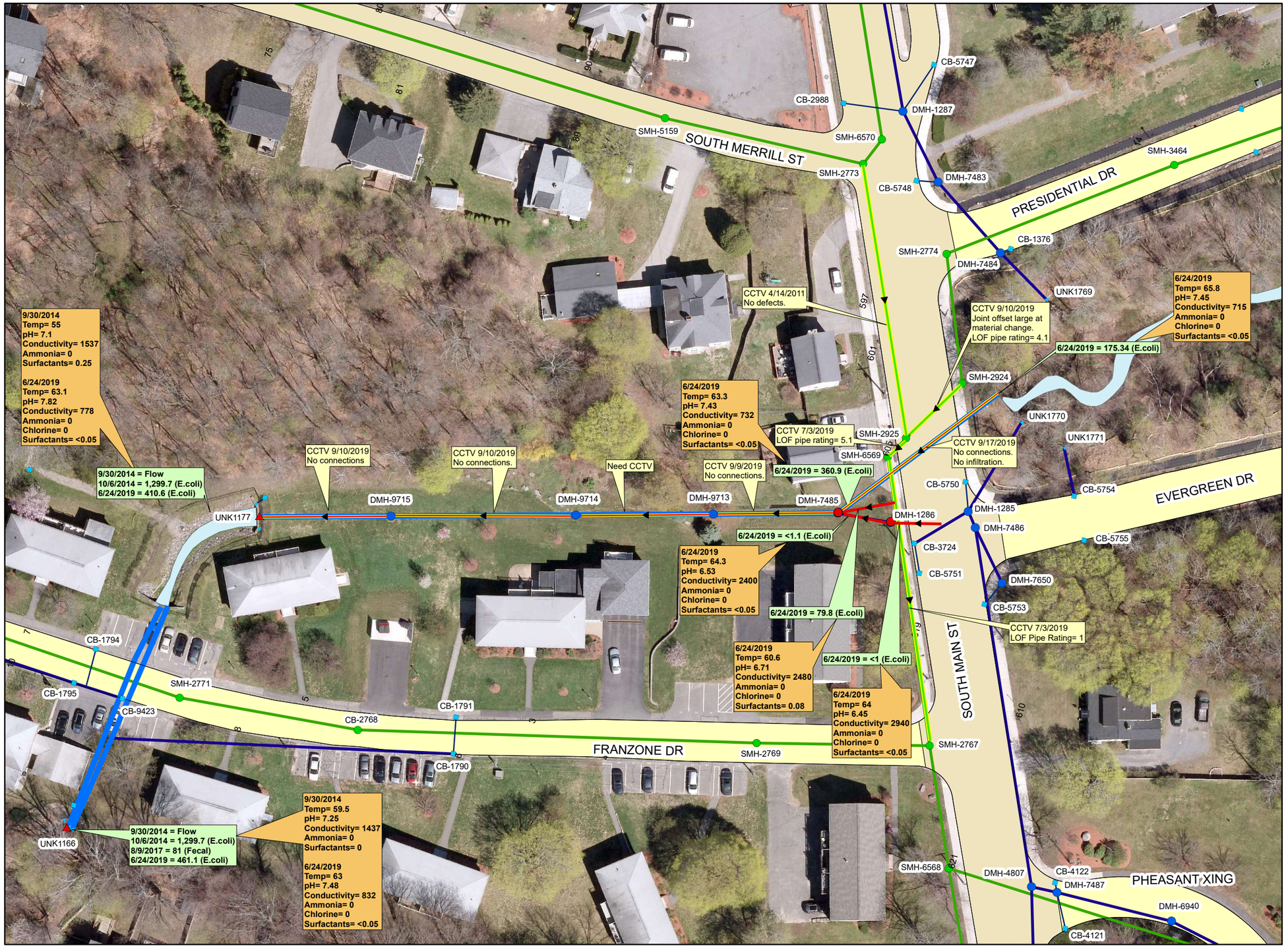
0 15 30 60 90 120 150 Feet

October 21, 2019

This map was produced from the City of Haverhill's Geographic Information System.
The City expressly disclaims any liability that may result from use of this map.

Outfall UNK1177

Summary of IDDE Investigations



Assets

- Culvert
- Sewer
- Stormwater
- Catchment Pipes
- Sewer CCTV
- Catchment CCTV
- Manhole Sampled
- Catch Basin Sampled
- Outfall Sampled

CCTV Comments

Miscellaneous Comments

Inspection Results

Bacteria Results

Other Sampling Parameter Results

- City Owned Road
- Private Owned Road
- State Owned Road

Dry weather flow samples collected in each DMH from the mainline pipe entering the DMH. Branch flow collected as noted on plans.

Each inspection result is noted with a date, flow/no flow (at time of inspection), sample parameter and concentration.

Pipes that are not highlighted in red do NOT connect to this drainage system

DMH and SMH invert elevations in NGVD 1929 Datum

N E S W

0 15 30 60 90 120 150 Feet

October 22, 2019

This map was produced from the City of Haverhill's Geographic Information System.
The City expressly disclaims any liability that may result from use of this map.

Outfall UNK1835

Summary of IDDE Investigations

Assets

- Culvert
- Sewer
- Stormwater
- Catchment Pipes
- Sewer CCTV
- Catchment CCTV
- Manhole Sampled
- Catch Basin Sampled
- Outfall Sampled

CCTV Comments

Miscellaneous Comments

Inspection Results

Bacteria Results

Other Sampling Parameter Results

- City Owned Road
- Private Owned Road
- State Owned Road

Dry weather flow samples collected in each DMH from the mainline pipe entering the DMH. Branch flow collected as noted on plans.

Each inspection result is noted with a date, flow/no flow (at time of inspection), sample parameter and concentration.

Pipes that are not highlighted in red do NOT connect to this drainage system

DMH and SMH invert elevations in NGVD 1929 Datum

N E S W

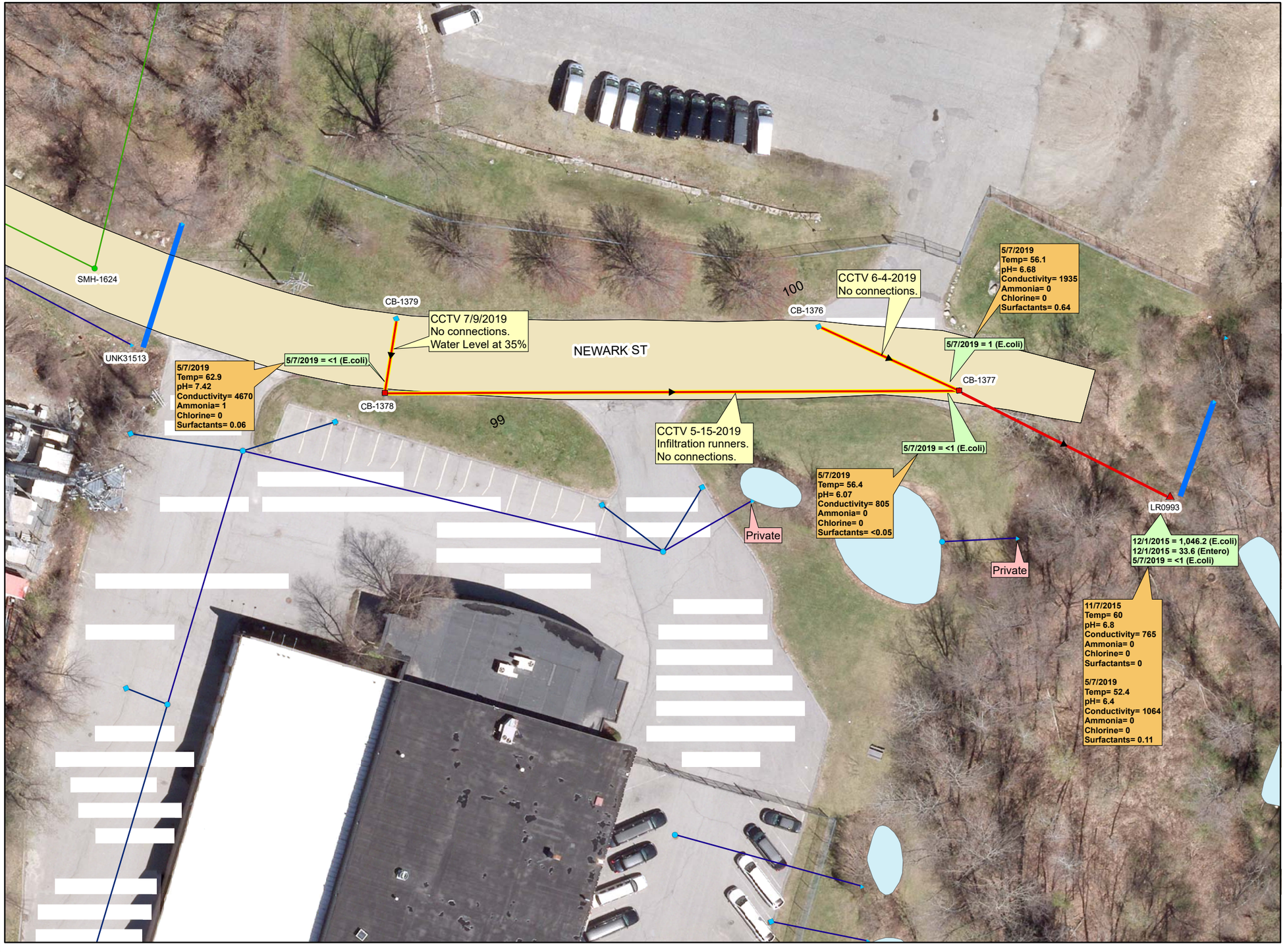
0 12.525 50 75 100 125 Feet

November 6, 2019

This map was produced from the City of Haverhill's Geographic Information System.
The City expressly disclaims any liability that may result from use of this map.

Outfall LR0993

Summary of IDDE Investigations



Assets

- Culvert
- Sewer
- Stormwater
- Catchment Pipes
- Sewer CCTV
- Catchment CCTV
- Manhole Sampled
- Catch Basin Sampled
- Outfall Sampled

CCTV Comments

Miscellaneous Comments

Inspection Results

Bacteria Results

Other Sampling Parameter Results

- City Owned Road
- Private Owned Road
- State Owned Road

Dry weather flow samples collected in each DMH from the mainline pipe entering the DMH. Branch flow collected as noted on plans.

Each inspection result is noted with a date, flow/no flow (at time of inspection), sample parameter and concentration.

Pipes that are not highlighted in red do NOT connect to this drainage system

DMH and SMH invert elevations in NGVD 1929 Datum

N E S W

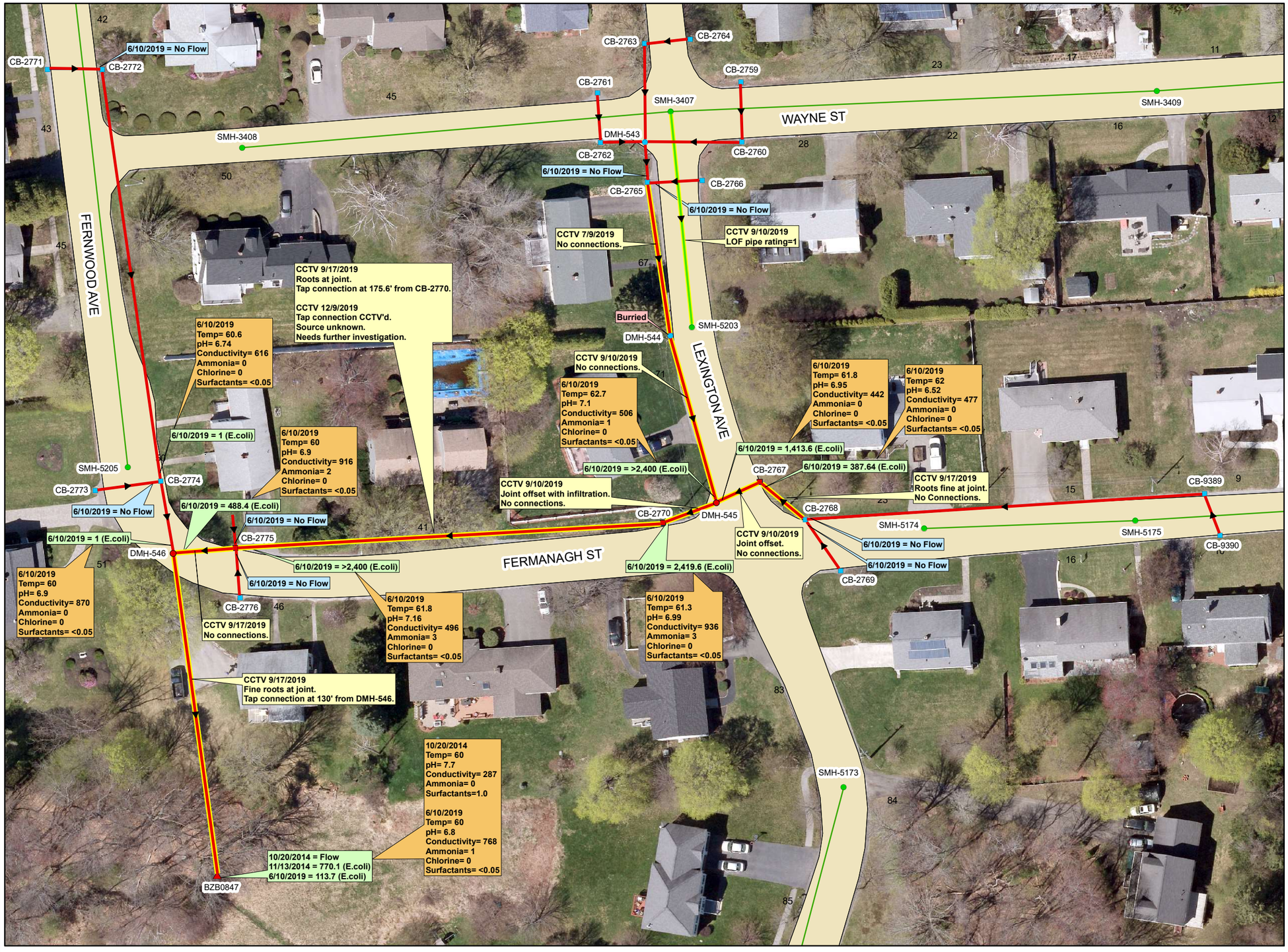
0 10 20 40 60 80 100 Feet

September 4, 2019

This map was produced from the City of Haverhill's Geographic Information System.
The City expressly disclaims any liability that may result from use of this map.

Outfall BZB0847

Summary of IDDE Investigations



Assets

- Culvert
- Sewer
- Stormwater
- Catchment Pipes
- Sewer CCTV
- Catchment CCTV
- Manhole Sampled
- Catch Basin Sampled
- Outfall Sampled

CCTV Comments

Miscellaneous Comments

Inspection Results

Bacteria Results

Other Sampling Parameter Results

- City Owned Road
- Private Owned Road
- State Owned Road

Dry weather flow samples collected in each DMH from the mainline pipe entering the DMH. Branch flow collected as noted on plans.

Each inspection result is noted with a date, flow/no flow (at time of inspection), sample parameter and concentration.

Pipes that are not highlighted in red do NOT connect to this drainage system

DMH and SMH invert elevations in NGVD 1929 Datum

N W E S

0 15 30 60 90 120 150 Feet

December 24, 2019

This map was produced from the City of Haverhill's Geographic Information System.
The City expressly disclaims any liability that may result from use of this map.

Outfall FBO0638

Summary of IDDE Investigations

Assets

- Culvert
- Sewer Gravity
- Sewer Force Main
- Stormwater
- Catchment Pipes
- Sewer CCTV
- Catchment CCTV
- Manhole Sampled
- Catch Basin Sampled
- Outfall Sampled

CCTV Comments

Miscellaneous Comments

Inspection Results

Bacteria Results

Other Sampling Parameter Results

- City Owned Road
- Private Owned Road
- State Owned Road

Dry weather flow samples collected in each DMH from the mainline pipe entering the DMH. Branch flow collected as noted on plans.

Each inspection result is noted with a date, flow/no flow (at time of inspection), sample parameter and concentration.

Pipes that are not highlighted in red do NOT connect to this drainage system

DMH and SMH invert elevations in NGVD 1929 Datum

N E S W

0 15 30 60 90 120 150 Feet

October 21, 2019

This map was produced from the City of Haverhill's Geographic Information System.
The City expressly disclaims any liability that may result from use of this map.

Outfall PL1222

Summary of IDDE Investigations

Assets

- Culvert
- Sewer Gravity
- Sewer Force Main
- Stormwater
- Catchment Pipes
- Sewer CCTV
- Catchment CCTV
- Manhole Sampled
- Catch Basin Sampled
- Outfall Sampled

CCTV Comments

Miscellaneous Comments

Inspection Results

Bacteria Results

Other Sampling Parameter Results

- City Owned Road
- Private Owned Road
- State Owned Road

Dry weather flow samples collected in each DMH from the mainline pipe entering the DMH. Branch flow collected as noted on plans.

Each inspection result is noted with a date, flow/no flow (at time of inspection), sample parameter and concentration.

Pipes that are not highlighted in red do NOT connect to this drainage system

DMH and SMH invert elevations in NGVD 1929 Datum

N E W S

0 62.5 125 250 375 500 625 Feet

December 24, 2019

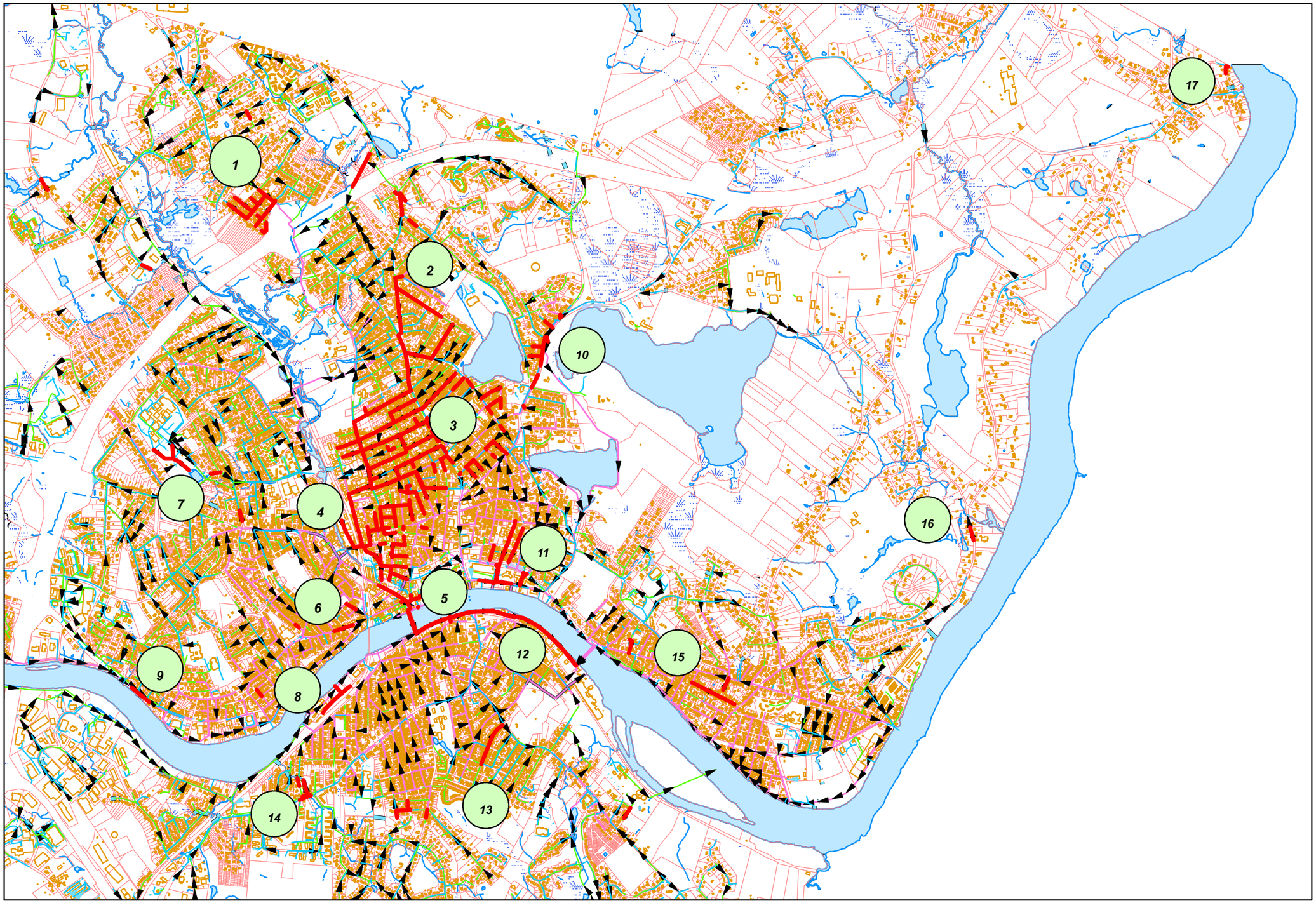
This map was produced from the City of Haverhill's Geographic Information System.
The City expressly disclaims any liability that may result from use of this map.

APPENDIX D

CCTV INSPECTIONS PERFORMED IN 2019

CITY OF HAVERHILL 2019 CCTV

(Sewer & stormwater camera work done by various contractors in the year 2019)



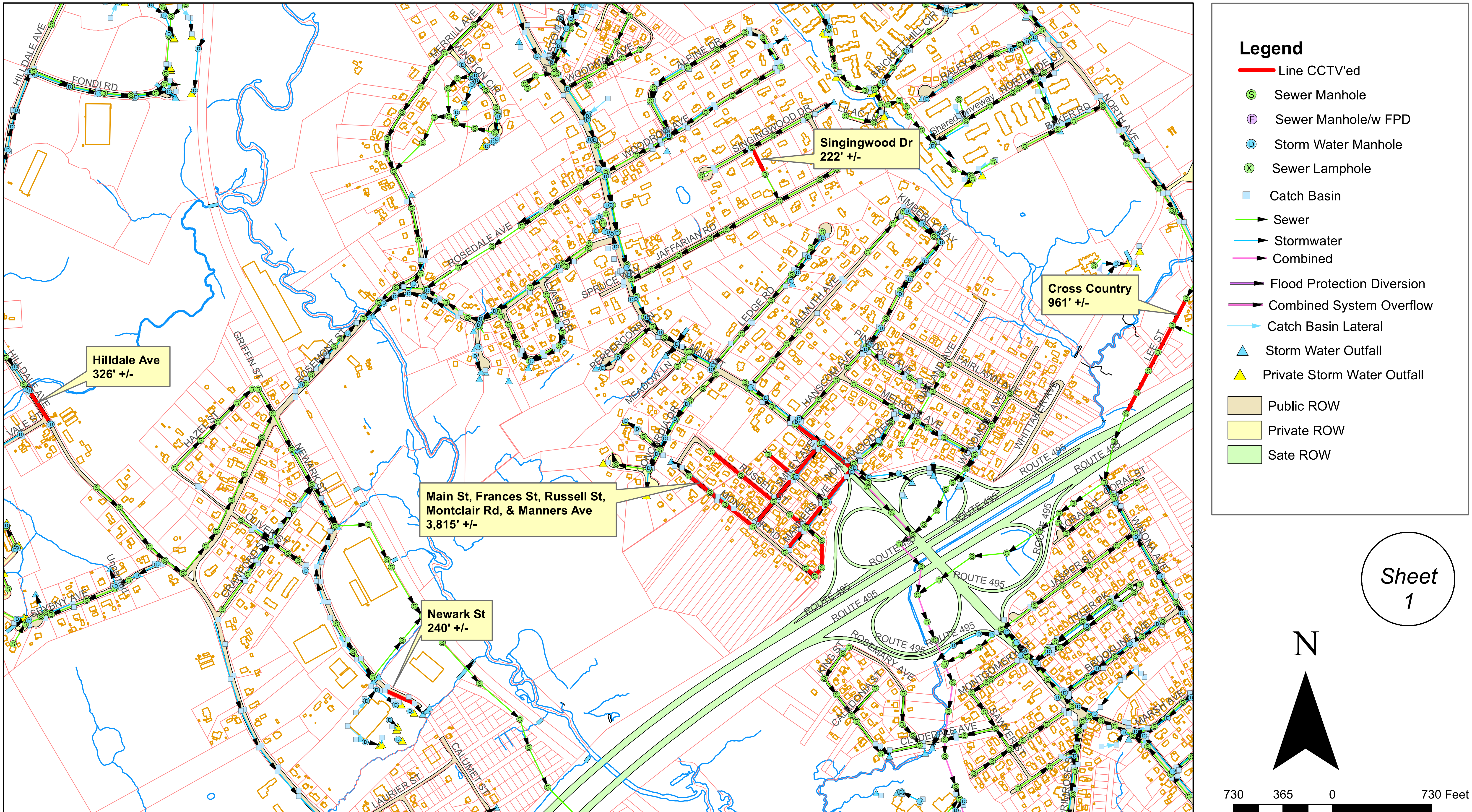
Approximately 79,884' of sewer and drain were surveyed for the City of Haverhill MA in the year 2019. This does NOT included any work that may have been incomplete. The main portion of survey work done was in the central area of Haverhill, in the downtown and "avenues" area.

N

2,700 1,350 0 2,700 Feet

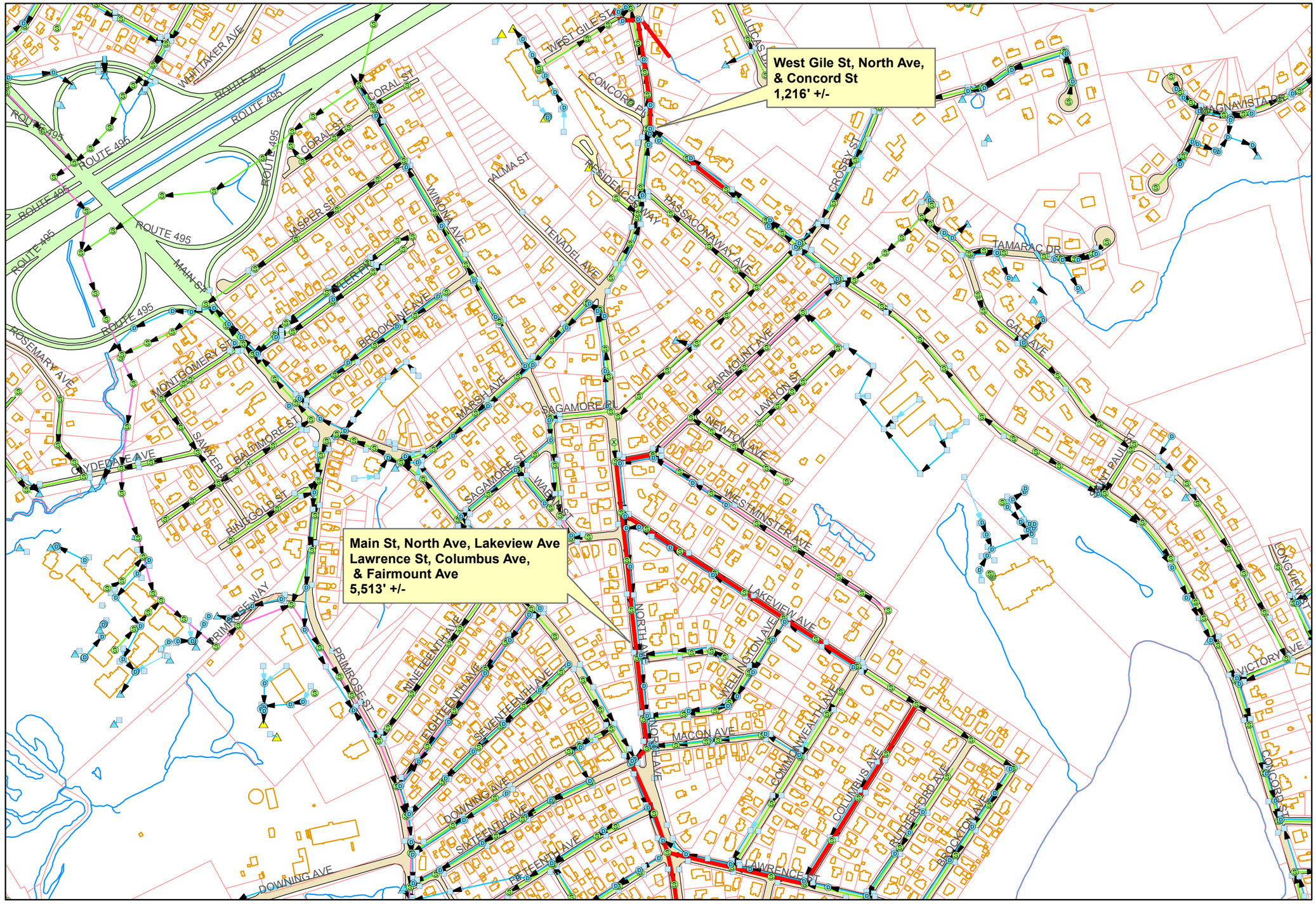
CITY OF HAVERHILL 2019 CCTV

(Sewer & stormwater camera work done by various contractors in the year 2019)



CITY OF HAVERHILL 2019 CCTV

(Sewer & stormwater camera work done by various contractors in the year 2019)



Legend

- Line CCTV'ed
- Sewer Manhole
- Sewer Manhole/w FPD
- Storm Water Manhole
- Sewer Lamphole
- Catch Basin
- Sewer
- Stormwater
- Combined
- Flood Protection Diversion
- Combined System Overflow
- Catch Basin Lateral
- Storm Water Outfall
- Private Storm Water Outfall
- Public ROW
- Private ROW
- Sate ROW

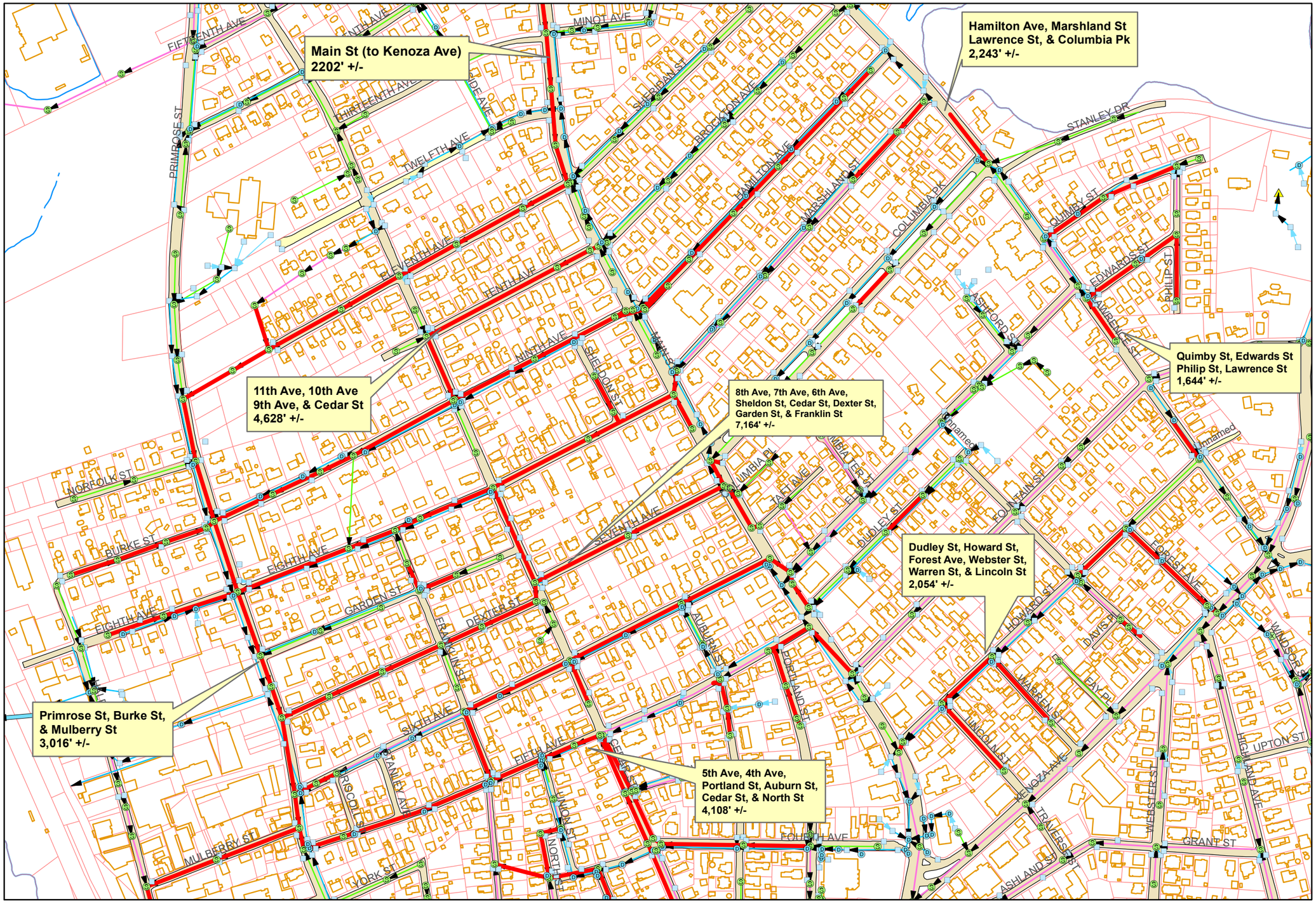
Sheet 2

N

540 270 0 540 Feet

CITY OF HAVERHILL 2019 CCTV

(Sewer & stormwater camera work done by various contractors in the year 2019)



Legend

- Line CCTV'ed
- Sewer Manhole
- Sewer Manhole/w FPD
- Storm Water Manhole
- Sewer Lamphole
- Catch Basin
- Sewer
- Stormwater
- Combined
- Flood Protection Diversion
- Combined System Overflow
- Catch Basin Lateral
- Storm Water Outfall
- Private Storm Water Outfall
- Public ROW
- Private ROW
- Sate ROW

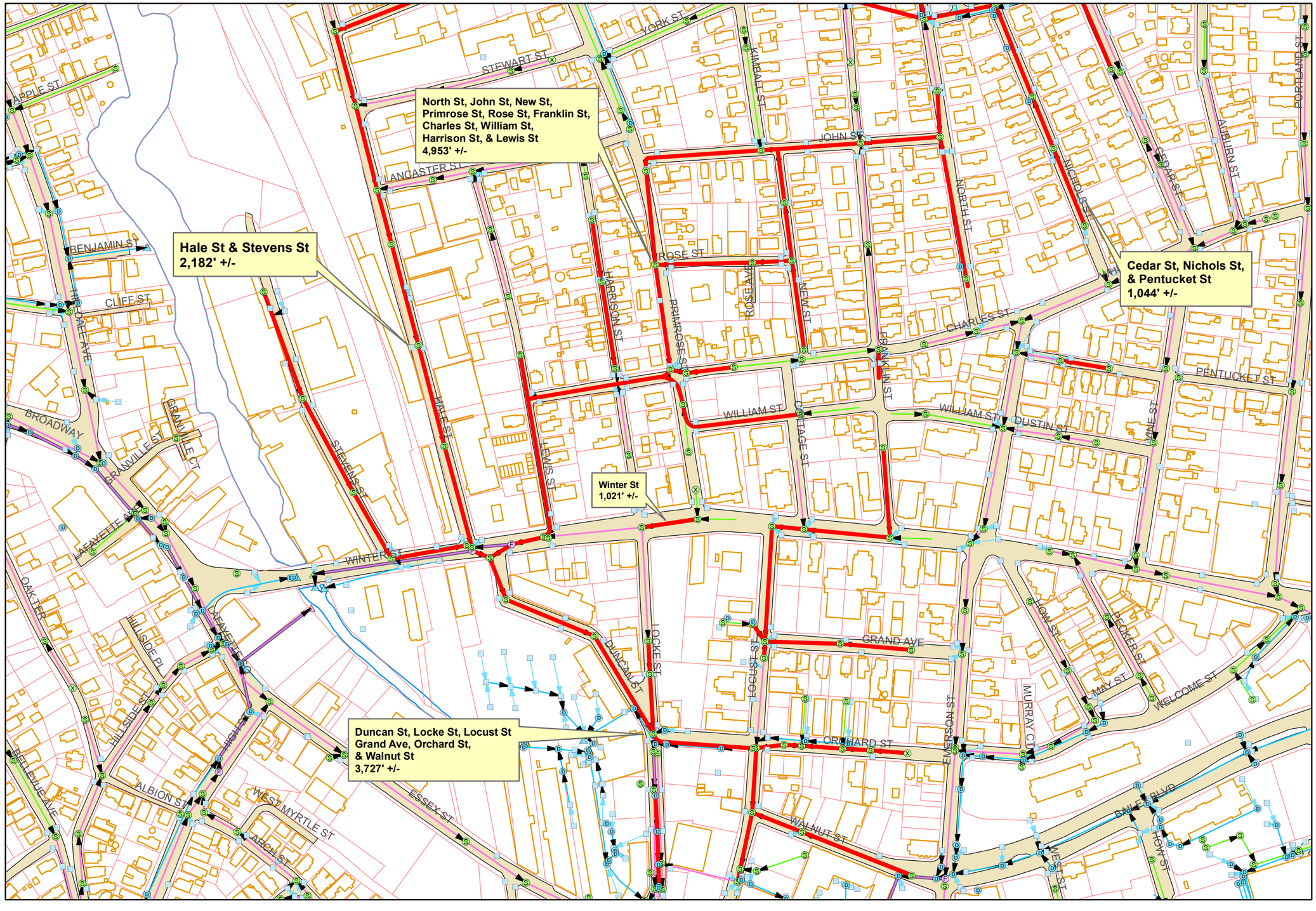
Sheet 3

N

420 210 0 420 Feet

CITY OF HAVERHILL 2019 CCTV

(Sewer & stormwater camera work done by various contractors in the year 2019)



Legend

- Line CCTV'ed
- Sewer Manhole
- Sewer Manhole/w FPD
- Storm Water Manhole
- Sewer Lamphole
- Catch Basin
- Sewer
- Stormwater
- Combined
- Flood Protection Diversion
- Combined System Overflow
- Catch Basin Lateral
- Storm Water Outfall
- Private Storm Water Outfall
- Public ROW
- Private ROW
- Sate ROW

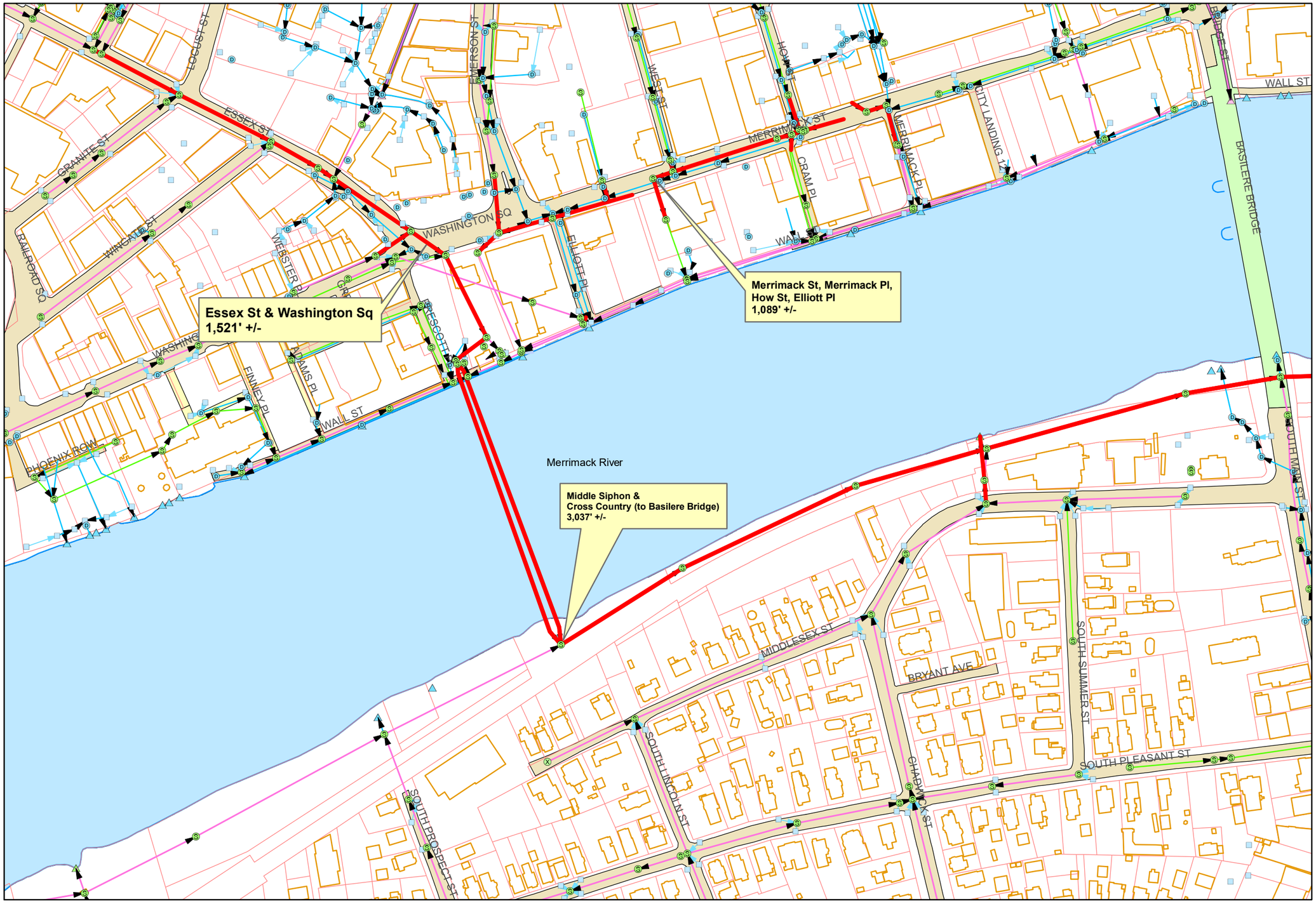
Sheet 4

N

280 140 0 280 Feet

CITY OF HAVERHILL 2019 CCTV

(Sewer & stormwater camera work done by various contractors in the year 2019)



Legend

- Line CCTV'ed
- Sewer Manhole
- Sewer Manhole/w FPD
- Storm Water Manhole
- Sewer Lamphole
- Catch Basin
- Sewer
- Stormwater
- Combined
- Flood Protection Diversion
- Combined System Overflow
- Catch Basin Lateral
- Storm Water Outfall
- Private Storm Water Outfall
- Public ROW
- Private ROW
- Sate ROW

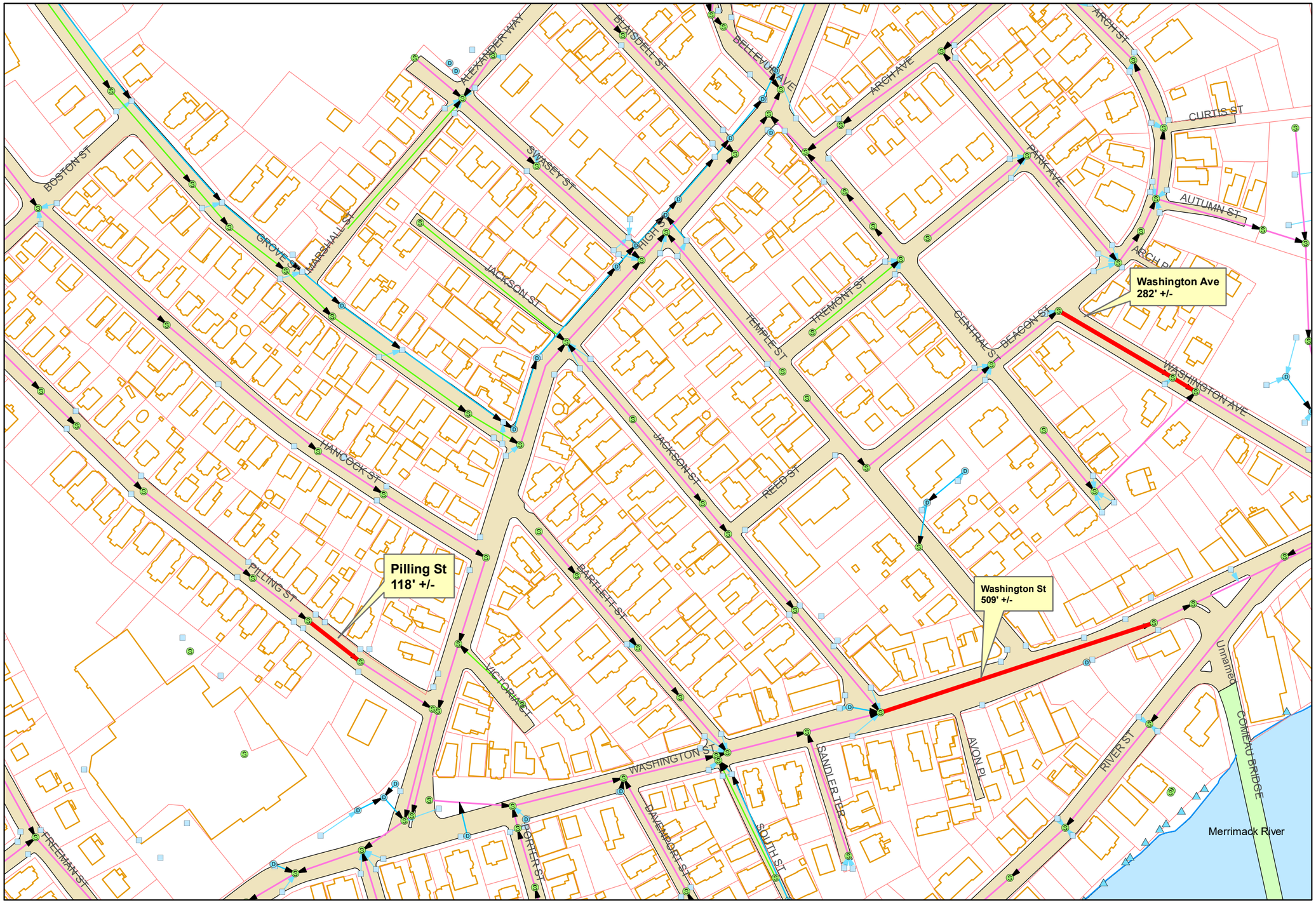
Sheet 5

N

230 115 0 230 Feet

CITY OF HAVERHILL 2019 CCTV

(Sewer & stormwater camera work done by various contractors in the year 2019)



Legend

- Line CCTV'ed
- Sewer Manhole
- Sewer Manhole/w FPD
- Storm Water Manhole
- Sewer Lamphole
- Catch Basin
- Sewer
- Stormwater
- Combined
- Flood Protection Diversion
- Combined System Overflow
- Catch Basin Lateral
- Storm Water Outfall
- Private Storm Water Outfall
- Public ROW
- Private ROW
- Sate ROW

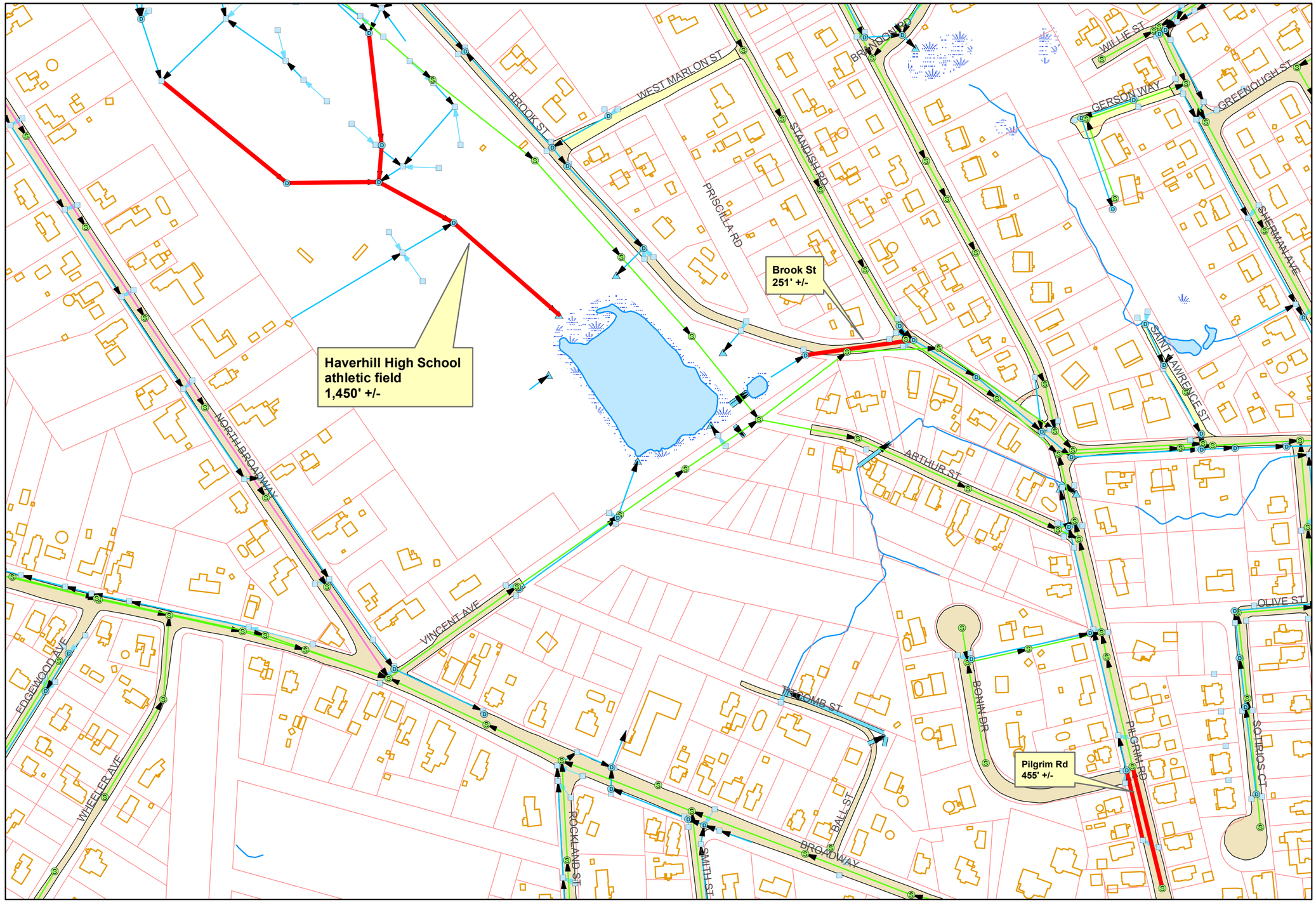
Sheet 6

N

190 95 0 190 Feet

CITY OF HAVERHILL 2019 CCTV

(Sewer & stormwater camera work done by various contractors in the year 2019)



Legend

- Line CCTV'ed
- Sewer Manhole
- Sewer Manhole/w FPD
- Storm Water Manhole
- Sewer Lamphole
- Catch Basin
- Sewer
- Stormwater
- Combined
- Flood Protection Diversion
- Combined System Overflow
- Catch Basin Lateral
- Storm Water Outfall
- Private Storm Water Outfall
- Public ROW
- Private ROW
- Sate ROW

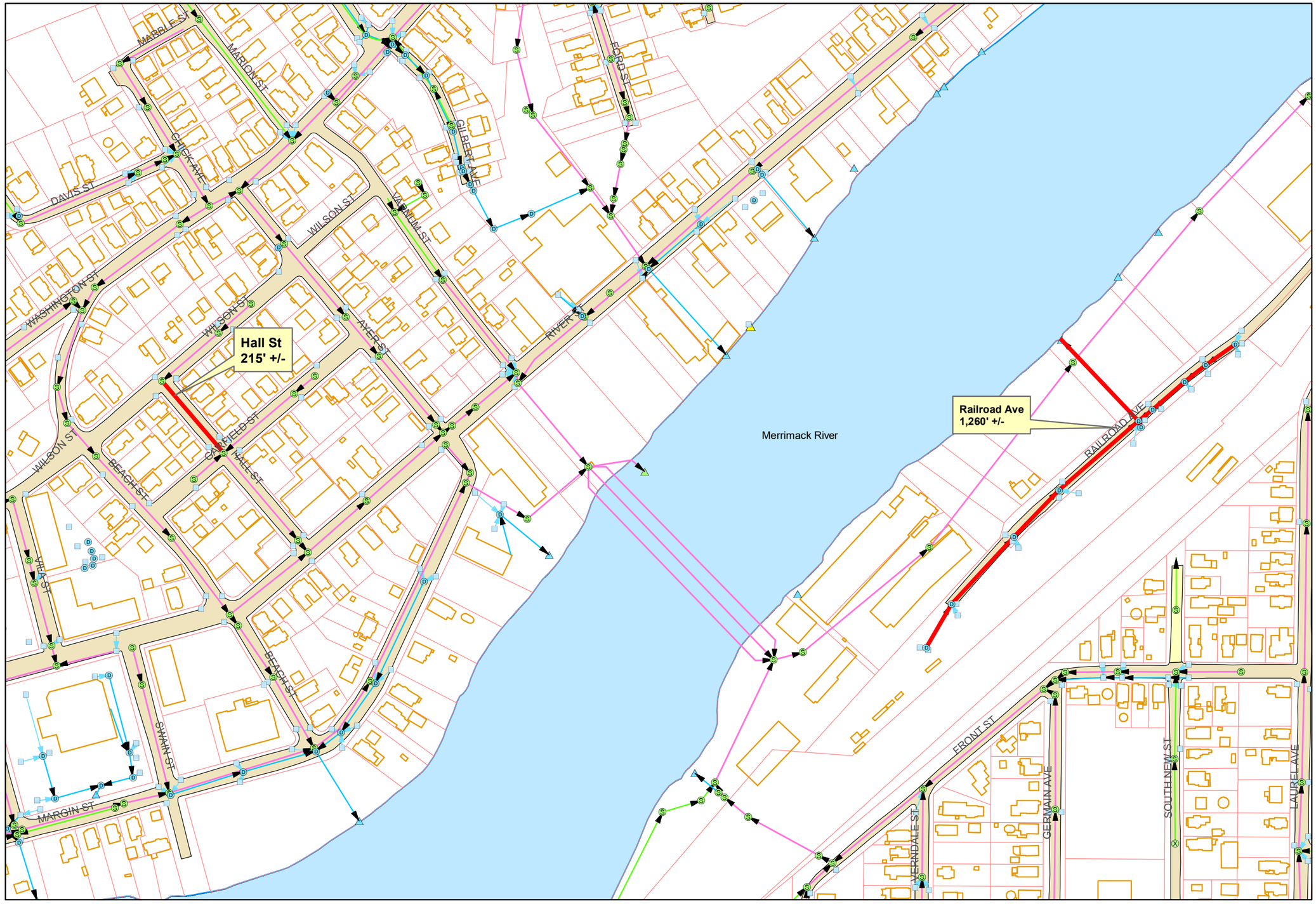
Sheet 7

N

250 125 0 250 Feet

CITY OF HAVERHILL 2019 CCTV

(Sewer & stormwater camera work done by various contractors in the year 2019)



Legend

- Line CCTV'ed
- Sewer Manhole
- Sewer Manhole/w FPD
- Storm Water Manhole
- Sewer Lamphole
- Catch Basin
- Sewer
- Stormwater
- Combined
- Flood Protection Diversion
- Combined System Overflow
- Catch Basin Lateral
- Storm Water Outfall
- Private Storm Water Outfall
- Public ROW
- Private ROW
- Sate ROW

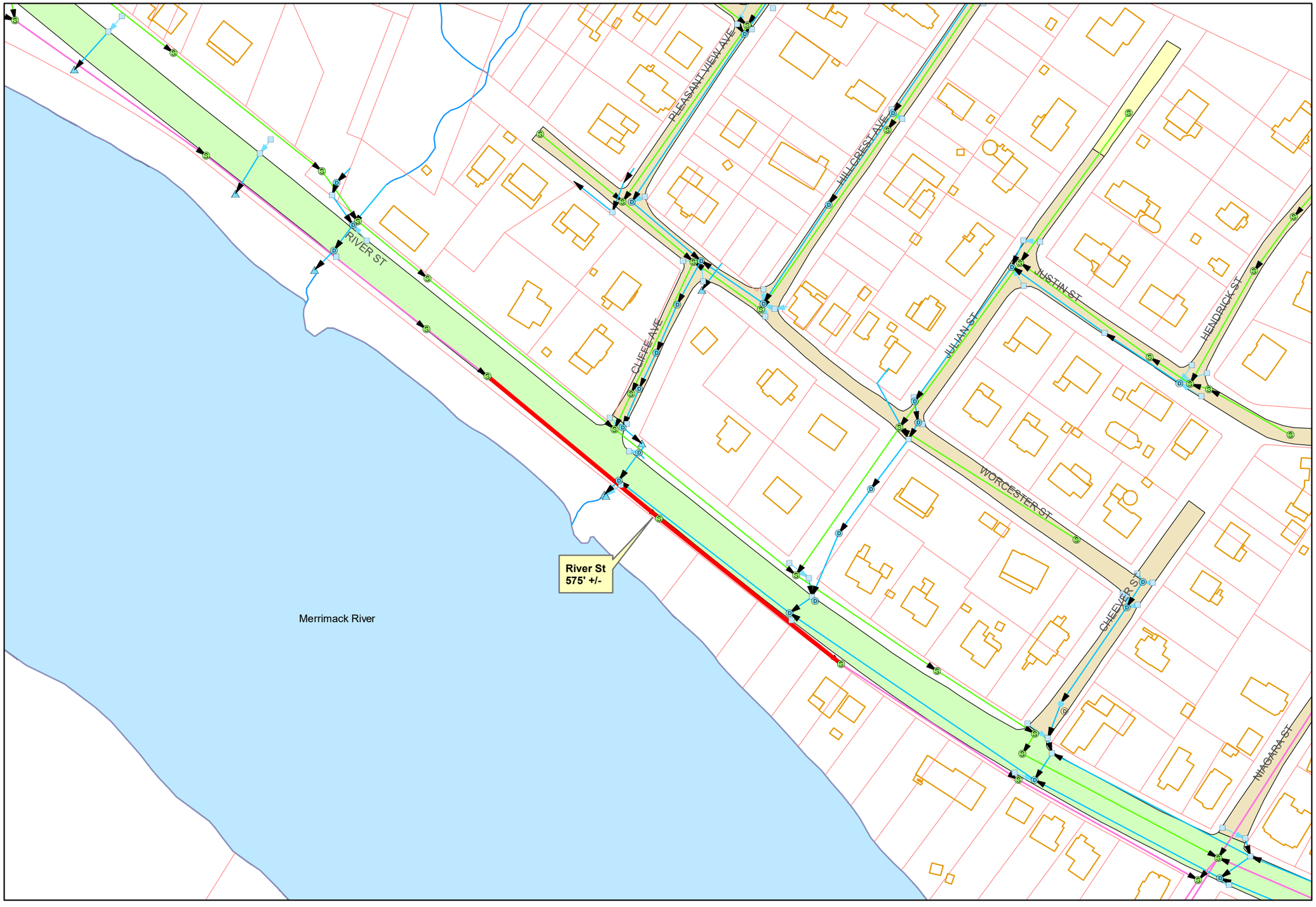
Sheet 8

N

240 120 0 240 Feet

CITY OF HAVERHILL 2019 CCTV

(Sewer & stormwater camera work done by various contractors in the year 2019)



Legend

- Line CCTV'ed
- Sewer Manhole
- Sewer Manhole/w FPD
- Storm Water Manhole
- Sewer Lamphole
- Catch Basin
- Sewer
- Stormwater
- Combined
- Flood Protection Diversion
- Combined System Overflow
- Catch Basin Lateral
- Storm Water Outfall
- Private Storm Water Outfall
- Public ROW
- Private ROW
- Sate ROW

Sheet 9

N

130 65 0 130 Feet

CITY OF HAVERHILL 2019 CCTV

(Sewer & stormwater camera work done by various contractors in the year 2019)

Legend

- Line CCTV'ed
- Sewer Manhole
- Sewer Manhole/w FPD
- Storm Water Manhole
- Sewer Lamphole
- Catch Basin
- Sewer
- Stormwater
- Combined
- Flood Protection Diversion
- Combined System Overflow
- Catch Basin Lateral
- Storm Water Outfall
- Private Storm Water Outfall
- Public ROW
- Private ROW
- Sate ROW

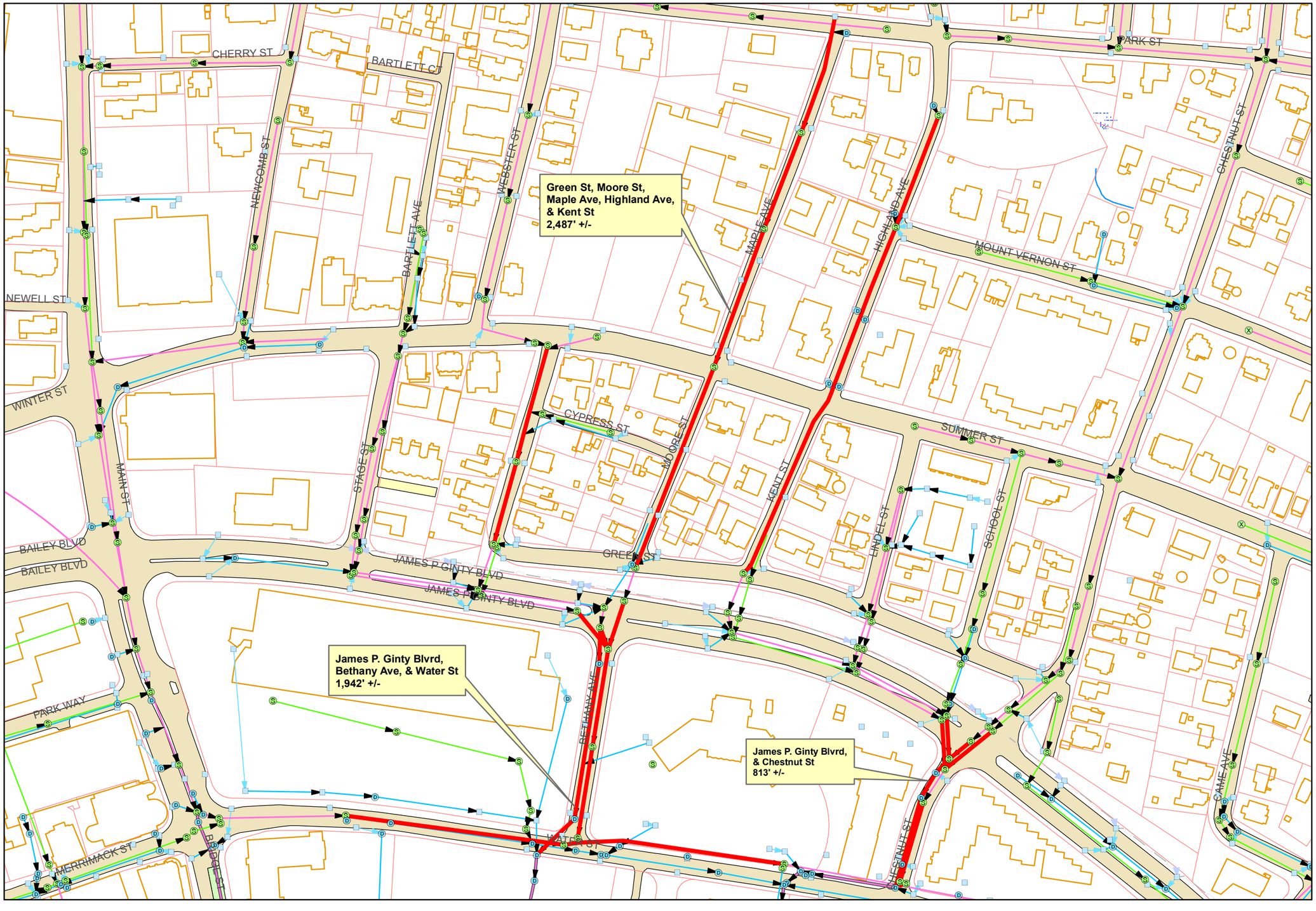
Sheet 10

N

240 120 0 240 Feet

CITY OF HAVERHILL 2019 CCTV

(Sewer & stormwater camera work done by various contractors in the year 2019)



Legend

- Line CCTV'ed
- Sewer Manhole
- Sewer Manhole/w FPD
- Storm Water Manhole
- Sewer Lamphole
- Catch Basin
- Sewer
- Stormwater
- Combined
- Flood Protection Diversion
- Combined System Overflow
- Catch Basin Lateral
- Storm Water Outfall
- Private Storm Water Outfall
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- Private ROW
- Sate ROW

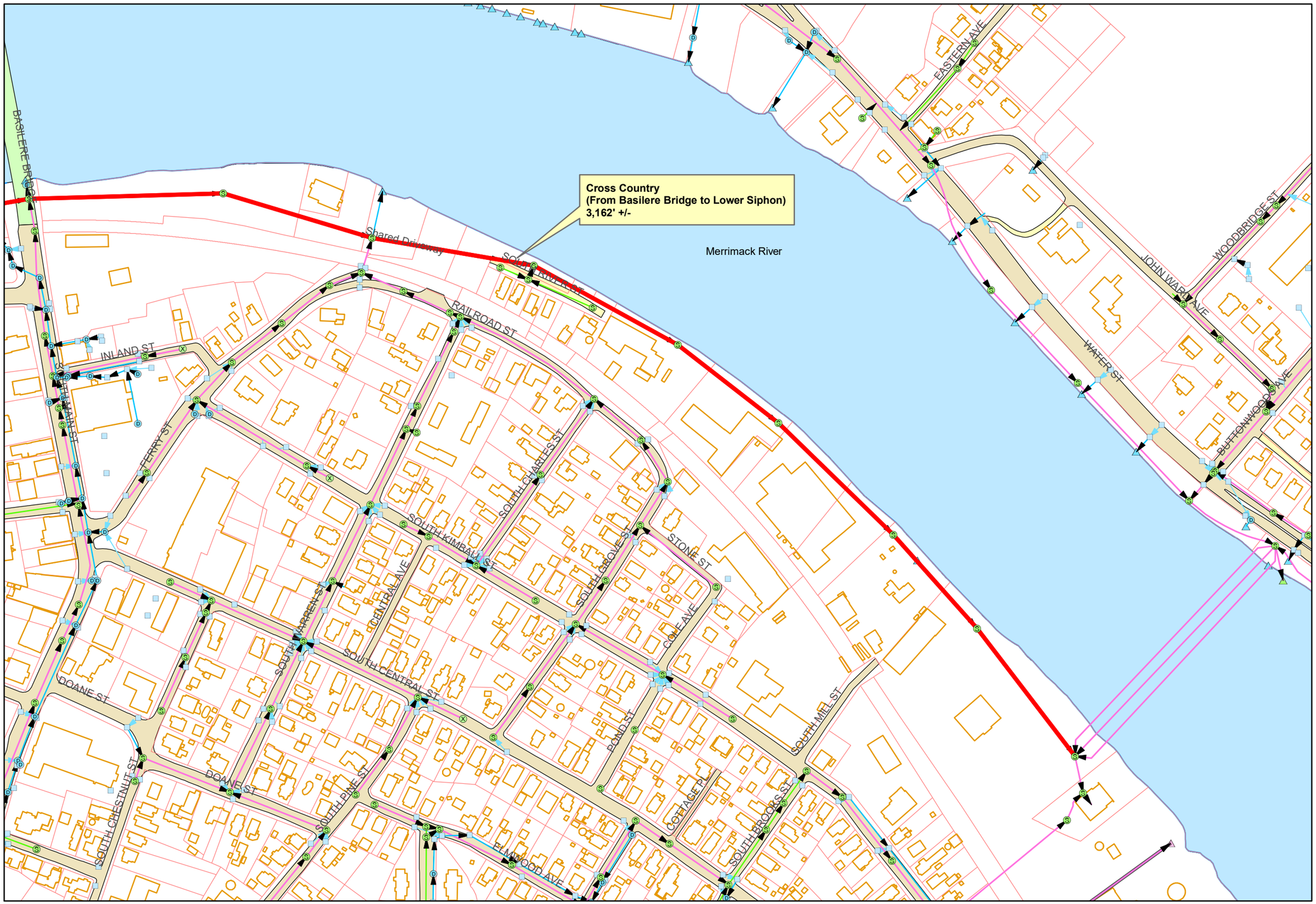
Sheet 11

N

210 105 0 210 Feet

CITY OF HAVERHILL 2019 CCTV

(Sewer & stormwater camera work done by various contractors in the year 2019)



Legend

- Line CCTV'ed
- Sewer Manhole
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- Storm Water Manhole
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- Sate ROW

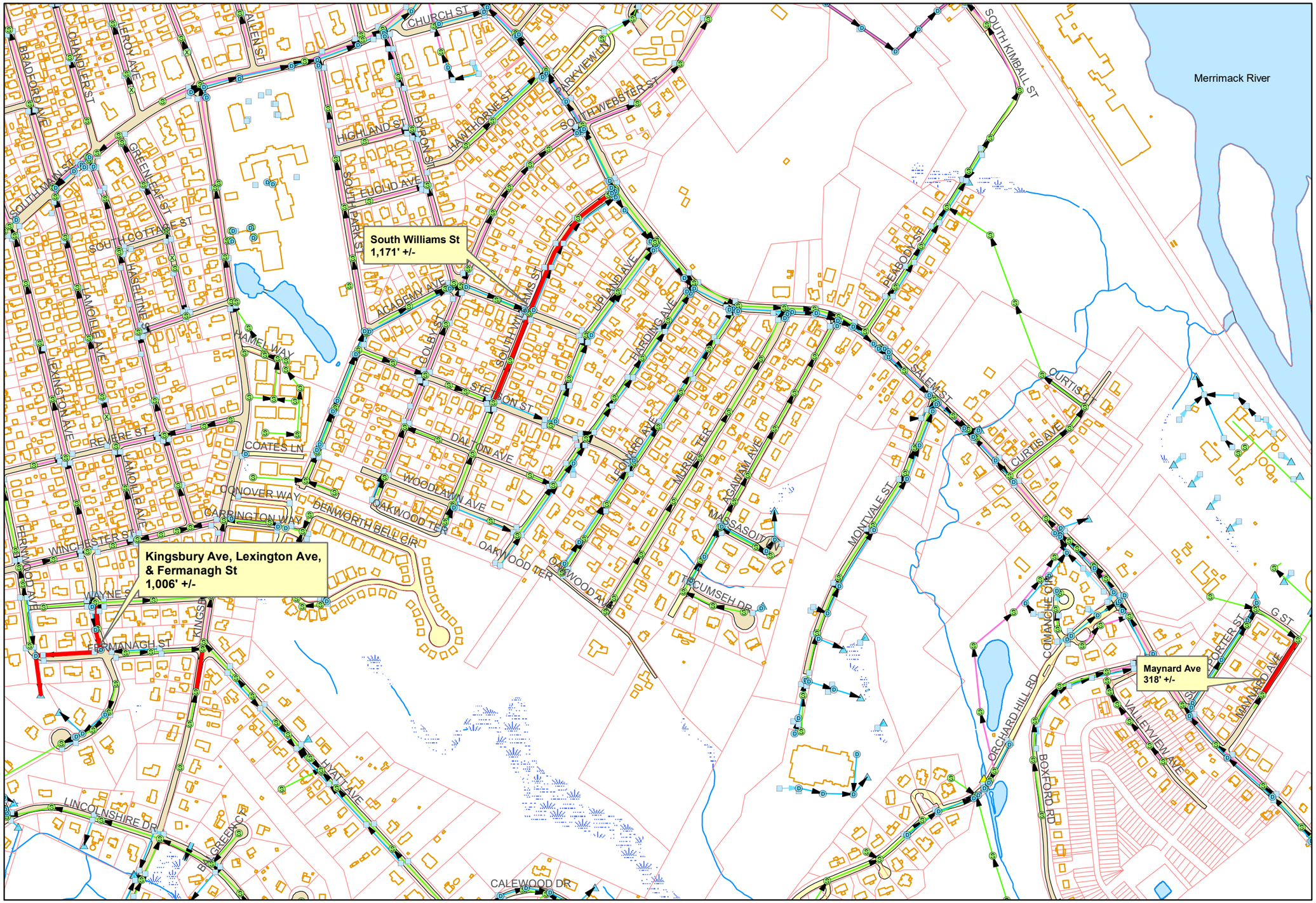
Sheet 12

N

275 137.5 0 275 Feet

CITY OF HAVERHILL 2019 CCTV

(Sewer & stormwater camera work done by various contractors in the year 2019)



Legend

- Line CCTV'ed
- Sewer Manhole
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- Sate ROW

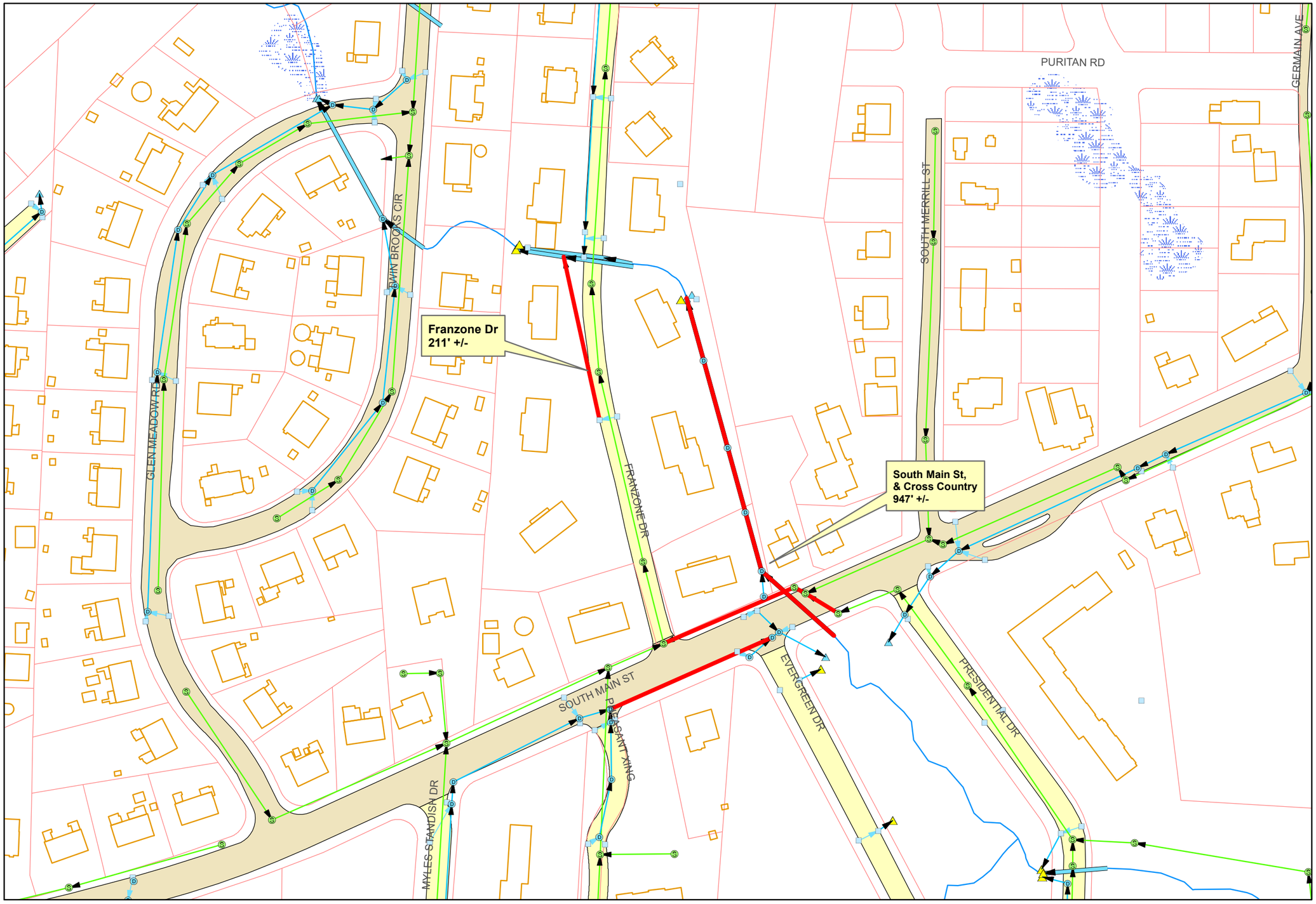
Sheet 13

N

525 262.5 0 525 Feet

CITY OF HAVERHILL 2019 CCTV

(Sewer & stormwater camera work done by various contractors in the year 2019)



Legend

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- Sewer Manhole
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- Stormwater
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- Sate ROW

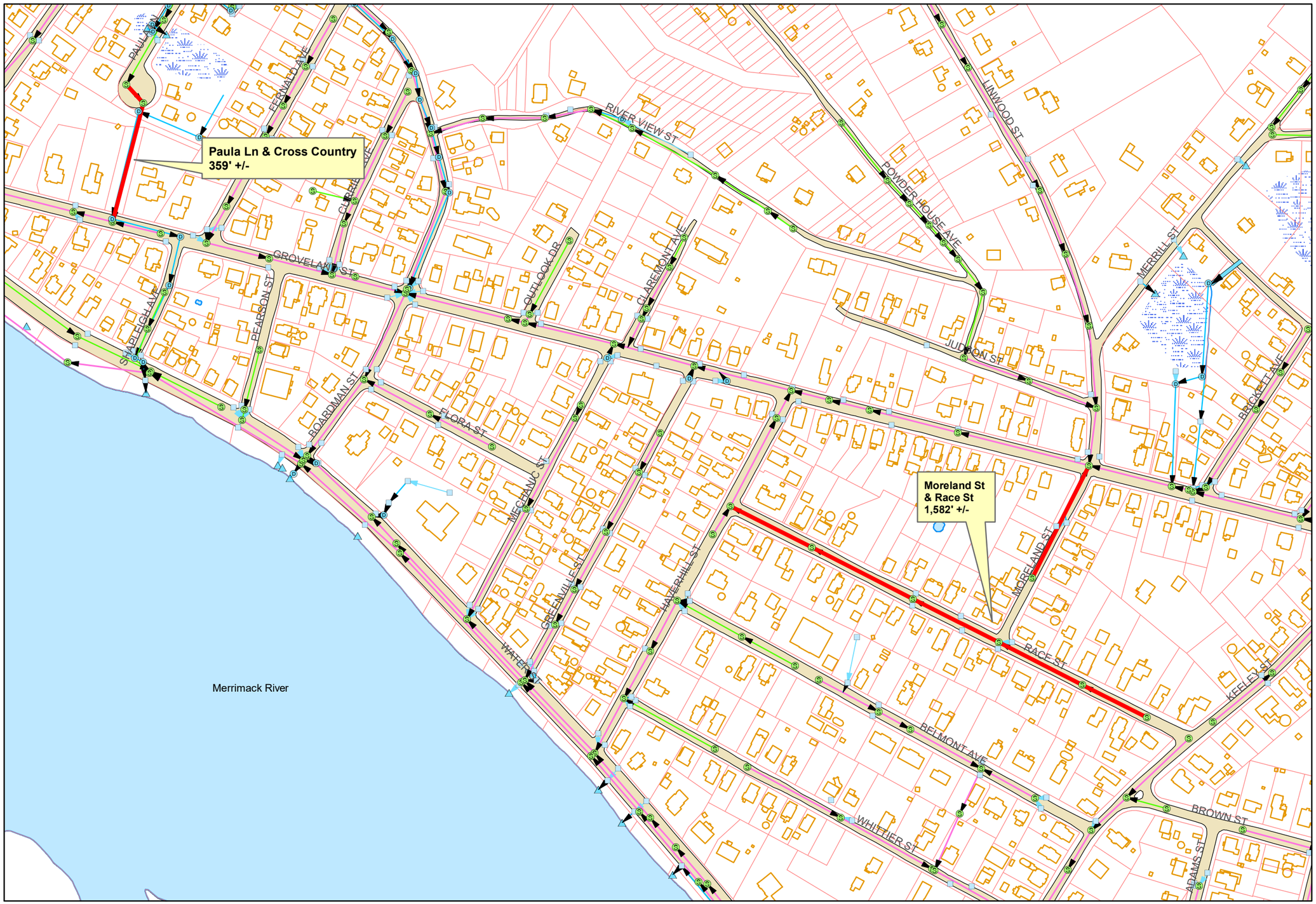
Sheet 14

N

130 65 0 130 Feet

CITY OF HAVERHILL 2019 CCTV

(Sewer & stormwater camera work done by various contractors in the year 2019)



Legend

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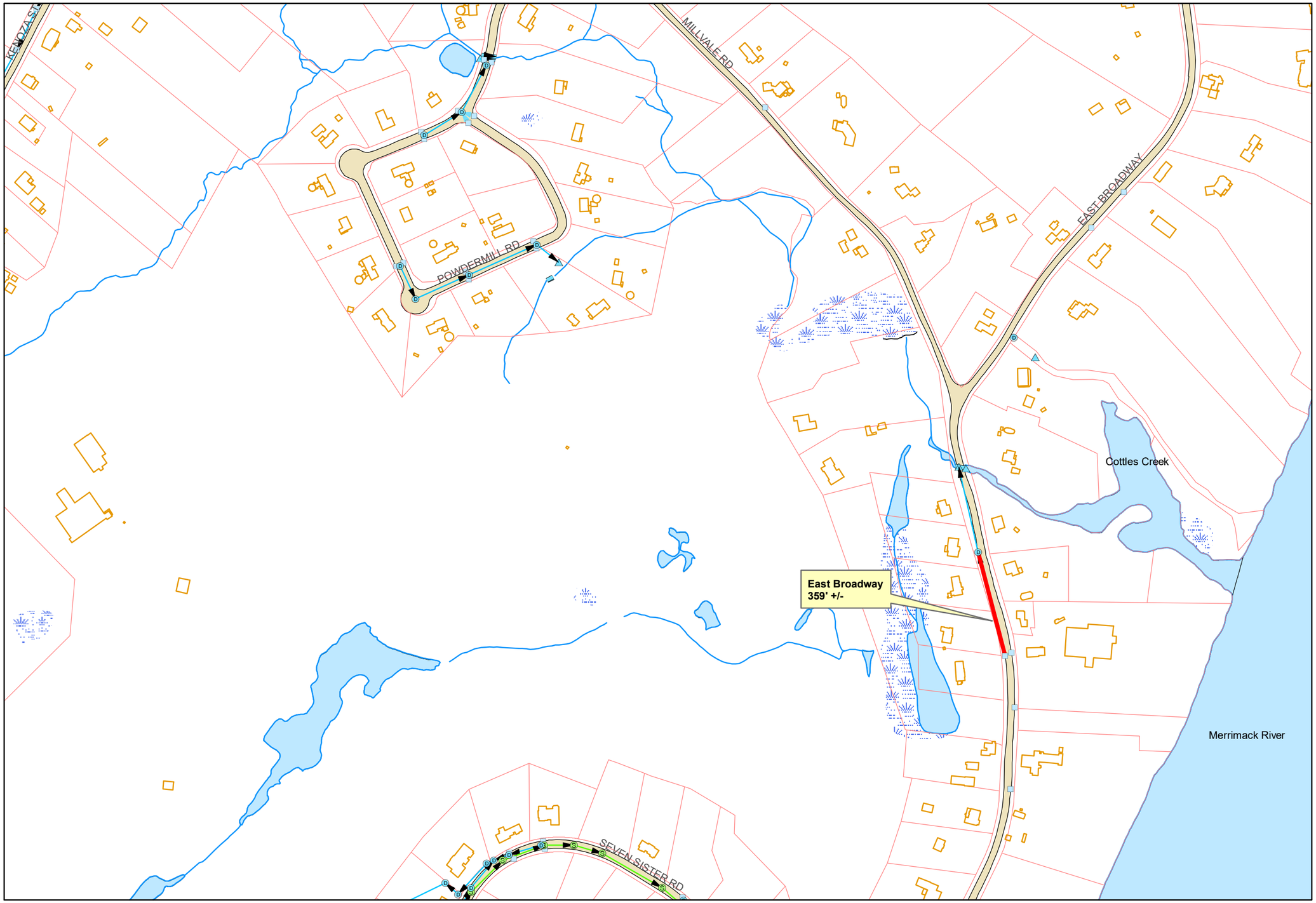
Sheet 15

N

290 145 0 290 Feet

CITY OF HAVERHILL 2019 CCTV

(Sewer & stormwater camera work done by various contractors in the year 2019)



Legend

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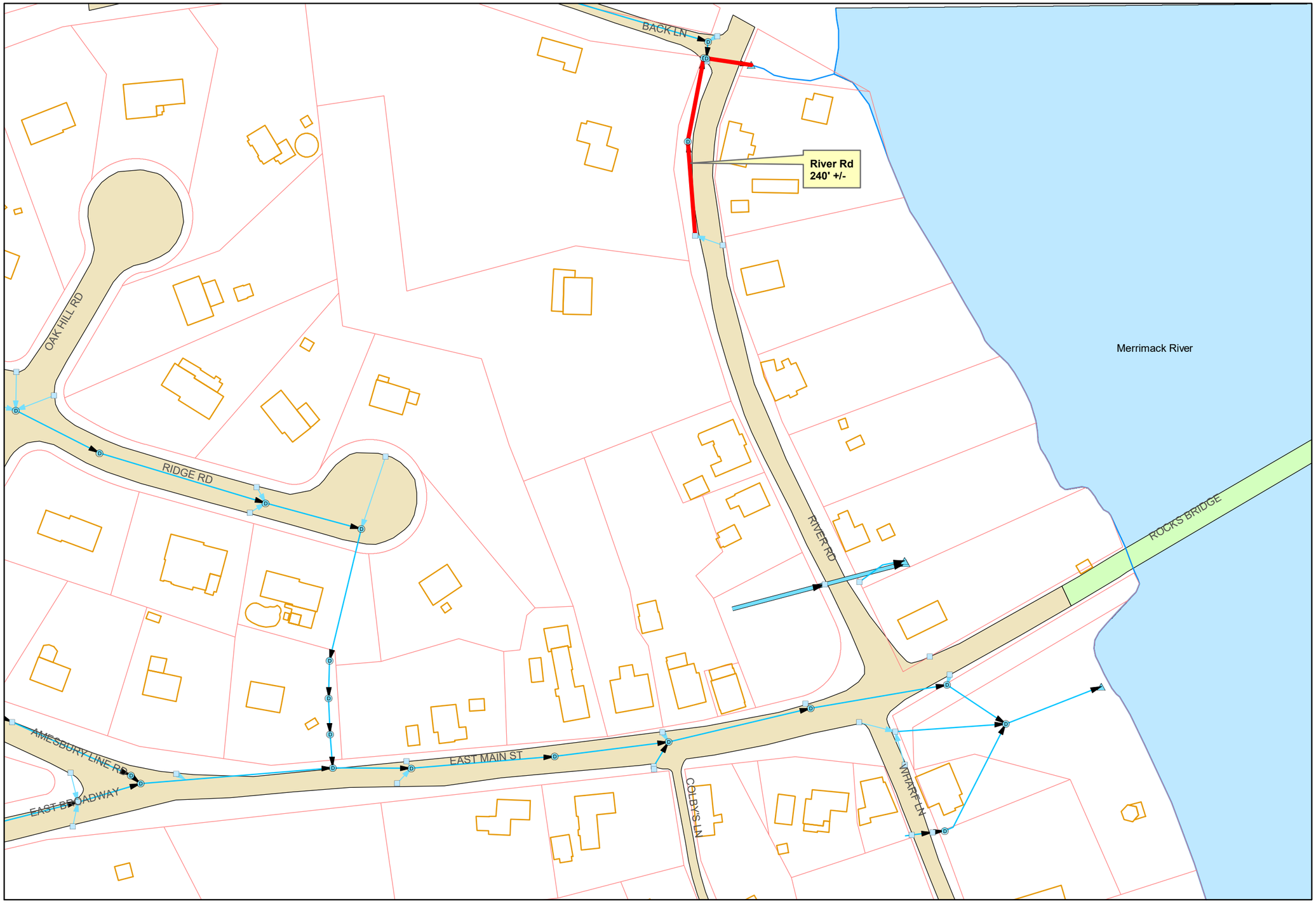
Sheet 16

N

360 180 0 360 Feet

CITY OF HAVERHILL 2019 CCTV

(Sewer & stormwater camera work done by various contractors in the year 2019)



Legend

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Sheet 17

N

110 55 0 110 Feet


HAVERHILL
PENTUCKET
SETTLED 1640. INSTITUTED A CITY. 1870.