

Haverhill

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October 26, 2021

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 10 – January 1, 2021 through June 30, 2021

Dear Ms. Kudarauskas:

Enclosed is Compliance Report No. 10 as required by Section IX.67 of the Consent Decree. This report is for the January 1, 2021 through June 30, 2021 reporting period.

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

Sincerely,

Robert E. Ward Deputy DPW Director

Enclosure

cc: Chief, Environmental Enforcement Section, U.S. DOJ

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CITY OF HAVERHILL, MASSACHUSETTS NPDES PERMIT No. MA0101621 CONSENT DECREE

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

COMPLIANCE REPORT No. 10
JANUARY THROUGH JUNE 2021

OCTOBER 2021

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. 10

JANUARY THROUGH JUNE 2021

TABLE OF CONTENTS

SECTION	DESCRIPTION	PAGE
1	INTRODUCTION	
	1.1 Background	1-1
	1.2 Unforeseen Challenges	1-1
	1.2.1 Vacant Positions	1-2
	1.3 Report Organization	1-2
	1.4 Certification Statement	1-3
2	IDDE Program	
	2.1 Introduction	2-1
	2.2 Current Revised Priority Listing	2-1
	2.3 IDDE Investigation Progress Reporting	2-2
	2.4 Identified Illicit Connections and Current Resolution Status	2-10
3	SSO AND BUILDING PRIVATE PARTY BACKUP EVENTS	3-1
4	CONSTRUCTION SITE INSPECTION AND	
	ENFORCEMENT PROGRAM	4-1
5	GENERAL STATUS	
	5.1 Introduction	5-1
	5.2 Issues of Noncompliance	5-2
	5.3 Looking Ahead - Six Month Forecast	5-2
6	SECONDARY TREATMENT BYPASS	
	6.1 Introduction	6-1
	6.2 Bypass Events	6-1

TABLE OF CONTENTS (CONTINUED)

CMOM-CORRECTIVE ACTION PLAN

7

	 7.1 Introduction 7.2 CMOM Corrective Actions. 7.3 Additional CMOM-Related Activities 	7-1 7-1 7-1
APPENDIC	<u>CES</u>	
A	CMMS GENERATED WORK ORDERS -	
В	OUTFALL INVESTIGATIONS AND INSPECTIONS IDDE PROGRAM SUPPORTING DOCUMENTS	
	LIST OF TABLES	
TABLE	DESCRIPTION	PAGE
2-1	PRIORITIZED LIST OF OUTFALLS	
	SUB-AREA INVESTIGATIONS	2-3
2-2	SUMMARY OF IDDE INVESTIGATIONS OF SYSTEMS	
	WITH POTENTIAL ILLICIT CONNECTIONS BY BASIN.	2-5
2-3	OUTFALL MAINTENANCE PRIORITY TABLE	2-7
2-4	SUMMARY OF ILLICIT DISCHARGES IDENTIFIED	
	BY BASIN AND CURRENT STATUS	
2.1	(JANUARY THROUGH JUNE 2021)	2-12
3-1	SANITARY SEWER OVERFLOW EVENTS	2.2
<i>5</i> 1	JANUARY THROUGH JUNE 2021	3-2
5-1 5-2	SUBMISSIONS WITHIN CURRENT REPORTING PERIOD FUTURE DELIVERABLES DURING THE PROCEEDING	5-2
5-2	REPORTING PERIOD (JULY THROUGH DECEMBER 2021)	5-3
7-1	CMOM CORRECTIVE ACTION PLAN & STATUS	3-3 7-2
7-1 7-2	CMOM-RELATED EXPENSES THAT OCCURRED DURING	1-2
7-2	REPORTING PERIOD (JULY THROUGH DECEMBER 2020).	7-10
	LIST OF FIGURES	
FIGURE	DESCRIPTION	PAGE
3-1	SSO AND BUILDING/PRIVATE PARTY BACKUP LOCATIONS JANUARY THROUGH JUNE 2021	3-3

INTRODUCTION

1.1 BACKGROUND

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

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

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

1.2 UNFORESEEN CHALLENGES

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

1.2.1 Vacant Positions

As reported previously, the Collection System Supervisor position remains vacant and is currently being filled by the former and retired Collection System Supervisor in an acting capacity. Every effort continues to be made to fill this critical role with a permanent hire.

1.3 REPORT ORGANIZATION

The Compliance Report is divided into several sections including:

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

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

1.4 CERTIFICATION STATEMENT

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

Robert E. Ward	10/26/2021
Robert E. Ward	(date)
Deputy DPW Director	
City of Haverhill, Massachusetts	

IDDE PROGRAM

2.1 INTRODUCTION

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

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

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

2.2 CURRENT REVISED PRIORITY LISTING

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

2.3 IDDE INVESTIGATION PROGRESS REPORTING

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

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

During this reporting period, eight outfalls were removed from the Low Priority category, three catchment investigations were completed, 14 Outfall Maintenance repairs/inspections were completed, and 209 Dry Weather Outfall inspections were completed.

Table 2-1

PRIORITIZED LIST OF OUTFALL SUB-AREA INVESTIGATIONS

(BASED ON OUTFALL INSPECTION PROGRAM)

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

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

					Field	d Inspection Inform	ation		Dry-W	eather Flow C	haracteristics					Field Paramete	er Test Results	1				Coliform Lal	boratory Sampling/A	nalysis	
		Outfall Ir	nformation				Dry Weath	er																E.Coli	
GIS Identifier	Diameter	Material	Outfall Location	Owner-ship	Date	Previous Rainfall	< 24 <4		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)	(MPN/ 100 ml)	Entrocuccus (MPN/ 100 ml)
							nouis no	13				Probl	lem Priority												
UNK0955	36*	RCP	South Main St(Dominator Plaza)	City	9/16/2020	.01" ON 9/13/2020		TRICKLE	NONE	CLEAR	NONE	NONE	725	62.2	7	1630	0.13	0.1	0	9/16/2020	0.1	9/13/2020		>2400	
PL0891	30"	RCP	Main St @ Marsh Ave	City	6/9/2020	0.01" ON 6/6/20		MODERATE	DETERGENT	NONE	NONE	CLEAR	1011	58	7.9	1200	0.17	2.19	0.02	6/9/2020	0.01	6/6/2020		>2400	
MR1109	12"	RCP	350 Water Street	City	11/9/2020	.01" ON 11/3/2020		TRICKLE	NONE	NONE	NONE	NONE	930	59.3	7.31	3	0	0	0	12/10/2015	0.1	12/3/2015		1413.6	> 2420
UNK1767	36*	CMP	Tudor Ct	City	6/23/2020	.02" ON 6/11/2020		TRICKLE	NONE	CLEAR	NONE	CLEAR	750	64	7	453	0.07	0	0	6/23/2020	0.2	6/11/2020		>2400	
UNK0951	48"	RCP	61 Brook St	City	8/27/2020	.4" ON 8/23/2020		NONE	NONE	CLEAR	NONE	CLEAR	900	65.5	7.98	334	0	0.25		10/14/2014				>2419.6	
DP10946	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	
												Hig	h Priority												
LR1260	3'x4'	OTHER, Blocks	140 Hale Street	City	9/28/2015	0.10" ON 9/13/15		NO INFORMATION	NONE	NONE	NONE	NONE	1040	69.9	7.1	927	0	0.5	0	11/4/2015	0.02	11/1/2015		1986.3	
UNK1166	34*	RCP	8 Franzone Dr	City	6/11/2020	0.01 ON 6/11/2020		SUBSTANTIAL	NONE	CLEAR	NONE	CLEAR	831	62	6.5	1000	0.09	0	0.03	6/11/2020	0.01	6/11/2020		461.1	
UNK1177	48*	RCP	Franzone Dr	City	6/11/2020	0.01" ON 6/11/2020		SUBSTANTIAL	NONE	CLEAR	NONE	CLEAR	925	63	6.1	1000	0.1	0.15	0.01	6/11/2020	0.01	6/11/2020		770.1	
												Lov	w Priority												
BZB0847	15"	RCP	Fermanagh St	City	10/20/2014	0.02* ON 10/19/14		TRICKLE	NONE	CLEAR	NONE	NONE	1306	60	7.7	287	0	1		11/13/2014	0.06	11/7/2014		770.1	
MR20718	10"	RCP	1 Water Street	City	8/14/2015	0.57" ON 8/11/15		NO INFORMATION	NONE	NONE	NONE	NONE	1000	78	7.99	2		0	0	8/31/2015	0.19	8/23/2015		556	631
MR1164	36	RCP	Water Street	City	8/25/2015	0.36" ON 8/21/15			NONE	CLEAR	NONE	NONE		72.2	7.6	2	0	0	0	08/31/2015	0.19	08/23/2015		461	< 10
FBO0638	12"	RCP	Hilldale Ave.	City	6/27/2015	0.04" ON 6/27/15		TRICKLE	NONE	NONE	NONE	NONE	945	64.5	6.91	453	0	0	0	7/7/2015	0.02	7/4/2015		435.2	
PL1222	36"	RCP	West Gile St.	City	5/20/2015	0.07" ON 5/19/15		NO INFORMATION	NONE	NONE	NONE	NONE	825	65.4	7	548	0	0.25	0	6/5/2015	1.38	6/2/15		410.6	
UNK0661	24*	RCP	Parkridge Rd.	City	9/26/2014	0.36" ON 9/21/14		TRICKLE	NONE		NONE	NONE		67.1	7.84	815	0	0		11/13/2014	0.06	11/7/2014		365.4	
MR0982	18*	CLAY	20 Back Lane	City	10/14/2015	0.02* ON 10/13/15		NO INFORMATION	NONE	NONE	NONE	NONE	1150	63.1	7.25	3	0	0	0	11/4/2015	0.02	11/1/15		547.5	183.5
MR23912	8"	STEEL	120 Merrimack St	City	8/27/2015	0.19" ON 8/23/15		TRICKLE	NONE	NONE	NONE	NONE	915	55.1	6.71	6	0	0	0	8/31/2015	0.19	8/23/2015		12.1	148
MR1140	15"	RCP	River St	City	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	Ferry Rd	City	9/24/2014	0.36" ON 9/21/14		TRICKLE	NONE	CLEAR	NONE	NONE	925	64.7	7.41	224	0	0.25		10/20/2014	0.02	10/18/2014		28.8	
MR0662	18"	RCP	Parkridge Rd.	City	9/25/2014	0.36" ON 9/21/14		TRICKLE	NONE	CLEAR	NONE	NONE	1120	65.4	7.5	475	0	0.25		10/6/2014	0.12	10/4/14		23.8	
LR0963	15*	HDPE	Alvanos St	City	9/11/2014	0.5" ON 9/8/14		MODERATE	NONE	CLEAR	NONE	SLIGHT CLOUDINESS	1015	68.1	7.87	855	0	0.25		9/16/2014	0.18	9/13/2014		22.6	
CB1198	NA	RCP	Research Dr	City	11/4/2014	0.25" ON 11/2/14		MODERATE	NONE	CLEAR	NONE	CLEAR	1003	50.2	7.06	208	0	0.25		11/13/2014	0.06	11/7/2014		21.3	
MR0770	36*	RCP	Merrimac River (River St)	City	9/23/2014	0.36" ON 9/21/14		TRICKLE	NONE	CLEAR	NONE	CLEAR	930	60.6	7.86	713	0	0.25		9/30/2014	0.01	9/29/2014		19.9	
UNK1836	36*	RCP	Computer Dr	City	11/6/2014	0.25" ON 11/2/14		MODERATE	NONE	CLEAR	NONE	CLEAR	850	53.7	7.48	3	0	0.5		11/13/2014	0.06	11/7/2014		18.3	
FP7115	12"	RCP	Brickett Ln	City	5/18/2015	0.03" ON 5/12/15		NO INFORMATION	NONE	BROWN	OTHER	CLOUDY	920	56	7.4	6	0	0.5	0.25	5/22/2015	0.07	5/19/15		8.4	
DP10969	15*	RCP	Diana Road	City	6/4/2015	1.38" ON 6/2/15		MODERATE	NONE	NONE	NONE	NONE	1035	65.3	7.22	610	0	0	0.25	6/5/2015	1.38	6/2/2015		5.2	

					Fiel	d Inspection Inform	ation		Dry-We	ather Flow Cl	haracteristics					Field Paramete	er Test Results	1				Coliform La	boratory Sampling/A	alysis	
		Outfall Ir	nformation		Date	Previous Rainfall	Dry Weather	Flow Description	Odor	Color	Floatables	Turbity	Sample Time	Sample	pН	Conductivity	Ammonia	Surfactants	Chlorine	Sample Date for Bacteria	Previous Rainfall (inches)	Previous Rainfall	Previous Rainfall (End Time)	E.Coli (MPN/	Entrocuccus (MPN/
GIS Identifier	Diameter	Material	Outfall Location	Owner-ship			< 24 < 48 hours hours						Time	Temp (F)			(mg/l)	(mg/l)	(mg/l)	Bacteria	(inches)	(Date)	(End Time)	100 ml)	IUU MI)
DPO0657	45*	RCP	44 Sarah J Circle	City	6/9/2015	0.1° ON 6/6/15		TRICKLE	NONE	NONE	NONE	SLIGHT CLOUDINESS	925	65.4	6.94	206	0	0	0	7/7/2015	0.02	7/4/15		4.1	
UNK1011	24"	RCP	Lake Street	City	6/8/2015	0.1" ON 6/6/15		TRICKLE	NONE	NONE	NONE	NONE	915	59.3	6.95	794	0	0.25	0	6/12/2015	0.1	6/6/2015		3.1	
UNK0627	15"	RCP	Haley Rd	City	5/21/2015	0.07" ON 5/19/15		NO INFORMATION	NONE	NONE	NONE	NONE	840	64.5	6.82	791	0	0	0.25	5/22/2015	0.07	5/19/15		2	
DPI0947	18"	RCP	177 Brook Street	City	10/31/2015	0.66" ON 10/29/15		MODERATE	RANCID/ SOUR	NONE	NONE	NONE	800	52.3	7.4	283	0	0	0	12/10/2015	0.1	12/3/15		1	
UNK1189	NA	NA	Primrose St (Dpw)	City	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	Newton Rd	City	5/11/2015	0.03" ON 5/12/15		MODERATE	NONE	BROWN	NONE	SLIGHT CLOUDINESS	1111	62.2	6.81	76	0	0	0.25	5/22/2015	0.07	5/19/15		<1	
TS0989	24"	RCP	Newton Rd	City	5/18/2015	0.03" ON 5/12/15		SUBSTANTIAL	NONE	Clear	NONE	SLIGHT CLOUDINESS	1100	63.3	7.2	48	0	0	0.25	5/22/2015	0.07	5/19/15		ব	
UNK1020	24"	RCP	River St	Private	9/30/2014	0.36" ON 9/21/14		TRICKLE	NONE	NONE		SLIGHT CLOUDINESS	840	44.9	7.77	301	0	0		11/13/2014	0.06	11/7/2014		34.1	
UNK1750	24"	RCP	36 Magnavista	City	5/18/2015	0.03" ON 5/12/15		TRICKLE	NONE	NONE	NONE	NONE	955	64.7	7.6	574	0	0	0.25	5/22/2015	0.07	5/19/2015		<1	
UNK1040	24*	RCP	Gile St.	City	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							
UNK0848	18"	RCP	Woodrow Ave	City	9/26/2019	0.01" ON 9/23/19		NO FLOW																	
FBO0723	18"	RCP	Hanna Ridge Rd.	City	7/31/2019	1.2° ON 7/23/19		MODERATE	NONE	NONE	NONE	CLEAR	923	76.6	7.77	440	0	<0.05	0	7/31/2019	1.2	7/23/2019	1045	8.5	
UNK0888	NA	NA	West Lowell Street	City	6/12/2015	0.1° ON 6/6/15		MODERATE																	
UNK1188	32"	RCP	Primrose Street	City	7/16/2019	0.45" ON 7/12/19		TRICKLE	NONE	NONE	NONE	CLEAR	930	73.9	7.48	855	0.5	<0.05	0	7/16/2019	0.45	7/12/2019	2045	770.1	
MR38714	6*	PVC	Parkridge Rd.	City	3/9/2016	0.01" ON 3/4/16		TRICKLE																	
MR38718	18"	RCP	Merrimack River	City	9/26/2019	0.01" ON 9/23/19		TRICKLE	NONE	NONE	NONE	CLEAR	1013	68.1	8.01	509	0	<0.05	0	9/29/2019	0.01	9/23/2019	2240	>2400	
LR39512	48"	RCP	Little River	City	7/31/2019	1.2° ON 7/23/19		NO FLOW																	

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

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) 2014-2021 Dry-Weather MS-48/Stormwater Outfall Inspection Program REVISED (December 2020) IDDE INVESTIGATION PRIORITIES

						TIGATION PRIO					
			Curr	ent Report Pe	e riod anuary 2021 - June	2021		ompleted to Da ng this Reporting			
Basin ID	Outfall ID	Existing Length of Pipe (ft)	Number of Manholes and Catch Basins	Upstream Length of Pipe (ft)	Percent Completed	Number of Manholes and Catch Basins	Percent Completed	Upstream Length of Pipe (ft)	Percent Completed	Number of Manholes and Catch Basins	Percent Completed
Buswell Brook	BZB0847	1,697	24					1,697	100%	24	100%
Buswell Brook TOTAL		1,697	24	0	0%	0	0%	1,697	100%	24	100%
Creek Brook	CB1193	70	0					70	100%		
Creek Brook	CB1193	144	5	144	100%	5	100	144	100%	5	100
	CB1710	71	0	2	10070		100	71	100%		100
Creek Brook Outlet TOTAL		285	5	144	51%	5	100%	285	100%	5	100%
	DPO0657	422	-								
Detention Pond Outlet	DPO0657 DPO0696	61	7 2					61	100%	2	100%
	DPO1079	37	0					01	100%	2	100%
Detention Pond Outlet TOTAL	DI GIOTS	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 0					22	100%		
Detention Pond Inlet TOTAL	DPI1094	22 12,646	219	0	0%	0	0%	7,443	59%	172	79%
Detention Fond Inter FOTAE		12,010		v	0,0	U	0,0	7,110	2570	1/2	1570
Fishing Brook	FBO0638	852	15					852	100%	15	100%
Fishing Brook TOTAL		852	15	0	0%	0	0%	852	100%	15	100%
Frey's Pond	FP7115	72	3								
Frey's Pond TOTAL	11/113	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 26,134	4 614					4,418 26,134	100%	622	100%
Little River TOTAL	LR1260 ¹	39,884	721	0	0%	0	0%	31,091	78%	630	87%
Little River TOTAL		32,004	721	U	0 / 0	v	070	31,071	7870	030	87 /0
Merrimack River	MR0662	210	5								
	MR0770	2,980	47								
	MR0834	756	8					128	100%	10	100%
	MR0982 MR1109	128 941	10 12					941	100%	10	100%
	MR1138	289	18					289	100%	18	100%
	MR1140	90	2					-07			200,0
	WIK 1140							3,899	100%	104	100%
	MR1141 ²	3,899	104								
	MR1141 ² MR1164	1,746	104 116					1,746	100%	116	100%
	MR1141 ² MR1164 MR20718	1,746 NA	116								
	MR1141 ² MR1164 MR20718 MR23912	1,746 NA 0	116								
	MR1141 ² MR1164 MR20718 MR23912 MR38718	1,746 NA 0 1713	116 1 30					1,746	100%	116	100%
Merrimack River TOTAL	MR1141 ² MR1164 MR20718 MR23912	1,746 NA 0	116	0	0%	0	0%				
	MR1141 ² MR1164 MR20718 MR23912 MR38718 MR24314	1,746 NA 0 1713 541 13,293	116 1 30 24 377	0	0%	0	0%	1,746 541 7,544	100% 100% 57%	24 284	100% 100% 75%
Merrimack River TOTAL Pentucket Lake	MR1141 ² MR1164 MR20718 MR23912 MR38718 MR24314 PL0891	1,746 NA 0 1713 541 13,293	116 1 30 24 377	0	0%	0	0%	541 7,544 5,463	100% 100% 57%	24 284 128	100% 100% 75% 100%
Pentucket Lake	MR1141 ² MR1164 MR20718 MR23912 MR38718 MR24314	1,746 NA 0 1713 541 13,293 5,463 3,292	116 1 30 24 377 128 102					1,746 541 7,544 5,463 3,292	100% 100% 57% 100% 100%	24 284 128 102	100% 100% 75% 100% 100%
	MR1141 ² MR1164 MR20718 MR23912 MR38718 MR24314 PL0891	1,746 NA 0 1713 541 13,293	116 1 30 24 377	0	0%	0	0%	541 7,544 5,463	100% 100% 57%	24 284 128	100% 100% 75% 100%
Pentucket Lake Pentucket Lake TOTAL	MR1141 ² MR1164 MR20718 MR23912 MR38718 MR24314 PL0891 PL1222 ¹	1,746 NA 0 1713 541 13,293 5,463 3,292 8,755	116 1 30 24 377 128 102					1,746 541 7,544 5,463 3,292	100% 100% 57% 100% 100%	24 284 128 102	100% 100% 75% 100% 100%
Pentucket Lake	MR1141 ² MR1164 MR20718 MR23912 MR38718 MR24314 PL0891	1,746 NA 0 1713 541 13,293 5,463 3,292	116 1 30 24 377 128 102 230					1,746 541 7,544 5,463 3,292	100% 100% 57% 100% 100%	24 284 128 102	100% 100% 75% 100% 100%

			Curi	ent Report Pe	eriod		C	ompleted to Da	ate		
					nuary 2021 - Jun	e 2021		ng this Reportin			
Basin ID	Outfall ID	Existing		Upstream				Upstream			
		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	UNK0627	254	8								
	UNK0661	410	11					410	100%	11	100%
	UNK0668	854	18								
	UNK0788	869	16					869	100%	16	100%
	UNK0836	842	12								
	UNK0883	570	7								
	UNK0898	91	0					91	100%		
	UNK0902	54	2								
	UNK0951	1,910	34					1,910	100%	34	100%
	UNK0953	225	0					225	100%		
	UNK0954	81	0					81	100%		
	UNK0955	6058	146					6,058	100%	146	100%
	UNK1011	5306	44								
	UNK1020	71	2								
	UNK1040	1414	21								
	UNK1063	49	0								
	UNK1166	1079	28					1,079	100%	28	100%
	UNK1177	156	3					156	100%	3	100%
	UNK1188	25926	470					25,926	100%	470	100%
	UNK1189	2043	17	2043	100%	17	100%	2.043	100%	17	100%
	UNK1680	719	8					,,,,,,			
	UNK1750	1239	23	1239	100%	23	100%	1.239	100%	23	100%
Jnknown	UNK1767	2077	52		200,0		200,0	2,077	100%	52	100%
	UNK1835	761	10					761	100%	10	100%
	UNK1836	1179	22								
	UNK1886	20	0					20	100%		
	UNK1887	20	0					20	100%		
	UNK1888	21	0					21	100%		
	UNK1889	21	0					21	100%		
Unknown TOTAL	CHILISOS	54,319	954	3,282	6%	40	4%	43,007	79%	810	85%
West Meadow Brook	WMB0738	80	0					80	100%		
	WMB0739	80	0					80	100%		
	WMB0740	82	0					82	100%		
	WMB0759	20	0					20	100%		
West Meadow Brook TOTAL		262	0					262	100%		
GRAND TOTAL		137,927	2.617	3,426	2%	45	2%	102,394	74%	2.184	83%
GRAND IUIAL		- /	2,017		2%	45	2%		/4%	2,184	83%
		26.12mi.		0.65mi.				19.39mi.			

 $^{^{\}rm 1}$ Estimate Base upon Percentage of Manholes Inspected

 $^{^{\}rm 2}$ Catchment includes State owned drainage and outfall. City inspected City owned drainage.

TABLE 2-3 OUTFALL MAINTENANCE PRIORITY TABLE January through June 2021

		High P	Priority	Medium Priority		I	ow Priority				
Outfall ID	Work Order Number	Could Not Locate	Buried	Fully Submerged in	Partially Submerged in		Partially Submerged in	Abnormal Vegatation	Outfall Damage	Inspection Date	Re-Inspection Date
DPI1056	ST00000521	X		Sediment	Sediment	Water	Water	regulation	Duninge	June-18	
KL1227	ST00000321 ST00001275	X								June-18	<u> </u>
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	
LR1150	ST00001282		X							June-19	
MR1224	ST00000540		X								
UNK0888	ST00000478		X							March-19	
UNK0889	ST00000554 ST00000556		X X							August-18	
UNK0905 UNK0997	ST00000560		X							August-18 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			Х						April-19	June-21
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	June-21
JP1179 KL1230	ST00000530 ST00001152			X						April-19 March-19	
LR0844	ST00001132 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 UNK1678	ST00000566 ST00000572			X						March-19	
UNK16/8 UNK1748	ST00000572 ST00000573			X						March-19 March-19	
UNK1748 UNK1772	ST00000574			X						March-19	
UNK1772 UNK1906	ST00000574			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	1			X					April 10	
CLO0688 DPI0634	ST00000605 ST00000606				X X					April 10	
DPI0634 DPI0841	ST00000608	1			X					April-19 April-19	
DPI0841 DPI0965	ST00000609				X					April-19 April-19	
DPI10965 DPI1001	ST0000005 ST00000612	 			X					April-19 April-19	
DPI1004	ST00000613				X					July-19	June-21
DPI1081	ST00000615				X					1, 20	

Table 2-3 Continued

	wiloi	High P	riority	Medium Priority		I	ow Priority				D 7 (1)
Outfall ID	Work Order Number	Could Not	Buried	Fully	Partially Submerged in	Fully Submerged in	Partially Submerged in	Abnormal	Outfall	Inspection Date	Re-Inspection Date
		Locate	Durieu	Sediment	Sediment	Water	Water	Vegatation	Damage		
DPI1090	ST00000617				X					April-19	
FBO0721	ST00000628				X					April-19	June-21
FP7114	ST00000629				X					April-19	
FP7115	ST00000630 ST00000634				X X					April-19 April-19	June-21
KL30718 LR0931	ST00000635				X					April-19 April-19	
LR1099	ST00000636				X					April-19 April-19	
LR1102	ST00000637				X					April-19	
LR1251	ST00000641				X					April-19	
MR23513	ST00000650				X					r -	
MR23514	ST00000651				X						
MR23515	ST00000652				X						
MR23516	ST00000653				X						
MR23517	ST00000654				X						
MR23518	ST00000655				X						
MR23519	ST00000656				X						
MR23520	ST00000657				X						
MR23522	ST00000659	1			X					1	
MR23523	ST00000660	1			X						
MR23524	ST00000661 ST00000662	 			X X						
MR23525 MR24316	ST00000662 ST00000663	 			X					April 10	
MR24316 MR24318	ST00000664	1			X					April-19	
MR24718	ST00000665	 			X					April-19	
MR5112	ST00000666				X					April-19	
PL1181	ST00000667				X					April-19	June-21
SB1117	ST00000668				X					April-19	34110 22
UNK0626	ST00000674				X					April-19	
UNK0663	ST00000677				X					April-19	
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 ST00000711				X					April-19	
UNK1005 UNK1006	ST00000711 ST00000712			-	X X					April-19 April-19	
UNK1006 UNK1111	ST00000712 ST00000717				X					April-19 April-19	
UNK1111 UNK1123	ST00000717 ST00000718				X					April-19 April-19	
UNK1158	ST00000713				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	1			X					April-19	
UNK16715	ST00000741	1			X						
UNK1684	ST00000742				X					April-19	
UNK1685	ST00000743 ST00000744				X					July-19	
UNK1686	ST00000744 ST00000751	1			X					July-19 May 21	
UNK1738 UNK1801	ST00000751 ST00000758	 			X X					May-21 July-19	
UNK1801 UNK1802	ST00000758 ST00000759	1			X					July-19 July-19	
UNK1802 UNK1806	ST00000759 ST00000760				X					July-19	
UNK1864	ST00000767				X						
UNK1865	ST00000768				X					June-21	
UNK1867	ST00000770				X					1	
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	
UNK1900	ST00000776				X					July-19	
UNK24721	ST00000780				X					August-19	
UNK32717	ST00000791				X					May-19	

Table 2-3 Continued

Contable Contable		Work Order	Work Order High Priority Medium Priority				I	ow Priority				Re-Inspection
NRS-1912 TOMOROPS	Outfall ID			Buried	Fully Submerged in	Submerged in	Submerged in	Submerged in			Inspection Date	-
NECOTION NECOTION	UNK34712	ST00000793			Sediffent		water	water				
NACAPIA STROMOTES N. N. May-19 June 21	UNK34713										May-19	
NAC-9216 NAC-	UNK26725										May-19	
Seage											M 10	
STROMOTIZES						X			Y		-	lune-21
March Marc											iviay 15	June 21
Decompose	CB1147										August-19	June-21
ST00001293	DPO0657	ST00001291							X		May-19	
NROSO STUDOUZ25	DPO1007										August-19	June-21
NK 1901												
INK1902 ST00001296											May 10	
NNS-113 \$700001297											•	
Name											Way 19	
Description	CB1198	ST00001298					X				May-19	
MESOTIP ST00000542	DPI0945										May-19	-
NSP NSP	DPI1133										May-19	
Name	MR20719		1									<u> </u>
Description ST00000610											April-19	
Definition ST00000614							Λ	X				
Definition Def												
DPII131 ST0000019	DPI1084											
DEILIE	DPI1125	ST00000618						X				
DPI1197 ST00001299	DPI1131										-	
REDO0719 ST00000627	DPI1162										May-19	
KLI178 ST00000633											A 7.10	
LR1260 ST00000642											-	
ST00000670											April 19	
NK0666 ST00000678	TS0984	ST00000670									April-19	
NK0666 ST00000679	TS33514	ST00000673						X			April-19	
NK0728 ST00000688	UNK0665										•	
NRW NRW											-	
NK0730 ST00000690 Name											May-19	June-21
NK NK NK NK NK NK NK NK											May-19	
NK NK NK NK NK NK NK NK	UNK0902											
NK1176 ST00000728	UNK0955	ST00000708						X				
UNK1177 ST00000729	UNK1168	ST00000723										
NK1188 ST00001301	UNK1176										July-19	
NK1206 ST00000733	UNK1177											
NK1220 ST00000735			-								-	
NK1695 ST00000745			1								iviay-19	
NK ST0000746	UNK1695										April-19	
NK1767 ST0000755 X	UNK1696							X			•	
UNK1823 \$T00000761 X June-21 UNK1829 \$T00000762 X May-19 UNK1835 \$T00000777 X May-19 UNK6316 \$T00001303 X May-19 UNK8312 \$T00000797 X May-19 UNK1775 \$T00000756 X August-19 LR0979 \$T00001304 X April-19 MR0607 \$T00001305 X May-19 TS0983 \$T00001307 X April-19 UNK1173 \$T00001308 X April-19 UNK1189 \$T00001310 X April-19	UNK1749											
NK ST0000762	UNK1767										June-21	
UNK1835 ST0000763			1								J 21	
UNK1910 ST00000777 X May-19 UNK6316 ST00001303 X May-19 UNK8312 ST00000797 X X UNK1775 ST00000756 X August-19 LR0979 ST00001304 X April-19 MR0607 ST00001305 X May-19 TS0983 ST00001307 X April-19 UNK1173 ST00001308 X X MR0927 ST00001310 X X			1									
UNK6316 ST00001303												
UNK8312 ST00000797 X August-19 UNK1775 ST00000756 X August-19 LR0979 ST00001304 X April-19 MR0607 ST00001305 X May-19 TS0983 ST00001307 X April-19 UNK1173 ST00001308 X X MR0927 ST00001309 X X UNK1189 ST00001310 ST00001310 ST00001310	UNK6316										-	
X April-19 MR0607 ST00001305 X May-19 MR0607 ST00001305 X April-19 MR0607 ST00001307 X April-19 MR173 ST00001308 X April-19 MR0927 ST00001309 X MR0927 ST00001310 ST000001310 ST00001310 ST000001310 ST000001310 ST000001310 ST000001310 ST000001310	UNK8312	ST00000797										
MR0607 ST00001305 X May-19 TS0983 ST00001307 X April-19 UNK1173 ST00001308 X X MR0927 ST00001309 X X UNK1189 ST00001310 X X	UNK1775							X				
X April-19	LR0979		1								-	
UNK1173 ST00001308 X MR0927 ST00001309 X UNK1189 ST00001310 X					-							
MR0927 ST00001309 UNK1189 ST00001310 ST00001310			1		-						April-19	
UNK1189 ST00001310			1							Λ		
	UNK1189											

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. Three identified illicit discharges have been resolved and removed from the summary list on Table 2-4.

Merrimack River Basin Outfalls

- MR24314 was inspected for dry weather flow and no flow was found. This outfall has been removed from the priority list.
- o MR1141 was inspected for dry weather flow and no flow was found. This outfall has been removed from the priority list.
- MR1138 was inspected for dry weather flow and no flow was found. This outfall has been removed from the priority list.

Detention Pond Outlets

DPO0696 was inspected for dry weather flow and no flow was found. This outfall has been removed from the priority list.

• Johnson Creek Basin Outfalls

o JC1028 was inspected for dry weather flow and no flow was found. This outfall has been removed from the priority list.

• Little River Basin Outfalls

- LR1103 was inspected through two reporting periods with no flow present, therefore the outfall was removed from the priority list.
- LR0993 was inspected for dry weather flow with no flow present and was removed from the priority list.

Unknown Basin

- UNK0951 remains a High Priority due to physical damage to the storm drain catchment.
 Work will begin when weather permits.
- UNK1835 was inspected through multiple reporting periods with no dry weather flow and was removed from the priority list.

 UNK0955 was investigated using CCTV for a portion of the catchment area and it was found that illicit flow was not originating from the near-by shopping plaza. Additional CCTV and sampling will be conducted when weather permits.

• Pentucket Lake Basin Outfalls –

o PL0891 was determined to be high in bacteria and surfactants. It was discovered that the surfactants were attributed to a laundromat; therefore, the owner has been instructed to repair the broken lateral with expected completion in the next reporting period.

TABLE 2-4 SUMMARY OF ILLICIT DISCHARGES IDENTIFIED BY BASIN AND CURRENT STATUS (January through June 2020)

Description			Illicit Dischar	ge/Connection Verified			Ongoing Illici	t Discharge Ren	noval Activities		Final Illicit Connect	ion Removal Action	ıs		
CD Requirement			67.a.iii.	ı	67.a.iii.2	6	7a.iii.7	(67.a.iii.8	67.a.iii.9	67.a.iii.3	67.a.iii.4	67.a.iii.5	67.a.iii.6	
Basin ID	Outfall ID	Date Verified	Address Location	Type of Discharge ¹	Estimated Flow	Removed?	Reasons Why Not	Schedule for Removal	Reason why expedited	Legal Actions against Private Property Owners	Actions Taken (with Dates)	Date Connection Eliminated	Est. Cost of Removal	Estimated Volume Removed (gallons)	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			Catchment investigation completed on 10/10/2020.			60,000	
	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".
Merrimack River	MR1109	12/21/2020	350 Water St	IDDE conducted and needs further investigation to determine the source.	500gpd	not removed	verifying bacteria counts				CCTV conducted on 12.21.2020 no defects found. Flow appears to be from top of catchment from depression/wetland flowing through drain. Additional CCTV required in nearby sewer lines to confirm no infiltration				Yes, the City is in compliance
	MR1138	10/20/2017	River St	Upstream contamination from culvert inlet.	Not able to estimate	Yes					Continiuing to monitor outfall for dry weather flow.				Yes, the City is in compliance
Pentucket Lake	PL0891	10/5/2016	Marsh Avenue	leaking sewer/ exfiltration	Not able to estimate	x	Sewer replacement costs/lengths are extensive; cost exceeds discretionary funds; new fund required in next fiscal year to complete project	2021	This connection is being removed as quickly as possible and dependent on the availability of funds within the fiscal year.	NOV	10/5/18-10/10/18: SMH-2190 point repair and manhole rehabilitation complete. 10/11/18- 10/16/18: Installation of CIPP main line liner on Main St. 10/17/18-10/23/18: Installation of CIPP main line liner on Marsh Ave. 10/24/18: Began installing CIPP of sewer laterals. Groundwater too high causing flooding in homes. Project on hold until mid-end March. Project is complete. Post Ining CCTV was reviewed and determined that more CCTV needs to be conducted and 1 defect in lining needs to be repaired.6/9/2020: illicit connection located at lateral from laundromat, owner notified to repair	-	\$ 446,000	-	Marsh Ave sewer repair project was bid and awarded to National Water Main Cleaning Co. and contract had to be extended to (3'01'9 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.
	UNK0951	11/1/2017	Brook Street	Leaking sewer running through drain	Not able to estimate	not removed	Not able to fix due to weather	As soon as weather permits	-	-	Section of sewer was dug up and replaced. Further inspections in 2020 showed no dry weather flow. The City will continue to monitor for dry weather flow	4/17/2018	\$ 4,277		Yes, the City is in compliance
	UNK0955	10/14/2016	South Main St	Contaminated private line discharges to City line.	Not able to estimate	not removed	unable to complete investigation due to weather	As soon as weather permits			drain manholes will be exposed and CCTV'd when weather permits to identify source of illicit flow. CCTV conducted showing no infiltration from shopping plaza, additional CCTV will continue in upcoming reporting period.				
Unknown	UNK1166	6/11/2020	Franzone Dr	Upstream contamination needs additional IDDE	10gpm est	not removed	CCTV to be completed in next reporting period								
	UNK1188	12/25/2012	34 Columbia Pk., 66 Columbia Pk., 74 Columbia Pk., 80 Columbia Pk., 90-92 Columbia Pk.	5 Single family	N/A	N/A	N/A	N/A	N/A	N/A	5-house sewer services through a drain pipe that were dripping. Install a PVC sleeve through drain	6/8/2016	\$ 13,000	26,481	City is in compliance. 60 day deadline was not applicable until November 2016.
	UNK1767	6/23/2020	Tudor Ct	IDDE conducted. CCTV needs to be completed. High ammonia from private pipe. Dye tested home and their wastes go to sewer.	N/A	not removed	CCTV to be completed in next reporting period								

Description			Illicit Discharg	ge/Connection Verified			Ongoing Illici	t Discharge Rem	oval Activities		Final Illicit Connecti	on Removal Action	18		
CD Requirement			67.a.iii.1		67.a.iii.2	6	7a.iii.7	6	7.a.iii.8	67.a.iii.9	67.a.iii.3	67.a.iii.4	67.a.iii.5	67.a.iii.6	
Basin ID	Outfall ID	Date Verified	Address Location	Type of Discharge ¹	Estimated Flow	Removed?	Reasons Why Not	Schedule for Removal	Reason why expedited	Legal Actions against Private Property Owners	(with Dates)	Date Connection Eliminated	Est. Cost of Removal	Estimated Volume Removed (gallons)	Assessment: Is the City in compliance with the schedule?
Detention Pond Outlet	DPO0696	6/12/2015	Pamela Lane	Private drain and outfall DPI0697 that discharge to detention pond and not contaminated.	Not able to estimate	N/A	N/A	N/A	N/A	N/A	No Flow present on multiple inpsections in 2020. City will continue to monitor for dry weather flow	N/A	N/A	N/A	
											Grand Total =		\$ 463,277	86,481	

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 (January through June 2021), are listed in Table 3-1 and shown in Figure 3-1.

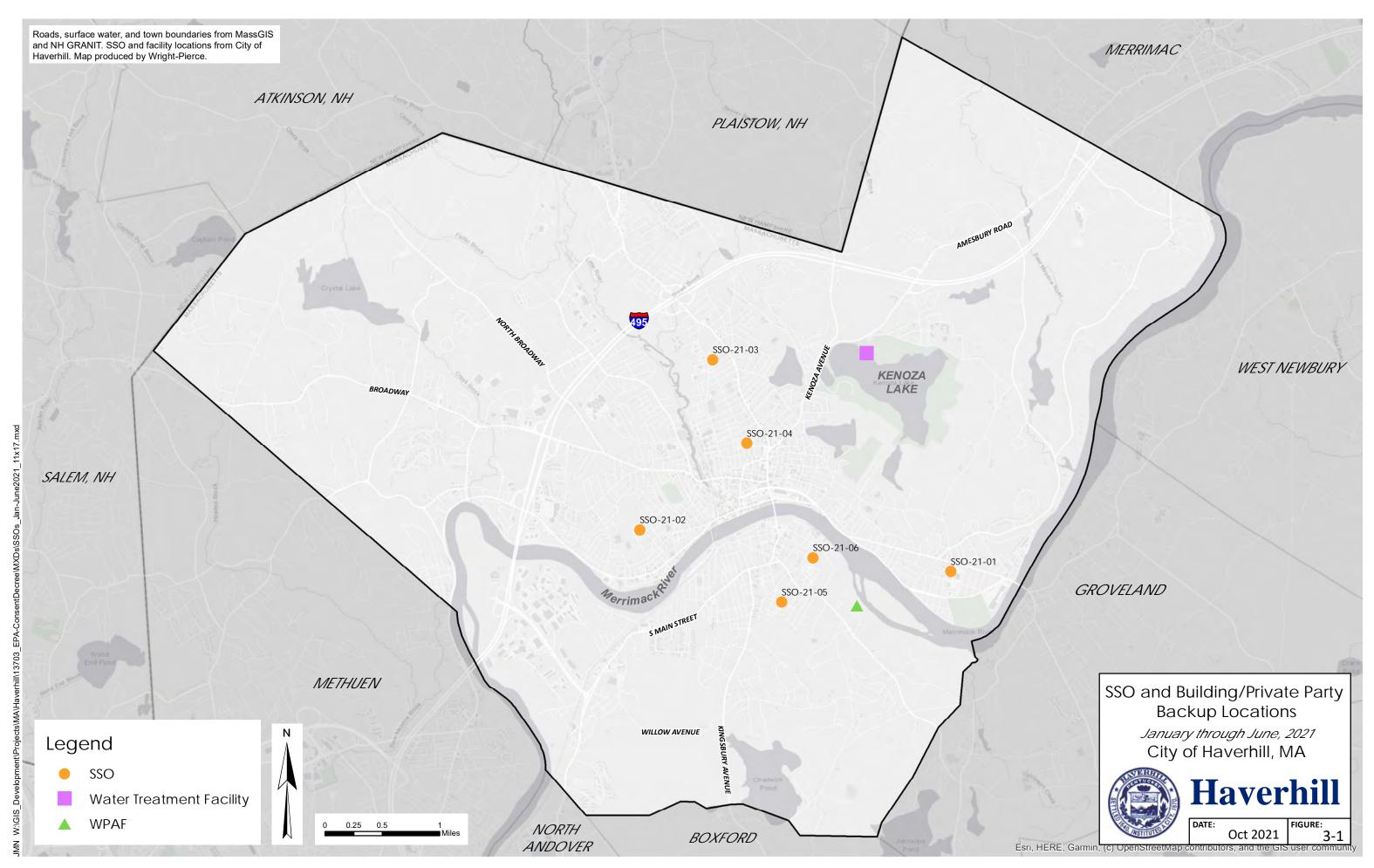
Over the Reporting Period, there were a total of six reportable SSO events associated with the City's sewer collection system and are listed in Table 3-1. Two of the six reported SSO's associated with the City have occurred previously and were addressed as follows:

SSO-21-05
 SSO-21-06
 SSO-21-06
 Stetson Street
 CCTV cleaned sewer lines
 CCTV cleaned sewer lines

It is important to note that the SSO's associated with the City collection system operations continue to not be a result of pipe capacity deficiencies and the City continues to make significant progress in reducing the number of SSOs that occur in the system attributed to City operations. For this six-month reporting period, the City had six 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 less SSOs than the national average.

TABLE 3-1 SANITARY SEWER OVERFLOW EVENTS JANUARY THROUGH JUNE 2021

						1
SSO ownership (city or private)	CITY	CITY	CITY	CITY	CITY	CITY
MaintStar Work Order	WW00001996	WW00002017	WW00002023	WW00002027	WW00002028	WW00002034
SSO ID	SSO-21-01	SSO-21-02	SSO-21-03	SSO-21-04	SSO-21-05	SSO-21-06
SSO Address	Katsaros Drive	14 Overlook Ave	45 Seventeenth Ave	49 Cedar St	50 Stetson St	16 South Brook St
Start date/time	3/17/2021 20:30	5/1/2021 17:00	5/13/2021 8:00	6/10/2021 21:00	6/13/2021 11:15	6/30/2021 18:48
End date/time	3/17/2021 21:00	5/1/2021 18:30	5/13/2021 9:05	6/10/2021 22:00	6/13/2021 12:00	6/30/2021 19:00
Date reported EPA/DEP	3/18/2021 9:30	5/2/2021 9:30	5/13/2021 12:00	6/11/2021 8:00	6/14/2021 7:00	7/1/2021 15:00
Who notified	Isaiah Lewis	Paul Jessel	Paul Jessel	Paul Jessel	Paul Jessel	Isaiah Lewis
Reason for occurrence	SEWER MAIN BLOCKED	SEWER MAIN BLOCKED	SEWER MAIN BLOCKED	SEWER MAIN BLOCKED	SEWER MAIN BLOCKED	SEWER MAIN BLOCKED
Date of last SSO	FIRST	FIRST	FIRST	FIRST	10/14/2018	3/26/2015
occurrence	OCCURRENCE	OCCURRENCE	OCCURRENCE	OCCURRENCE	10/14/2018	3/20/2013
SSO est. Vol.	25	15	20	500	1,000	10
Receiving waters if sewerage entered	CONTAINED IN CB	NA	NA	NA	NA	NA
Method used to estimate volume	Visual	Visual	Visual	Visual	Visual	Visual
Nearest CB Location ID	CB-8045	CB-222	CB-3098	CB-5580	CB-2855	CB-3488
Distance to nearest CB (ft.)	370	454	75	110	50	131
Name of receive water whether or not there was a release	Unknown	Unknown	Little River	Little River	Merrimack River	Merrimack River
Entered CB yes or no	YES	NO	NO	NO	NO	NO
Measured Taken to stop SSO	FLUSH SEWER MAIN	FLUSH SEWER MAIN	FLUSH SEWER MAIN	FLUSH SEWER MAIN	FLUSH SEWER MAIN	FLUSH SEWER MAIN
Decontaminate	YES	YES	YES	YES	YES	YES
Measures taken to prevent future overflows	CCTV Line	CCTV Line	CCTV Line	CCTV Line	CCTV Line	CCTV Line
Sewerage location into stream	NA	NA	NA	NA	NA	NA



4.1 CONSTRUCTION SITE INSPECTION AND ENFORCEMENT PROGRAM

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

The City is currently reviewing its first two permit applications for "non-exempt" projects. The first project consists of the redevelopment of an existing church property; the second is the development of a new residential subdivision. Both projects disturb more than one acre of land and discharge to the MS4.

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

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 Tenth Reporting Period (January through June 2021), there were two deliverables and/or activities due within that timeframe to achieve compliance. The two deliverables/activities are shown in Table 5-1 below.

The City continues to make progress related to their Combined Sewer Overflow Final Long-Term Control Plan. The CSO Dry Weather Connector Pipe Improvements was awarded to N. Granese & Sons, Inc. and was completed in May 2021.

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

A draft Request for Qualifications, (RFQ), for the preliminary design of the City's Water Pollution Abatement Facility's Rehabilitation and Upgrade Project has been prepared. This draft RFQ is scheduled to be advertised in the first quarter of 2022.

In addition, the City is currently reviewing several computerized maintenance management systems (CMMS). The new CMMS will be utilized to develop consequence of failure and likelihood of failure values through CCTV to be inputted into the City's long-term CIP. The new CMMS will also have reporting capabilities for outfall inspection and investigation, catch basin cleaning and inspection, and any corrective or preventative maintenance associated with sewer and stormwater (lift station checks, cleaning of sewer lines, etc.) The City is in its final review of qualified CMMS vendors. Due to the procurement requirement, the City has developed a Request For Proposals (RFP) to solicit CMMS vendors. This RFP must be received by July 14, 2021.

The City continues to search for a qualified candidate to fill the Collection System Supervisor position.

Work orders generated from the City's computerized maintenance management system, Utility Cloud, for the outfall inspection program, from January through June 2021, are attached to this Compliance Report in Appendix A.

TABLE 5-1
SUBMISSIONS WITHIN CURRENT REPORTING PERIOD

Part	Activity	Due Date	Submittal Date			
Effe	Effective Date of Consent Decree (11/10/2016)					
М	CSO Monitoring					
	Annual CSO Activation Report 5/1/2021 3/26/2021					
IX	Compliance Reporting					
	Compliance Report No. 9	4/30/2021	4/27/2021			

5.2 ISSUES OF NONCOMPLIANCE

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

5.3 LOOKING AHEAD - SIX MONTH FORECAST

The anticipated future deliverable required under the Consent Decree for the next Reporting Period, July through December 2021, is shown in Table 5-2.

TABLE 5-2 FUTURE DELIVERABLES DURING THE PROCEEDING REPORTING PERIOD (JULY THROUGH DECEMBER 2021)

Part	Activity	Trigger Event	# Days Due Post Trigger Event	Due Dates		
Effective Date of Consent Decree		11/10/2016				
VII.N	CSO Planning and Plan Implementation					
	CSO Dry Weather Connection Pipe	Construction Contract Award December 2020	240	August 2021		
IX	Compliance Reporting					
	Compliance Report No. 10	4/30/2021	180	10/31/2021		

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, January through June 2021.

6.2 BYPASS EVENTS

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

CMOM CORRECTIVE ACTION PLAN

7.1 INTRODUCTION

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

7.2 CMOM CORRECTIVE ACTIONS

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

7.3 ADDITIONAL CMOM-RELATED ACTIVITIES

In conjunction with the corrective activities, the City has also performed additional activities as outlined and recommended in the CMOM Program, which includes collection system maintenance and construction activities. The expenses related to collection system maintenance activities performed from January through June 2021 (Reporting Period 10) are listed in Table 7-2 below.

In addition, construction activities continued during the reporting period. The CSO Dry Weather Connection Pipe Improvements total cost to date (including all change orders) is \$1,323,664.94. The Construction Project is mostly completed with the exception of final pavement. Construction funds expended totaled \$586,333.24, with Engineering Fees totaling \$36,018.37.

TABLE 7-1
CMOM-CORRECTIVE ACTION PLAN AND 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/ Completed	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. The City's Standard Operating Procedure (SOP) for reoccurring SSO calls for CCTV if the sewer segment to verify previous corrective actions are sufficient. If there are three occurrences within a year, the sewer segment or street is placed on a bi-annual preventative maintenance schedule, (PM). This is one of the reasons that SSOs are reduced from year to year.

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

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

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

Action #	Deficiency	Recommended Corrective Action	Implementation Schedule	Status
13	The City has a general emergency response plan (ERP). The Division recently completed an ERP for responding to SSOs. The Division lacks ERP for other collection system emergencies.	Develop ERP for collections-specific emergencies, in particular those affecting critical assets. For example, there should be an SOP for providing backup power to pump stations during a system-wide power outage.	Within one year after EPA approves the CMOM Action Plan	Complete. The City has purchased a vac-truck, which is scheduled for delivery in Spring 2021. The ERP has been updated to incorporate the utilization of the vac-truck. The City has combined Power Outage, Sanitary Sewer Overflows, and Marginal Pump Station High Flow Management, into one document. This document is being circulated for staff review.
14	The City does not have formal emergency response training.	Implement a program for training and practicing emergency response.	Within one year after EPA approves the CMOM Action Plan	The Wastewater Staff have been trained and additional training will be documented into the City's CMMS. For minor emergencies, the staff prepares in advance of a weather event (e.g., setting up bypass pumps at the Marginal Pump Station, verifying that equipment has fuel (gasoline, diesel, or propane), along with procuring rental generators. The need for training is incorporated into these routine preparations.
15	The City has a hydraulic model for interceptors and CSOs, but there is no city-wide hydraulic model.	Although developing a comprehensive hydraulic model is not a high priority, Woodard & Curran recommends building out the model as required to address capacity issues and plan for new development as the need arises.	As Needed	The City's GIS system is updated on an ongoing basis which will provide a good foundation for a future model.
16	The City does not have adequate staff to perform sufficient preventative maintenance on all 36 pump stations part of the collection system.	Follow the recommendations of the Wastewater Treatment Plant & Collection System Staffing Analysis (Woodard & Curran, 2017) to assign sufficient resources to keep up with required maintenance.	Within one year after EPA approves the CMOM Action Plan	The City developed a job description for a new Collection System MEO/laborer and hired a qualified candidate. The City outsources many tasks. See response to Item #19. The Mission Systems improve the monitoring of pump stations resulting in reduced staff time for routine inspections (weekly vs. daily) and more time on preventative maintenance.

Action #	Deficiency	Recommended Corrective Action	Implementation Schedule	Status
17	Although there is generally sufficient redundancy of pumps and level controls, some stations require specific upgrades related to redundancy.	The City will utilize the recommendations of the Pump Station Evaluation (Wright Pierce, 2016) to evaluate future rehabilitation.	Ongoing	The replacement/upgrades to the Carleton Street and North Avenue Pump Stations are complete and online. The City will be standardizing all their pump stations during upgrades and additional pump stations will be recommended for rehabilitation/upgrades as outlined in the Pump Station CIP. Mission alarms are currently installed in twenty-three (23 out of 36) lift stations with seven budgeted for FY 21. The remaining thirteen will be budget over the next few fiscal years. Lift stations with bubblers will be changed to Vega Radar level control with backup floats. Six stations have been budgeted for this upgrade.
18	Not all pump stations have communication ability. Lack of communication at pump stations has contributed to SSOs.	The City will utilize the recommendations of the SCADA Study (Woodard & Curran, 2011) and Pump Station Evaluation (Wright Pierce, 2016) to evaluate communication improvements.	Ongoing	All pump stations have the ability to communicate alarms. The City has selected the use of Mission Alarm and Monitoring Systems for communication. Currently, 23 out of the City's 36 pump stations have Mission Systems. The City has budgeted money to install Mission RTU alarms at 7+/- 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 lift stations are equipped, which is estimated to be complete within the next two fiscal years.

7 - 7

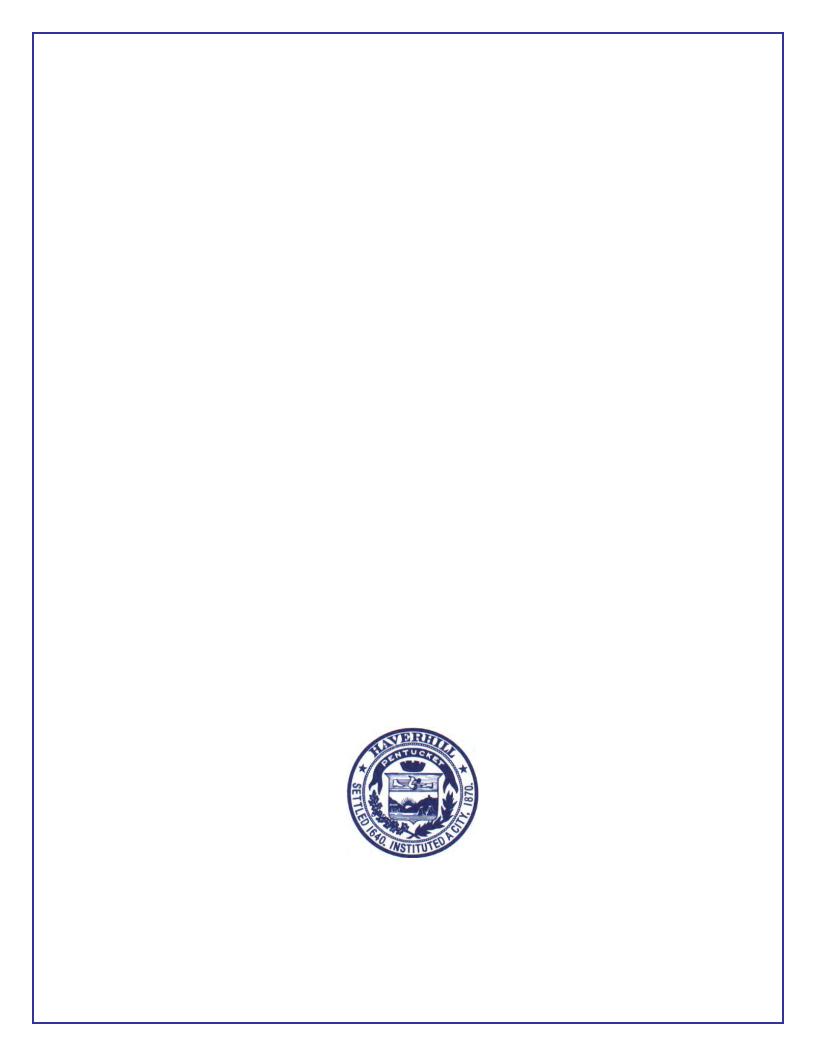
Action #	Deficiency	Recommended Corrective Action	Implementation Schedule	Status
19	11 pump stations do not have working backup power, though most of these have connections for a portable generator or are small enough to pump out.	The City will utilize the recommendations of the SCADA Study (Woodard & Curran, 2011) and Pump Station Evaluation (Wright Pierce, 2016) to evaluate emergency power improvements. Develop an ERP to address a system-wide power outage including monitoring fuel supplies, mobilizing portable generators, and pumping out with trucks.	Ongoing ERP for system wide power outage will be developed within three month s after EPA approves the CMOM Action Plan	Completed. There are currently seven stations without backup generators. The ERP will be updated to include new generator at the North Avenue Station and the use of the City's new vac-truck. See response to item #13 ERP has been updated needs to be reviewed by staff.
20	There is currently no schedule for cleaning sewer lines on a system-wide basis.	The City will utilize a 20-year plan to inspect all sewer pipes calculated to have a consequence of failure value ≥ 3 (approximately 57% of system). See the Collection System CIP (Appendix B) for additional information.	Will begin to implement program within six months after EPA approves the CMOM Action Plan	The City has purchased their own vac truck. Sewers are designed to achieve self-cleaning velocities. Once the Vac-Truck is delivered the City will begin to clean the City's sewers as necessary. The City has added flushing PM's with more flushing being conducted with 153 sewer mains cleaned.
21	The City does not have a dedicated location for offloading and dewatering sewer cleanings. The City does not have an enclosed location for storage of their sewer maintenance vehicles.	The City will purchase a dewatering dumpster for sewer cleanings. The City will construct a facility for storage of sewer maintenance vehicles.	Within three years after EPA approves the CMOM Action Plan	Dewatering dumpsters – Complete. Maintenance Vehicle Facility – Included in 5- year CIP.
22	The City does not have a list of assets located on right-of-ways. The City has also not developed an SOP for maintenance of right-of-ways and easements.	Identify off-street assets using GIS. Schedule preventative maintenance for maintaining accessibility in CMMS. Develop SOPs for specific easements as necessary, including contacting property owners to obtain keys, etc.	Within two years after EPA approves the CMOM Action Plan	The City has inputted easements into GIS and assets. These assets will be populated, and SOPs will be made; as well as the development of preventative maintenance plan. The City has developed sewer segments that are contained within the easements along with a PM schedule. The City will be moving from MainStar and UtilityCloud to a new CMMS. These PM's will be inputted into new CMMS and begin soon.

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

TABLE 7-2

CMOM-RELATED EXPENSES THAT OCCURRED DURING REPORTING PERIOD 10 (JANUARY THROUGH JUNE 2021)

Account	Funds Expended during Reporting Period	Account Description
Lift Station Operation and Maintenance	\$82,356	Used to fund costs for all maintenance and repair of the wastewater collection system. Haverhill's system includes approximately 200 miles of gravity sewer which includes 8-inch up to 72-inch pipe, 36 pumping stations and 3 siphons under the Merrimack River.
Sewer Assessment & Inspection	\$21,878	Used to fund cleaning, CCTV inspection, and assessment of sewer lines and grit removal
Service Contracts	\$37,312	Used to fund the annual service contracts for various items in the wastewater department.
Wastewater Infrastructure	\$34,000	This account is used for sewer repair miscellaneous items. This is an annual appropriation funded from current year revenues.
Wastewater Capital	\$0	Funds are used for expenditures greater than \$10,000 with a life greater than 3-years. This is an annual appropriation funded from current year revenues.
Storm Water - Capital	\$111,665	Funds capital expenditures greater than \$10,000 with a life greater than 3-years. Funds are annual appropriations from user rates and fees.
Stormwater Expense	\$92,208	Funds various expenses related to stormwater system operation and maintenance, street sweeping, federal and state permit requirements, and the downtown flood system. There is currently no revenue source for stormwater expenditures.
Vac-Truck Purchase (Loan)	\$457,712	City has received the Vac-Truck.
Total Spent During Reporting Period	\$837,130	





CITY OF HAVERHILL, MASSACHUSETTS NPDES PERMIT No. MA0101621 CONSENT DECREE

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

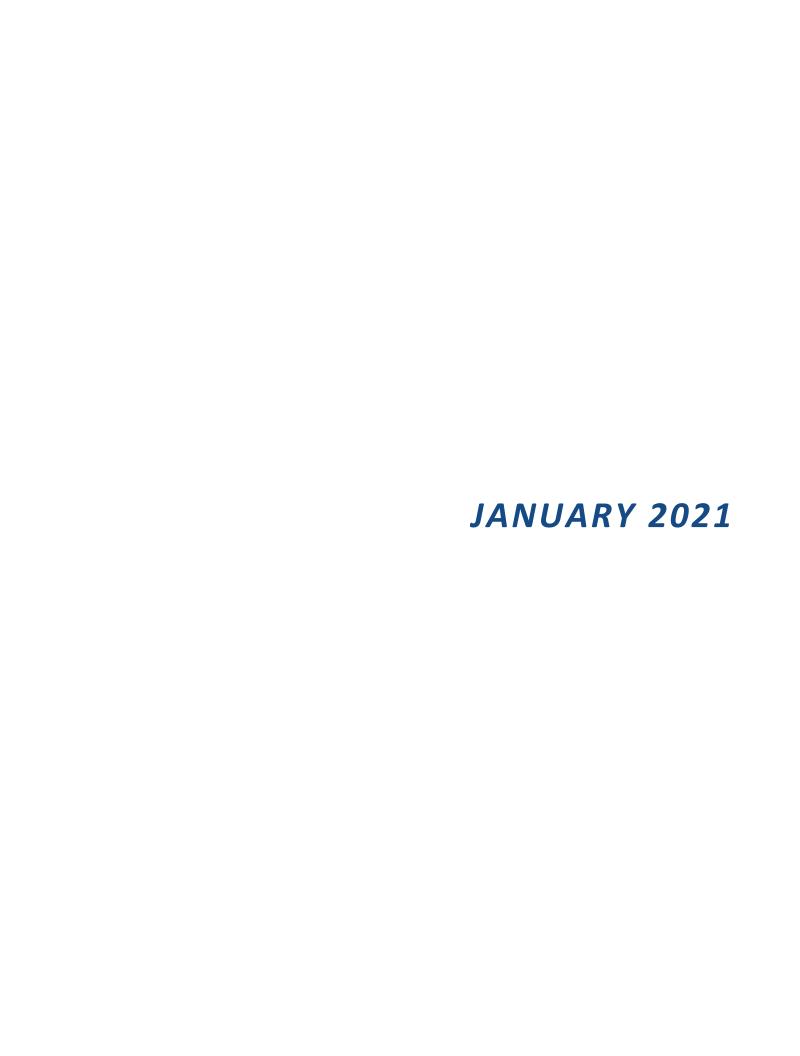
COMPLIANCE REPORT No. 10

JANUARY THROUGH JUNE 2021

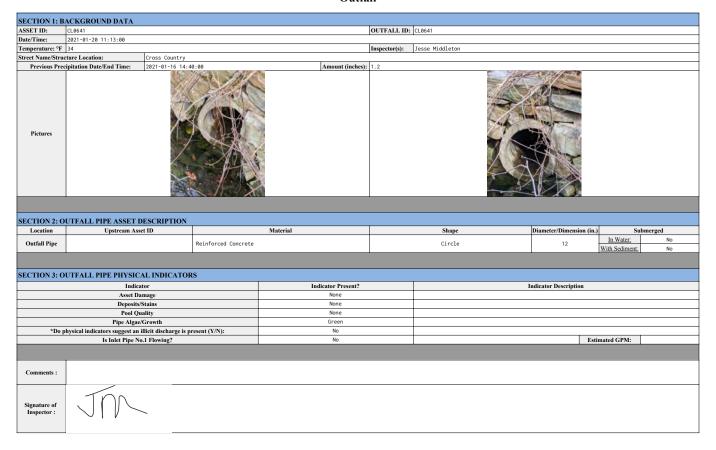
APPENDICES

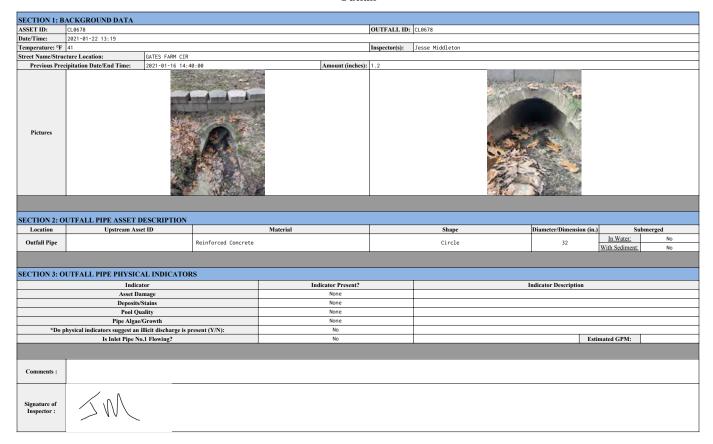
OCTOBER 2021

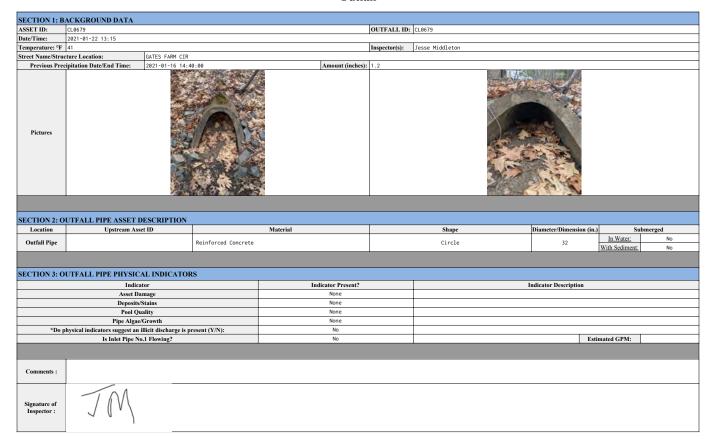


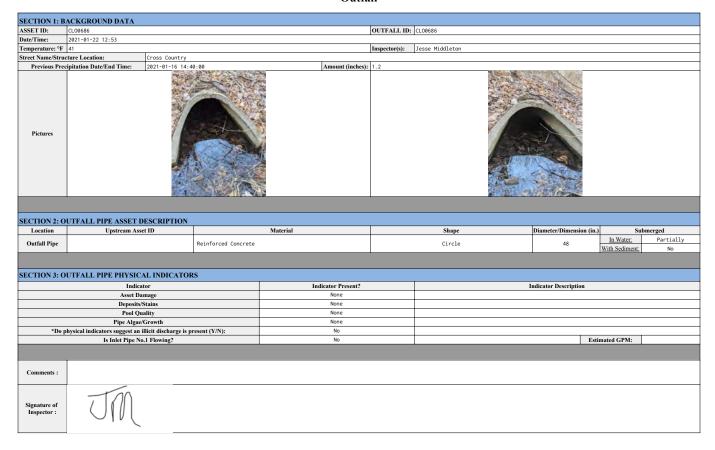


SECTION 1: B.	TION 1: BACKGROUND DATA										
	CL0640				OUTFALL ID	: CL0640					
	2021-01-20 11:21:00										
Temperature: °F		_			Inspector(s):	Jesse Middleton					
Street Name/Struc		DANRICH CT									
Previous Prec	cipitation Date/End Time:	2021-01-16 14:46	0:00	Amount (inches):	1.2		The state of the s				
Pictures											
SECTION 2: O	UTFALL PIPE ASSET I	ESCRIPTION									
Location	Upstream Ass	et ID		Material		Shape	Diameter/Dimension (in.		ubmerged		
Outfall Pipe			Reinforced Concrete			Circle	18	In Water:	No		
								With Sediment:	. No		
SECTION 3: O	UTFALL PIPE PHYSIC.	AL INDICATOR	RS								
	Indica			Indicator Present?			Indicator Description				
	Asset Da			None							
	Deposits/			None							
	Pool Qu	ality		None							
	Pipe Algae			None							
*Do p	hysical indicators suggest an		resent (Y/N):	No							
	Is Inlet Pipe No	o.1 Flowing?		No			Est	imated GPM:			
Comments :											
Signature of Inspector :	JM										

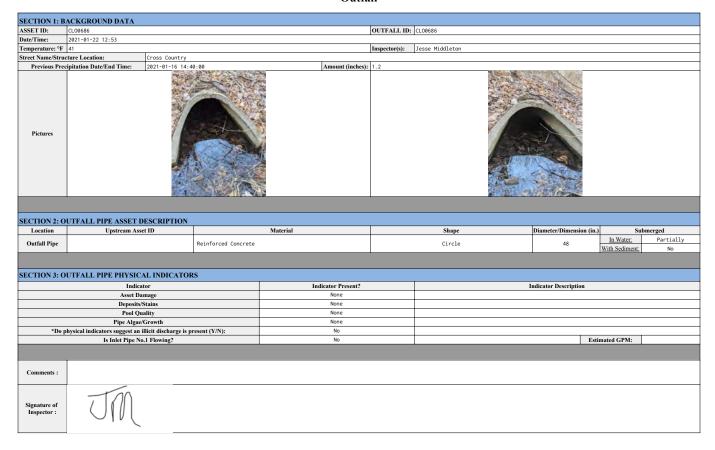




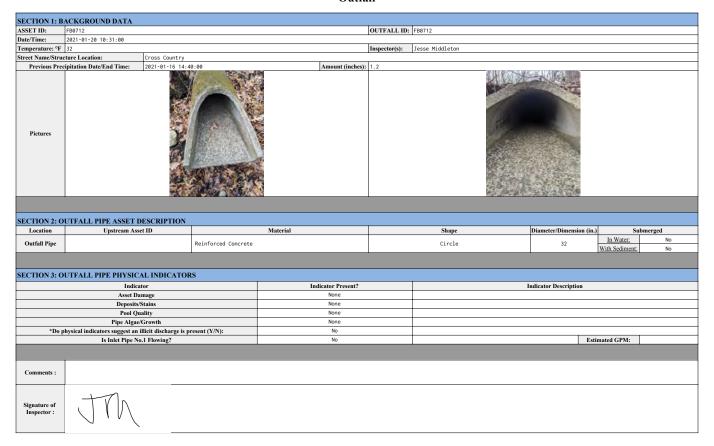




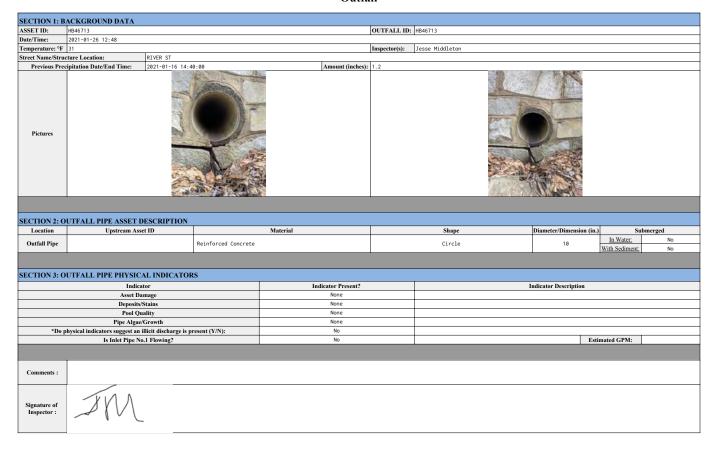
SECTION 1: B	ECTION 1: BACKGROUND DATA										
ASSET ID:	CL0685				OUTFALL ID	: CL0685					
Date/Time:	2021-01-22 12:21										
Temperature: °F	38				Inspector(s):	Jesse Middleton					
Street Name/Strue		SAWMILL RIDGE RD	D								
Previous Pred	cipitation Date/End Time:	2021-01-16 14:40	0:00	Amount (inches):	1.2						
Pictures											
SECTION 2: O	UTFALL PIPE ASSET I	DESCRIPTION									
Location	Upstream Ass	et ID		Material		Shape	Diameter/Dimension (in.		bmerged		
Outfall Pipe			Reinforced Concrete		Circle		32	In Water: With Sediment:	No Partially		
SECTION 3: O	UTFALL PIPE PHYSIC	AL INDICATOR	S								
	Indica	ntor		Indicator Present?			Indicator Description				
	Asset Da	ımage		None			-				
	Deposits/			None							
	Pool Qu			None							
	Pipe Algae			None							
*Do p	ohysical indicators suggest an		resent (Y/N):	No			1				
	Is Inlet Pipe No	o.1 Flowing?		No			Esti	mated GPM:			
Comments :											
Signature of Inspector :	JM										

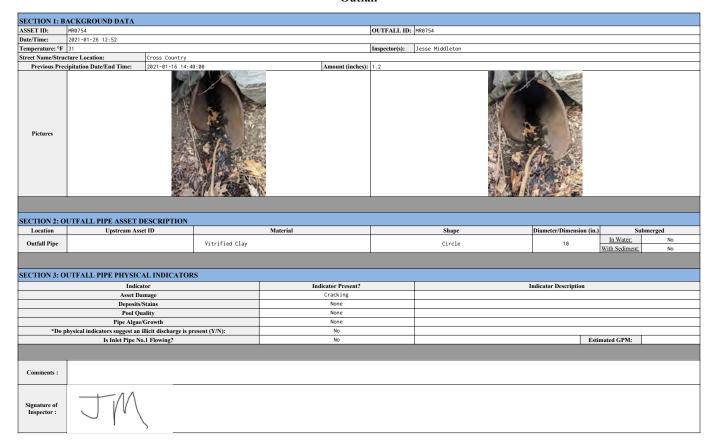


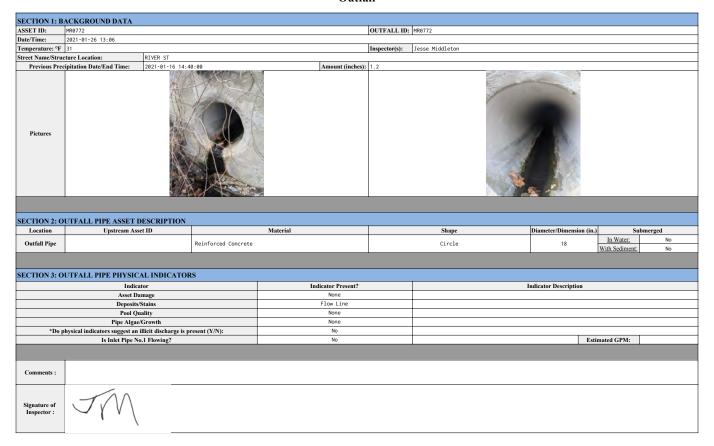
SECTION 1: B	ACKGROUND DATA								
ASSET ID:	CL00688				OUTFALL ID	: CL00688			•
Date/Time:	2021-01-20 11:33:00								
Temperature: °F					Inspector(s):	Jesse Middleton			
Street Name/Stru		FAIRVIEW FARM RE							
Previous Pre	cipitation Date/End Time:	2021-01-16 14:40	0:00	Amount (inches):	1.2	11 783			
Pictures									
SECTION 2: O	OUTFALL PIPE ASSET D	ESCRIPTION							
Location	Upstream Asse	et ID		Material		Shape	Diameter/Dimension (in.		ubmerged
Outfall Pipe			Reinforced Concrete			Circle	12	In Water:	Partially
								With Sediment:	. No
SECTION 3: O	OUTFALL PIPE PHYSICA	AL INDICATOR	RS						
	Indica	tor		Indicator Present?			Indicator Description		
	Asset Da	mage		None			•		
	Deposits/	Stains		None					
	Pool Qu	ality		None					
	Pipe Algae/			None					
*Do j	physical indicators suggest an i		resent (Y/N):	No					
	Is Inlet Pipe No	o.1 Flowing?		No			Esti	imated GPM:	
Comments :									
Signature of Inspector :	JM								



SECTION 1: BACKGROUND DATA										
ASSET ID:	FB0718				OUTFALL ID	: FB0718				
Date/Time:	2021-01-20 10:56:00									
Temperature: °F					Inspector(s):	Jesse Middleton				
Street Name/Stru		Cross Country								
Previous Pre	cipitation Date/End Time:	2021-01-16 14:4	0:00	Amount (inches):	1.2	W. C.				
Pictures										
SECTION 2: O	UTFALL PIPE ASSET D	DESCRIPTION								
Location	Upstream Asse	et ID		Material		Shape	Diameter/Dimensi			merged
Outfall Pipe			Reinforced Concrete			Circle	24	In W With Se		Partially No
							<u> </u>			
SECTION 3: O	UTFALL PIPE PHYSIC	AL INDICATOR	RS							
	Indica	tor		Indicator Present?			Indicator Description	n		
	Asset Da	mage		None						
	Deposits/			None						
	Pool Qu			None						
	Pipe Algae/			None						
*Do I	ohysical indicators suggest an i		resent (Y/N):	No						
	Is Inlet Pipe No	o.1 Flowing?		No		1		Estimated G	PM:	
Comments :										
Signature of Inspector :	JM									

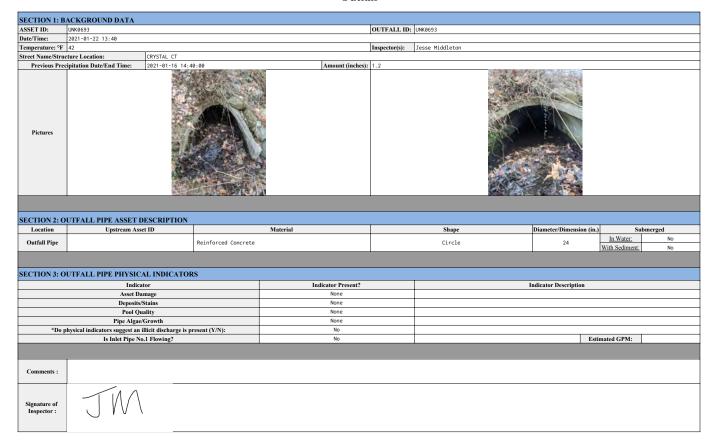


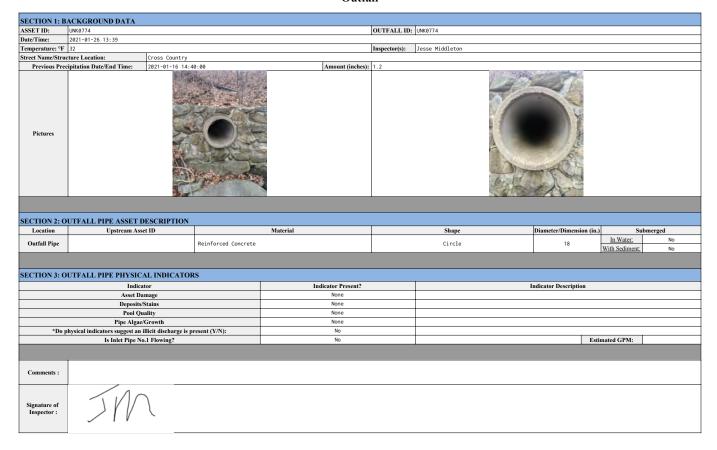


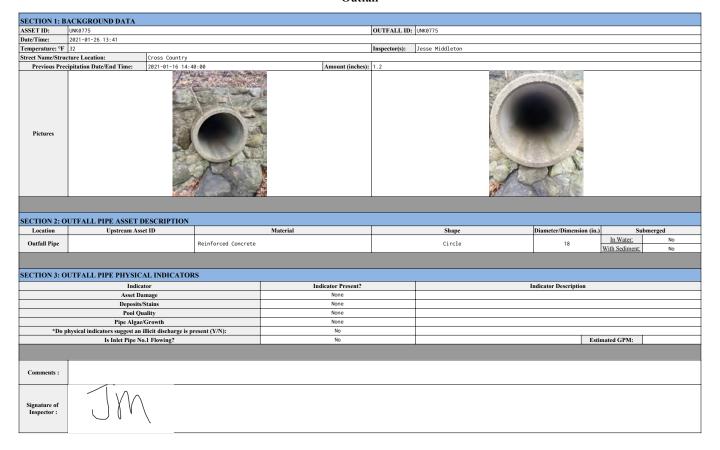


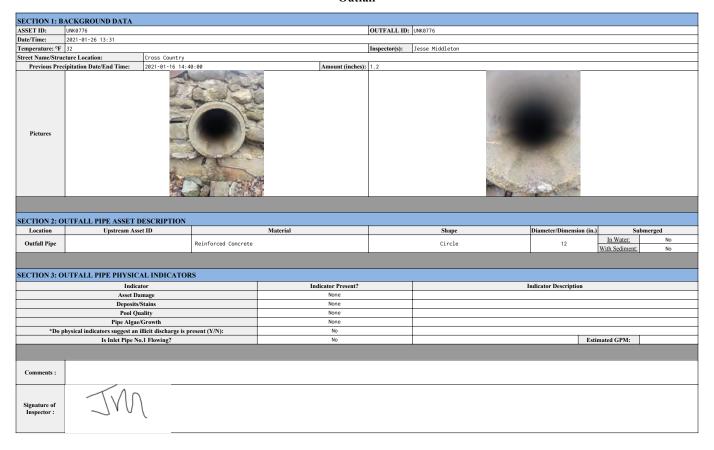
SECTION 1: B	ACKGROUND DATA								
ASSET ID:	MR0836				OUTFALL ID	: MR0836			
Date/Time:	2021-01-26 13:04					•			
Temperature: °F					Inspector(s):	Jesse Middleton			
Street Name/Stru	cture Location:	RIVER ST							
Previous Pre	cipitation Date/End Time:	2021-01-16 14:40	0:00	Amount (inches):	1.2				
Pictures									
	OUTFALL PIPE ASSET I		I			~-		1 0	
Location	Upstream Ass	set ID		Material		Shape	Diameter/Dimension (in.	In Water:	ubmerged No
Outfall Pipe			Reinforced Concrete			Circle	10	With Sediment:	
								With Deannent	
			_						
SECTION 3: C	OUTFALL PIPE PHYSIC		ıs						
	Indic			Indicator Present?			Indicator Description		
	Asset D			None Flow Line		+			
	Deposits Pool Q			None None		+			
	Pipe Algae			None		+			
*Do 1	physical indicators suggest an		resent (Y/N):	No		+			
	Is Inlet Pipe N		(211.)	No			Est	imated GPM:	
	·					•			
Comments :									
Signature of Inspector :	JW								

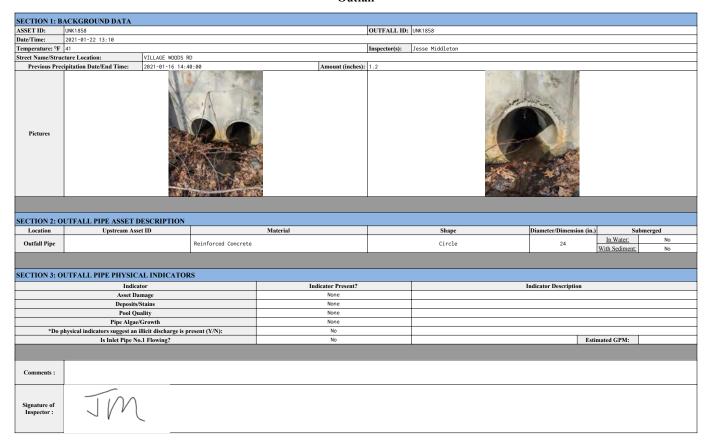
SECTION 1: B.	CCTION 1: BACKGROUND DATA										
ASSET ID:	UNK0629				OUTFALL ID:	: UNK0629			•		
Date/Time:	2021-01-26 13:15										
Temperature: °F					Inspector(s):	Jesse Middleton					
Street Name/Struc		Cross Country									
Previous Prec	ipitation Date/End Time:	2021-01-16 14:44	0:00	Amount (inches):	1.2	-					
Pictures											
	UTFALL PIPE ASSET D						<u> </u>				
Location	Upstream Ass	et ID		Material Shape			Diameter/Dimension (in		Submerged		
Outfall Pipe			Reinforced Concrete			Circle	10	In Water: With Sediment	No t. No		
								with Sediment	i NO		
SECTION 3: O	UTFALL PIPE PHYSIC.		RS								
	Indica			Indicator Present?			Indicator Description				
	Asset Da Deposits/			None None							
	Pool Qu			None							
	Pipe Algae			None							
*Do n	hysical indicators suggest an		resent (Y/N):	No							
р	Is Inlet Pipe No		(211.)	No			Es	timated GPM:			
	·										
Comments :											
Signature of Inspector :											









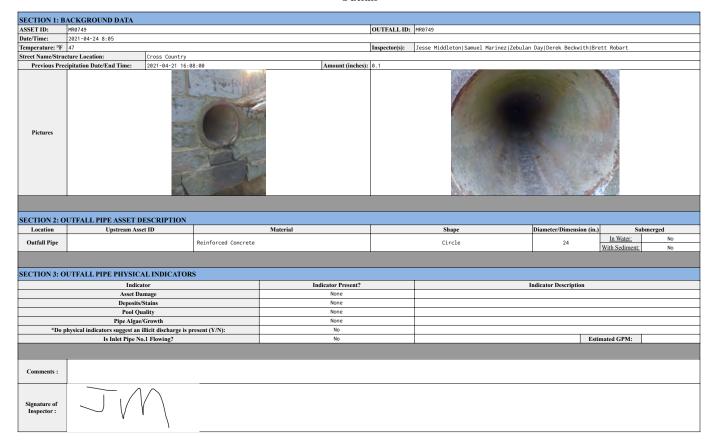


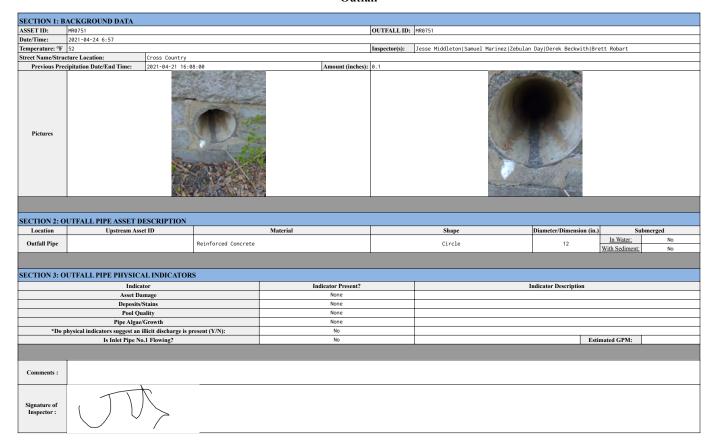
SECTION 1: B	ACKGROUND DATA									
ASSET ID:	UNK1859				OUTFALL ID:	UNK1859				
Date/Time:	2021-01-22 13:08					•				
Temperature: °F	41				Inspector(s):	Jesse Middleton				
Street Name/Stru	cture Location:	VILLAGE WOODS RE								
Previous Pre	cipitation Date/End Time:	2021-01-16 14:46	3:00	Amount (inches):	1.2					
Pictures										
SECTION 2: O	UTFALL PIPE ASSET I	DESCRIPTION								
Location	Upstream Ass	set ID		Material		Shape	Diameter/Dimension (in.)		nerged	
Outfall Pipe			Reinforced Concrete	Circle		Circle	24	In Water: With Sediment:	No No	
SECTION 3: O	OUTFALL PIPE PHYSIC		S							
	Indica			Indicator Present?			Indicator Description			
	Asset Da			None						
	Deposits			None						
	Pool Qu Pipe Algae			None None						
*Do r	ohysical indicators suggest an		escant (V/N)	No						
Dol	Is Inlet Pipe N		escut (1/14).	No			Esti	mated GPM:		
Comments :										
Signature of Inspector :	JM									

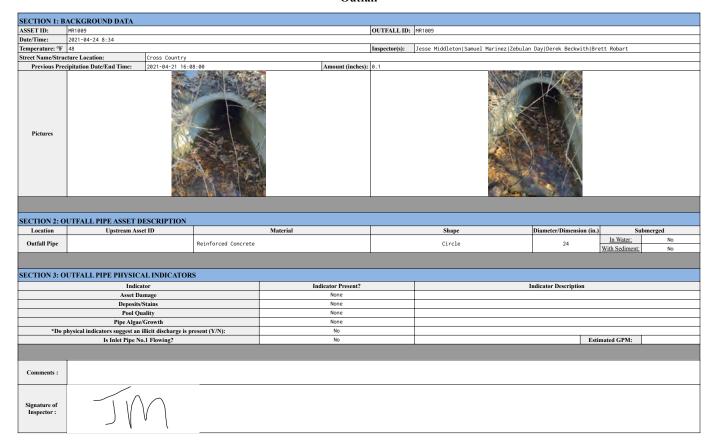
	ECTION 1: BACKGROUND DATA										
ASSET ID:	UNK46312				OUTFALL ID	: UNK46312					
Date/Time:	2021-01-26 13:25										
Temperature: °F		_			Inspector(s):	Jesse Middleton					
Street Name/Strue		RIDGELAND HEIGH	TS RD								
Previous Pred	cipitation Date/End Time:	2021-01-23 14:46	0:00	Amount (inches):	1.2						
Pictures											
SECTION 2: O	UTFALL PIPE ASSET	DESCRIPTION									
Location	Upstream Ass	set ID		Material		Shape)	Diameter/Dimension (in.)		ubmerged	
Outfall Pipe			Reinforced Concrete		Circle			18	In Water: With Sediment		No No
SECTION 3: O	UTFALL PIPE PHYSIC	AL INDICATOR	ıs								
	Indic	ator		Indicator Present?			In	dicator Description			
	Asset D			None							
	Deposits			None							
	Pool Q			None							
	Pipe Algae			None No							
*До р	ohysical indicators suggest an Is Inlet Pipe N		resent (Y/N):	No No				P-41	mated GPM:	_	
	is inter ripe N	o.1 Flowing:		NU				ESU	mated GPM:		
Comments :											
Signature of Inspector :											

SECTION 1: B	ECTION 1: BACKGROUND DATA										
ASSET ID:	UNK46313					OUTFALL ID:	UNK46313				
Date/Time:	2021-01-26 13:20										
Temperature: °F	31					Inspector(s):	Jesse Middleton				
Street Name/Strue		RIDGELAND HEIGHT									
Previous Pred	cipitation Date/End Time:	2021-01-16 14:46	0:00	Amou	unt (inches):	1.2					
Pictures	Pictures CCTION 2: OUTFALL PIPE ASSET DESCRIPTION										
SECTION 2: O	UTFALL PIPE ASSET I	DESCRIPTION									
Location	Upstream Ass	set ID		Material			Shape		Diameter/Dimension (in.)		bmerged
Outfall Pipe			Reinforced Concrete			Circle			18	In Water: With Sediment:	No No
SECTION 3: O	UTFALL PIPE PHYSIC	AL INDICATOR	RS								
	Indica	ator		Indicator	Present?			I	ndicator Description		
	Asset Da	amage		Nor	ne						
	Deposits			Nor	ne						
	Pool Qu			Nor							
	Pipe Algae			No							
*Do p	ohysical indicators suggest an		resent (Y/N):	No.							
	Is Inlet Pipe N	o.1 Flowing?		N-	0				Esti	mated GPM:	
Comments :											
Signature of Inspector :	IM										





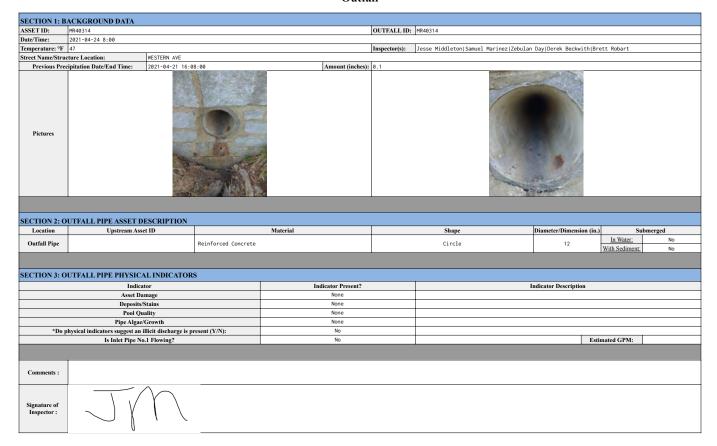


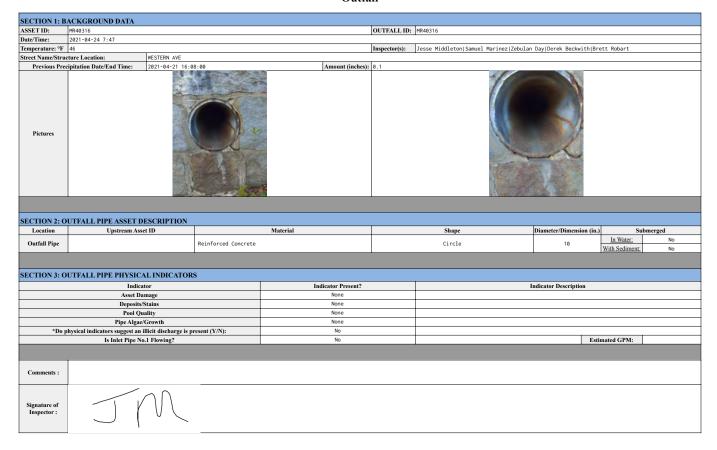


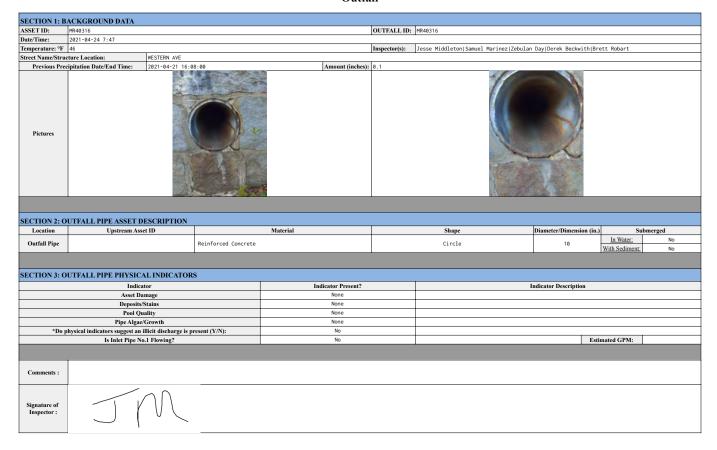


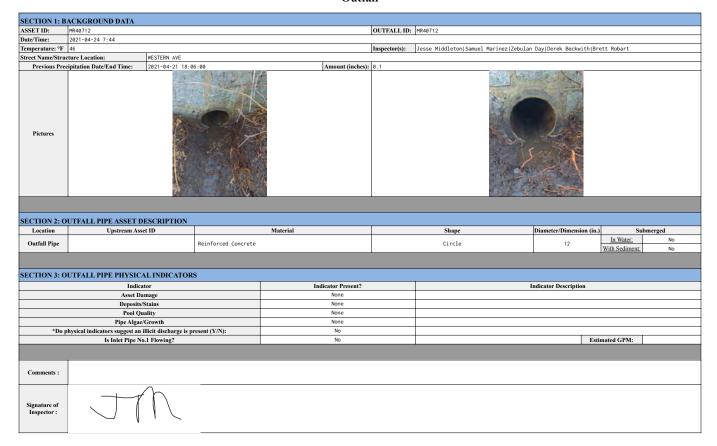
SECTION 1: BACKGROUND DATA										
ASSET ID:	MR40312				OUTFALL ID:	MR40312				
Date/Time:	2021-04-24 8:21									
Temperature: °F					Inspector(s):	Jesse Middleton Samuel Marinez Zebulan	Day Derek Beckwith Br	ett Robart		
Street Name/Struc	cture Location:	WESTERN AVE								
Previous Prec	cipitation Date/End Time:	2021-04-21 16:08	3:00	Amount (inches):	0.1					
Pictures										
SECTION 2: O	ECTION 2: OUTFALL PIPE ASSET DESCRIPTION									
Location	Upstream Ass	set ID		Material		Shape	Diameter/Dimension (in.)	S	ubmerged	
Outfall Pipe			Reinforced Concrete			Circle	10	In Water: With Sediment:	No No	
					l			with Sediment	. NO	
SECTION 3: O	UTFALL PIPE PHYSIC	AL INDICATORS	S							
	Indic	ator		Indicator Present?		1	Indicator Description			
	Asset D:			None						
	Deposits			None						
	Pool Q			None						
	Pipe Algae			None						
*Do p	hysical indicators suggest an		esent (Y/N):	No						
	Is Inlet Pipe N	o.1 Flowing?		No			Esti	imated GPM:		
Comments :										
Signature of Inspector :	1									

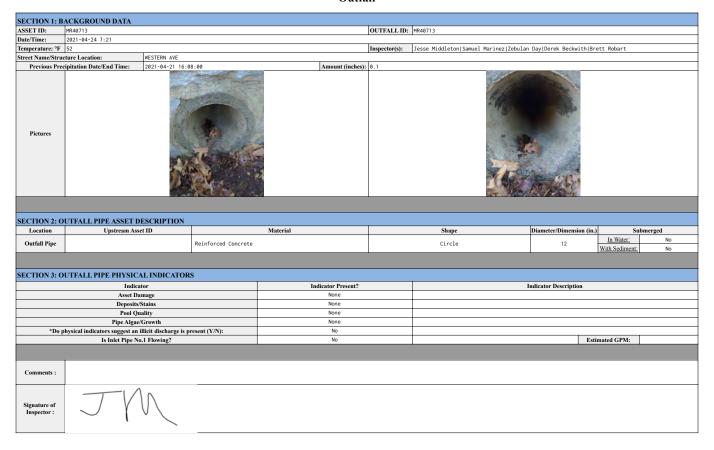


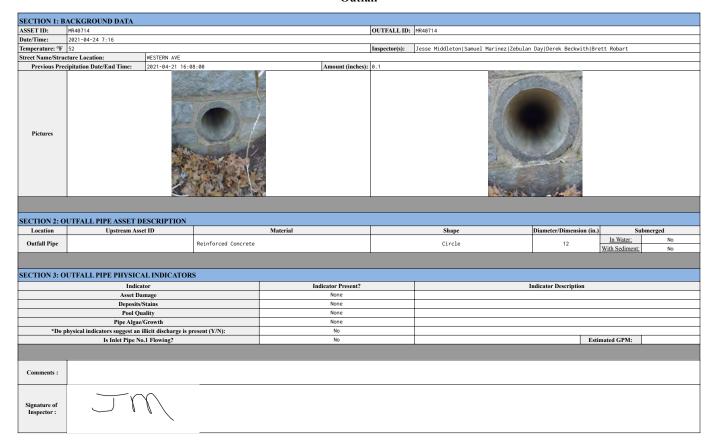








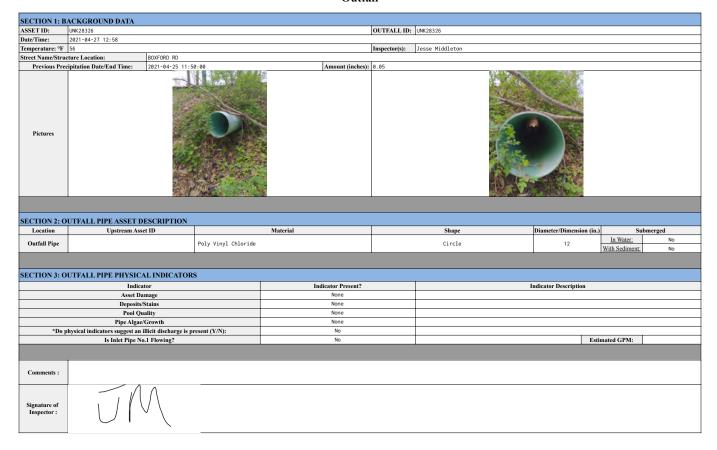


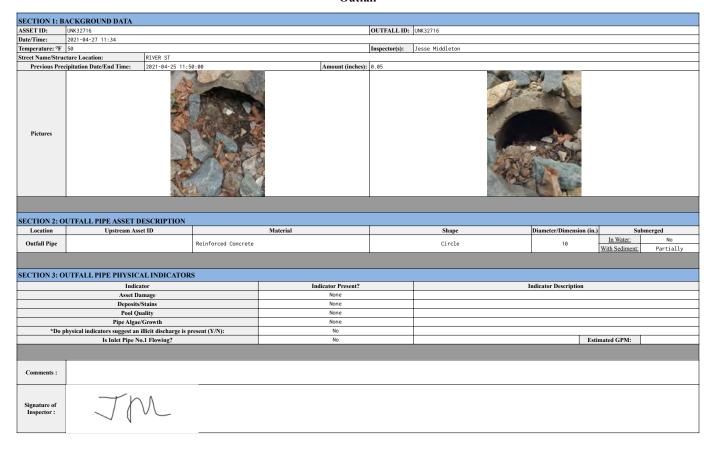


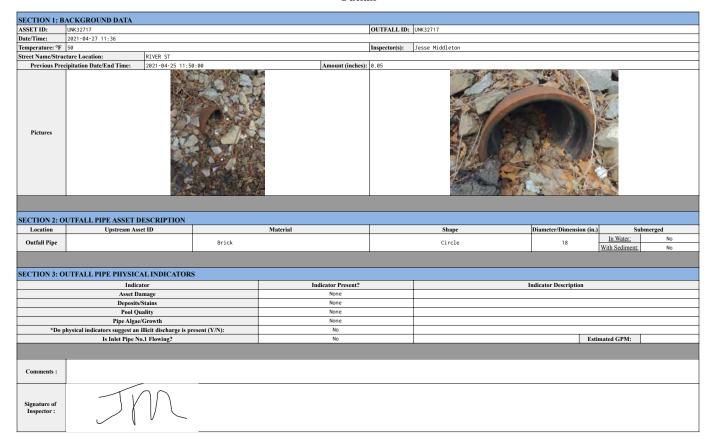
SECTION 1: B	ACKGROUND DATA								
ASSET ID:	MR67513				OUTFALL ID: MR67513				
Date/Time:	2021-04-24 7:04:00				•	•			
Temperature: °F	42				Inspector(s):	Jesse Middleton Samuel Marinez Zebulan	Day Derek Beckwith Bre	ett Robart	
Street Name/Stru		CROSS COUNTTY							
Previous Pre	cipitation Date/End Time:	2021-04-21 16:08	:00	Amount (inches):	0.1				
Pictures									
CECTION 4 O	HATEALL BIDE ACCESS	CCCDURTION.							
	UTFALL PIPE ASSET DI			Material	ı	Cham.	Diameter/Dimension (in.)	Enhance d	
Location	Upstream Asse	t ID		Material		Shape	Diameter/Dimension (in.)	Submerged In Water:	
Outfall Pipe								With Sediment:	
					l.			with Sediment.	
SECTION 3: O	UTFALL PIPE PHYSICA	L INDICATORS	3						
	Indicat	tor		Indicator Present?	Indicator Description				
	Asset Dar	mage							
	Deposits/S	Stains							
	Pool Qua								
	Pipe Algae/								
*Do p	hysical indicators suggest an i		esent (Y/N):						
	Is Inlet Pipe No	.1 Flowing?					Esti	mated GPM:	
Comments :									
Signature of Inspector :	TM								

SECTION 1: BACKGROUND DATA										
ASSET ID:	MR67514				OUTFALL ID	MR67514				
Date/Time:	2021-04-27 8:56									
Temperature: °F	52				Inspector(s):	Jesse Middleton Samuel Marinez Zebulan	Day Derek Beckwith Bre	ett Robart		
Street Name/Struc	cture Location:	CROSS COUNTRY								
Previous Pred	cipitation Date/End Time:	2021-04-21 16:08	00	Amount (inches):	0.1					
Pictures										
SECTION 2: O	UTFALL PIPE ASSET D	ESCRIPTION								
Location	Upstream Ass	et ID		Material		Shape	Diameter/Dimension (in.)	Submerged		
Outfall Pipe					In Water:					
Outlan 1 spc								With Sediment:		
SECTION 3: O	UTFALL PIPE PHYSICA	AL INDICATORS								
	Indica	ator		Indicator Present?	Indicator Description					
	Asset Da									
	Deposits/									
	Pool Qu	iality								
	Pipe Algae									
*Do p	hysical indicators suggest an		sent (Y/N):							
	Is Inlet Pipe No	o.1 Flowing?					Esti	mated GPM:		
Comments :										
Signature of Inspector :	JM	٧								

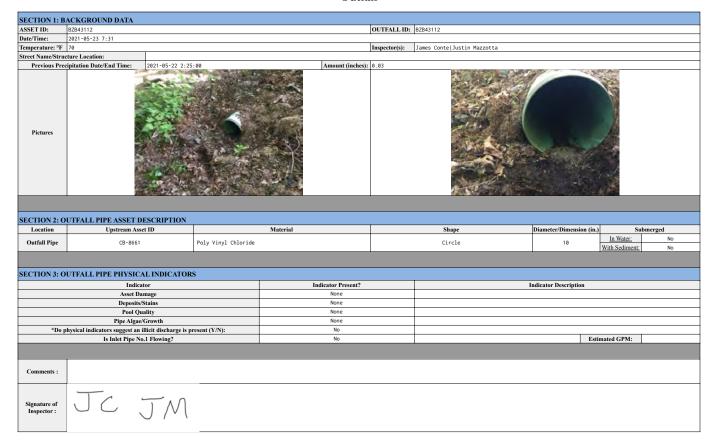
SECTION 1: B	BACKGROUND DATA								
ASSET ID:	MR67913				OUTFALL ID	MR67913			
Date/Time:	2021-04-27 8:41				•	•			
Temperature: °F	52				Inspector(s):	Jesse Middleton Samuel Marinez Zebula	n Day Derek Beckwith Bret	t Robart	
Street Name/Stru		CROSS COUNTRY							
Previous Pre	ecipitation Date/End Time:	2021-04-21 16:08:00	9	Amount (inches):	0.1				
Pictures									
	OUTFALL PIPE ASSET DI								
Location	Upstream Asse	t ID	Material			Shape	Diameter/Dimension (in.)		Submerged
Outfall Pipe							<u></u>	In Water:	
							<u> </u>	With Sediment:	i.
CECTION 2	WITE ALL DIDE DUNCK	I DIDICATORS							
SECTION 3: C	OUTFALL PIPE PHYSICA								
	Indicat			Indicator Present?			Indicator Description		
	Asset Dar Deposits/S								
	Pool Qu								
	Pipe Algae/								
*Do	physical indicators suggest an i		nt (Y/N):						
	Is Inlet Pipe No.						Estima	ated GPM:	
Comments :	photos reflect flush wate	r used to determine	outfall location						
Signature of Inspector :									



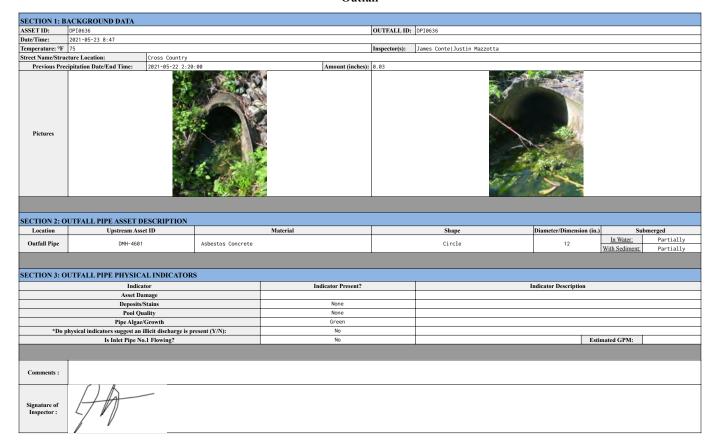


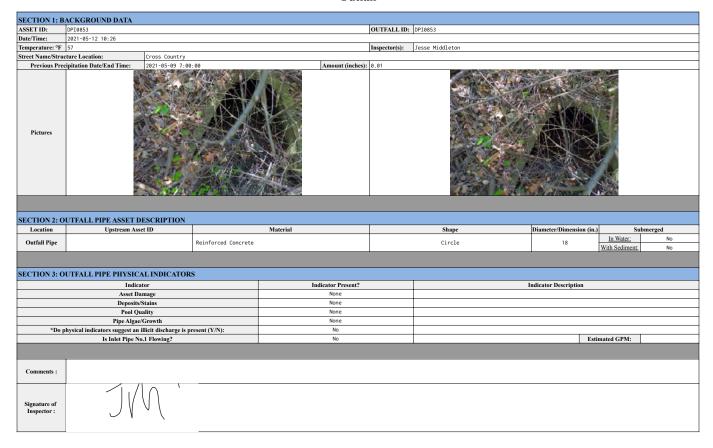


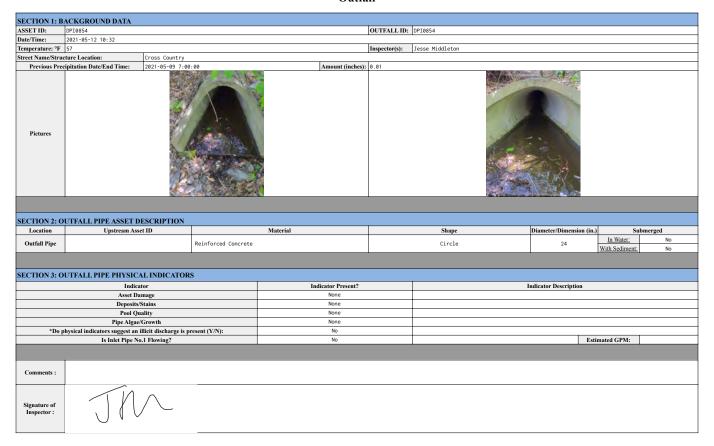
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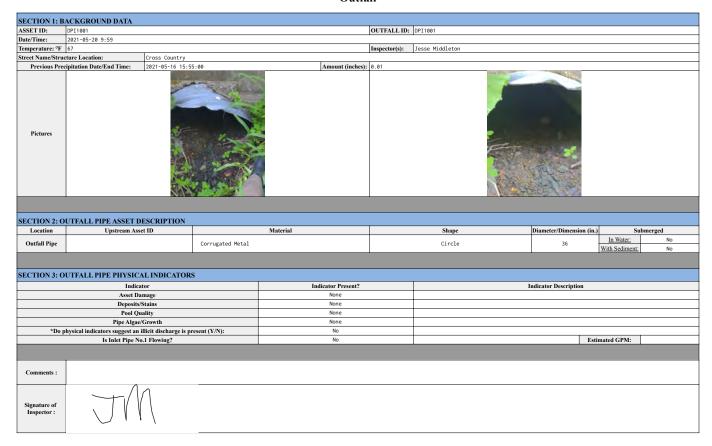


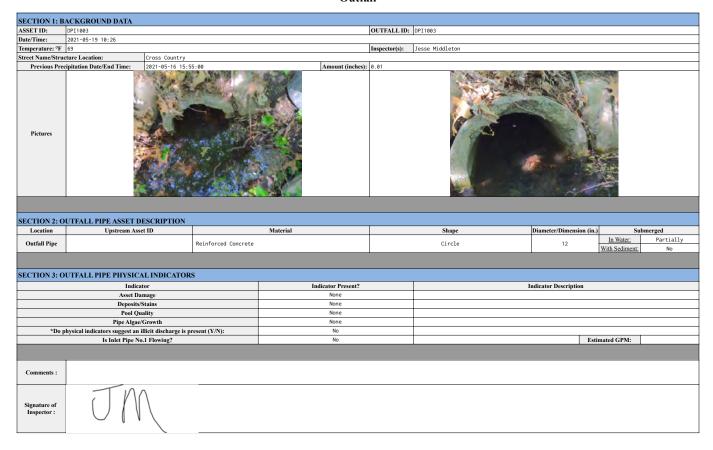
SECTION 1: B	SACKGROUND DATA									
ASSET ID:	CP25116				OUTFALL ID	: CP25116				
Date/Time:	2021-05-23 8:12					•				
Temperature: °F					Inspector(s):	Jesse Middleton Zebulan Day				
Street Name/Stru		BARKER ST			_					
Previous Pre	cipitation Date/End Time:	2021-05-22 2:25:	00	Amount (inches):	0.03					
Pictures										
SECTION 2: O	OUTFALL PIPE ASSET D	ESCRIPTION								
Location	Upstream Asse			Material		Shape	Diameter/Dimension (in.)	s	ubmerged	
Outfall Pipe			Poly Vinyl Chloride			Circle	8	In Water: With Sediment:	Fully	
									No	
SECTION 3: C	OUTFALL PIPE PHYSICA	AL INDICATORS	•							
SECTION 3. C	Indica		<u>'</u>	Indicator Present?			Indiana Daniela			
	Asset Da			None		Indicator Description				
	Deposits/S			None						
	Pool Qu			None						
	Pipe Algae/	Growth		None						
*Do j	physical indicators suggest an i	illicit discharge is pr	esent (Y/N):	No						
	Is Inlet Pipe No		No			Esti	mated GPM:			
Comments :	Wetlands									
Signature of Inspector :										

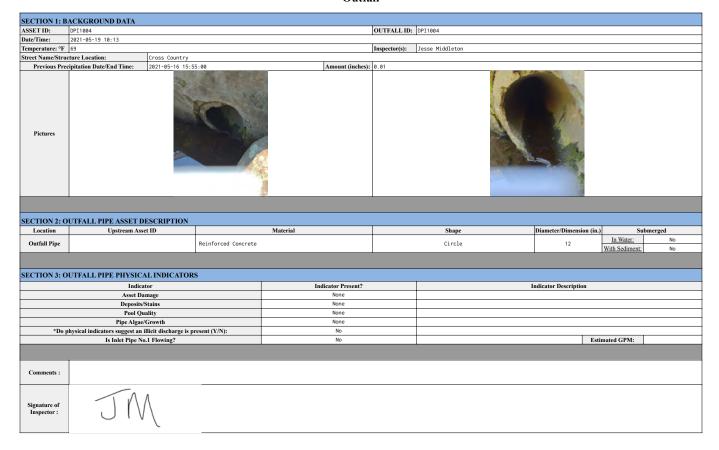


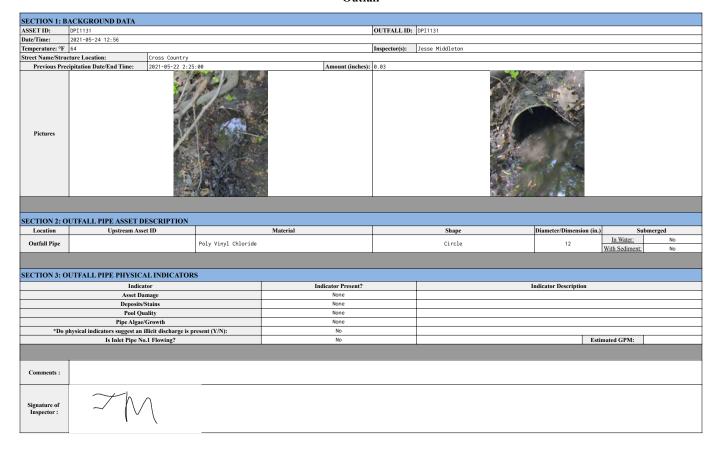








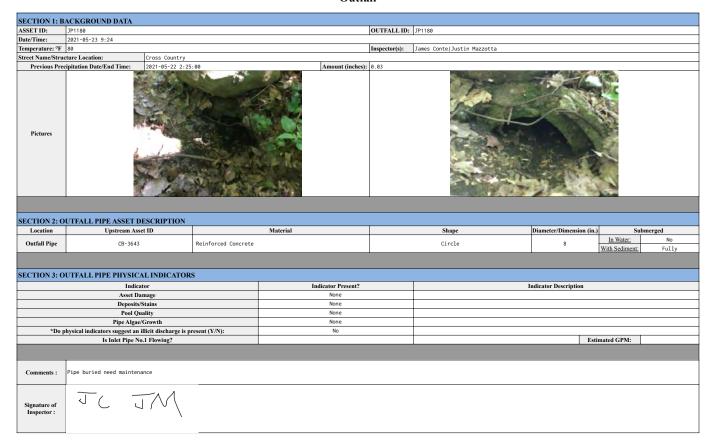


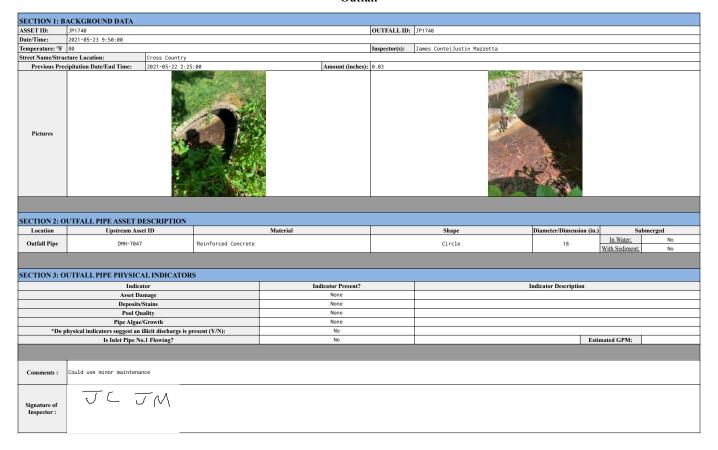


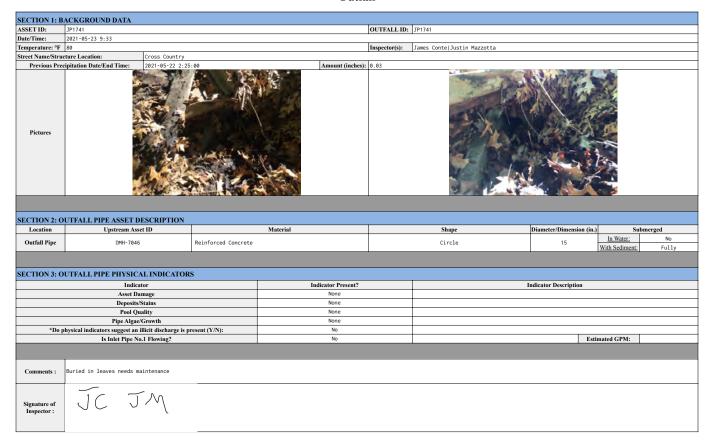
SECTION 1: B	BACKGROUND DATA								
ASSET ID:	DPI1133				OUTFALL I	D: DPI1133			
Date/Time:	2021-05-17 10:20					•			
Temperature: °F	67				Inspector(s):	Jesse Middleton			
Street Name/Stru	icture Location:	Cross Country			•				
Previous Pre	cipitation Date/End Time:	2021-05-16 15:00	0:00	Amount	(inches): 0.01				
Pictures									
SECTION 2: C	DUTFALL PIPE ASSET D	ESCRIPTION							
Location	Upstream Asse	et ID		Material		Shape	Diameter/Dimension (in		omerged
Outfall Pipe			Reinforced Concrete			Circle	12	In Water:	No
								With Sediment:	No
SECTION 3: C	OUTFALL PIPE PHYSICA	AL INDICATORS	S						
	Indica	tor		Indicator Pro	esent?		Indicator Description		
	Asset Da	mage		None			•		
	Deposits/	Stains		None					
	Pool Qu	ality		None					
	Pipe Algae/			None					
*Do	physical indicators suggest an i		resent (Y/N):	No					
	Is Inlet Pipe No	o.1 Flowing?		No			Est	imated GPM:	
Comments :									
Signature of Inspector :									



SECTION 1: BACKGROUND DATA											
	JP1179				OUTFALL ID:	JP1179					
Date/Time:	2021-05-23 9:04					-					
Temperature: °F	74				Inspector(s):	Jesse Middleton Zebulan Day					
Street Name/Struc	cture Location:	Cross Country				•					
Previous Prec	cipitation Date/End Time:	2021-05-22 2:25:	00	Amount (inches):	0.03						
Pictures											
SECTION 2: O Location	UTFALL PIPE ASSET D			Material		Shana	Diameter/Dimension (in.)		hmougod		
Location	Upstream Asse	et ID		Material		Shape	Diameter/Dimension (in.)	In Water:	bmerged No		
Outfall Pipe			Reinforced Concrete			Circle	12	With Sediment:	No No		
								Tran ocument.	110		
SECTION 3: O	UTFALL PIPE PHYSICA	AL INDICATORS	<u> </u>								
	Indica			Indicator Present?			Indicator Description				
	Asset Da			None			indicator Description				
	Deposits/			None							
	Pool Qu			None							
	Pipe Algae/	Growth .		None							
*Do p	hysical indicators suggest an i	illicit discharge is pr	esent (Y/N):	No							
	Is Inlet Pipe No	o.1 Flowing?		No			Esti	mated GPM:			
Comments :	Needs Dredging										
Signature of Inspector :	JA										

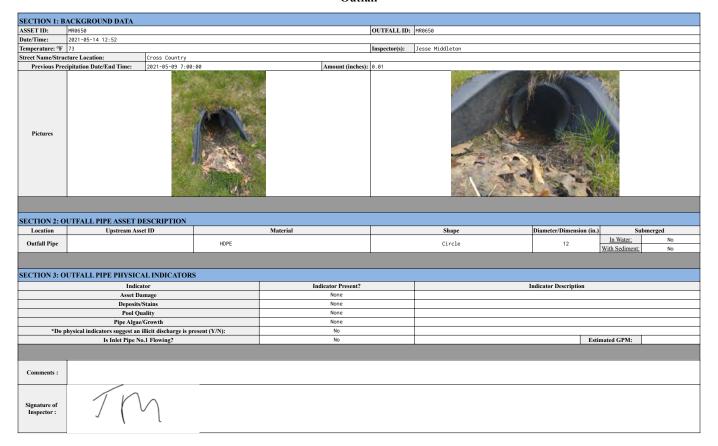




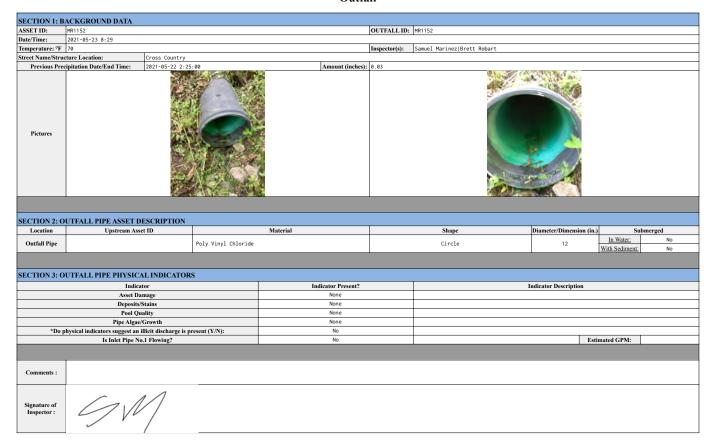


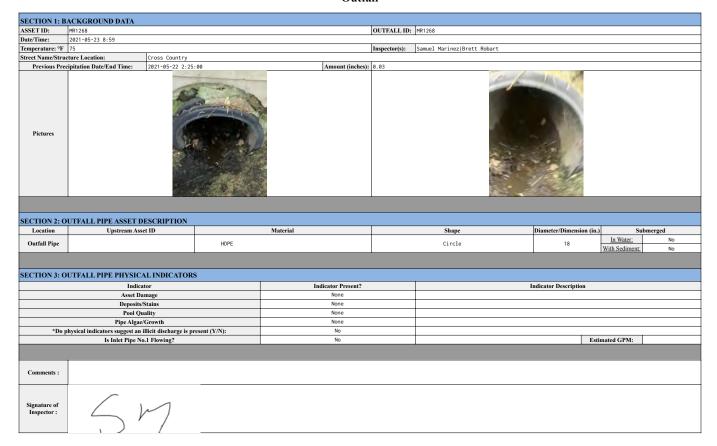
SECTION 1: B.	ACKGROUND DATA								
ASSET ID:	MR0648				OUTFALL ID:	MR0648			
Date/Time:	2021-05-14 12:48					•			
Temperature: °F	73				Inspector(s):	Jesse Middleton		-	
Street Name/Struc	cture Location:	Cross Country							
Previous Prec	cipitation Date/End Time:	2021-05-09 7:00:	00	Amount (inches):	0.01				
Pictures									
SECTION 2: O	UTFALL PIPE ASSET	DESCRIPTION							
Location	Upstream As	set ID		Material	Shape Diameter/Dimension (in.) Submerged				
Outfall Pipe			Reinforced Concrete			Circle	12	In Water: With Sediment:	No Partially
SECTION 3: O	UTFALL PIPE PHYSIC		3						
	Indi			Indicator Present?	Indicator Description				
	Asset I	9amage s/Stains		None None		+			
	Pool (None					
		e/Growth		None					
*Do n	hysical indicators suggest a		esent (V/N):	No					
	Is Inlet Pipe !			No			Est	timated GPM:	
	·								
Comments :									
Signature of Inspector :	JV	\bigvee							

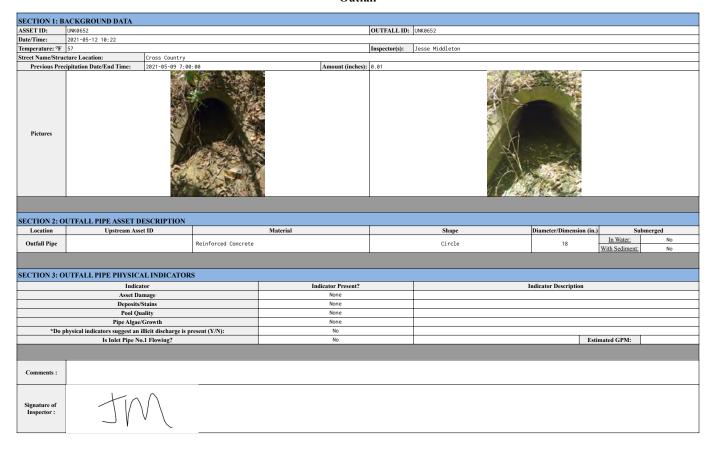


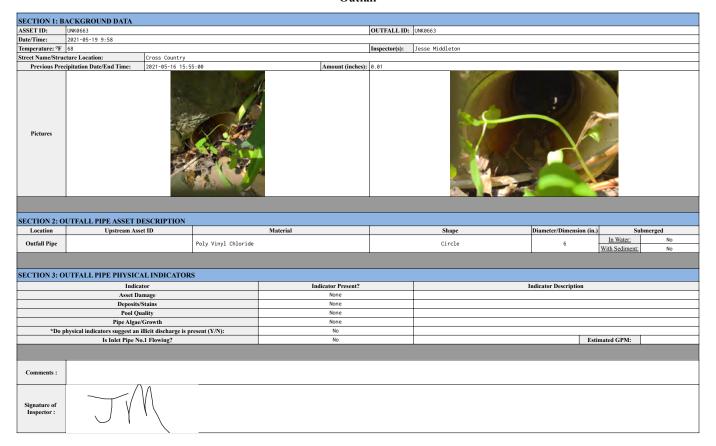


	ACKGROUND DATA									
ASSET ID:	MR1058				OUTFALL ID: MR1058					
Date/Time:	2021-05-14 12:46									
Temperature: °F	73				Inspector(s):	Jesse Middleton				
Street Name/Stru		Cross Country								
Previous Pre	cipitation Date/End Time:	2021-05-09 7:00:	00	Amount (inches):	0.01					
Pictures										
SECTION 2: O	OUTFALL PIPE ASSET D	DESCRIPTION								
Location	Upstream Ass	set ID		Material	Shape Diameter/Dimension (in.) Submerged					
Outfall Pipe			Reinforced Concrete			Circle	12	In Water: With Sediment:	No No	
								With Scannent.	INC	
SECTION 2. O	OUTFALL PIPE PHYSIC	AL INDICATORS	,							
SECTION 3: U	Indicate Ind		•	Indicator Present?			adiada Daradadia			
	Asset D:			None			ndicator Description			
	Deposits			None						
	Pool Q			None						
	Pipe Algae			None						
*Do p	ohysical indicators suggest an		esent (Y/N):	No						
	Is Inlet Pipe N	o.1 Flowing?		No			Esti	mated GPM:		
Comments :										
Signature of Inspector :		\bigwedge								

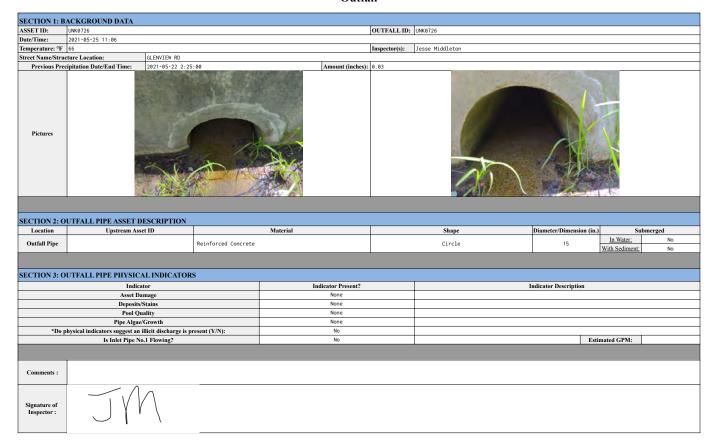






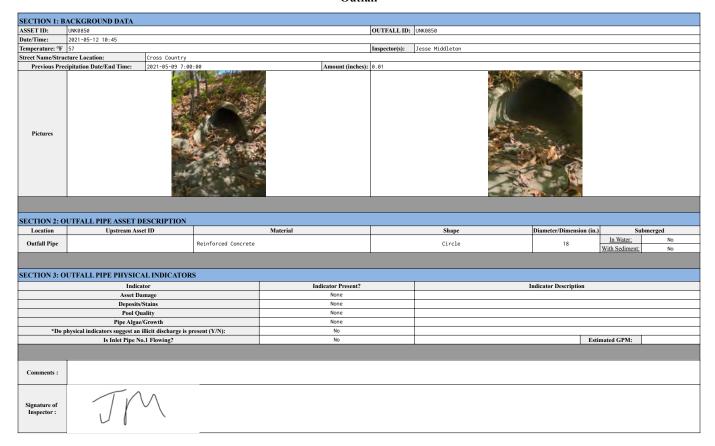


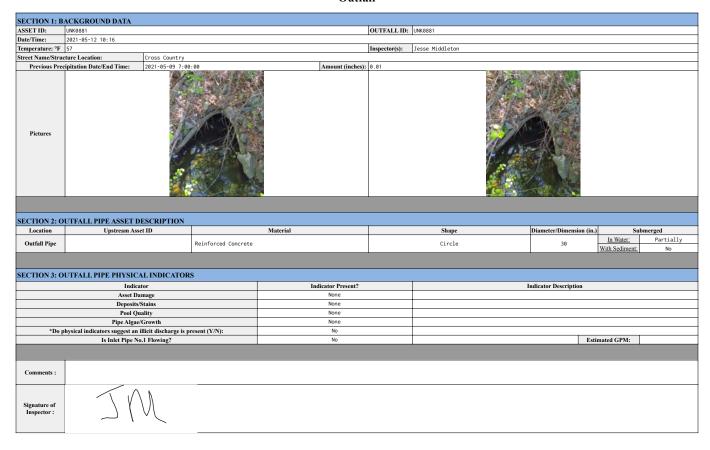
SECTION 1: I	BACKGROUND DATA								
ASSET ID:	UNK0725				OUTFALL ID:	UNK0725			
Date/Time:	2021-05-25 11:10				•	-			
Temperature: °F	66				Inspector(s):	Jesse Middleton			
Street Name/Stru	ecture Location:	Cross Country			•	•			
Previous Pro	ecipitation Date/End Time:	2021-05-22 2:25	: 00	Amount (inches):	0.03				
Pictures									
SECTION 2. (OUTFALL PIPE ASSET D	AFECDIBLION							
Location 2: C	Upstream Ass			Material	ı	Shape	Diameter/Dimension (in.	vI 6	Submerged
	Opstream Ass	CCID		Matchai				In Water:	No
Outfall Pipe			Poly Vinyl Chloride			Circle	8	With Sediment	
SECTION 2. (OUTFALL PIPE PHYSICA	AL INDICATORS							
SECTION 3: C			•				1 P . D . C		
	Indica			Indicator Present? None			Indicator Description		
	Asset Da Deposits/			None					
	Pool Qu			None					
	Pipe Algae			None					
*Do	physical indicators suggest an		resent (Y/N):	No					
	Is Inlet Pipe No	o.1 Flowing?		Yes		Moderate	Est	imated GPM:	1
Comments :	DPO- flow expected								
Signature of Inspector :	T	Y							



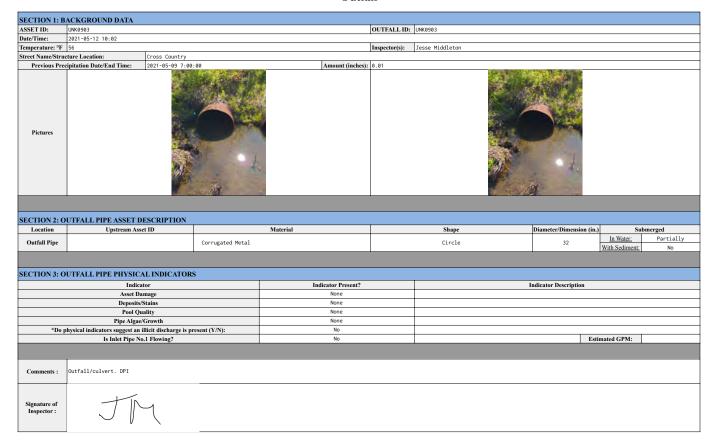


SECTION 1: B	ACKGROUND DATA								
ASSET ID:	UNK0728				OUTFALL ID	UNK0728			
Date/Time:	2021-05-25 10:56								
Temperature: °F	66	_			Inspector(s):	Samuel Marinez			
Street Name/Strue		Cross Country							
Previous Pre	cipitation Date/End Time:	2021-05-22 2:25:	00	Amount (inche	0.03	100	COLUMN TWO IS NOT THE OWNER, NAME OF THE OWNER, NAM		
Pictures									
SECTION 2: O	UTFALL PIPE ASSET D	ESCRIPTION							
Location	Upstream Ass	et ID		Material		Shape	Diameter/Dimension (in.		bmerged
Outfall Pipe			Reinforced Concrete			Circle	18	In Water: With Sediment:	No No
								THE Securion.	1.0
SECTION 3: O	UTFALL PIPE PHYSIC	AL INDICATORS							
	Indica	ator		Indicator Present?			Indicator Description		
	Asset Da	amage		None					
	Deposits	/Stains		None					
	Pool Qu	uality		None					
	Pipe Algae			None					
*Do p	ohysical indicators suggest an		esent (Y/N):	No					
	Is Inlet Pipe N	o.1 Flowing?		No			Est	imated GPM:	
Comments :									
Signature of Inspector :	TY								

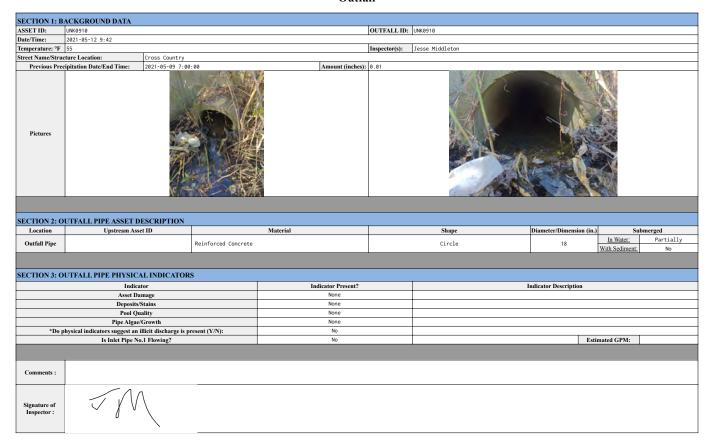




	ACKGROUND DATA									
ASSET ID:			#N/A		OUTFALL ID:			#N/A		
	#N/A									
Temperature: °F			#N/A		Inspector(s):			#N/A		
Street Name/Struc	ture Location:					#N/A				
Previous Prec	ipitation Date/End Time:	#N/A		Amount (inches)			#	N/A		
Pictures			#N/A		#N/A					
	UTFALL PIPE ASSET D									
Location	Upstream Asse	et ID		Material		Shape		Diameter/Dimension (in		ıbmerged
Outfall Pipe	#N/A		#N/A	#N/A		#N/A		#N/A	In Water:	#N/A
									With Sediment:	#N/A
SECTION 3: O	UTFALL PIPE PHYSICA	L INDICATOR	S							
	Indica	tor		Indicator Present?			I	ndicator Description		
	Asset Da	mage		#N/A				#N/A		
	Deposits/S			#N/A				#N/A		
	Pool Qu			#N/A				#N/A		
	Pipe Algae/			#N/A				#N/A		
*Do p	hysical indicators suggest an i		resent (Y/N):	#N/A				#N/A		
	Is Inlet Pipe No	.1 Flowing?		#N/A			#N/A	Es	timated GPM:	#N/A
Comments :	#N/A									
Signature of Inspector :	#N/A									

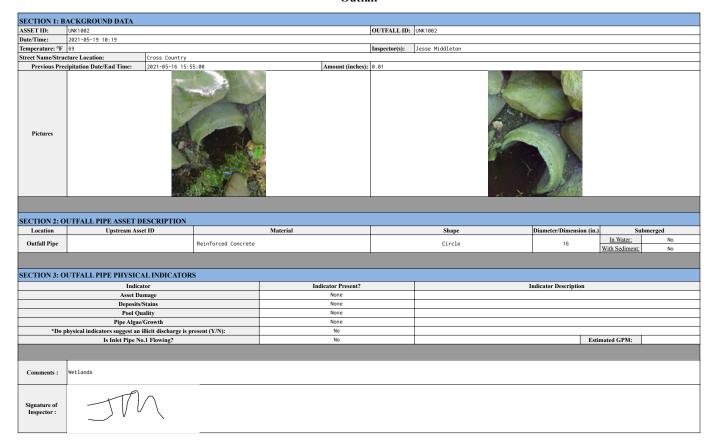


	ACKGROUND DATA									
ASSET ID:			#N/A		OUTFALL ID:			#N/A		
	#N/A									
Temperature: °F			#N/A		Inspector(s):			#N/A		
Street Name/Struc	ture Location:					#N/A				
Previous Prec	ipitation Date/End Time:	#N/A		Amount (inches)			#	N/A		
Pictures			#N/A		#N/A					
	UTFALL PIPE ASSET D									
Location	Upstream Asse	et ID		Material		Shape		Diameter/Dimension (in		ıbmerged
Outfall Pipe	#N/A		#N/A	#N/A		#N/A		#N/A	In Water:	#N/A
									With Sediment:	#N/A
SECTION 3: O	UTFALL PIPE PHYSICA	L INDICATOR	S							
	Indica	tor		Indicator Present?			I	ndicator Description		
	Asset Da	mage		#N/A				#N/A		
	Deposits/S			#N/A				#N/A		
	Pool Qu			#N/A				#N/A		
	Pipe Algae/			#N/A				#N/A		
*Do p	hysical indicators suggest an i		resent (Y/N):	#N/A				#N/A		
	Is Inlet Pipe No	.1 Flowing?		#N/A			#N/A	Es	timated GPM:	#N/A
Comments :	#N/A									
Signature of Inspector :	#N/A									





SECTION 1: B.	ACKGROUND DATA								
ASSET ID:	UNK1000				OUTFALL ID:	: UNK1000			•
Date/Time:	2021-05-20 10:06								
Temperature: °F					Inspector(s):	Jesse Middleton			
Street Name/Struc		Cross Country							
Previous Prec	cipitation Date/End Time:	2021-05-16 15:55	:00	Amount (inches):	0.01				
Pictures									
SECTION 2: O	UTFALL PIPE ASSET D	ESCRIPTION							
Location	Upstream Asse			Material		Shape	Diameter/Dimension (in.) Sı	ubmerged
Outfall Pipe			Reinforced Concrete			Circle	12	In Water: With Sediment:	No No
								With Seament	
CECTION 4 O	UTFALL PIPE PHYSICA	I DIDICUTOR	,						
SECTION 3: O			•						
	Indica Asset Da			Indicator Present? None			Indicator Description		
	Deposits/			None		+			
	Pool Qu			None					
	Pipe Algae/			None					
*Do p	hysical indicators suggest an i		esent (Y/N):	No					
	Is Inlet Pipe No			No			Est	imated GPM:	
Comments :									
Signature of Inspector :	J/								

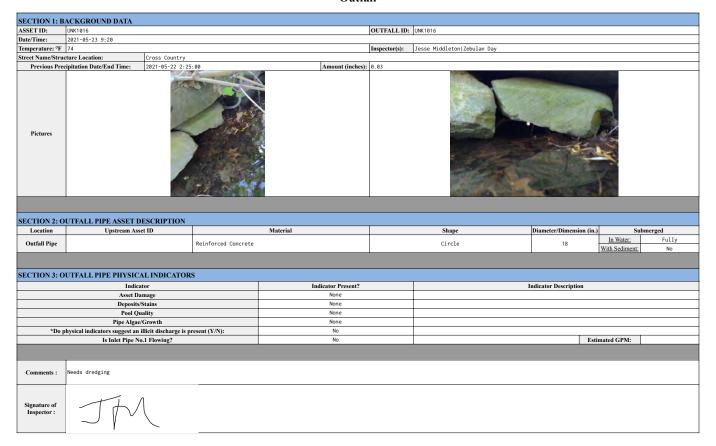


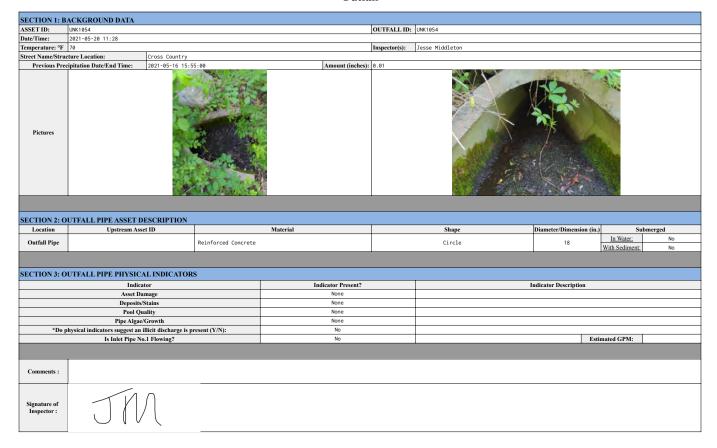
SECTION 1: B.	SECTION 1: BACKGROUND DATA												
ASSET ID:	UNK1005				OUTFALL ID:	UNK1005							
Date/Time:	2021-05-20 10:27				•	•							
Temperature: °F	69				Inspector(s):	Jesse Middleton							
Street Name/Struc	cture Location:	Cross Country											
Previous Pred	cipitation Date/End Time:	2021-05-16 15:55	5:00	Amount (inches):	0.01								
Pictures													
SECTION 2: O	UTFALL PIPE ASSET D	ESCRIPTION											
Location	Upstream Ass	et ID		Material		Shape	D	iameter/Dimension (in.)		ubmerge	d		
Outfall Pipe			Reinforced Concrete			Circle		15	In Water: With Sediment:		No Fully		
									<u>'</u>				
SECTION 3: O	UTFALL PIPE PHYSICA	AL INDICATORS	s										
	Indica	tor		Indicator Present?			Ind	licator Description					
	Asset Da	mage		None									
	Deposits/	Stains		None									
	Pool Qu			None									
	Pipe Algae			None									
*Do p	hysical indicators suggest an		resent (Y/N):	No									
	Is Inlet Pipe No	o.1 Flowing?		No				Esti	mated GPM:				
Comments :													
Signature of Inspector :													

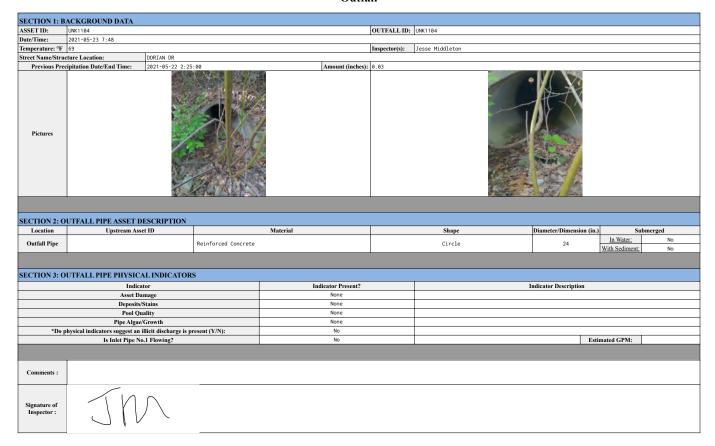
SECTION 1: B	BACKGROUND DATA									
ASSET ID:	UNK1006				OUTFALL ID	: UNK1006				
Date/Time:	2021-05-20 10:34				•	•				
Temperature: °F	69				Inspector(s):	Jesse Middleton				
Street Name/Stru	cture Location:	Cross Country								
Previous Pre	cipitation Date/End Time:	2021-05-16 15:55	5:00	Amount (inches):	0.01					
Pictures										
	OUTFALL PIPE ASSET D									
Location	Upstream Asse	et ID		Material		Shape		Diameter/Dimension (in.)		Submerged
Outfall Pipe			Reinforced Concrete			Circle		18	In Water:	No
									With Sediment	t: No
SECTION 2. C	OUTFALL PIPE PHYSICA	AL INDICATOR	,							
SECTION 5: C			•							
	Indica			Indicator Present? None			I	ndicator Description		
	Asset Da			None						
	Deposits/S Pool Qu			None						
	Pipe Algae/			None						
*Do	physical indicators suggest an i		ocent (V/N)	No						
Do	Is Inlet Pipe No		escut (1714).	No				Feti	mated GPM:	
	is interripe to	ar riowing.		1.0				Esti	mateu Gr.M.	_
Comments :										
Signature of Inspector :	IV	N								

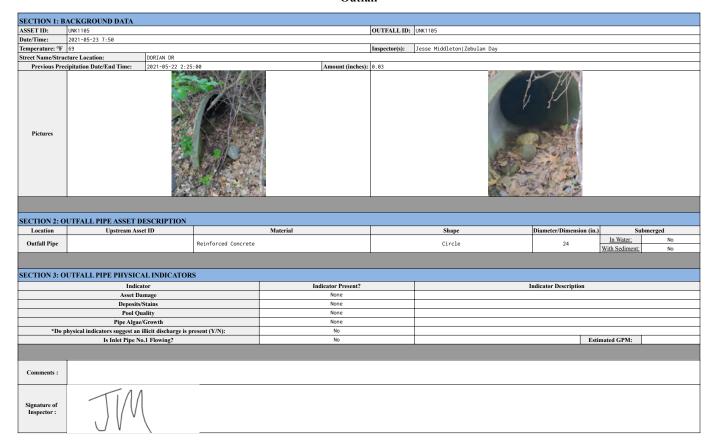
SECTION 1: B	BACKGROUND DATA							
ASSET ID:	UNK1011			OUTFALL ID	: UNK1011			
Date/Time:	2021-05-25 10:41:00			•	•			
Temperature: °F	64			Inspector(s):	Jesse Middleton			
Street Name/Stru	ecture Location:	Cross Country						
Previous Pre	ecipitation Date/End Time:	2021-05-22 2:25:00	Amount (inche): 0.03				
Pictures								
SECTION 2: C	OUTFALL PIPE ASSET DES	SCRIPTION						
Location	Upstream Asset		Material		Shape	Diameter/Dimension (in.	1 6	Submerged
	Opstream resset					`	In Water:	No
Outfall Pipe		Corrugated	i Metal		Circle	12	With Sedimen	
SECTION 3: C	OUTFALL PIPE PHYSICAL							
	Indicato		Indicator Present?			Indicator Description		
	Asset Dam		None					
	Deposits/St:		None					
	Pool Quali		None					
ATD.	Pipe Algae/G		None No					
*D0	physical indicators suggest an illi Is Inlet Pipe No.1		No No			P-4	imated GPM:	
	Is inlet ripe No.1	riowing:	NO			Est	mateu GrM:	
Comments :								
Signature of Inspector :								

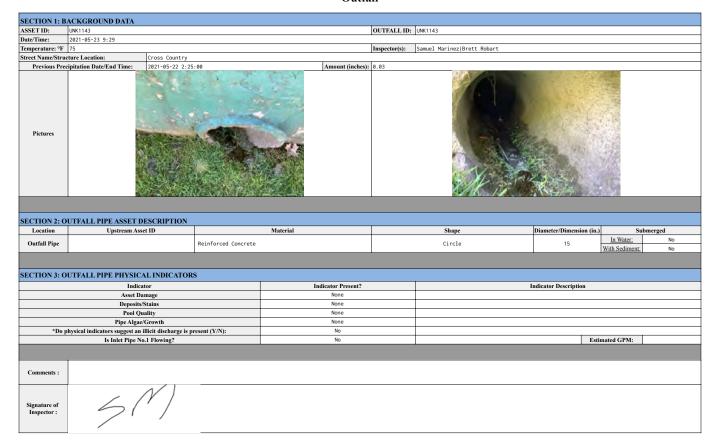
SECTION 1: B	ACKGROUND DATA									
ASSET ID:	UNK1012				OUTFALL ID	: UNK1012				
Date/Time:	2021-05-25 10:44				•	•				
Temperature: °F	64				Inspector(s):	Jesse Middleton				
Street Name/Stru	cture Location:	Cross Country								
Previous Pre	cipitation Date/End Time:	2021-05-22 2:25	: 00	Amount (inches):	0.03					
Pictures										
SECTION 2: O	OUTFALL PIPE ASSET D	ESCRIPTION								
Location	Upstream Ass	et ID		Material		Shape	Diameter/Dimen	sion (in.)	Submer	rged
Outfall Pipe			Reinforced Concrete			Circle	24	In W		No No
								With See	liment:	No
SECTION 3: O	OUTFALL PIPE PHYSICA	AL INDICATORS	S							
	Indica	ator		Indicator Present?			Indicator Descript	ion		
	Asset Da	amage		None			•			
	Deposits/	/Stains		None						
	Pool Qu	uality		None						
	Pipe Algae			None						
*Do j	physical indicators suggest an		resent (Y/N):	No						
	Is Inlet Pipe No	o.1 Flowing?		No				Estimated G	'M:	
Comments :										
Signature of Inspector :	JW									

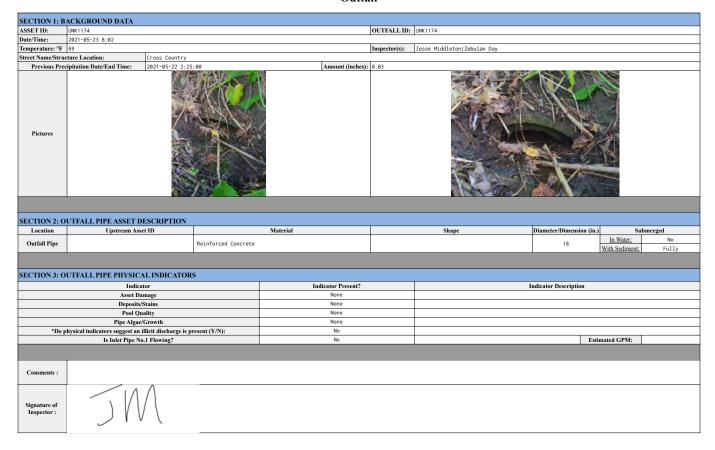


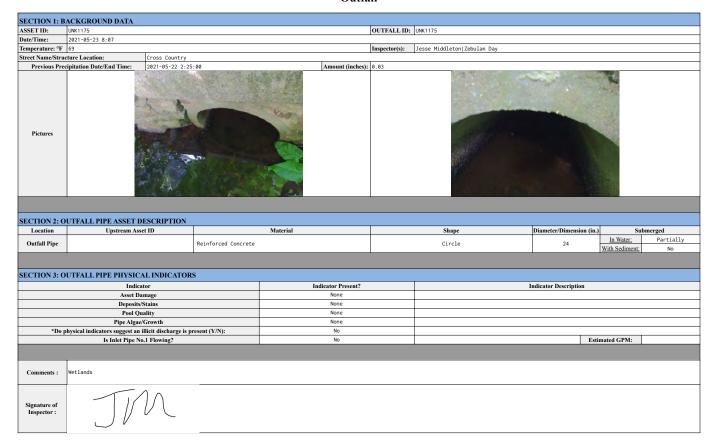


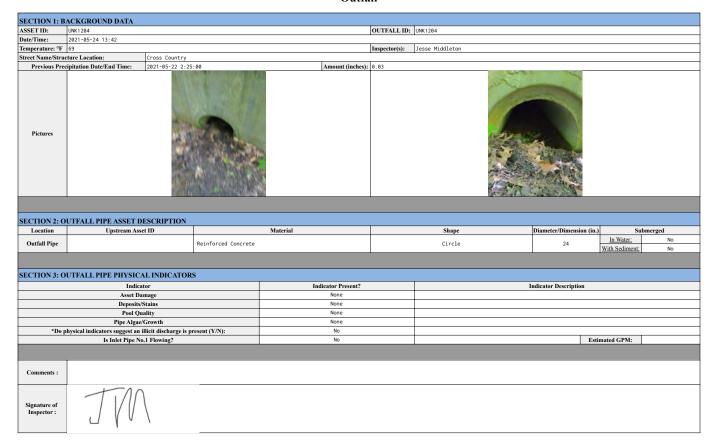


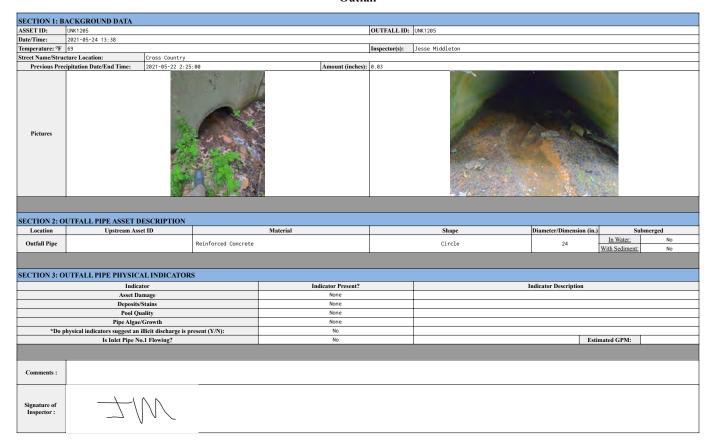




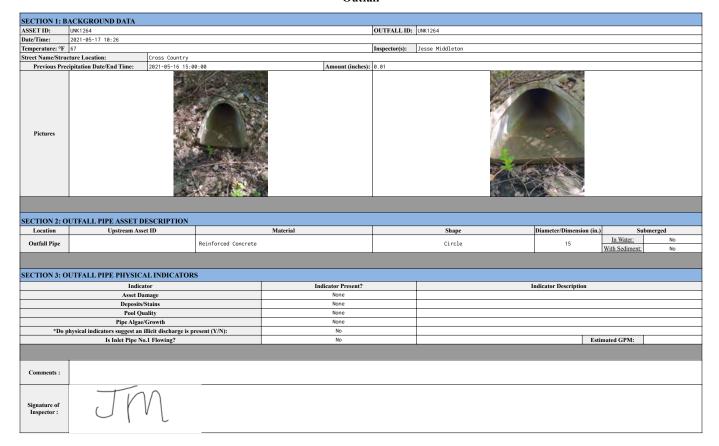


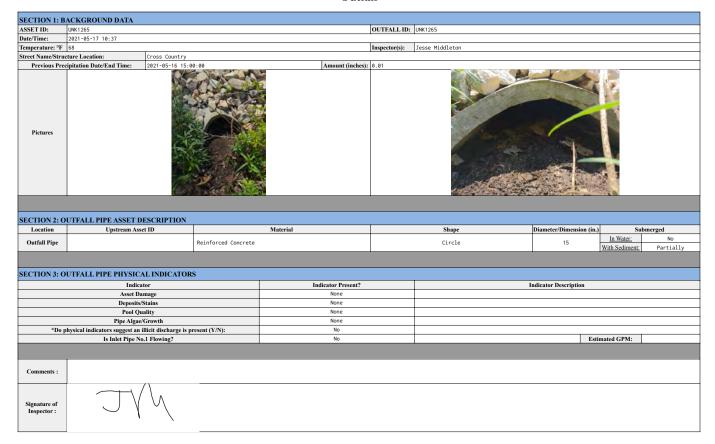




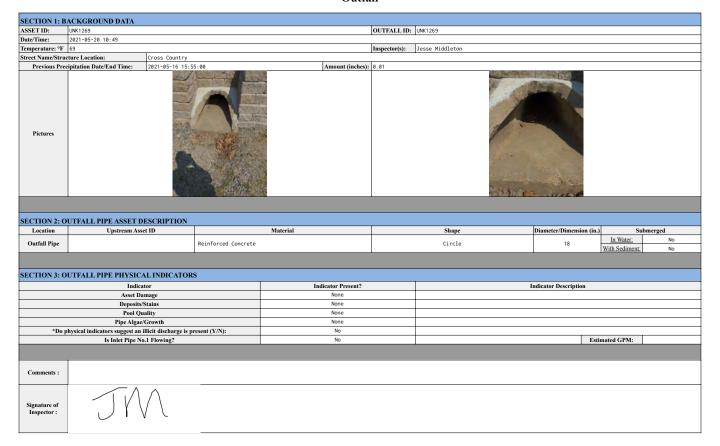




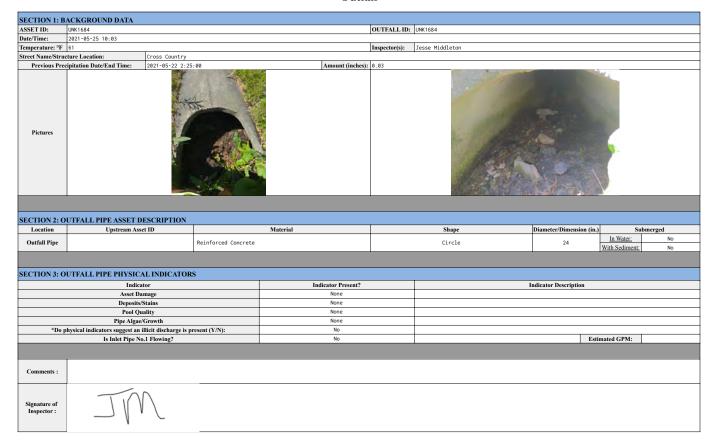


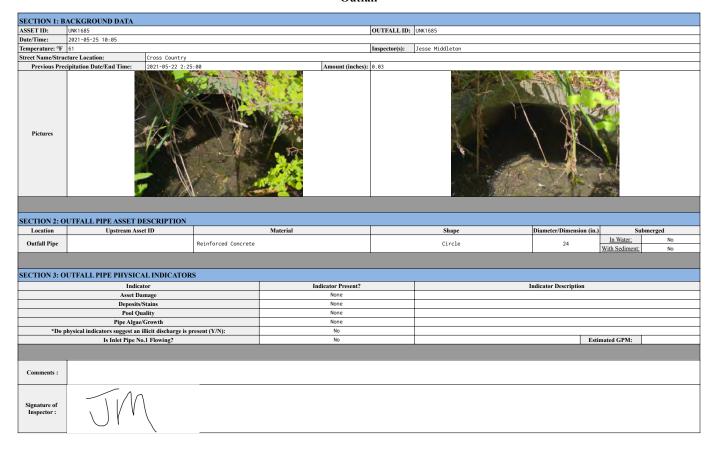


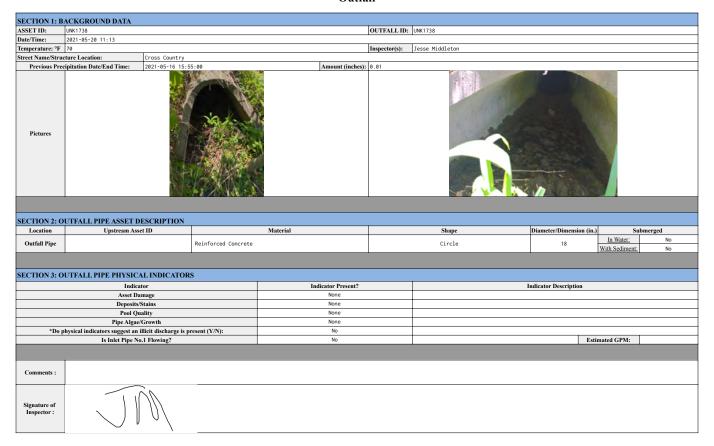
SECTION 1: E	BACKGROUND DATA										
ASSET ID:	UNK1266					OUTFALL ID	: UNK1266				
Date/Time:	2021-05-17 10:34						•				
Temperature: °F	68					Inspector(s):	Jesse Middleton				
Street Name/Stru	cture Location:	Cross Country									
Previous Pre	cipitation Date/End Time:	2021-05-16 15:00	0:00	Ar	nount (inches):	0.01					
Pictures											
SECTION 2: 0	OUTFALL PIPE ASSET D	ESCRIPTION									
Location	Upstream Asse			Material			Shape		Diameter/Dimension (in.	s	ubmerged
Outfall Pipe			Reinforced Concrete				Circle		15	In Water: With Sediment	No No
										with Sediment	i NO
SECTION 3: 0	OUTFALL PIPE PHYSICA	AL INDICATORS	S								
	Indica	tor		Indica	tor Present?]	ndicator Description		
	Asset Da	mage			None				•		
	Deposits/	Stains			None						
	Pool Qu	ality			None						
	Pipe Algae/	Growth			None						
*Do	physical indicators suggest an i		resent (Y/N):		No						
	Is Inlet Pipe No	o.1 Flowing?			No				Est	imated GPM:	
Comments :											
Signature of Inspector :	TM										

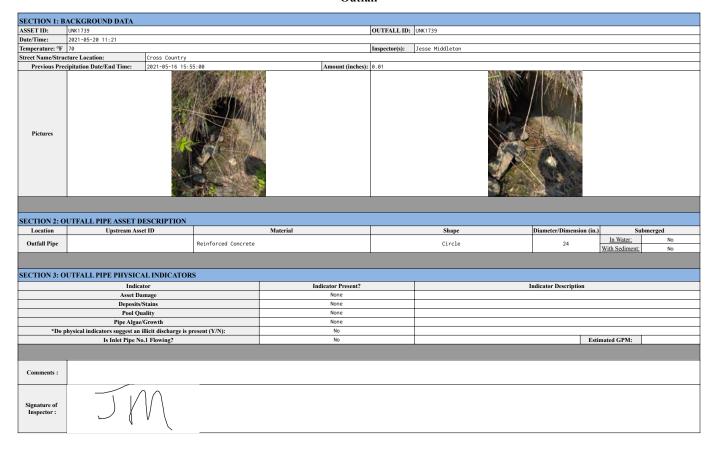


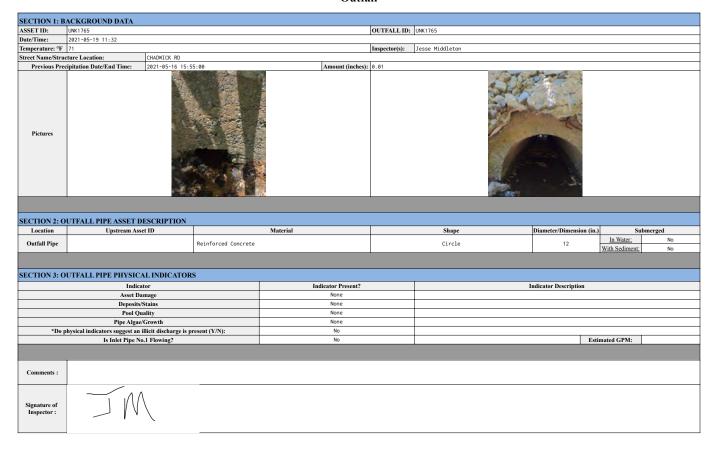
	ACKGROUND DATA									
ASSET ID:			#N/A		OUTFALL ID:			#N/A		
	#N/A									
Temperature: °F			#N/A		Inspector(s):			#N/A		
Street Name/Struc	ture Location:					#N/A				
Previous Prec	ipitation Date/End Time:	#N/A		Amount (inches)			#	N/A		
Pictures			#N/A		#N/A					
	UTFALL PIPE ASSET D									
Location	Upstream Asse	et ID		Material		Shape		Diameter/Dimension (in		ıbmerged
Outfall Pipe	#N/A		#N/A	#N/A		#N/A		#N/A	In Water:	#N/A
									With Sediment:	#N/A
SECTION 3: O	UTFALL PIPE PHYSICA	L INDICATOR	S							
	Indica	tor		Indicator Present?			I	ndicator Description		
	Asset Da	mage		#N/A				#N/A		
	Deposits/S			#N/A				#N/A		
	Pool Qu			#N/A				#N/A		
	Pipe Algae/			#N/A				#N/A		
*Do p	hysical indicators suggest an i		resent (Y/N):	#N/A				#N/A		
	Is Inlet Pipe No	.1 Flowing?		#N/A			#N/A	Es	timated GPM:	#N/A
Comments :	#N/A									
Signature of Inspector :	#N/A									





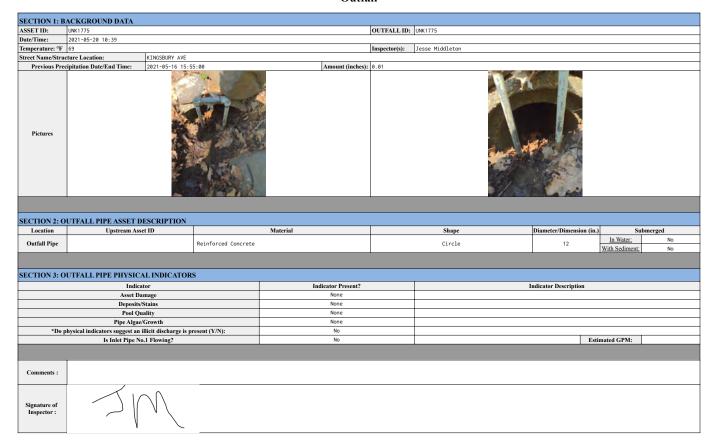


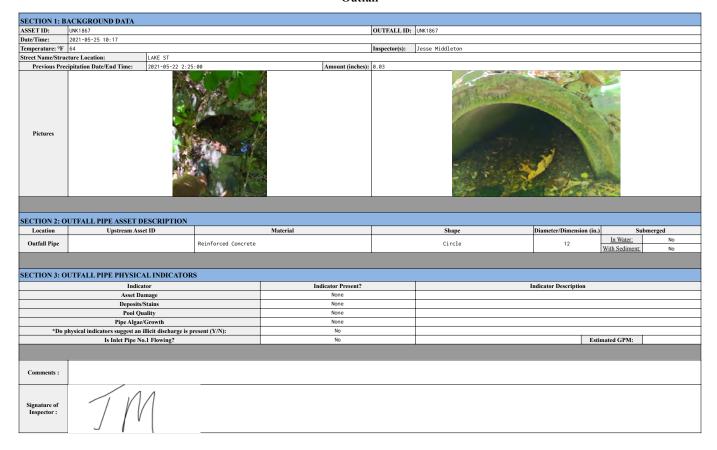


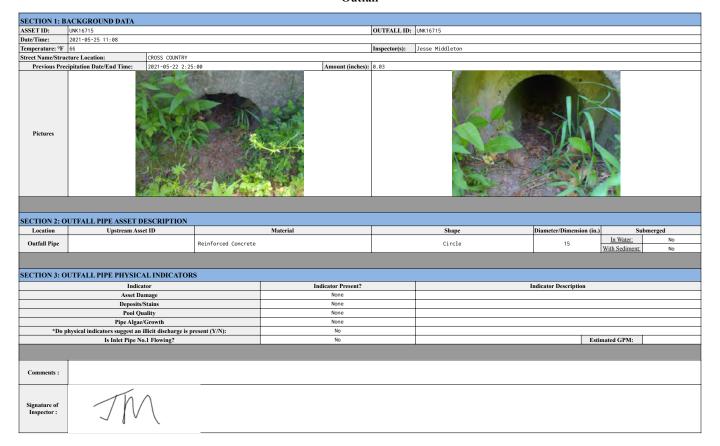


SECTION 1: 1	BACKGROUND DATA											
ASSET ID:	UNK1766				OUTFALL ID	: UNK1766						
Date/Time:	2021-05-20 10:31				•	•						
Temperature: °F	69				Inspector(s):	Jesse Middleton						
Street Name/Str		KINGSBURY AVE										
Previous Pr	ecipitation Date/End Time:	2021-05-16 15:55	5:00	Amount (inches):	0.01							
Pictures												
	OUTFALL PIPE ASSET D											
Location	Upstream Asse	et ID		Material		Shape	Diameter/Dimension (i		ıbmerged			
Outfall Pipe			Reinforced Concrete			Circle	20	In Water:	Partially			
								With Sediment:	. No			
SECTION 3:	OUTFALL PIPE PHYSICA	AL INDICATORS	S									
	Indica			Indicator Present?			Indicator Description					
	Asset Da			None								
	Deposits/			None								
	Pool Qu	ality		None								
	Pipe Algae/			None								
*Do	physical indicators suggest an i		resent (Y/N):	No								
	Is Inlet Pipe No	o.1 Flowing?		No			E	stimated GPM:				
Comments :	Wetland											
Signature of Inspector :	J/V(1										

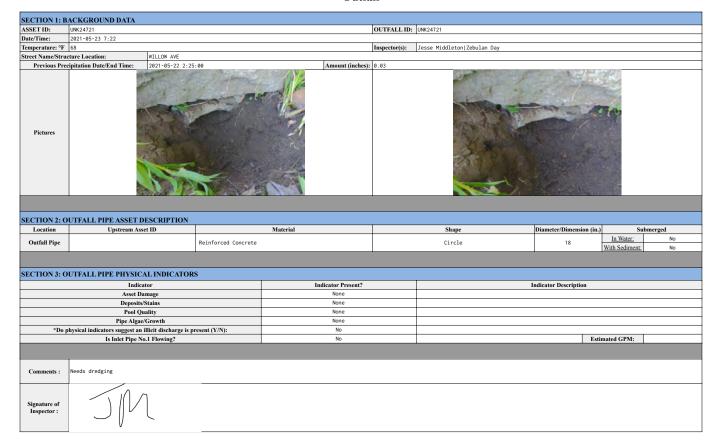
SECTION 1: B	ACKGROUND DATA										
ASSET ID:	UNK1772			OUTFALL ID:	UNK1772						
Date/Time:	2021-05-24 12:21										
Temperature: °F	63			Inspector(s):	Jesse Middleton						
Street Name/Stru	cture Location: Cross Country										
Previous Pre	cipitation Date/End Time: 2021-05-22 2:2	5:00	Amount (inches):	0.03							
Pictures											
Location 2: 0	UTFALL PIPE ASSET DESCRIPTION Upstream Asset ID	T	Material		Shape	Diameter/Dimension (in.)	C.,.	bmerged			
Outfall Pipe	Opstream Assect 15	Reinforced Concrete	Mattial		Circle	18	In Water: With Sediment:	No Partially			
SECTION 3: O	OUTFALL PIPE PHYSICAL INDICATOR	RS									
	Indicator		Indicator Present?			Indicator Description					
	Asset Damage		None								
	Deposits/Stains		None								
	Pool Quality		None								
	Pipe Algae/Growth		None								
*Do p	physical indicators suggest an illicit discharge is	resent (Y/N):	No								
	Is Inlet Pipe No.1 Flowing?		No			Esti	mated GPM:				
Comments :											
Signature of Inspector :	JM										

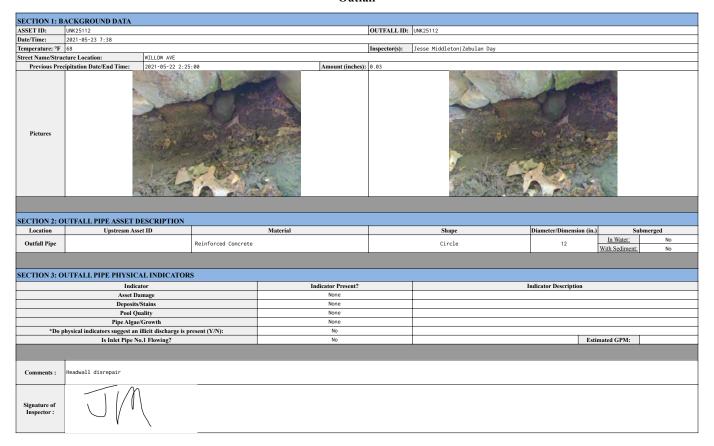






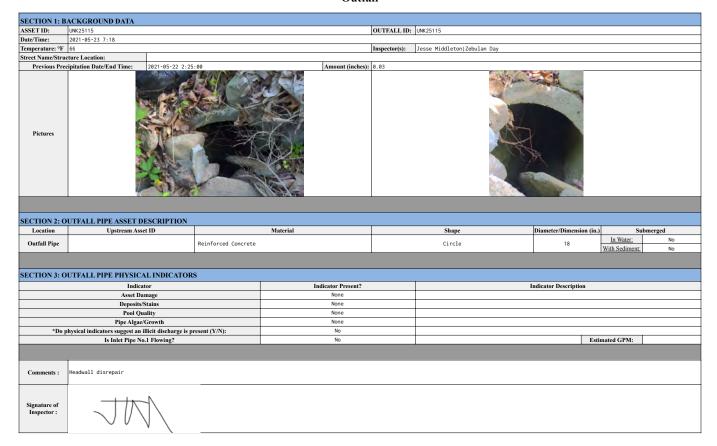


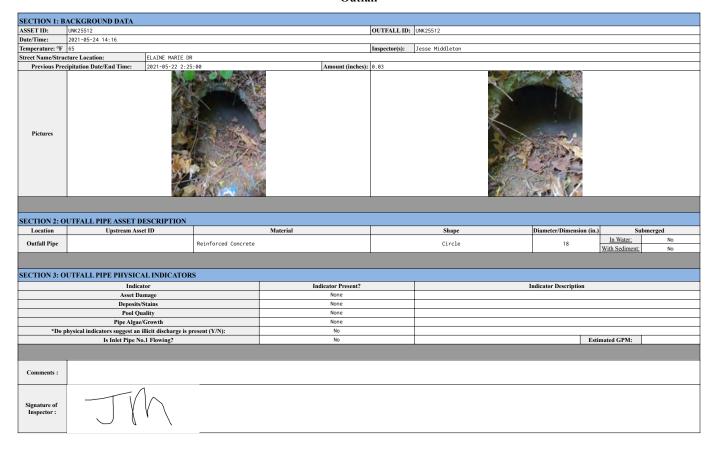


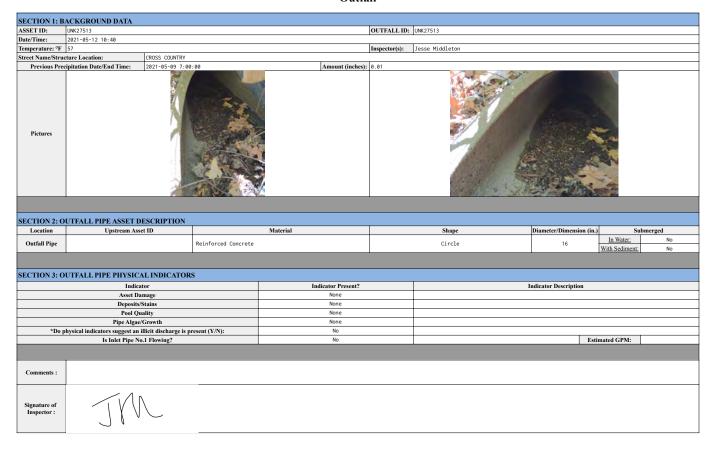


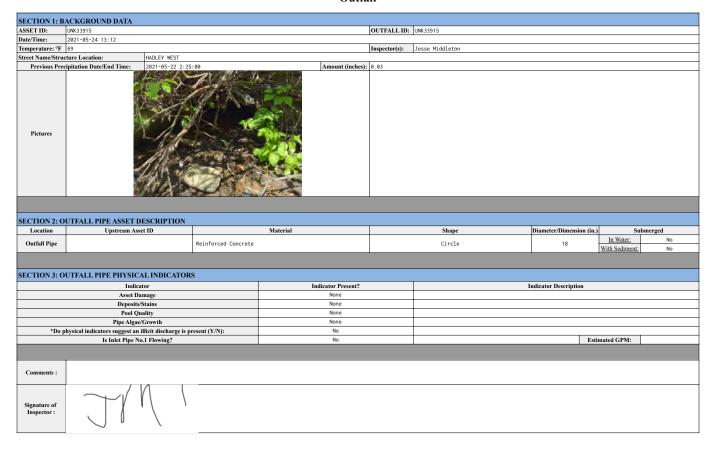
SECTION 1 · R	ACKGROUND DATA											
ASSET ID:	UNK25113					OUTFALL ID:	UNK25113					
Date/Time:	2021-05-23 7:36					OCTIALE ID.	OHC25115					
Temperature: °F						Inspector(s):	Jesse Middleton Zebulan Day					
Street Name/Stru		WILLOW AVE				inspector (s).	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
	cipitation Date/End Time:	2021-05-22 2:25	: 00	A	Amount (inches):	0.03						
Pictures												
	ECTION 2: OUTFALL PIPE ASSET DESCRIPTION											
Location	Upstream Asse	et ID		Material			Shape	Diameter/Dimension (in.)		bmerged		
Outfall Pipe			Reinforced Concrete				Circle	12	In Water: With Sediment:	No No		
SECTION 3: O	OUTFALL PIPE PHYSICA		S									
	Indica			Indic	cator Present?		1	Indicator Description				
	Asset Da				None							
	Deposits/S				None							
	Pool Qu Pipe Algae/				None							
*Do v	Pipe Algae/ physical indicators suggest an i		esent (V/N):		None							
- 100	Is Inlet Pipe No		coent (1/N):		No		1	Feti	imated GPM:			
Comments :	Headwall disrepair											
Inspector:												

SECTION 1: B	BACKGROUND DATA										
ASSET ID:	UNK25114					OUTFALL ID	: UNK25114				
Date/Time:	2021-05-23 7:41					•	•				
Temperature: °F						Inspector(s):	Jesse Middleto	on Zebulan Day			
Street Name/Stru		WILLOW AVE									
Previous Pre	cipitation Date/End Time:	2021-05-22 2:25:0	30	A	mount (inches):	0.03					
Pictures		62									
CECTION A. C	NUTEAU I DIDE ACCET DI	ECCRIPTION									
Location 2: C	UTFALL PIPE ASSET DI Upstream Asse			Material		Ι	Shape		Diameter/Dimension (in	- 1	Submerged
	Opstream Asse			Material						In Water:	No
Outfall Pipe		[]	Reinforced Concrete				Circl	.e	12	With Sedimen	
	•										
SECTION 3: O	OUTFALL PIPE PHYSICA	L INDICATORS									
	Indicat	tor		Indica	ator Present?				Indicator Description		
	Asset Dar	mage			None						
	Deposits/S				None						
	Pool Qua				None						
	Pipe Algae/				None						
*Do j	physical indicators suggest an i		sent (Y/N):		No No					stimated GPM:	
	Is Inlet Pipe No.	.1 Flowing?			NO				Es	timated GPM:	_
Comments :											
Signature of Inspector :	TM										

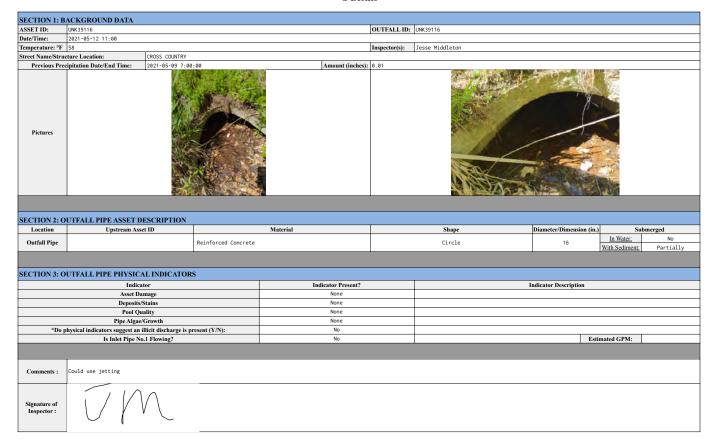




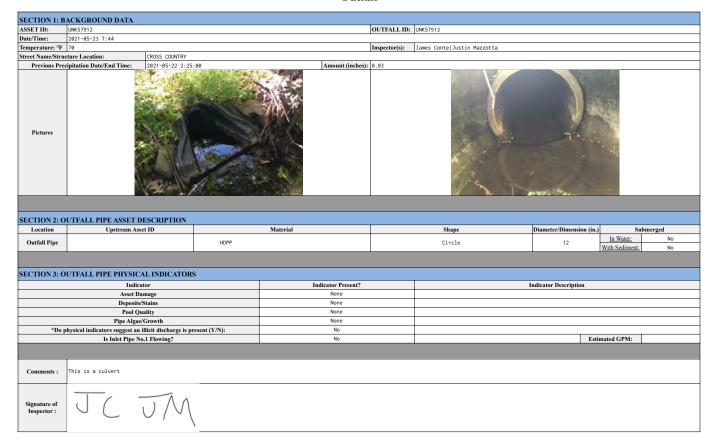




SECTION 1: B	BACKGROUND DATA								
ASSET ID:	UNK37912				OUTFALL ID	: UNK37912			
Date/Time:	2021-05-20 9:52				•	•			
Temperature: °F					Inspector(s):	Jesse Middleton			
Street Name/Stru	cture Location:	Cross Country							
Previous Pre	cipitation Date/End Time:	2021-05-16 15:55	5:00	Amount (inches):	0.01				
Pictures									
SECTION 2: C	OUTFALL PIPE ASSET D	ESCRIPTION							
Location	Upstream Ass	et ID		Material		Shape	Diameter/Dimension (in		ıbmerged
Outfall Pipe			Corrugated Metal			Circle	36	In Water:	Partially
								With Sediment:	. No
SECTION 3: C	OUTFALL PIPE PHYSICA	AL INDICATORS	8						
	Indica	itor		Indicator Present?			Indicator Description		
	Asset Da	ımage		None			-		
	Deposits/	Stains		None					
	Pool Qu	iality		None					
	Pipe Algae			None					
*Do	physical indicators suggest an		resent (Y/N):	No					
	Is Inlet Pipe No	o.1 Flowing?		No			Est	timated GPM:	
Comments :									
Signature of Inspector :		$ \setminus $							

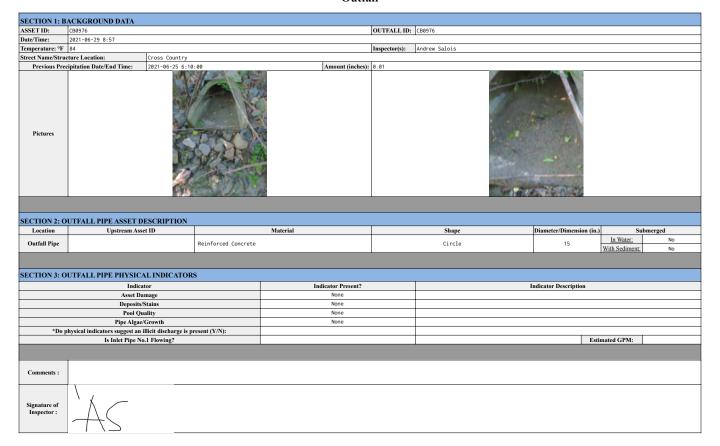


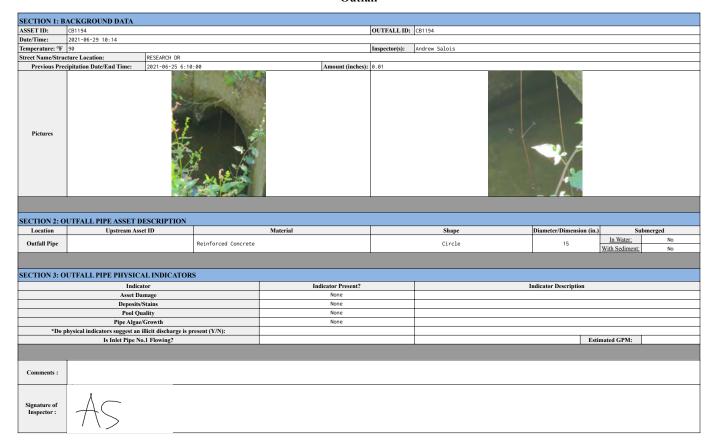
SECTION 1: B	BACKGROUND DATA										
ASSET ID:	UNK39516					OUTFALL ID	: UNK39516				
Date/Time:	2021-05-12 10:52						•				
Temperature: °F	58					Inspector(s):	Jesse Middleton				
Street Name/Stru	cture Location:						•				
Previous Pre	cipitation Date/End Time:	2021-05-09 7:00	: 00	Ame	ount (inches):	0.01					
Pictures											
on omyony A		a con vinera v									
Location 2: C	OUTFALL PIPE ASSET DE Upstream Asset			Material			Shape		Diameter/Dimension (in.	J 6	Submerged
Outfall Pipe	Opstream Asset	III	Reinforced Concrete	Material			Square		16	In Water:	No
Outrain 1 spc			neimoreca concrete				oquai c			With Sediment	L No
SECTION 3: O	OUTFALL PIPE PHYSICA	LINDICATOR	s								
	Indicate		~	Indicate	or Present?			ĭ	ndicator Description		
	Asset Dan				lone			•	nuicitor Description		
	Deposits/S	-		N	one						
	Pool Qua			N	lone						
	Pipe Algae/C	Growth		N	lone						
*Do j	physical indicators suggest an il		resent (Y/N):		No						
	Is Inlet Pipe No.	1 Flowing?			No				Est	imated GPM:	
Comments :	Unable to get clear pictur	re. Did confirm	no dry weather flow								
Signature of Inspector :		\mathcal{M}									

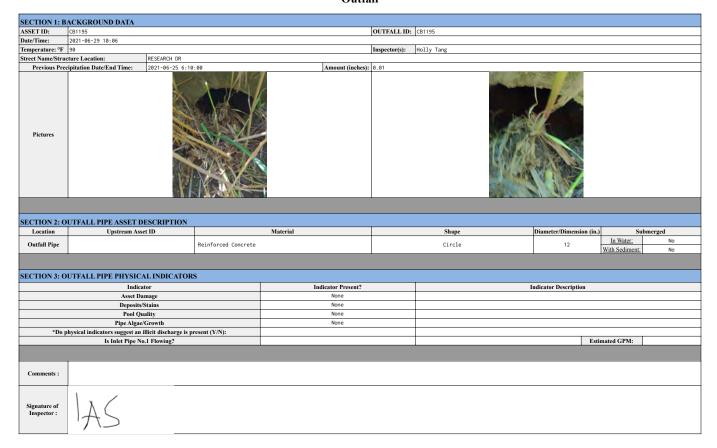


JUNE 2021

SECTION 1: BA	ACKGROUND DATA								
ASSET ID:	CB0975				OUTFALL ID	: CB0975			
	2021-06-29 8:46								
Temperature: °F	84				Inspector(s):	Andrew Salois			
Street Name/Struc	ture Location:	MORNINGSIDE DR			•				
Previous Prec	ipitation Date/End Time:	2021-06-25 6:10:	: 00	Amount (inches):	0.01				
Pictures									
SECTION 2: O	UTFALL PIPE ASSET D	DESCRIPTION							
Location	Upstream Ass	et ID		Material		Shape	Diameter/Dimension (in.)		bmerged
Outfall Pipe			Reinforced Concrete			Circle	12	In Water: With Sediment:	Partially No
SECTION 3: O	UTFALL PIPE PHYSIC.	AL INDICATORS	<u> </u>						
SECTION 3. O	Indica		,	Indicator Present?			 ndicator Description		
	Asset Da			None			 nuicator Description		
	Deposits			None					
	Pool Q			None					
	Pipe Algae			None					
*Do p	hysical indicators suggest an	illicit discharge is pr	resent (Y/N):						
	Is Inlet Pipe N	o.1 Flowing?					Esti	mated GPM:	
Comments :									
Signature of Inspector :									

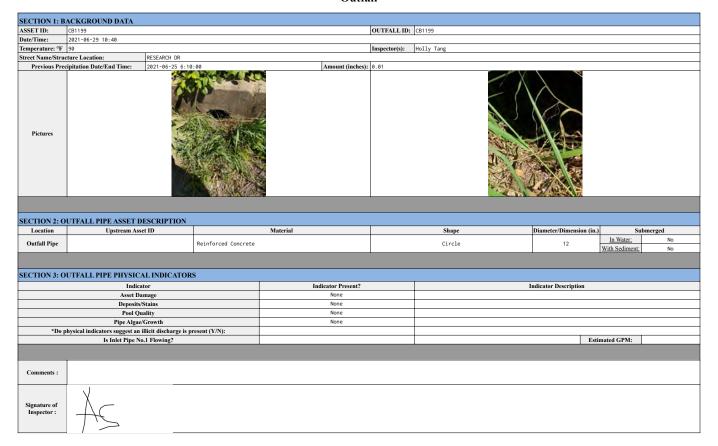




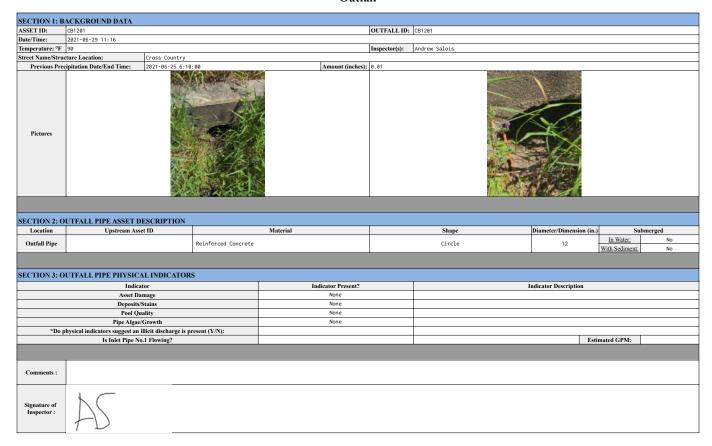


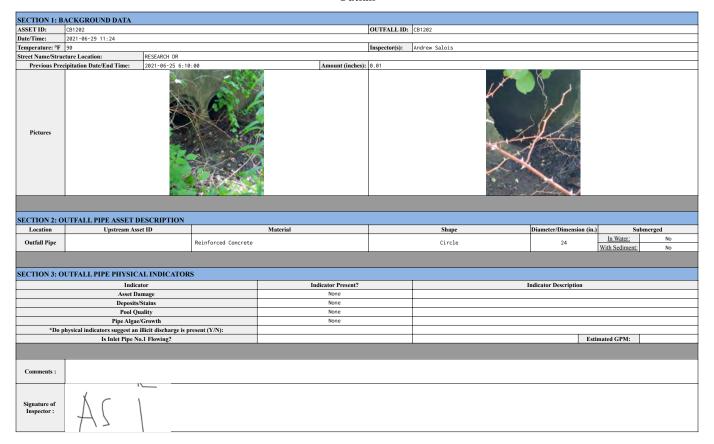
	ACKGROUND DATA									
ASSET ID:			#N/A		OUTFALL ID:			#N/A		
	#N/A									
Temperature: °F			#N/A		Inspector(s):			#N/A		
Street Name/Struc	ture Location:					#N/A				
Previous Prec	ipitation Date/End Time:	#N/A		Amount (inches)			#	N/A		
Pictures			#N/A				#	N/A		
	UTFALL PIPE ASSET D									
Location	Upstream Asse	et ID		Material		Shape		Diameter/Dimension (in		ıbmerged
Outfall Pipe	#N/A		#N/A	#N/A		#N/A		#N/A	In Water:	#N/A
									With Sediment:	#N/A
SECTION 3: O	UTFALL PIPE PHYSICA	L INDICATOR	S							
	Indica	tor		Indicator Present?			I	ndicator Description		
	Asset Da	mage		#N/A				#N/A		
	Deposits/S			#N/A				#N/A		
	Pool Qu			#N/A				#N/A		
	Pipe Algae/			#N/A				#N/A		
*Do p	hysical indicators suggest an i		resent (Y/N):	#N/A				#N/A		
	Is Inlet Pipe No	.1 Flowing?		#N/A			#N/A	Es	timated GPM:	#N/A
Comments :	#N/A									
Signature of Inspector :	#N/A									

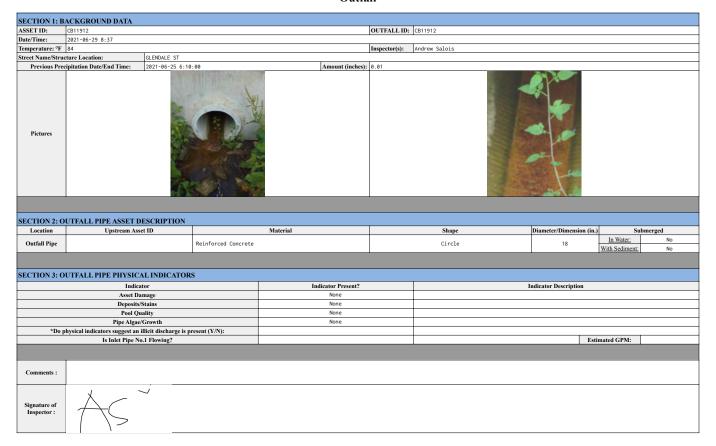
SECTION 1: E	BACKGROUND DATA									
ASSET ID:	CB1198				OUTFALL ID	: CB1198				•
Date/Time:	2021-06-29 10:19					•				
Temperature: °F					Inspector(s):	Andrew Salois				
Street Name/Stru		RESEARCH DR								
Previous Pre	cipitation Date/End Time:	2021-06-25 6:10:	00	Amount (inches):	0.01			91172		
Pictures			C							
on omyon, A										
Location 2: C	Upstream Ass			Material		Shape		Diameter/Dimension (in.)		Submerged
Outfall Pipe	Cpstrcam Ass	CCID	Reinforced Concrete	Material		Circle		36	In Water:	No
Outrain 1 spc			Reinforced Concrete			circie		30	With Sediment	t: No
SECTION 3: 0	OUTFALL PIPE PHYSICA	AL INDICATORS	3							
	Indica			Indicator Present?			1	ndicator Description		
	Asset Da			None						
	Deposits/	/Stains		None						
	Pool Qu	iality		None						
	Pipe Algae			None						
*Do	physical indicators suggest an		esent (Y/N):							_
	Is Inlet Pipe No	o.1 Flowing?						Esti	mated GPM:	
Comments :										
Signature of Inspector :										

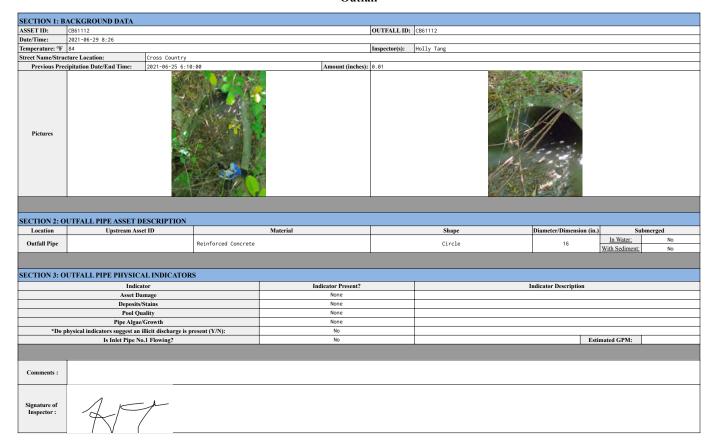


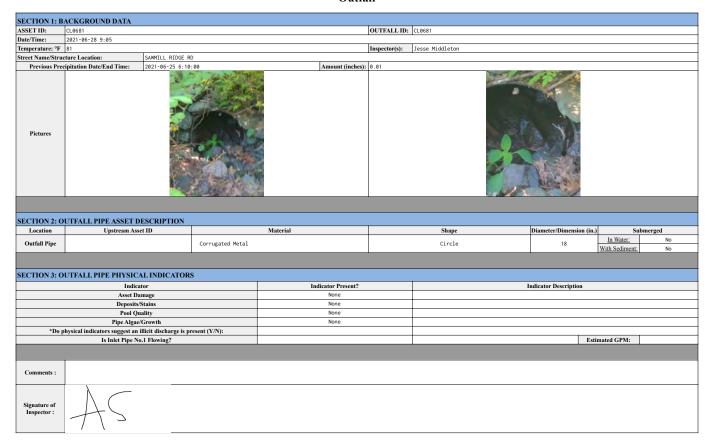
SECTION 1: B	ACKGROUND DATA											
ASSET ID:	CB1200					OUTFALL ID:	CB1200					
Date/Time:	2021-06-29 11:05											
Temperature: °F	88					Inspector(s):	Holly Tang					
Street Name/Strue	cture Location:	Cross Country										
Previous Pred	cipitation Date/End Time:	2021-06-25 6:10	: 00	A	mount (inches):	0.01						
Pictures												
	CTION 2: OUTFALL PIPE ASSET DESCRIPTION											
Location	Upstream Asse	t ID		Material		Shape Diameter/Dimension (in.) Submerged						
Outfall Pipe			Reinforced Concrete			Circle			8	In Water:	No	
										With Sediment:	No	
SECTION 3: O	OUTFALL PIPE PHYSICA		s									
	Indicat			Indica	ator Present?			I	ndicator Description			
	Asset Dar				None		-					
	Deposits/S Pool Qua				None		-					
	Pipe Algae/G				None		+					
*Do n	physical indicators suggest an il		resent (Y/N):		No							
	Is Inlet Pipe No.				No				Est	imated GPM:		
	·											
Comments :	Completely filled with di	rt										
Signature of Inspector :	47											

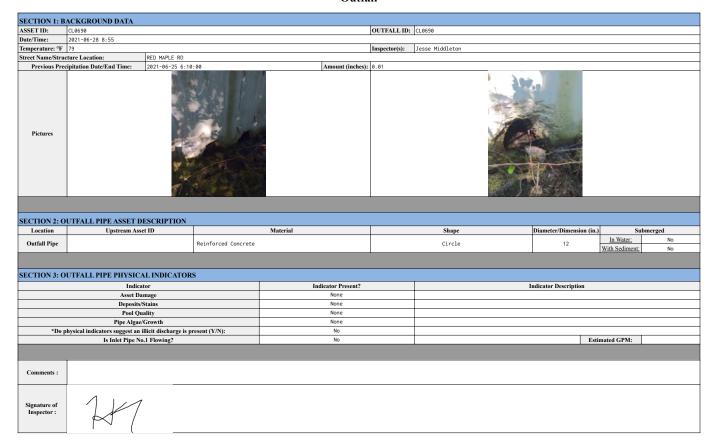


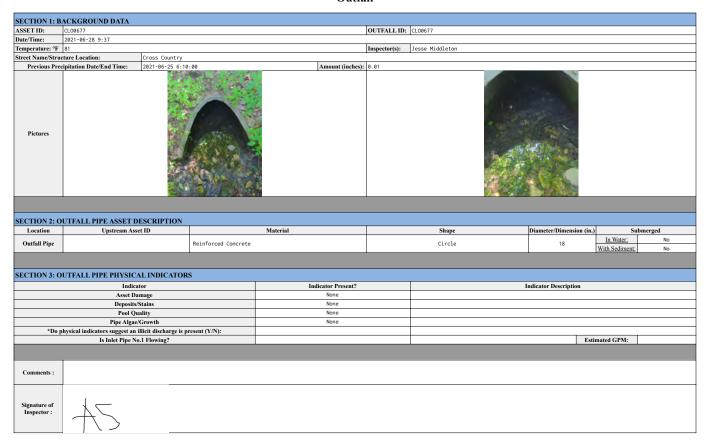


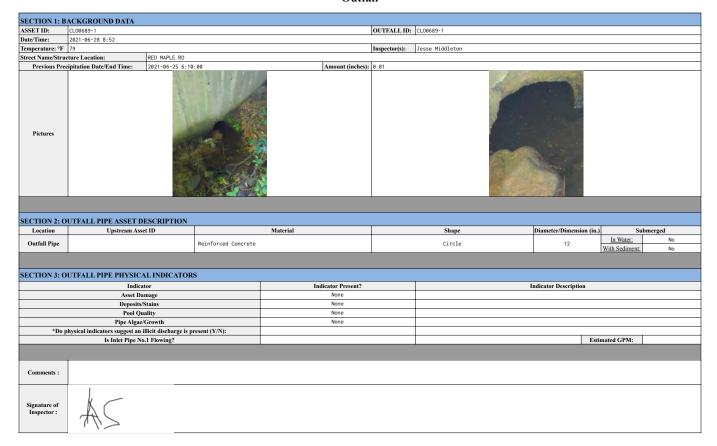






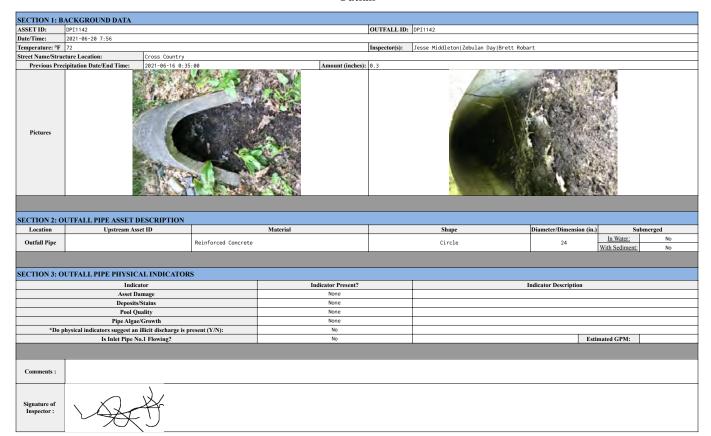


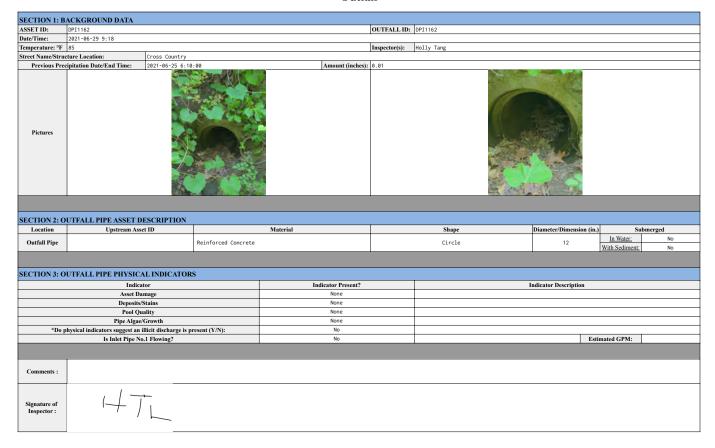


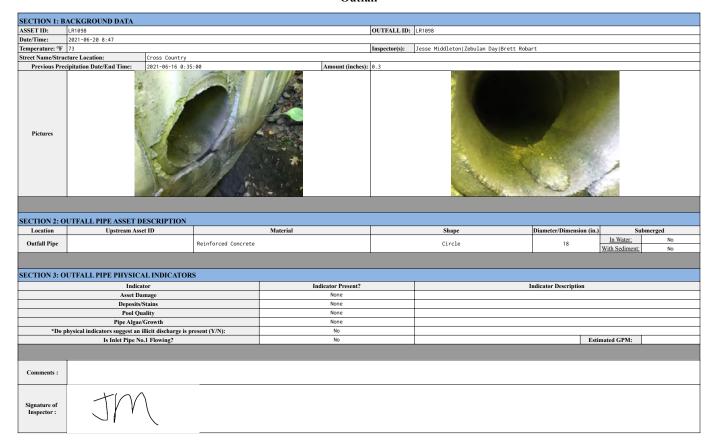


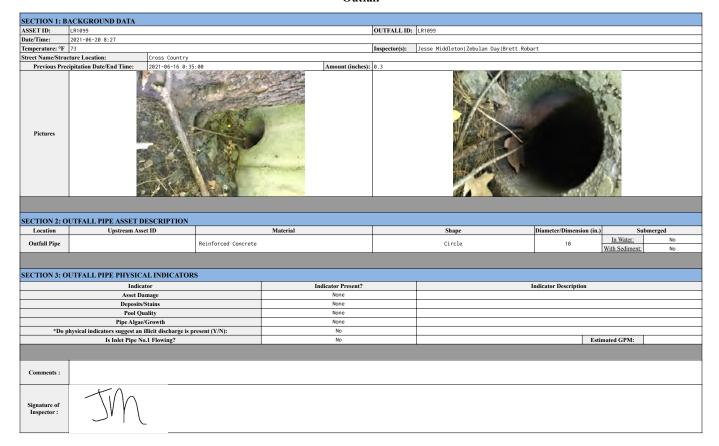


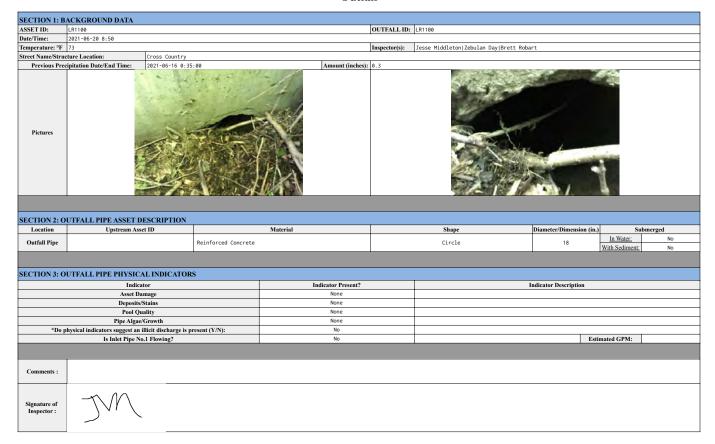
SECTION 1: BACKGROUND DATA											
ASSET ID:	DPI0945				OUTFALL ID	: DPI0945					
Date/Time:	2021-06-20 7:04				•	•					
Temperature: °F	69				Inspector(s):	Jesse Middleton Zebulan Day Brett Rob	art				
Street Name/Stru		Cross Country			_						
Previous Pre	cipitation Date/End Time:	2021-06-16 0:45:	00	Amount (inches):	0.03						
Pictures											
SECTION 2: 0	OUTFALL PIPE ASSET D	ESCRIPTION									
Location	Upstream Asse			Material	1	Shape	Diameter/Dimension (in.)		Submerged		
			unne				` '	In Water:	No		
Outfall Pipe			HDPE			Circle	12	With Sediment			
CECTION 2. C	OUTFALL PIPE PHYSICA	AL INDICATOR	,								
SECTION 3: U			•								
	Indica			Indicator Present? None		Indicator Description					
	Asset Da Deposits/			None							
	Pool Qu			None							
	Pipe Algae/			None							
*Do 1	physical indicators suggest an i		esent (Y/N):	No							
	Is Inlet Pipe No			No			Esti	mated GPM:			
Comments :											
Signature of Inspector :	Th	_ L									



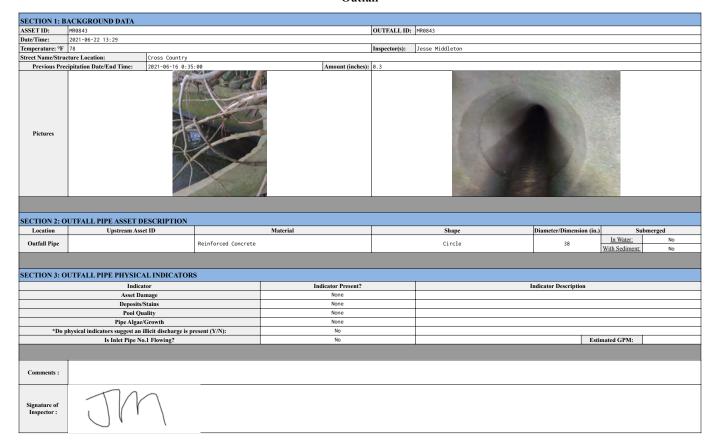


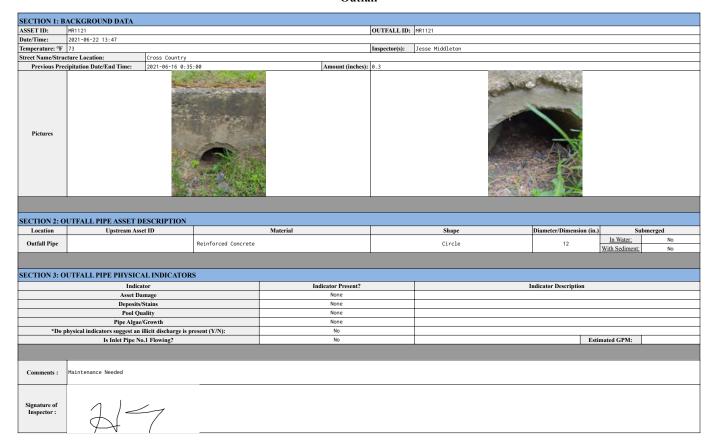


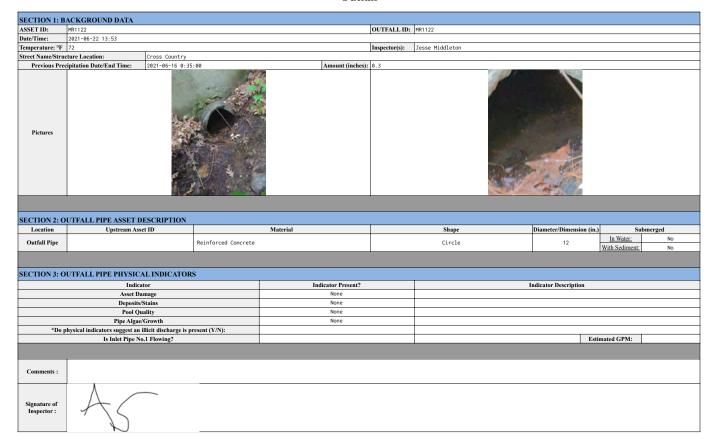


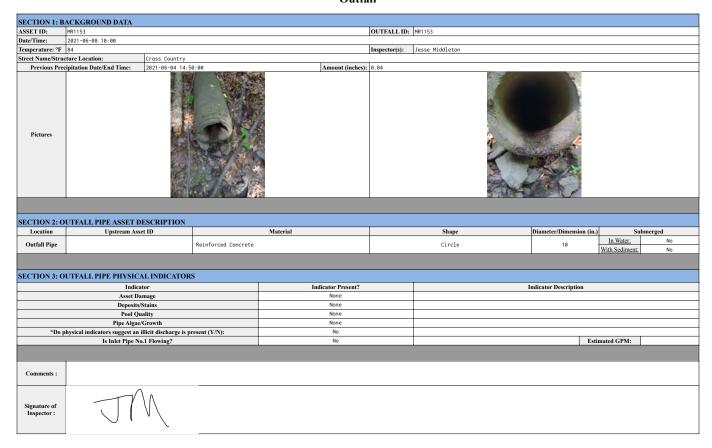


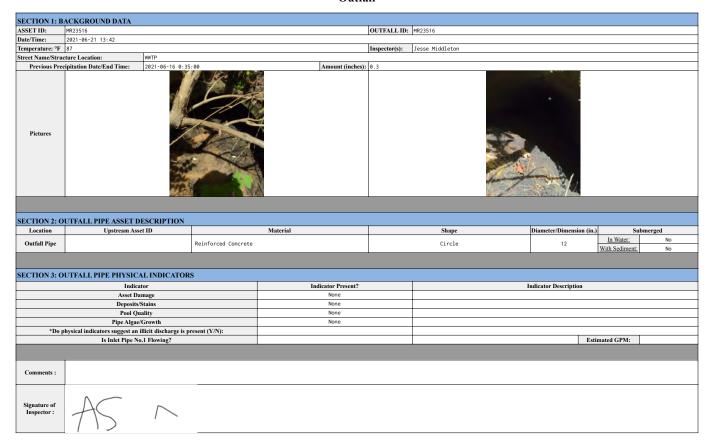
SECTION 1: BACKGROUND DATA										
ASSET ID:	LR1101				OUTFALL ID	: LR1101				
Date/Time:	2021-06-20 8:29				'	_				
Temperature: °F	73				Inspector(s):	Jesse Middleton Zebulan	Day Brett Robart			
Street Name/Stru		Cross Country								
Previous Pre	ecipitation Date/End Time:	2021-06-16 0:35:	00	Amount (inch	es): 0.3					
Pictures										
CECTION 2. C	DUTEALL DIDE ACCET DE	ECCUPTION								
Location 2: C	OUTFALL PIPE ASSET DE Upstream Asset			Material		Shape	Dior	neter/Dimension (in.)		Submerged
	Opstream Asset	(ID		Material			Diai		In Water:	Partially
Outfall Pipe			Reinforced Concrete			Circle		10	With Sediment	
SECTION 3: C	OUTFALL PIPE PHYSICA	L INDICATORS	3							
	Indicat	or		Indicator Present	•		Indica	tor Description		
	Asset Dan	nage		None						
	Deposits/S			None						
	Pool Qua			None						
	Pipe Algae/C			None						
*Do physical indicators suggest an illicit discharge is present (Y/N):										
	Is Inlet Pipe No.	1 Flowing?		No				Esti	mated GPM:	
Comments :										
Signature of Inspector :	711	\								

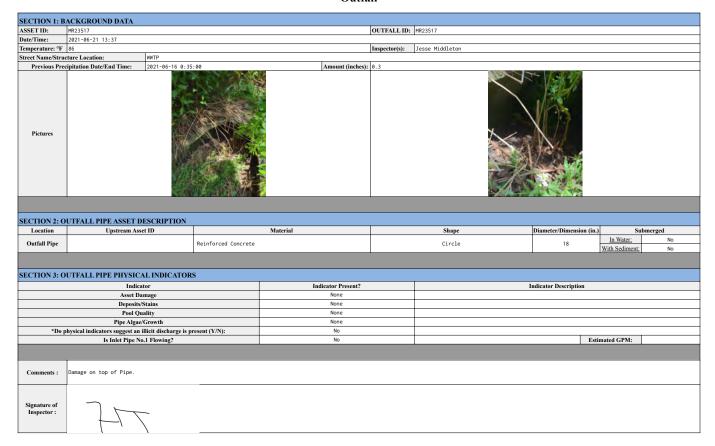


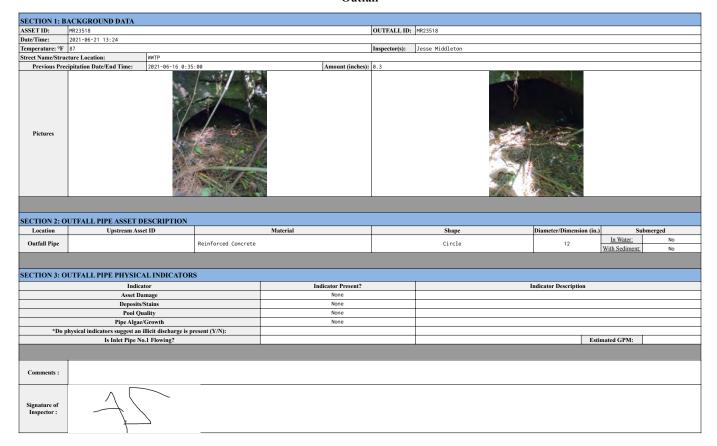


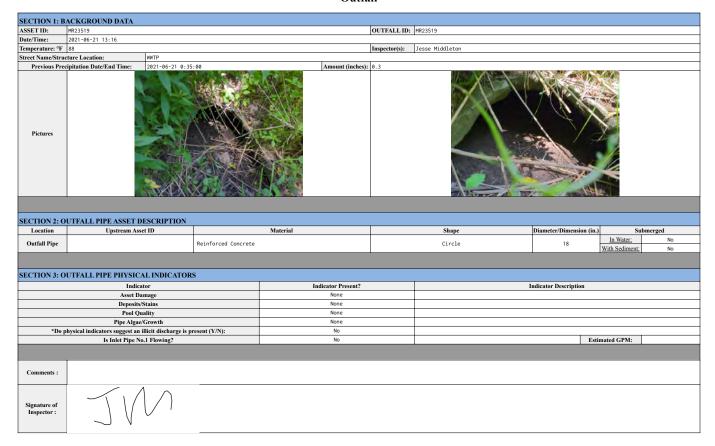






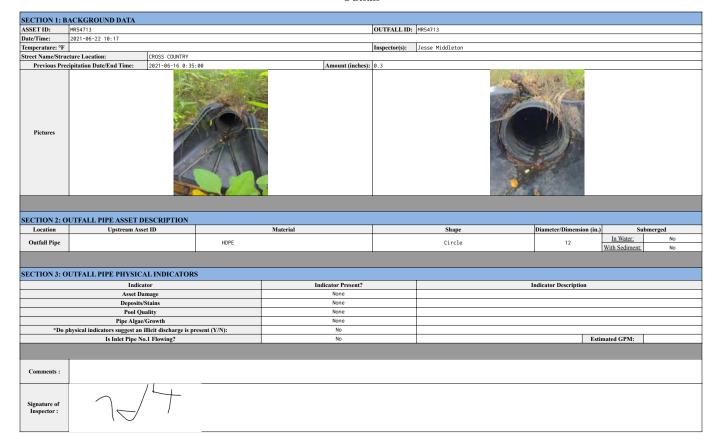


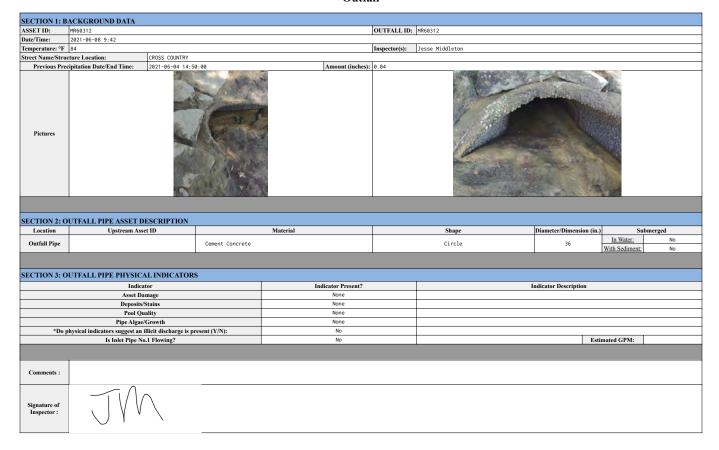


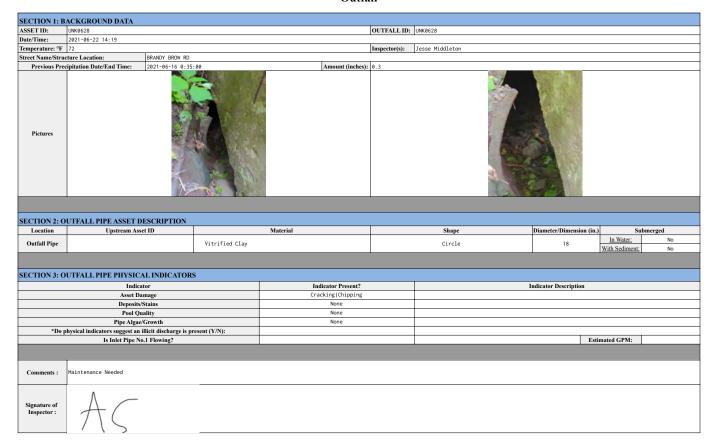


SECTION 1: BACKGROUND DATA												
ASSET ID:	MR23524 OUTFALLID: MR23524											
Date/Time:	2021-06-21 12:37											
Temperature: °F	emperature: °F Inspector(s):											
Street Name/Strue		WWTP										
Previous Pred	cipitation Date/End Time:	2021-06-16 0:35:	00	Amount (inches):	0.3	100000000000000000000000000000000000000						
Pictures												
CECTION 4 O	WELL DIDE ACCES	NECCHIPTION										
Location 2: 0	UTFALL PIPE ASSET I Upstream Ass			Material		Shape	Diameter/Dimension (in.)	6	merged			
Outfall Pipe	Opstream Ass	Set ID	Reinforced Concrete	Material		Circle	18	In Water: With Sediment:	No No			
								with Sedifferi.	NO			
SECTION 3: O	UTFALL PIPE PHYSIC		8									
	Indic			Indicator Present?		I	ndicator Description					
	Asset D			None								
	Deposits Pool Q			None None								
	Pipe Algae			None								
*Do n	ohysical indicators suggest an		esent (Y/N):	Horic								
201	Is Inlet Pipe N						Esti	mated GPM:				
Comments :												
Signature of Inspector :												

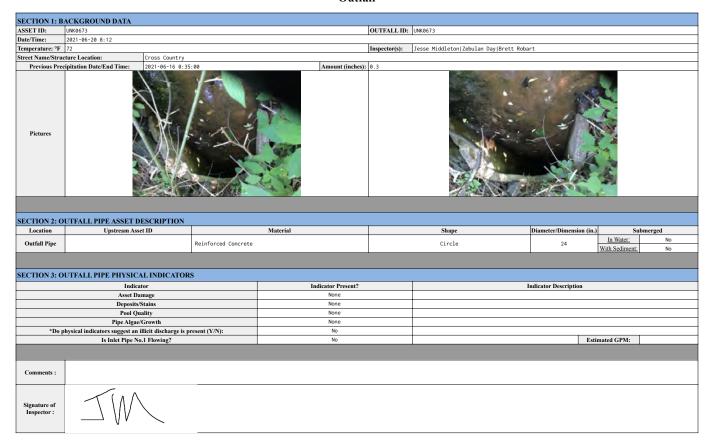


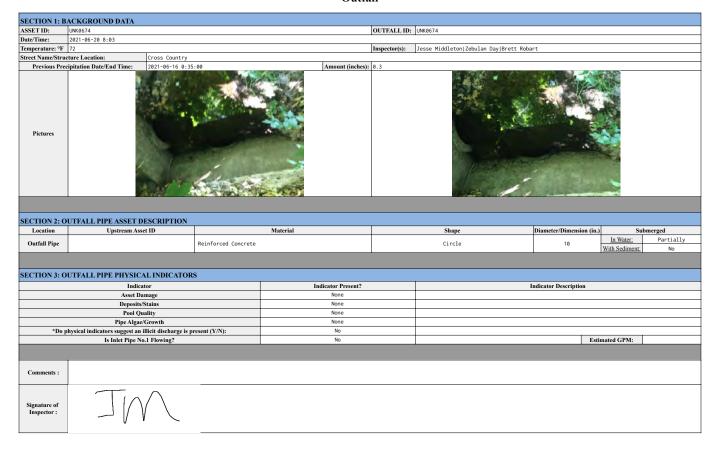




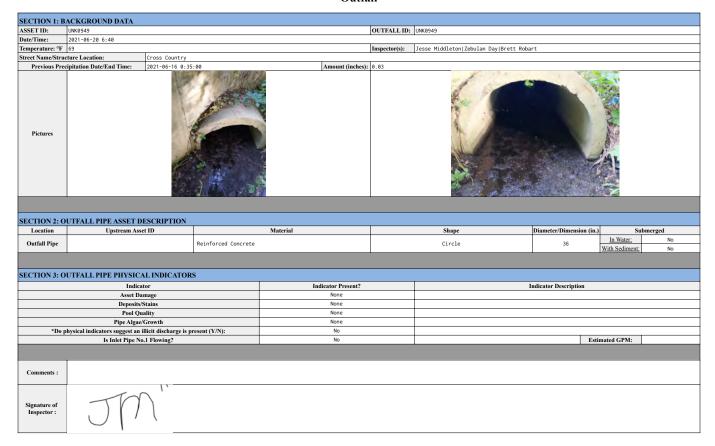


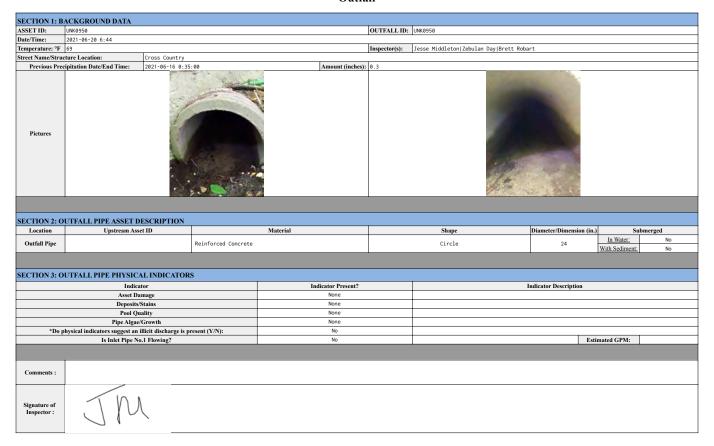






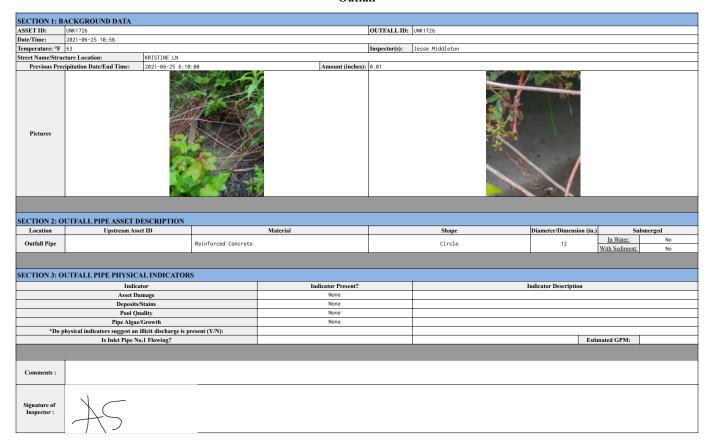


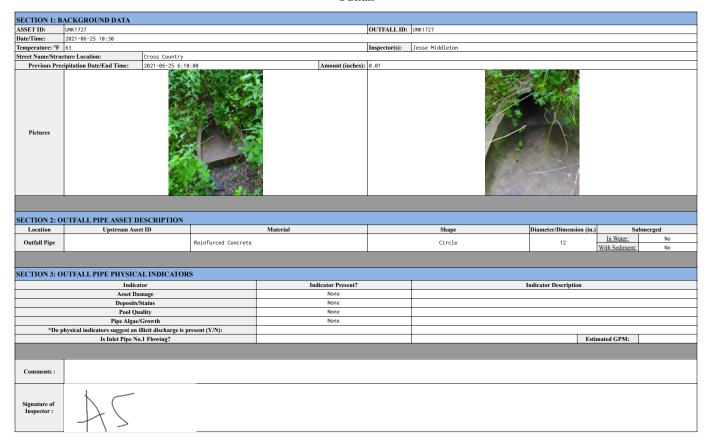


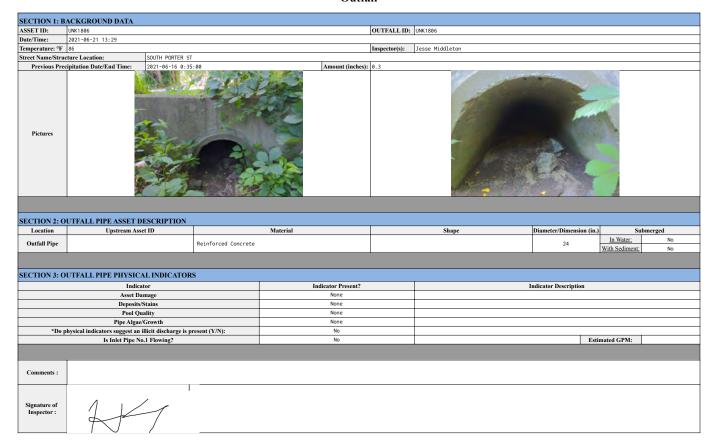


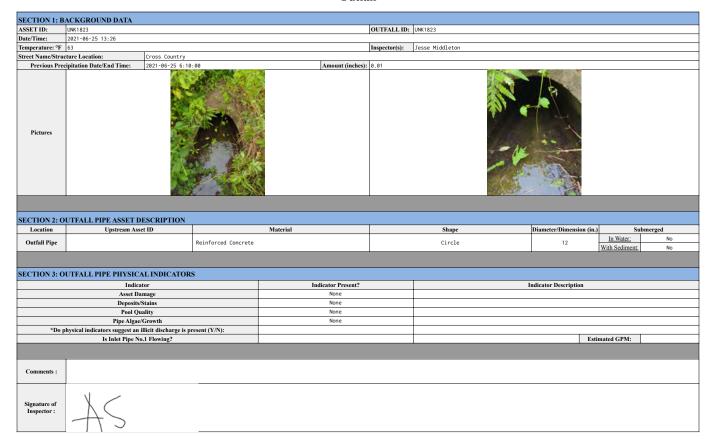
SECTION 1: BACKGROUND DATA											
ASSET ID:			#N/A		OUTFALL ID:			#N/A			
	#N/A										
Temperature: °F			#N/A		Inspector(s):			#N/A			
Street Name/Struc	ture Location:					#N/A			-		
Previous Prec	ipitation Date/End Time:	#N/A		Amount (inches)	:		#	tN/A			
Pictures			#N/A				#	N/A			
	UTFALL PIPE ASSET D										
Location	Upstream Asse	et ID		Material		Shape		Diameter/Dimension (i		ıbmerged	
Outfall Pipe	#N/A		#N/A	#N/A		#N/A		#N/A	In Water:	#N/A	
									With Sediment	#N/A	
SECTION 3: O	UTFALL PIPE PHYSICA	L INDICATOR	s								
	Indica	tor		Indicator Present?			I	ndicator Description			
	Asset Da	mage		#N/A		#N/A					
	Deposits/S			#N/A	#N/A						
	Pool Qu			#N/A		#N/A					
	Pipe Algae/			#N/A				#N/A			
*Do p	hysical indicators suggest an i		resent (Y/N):	#N/A		#N/A					
	Is Inlet Pipe No	.1 Flowing?		#N/A			#N/A	E	stimated GPM:	#N/A	
Comments :	#N/A										
Signature of Inspector :	#N/A										

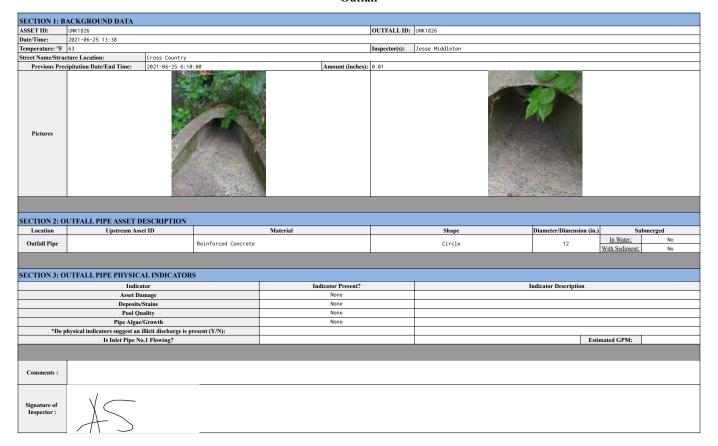
SECTION 1: BACKGROUND DATA											
	UNK1725				OUTFALL ID: UNK1725						
	2021-06-25 10:52:00										
Temperature: °F					Inspector(s):	Jesse Middleton					
Street Name/Struc		KRISTINE LN									
Previous Precipitation Date/End Time: 2021-06-25 6:10:00				Amount (inches):	0.01						
Pictures											
SECTION 2. O	SECTION 2: OUTFALL PIPE ASSET DESCRIPTION										
Location Location	Upstream Asse			Material		Shape	Diameter/Dimension (in.)		ubmerged		
	Upstream Asse	et ID		Material		Snape	Diameter/Dimension (in.)	In Water:	No		
Outfall Pipe			Reinforced Concrete		Circle		12	With Sediment:			
								with Sediment	. 100		
SECTION 3: O	UTFALL PIPE PHYSICA	AL INDICATORS	S								
	Indica			Indicator Present?		Indicator Description					
	Asset Da			None							
	Deposits/			None							
	Pool Qu			None		+					
an.	Pipe Algae/ hysical indicators suggest an i			None No							
*Do p	hysical indicators suggest an i Is Inlet Pipe No		esent (Y/N):	No No			Enti	mated CPMs			
	is inlet ripe No	.1 Flowing:		NO	No Estimated GPM:			mateu GFM:			
Comments :											
Signature of Inspector :	6										

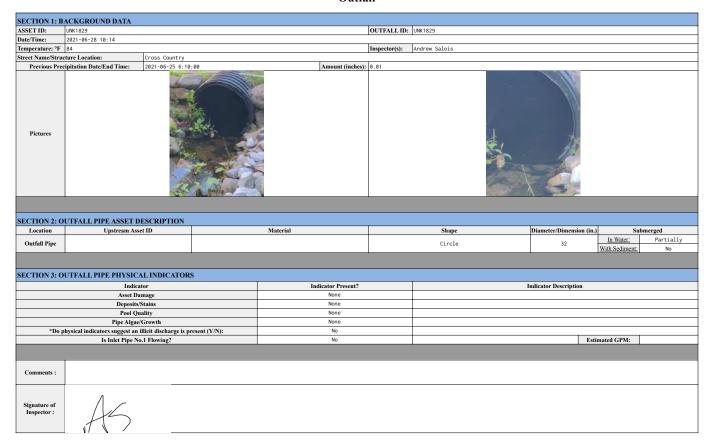


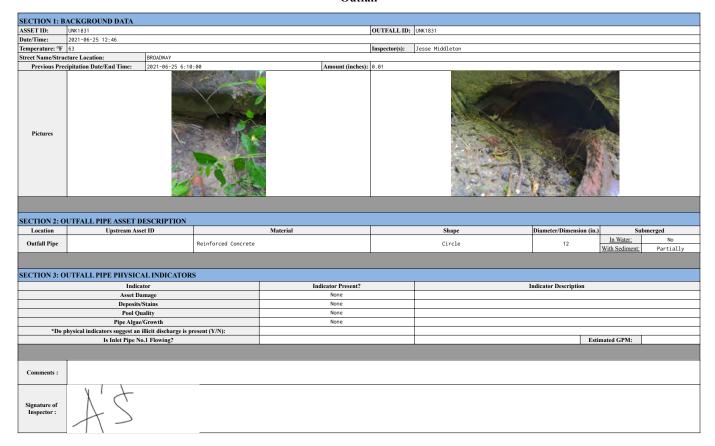


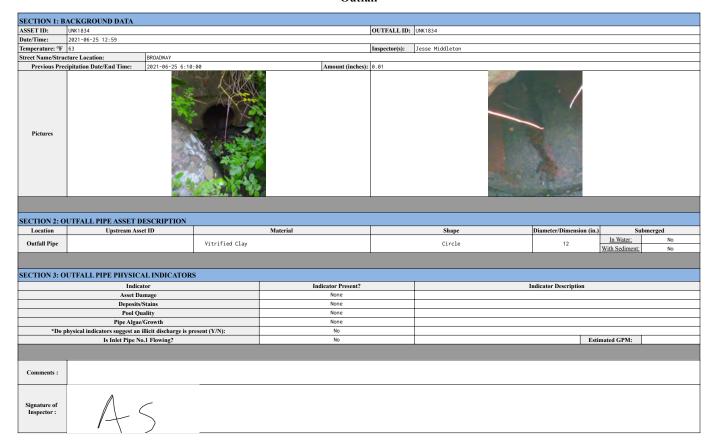


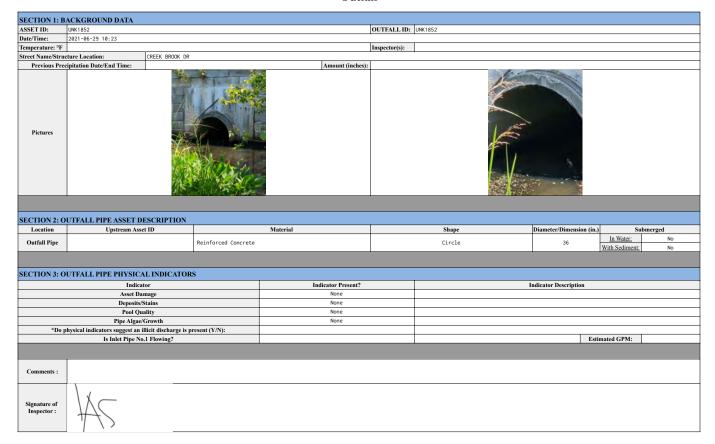


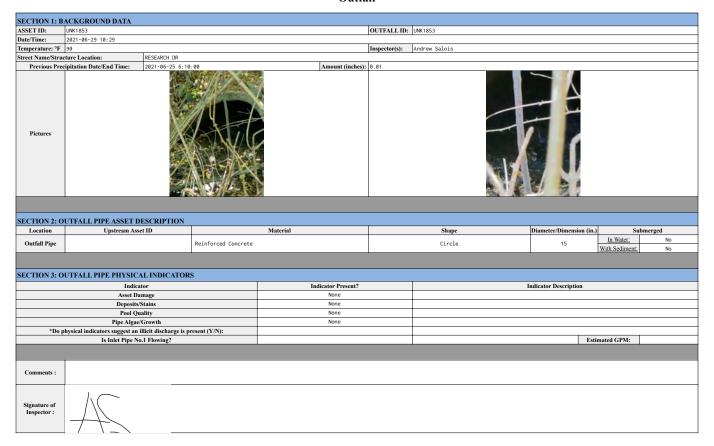


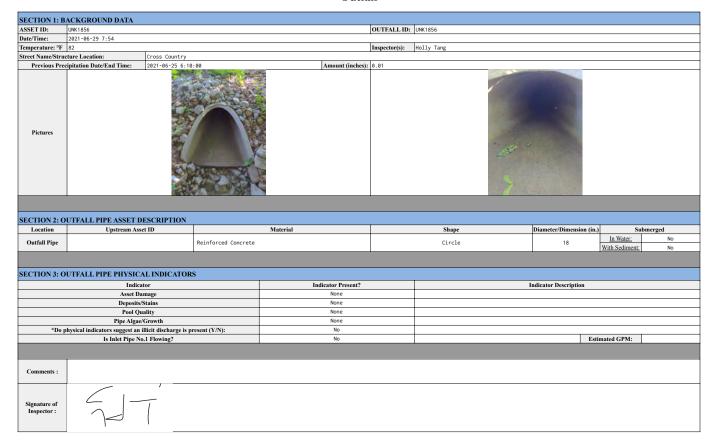




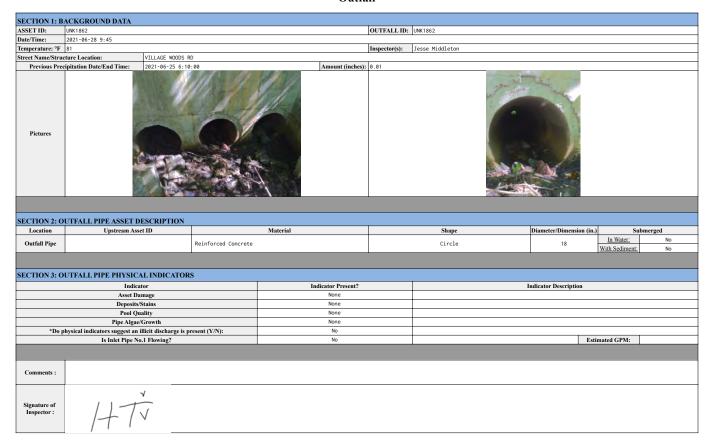


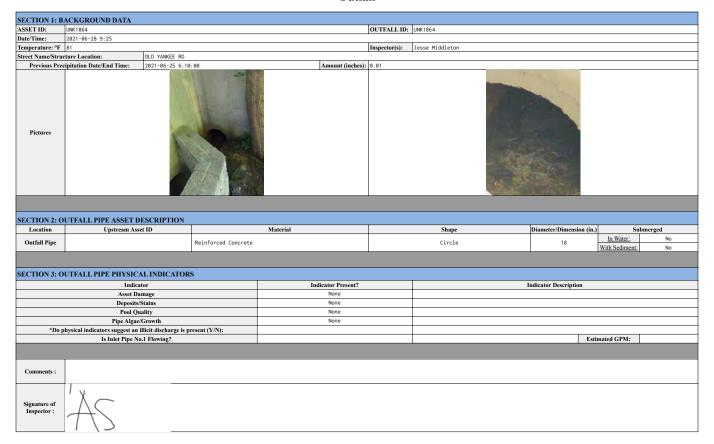


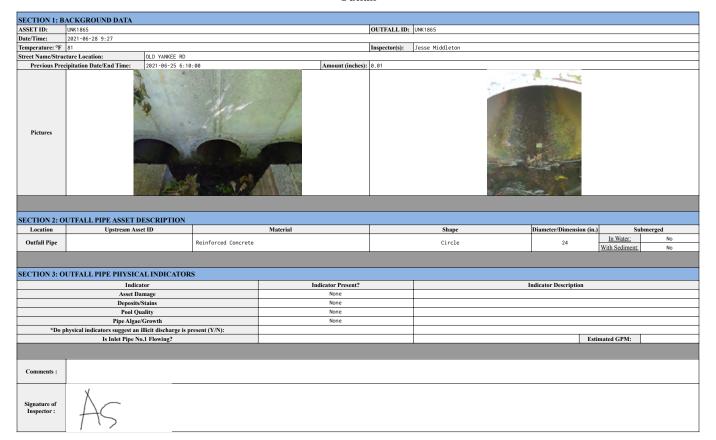


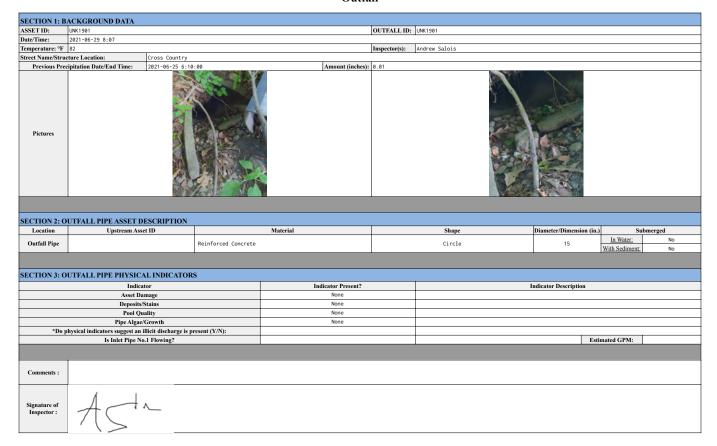


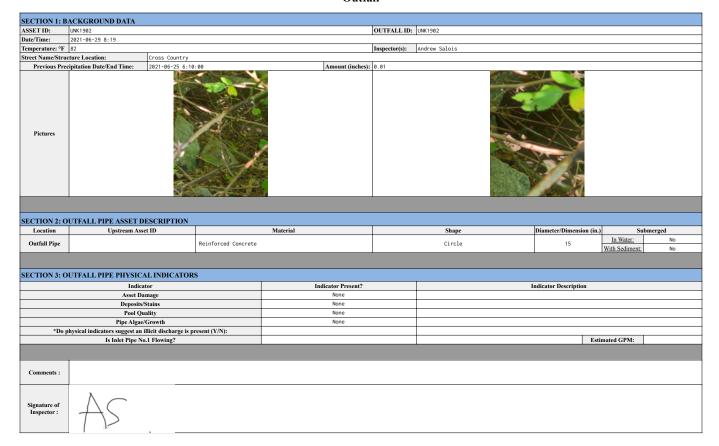




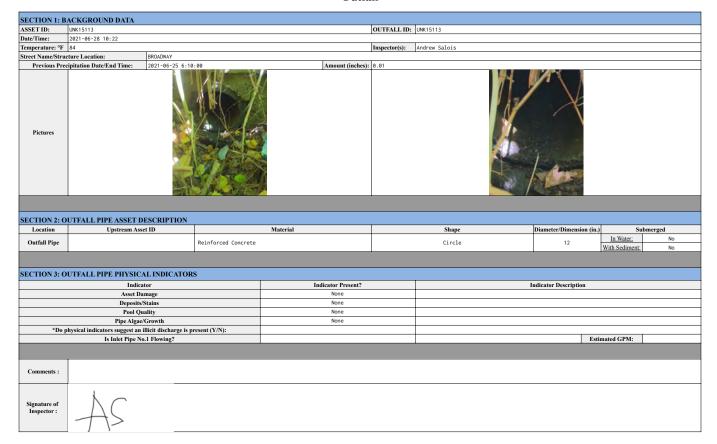


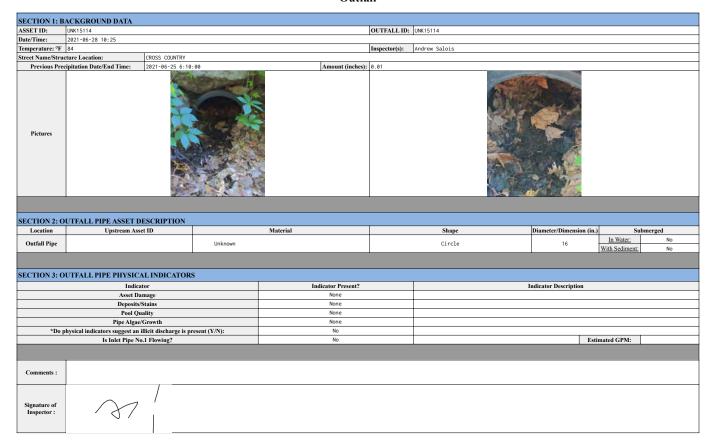


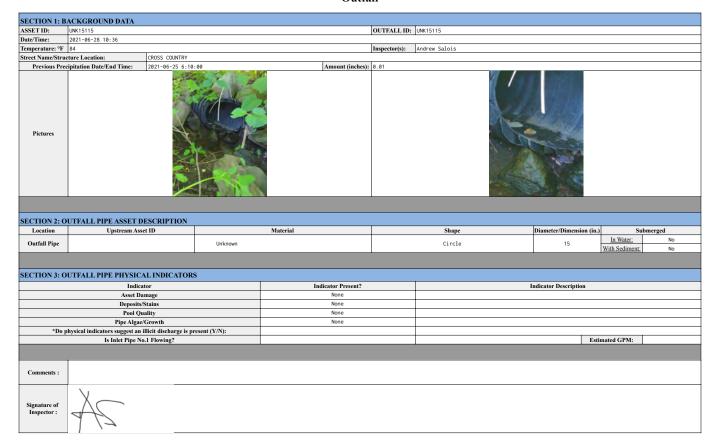


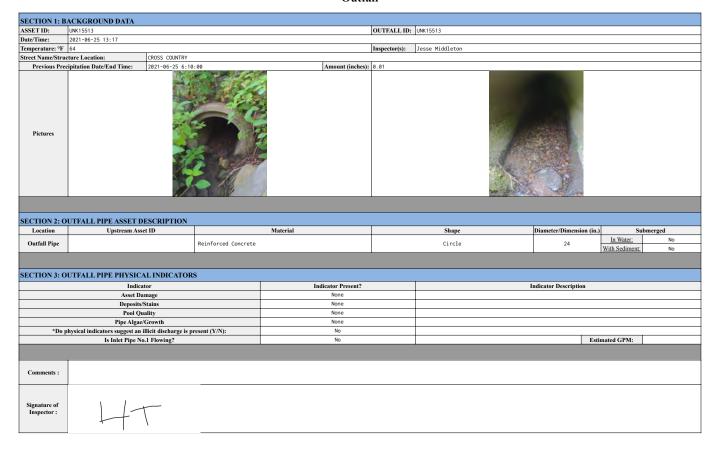


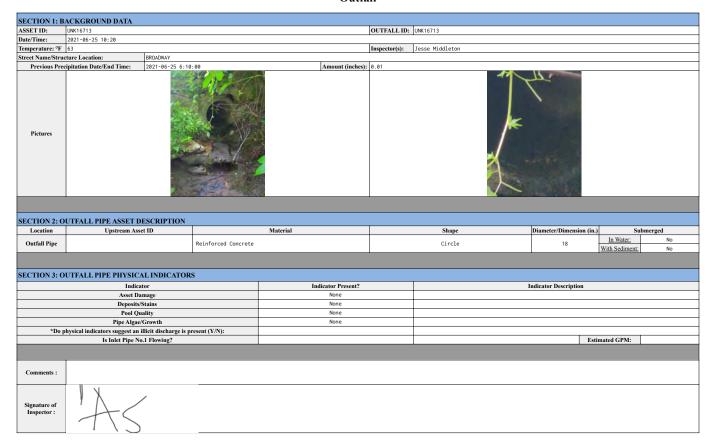
SECTION 1: BACKGROUND DATA											
ASSET ID:	ASSET ID: #N/A			OUTFALL ID:				#N/A			
	#N/A				Inspector(s):						
Temperature: °F	#N/A				#N/A						
Street Name/Structure Location:			#N/A					-			
Previous Precipitation Date/End Time: #N/A			Amount (inches)	:	#N/A						
Pictures	#N/A			,			#N/A				
SECTION 2: OUTFALL PIPE ASSET DESCRIPTION											
Location	Upstream Asset ID		Material		Shape			Diameter/Dimension (i		ıbmerged	
Outfall Pipe	#N/A		#N/A	#N/A		#N/A	#N/A		In Water:	#N/A	
									With Sediment	#N/A	
SECTION 3: OUTFALL PIPE PHYSICAL INDICATORS											
Indicator				Indicator Present?	Indicator Description						
Asset Damage				#N/A	#N/A						
Deposits/Stains				#N/A	#N/A						
Pool Quality				#N/A	#N/A						
Pipe Algae/Growth				#N/A	#N/A						
*Do physical indicators suggest an illicit discharge is present (Y/N):				#N/A	#N/A						
Is Inlet Pipe No.1 Flowing?			#N/A	#N/A		#N/A	E	stimated GPM:	#N/A		
Comments :	#N/A										
Signature of Inspector :	#N/A										

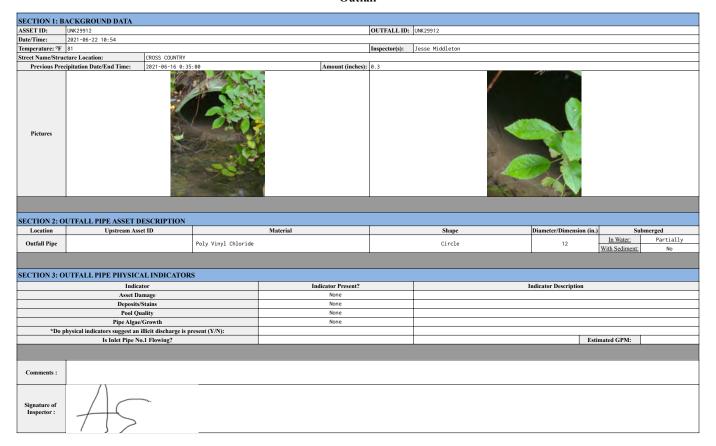


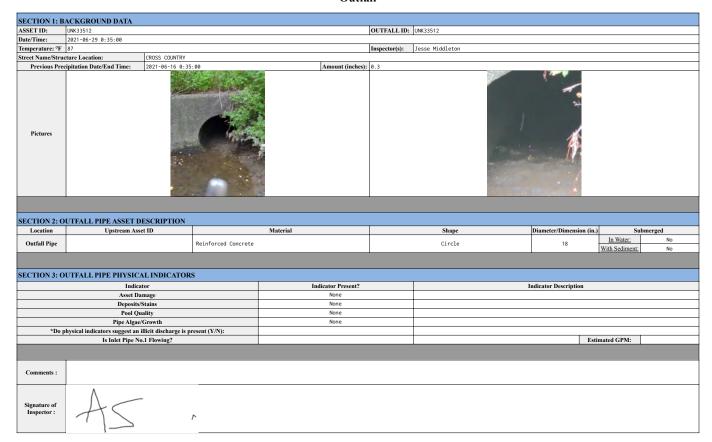


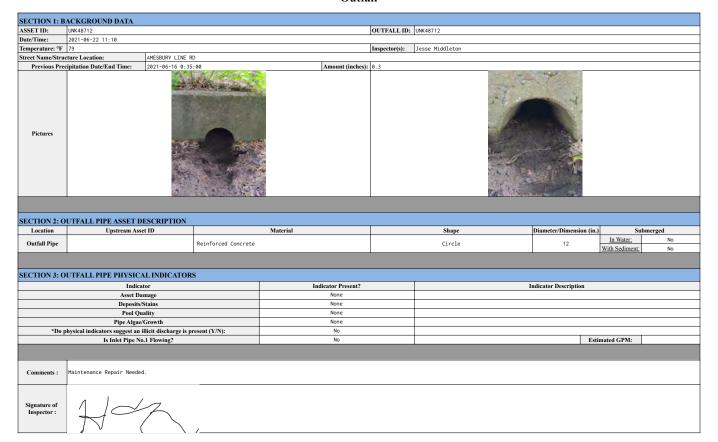








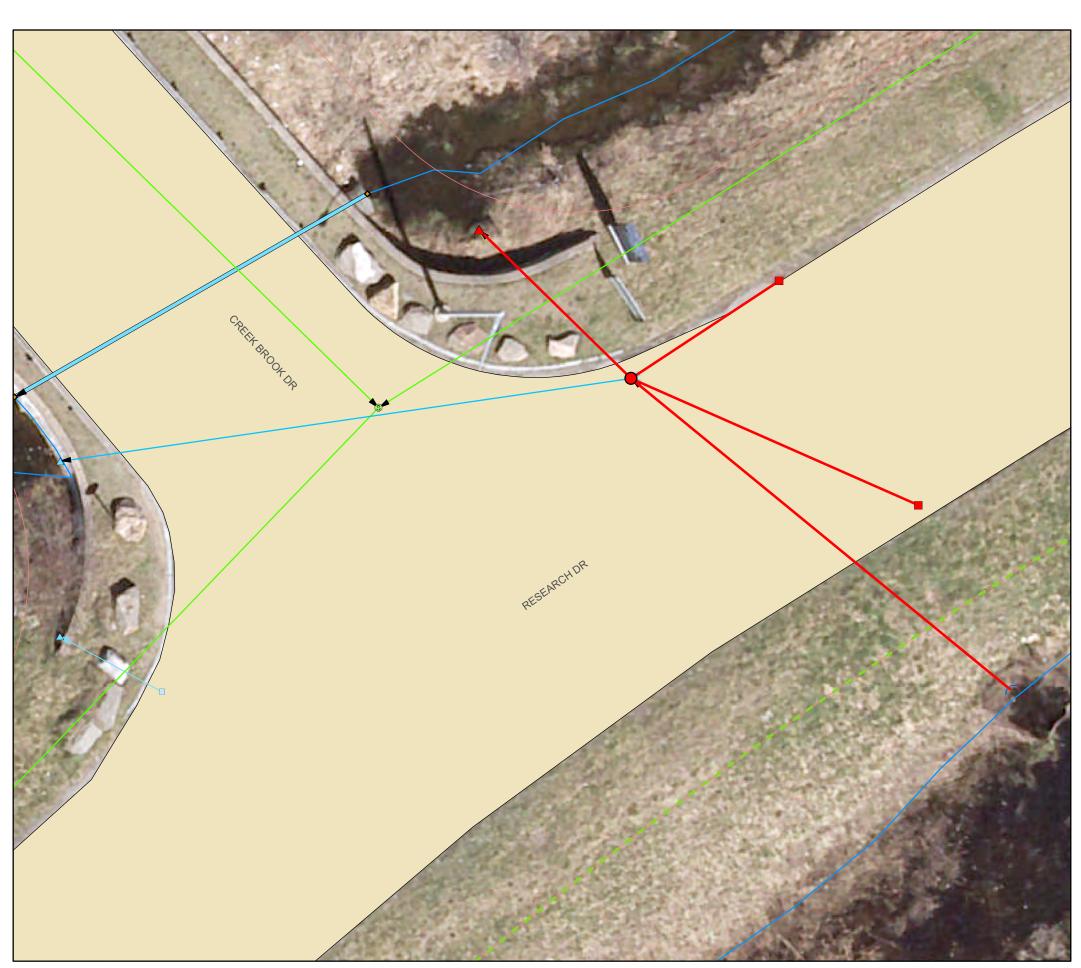








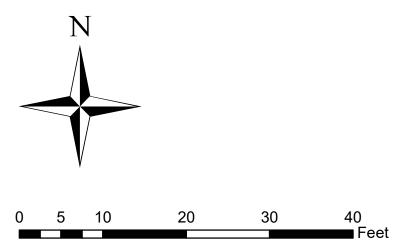
CB1198 Catchment Investigation 6/8/2021



Legend

- Discharge point
- Manholes within catchment
- Catch basins within catchment
 - Catchment area

Catchment details: 1 manholes
2 catch basins 143' of pipe within catchment No Dry Weather Flow



This map was produced from the City of Haverhill's Geographic Information System.

The City expressly disclaims any liability that may result from the use of this map.

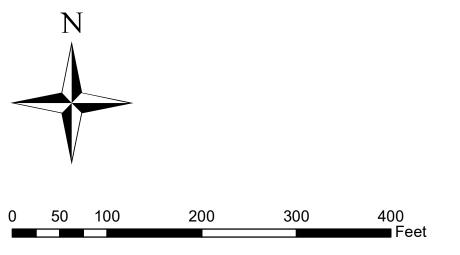
UNK1189 Catchment Investigation 6/8/2021



Legend

- Discharge point
- Manholes within catchment
- Catch basins within catchment
 - Catchment area

Catchment details:
4 manholes
13 catch basins
1765' of pipe within catchment
No Dry Weather Flow



UNK1750 Catchment Investigation 6/8/2021



Legend

- Discharge point
- Manholes within catchment
- Catch basins within catchment
- Catchment area

Catchment details:
13 manholes
10 catch basins
1241' of pipe within catchment
No Dry Weather Flow

