Appendix I

Illicit Discharge Records Outfall Inspection Map Outfall Inspection Data

Illicit Discharge Log

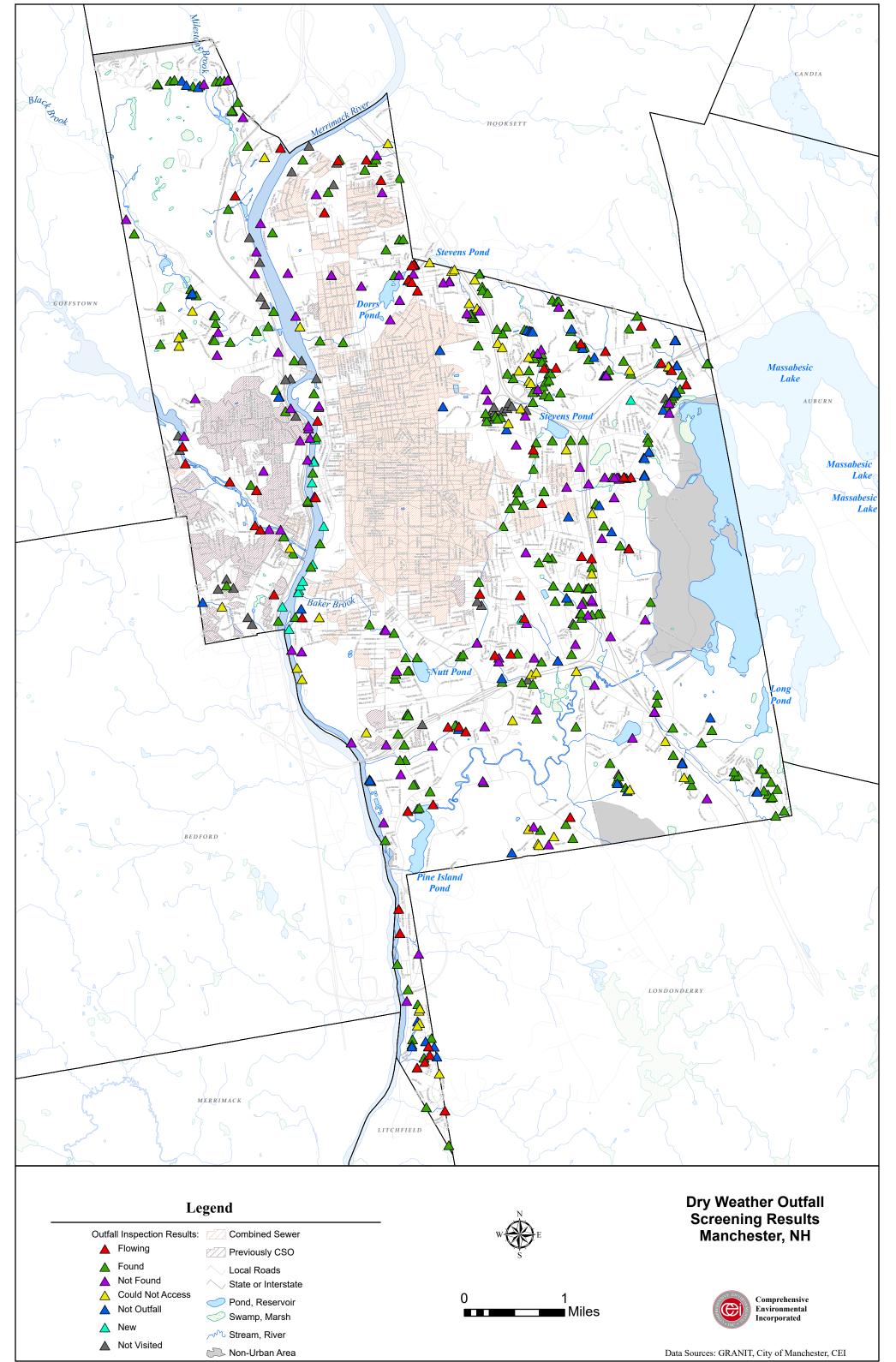
Date	Outfall ID	Outfall Location	Description of Discharge	Description of Discovery	Source of Discharge	Date of Mitigation	Planned Corrective Actions	Estimated volume of Flow Removed
5/29/2020	DOU 109404; DRN 213614	1 Electric Street; 345 Kelley Street	DPW-EPD received a report of a sewage smell from a drainage outfall pipe at 1 Electric Avenue.	A CCTV crew located a connection between 345 and 375 Kelley Street.	8-inch diameter clay pipe connection that is approximately 15-feet below the roadway level.	7/1/2020	Replacement of failed sewer pipe (completed).	219,545 gallons/day



Illicit Discharge Tracking Log

Outfall ID:	
Outfall Location:	
Description of Discharge:	
Description of Discovery (Methods used):	
Source of Discharge:	1
Date of Discovery:	Date of Mitigation (if corrected):
Planned Corrective Actions (with schedule):	:
Estimated Volume of Flow Removed:	





							Outfall	Characteristic	cs					Pipe	Ends and Hea	dwall Cnditio	on		Erosion and Se	dimentation	
Outfall ID	Date / Time of Inspection	Lat.	Lon.	Outfall Located?	Receiving Water (if any)	Number of Outfall Pipes	Outfall	Closed Pipe Outfall	Outfall	Outfall Diameter (inches)	Outfall Damage	Outfall Condition Comment	Pipe End Treatment	Pipe End Treatment Condition	Headwall Material		Headwall Condition	Downstream Erosion	Downstream	Vegetation Distress	Sedimentation Level
CEI-DOU-000002	11/26/2019 16:18	42.9735644	-71.471581	Found New Outfall	Merrimack River	1	. Pipe	СМР	Round		None	Outfall perched	Projecting	Good	N/A	N/A		No		None	None
CEI-DOU-000003	11/26/2019 16:00	42 0729699	71 472020	Found New	Merrimack River		Dina		Dound		None		Projecting	Cood	Reinforced	Cood		Madarata	Dank crosion	None	None
CEI-DOU-000003	11/26/2019 16:00	42.9728688	-/1.4/2039	Outrail	Merrimack River		. Pipe		Round		None		Projecting	Good	Concrete	Good		Moderate	Bank erosion	None	None
				Found New																	
CEI-DOU-000005	11/26/2019 16:04	42.9722283	-71.472359	Outfall	Merrimack River	1	Pipe	RCP	Round		None		Projecting	Good	N/A	N/A				None	None
				Found Now																	
CEI-DOU-000004	11/26/2019 16:05	42.9718942	-71.472509	Found New Outfall	Merrimack River	1	Pipe	RCP	Round		None		Projecting	Good	N/A	N/A		No		None	None
CEI-DOU-000006	11/27/2019 3:53	42.9698518	-71.475613	Found New Outfall	Merrimack River	1	Pipe	RCP	Round		None	Filter or cap on outlet	Projecting	Good	Stone	Good		No		None	None
				Found New																	
CEI-DOU-000007	11/26/2019 5:06	42.9666057	-71.474294	Uutfall	Merrimack River	1	Pipe	RCP	Round		None		Flared End	Good	N/A	N/A		No		None	None
				Found Now									Flush with								
CEI-DOU-000010	12/16/2019 19:18	42.9877583	-71.469714	Found New Outfall	Merrimack River	1	Pipe	Stone	Round		None	Partially submerged	Headwall	Good	Stone	Good		No		None	None
				Found New									Flush with								
CEI-DOU-000011	12/16/2019 19:24	42.9907969	-71.469328		Merrimack	1	Pipe	Brick	Round		None		Headwall	Good	Stone	Good		No		None	None
CEI-DOU-000013	11/11/2019 15:00	42.9814829	-71.467441	Found New Outfall	Merrimack River	1	. Pipe	RCP	Round		None		Projecting	Good	N/A	N/A		No		None	None
CEI-DOU-000012	12/16/2019 17:11	42.9909571	-71.469331	Found New Outfall	Merrimack River	1	Pipe	RCP	Round		Spalling	Chipping along outlet. Partially submerged	Projecting	Fair	Stone	Good		No		None	None
CEI-DOU-000014	5/4/2020 15:36	42.9940171	-71.469106	Found New Outfall							None	Fair	Projecting	Fair	Reinforced Concrete	Good		No		None	None
				Found New	Dorrs Pond - E														Bank erosion ranging from 6-12		
CEI-DOU-000015	5/5/2020 17:26	43.0171029	-71.450511		Inlet	1	Pipe	PVC	Round	12	None		Projecting	Good	Stone	Good		Moderate	inches	None	25- 50%
CEI-DOU-000017	5/20/2020 12:49	42.999594	-71.406867	Found New Outfall		1	Pipe	RCP	Round	12	None		Flush with Headwall	Good	Precast Concrete	Good		No		None	None
																	Cracked mortar				
																	between stones and around outfall pipe. Earthen bank behind		Erosion along		
CEI-DOU-000016	5/5/2020 17:54	43.016939	-71.450742		Dorrs Pond - E Inlet	1	Pipe	RCP	Round	24	Spalling	Spalling on top right of outlet	Flush with Headwall	Fair	Stone	Fair	wall seems to have slightly eroded.	Moderate	drainage channel about 4 inches high	None	<25%
				Found New									Flush with								
CEI-DOU-000018	5/20/2020 13:56	42.9989829	-71.399555	Outfall		1	Pipe	RCP	Round	12	None		Headwall	Good	Stone	Good		No		None	<25%
CEI-DOU-000019	5/20/2020 15:50	43 004640	-71 207004	Found New				RCP	Round	17	Corrosion	Exposed rebar	Flush with Headwall	Fair	Stone	Fair	Some loose blocks	No		None	<25%
CF1-DO0-000013	5/20/2020 15:50	43.004049	-/1.39/604	Juliall	L	1 1	1	INCE	Nouliu	1 12		Lyposed repai	rieauWdli	1-an	Stone	Fair	JULIE IUUSE DIULKS	100	I	NUTE	~23/0

				Illicit Dis	scharge Pote	ential				Flow Cha	racteristics									Sampling	g Parameters	s								Overall Comments
	A mu IIII alta	Dine					Illicit	Illicit Discharge	Is Dry		Flow						0	Chlorine	Surfector	Conductivity	Colinita	Toma		Dissolution	E. Coli	Total	POD	Chloride		
	Any Illicit Discharge	Pipe Benthic			Turbidity/		Discharge	Indicator	Weather Flow	Flow	Flow Depth	Revisit	Is a Sample	e Is Outfall		Pollutant(s)	Ammonia Result	Result	Result	Conductivity Result	Result	Temp. Result		Dissolved Oxygen	Result (MPN/100	Phosphorus Result	BOD Result	Result	Aluminum	
all ID	Indicators?		Odor	Color		Floatables	Potential	Comments		Description		Required?		Submerged?	Unique ID	of Concern	(mg/L)		(mg/L)	(uS/cm)	(ppt)	(C)	рН	(mg/L)	mL)	(mg/L)	(mg/L)	(mg/L)		Overall Comments
																														Outfall inspection completed via drone. Ne outfall adjacent to private business, possib
DOU-000002	No								No			No	No																	privately owned. Pipe perched
																														Outfall inspection completed via drone. Ne outfall adjacent to private business,
																														potentially privately owned. Substantial dry
DOU-000003	No								Yes	Substantial		Yes	No																	weather flow from outfall.
																														Outfall inspection completed via drone. Net
																														outfall adjacent to private business, potentially privately owned. Concrete slabs
																														in conveyance channel possibly as erosion
DOU-000005	No								No			No	No																	controls
								Orange																						
								discoloration	۱																					Outfall inspection completed via drone. New
								along pipe invert and																						outfall adjacent to private business, potentially privately owned. Orange
DOU-000004	Yes	Orange	None				Unlikely	conveyance	No			Yes	No																	discoloration in pipe and along conveyance
																														Outfall inspection completed via drone. New
DOLL 000000																														outfall adjacent to state highway, potentially
-DOU-000006	No						-		NO			No	INO									-					+			state owned
000007	N -																													Quite II in an atting a suppleted with during
DOU-000007	NO								NO			NO	INO																	Outfall inspection completed via drone
																														Outfall inspection completed via drone. New
																														outfall, adjacent to private business possibly privately owned. Outfall submerged, will
DOU-000010	No								No			Yes	No																	check upstream structure to confirm flow
																														Outfall inspection completed via drone. Nev outfall, may be connected to drainage on
-DOU-000011	No								No			No	No																	Commercial St or private business
																														Outfall inspection completed via drone. New
-DOU-000013	No								No			No	No																	outfall, may drain baseball field
								Green algal																						Outfall inspection completed via drone. Nev
								growth																						outfall, in line with drain pipe DRN-204747
								upstream																						from Waumbec St. Revisited and sampled
								from							Unmappe															from unmapped catch basin in parking area.
-DOU-000012	Yes	Green	None	None	None	None	Unlikely	sampled catch basin.	Yes	Moderate	0.25	Yes	Yes	Yes	d catch basin	TP,Aluminum		0.08	1.5	5 84	0 0.41	1 28.9	9.53	4.86	2420	0 1.8	6		0.089	Flow originating from behind garage door of building.
							í í							1		Ĺ.	1						1							Outfall pipe seems to connect to an
																														upstream catch basin, but basin is full of
DOU-000014	No								No			No	No																	sediment so cannot view inlets in structure to confirm
																														Outfall appears to be newer than those adjacent to it. Source is unclear. Consider
DOU-000015	No								No			No	No																	further investigation for mapping purposes
DOU-000017	No								No			No	No																	New outfall created in Collector
						None, Suds		Suds and																						
						and polymer like floatable	2	polymer-like floatables	•																					
						clearly		and gray																						
DOU-000016	Yes	Gray/blac k	None	None	None	originating from outfall.	Potential	benthic growth	Yes	Trickle	1	No	Yes	No	DOU-NEW	Chloride		0	0.25	5 112	5 0.56	5 9.3	6.85	8.48		1		38	3	
000 000010	105	N.	Home	Home	Home	in our outrain	rocentiar	8.011	100	THEIRC	-		100		000 11211				0.23		0.50	5.5	0.03			-				New outfall roughly 150 ft from not Found
0000000															5 22 22				0.77											outfall. Chlorine and surfactants exceeded
DOU-000018	No		1						Yes	Moderate	4	No	Yes	No	5.20.20			0.8	0.75	5 542.	5 0.26	5 12.8	6.66	6.46			-		-	benchmarks
									1																					Outfall in culvert headwall. Beaver lodge
									1						1						1									adjacent to outfall, small dam approx 100'
									1						1						1	1								downstream. Homeowner says it's active but no flooding problems yet. Chlorine and
		1	1	1	1		1	1	Yes	Trickle	0.25	- Int -	Yes	No	5.20.20 #3	1	I .	0.4	0.5	5 73	9 0.36	5 14.3	6.76	6.96		-	1	1		surfactants exceeded benchmarks

							Outfall	Characteristic	s					Pipe	Ends and Hea	dwall Cnditio	DN		Erosion and Se	edimentation	
	Date / Time of			Outfall	-		Outfall			Outfall Diameter			Pipe End	Pipe End Treatment	Headwall			Downstream		Vegetation	Sedimentation
Outfall ID	Inspection	Lat.	Lon.	Located?	(if any)	Pipes	Туре	Material	Shape	(inches)	Outfall Damage	Outfall Condition Comment	Treatment	Condition	Material	Condition	Comment	Erosion	Erosion Comment	Distress	Level
				Found New									Flush with								
CEI-DOU-000021	5/20/2020 18:33	43.0048001	-71.391605	Outfall		1	L Pipe	RCP	Round	12	None		Headwall	Good	Stone	Good		Moderate	Stream banks	None	None
CEI-DOU-000020	5/20/2020 17:30	42 0044270	71 200201	Found New			Dina	PVC	Round			Partially buried and submerged	N/A	N/A		21/2		N		Ma danata	>75%
CEI-DOU-000020	5/20/2020 17.30	43.0044278	-/1.399281				L Pipe	PVC	Kouna	3				IN/A	N/A	N/A		No		Moderate	>13%
CEI-DOU-000022	5/20/2020 18:39	43.0048475	6 -71.391784	Found New Outfall		1	L Pipe	RCP	Round	12	Cracking	Cracked invert	Flush with Headwall	Good	Stone	Good		No		None	<25%
				Found New									Flush with				Some crumbling				
CEI-DOU-000023	5/20/2020 18:50	43.0048134	-71.391778			1	L Pipe	HDPE	Round	12	None		Headwall	Good	Stone	Fair	stones	No		None	<25%
CEI-DOU-000024	5/5/2020 13:27	42.9678756	-71.428602	Found New Outfall		1	L Pipe	HDPE	Round	12	None	Pipe slightly oval but overall in good condition. Leaves causing a slight blockage.	Flared End	Good	N/A	N/A		No		None	None
CSO-011	11/26/2019 15:25	42.9719288	3 -71.474019	Not Found																	
CSO-018	11/22/2019 14:55	42.9813636	-71,469434	Found	Merrimack River		L Pipe	Cast Iron	Round		None	Submerged and half filled with sediment	Projecting	Fair	Reinforced Concrete	Fair	Headwall deteriorating	No		None	50- 75%
													Flush with		Reinforced						
CSO-044	11/22/2019 15:00	42.9813356	-71.467609	Found	Merrimack River	1	L Pipe	RCP	Round		None		Headwall	Good	Concrete	Good		No		None	<25%
															Reinforced						
CSO-045	12/16/2019 19:14	42.9855752	-71.469084	Found	Merrimack River	1	L Pipe	RCP	Round				Projecting		Concrete	Good					
CSO-046	12/16/2019 18:47	42.9940961	-71.468916	Not Found									-								
CSO-047	2/12/2020 18:22	12 0096044	71 469263	Eound	Merrimack River		L Pipe	RCP	Round		None	Partially submerged	Projecting	Good	Reinforced Concrete	Good		No		None	None
047	2/ 12/ 2020 10:22	42.5580544	-71.400302	Tound	Wernindek Niver		lipe	ner	Nound		None		riojecting	0000	concrete	0000		NO		None	None
													Flush with		Reinforced						
CSO-050	12/16/2019 15:43	42.9469571	-71.459263	Found	Merrimack River	1	L Pipe	RCP	Round		Spalling	Spalling on outlet	Headwall	Fair	Concrete	Good		No		None	None
CSO-052	12/16/2019 16:32	42.9492938	-71.461229	Found	Merrimack River	1	L Pipe	RCP	Round		None	Outfall capped	Projecting	Good	N/A	N/A		No		None	None
CSO-055	11/26/2019 5:12	42.9635684	-71.473728	Not Found																	
DOU-101018	5/13/2020 13:29	42.8920996	5 -71.443135	Found			L Pipe	RCP	Round	12	None	Good, no signs of degradation	Projecting	Good	Stone	Good	Good condition, no signs of degradation	No		None	None
DOU-101025	5/13/2020 12:45				Watts Brook		L Pipe	RCP	Round		Collapsing	Pipe collapsing	Flared End		N/A	N/A					<25%
				Could Not	Walls Brook		Pipe	RCP	Kouna	40	Collapsing		Fiareu Eriu	Fall	N/A	IN/A		No		None	<25%
DOU-101063	5/13/2020 13:37	42.902423	-71.445548	Access									Flush with								
DOU-101116	5/13/2020 16:20	42.9123505	5 -71.449147	Found Could Not		1	L Pipe	RCP	Round	36	None		Headwall	Good	Stone	Good		No		None	<25%
DOU-101117	5/13/2020 16:15	42.9117643	-71.448318				<u> </u>						 								
				Could Not																	
DOU-101118 DOU-101124	5/13/2020 16:26 5/13/2020 16:35			Access Not Found																	
					Unnamed Brook	1	1														
DOU-101150	5/13/2020 14:57	42.9045629	-71.447853	Found	to Merrimack rive	r 1	L Pipe	RCP	Round	24	None	Good condition, no signs of degradation	Flared End	Good	N/A	N/A		No		None	<25%
				Found, Not																	
DOU-101156	5/13/2020 13:41	42.9046247	-71.445637	an Outfall									Flared End	Good	N/A	N/A		No		None	<25%

		_	•	Illicit Dis	charge Poter	ntial				Flow Cha	racteristics								-	Sampling	g Paramete	rs	•		•	•				Overall Comments
	A my Illicit	Dine					Illicit	Illicit Discharge	ls Dry Weather		Flow						Ammonio	Chlorine	Curfactanta	Conductivity	Colinity	Toma		Dissolved	E. Coli Result	Total	BOD	Chloride		
	Any Illicit Discharge	Pipe Benthic			Turbidity/					Flow	Flow Depth	Revisit	Is a Sampl	e Is Outfall		Pollutant(s)	Ammonia Result	Result	Result	Result	Result	Temp. Result		Oxygen	(MPN/100	Phosphorus Result	Result	Result	Aluminum	
	Indicators?		Odor			Floatables		Comments		Description				Submerged?	Unique ID			(mg/L)	(mg/L)	(uS/cm)	(ppt)	(C)	рН	(mg/L)		(mg/L)	(mg/L)	(mg/L)		Overall Comments
			1																											
EI-DOU-000021	No								No			No	No																	Not on map, next to culvert
	-							Dark brown				-																		3" PVC pipe appears to come from 3 car
								staining,																						garage. Constant trickle. Heavy brown and
				Faint, Orange		Slight, Oil		obvious sheen and																						orange staining downstream. Ammonia, surfactants, and conductivity exceeded
CEI-DOU-000020	Yes	Brown	None		Slight	sheen	Potential	bubbles	Yes	Trickle	0.25	5 No	Yes	No	5.20.20 #4		1.5	5 0	0.75	5 272	3 1.4	2 12.5	6.6	5 5.95	; (D				benchmarks
CEI-DOU-000022	No								No			No	No																	Recieves flow from single catch basin
CEI-DO0-000022	NO								NO			NU	NO																	Recieves now from single catch basin
																														Cluster of 3 outfalls at upstream culvert en
CEI-DOU-000023	No								No			No	No									_								two new.
																														New outfall previously marked as "other
																														drainage structure" in GIS. Some yard was
CEI-DOU-000024	No								No			No	No																	dumping around outfall drainage area.
																														Outfall inspection completed via drone. Searched bank, could not locate pipe.
CSO-011																														Possibly submerged
																														Outfall inspection completed via drone.
CSO-018	No								No			No	No																	Outfall completely submerged during revisits. No dye observed during dye testin
000 010																														rensitis no ave observed daming ave testin
																														Outfall inspection completed via drone.
CSO-044	No								No			No	No									_								Debris build up along conveyance
																														Outfall inspection completed via drone.
																														Outfall under bridge performed inspection
CCO 045									V	Triable		¥																		from closest safe distance allowed, will
CSO-045									Yes	Trickle		Yes	No																	check upstream structure to confirm flow Outfall inspection completed via drone.
																														Unable to locate pipe, bridge prevented
CSO-046		_																									_			close inspection with drone
																														Outfall inspection completed via drone. Submerged will check upstream structure
CSO-047	No								No			Yes	No																	confirm flow
																														Outfall inspection completed by drone. Flo
CSO-050	No								Yes	Moderate		Yes	No																	may be from culverted stream, will check upstream structure to confirm flow
											1																			
CSO-052	No								No			No	No									_								Outfall inspection completed via drone.
																														Outfall inspection completed via drone.
CSO-055																														Searched bank but could not locate outfall
DOU-101018	No								No			No	No																	
000-101018	NO								NO			NU	NO		DOU-															
DOU-101025	No								Yes	Moderate	0.5	5 No	Yes	No	101025		C	0 0	0.25	5 62	5 0.	3 8.4	Ļ		:	1				
0011 101062																														Could not access, behind several fenced of
DOU-101063		-							-									-			+	1					+			properties Lots of trash dumped in front of outfall, ma
DOU-101116	No								No			No	No																	require removal
																														Could not access for assessment, located
DOU-101117									<u> </u>		+	+						+			+	+		+			+	+	+	behind a gated property
		1																			1	1								Could not fully assess, property was gated
DOU-101118		_																			1						_			and did not provide access to outfall.
DOU-101124																														Could not locate outfall
																					1	1								
DOU-101150	No								No			No	No																	
		1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Water flowing into pipe; potential culvert

							Outfall	Characteristic	s					Pipe	Ends and Head	wall Cnditio	on		Erosion and S	edimentation	
						Number of		Closed Pipe		Outfall				Pipe End							
	Date / Time of			Outfall	Receiving Water		Outfall	Outfall		Diameter			Pipe End	Treatment	Headwall		Headwall Condition		Downstream	Vegetation	Sedimentation
Outfall ID	Inspection	Lat.	Lon.	Located?	(if any)	Pipes	Туре	Material	Shape	(inches)	Outfall Damage	Outfall Condition Comment	Treatment	Condition	Material	Condition	Comment	Erosion	Erosion Comment	Distress	Level
DOU-101157	5/13/2020 14:13	42.9040985	-71.447882	Found		1	Pipe	RCP	Round	24	None	Good condition, no signs of degradation	Flared End	Good	N/A	N/A		Moderate	Bank erosion	None	None
DOU-101201	8/20/2020 18:30	42.9182384	-71.453142	Found		1	Pipe	RCP	Round	24	None		N/A		Precast Concrete	Good		Severe	Bank erosion	None	<25%
DOU-101219	5/13/2020 15:04	42.9060926	-71.445806	Found, Not an Outfall									Flared End	Good	N/A	N/A		Moderate	Bank erosion	None	<25%
DOU-101220	5/13/2020 15:10	42.9063687	-71.446675	Found	Unnamed wetland	1	Pipe	RCP	Round	42	None	Good condition, no signs of degradation	Flared End	Good	N/A	N/A		No		None	None
				Could Not																	
DOU-101245	8/20/2020 18:15	42.9096169	-71.448319																		
				Found, Not																	
DOU-101246	5/13/2020 15:30	42.9069583	-71.447629	an Outfall Could Not																	
DOU-101257	5/13/2020 15:41	42.9093069	-71.449231																		
DOU-101259	7/31/2020 17:48																				
DOU-101286	8/20/2020 18:01	42.914452	-71.451064	Found		1	Pipe	RCP	Round	30	None		Flared End	Good	N/A	N/A		No		None	<25%
DOU-101362	8/6/2020 18:58	12 9111216	-71.436072	Found		1	Pipe	RCP	Round	12	Cracking, Spalling	Top left portion of pipe cracked off. Invert spalling	Flush with Headwall	Fair	Stone	Good		No		Little	<25%
							ripe	iller	Nound	12	Cracking, Spannig	spennig	ricadwaii	T dil	Stone	0000				Little	\$2370
DOU-101363	8/6/2020 19:03	42.9446066	-71.436172	Not Found									Flush with		Reinforced						+
DOU-101411	9/22/2020 12:44	42.9360761	-71.455582	Found	Merrimack River	1	Pipe	RCP	Round	30	Spalling		Headwall	Good	Concrete	Good		No		None	None
DOU-101443	8/21/2020 14:00	12 9/96182	-71.446143	Not Found																	
000-101443	0/21/2020 14:00	42.5450102	-71.440145																		
DOU-101624	5/13/2020 16:52	42.9341481										0						No		None	None
DOU-101650	5/13/2020 17:29	42.9354953		Could Not Access																	
DOU-101651	5/13/2020 17:23	42.9352326	-71.425306	Could Not Access																	
DOU-101670	9/22/2020 14:57	42.9261119	-71.452981	Found	Merrimack River	1	Pipe	RCP	Round	48	None			Good	N/A	N/A		Moderate	Plunge pool	None	None
DOU-101709	7/21/2020 13:29	42.94304	-71.380895	Found		1	Pipe	RCP	Round	12	None		Flush with Headwall	Good	Stone	Good	Stone and mortar headwall	Moderate	Scour pit	Little	None
DOU-101713	7/21/2020 13:57						Pipe		Round		Corrosion	Invert deterioration	Flush with Headwall	Good	Stone	Good	Stone and mortar headwall	No		None	<25%
												Minor spalling and cracking but structure overall	Flush with				ncouwall				
DOU-101716	7/21/2020 12:52	42.9401755	-71.376957	Found		1	Pipe Open	RCP	Round	18	Spalling,Cracking	in good condition	Headwall	Good	Stone	Good		No		None	None
DOU-101724	7/21/2020 13:50	42.9420796	-71.379774	Found			Drain	Grass					Flush with		N/A	N/A		No		None	None
DOU-101738	7/21/2020 13:02				Cohas Brook		Pipe		Round		Cracking	Hairline cracks	Headwall	Good	Stone	Good		No		None	<25%
DOU-102009	8/6/2020 13:59	42.9628642	-71.418658	round			Pipe	PVC	Round	4	None		Projecting	Good	N/A	N/A		No		None	None
DOU-102020	8/6/2020 14:11	42.9643561	-71.417795	Not Found																	
													Flush with								
DOU-102021	8/6/2020 15:10	42.9671334	-71.418148	Found		1	Pipe	RCP	Round	12	None	Pipe completely submerged	Flush with Headwall	Fair	N/A	N/A		No		None	25- 50%
DOU-102058	8/6/2020 18:21																				
DOU-102121	5/14/2020 19:15	42.9457094	-71.452228	Not Found																	+
DOLL 103148	E /12 /2020 17 CT	42 027400	71 43 4949	Found			Dice	DCD.	Dec:		Nees	Cood condition on time of day of him	Flush with	Cand	Reinforced	Cost	Good condition, no	No		Non-	<25%
DOU-102148	5/13/2020 17:05	42.93/463	-/1.424913	round	I	1	Pipe	RCP	Round	15	None	Good condition, no signs of degradation	Headwall	Good	Concrete	Good	signs of degradation	NO	I	None	<25%

				Illicit D	ischarge Pote	ential				Flow Char	acteristics									Samplin	g Paramete	rs								Overall Comments
	Any Illicit	Pipe					Illicit	Illicit Discharge	ls Dry Weather		Flow						Ammonia	Chlorine	Surfactort	Conductivity	Salinitu	Tema		Dissolved	E. Coli Result	Total Phosphorus	IS BOD	Chlorid		
	Discharge	Benthic			Turbidity/			Indicator	Flow	Flow	Depth	Revisit	Is a Sample	Is Outfall		Pollutant(s)	Result	Result	Result	Result	Result	Temp. Result		Oxygen	(MPN/100	Result	Result	Result	Aluminum	
tfall ID	Indicators?	Growth	Odor	Color	Cloudiness	Floatables	Potential	Comments	Present?	Description	(inches)	Required?	Required?	Submerged?	Unique ID	of Concern	(mg/L)	(mg/L)	(mg/L)	(uS/cm)	(ppt)	(C)	рH	(mg/L)	mL)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	Overall Comments
																														Outfall is also mapped as culvert 294. Cat
																														Basins 101183, 101188 and 101182 were inspected on Trolley Street to determine
																														direction of flow, but no flow was observe
																														Catch Basin 101162 was inspected on Gan
																														Street and was observed to have the same amount of flow as the culvert/outfall. No
																														other pipes could be located within the
																														vicinity of the supposed outfall location. It
																														assumed that Catch Basin 101162 is
																														connected to the culvert/outfall based on visual observations of the flow. Drainage
															DOU-															manhole 117072 near 87 Gantry City does
U-101157	No								Yes	Moderate	1	No	Yes	No	101157			0 0	0.25	457.	.8 0.2	2 9.9	9 7.2	2	(0	_			not exist, possibly buried over.
U-101201	No						_		No			No	No				_											_		
																														Water flowing into pipe ; Potential culvert
)U-101219	No								No			No			DOU-															inlet
)U-101220	No								Yes	Substantial	2	No	Yes	No	101220			0.4	0.25	172	.8 0.0	8 8.5	5 7.4	5		4				Chlorine exceeded benchmark
																														Could not access outfall due to surrounding
DU-101245																														fence; homeowner was not home at time of inspection.
50-101245																														inspection.
DU-101246									No			No	No																	Not outfall
0-101240									NO			NO	NO																	Could not fully assess, outfall is buried und
U-101257	-		-				_																-					_	_	dense vegetation Outfall likely buried under excessive yard
U-101259																														waste dumping covering slope
U-101286	No								No			No	No																	Area surrounding outfall is overgrown with
																														invasive knotweed. Sand deposits in
OU-101362	No								No			No	No																	conveyance Coul not locate in densely overgrown
OU-101363	_		_																											Japanese knotweed
DU-101411	No								No			No	No																	
																														Could not locate outfall. Severe erosion on stream bank, may have buried or covered
OU-101443																														pipe in debris
OU-101624	No		_						No			No	No																	
DU-101650																														Could not access and assess, whole detention pond is fenced off
																														Could not access and could not assess due t
U-101651																														fence surrounding entire detention pond
DU-101670	No								Yes	Substantial	0.5	No	Yes	No	DOU- 101670				0.5	163	32 0.8	3 12.6	5 7.0	8 8.88		0				Discharges to unimpaired section of Merrimack River
0-1010/0	NO								Tes	Substantial	0.5	NO	Tes	NO	101070				0.5	103	0.8	5 12.0	5 7.0	0 0.00	00	6				
U-101709	No								No			No	No																	Dead vegetation buildup in channel
DU-101713	No								No			No	No																	Sedimentation in channel
DU-101716	No								No			No	No																	
												10										1	1			1				
DU-101724	No			+	+		+		No			No	No		+						+	+					+			Vegetated open drainage outfall
U-101738	No					<u> </u>	-		No			No	No		<u> </u>								<u> </u>	<u> </u>					_	
U-102009	No	-	+		-	-			No			No	No		-		+	+			-	+	+			-	-	-	-	
DU-102020																														Outfall not Found. Mapped location was in the middle of school field, possibly buried
																														Pipe completely submerged homeowner
U-102021	No								No			No	No																	complained of flooding issues
U-102058																														Outfall not Found. Upstream catch basin a not Found
U-102058 U-102121																														
	1	1							No			No	No								1	1								

	I						Outfall	Characteristic	s					Pipe	Ends and Hea	dwall Cnditio	on		Erosion and Se	dimentation	
						Number		Closed Pipe		Outfall				Pipe End							
	Date / Time of			Outfall			Outfall	Outfall	Outfall	Diameter				Treatment	Headwall		Headwall Condition		Downstream		Sedimentation
Outfall ID	Inspection	Lat.	Lon.		(if any)	Pipes	Туре	Material	Shape	(inches)	Outfall Damage	Outfall Condition Comment	Treatment	Condition	Material	Condition	Comment	Erosion	Erosion Comment	Distress	Level
DOU-102193	7/29/2020 18:19	42.9516846	-71.459307	Could Not Access																	
												Outfall invert is bent out of shape, but this may							Defined flow		
												have been on purpose to fit the hole in the stone	Flush with						channel		
DOU-102239	9/22/2020 13:04	42.9513589	-71.452989	Found		1	L Pipe	CMP	Round	24	Misshapen	headwall	Headwall	Good	Stone	Good		Moderate	downstream of pipe	Little	None
													Flush with								
DOU-102240	9/22/2020 13:26	42.9540584	-71.451269	Found		1	L Pipe	RCP	Round	24	None		Headwall	Good	Stone	Good		No		Moderate	25- 50%
DOU-102244	9/22/2020 13:19	42.9542374	-71.451046	Found		1	L Pipe	RCP	Round	24	None		Flush with Headwall	Good	Stone	Good		No		None	None
DOU-102245	9/22/2020 13:15	42 0541022	71 450015	Found		1	Dino	RCP	Round	17	None		Flush with Headwall	Good	Stone	Good		No		None	25- 50%
000-102243	9/22/2020 13:13	42.9541052	-71.450915	Found			L Pipe	RCP	Kouna	12	None		Flush with	6000	Precast	0000		NO		None	25- 50%
DOU-102397	9/22/2020 14:06	42.9523977	-71.440921	Found		1	L Pipe	RCP	Round	36	None		Headwall	Good	Concrete	Good		Moderate	Channelization	None	<25%
																	Headwall consists of				
																	granite slabs, some of which have shifted				
DOU-102249	5/21/2020 18:11	42.9523307	-71.443027	Found		1	L Pipe	RCP	Round	36	None		Projecting	Good	Stone	Fair	over time	No		None	None
DOU-102399	5/21/2020 17:57	42.9526608	-71.441626	Found		1	L Pipe	RCP	Round	15	None		Flush with Headwall	Good	Stone	Fair	Some cracks/gaps in mortar	No		None	25- 50%
													Flush with				Slight erosion around				
DOU-102404	5/21/2020 15:35	42.9535416	-71.425564	Found		1	L Pipe	RCP	Round	18	None		Headwall	Good	Stone	Fair	back of headwall	No		None	25- 50%
DOU-102413	5/21/2020 17:19	42.9516581	-71.439695	Found		1	L Pipe	RCP	Round	60	None		Flush with Headwall	Good	Reinforced Concrete	Good		No		None	<25%
							<u> </u>														
DOU-102433	8/6/2020 12:46	42.95332	-71.430151	Could Not Access																	
DOU-102437 DOU-102527	9/22/2020 15:26 9/22/2020 16:05			Not Found Not Found																	
200 102027	5, 22, 2020 10.03	.2.50-5050	, 15/205			1						1	1		1			1			
													Flush with								
DOU-102528	9/22/2020 16:06	42.9645651	-71.437287	Found	Humphrey Brook	1	L Pipe	RCP	Round	48	Spalling	Minor chipping along rim		Good	Stone	Good		No		None	<25%
	8/21/2020 12:50	42 020505	71 455 600	Not Formed																	
DOU-102546													Flush with		1						
DOU-102648	5/14/2020 17:19	42.9402177	-71.450961	Found	Pine Island Pond	1	L Pipe	RCP	Round	30	None		Headwall	Good	Stone	Good		Moderate	Plunge pool	None	None
													Flush with								
DOU-102632	5/14/2020 18:27	42.9430785	-71.446632	Found	Pine Island Pond	1	L Pipe	RCP	Round	18	None	Rusting and slightly bent. Approximately 18 ft of	Headwall	Good	Stone	Good		No		None	<25%
DOU-102655	5/14/2020 18:00	42.9407647	-71.448806	Found	Pine Island Pond	1	L Pipe	СМР	Round	24	Corrosion	exposed pipe from bank	Projecting	Fair	N/A	N/A		No		None	<25%
				Could Not																	
DOU-102656	5/14/2020 18:14	42.9417704	-71.44631	Access																	
				Could Not																	
DOU-102736 DOU-102737	5/13/2020 17:17 5/13/2020 17:11			Access Not Found			<u> </u>								-				-		
500-102/3/	5/ 13/ 2020 17.11	72.33/605	-/1.4201/0	THOL FOUND	1	1	I	1	1	1	I	1	L	1	1	1	1	ı	1	I	1

				Illicit Dis	scharge Pote	ntial				Flow Char	acteristics									Samplin	ng Paramete	rs								Overall Comments
								Illicit	Is Dry													_			E. Coli	Total				
		Pipe Benthic			Turbidity/		Illicit Discharge	Discharge Indicator	Weather Flow F		Flow Depth	Revisit	Is a Sample	Is Outfall		Pollutant(s)	Ammonia Result		Surfactants Result	Conductivity Result	y Salinity Result	Temp. Result		Dissolved Oxygen	Result (MPN/100	Phosphorus Result	BOD Result	Chloride Result	Aluminum	
fall ID	Indicators?		Odor	Color		Floatables	Potential	Comments		Description	(inches)	Required?	Required?	Submerged?	Unique ID		(mg/L)			(uS/cm)	(ppt)	(C)	рH	(mg/L)	mL)	(mg/L)	(mg/L)	(mg/L)		Overall Comments
-102193																														Could not access, fenced off
-102193																														could not access, renced on
	-																													Sediment deposits within drainage channe clearly originating from outfall but none
U-102239	No								No			No	No																	present within outfall pipe.
																														Significant sediment deposits from roadwa
																														sanding originating from this pipe (approx
																														inch layer) causing moderate vegetation
J-102240	NO								NO			NO	NO								_									distress immediately downstream from p Discharges to BMP. Buildup of many clear
U-102244	No								No			No	No																	plastic bags at outfall
U-102245	No								No			No	No																	Discharges to BMP
1 102207	Ne								V	Trielde			No.		DOU-						70 1 7	125	C 00	7.50						Audible toichte ean be beend within mine
J-102397	No	Tan							Yes 1	Trickle	3	No	Yes	No	201139			0.08	1	32	70 1.7	2 13.5	6.99	7.58	5 2	2				Audible trickle can be heard within pipe
		colored																												
		growth. Algae																												
		growth is																												
		also																												
		abundant in																				1								
		downstre																												Boulders and overgrown vegetation aroun
U-102249	Yes	am channel	None	None	None	None	Unlikely	Pipe growth and algae		Moderate	0.5	No	Yes	No	DOU- 102249		0.	5 0	0.25	93	34 0.4	6 14	6.99	7.8	3 0	0				outfall may limit accessibility to outfall. Ammonia exceeded benchmark
																						_								Outfall flows into detention BMP with
J-102399	No								No			No	No																	overflow structure. Channel appears to be dug out by
																														homeowner, slope is very flat appears to
																														have significant clogging issues at times.
U-102404	No								NO			No	No								_									Discharges to wetland area
																														Outfall appears to be the downstream end a culverted stream, although flow from an
																														upstream catch basin could be heard
																														entering the pipe from within. Heavy eros
																														present on the slope adjacent to the structure from parking lot runoff originatir
															DOU-															from a broken berm. Chlorine, surfactants
U-102413	No								Yes M	Moderate	2	No	Yes	No	102413			0.4	0.5	315	53 1.6	6 11.2	6.66	6.64	1 29	9				and conductivity exceeded benchmarks
																														Area fenced off and could not be accessed
U-102433																											_			Potentially discharges to BMP
																														Pipe not Found. Mapped location is on sma
																														hill from mall to street. No outlet pipe cou
0U-102437 0U-102527																											_			be seen within upstream catch basin Outfall not Found
	1		1		1	1	1	1	1 1			1	1	1	1		1	1		1				1	1	1			1	
																														Culvert with drainage connection. Flow appears to be from culverted stream, no
U-102528	No								No			No	No																	flow in upstream catch basin
																														Outfall not Found, likely hidden by
																														overgrown vegetation. Strong sewer odor area, broken sewer manhole likely
U-102546				ļ									<u> </u>					ļ				1								responsible for smell.
U-102648	No								Yes 1	Trickle	0.25	No	Yes	No	DOU- 102648	DO,pH,TP,BO D5	'	0 0	0.25	5 76	61 0.3	7 12.9	6.58	7.59			0			Discharging to pond impaired for DO, cyanobacteria, pH and chlorophyll.
		1	1	1			1	1			0.23	1	1	1		1	1		0.23			12.5	0.50	,	1	1		1	1	Pipe located at base of retaining wall. Son
U-102632	Yes		None	None	None	None, Slight oily sheen	Unlikely	Slight sheen on water	No			No	No									1								sediment built up and stagnant water with slight sheen
0 102032	103		NOTE	None	NUIE	ony sneen	Unikely	on water	110			10	110	1	1			1				1	<u> </u>							Sight Sheen
U-102655	No								No			No	No								_				ļ		_			
																														Outfall located on fenced-in private proper
																						1								with locked gate. Could not access.
																						1								Upstream catch basin (CB-102657) has audible flow coming from within and shou
U-102656									Yes	Substantial		Yes	Yes																	be revisited for sampling.
																														Found outfall but could not access for full
U-102736																														assessment. Located behind a barbed wire fence
U-102737	-	1	<u> </u>	1			1						1		1						1			1	1	1			1	Could not locate and assess

							Outfall	Characteristic	s					Pipe	Ends and Head	wall Cnditio	on		Erosion and Se	dimentation	
Outfall ID	Date / Time of Inspection	Lat.	Lon.	Outfall Located?	Receiving Water (if any)	Number of Outfall Pipes	Outfall Type		Outfall	Outfall Diameter (inches)	Outfall Damage	Outfall Condition Comment	Pipe End Treatment	Pipe End Treatment Condition		Headwall Condition	Headwall Condition	Downstream Erosion	Downstream Erosion Comment	Vegetation Distress	Sedimentation Level
	- / /																				
DOU-102767	5/13/2020 17:51	42.9399578	-71.418937	7 Found			Pipe Open	RCP	Round	36	None	Good condition, no signs of degradation	Flared End	Good	N/A	N/A		No		None	<25%
DOU-102806	7/21/2020 14:57	42.9450869	-71.386619	9 Found			Drain	Grass					Flush with		N/A	N/A		No		None	None
DOU-102810	7/21/2020 14:34	42.9451724	-71.385798	8 Found		1	Pipe	RCP	Round	24	None		Headwall	Good	Stone	Good	Stone headwall with	No		None	<25%
													Flush with			_	mortar. Large pieces of headwall have				
DOU-102813	7/21/2020 14:41	42.9457515	-71.386711	Could Not		1	Pipe	RCP	Round	12	None		Headwall	Good	Stone	Poor	broken off	No		None	None
DOU-102827	5/13/2020 17:37	42.9364148	-71.422236	6 Access									Flush with		Reinforced			No		None	
DOU-102841	5/13/2020 17:44	42.9363996	-71.418441	1 Found		1	Pipe	RCP	Round	24	None	Good condition, no signs of degradation	Headwall	Good		Good		No		None	<25%
DOU-102844	5/13/2020 18:15	42.9383117	-71.419628	8 Found		1	Pipe	RCP	Round	12	Spalling	Good, some minor spalling of concrete around pipe rim	Flush with Headwall	Good	Precast Concrete	Good	Good condition, no signs of degradation	No		None	25- 50%
DOU-102870	7/21/2020 13:49	42.9420504	-71.379616	5 Found			Open Drain	Grass							N/A	N/A		No		None	None
DOU-102872	7/21/2020 13:46	42 0422025	71 270013	Eound			Open Drain	Grass							N/A	N/A		No		None	None
							Open														
DOU-102897 DOU-102901	7/21/2020 14:19 5/28/2020 14:54			5 Found 1 Not Found			Drain	Grass							N/A	N/A		No		None	None
DOU-102909	5/28/2020 15:04	43.0237647	-71.504844	4 Found			Pipe					Outfall buried, unable to assess	N/A	N/A	N/A	N/A		No		None	>75%
DOU-102954	5/29/2020 14:21	43.045475	-71.500092	Eound		1	Pipe	RCP	Round	12	None	RCP flared end section very damaged, one side mostly broken off	Flared End	Poor	N/A	N/A		No		None	25- 50%
DOU-103026	9/22/2020 12:57			5 Not Found		-	T Ipc	Ner	nound		Hone	inosty broken on		1001				110		None	25 50%
												Invert of metal pipe is completely corroded and							Entire bank between outfall and adjacent stream has collapsed, with roots exposed, forming a sinkhole approx. 7ft deep and 2ft into the		
DOU-103079	8/21/2020 13:31	42.9477272	-71.451571	1 Found		1	Pipe	CMP	Round	12	Corrosion Collapsing,Pipe seems to be recessed within surrounding brick and mortar	has crumbled away. Stone opening functions as pipe invert, irregular	Projecting Flush with	Fair	N/A	N/A	Stone/brick and mortar, some cracks	Severe	sides	Moderate	None
DOU-103080	8/21/2020 13:23	42.9476394	-71.452522	2 Found		1	Pipe	RCP	Round	12	headwall	shape with some signs of chipping/collapse		Fair	Stone	Fair	and chipping	No		None	<25%
DOU-103196	11/26/2019 5:16			4 Not Found Could Not																	
DOU-103197	11/26/2019 17:42																				
DOU-103199	7/29/2020 18:09	42.9633453	-71.471924	4 Not Found																	
DOU-103234	8/6/2020 12:55	42.9548348	-71.425604	4 Not Found																	
DOU-103354	11/22/2019 15:16																				
DOU-103449	11/22/2019 15:37					1	Pipe	HDPE	Round	12	None				N/A	N/A		No		None	50- 75%
DOU-103591 DOU-103592	7/31/2020 14:19				Cohas Brook	1	Pipe	RCP	Round		None	Outfall in good condition but adjacent tree has started growing around it and may become a significant blockage in time	Projecting	Good	N/A	N/A		Moderate	Liner fabric exposed, no riprap	Little	None
DOU-103595	9/22/2020 18:42				Cohas Brook-Long Pond Brook			СМР	Round	12	Collapsing,Corrosio	Pipe is slightly corroded and there is a chance that it has broken off from upstream pipe segments due to caved in and eroded earth all around it. In any case, the pipe is very unstable	Projecting	Poor		N/A		Severe	Erosion in hillside and along banks of the brook is severe, multiple feet high and deep.	Moderate	25- 50%

				Illicit Di	ischarge Pote	ential				Flow Cha	racteristics									Sampling	g Paramete	rs								Overall Comments
	Any Illicit	Pipe					Illicit	Illicit Discharge	ls Dry Weather		Flow						Ammonia	Chloring	Curfostante	Conductivity	Colinity	Toma		Dissolved	E. Coli Result	Total Phosphorus	POD	Chloride		
	Discharge				Turbidity/		Discharge	Indicator	Flow	Flow	Depth	Revisit	Is a Sample	Is Outfall		Pollutant(s)	Result	Result	Result	Result	Result	Temp. Result		Oxygen			Result	Result	Aluminum	
all ID	Indicators	? Growth	Odor	Color	Cloudiness	Floatables	Potential	Comments	Present?	Description	(inches)	Required?	Required?	Submerged?		of Concern	(mg/L)	(mg/L)	(mg/L)	(uS/cm)	(ppt)	(C)	рН	(mg/L)	mL)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	Overall Comments
-102767	No								Yes	Moderate	15	5 No	Yes	No	DOU- 102767		0	0.2	0.2	5 108	3 0.5	4 10.8				,				Chlorine exceeded benchmark
									100	inoucruce			100		102707			0.2	0.2	200	0.0	1 10.0								
-102806	No		-				-		No			No	No									+						-		Vegetated open drainage outfall
-102810	No								No			No	No																	
-102813	No								NO			No	No																	Man made channel with no erosion prese Could not access to assess, basin surround
-102827	No								No			No	No									_		-						by chain link fence
-102841	No								No			No	No																	
J-102844	No								No			No	No																	
-102870	No								No			No	No																	Vegetated open drainage outfall
	NO								NO			NO	NO																	
J-102872	No								No			No	No											-						Vegetated open drainage outfall Vegetated open drainage outfall that flow
U-102897	No								No			No	No																	over stone Foundation wall
U-102901																														
																														Outfall completely buried due to bank
																														collapse. Channel and stagnant water indicate outfalls location. Outfall is final
J-102909	No								No			No	No																	discharge point for a small drainage syster
J-102954	No								No			No	No																	
																														Searched patch of woods around mapped
U-103026																														location but outfall not Found
																														Severe bank erosion, bank stabilization ma
U-103079	No								No			No	No																	want to be considered
																														Outfall is located adjacent to the inlet of a culverted stream beneath a protective grat
J-103080	No								No			No	No																	into which the stream flows.
																														Outfall inspection completed via drone.
																														Searched bank but could not locate pipe,
J-103196																														potentially hidden behind vegetation Outfall inspection completed via drone.
																														Outfall further inland and closer to road the
J-103197																														the river. Could not access with drone due canopy cover.
J-103199																	+					+								Could not locate outfall, possibly buried Could not locate, potentially hidden behin
J-103234									_																					dense vegetation
J-103354																														This is a culvert, water is flowing through
I-103449	No								No			No	No																	Quargrown clana may be obstructing view
																								1			1			Overgrown slope may be obstructing view outfall pipe, but no structure observed at
U-103591							+																							this location
																								1			1			
U-103592	No						+		No			No	No							-									-	
																					1									
																								1			1			Outfall is in extremely poor condition overall. Yard waste / organic waste dumping
																														is an issue at this location. Outfall likely ha
J-103595																														a headwall that has since collapsed.

								Outfall	Characteristic	s					Pipe	Ends and Hea	dwall Cnditi	on		Erosion and Se	edimentation	
	Outfall ID		Lat.	Lon.		_		Outfall	Outfall	Outfall	Diameter	Outfall Damage	Outfall Condition Comment		Treatment							Sedimentation Level
						Cohas Brook-Long								Flush with		Reinforced		undercut and is				
	DOU-103615	9/22/2020 18:32	42.9569426	5 -71.401728	Found	Pond Brook	1	Pipe	СМР	Round	12	None		Headwall	Good	Concrete	Poor	outfall	Severe	undercut	None	None
	DOU-103748	11/26/2019 17:46	42.9594552	2 -71.471827																		<u> </u>
	DOU-103773	11/22/2019 14:00	42.9624133	-71.448703	Found	Nutt Pond	1	Pipe	PVC	Round	6	None				N/A	N/A		No		None	<25%
	DOU-103790	11/22/2019 14:18	42.9605236	-71.450677	Found		1	Pipe	RCP	Round	36	None				N/A	N/A		Moderate		None	25- 50%
Operational	DOU-103844	11/22/2019 15:53	42.9659533	-71.453741	Found		2	Pipe	RCP	Round	36	None	2nd pipe is 8-in PVC in good condition			Stone	Fair		Severe	Scour pool	None	<25%
902.2001.12 91.900 91.900 91.900 91.90 92.90<	DOU-104040	9/22/2020 15:38	42.9625894	-71.440557	7 Found	Humphrey Brook	1	Pipe	RCP	Round	24	Corrosion,Spalling			Fair	Stone	Good		No		None	None
902.2001.12 91.900 91.900 91.900 91.90 92.90<	0011 402047	14/22/2212 45 22	42.0572005	74 450075																		
0000000 0400000 0400000 0400000 0400000 </td <td>DOU-104046</td> <td>9/22/2020 15:55</td> <td>42.96292</td> <td>2 -71.440048</td> <td>Found</td> <td>Humphrey Brook</td> <td>1</td> <td>Pipe</td> <td>RCP</td> <td>Round</td> <td>12</td> <td>None</td> <td></td> <td>Headwall</td> <td>Good</td> <td>N/A</td> <td>N/A</td> <td></td> <td>No</td> <td></td> <td>None</td> <td>25- 50%</td>	DOU-104046	9/22/2020 15:55	42.96292	2 -71.440048	Found	Humphrey Brook	1	Pipe	RCP	Round	12	None		Headwall	Good	N/A	N/A		No		None	25- 50%
	DOU-104049	8/6/2020 13:26	42.9623392	2 -71.426097																		
ODD 200510 51/10/001100 51/10/001100 71.4382 Out 1 Pop P	DOU-104053	8/6/2020 13:07	42.9603808	-71.426267																		
b0.1 30458 \$7.971/00 17.8 \$7.971/00	DOU-104056	5/21/2020 13:03	42.9629423	-71.429382	Found		1	Pipe	RCP	Round	16	None			Good	Stone	Fair		No		None	<25%
D0U-104064 5/21/2020 125 42 5654691 71.433028 Net Found Image: Space	DOU-104058	5/21/2020 13:08	42.9630474	-71.429418	Found		1	Pipe	RCP	Round	12	None			Good	Stone	Good	become overwhelmed by excessive yard waste	No		None	50- 75%
D01-104065 S721/2020 14:0 S2552987 S71.43382 Found Sint																						
DOU-104065 5/21/2020 14:0 4.969287 7.1.3328 Fund Const Brock 1 Pice Rond 1 Rond 1 Rond Utilation is good but outilation is good but outilatio	DOU-104064	5/21/2020 12:53	42.9624691	-71.433006	Not Found																	
DOU-104070 Syll22021 ks Syll2202 ks Syll220 ks	DOU-104065	5/21/2020 14:00	42.9629878	-71.433823	Found	Cohas Brook	1	Pipe	RCP	Round	18				Good	Stone	Fair	between mortar and	No		None	25- 50%
DOU-104084 5/21/2020 13:29 42.9518333 -71.433224 Not Found Image: Could Not Fo														Flush with								
DOU-104116 8/6/2020 18:32 42.96052 -1.41757 Could Not Access Image: Could Not Access Image:	DOU-104070	5/21/2020 14:25	42.9630419	-71.430543	Found	Cohas Brook	1	Pipe	RCP	Round	30	Spalling	Slight spalling around outlet rim	Headwall	Fair	Stone	Good	and mortar	Moderate	high	None	25- 50%
b00-10416 8/6/2020 18:32 9.2 4.960363 7.141577 Access I <th< td=""><td>DOU-104084</td><td>5/21/2020 13:29</td><td>42.9618333</td><td>-71.433224</td><td></td><td></td><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td><u> </u></td></th<>	DOU-104084	5/21/2020 13:29	42.9618333	-71.433224																		<u> </u>
DU-104208 1/22/2019 14:47 42.959412 -71.453467 Found 1 Pipe RCP Round 36 palling Minor chipping Stone Fair up on headwall No None 25-50% DU-104208 1/22/2019 14:57 42.959018 -71.453467 Found 1 Pipe RCP Round 36 Spalling Minor chipping No No <t< td=""><td>DOU-104116</td><td>8/6/2020 18:32</td><td>42.9603623</td><td>3 -71.417577</td><td></td><td></td><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td> </td><td></td><td></td><td></td><td>Organic dobris build</td><td></td><td></td><td></td><td></td></t<>	DOU-104116	8/6/2020 18:32	42.9603623	3 -71.417577														Organic dobris build				
	DOU-104208	11/22/2019 14:47	42.9594128	-71.453467	Found		1	Pipe	RCP	Round	36	Spalling	Minor chipping			Stone	Fair	-	No		None	25- 50%
	DOU-104218	11/22/2019 14:55	42.9599018	3 -71.453124	Found		1	Pipe	RCP	Round	24	None				Stone	Fair		Moderate		None	25- 50%
	DOU-104388	5/21/2020 15:17	47 9588369	-71 428504	Found		1	Pipe	RCP	Round	17	None		Projecting	Good	N/A	N/A		No		None	<25%

				Illicit Dis	charge Poter	ntial				Flow Cha	racteristics									Sampling	g Parameter	s								Overall Comments
	A	Dia					100-11	Illicit	Is Dry		ri.							chi i	curf. 1	Com L. C. C.	C -11 11				E. Coli	Total				
	Any Illicit Discharge	Pipe Benthic			Turbidity/		Illicit Discharge	Discharge Indicator	Weather Flow	Flow	Flow Depth	Revisit	Is a Sample	ls Outfall		Pollutant(s)	Ammonia Result		Surfactants Result	Conductivity Result	Salinity Result	Temp. Result		Dissolved Oxygen	Result (MPN/100	Phosphorus Result	BOD Result	Chloride Result	Aluminum	
	Indicators?		Odor	Color	Cloudiness		Potential	Comments		Description	(inches)	Required?	Required?	Submerged?	Unique ID		(mg/L)			(uS/cm)	(ppt)	(C)	рН	(mg/L)		(mg/L)	(mg/L)	(mg/L)		Overall Comments
																														Base of headwall has deteriorated away
																														completely and is only held up by the ou
103615	No								No			No	No															_		pipe
																														Outfall inspection completed via drone. Outfall further inland and closer to road
																														river. Could not access with drone due to
-103748																														canopy cover
																														Standing water, no flow confirmed in
-103773	No								No			No	No																	upstream catch basin Standing water, no flow confirmed in
-103790	No								No			No	No																	upstream catch basin
	-																													
																														Adjacent culvert blockages with organic a
100011																														inorganic debris. Standing water, no flow
-103844	No								No			No	No	+			+				+			-				+		confirmed in upstream catch basin
																														Outfall is not flowing but is slightly damp
-104040	No								No			No	No																	(watermark can be seen in photo).
				En int																										Culturat with desire a second time. In the li
				Faint, Blue		Slight, Suds and blue tint																								Culvert with drainage connection, looks li an old pipe was pulled and is broken/loos
J-103847	Yes	Grey	None	grey	Slight	to water	Potential		No			Yes	No																	the stream bed. Revisit required
-104046	No								No			No	No	-																
																														Outfall not Found. Followed drain line bad
																														to concrete surcharge manhole but could
																														locate outlet. Mapped location was in pat
104049																														of woods with no obvious channel
104053																														Could not access due to yard fences. No f
-104053																														in upstream catch basin
																														Riprap at outlet has been displaced and
-104056	No								No			No	No																	seems sparse
																														Yard waste is filling in around
																														headwall/outfall and will likely begin to
J-104058	No								No			No	No																	obstruct flow entirely
																														Extremely dense vegetation surrounding
																														supposed outfall location. Could not acces
																														to investigate. Consider waiting for the en
-104064																														of growing season to access when vegetat
-104064																												-		is less dense. Vegetation surrounding outfall is very
																														overgrown. Other streamflow in the area
																														seems to originate from adjacent pond.
101005															DOU-															Surfactants and conductivity exceeded
-104065	No								Yes	Moderate	3	No	Yes	No	104065	pН		0 0	2	2 354	4 1.87	7 12.4	6.7	7 7.5	0		-			benchmarks
																														Outlet seems to be the downstream end o
															DOU-															culverted stream. Chlorine, surfactants an
-104070	No								Yes	Moderate	4	No	Yes	No	104070	pН	(0.4	0.5	5 1446	6 0.73	3 13.9	7.09	8.11	344					E. coli exceeded benchmarks
																														Could not locate, upstream catch basin is clogged with sediment. Water appears to
																														bypass catch basin, significant runoff eros
-104084																														in area
104116																														Area fenced off and not accessible
									1		1		1				1							1			1			
-104208	No								No			No	No																	Yard waste dumping
																														It was determined during the site visit tha this is a privately owned outfall. Therefore
									1	1	1		1				1				1			1			1			although there was observed dry weather
																														flow, a dry weather screening sample was
-104218	No								Yes	Moderate		No	No	No																not taken. Excess leaf debris.
																														Pipe discharges to rt 293 shoulder.
																														Conveyance down steep slope is well

							Outfall	Characteristic	cs					Pipe	Ends and Hea	dwall Cndition	on		Erosion and Se	edimentation	
						Number		Closed Pipe		Outfall				Pipe End							
	Date / Time of			Outfall	Receiving Water			Outfall	Outfall	Diameter			Pipe End	Treatment	Headwall		Headwall Condition	Downstream		Vegetation	Sedimentation
Outfall ID	Inspection	Lat.	Lon.	Located?	(if any)	Pipes	Туре	Material	Shape	(inches)	Outfall Damage	Outfall Condition Comment	Treatment	Condition	Material	Condition	Comment	Erosion	Erosion Comment	Distress	Level
																	Square cut into				
																	headwall for outfall was never filled,				
DOU-104392	5/21/2020 15:09	42 9585631	-71 426298	Found	Cohas Brook	1	Pipe	HDPE	Round	18	None	Slight staining at bottom of outfall	Projecting	Fair	Reinforced Concrete	Good	leaving lots of space around outlet pipe	No		None	None
				Could Not	Contas Brook		Tipe		Round	10	None	Singht Stammy at Bottom of Outlan	riojeeting	i un	concrete	0000		110		None	None
DOU-104393	8/6/2020 13:05	42.9604255	-71.426405	Access																	
DOU-104581	9/22/2020 19:12	42.9583908	-71.414239	Not Found																	
																			Outfall is perched. Significant flow has		
																			created a plunge		
																	Slight spalling around		pool with bottom approx 6 feet below	,	
																	outfall pipe and near		invert. Other		
											Spalling,				Reinforced		headwall footing. Headwall discolored		erosion on channel banks is 3-4 feet		
DOU-104512 DOU-104676	5/5/2020 15:42 7/31/2020 13:21			Found Not Found	Merrimack River	1	Pipe	RCP	Round	18	Discoloration	Slight spalling and orange color on outfall interior	Projecting	Fair	Concrete	Fair	along bottom.	Severe	deep.	Little	None
				Could Not																	
DOU-104679 DOU-104690	7/31/2020 13:18		-71.401293	Access Found		1	Pipe	HDPE	Round	24	None		Flared End	Good	N/A	N/A		No		None	None
							1.1								ĺ.	-					
				Could Not																	
DOU-105119	7/31/2020 15:08	3 42.9782823	-71.47421	Access	Piscataquog River											-					
DOU-105128	9/23/2020 13:38	42.9775331	-71.473602	Found	Piscataquog River	2	Pipe	RCP	Round	48	None	Other outfall is 24"" HDPE pipe with a flared end	Projecting	Good	N/A	N/A		No		None	None
				Found, Not																	
DOU-105178	5/26/2020 17:20	42.9706066	-71.49129	an Outfall Could Not																	
DOU-105268	7/31/2020 15:25	42.9701778	-71.487491																		
				Could Not																	
DOU-105300	5/14/2020 13:10	42.967884	-71.468264	Access																	
				Found, Not																	
DOU-105301	5/14/2020 13:25	42.9694651	-71.471879													-					
DOU-105304	11/26/2019 16:12	12 9682814	-71 //7313/	Found	Merrimack River	1	Pipe	RCP	Round		None	Outfall submerged	Projecting	Good				No		None	None
000-105504	11/20/2015 10.12	42.5002014	-/1.4/5154	Tound	Wernindek Niver		ripe	her	Nound		None		riojecting	0000		1		NO		None	None
																	Headwall is in good				
													Flush with		Reinforced		condition, minor erosion around wing		Erosion ranging from 0.5-1 ft high,		
DOU-105754	5/14/2020 16:09	42.9715407	-71.436701	Found	Humphrey Brook	1	Pipe	RCP	Round	24	None	Precast pipe looks new and is in good condition	Headwall	Good	Concrete	Good	walls	Moderate		None	<25%
DOU-105911	11/26/2019 19:23	12 0761512	-71.425	Found			Pipe	RCP	Round		Spalling				Reinforced Concrete	Good		Moderate		None	50- 75%
DOU-105911 DOU-105996	11/26/2019 19:23			Not Found			ripe	ncr	NUUIIO	36	- Shaming				concrete	Good		wouerate		NUTE	JU- 7 370
DOU-106000	11/26/2019 19:38	42,9771125	-71.423253	Found		1	Pipe	HDPE	Round	15	None				Riprap	Fair	Displaced rip rap	Moderate		None	<25%
															P				Erosion approx 2 ft		
																			high and 1.5 ft deep within drainage		
																			channel downstream of		
DOU-106006	9/22/2020 16:34	42.9768605	-71.422433	Found		1	Pipe	СМР	Round	30	Corrosion	Light corrosion within pipe and on metal FES	Flared End	Fair	N/A	N/A		Moderate	invert	Moderate	None
DOU-106799	12/16/2019 19:21	42.98919	-71.469479	Found	Merrimack River	1	Pipe	RCP	Round		None		Projecting	Good	Reinforced Concrete	Good		No		None	None
																					l l
DOU-106823	12/16/2019 19:15	42,9857308	-71 469223	Not Found																	
200 100023	12/ 10/ 2013 13.1.	-2.5057500	11.403223	. iot i ound	L	1	1	1	1	1	L	1	1	1	1	1	I	1	1	1	1

				Illicit Di	scharge Pote	ntial				Flow Char	acteristics									Samplir	ng Paramete	ers								Overall Comments
								Illicit	Is Dry																E. Coli	Total				
	Any Illicit Discharge	Pipe Benthic			Turbidity/		Illicit Discharge	Discharge Indicator	Weather Flow F		Flow Depth	Revisit	Is a Sample	Is Outfall		Pollutant(s)	Ammonia Result	Chlorine Result	Surfactants Result	Conductivit Result	Result	Temp. Result		Dissolved Oxygen	Result (MPN/100	Phosphorus Result	BOD Result	Chloride Result	Aluminum	
tfall ID	Indicators?		Odor	Color	Cloudiness	Floatables	Potential	Comments	Present? D		(inches)	Required?	Required?	Submerged?	Unique ID	of Concern	(mg/L)		(mg/L)	(uS/cm)	(ppt)	(C)	рН	(mg/L)	mL)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	Overall Comments
	_																													
U-104392	No								No			No	No		-						-						-		-	
U-104393							-		+						-			_										_	_	Could not access due to yard fences Outfall not Found, potentially buried in
U-104581																														wetlands
			Easily detected,			None, Suds forming		Orange growth/dep sits are extensive, smell is strong and	0																					
0U-104512	¥	0	Chemical with some	News	Nees	where flow lands in	Determini	outfall is flowing	V				No.	No	DOU- 104512	TP,Aluminum						40 11	7 71				12			
J-104512 J-104676	Yes	Orange	sulfide	None	None	plunge pool.	Potential	heavily.	Yes S	ubstantial	4	No	Yes	No	104512	,pH	2	.5 (0.1	5 9	64 0.4	48 11.	7 7.14	4 7.3	3	0.0:	12			D Flow depth was measured in conveyance Could not locate outfall
104670										-																				
0U-104679 0U-104690	No								No			No	No																	Could not access, fenced off property Invert wet but not flowing
DU-105119																														Inaccessible due to overgrown vegetation or steep banks. Upstream catch basin contain flow from a culverted stream that is 20'+ deep. Only flow was between inlet and outlet pipes for stream, no drainage flow observed.
U-105128	No								No			No	No																	
DU-105178																														Culvert inlet, not an outfall
OU-105268																														Could not access, fenced off property Outfall located on private property. Attempted to contact homeowner to gain
OU-105300																		+									+			access but no one was home
DU-105301																														Structure appears to be the downstream e of a culverted stream. Cannot access furth due to barbed wire fence but pipe is appro 5' in diameter.
DU-105304	No								No			Yes	No																	Outfall inspection completed via drone. Another outfall above pipe. Submerged wi check upstream structure to confirm flow
DU-105754	Νο								Yes T	rickle	0.3	No	Yes	No	DOU- 105754	Chloride		0 0	0.7	5 22	34 1.:	15 11.	5 6.7	9 7.98	3	1		76	58	Outfall located next to unmapped culvert. Outfall seems to be a significant source of sand deposits within stream, may contribu to chloride impairment. Surfactants and conductivity exceeded benchmarks
																														Culverted stream with catch basin integration. Neighbors claim they've seen flow from the outfall. No flow confirmed in
U-105911 U-105996	No							+	No			NO	No		-												-			catch basin Densely settled, fenced off, no access
0U-106000	No								No			No	No																	Standing water in pipe but no flow. Confirmed in upstream catch basin
DU-106006	No								No			No	No																	Outfall has large drainage channel that almost looks like a streambed, but no flow
U-106799	No								No			No	No																	Outfall inspection completed via drone
OU-106823																														Outfall inspection completed via drone. Pip not located potentially covered by vegetation. Proximity to bridge prevented closer inspection with drone

							Outfall	Characteristic	s					Pipe	Ends and Head	dwall Cnditio	on		Erosion and S	edimentation	
						Number		Closed Pipe		Outfall				Pipe End							
	Date / Time of			Outfall	-		Outfall	Outfall	Outfall	Diameter			Pipe End	Treatment	Headwall		Headwall Condition		Downstream	Vegetation	Sedimentation
Outfall ID	Inspection	Lat.	Lon.	Located?	(if any)	Pipes	Туре	Material	Shape	(inches)	Outfall Damage	Outfall Condition Comment	Treatment	Condition	Material Reinforced	Condition	Comment	Erosion	Erosion Comment	Distress	Level
DOU-107324	11/22/2019 5:35	42.9815387	-71.480881	Found	Piscataquog River	1	Pipe	RCP	Round	60	Spalling	Grate unlocked			Concrete	Good		Moderate		None	None
												Some invert rebar showing, otherwise in good			Reinforced						
DOU-106941	5/4/2020 17:39	42.9858608	-71.469482	Found	Merrimack River	1	Pipe	RCP	Round	48	Spalling	condition	Projecting	Good	Concrete	Good	Bridge abutment	No		None	None
DOU-108210	1/14/2020 15:39	42.9864033	-71.424014	Found	Unnamed wetlands	1	Pipe	CMP	Round	12	Cracking	Pipe seems to have collapsed	Projecting	Poor	Reinforced Concrete	Good	Good condition	No		None	<25%
DOU-108229	1/14/2020 14:36	42.9867143	-71.429343	Found	Humphrey Brook	1	Pipe	RCP	Round	15	None	Some minor chipping but not severe	Projecting	Good	N/A	N/A		Moderate	Some minor bank erosion	None	<25%
DOU-108237	1/14/2020 15:09	42.9849572	-71.430099	Found	Humphrey Brook	1	Pipe	RCP	Round	12	None	Very clogged, needs to be cleaned out	Projecting	Fair	N/A	N/A	Some parts of	No		None	>75%
DOU-108284	1/14/2020 15:23	42 0920905	-71.430866	Found	Humphrey Brook		Pipe	RCP	Round	20	None	Good condition, no signs of degradation			Stone	Fair	headwall seem to be missing	No		Little	<25%
000-108284	1/14/2020 13:23	42.5655605	-71.430800	Found	numpriley brook		ripe	NCF	Kouriu	20	none	Good condition, no signs of degradation			Stone	raii	missing	NO		Little	<2378
DOU-108305	1/14/2020 16:09	42.9847298	-71.424673	Found		1	Pipe	RCP	Round	15	None	Good condition	Flush with Headwall	Good	Stone	Good	Good condition	Moderate	Some minor bank erosion	None	<25%
DOU-108654	1/15/2020 19:12	42.9813197	-71.432063	Found	Humphrey Brook	1	Pipe	RCP	Round	15	None	Good condition no signs of degradation	Projecting Flush with	Good	N/A Reinforced	N/A		No		None	<25%
DOU-108712	8/6/2020 17:46	42.9725254	-71.417335	Found		1	Pipe	RCP	Round	12	None	Minor chipping along outlet rim	Headwall Flush with	Good	Concrete	Good		No		None	25- 50%
DOU-108713	8/6/2020 16:03	42.972367	-71.415484	Found		1	Pipe	HDPE	Round	18	None		Headwall	Good	Stone	Good		No		None	25- 50%
													Flush with								
DOU-108715	8/6/2020 15:56	42.9724749	-71.415327	Found		1	Pipe	RCP	Round	18	None	Grate over outfall	Headwall	Good	Stone	Good		No	Diungo nool and	None	None
																			Plunge pool and outfall perched.		
DOU-108718	8/6/2020 17:56	42.9725666	-71.419316	Found		1	Pipe	CMP	Round	12	None		Projecting	Good	N/A	N/A		Moderate	Downstream bank erosion	None	None
DOU-108755	8/6/2020 15:59							RCP	Round	10	None		Flush with Headwall				Some grout	No		None	
				Could Not			Pipe	RCP	Kouna	10	None		Headwall	Good	Stone	Good	separation	No		None	None
DOU-108823	8/6/2020 16:58	42.9744533	-71.415122	Access										+					Bank erosion and		+
																			plunge pool in		
													Flush with						conveyance before start of rip rap		
DOU-108824	8/6/2020 17:03	42.9754476	-71.41464	Found		1	Pipe	RCP	Round	24	None		Headwall Flush with	Good	Stone	Good		Moderate	channel	None	None
DOU-108878	8/6/2020 17:12	42.9766636	-71.414722	Found		1	Pipe	RCP	Round	30	None		Headwall	Good	Stone	Good		No		None	<25%
DOU-108832	9/22/2020 17:14	42 0760671	71 416797	Found		1	Pipe	DCD	Round	24	Spalling	Minor invert spalling and chipping along rim of	Flush with Headwall	Good	Stone	Cood		Moderate	Diungo nool	None	None
000-108832	9/22/2020 17:14	42.9709071	-/1.410/8/	Found			Pipe	RCP	Kouna	24	Spannig	pipe		6000	Stone	Good		wouerate	Plunge pool	None	None
DOU-108878	8/14/2020 14:46	42.9766363	-71.414788	Found		1	Pipe	RCP	Round	30	None		Flush with Headwall	Good	Stone	Good		No		None	<25%
					Unnamed		- F -														
DOU-108880	1/15/2020 17:51	42.9781375	-71.407333	Found	tributary to cohas brook		Pipe	HDPE	Round	15	None	Good condition, has some minor sediment immediately downstream	Projecting	Good	N/A	N/A		No		None	<25%
					Unnamed tributary to Cohas																
DOU-108881	1/15/2020 5:53	42.9780992	-71.407336	Found	Brook		Pipe	HDPE	Round	15	None	Good condition no signs of degradation	Projecting	Good	N/A	N/A		No		None	<25%
DOU-108901	8/6/2020 14:50	42.9685075	-71.415417	Not Found																	<u> </u>
DOU-108902	8/6/2020 14:35	42.9686944	-71.41697	Found	Cohas Brook	1	Pipe	RCP	Round	17	Spalling	Pipe end chipping but in good condition otherwise	Flush with Headwall	Good	Stone	Good	Shares headwall with small culvert	No		None	None
																					1
DOU-108917	8/6/2020 15:20	42.9704967	-71.41451	Not Found																	
DOU-108923	9/23/2020 19:16	42,9687273	-71.412988	Found		1	Pipe	HDPE	Round	12	None	Outfall is in good condition but surrounded by overgrown vegetation	Flared End	Good	N/A	N/A		No		None	25- 50%
DOU-108924	9/23/2020 19:14		-71.413393				Pipe	HDPE	Round		None		Flared End		N/A	N/A		No	Deale and the	Little	None
DOU-108925	8/6/2020 14:55	42.96865	-71.414771	Found		1	Pipe	HDPE	Round	12	None		Flared End	Good	N/A	N/A		Moderate	Bank erosion below outfall	None	None
DOU-108949	9/22/2020 17:58	42.970427	-71.403117	Found		1	Pipe	RCP	Round	24	None,Spalling	Invert spalling	Flush with Headwall	Good	Stone	Good		No		None	None
						1		-										-			1
DOU-108978	9/22/2020 18:18	42.9678481	-/1.404142	Not Found									1	1					1	1	+
DOU-108994	1/15/2020 19:02	42,9827035	-71 419244	Found, Not an Outfall																	
DOU-108994	1/15/2020 19:02	42.9827035	-71.419244	an Outfall																	<u> </u>

				Illicit Dis	charge Pote	ntial				Flow Cha	aracteristics									Samplin	g Parameter	rs				•				Overall Comments
	A 1112 a 24	Dina						Illicit	Is Dry		5 1							Chlaring	Comforda and a	Construction in	Calinita	T		Disashuad		Total		Chlorida		
	Any Illicit Discharge	Pipe Benthic			Turbidity/		Illicit Discharge	Discharge Indicator	Weather Flow	Flow	Flow Depth R	Revisit	Is a Sample	Is Outfall		Pollutant(s)	Ammonia Result		Result	Conductivity Result	Result	Temp. Result		Dissolved Oxygen		Phosphorus Result	Result	Chloride Result	Aluminum	
all ID	Indicators?		Odor	Color	Cloudiness		Potential	Comments		Description	(inches) R			Submerged?	Unique ID		(mg/L)			(uS/cm)	(ppt)		рН	(mg/L)			(mg/L)	(mg/L)		Overall Comments
															DOU-															
107324	No								Yes	Moderate	1 N	No	Yes	No	107324	pН	(0	0.25	480.	.2 0.339	9 8.8	7.22	10.05	6					Salinity calculated using conductivity
															DOU-	TP,pH,DO,Alu														Under granite st bridge, moderate clear steady flow. Aluminum and Phosphorus
I-106941	Yes	Orange	None	None	None	None	Unlikely		Yes	Moderate	0.5 N	No	Yes	No	106941	minum		0	1.25	230	4 1.19	9 12.5	8.16	8.25	2	0	D		C	were non detects
-108210	No								No		N	No	No																	Pipe seems to be an inlet and not an outfa
J-108229	No								No		N	No	No																	May need maintenance to clear vegetation
																														Needs maintenance to clear debris and
-108237	No								No		N	No	No																	sediment
-108284	No								No		N	No	No																	No photo of outfall
																														Surfactants equal to 0.25 but no signs of
-108305	No								Yes	Trickle	1 N	No	Yes	No	Dou- 108305		0.25	0.2	0.25	111	.7 0.5				1					sewer input or illicit discharges. E. coli lab result was <1 MPN/100ml
-108303	NU								Tes	TTICKIE	10	NU	Tes	NU	108303		0.2.	0.2	0.23		./ 0.5.				1					
																														Water within outfall, but visited upgradien
400054																														catch basins and no flow was observed.
108654	No					-		-	No		N	No	No		-						-						-			Some snow melt going into catch basins
-108712	No								No		N	No	No																	
-108713	No								No		N	No	No																	Outfall is lower than bottom of BMP.
																														Discharges to BMP. Resident believes skun
J-108715	No								No		N	No	No																	lives in pipe and is getting around grate
-108718	No								No		N	No	No																	
																														Downstream conveyance armored with
-108755	No								No		N	No	No																	boulders and concrete
J-108823																														Could not access due to yard fences
																														,
J-108824	No								No		N	No	No																	
															DOU-															
J-108878	No	-				-			Yes	Moderate	3 N	No	Yes	No	108878		(0.4	0.75	57	9 0.28	8 22.3	7.5	8.8	488					
								Pale orange																						
								benthic																						
J-108832	Yes	Orange	None	None	None	None	Unlikely	growth along invert	g Yes	Trickle	0.25 N	No	Yes	No	DOU- 108832			0	0.25	560.	.4 0.27	7 17.5	7.1	6.7	579					Tracks along invert indicate raccoons are living in pipe
100032	105	orange	None	None	None	None	Officery	invert	105	THERE	0.25	10	103	110	100032		Ť,		0.25	500.	.4 0.2	/ 1/.5	7.1	. 0.7	575					in the pipe
																														Part of a resampling effort to validate E. co
J-108878	No								No		N	No	No																	tried to resample but there was no flow.
-108880	No								No		N	No	No																	
																														Surfactants equal to 0.25, but no signs of
-108881	No								Yes	Trickle	2 N		Yes	No	DOU- 119448				0.25	587.	.6 0.29	9 7.4			1					illicit discharges or sewage. E. coli lab result was <1 MPN/ml
100001		1				1			103	THENE	2 1	•••	103		11,0440	1	<u> </u>		0.23		0.2	7.4		1			1	1		Outfall not Found, potentially buried in
-108901																														hillside
102003	No			1					No				No									1						1		
-108902	No			+			-		INO	-		No	No		-		-				-	+					-	-		Outfall not Found, potentially buried under
				1																		1						1		organic debris. Catch basin in street could
-108917									<u> </u>												1									also not be located
-108923	No			1					No				No									1						1		
-108923 -108924	No No		-				-	-	No No			No No	No No		-						+	-	<u> </u>				+			
	1	İ	1	1	İ	1	1	1	1	1	 	-	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	
J-108925	No	ļ							No		N	No	No				<u> </u>	L		ļ		1					<u> </u>			
J-108949	No			1					No				No									1						1		Invert wet but not flowing
-100243	NU	<u> </u>	<u> </u>	+				+	NU	1		No	No		+			<u> </u>		<u> </u>	+	1	<u> </u>	<u> </u>			+	+		Searched field and forest around mapped
J-108978																														location but outfall not Found
-100578		1	1		1																		I	1						
-108578																	1													Not outfall, appears to be inlet. Water

							Outfall	Characteristic	cs					Pipe	Ends and Hea	dwall Cnditio	on		Erosion and Se	dimentation	
						Number															
	Date / Time of							Closed Pipe Outfall	Outfall	Outfall Diameter			Pipe End	Pipe End Treatment	Headwall			Downstream		Vegetation	Sedimentation
Outfall ID	Inspection	Lat.			(if any)	Pipes	Туре	Material	Shape	(inches)	Outfall Damage	Outfall Condition Comment	Treatment	Condition	Material	Condition	Comment	Erosion	Erosion Comment	Distress	Level
DOU-109052 DOU-109096	1/14/2020 16:00 9/22/2020 17:42			Not Found Not Found																	
000 105050	57227202017.42	42.5074005	/ /1.415255	Not i ound									Flush with								
DOU-109223	1/15/2020 18:50	42.9846357	-71.413797	Found		1	Pipe		Round	36	None	Good condition no signs of degradation	Headwall	Good	N/A	N/A		No		None	None
DOU-109225	1/15/2020 16:11	42.9853723	-71.410135	Not Found																	
DOU-109224	1/15/2020 18:45	42.9846525	-71.413801	Found		1	Pipe	RCP	Round	15	None		Flared End	Good	N/A	N/A		No		None	<25%
DOU-109228	1/15/2020 15:05	42,9884197	-71.407871	Found, Not an Outfall																	
DOU-109232	1/15/2020 15:06			Not Found																	
					Unnamed tributary to Cohas						Cracking Spalling C	Outfall in poor condition, exposed rebar and									
DOU-109237	1/15/2020 14:58	42.9884453	-71.408205	Found	Brook		Pipe	RCP	Round	15	ollapsing	major structural damage	Projecting	Poor	Stone	Good		No		None	None
DOU-109242	8/14/2020 17:59	42.983213	-71.41446	Could Not																	
DOU-109242 DOU-109256	1/15/2020 14:01			Not Found																	
DOU-109310	1/15/2020 18:33	42.9796615	-71.412538	Not Found																	
DOU-109327	1/15/2020 18:25	42.9814313	-71.412196	Found		1	Pipe	CMP	Round	12	Corrosion	Some minor corrosion within interior of pipe	Projecting	Fair	N/A	N/A		No		None	None
DOU-109404	7/21/2020 17:12	42,993001	-71.495228	Found	Piscataquog River	1	Pipe	RCP	Round	48	None		Flush with Headwall	Good	Precast Concrete	Good		No		None	None
200 105 101	7/11/2020 17:12	1215555003	71.155220	1 ound	r ised a quog raver		, i i pe		libuna		hone		incountain.	0000	Condicte	0000				Hone	Hone
													Flush with		Reinforced						
DOU-109404	5/28/2020 18:37	42.9930696	-71.495189	Found	Piscataquog River	1	Pipe	RCP	Round	48	Spalling	Outfall chipped at invert.	Headwall	Fair	Concrete	Good		No		None	<25%
DOU-109407	5/28/2020 18:21	42.994805	-71.494352	Not Found																	
															Reinforced		Part of retaining wall along Merrimack				
DOU-109769	5/4/2020 15:25	42.994243	-71.468909	Found	Merrimack River	1	Pipe	RCP	Round	36	Spalling	River flow eroding pipe	N/A	N/A	Concrete	Good	River	No		None	None
DOU-109807	12/16/2019 18:47	42.9955773	-71.470326	Not Found																	
DOU-109916	9/23/2020 15:29	42.9937308	-71.471976	Not Found																	
DOU-110031	7/31/2020 17:22					[[[[
DOU-110291	12/16/2019 18:47	42.9987495	-71.474034	Not Found															+		
DOU-110309	12/16/2019 18:32	42.9988552	-71.468365	Not Found																	
DOU-110329	12/16/2019 18:47	42.9961083	-71.470444	Not Found											+						├───┤
															Reinforced						
DOU-110363	2/12/2020 19:17	42.9987204	-71.468456	Found	Merrimack River	1	Pipe	RCP	Round		None	Partially submerged	Projecting	Good	Concrete	Good		No		None	None
															Reinforced						
DOU-110349	12/16/2019 17:43	42.9967272	-71.468598	Found	Merrimack River	1	Pipe	RCP	Round	36	None		Projecting	Good	Concrete	Good		No		None	None

			Illicit Di	scharge Pote	ential				Flow Char	acteristics									Sampling	Parameters									Overall Comments
	Any Illicit	Pipe				Illicit	Illicit Discharge	ls Dry Weather		Flow						Ammonia	Chlorine	Surfactante	Conductivity	Salinity	Temp		Dissolved		Total Phosphorus	BOD	Chloride		
	Discharge	Benthic		Turbidity/		Discharge	Indicator	Flow			levisit	Is a Sample	Is Outfall		Pollutant(s)	Result	Result	Result	Result	Result	Temp. Result		Oxygen		Result	Result	Result	Aluminum	
all ID	Indicators?		Odor Color		Floatables	Potential	Comments	Present?					Submerged?	Unique ID		(mg/L)			(uS/cm)		(C) p		(mg/L)		(mg/L)	(mg/L)	(mg/L)	(mg/L)	Overall Comments
109052																													
109096																													Outfall buried and submerged
109223	No																												
-109223	NO							NO		N	10	NO																	Outfall does not seem to exist. Could have
J-109225																													been landscaped over.
							Orange																						
							sludge																						
							material, oil sheens, gas																						
			Faint, Gas,		Cloudy, Oil		smell																						
J-109224	Yes	Orange	sour	Cloudy	sheen	Potential		No		Y	'es	No																	Outfall heavily polluted
100220																													Not outfall. Appears to be culvert. Drainag
-109228 -109232					-																								may go to DOU-109237 Could not access/locate
105252																													
-109237	No							No		N	10	No																	In need of repair
																													Catch basing procent within any low
																													Catch basins present within newly paved road but access to outfall is hindered by
					1			1																		1		1	sound barrier fence along highway. No flo
-109242																													observed within upstream catch basin.
-109256																													Could not locate
-109310													-																Could not locate
-109327	No							No		N	10	No																	
105527	NO							NO			10	NO	1																Revisit to resample after issue causing
																													sewage input Found during previous
-109404	No							Yes	Trickle	1 N	10	Yes				C	0.6	0.25	731	0.39	20.1	7.71	8.43	32					inspection was corrected.
																													Ammonia and surfactants were both over the detection range for the supplied test k
					Opaque,																								based on the color results. E. coli lab result
					Sewage -		Strong																						was greater than range for test (>2,420
			Clearly		toilet paper		indication of	:																					MPN/100 ml). Very obvious illicit discharge
			Noticeable visible,		and wet		sewage							DOU-															Ammonia, chlorine, surfactants, and E. col
-109404	Yes	Gray	, Sewage Gray	Opaque	wipes	Obvious	discharge	Yes	Substantial	3 N	10	Yes	No	109404	pН	4	0.4	3	721	0.35	20	7.37	1.21	2420					exceeded benchmarks.
																													Outfall appears to be located within
																													headwall of footbridge but upon inspection
J-109407					-																						-		there was nothing there.
																													Pipe half submerged in river but no signs o
J-109769	No							No		N	10	No																	flow in upstream structure
																													Outfall inspection completed via drone.
										1 1																			Unable to locate pipe, potentially behind
									1										1										vegetation
-109807																												+	
-109807																													Outfall appears on map to be located in
-109807																													Outfall appears on map to be located in median on W Bridge St, but it is a raised
-109807																													Outfall appears on map to be located in median on W Bridge St, but it is a raised median with no structures. Outfall may be
I-109807																													Outfall appears on map to be located in median on W Bridge St, but it is a raised median with no structures. Outfall may be located within the median between the tw
																													Outfall appears on map to be located in median on W Bridge St, but it is a raised median with no structures. Outfall may be
-109916																													Outfall appears on map to be located in median on W Bridge St, but it is a raised median with no structures. Outfall may be located within the median between the tw bridge lanes, but there is no way for us to access Could not locate outfall
-109916																													Outfall appears on map to be located in median on W Bridge St, but it is a raised median with no structures. Outfall may be located within the median between the tw bridge lanes, but there is no way for us to access Could not locate outfall Outfall inspection completed via drone.
-109916																													Outfall appears on map to be located in median on W Bridge St, but it is a raised median with no structures. Outfall may be located within the median between the tw bridge lanes, but there is no way for us to access Could not locate outfall Outfall inspection completed via drone. Unable to locate pipe, possibly submerged
-109916 -110031																													Outfall appears on map to be located in median on W Bridge St, but it is a raised median with no structures. Outfall may be located within the median between the tw bridge lanes, but there is no way for us to access Could not locate outfall Outfall inspection completed via drone. Unable to locate pipe, possibly submerged Unable to fly closer without violations line
-109916 -110031																													Outfall appears on map to be located in median on W Bridge St, but it is a raised median with no structures. Outfall may be located within the median between the tw bridge lanes, but there is no way for us to access Could not locate outfall Outfall inspection completed via drone. Unable to locate pipe, possibly submerged Unable to fly closer without violations line sight laws
-109916 -110031																													Outfall appears on map to be located in median on W Bridge St, but it is a raised median with no structures. Outfall may be located within the median between the tw bridge lanes, but there is no way for us to access Could not locate outfall Outfall inspection completed via drone. Unable to locate pipe, possibly submerged Unable to fit closer without violations line sight laws Outfall inspection completed via drone.
-109916 -110031 -110291																													Outfall appears on map to be located in median on W Bridge St, but it is a raised median with no structures. Outfall may be located within the median between the tw bridge lanes, but there is no way for us to access Could not locate outfall Outfall inspection completed via drone. Unable to locate pipe, possibly submerged Unable to fly closer without violations line sight laws Outfall inspection completed via drone. Unable to locate pipe, possibly hidden und debris
-109916 -110031 -110291																													Outfall appears on map to be located in median on W Bridge St, but it is a raised median with no structures. Outfall may be located within the median between the tw bridge lanes, but there is no way for us to access Could not locate outfall Outfall inspection completed via drone. Unable to locate pipe, possibly submerged Unable to fly closer without violations line sight laws Outfall inspection completed via drone. Unable to locate pipe, possibly hidden und debris Outfall inspection completed via drone.
-109916 -110031 -110291 -110309																													Outfall appears on map to be located in median on W Bridge St, but it is a raised median with no structures. Outfall may be located within the median between the tw bridge lanes, but there is no way for us to access Could not locate outfall Outfall inspection completed via drone. Unable to locate pipe, possibly submerged Unable to fly closer without violations line sight laws Outfall inspection completed via drone. Unable to locate pipe, possibly hidden und debris Outfall inspection completed via drone. Unable to locate pipe, possibly hidden und debris
J-109907 J-109916 J-110031 J-110291 J-110309 J-110329																													Outfall appears on map to be located in median on W Bridge St, but it is a raised median with no structures. Outfall may be located within the median between the tw bridge lanes, but there is no way for us to access Could not locate outfall Outfall inspection completed via drone. Unable to locate pipe, possibly submerged Unable to fly closer without violations line sight laws Outfall inspection completed via drone. Unable to locate pipe, possibly hidden und debris Outfall inspection completed via drone. Unable to locate pipe, possibly hidden und debris
-109916 -110031 -110291 -110309																													Outfall appears on map to be located in median on W Bridge St, but it is a raised median with no structures. Outfall may be located within the median between the tw bridge lanes, but there is no way for us to access Could not locate outfall Outfall inspection completed via drone. Unable to locate pipe, possibly submerged Unable to locate pipe, possibly submerged Unable to locate pipe, possibly hidden und debris Outfall inspection completed via drone. Unable to locate pipe, possibly hidden und debris Outfall inspection completed via drone. Unable to locate pipe, potentially hidden behind vegetation Outfall inspection completed via drone.
-109916 -110031 -110291 -110309 -110329	No.							No No																					Outfall appears on map to be located in median on W Bridge St, but it is a raised median with no structures. Outfall may be located within the median between the tw bridge lanes, but there is no way for us to access Could not locate outfall Outfall inspection completed via drone. Unable to locate pipe, possibly submerged Unable to locate pipe, possibly submerged Unable to locate pipe, possibly hidden und debris Outfall inspection completed via drone. Unable to locate pipe, possibly hidden und debris Outfall inspection completed via drone. Unable to locate pipe, potentially hidden behind vegetation Outfall inspection completed via drone.
-109916 -110031 -110291 -110309 -110329	No							No			les	No																	Outfall appears on map to be located in median on W Bridge St, but it is a raised median with no structures. Outfall may be located within the median between the tw bridge lanes, but there is no way for us to access Could not locate outfall Outfall inspection completed via drone. Unable to locate pipe, possibly submerged Unable to locate pipe, possibly submerged Unable to locate pipe, possibly submerged Unable to locate pipe, possibly hidden und debris Outfall inspection completed via drone. Unable to locate pipe, possibly hidden und debris Outfall inspection completed via drone. Unable to locate pipe, potentially hidden behind vegetation Outfall inspection completed via drone.
-109916 -110031 -110291 -110309 -110329	No						Some orange	No			/es	No																	Outfall appears on map to be located in median on W Bridge St, but it is a raised median with no structures. Outfall may be located within the median between the tw bridge lanes, but there is no way for us to access Could not locate outfall Outfall inspection completed via drone. Unable to locate pipe, possibly submergee Unable to locate pipe, possibly submergee Unable to locate pipe, possibly hidden und debris Outfall inspection completed via drone. Unable to locate pipe, possibly hidden und debris Outfall inspection completed via drone. Unable to locate pipe, potentially hidden behind vegetation Outfall inspection completed via drone.
-109916 -110031 -110291 -110309 -110329	No						benthic	No				No																	Outfall appears on map to be located in median on W Bridge St, but it is a raised median with no structures. Outfall may be located within the median between the tw bridge lanes, but there is no way for us to access Could not locate outfall Outfall inspection completed via drone. Unable to locate pipe, possibly submerged Unable to fly closer without violations line sight laws Outfall inspection completed via drone. Unable to locate pipe, possibly hidden und debris Outfall inspection completed via drone. Unable to locate pipe, potentially hidden behind vegetation Outfall inspection completed via drone. Partially submerged, will check upstream structure to confirm flow
-109916 -110031 -110291 -110309	No							No			es	No																	Outfall appears on map to be located in median on W Bridge St, but it is a raised median with no structures. Outfall may be located within the median between the tw bridge lanes, but there is no way for us to access Could not locate outfall Outfall inspection completed via drone. Unable to fly closer without violations line sight laws Outfall inspection completed via drone. Unable to locate pipe, possibly hidden und debris Outfall inspection completed via drone. Unable to locate pipe, possibly hidden und debris Outfall inspection completed via drone. Unable to locate pipe, potentially hidden behind vegetation Outfall inspection completed via drone.

							Outfall	Characteristic	CS					Pipe	Ends and Hea	dwall Cnditi	on		Erosion and Se	edimentation	
Outfall ID	Date / Time of Inspection	Lat.	Lon.	Outfall Located?	Receiving Water (if any)	Number of Outfall Pipes			Outfall Shape		Outfall Damage	Outfall Condition Comment	Pipe End Treatment	Pipe End Treatment Condition	Headwall Material	Headwall Condition		Downstream Erosion	Downstream Erosion Comment	Vegetation Distress	Sedimentation Level
DOU-110382	9/23/2020 15:43	42 0001250	71 47404	Cound		1	Dino	Unknown				Unable to inspect structure because it is submerged	N/A	N/A	Precast Concrete	Fair	Big cracks in precast cement	Moderate	Hole where pipe is eroding channel	Neno	Nees
DO0-110382	9/23/2020 15.43	42.9961256	-/1.4/494:	Found		1	Pipe	submerged				submerged	N/A	N/A	concrete	rall	cement	Moderate	eroung channel	None	None
DOU-110768	12/16/2019 19:06	42.9911663	-71.470532	2 Not Found																	
				Found, Not									Flush with								
DOU-111521	7/29/2020 17:46	42.9987553	-71.443871	1 an Outfall								Good condition, no signs of degradation	Headwall	Good	Stone	Good		No		None	None
DOU-111614	1/14/2020 18:39	42.9936747	-71.42541	1 Found	Humphrey Brook	1	Pipe	RCP	Round	12	None	Good condition no signs of degradation	Flush with Headwall	Good	Stone	Good	Good condition no signs of degradation	No		None	<25%
DOU-111619	8/19/2020 16:00	42.993148	-71.429437	7 Not Found																	
DOU-111621	8/19/2020 15:25	42.9953962	-71.431394	Found, Not 4 an Outfall			Open Drain				None										
DOU-111728	8/19/2020 18:39	42.9996367		Could Not																	
DOU-111737	8/19/2020 15:19	42.9962789	-71.430933	3 Access																	-
DOU-111747	8/19/2020 15:03	42.9969274	-71.433198	8 Found		1	Pipe		Round				Flush with Headwall	Fair	N/A	N/A		No		None	>75%
DOU-111747	8/19/2020 14:56	42.9973981	-71.433543	Not Found Could Not																	
DOU-111756	9/23/2020 17:25	42.9981698	-71.429025	5 Access									Flush with		Precast						
DOU-111764	8/19/2020 18:00	42.9992817	-71.42613	3 Found			Pipe				Collapsing,Corrosic	Outfall submerged, unable to fully assess	Headwall	Fair	Concrete	Good		No		None	None
DOU-111786	8/19/2020 15:08	42.9971388	-71.432542	2 Found		1	Pipe	СМР	Round	18		Pipe collapsed and corroding	N/A	N/A	N/A	N/A		No		None	50- 75%
												Outfall is entirely buried with a hole dug directly above it - hole is approx 2 ft deep and water									
DOU-111787	9/23/2020 17:35	42.9968944	-71.43316	6 Found		1	Pipe	HDPE	Round		Buried	doesn't seem to be draining out of it very well	N/A	N/A	N/A	N/A		No		None	>75%
DOLI 111700	9/23/2020 17:13	42 0072712	71 427750	Net Found																	
DOU-111799												Unknown diameter, pipe end has completely									
DOU-111817	9/23/2020 17:49	42.9965553					Pipe	CMP	Round		n,Cracking	disintegrated	Projecting	Poor	N/A	N/A		No		None	>75%
DOU-111825	8/19/2020 18:31	42.9976677	-71.435445	Found		1	Pipe	CMP	Round	12	Spalling,Corrosion	Invert has completely deteriorated away	Projecting	Poor	N/A	N/A		Severe	Channelization	None	None
DOU-111863	1/14/2020 19:18	42.9937753	-71.422344	4 Found		2	Pipe	RCP	Round	18	Cracking,Collapsing	Some parts of outfalls are cracked and chipped away.	Projecting	Fair	Reinforced Concrete	Good	Good condition no signs of degradation	No		None	<25%
DOU-112131	1/14/2020 15:49	42.9896832	-71.426055	5 Found	Humphrey Brook	1	. Pipe	RCP	Round	32	None	Good condition	Flush with Headwall	Good	Stone	Good	Good condition	Moderate	Some minor bank erosion	None	<25%
DOU-112136	8/19/2020 15:33	42.9919815	-71.426001	1 Found		1	Pipe	RCP	Round	18			Flush with Headwall	Good	Stone	Fair	Displaced stones	Moderate	Plunge pool	None	50- 75%
DOU-112137	1/14/2020 18:47	42.9923275	-71.426194	4 Found	Humphrey Brook	1	Pipe	СМР	Round	36	Corrosion	Outer edges of pipe corroded	Projecting	Fair	N/A	N/A		No		None	<25%
													Flush with		Reinforced						
DOU-112207	5/28/2020 17:23	43.0078777	-71.499539	9 Found		1	Pipe	RCP	Round	12	None		Headwall	Good	Concrete	Fair	Some cracking	No		None	>75%
													Flush with								
DOU-112208	5/28/2020 17:02	43.0092815	-71.495177	7 Found Could Not		1	Pipe	RCP	Round	18	None		Headwall	Good	Stone	Good		Moderate	Plunge pool	None	25- 50%
DOU-112212	8/14/2020 17:35	43.0092325	-71.495423																		
DOU-112214	8/20/2020 19:19	43.0079518	-71,495889	Could Not																	
500 112214	0,20,2020 15.19	43.0073310	, 1.433000	100033	1	1	ı	í	·	1	1	1	1	1	1	ı	1	1	1	1	I

				Illicit Disch	harge Poten	itial				Flow Cha	aracteristics									Sampling	g Parameter	s								Overall Comments
	Any Illicit	Pipe					Illicit	Illicit Discharge	ls Dry Weather		Flow						Ammonia	Chlorine	Surfactants	Conductivity	Salinity	Temp.		Dissolved	E. Coli Result	Total Phosphorus	BOD	Chloride		
	Discharge	Benthic			urbidity/		Discharge	Indicator	Flow	Flow	Depth	Revisit	Is a Sample	e Is Outfall		Pollutant(s)	Result	Result	Result	Result	Result	Result		Oxygen	(MPN/100	Result	Result	Result	Aluminum	
all ID	Indicators?	Growth	Odor	Color C	Cloudiness	Floatables	Potential	Comments	Present?	Description	i (inches)	Required?	Required?	Submerged?	Unique ID	of Concern	(mg/L)	(mg/L)	(mg/L)	(uS/cm)	(ppt)	(C)	рН	(mg/L)	mL)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	Overall Comments
																														Outfall submerged but no flow in upstream
																														drainage structures. 3 catch basins checke
																														and no flow. There is standing water in the
-110382	No								No			Yes	No																	catch basin on Lorraine St but there is no perceptible flow.
													-																	
J-110768																														Outfall inspection completed via drone.
-110708											-				+						+									Unable to locate pipe, possibly submerged
																														Not an outfall but an inlet. Drainage chann
J-111521	No										_										-							-		runs into pipe
-111614	No								No			No	No																	No flow in upstream catch basin
-111619																														Could not locate, possibly submerged in wetland/pond area on golf course
111015																														Mapped location is in the middle of a grass
																														field. Leaching catch basin was observed in
-111621																														outfalls indicated location
111021																														Map location shows it by a parking lot near
111700									1				1								1									an apartment building, Found nothing
J-111728											+		-		+															nearby Thickly vegetated on a steep hill, could not
J-111737																														access, no flow in catch basin
-111747	No								No			No	No																	Outfall is located within a small pit below ground level. Pit filled with standing water
-111747																														No sign of flow channel
444756																														Unable to access due to fencing and a lock
-111756																												-		gate
I-111764	No								No			No	No																	Submerged, shares headwall with culvert
-111786	No								No			No	No																	
-111700	NO								NO				140																	
																														Outfall buried. Material was assumed base
-111787	No								No			No	No																	on prodding. Diameter and condition were unable to be assessed.
																														Outlet pipe is clearly visible within upstream
																														catch basin but not Found in adjacent hillside. Pipe is likely buried under the large
																														amount of loose fill that exists there.
																														Conveyance was identified further down th hillside at an off angle from the CB and is
																														likely the result of stormwater breaking
-111799																														through fill from buried pipe.
-111817	No								No			No	No																	Standing water, pipe has become a pit in th ground
-111017	NO								NO				110																	ground
J-111825	No								No		_	No	No				_													
																														Sediment may need to be cleared out in
U-111863	No								No			No	No																	front of outfall.
J-112131	No								No			No	No																	No flow in upstream catch basins
-112151	NO								NO		+	NO	INO		+															Resident has noticed issues with catch basin
J-112136	No								No			No	No																	draining
-112137	No								Yes	Moderate	6	5 No	Yes	No	Dou- 112137	Chloride			0.25	91	4 0.45	5 7.5	6.47	9.04	21			3 23		BOD lab result was <3 mg/L
-112137	NU								Tes	widderate			Tes	NU	11213/	Childride	- ·	0	0.23	91.	4 0.45	/.5	0.47	5.04	21	L		5 25	3	Sediment has mounded heavily around
																														outfall. Large deposits. Pipe only partially in
J-112207	No		+						No			No	No																+	view. Outlets to BMP.
																											1			Pipe partially filled with sediment. Natural
																											1			plunge pool shows evidence of erosion.
J-112208	No		+						No			No	No																+	Outlets to small pond approx 25 ft away
J-112212																														Could not access outfall, fenced off propert
	1								1	1			1			1				1		1	1		1	1	1	1	1	Outfall access extremely steep and overgrown, unsafe and difficult to access.

						Outfall	Characteristic	s					Pipe	Ends and Hea	dwall Cnditio	n		Erosion and So	edimentation	
Outfall ID	Date / Time of Inspection Lat.	Lon.	Outfall Located?	Receiving Water (if any)	Number of Outfall Pipes			Outfall Shape	Outfall Diameter (inches)	Outfall Damage	Outfall Condition Comment	Pipe End Treatment	Pipe End Treatment Condition	Headwall Material	Headwall Condition	Headwall Condition Comment	Downstream Erosion	Downstream Erosion Comment	Vegetation Distress	Sedimentation Level
DOU-112418	5/21/2020 19:15 43.010414	5 -71.478622	Pound	Black Brook	1	Pipe	RCP	Round	18	None	Precast is lightly cracked	Flush with Headwall	Fair	Precast Concrete	Good		No		None	None
																		Significant erosion channel roughly 3 feet deep,10 ft		
DOU-112419	5/28/2020 13:16 43.0096824	-71.480649	Found	Maxwell Pond	1	Pipe	RCP	Round	18	None		Flush with Headwall	Fair	Reinforced Concrete	Fair	Partially buried	Severe	across and 50 ft long	None	None
DOU-112421	5/28/2020 13:34 43.0080389	9 -71.485428	Found	Black Brook	1	Pipe	RCP	Round	18	Spalling	Spalling around inlet at headwall	Flush with Headwall	Fair	Reinforced Concrete	Good		Moderate	Erosion under splash pad ranging from .5-1 ft high and 05 ft deep. Splash pad may becomed undermined if erosion continues	None	None
DOU-112422	5/28/2020 16:12 43.0096308	3 -71.488078	Not Found																	<u> </u>
DOU-112425	5/28/2020 16:47 43.0061548	3 -71.488304	Not Found																	
DOU-112459	7/29/2020 17:25 43.0105748	3 -71.471981	Could Not Access																	
																		Plunge pool within riprap immediately downstream of outlet, approx 1.5 ft deep, 3.5 ft wide and 3.5 ft long. Erosion also present on either side of riprap channel, 0.5-		
DOU-112471	5/28/2020 16:27 43.0083669	-71.488827	Found	Black Brook	1	Pipe	HDPE	Round	18	None		Projecting Flush with	Good	N/A	N/A		Moderate	1 ft deep	None	None
DOU-112529	9/23/2020 16:21 43.00547	5 -71.472918	Found		1	Pipe	RCP	Round	24	None		Headwall	Good	Stone	Good		No		None	None
DOU-112570	5/21/2020 19:08 43.0070796	-71 476601	Not Found																	
000 1125/0	5/21/2020 15:00 45:00/075	/1.4/0001	Notround			Open														
DOU-112612	11/26/2019 14:36 43.0081488	3 -71.463472	Found			Drain	Riprap			collapsing				N/A	N/A		No		None	<25%
DOU-112715	5/28/2020 16:01 43.0108794	• -71.488522	Pound	Black Brook	1	Pipe	VC	Round	15	None		Projecting	Good	N/A		No headwall but slope is very eroded around pipe.		Plunge pool approx 2 ft deep, 5.5 ft wide and 10 ft long immediately downstream of outlet.		None
DOUL (12002		74 460400				.	202			N		Flush with		Reinforced						No.
DOU-112802 DOU-112819	9/23/2020 16:07 43.001010			Merrimack River			RCP RCP	Round Round		None	Grate over outlet		Good	Concrete N/A	Good N/A		No		None	None 25- 50%
D00-112819	9/23/2020 16:07 43.001061	5 -/1.4/664/				Ріре	KCP	Kouna	30	None	In good condition	Projecting	Good	N/A	N/A		NO		None	25- 50%
DOU-112943	9/23/2020 16:01 43.0004592	2 -71.475993	Found, Not an Outfall																	<u> </u>
DOU-112948	9/23/2020 15:58 43.00026	7 -71.476333	Found, Not an Outfall																	
DOU-113199	8/19/2020 19:02 43.006782		Found, Not an Outfall																	
						Open														
DOU-113328	8/19/2020 18:49 43.0074699	-71.436927	Found				Paved					N/A	N/A	N/A	N/A		No		None	None
DOU-113347	8/19/2020 13:20 43.0034758	3 -7 <u>1.423041</u>	Found		1	Pipe	RCP	Round			Outfall completely filled with sediment unable to assess structurally	Projecting	Fair	N/A	N/A		No		None	>75%
r			•	•	•				•	•	· ·		•				-			

				Illicit Dis	scharge Poter	tial			Flow Cha	racteristics								 Samplin	ng Parameter	rs								Overall Comments
							Illicit	Is Dry																Total				
	Any Illicit Discharge	Pipe Benthic			Turbidity/	Illicit Dischar	Discharge ge Indicator	Weather Flow	Flow	Flow Depth	Revisit	Is a Sample	Is Outfall		Pollutant(s)	Ammonia Result		Conductivity Result	y Salinity Result	Temp. Result		Dissolved Oxygen	Result (MPN/100	Phosphorus Result	BOD Result	Chloride Result	Aluminum	
tfall ID	Indicators?		Odor	Color	Cloudiness			Present?	Description				Submerged?	Unique ID		(mg/L)		(uS/cm)	(ppt)	(C)	рН	(mg/L)		(mg/L)	(mg/L)	(mg/L)		Overall Comments
																												Structure is entirely within Black Brook.
																												Looks to be a dumping site downstream f
OU-112418	No							No			No	No																business on the north bank
																												Headwall and outlet buried by large amou
																												yard waste and grass clippings. Deep eros
																												channel indicates heavy flows into a steep slope. A second large channel from parkin
OU-112419	No							No			No	No																lot runoff nearby
OU-112421	No							No			No	No								-								Outfall not Found and most likely does not
																												exist, as the catch basins that appear to
011 112 122																												connect to it on GIS were not present on t
OU-112422											No															-		roadway. Outfall not in this location, but other parts
OU-112425																												local system were identified.
OU-112459																												Could not access, fenced off and located next to railroad.
00-112459								+																	+	+		next to failfoad.
OU-112471	No							No			No	No																
OU-112529	No							No			No	No							-						-			Outfall not Found. No evidence of burying,
																												no overgrown vegetation, and no sign of a
OU-112570	_						_	-												-								drainage channel.
																												There appears to be a stream that runs directly below a double catch basin and out
OU-112612	No							No			No	No																a culvert
																												Clana may peed eventual reinforcement to
OU-112715	No							No			No	No																Slope may need eventual reinforcement to prevent outfall collapse.
																												Outfall inspection completed via drone.
OU-112802	No							Yes	Moderate		Yes	No																Outfall is also CSO outfall 053. Dry weather flow, grate over outfall
00 112002								100	moderate		100																	Sedimentation is not within pipe but in
OU-112819	No							No			No	No						 										conveyance. 1 ft thick in places
			1	1					1					1														Structure is the downstream end of an
OU-112943				<u> </u>		ļ ļ		_						1		1				1								unmapped, 36" RCP culvert.
																												Structure is the unstream and of an
DU-112948																												Structure is the upstream end of an unmapped, 36" RCP culvert.
DU-113199			1	1					1					1														Appears to be inlet for culvert. No evidence of outfall in surrounding area.
50-110175	1	1	1	1				1	1	1		1		1		1				1		1			1	1	1	or outrain in surroununig ared.
			1	1					1					1		1				1								Open drainage outfall directing flow from
			1	1					1					1														roadway to catch basin. Outfall is dry but substantial flow in catch basin from inlet. N
																										1		indication the catch basin is connected to a
DU-113328	No					ļ		No			No	No							_			 						culverted stream.
	1	1	1	1					1	1	1	1		1		1				1	1	1					1	Extreme sedimentation burying outfall.
													1															Water would be unable to exit pipe during a

							Outfall	Characteristic	s					Pipe	Ends and Head	dwall Cnditio	on		Erosion and Se	dimentation	
			[Number															
	Date / Time of			Outfall	Receiving Water	of Outfall	Outfall	Closed Pipe Outfall		Outfall Diameter			Pipe End	Pipe End Treatment	Headwall	Headwall	Headwall Condition	Downstream	Downstream	Vegetation	Sedimentation
Outfall ID		Lat.	Lon.	Located?	(if any)	Pipes					Outfall Damage	Outfall Condition Comment	Treatment	Condition	Material	Condition		Erosion		Distress	Level
												Dense overgrown vegetation growing over									
DOU-113349	8/19/2020 14:04	43.0057357	-71.424244	Found	Unnamed stream	1	Pipe	RCP	Round		None	outfall, unable to view pipe well enough to fully assess	N/A	N/A	N/A	N/A		No		None	None
											Spalling,										
											Separation between pipe and								Channelization from		
DOU-113348	9/4/2020 13:23	43.0042859	-71.423914	Found		1	Pipe	RCP	Round	36	FES	Slight spalling along bottom half of invert	Flared End	Fair	N/A	N/A		Moderate	outfall flow		<25%
DOU-113350	8/19/2020 14:11	43.0062367	-71.42444	Found	Unnamed stream	1	Pipe	RCP	Round	24	None		Projecting	Good	N/A	N/A		No		None	None
	., .,															ĺ.					
DOU-113351	5/26/2020 15:43	43.006914	-71 424573	Not Found																	
500 110001				Could Not																	
DOU-113356	8/19/2020 19:09	43.0079026	-71.434532	Access													Headwall shared with				
													Flush with		Precast		a double barrel				
DOU-113370	8/19/2020 13:56	43.0051418	-71.424335	Found		1	Pipe	RCP	Round	12	None		Headwall	Good	Concrete	Good	culvert	Moderate	Channelization	None	<25%
																			Plunge pool and		
																			standing water in		
DOU-113437	8/19/2020 13:46	43.0042816	-/1.423932	Found		1	Pipe	RCP	Round	30	None		Flared End	Good	N/A	N/A		Severe	eroded conveyance	None	None
DOU-113437	8/19/2020 13:36	43,0029888	-71.422404	Not Found																	
DOU-113634	8/19/2020 18:06	43.0003332	-71.423934	Found				RCP	Round		None		Flared End	Good	N/A	N/A		Moderate	Channelization	None	None
DOU-113650	8/19/2020 17:28	43.0008004	-71.426165	Found		1	Pipe	CMP	Round	24	Collapsing	Slightly collapsed	N/A	N/A	N/A	N/A		No		None	50- 75%
											Corrosion,Collapsir	Pipe has corroded away and tunnel is now									
DOU-113652	8/19/2020 17:36	43.0008508	-71.425907	Found		1	Pipe	CMP	Round	12	g	collapsing, burying the outfall			N/A	N/A		Moderate	Channelization	None	>75%
DOU-113653	8/19/2020 17:43	43.0011581	-71.425276	Not Found																	
DOU-113664	8/19/2020 18:44	43.0011459	-71.435409	Not Found																	
DOU-113689	8/19/2020 17:50	43 0015608	-71.424117	Found			Pipe	CMP	Round	24	Corrosion,Collapsir	Crushed pipe end	Flared End	Good	N/A	N/A		Moderate	Plunge pool after flared end	None	None
DOU-113708	8/19/2020 14:37					1	Pipe	RCP	Round	24	s Collapsing	Pipe collapsing	Projecting	Poor		N/A		Moderate	Visible erosion	None	None
																			Dirt is eroding the		
																	Hill is eroding around		hill in the flow path		
DOU-113709	9/23/2020 18:22		-				Pipe	RCP	Round		None		Mitered	Good	N/A	N/A	outfall	Moderate	of the outfall	Little	None
DOU-113733	8/19/2020 18:12	43.0001596	-71.423036	Could Not		1	Pipe	RCP	Round	36	None		Flared End	Good	N/A	N/A		No		None	None
DOU-113764	1/15/2020 13:49	42.9916839	-71.418918	Access																	
																			Some		
																	Good condition no		channelization and		
DOU-113778 DOU-113800	1/14/2020 19:24 1/14/2020 19:31						Pipe Pipe	CMP	Round Round		Collapsing Collapsing	Outfall is completely submerged under water Pipe almost full of sediment	Projecting Projecting	Fair Fair	Stone N/A	Good N/A	signs of degradation	Moderate No	minor bank erosion	None None	50- 75% >75%
200 113000	1/14/2020 15:51	42.5550405	/1.4105/5	, i ound		1 1	i ipe	Civil	Round		condpoints	ripe annost fan of seamene	Trojecting		175			110		None	71370
DOU-114034	8/20/2020 13:38	12 0001201	-71 200479	Not Found																	
DOU-114034 DOU-114072	1/15/2020 13:53			Not Found																	
DOU 11/150	8/19/2020 13:07	42 0072442	-71.415953	Found			Dinc	RCD	Pound	24	Nono		Flush with	Good	Precast	Good		No		Nono	<25%
DOU-114150	6/ 19/ 2020 13:07	45.0072443	-/1.415953	round	1		Pipe	RCP	Round	24	None		Headwall Flush with	Good	Concrete Reinforced	Good		No		None	<25%
DOU-114153	8/12/2020 16:57	43.0077751	-71.416661	Found		1	Pipe	RCP	Round	15	None		Headwall	Good	Concrete	Good		No		None	None
												Spalling between pipe invert and edge of flared							Channelization from		
DOU-114154	8/12/2020 17:32	43.0073658	-71.417995	Found	ļ	1	Pipe	RCP	Round	48	None	end section at connection	Flared End	Fair	N/A	N/A		Moderate	wet weather flows		<25%
																			Some		
													Flush with						channelization from		
DOU-114161	8/12/2020 16:48	43.0095346	-71.418707	Found		1	Pipe	RCP	Round	15	None		Headwall Flush with	Good	N/A	N/A		Moderate	wet weather flow	None	25- 50%
DOU-114162	8/19/2020 13:14	43.0054769	-71.415181	Found		1	Pipe	RCP	Round	12	None		Headwall	Good	N/A	N/A		Moderate	Channelization	None	None
				Found, Not																	
DOU-114271	8/7/2020 15:45	43.005819	-71.41403	an Outfall																	
DOIL 111257	0/7/2020 45	42.002027	71 444000				Dire	DCD.	D		Casillian Casai		Flush with	Co.in		21/2		Madaa	Clinks flag	News	Need
DOU-114267	8/7/2020 15:51	43.0039371	-/1.411367	Found			Pipe	RCP	Round	24	spailing,Corrosion	Spalling at invert with exposed rebar	Headwall	Fair	N/A	N/A		Moderate	Slight flow channel	None	None
DOU-114275	8/7/2020 13:08	43 0077001	-71 401042	Found		1	Pipe	RCP	Round	17	None		Flush with Headwall	Good	Stone	Good		No		None	50- 75%
500-1142/5	0/7/2020 15.08	43.007/331	-/1.401943	1 ounu	1	1 1	Tibe	iller	nounu	1 12	NUTE	1	ricduwdli	0000	JUILE	10000	1	140	1	none	50-75/0

				Illicit D	ischarge Pote	ential				Flow Cha	aracteristics									Samplin	g Parameter	S				•				Overall Comments
	A	Dine					Illicit	Illicit Discharge	ls Dry Weather		Flow						Ammonia	Chlorizz	Surfactory	Conductivity	Saliaite	Tomic		Dissolved	E. Coli Result	Total Phosphorus	ROD	Chloride		
	Any Illicit Discharge	Pipe Benthic			Turbidity/		Discharge	Indicator	Flow	Flow	Depth	Revisit	Is a Sample	e Is Outfall		Pollutant(s)		Result	Result	Result	Result	Temp. Result		Oxygen			Result	Result	Aluminum	
fall ID	Indicators?		Odor	Color	Cloudiness	Floatables	Potential	Comments		Description	(inches)			Submerged?	Unique ID				(mg/L)	(uS/cm)	(ppt)	(C)	рН	(mg/L)	mL)	(mg/L)	(mg/L)	(mg/L)		Overall Comments
-113349	No								No		_	No	No																	
						None,																								
U-113348	Yes	Brown	None	None	None	Bacteria sheen	Potential		Yes	Trickle	0.3	3 No	Yes	No	DOU- 113348		0.05	0.05	5	57	4 0.28	8 19.3	6.65	5 5.45	5 17.1	L				Surfactants were unable to be tested at t of inspection.
U-113350	No								No			No	No																	
5-113330	NO								NO			NO	NO																	Outfall not Found. No overgrown vegetat blocking the slope or evidence of a flow p
U-113351																														from outfall.
U-113356																														Not accessible. Fence and highway blockin access.
																														Half filled with standing water. Adjacent to
U-113370	No			_					No			No	No																	culvert with flowing water.
U-113437	No								No			No	No																	
		1	1								1		1		1				1		1	1	1	1	1		1	1		Outfoll and Found and I with the
												1										1								Outfall not Found, mapped location is in t middle of a parking lot. A privately owned
J-113437 J-113634	No	-		-			-		No			No	No			-														open drain was Found nearby
J-113650	No								No			No	No																	
																														Mostly filled with sediment. Pipe has completely deteriorated away and now
-113652	No								No		_	No	No		_															flows through an earthern tunnel
112652																														Likely on headwall of stream culvert and submerged. Culvert more than 50% full
U-113653																														
U-113664																														Outfall not Found, area surrounding mapp location is lawns and driveways
U-113689	No								No			No	No																	
U-113708	No								No			No	No																	
U-113709	No								No			No	No																	
U-113733	No								No			No	No																	
U-113764																														Not accessible
																														May need to be replaced/repaired. No flo
U-113778 U-113800	No No								No No			No No	No No																	in catch basin Sediment may need to be cleared out.
																														Outfall not Found. Upstream catch basins
J-114034																														not in their mapped locations either.
J-114072		+		-	-		+		-		-		-		-	+					+			+			-			Could not locate
J-114150	No	_							No			No	No																	
U-114153	No								No			No	No																	Shares headwall with DOU-121622
0U-114154	No								No			No	No			ļ					-			-						
												1										1								
J-114161	No								No			No	No									1								
J-114162	No	1	1		1				No		1	No	No		1			ĺ			1	1	1	1	1					
, 114102	140	1		1					110		1		110		1		1			1	1	1	1	1			1	1		
U-114271												1										1								Structure is an inlet
	Vec	0.000000	Nor-	Nerr	Non-	None	Liplikeli		No			No	No				1			1		1								
U-114267	Yes	Orange	None	None	None	None	Unlikely		INO	1		No	No	1		1	1			1		1				1			1	Appears to also function as an overflow for
																						1								pond across the street. Standing water in conveyance and pipe but no flow in
	1	1	1	1	1	1	1	1	1.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	upstream catch basin

							Outfall	Characteristic	s					Pipe	Ends and Head	dwall Cnditio	on		Erosion and Se	dimentation	
						Number		Closed Pipe		Outfall				Pipe End							
Outfall ID	Date / Time of	1-4		Outfall	Receiving Water		Outfall	Outfall	Outfall	Diameter	Outfall Damage	Outfull Condition Communit	Pipe End	Treatment	Headwall	Headwall Condition	Headwall Condition			-	Sedimentation Level
Outfall ID	Inspection	Lat.	Lon.	Located?	(if any)	Pipes	Туре	Material	Shape	(inches)	Outrali Damage	Outfall Condition Comment	Treatment	Condition	Material	Condition	Comment	Erosion	Erosion Comment	Distress	Level
																			Channelization and some erosion		
DOU-114286	9/23/2020 18:40	42 0050007	71 400720	Found		1	Pipe	RCP	Round	10	Spalling	Slight spalling around invert	Projecting	Good	Stone	Good			around 1 ft high downstream	None	None
				Could Not			ripe	NCF	Kouria	40	Shamug		Frojecting	0000	Stone	Guu		Moderate	downstream	None	None
DOU-114294	8/7/2020 13:41												Flush with								
DOU-114311	5/20/2020 18:43	43.0048243	-71.391771	Found		3	Pipe	RCP	Round	12	None		Headwall	Good	Stone	Fair	Loose blocks	No		None	<25%
DOU-114334	8/7/2020 12:54	43.0082041	-71.398211	Found, Not an Outfall																	
DOU-114338	8/20/2020 15:42	43.0044316	-71.399351	Could Not Access																	
												Outfall recessed in headwall, unable to view and	Flush with								
DOU-114337	5/20/2020 18:08	43.0039256	-71.398871	Found		1	Pipe	PVC	Round			structurally assess	Headwall	Fair	Stone	Good		No		Little	25- 50%
DOU-114339	8/20/2020 15:46	43.004319	-71.399261	Found		1	Pipe	RCP	Round	24	None		Flush with Headwall	Good	Precast Concrete	Good		No		Little	25- 50%
DOU-114459	8/7/2020 15:07	43.0066547	-71.411881	Found		1	Pipe	СМР	Round	24	Spalling, Cracking	Light spalling and minor cracking but in good condition otherwise	Flush with Headwall	Good	Precast Concrete	Good		No		None	None
							[.						Flush with		Reinforced		Some spalling at				
DOU-114460	8/7/2020 15:28	43.006652	-71.411849	Found		1	Pipe	СМР	Round	24	Corrosion	Bottom half of pipe significantly rusted	Headwall	Fair	Concrete	Good	invert	No		None	None
DOU-114496	8/7/2020 16:01	43.0032665	-71.411744	Not Found																	
DOU-114497	8/7/2020 15:59	43.0032224	-71.411735	Not Found																	
DOU-114594	8/14/2020 15:28	43.0211873	-71.480526	Not Found																	
DOU-114609	8/14/2020 15:20	43.0180156	-71.480952	Not Found																	
DOU-114635	5/4/2020 14:21	43.0180602	-71.474099	Not Found									Flush with								
DOU-114665	5/28/2020 15:15	43.0133037	-71.499413	Found		1	Pipe	HDPE	Round	18	None		Headwall	Good	Stone	Good		No		None	<25%
DOU-114666	5/28/2020 15:38	13 012048	-71 /030/8	Could Not																	
000-114000	5/26/2020 15:58	43.012040	-71.455048	Access																	
									Rectang			Outfall is submerged, unable to complete full	Flush with								
DOU-114775	8/14/2020 15:12	43.0126024	-71.477266	Found	Merrimack River	1	Pipe	RCP	ular		None	structural assessment	Headwall	Good	Stone	Good		No		None	None
DOU-114778	5/28/2020 15:50	43.0119567	-71.488717	Found		1	Pipe	HDPE	Round	18	None		Projecting	Good	N/A	N/A		No	Lack of headwall is	None	None
																			allowing erosion to		
DOU-114866	11/26/2019 15:32					1	Pipe	HDPE	Round	18	None	Exposed pipe from bank erosion.			N/A	N/A			occur from walkway.	None	<25%
DOU-114951	11/26/2019 16:21			Not Found			Open														
DOU-114952 DOU-114953	11/26/2019 16:20 11/26/2019 16:18			Found Not Found			Drain	Riprap			None				N/A	N/A		Moderate	Channelization	Little	<25%
DOU-115004	8/7/2020 18:01	43.016826	-71.442495	Not Found																	

				Illicit Dis	charge Poter	ntial				Flow Ch	aracteristics									Samplir	ng Paramete	rs					_	_		Overall Comments
	Any Illicit	Dine					Illicit	Illicit Discharge	ls Dry Weather		Flow						Ammonia	Chlorine	Surfactore	Conductivit	v Calinita	Tomo		Dissolved	E. Coli Result	Total Phosphorus	BOD	Chloride		
	Discharge	Pipe Benthic			Turbidity/		Discharge	Indicator	Flow	Flow	Depth	Revisit	Is a Sample	Is Outfall		Pollutant(s)		Result	Result	Result	Result	Temp. Result		Oxygen	(MPN/100		Result	Result	Aluminum	
ill ID	Indicators?		Odor	Color	Cloudiness	Floatables	Potential	Comments		Description				Submerged?	Unique ID		(mg/L)		(mg/L)	(uS/cm)	(ppt)	(C)	рН	(mg/L)	mL)	(mg/L)	(mg/L)	(mg/L)		Overall Comments
															DOLL															Size of outfall suggests this may be a culv
114286	No								Yes	Moderate	0.3	No	Yes	No	DOU- 114286			0.06	0.4	4 8	55 0.4	12 19.	5 7.3	29 6.8	4	3				stream, flow had no odor, color or floatables.
11200										moderate	0.5		100		111200			0.00	0.											Outfall completely buried in yard waste.
114294																														Could not inspect
14311	No								No			No	No																	2 new outfalls Found at upstream end of culvert.
14511	NO								NO			NO	NO																	Structure is a culvert/bridge, above diam
																														threshold for culvert inspections (approx
.14334																														ft)
																														Outfall certainly exists here based on
																														observed staining within basin but
																														vegetation is too overgrown to identify a inspect. Recommend revisit in the fall w
																														vegetation has thinned. Source of staining
.14338																														likely originates from direction of highwa
								Dark brown staining,																						
				Faint,				obvious																						
				Orange				sheen and																						
14337	Yes	Brown	None	tint	Slight	Slight,	Potential	bubbles	No			Yes	Yes	Yes	5.20.20 #4															Sheen, brown orange staining and veg st
																														Based on ground level grading outfall ma
																														acting as an inlet. Smaller PVC pipe insid
																														concrete pipe is buried under sediment a
14339	No								No			No	No																	yard waste. Heavy yard waste dumping along sides of detention basin
14335	NO								NU			NO	NU		DOU-							+					-			Flow is most likely infiltrating groundwat
.4459	No								Yes	Trickle	0.1	No	Yes	No	114459			0.08	0.5	5 6	19 0	.3 19.	1 6	5.5 3.3	7 12	8				as observed within pipe.
																														Flow is clear with no associated
14460	No								Yes	Moderate	0.75	No	Yes	No	DOU- 114460				0.2	5 6	11 0	.3 19.3	2 6.	77 6	3	2				staining/growth or odor. May be a small culverted stream.
11100									100	moderate	0.75		100		111100				0.2							-				Outfall not Found; outlet pipes from cate
14496											-				-		_					-	-				_			basin shown on map do not exist
14497																														Outfall not Found; outlet pipes from cate basin shown on map do not exist
114497																						+					+			Could not locate outfall. Photo taken of
.14594																														mapped location
																														Outfall not Found and may not exist as n
																														catch basins exist along this road. No drainage channel observed in roadside a
																														stormwater runoff likely sheet flows of
L14609											-				-		_					-	-				_			shoulder.
																														Outfall not Found - outlet channel identi
																														(pictured) but no sign of outlet pipe.
																														Unearthed sections of RCP drain pipe
14635																					_			_			_	_	-	present nearby (also pictured).
14665	No								No			No	No																	Outfall in power line easement. Very overgrown surrounding structure
11000																														Outfall likely on other side of two fence
114666							-		-	-	-				+		-			-	-	+	+	-		-	-	-	-	lines, no clear way to access it at this tim Outfall is submerged. Water present but
																														stagnant, no flow from immediate upstre
																														catch basin. Location was also inspected
114775	No			+				-	No			No	No				-					+				-			+	culvert
									1																					Projecting pipe over steep rip rap armore slope. Trash and debris in the area. Rip ra
																														appears to sufficiently protect the slope
14778	No								No			No	No				_				_			_			_	_		from erosion
									1																					
									1																					
14866	No						<u> </u>	<u> </u>	No	<u> </u>		No	No			L		<u> </u>		<u> </u>				_	<u> </u>			_		
.14951				+			+	+		+								+		+		+							+	Double mapping of open drainage
14952	No								No			No	No																	
14953	-																													
																														Outfall supposedly located on hill betwee
	1																													two houses; no sign of structure or draina channel.

								Outfall	Characteristic	s					Pipe	Ends and Hea	dwall Cnditio	on		Erosion and Se	dimentation	
	Outfall ID		Lat.	Lon.			of Outfall		Outfall	Outfall	Diameter	Outfall Damage	Outfall Condition Comment		Treatment							Sedimentation Level
Kal 1964 Jakob 1974 Kal 1994 Kal 1997	DOU-114955	11/26/2019 16:23	43.019321	-71.44957	Found		1	Pipe	RCP	Round	30	Spalling,Collapsing				N/A	N/A		No		Little	25- 50%
Kal 1964 Jakob 1974 Kal 1994 Kal 1997																						
Construit Cyrephone Construit Desc Desc <thdesc< th=""> <thdesc< th=""> Desc<td></td><td></td><td></td><td></td><td></td><td>Dorrs Pond - E</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></thdesc<></thdesc<>						Dorrs Pond - E																
10191 1010 </td <td>DOU-114984</td> <td>5/14/2020 15:15</td> <td>43.015453</td> <td>-71.448906</td> <td>Found</td> <td></td> <td>2</td> <td>Pipe</td> <td>HDPE</td> <td>Round</td> <td>15</td> <td>None</td> <td></td> <td>Projecting</td> <td>Good</td> <td>Stone</td> <td>Good</td> <td></td> <td>No</td> <td></td> <td>None</td> <td>25- 50%</td>	DOU-114984	5/14/2020 15:15	43.015453	-71.448906	Found		2	Pipe	HDPE	Round	15	None		Projecting	Good	Stone	Good		No		None	25- 50%
10191 1010 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>																						
10191 1010 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>																						
10191 1010 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>																						
10191 1010 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>																						
10191 1010 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>																						
						Dorrs Pond - E								Flush with		Reinforced						
DDI LIGNE JULDOR IN BULLOW JULDOR IN	DOU-114994	5/5/2020 17:33	43.0170632	-71.45052	Found	Inlet	1	Pipe	RCP	Round	36	None	Slight spalling on lower left of invert	Headwall	Fair	Concrete	Good		Moderate	inches high	None	<25%
DDI LIGNE JULDOR IN BULLOW JULDOR IN																						
DDI LIGNE JULDOR IN BULLOW JULDOR IN																						
NUMBER NAME <	DOU-114994	7/21/2020 18:08	43.0170577	-71.450619	Found		1	Pipe	HDPE	Round	32	None			Good		Good		No		None	None
NUMBER NAME <																						
NUMBER NAME <																						
00011000 4712/0001124 40181046 71.44583 Access Image: Access and Acces and Acces and Access and Access and Access and Access and Acces	DOU-115006	8/7/2020 18:07	43.0166431	-71.443889	Not Found																	
00011003 04/2001712 44.817868 74.4868 Rand A A <					Could Not																	
DOU-LISSID 41.01910 7.4444-Acces Image: Cond Note of the content of	DOU-115008	8/12/2020 15:14	43.0185268	-71.441551	Access																	
00111018 41/202015.31 4.0.1914 7.4.4644 Accors C	DOU-115013	5/5/2020 17:11	43.0179958	-71.449692	Not Found																	
DOU-11507 8/12/200 15.24 43:0182794 7.1.42133 Access Access Corrotion.Collaption gCracking. Invert Corrotion.Collaption gCracking. Invert N/A N/A N/A None None DOU-115075 11/56/2019 15.50 43:0190783 7.1.45096 Found 1 Ppc CM Round 12 Corrotion.Collaption gCracking. Invert N/A N	DOU-115018	8/12/2020 15:31	43.0189119	-71.446544																		
0.011507 $y_{1/2}/2020 152$ $y_{0.11507}$ $y_{1/2}/2020 152$ $y_{0.11507}$ y	DOU-115021	11/26/2019 15:19	43.0179657	-71.452594	Not Found																	
0.011507 $y_{1/2}/2020 152$ $y_{0.11507}$ $y_{1/2}/2020 152$ $y_{0.11507}$ y																						
0.011507 $y_{1/2}/2020 152$ $y_{0.11507}$ $y_{1/2}/2020 152$ $y_{0.11507}$ y																						
D0L-115035 11/26/2019 15:0 43.019078 7-1,450063 Found Dorrs Pond Inlet 1 Pipe Run 18 deterioration Invert deteriorated away	DOU-115072	8/12/2020 15:24	43.0182794	-71.442131																		
DOU-115035 11/26/2013 15:0 A 3019078 -71.450063 Found I Pipe CMP Round 18 deterioration Invert deteriorated away Invert deteriorated away NA Na <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>																						
DQU-115141 11/26/2019 16:42 43.0214487 -71.454966 Found D rain Paved I None Mach No None S756 DQU-115196 8/12/2020 13:50 3.0179068 -71.456496 Found 1 Pipe CMP Roud 15 Corrosion Bottom of pipe is extremely rusted and metal FES Found No No <td>DOU-115035</td> <td>11/26/2019 15:50</td> <td>43.0190783</td> <td>-71.450063</td> <td>Found</td> <td></td> <td>1</td> <td>Pipe</td> <td>СМР</td> <td>Round</td> <td>18</td> <td></td> <td>Invert deteriorated away</td> <td></td> <td></td> <td>N/A</td> <td>N/A</td> <td></td> <td>Severe</td> <td>Severe bank erosion</td> <td>None</td> <td>None</td>	DOU-115035	11/26/2019 15:50	43.0190783	-71.450063	Found		1	Pipe	СМР	Round	18		Invert deteriorated away			N/A	N/A		Severe	Severe bank erosion	None	None
DQU-115141 11/26/2019 16:42 43.0214487 -71.454966 Found D rain Paved I None Mach No None S756 DQU-115196 8/12/2020 13:50 3.0179068 -71.456496 Found 1 Pipe CMP Roud 15 Corrosion Bottom of pipe is extremely rusted and metal FES Found No No <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>																						
DQU-115141 11/26/2019 16:42 43.0214487 -71.454966 Found D rain Paved I None Mach No None S756 DQU-115196 8/12/2020 13:50 3.0179068 -71.456496 Found 1 Pipe CMP Roud 15 Corrosion Bottom of pipe is extremely rusted and metal FES Found No No <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>																						
DOU-115196 8/12/2020 13:50 43.0179068 -71.436631 Found 1 Pipe CMP Round 15 Corrosion is completely susted out. Flared End Poor N/A N/A No.d	DOU-115141	11/26/2019 16:42	43.0214487	-71.454966	Found				Paved			None				N/A	N/A		No		None	>75%
b00-115197 8/12/2020 14:07 43.016093 -71.436158 Found 1 Pipe CMP Round Buried diameter could not be measured Flare End Faire N/A N/A No N	DOU-115196	8/12/2020 13:50	43.0179068	-71.436631	Found		1	Pipe	СМР	Round	15	Corrosion			Poor	N/A	N/A		No		None	None
DOU-115198 8/12/2020 14:12 43.0155098 -71.436084 Found 1 Pipe RCP Round 12 Composition Flash with Headwall Good Stone Good No No No No No No Store Store Stone No No No No No No Store Store Stone No No No No No No No No No Store Store Stone Stone <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>																						
DOU-115199 8/12/2020 13:39 43.015043 -71.435067 Found 1 Pipe CMP Round 18 Corrosion Outfall rusted but in good condition otherwise Flared End Good N/A N/A No No No So No So													diameter could not be measured	Flush with					No			
DOU-115243 8/12/2020 15:47 43.0141794 -71.422288 Found 1 Pipe RCP Round 18 None Flared End Good N/A N/A No None <25%							1	Pipe											No		None	
													Outfall rusted but in good condition otherwise						No			
	DOU-115243	8/12/2020 15:47	43.0141794	-71.422288	Found		1	Pipe	RCP	Round	18	None		Flared End	Good	N/A	N/A		No		None	<25%
D0U-115247 7/29/2020 17:12 43.011434 -71.454151 Not Found	DOU-115247	7/29/2020 17:12	43.011434	-71.454151	Not Found																	

				Illicit Dis	scharge Pote	ential				Flow Ch	aracteristics									Sampl	ing Paramet	ers								Overall Comments
	Any Illicit	Pipe					Illicit	Illicit Discharge	ls Dry Weather		Flow						Ammonia	Chlorine	Surfactants	Conductivi	ty Salinity	Temp.		Dissolved	E. Coli Result	Total Phosphorus	rus BOD	Chlorid	le	
	Discharge	Benthic			Turbidity/		Discharge	Indicator	Flow	Flow	Depth	Revisit	Is a Sample			Pollutant(s)	Result	Result	Result	Result	Result	Result		Oxygen	(MPN/100	Result	Resu	lt Result	Aluminum	
fall ID	Indicators?	Growth	Odor Easily	Color	Cloudiness	5 Floatables	Potential	Comments	Present?	Description	n (inches)	Required?	Required?	Submerged?	Unique ID	of Concern	(mg/L)	(mg/L)	(mg/L)	(uS/cm)	(ppt)	(C)	рН	(mg/L)	mL)	(mg/L)	(mg,	L) (mg/L)	(mg/L)	Overall Comments E. coli result was collected using MPN
			detected,			Slight, Suds									Dou-															method. Salinity calculated using
-114955	Yes	Orange	Sewage	None	Slight	and slime	Potential		Yes	Trickle	1	1 No	Yes	No	114955		0.	5 (0.2	5 2	007 1.4	73 9	.8 6.8	8 8.7	7	2				conductivity
	1							Brown																						Only 1 outfall pipe flowing at this location.
								benthic pipe	:																					Homeowner says outfall was extended around 2010 when old pipes were Found
								growth is only							DOU-															completely buried. E. coli exceeded
J-114984	Yes	Brown	None	None	None	None	Unlikely	indicator	Yes	Trickle	0.3	3 No	Yes	No	114984	Chloride		0 0	0.2	5	615 (0.3 12	.5 7.3	89 8.1	.9 34	5			176	benchmark
								Streambed immediately	,																					
								downstream	1																					
								of outfall is dark																						
								brown/gray.																						
			Easily detected,					Water coming from																						
		Dark	Slight					outfall has																						
-114994	Yes	Brown/gr	sewage odor	None	None	None, Suds	Potential	sewage odor.	Yes	Trickle	-	2 No	Yes	No	DOU- 114994	Chloride	0.2	5 (0.	5	821 0.	41 10	.2 6.9	8.2	5 16	2			251	
114354	103	uy	0001	None	None	None, suus	rotentiar	0001.	105	menie	-		105		114554	chionae	0.2				021 0.	1 10	.2 0.3	0.2	10	~			201	
						Slight, Foam																								
						or small		Sewage																						
			Easily detected,	Visible,		pieces of the benthic	2	odor, color, floatables,																						Revisit to resample suspected sewage inpu
-114994	Yes	Orange	Sewage	Orange brown	Slight	growth	Potential	and growth.	Yes	Moderate	0.5	5 No	Yes	No	114994	4 Chloride		0 0	0.2	5 1	448 0.	72 23	.8 7.0	07 4.8	4 24	.0				noted during previous inspection
																														Outfall apparently located between two homes on a hill. No sign of structure or
																														drainage channel was Found and neighbor
-115006																						_								did not know of any structures either. Found but extremely difficult to access.
																														Located at bottom of very steep slope in a
-115008																														small swamp. Large diameter, 50% submerged
115000																														No sign of outfall or drainage channel. Are
-115013																														was not particularly overgrown and did no contain yard waste.
-115015																														
J-115018				-					-		-							-				-								Could not access due to homeowner fence Culverted stream. Outfall are in upgradient
J-115021												No																		drainage structures.
																														Collector location inaccurate, outfall was
																														likely extended during new construction ar
																														may be located behind fence with no gate
-115072																														(end of fence is a series of objects to continue the barrier)
			Faint,												Dou-															E. coli result was less than 1 MPN/100 mL.
-115035	Yes	Orange	Slight odo	or None	None	None, Suds	Potential		Yes	Moderate	1	1 No	Yes	No	115035			0 0	0.0	5 2	015 1.4	71 1	.0 7.1	.9 10.1	5	1		1	080	Salinity calculated using conductivity
																														Appears to be culverted stream with 2
																														culverts. 1 culvert is completely submerged
																														other is mostly submerged. Outfall is open drainage from roadway. Standing water, no
-115141	No								No			No	No																	flow confirmed in upstream catch basin
115196	No								No			No	No																	
115150	NO								NO			NO	NO																	
J-115197	No								No			No	No												1	1				
	NO								110							1		1		1					1	1				
J-115198	No								No			No	No			<u> </u>														Pipe roughly 75% full of sediment
J-115199	No								No			No	No																	Some corrosion and small holes in pipe. About 40% full of sediment
-115243	No								NO	-		No	No	+	+	+	+	+	+					+	+					Flared end RCP surrounded by thick vines Outfall could not be located. Mapped
									1			1	1					1							1	1				location is in the soccer field. Possibly
-115247	1								1			1	1							1										developed over

							Outfall	Characteristic	s					Pipe	Ends and Hea	dwall Cnditio	on		Erosion and Se	dimentation	
Outfall ID	Date / Time of Inspection	Lat.	Lon.	Outfall Located?	Receiving Water (if any)	Number of Outfall Pipes	Outfall	Closed Pipe Outfall	Outfall	Outfall Diameter (inches)	Outfall Damage	Outfall Condition Comment	Pipe End Treatment	Pipe End Treatment Condition	Headwall Material		Headwall Condition	Downstream Erosion	Downstream	Vegetation Distress	Sedimentation Level
DOU-115270	7/29/2020 17:07	43.0141179	-71.452575	Not Found																	
DOU-115342	8/12/2020 13:13	43.0121128	-71.438092	Found		1	1 Pipe	Unclear	Unclear			Outfall is almost completely buried in sediment, and pipe seems to have collapsed as evidenced by apparent sinking of the surrounding earth. Clear defined drainage channel, sediment most likely originating from roadway sand, and floatable litter present makes it clear that this is in fact an outfall in poor condition.	Unclear	Poor	N/A	N/A		Moderate	Clear, defined drainage channel	Little	>75%
												Two pipes: RCP is in good condition, CMP has	Flush with								
DOU-115304	8/12/2020 14:37					2	2 Pipe	RCP	Round	18	None	corrosion along invert	Headwall	Good	Stone	Good		No		None	<25%
DOU-115345	8/12/2020 13:04	43.0121385	-71.43916	Not Found									-								
DOU-115346	8/12/2020 14:57	43.0138236	5 -71.438397	Could Not Access																	
DOU-115348	8/12/2020 13:31	42 0120054	-71.437046	Could Not																	
DOU-115348 DOU-115349	8/12/2020 13:31			Not Found									1		<u> </u>						
DOU-115360	8/12/2020 14:40	43.0116987	-71.438167	Found		1	1 Pipe	RCP	Round	18	None		Flush with Headwall	Good	Reinforced Concrete	Fair	Embankment behind headwall very washed out / eroded and undermining is occurring on the front end of the headwall below the invert.	Severe	Deep channels from wet weather flow, 2 ft high and approx 8 inches deep		None
DOU-115363	8/12/2020 13:04	43.0120672	2 -71.438482	Pound		1	1 Pipe	СМР	Round	12	Corrosion, Collapsin	Outfall pipe appears have lost its end portion to corrosion after exposure from the eroded surrounding land. Stand alone rebar is present that may indicate where original invert was, and current invert of the rusted and crumbling pipe is about 12 inches behind the rebar.	Projecting	Poor	N/A	N/A		Moderate	Clearly defined flow channel	None	<25%
DOU-115464	5/4/2020 13:37	43.0253434	-71.479019	Not Found																	
DOU-115486	5/29/2020 17:31	43.0293208	-71.484685	Found	Milestone Brook	1	1 Pipe	RCP	Round	30	None		Flush with Headwall Flush with	Good	Reinforced Concrete	Poor	Headwall is being undermined by the plunge pool.	Moderate	Plunge pool, some channeling	None	None
DOU-115503	7/29/2020 16:35	43.0269557	-71.467226	Found		1	1 Pipe	RCP	Round	36	None	Good condition, no signs of degradation	Headwall	Good	Stone	Good		No		None	<25%
DOU-115503	8/7/2020 16:51	43.0269784	-71.46726	Found			1 Pipe	RCP	Round	36	None		Flush with Headwall	Good	Stone	Good		Severe	Erosion along banks up to 5' high and 2.5' deep	None	None
DOU-115503	8/14/2020 14:02	43 0269691	-71.467169	Found		1	1 Pipe	RCP	Round	36	None		Flush with Headwall	Good	Stone	Good		Severe	Bank erosion	None	None
DOU-115589	8/14/2020 14:02								Round		Spalling	Spalling along wet weather flow path within pipe, no exposed rebar			Reinforced Concrete	Fair	Spalling at invert of outfall and at various points on headwall. Some undermining also occurring along foot of headwall.	Moderate	Undermining of headwall	None	None
DOU-115673	5/4/2020 13:55	43 0230320	-71 //77/02	Found	Unnamed swamp		1 Pipe	RCP	Round	20	Spalling	Outfall condition not affecting performance. Spalling only.	Projecting	Fair	Stone	Fair	Mortar cracked in some places, rebar visible but condition is acceptable.	No		Little	25- 50%
DOU-115673 DOU-115818	5/4/2020 13:55			Not Found		<u> </u> '	ripe	nCF	Nound	30	Shaimik	spanitg only.	riojecting	raii	Storie	rail	וא מנוכיףומטופ.	110		LILLIE	23-30%
DOU-115878	7/29/2020 14:29						1 Pipe	RCP	Round		None	Good condition, no signs of degradation	Flared End	Good	N/A	N/A		No		None	<25%
DOU-115889	5/29/2020 18:31	43.0317651	-71.452353	Found		1	1 Pipe	RCP	Round	15	None		Projecting	Good	N/A	N/A		No		None	25- 50%
DOU-115943	11/26/2019 17:04	43.0230233	-71.452276	Found		1	1 Pipe	RCP	Round	24	None				Stone	Good		No		None	25- 50%

				Illicit Di	scharge Poter	ntial				Flow Char	racteristics									Samplin	ng Paramete	rs								Overall Comments
	A	Dire					Illicit	Illicit Discharge	Is Dry		[]ev:						A	Chlori	Curferet .	Conductivit		T		Direct	E. Coli	Total		Chloride		
all ID		Pipe Benthic	Odor	Color	Turbidity/ Cloudiness	Floatables	Discharge	Indicator Comments	Weather Flow	Flow Description	Flow Depth (inches)	Revisit	Is a Sample	Is Outfall Submerged?	Unique ID	Pollutant(s)	Ammonia Result (mg/L)	Result	Result	Result (uS/cm)	Result (ppt)	Temp. Result (C)	рH	Dissolved Oxygen (mg/L)	Result (MPN/100 mL)	Phosphorus Result (mg/L)	Result (mg/L)	Result	Aluminum (mg/L)	Overall Comments
	Indicators?	Growth	Udor	Color	Cloudiness	Floatables	s Potentiai	Comments	Present?	Description	(inches)	Requirea?	Required?	Submerged?	Unique ID	of Concern	(mg/L)	(mg/L)	(mg/L)	(us/cm)	(ppt)	(C)	рн	(mg/L)	mL)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	
115270																	-										_	_		Could not locate outfall, possibly buried
	_																													
J-115342	No					+	-		No			No	No	+	-		+			+	-	-		+	-					
				Visible,				Dama																						Two pipes 1 RCP and 1 corrugated metal
U-115304	Yes	Brown	None	Brown staining	Cloudy	Cloudy,	Potential	Brown staining	No			Yes	No																	pipe. Sheen and strong brown staining in channel but no dry weather flow.
J-115345																														No evidence of outfall in the area
																														Pipe not at indicated position on map.
																														Appears to be large inlet nearby for flowing stream, but behind gate/fence. Does appear
J-115346																							_							to connect to catch basin on Holmes Dr
																														Fencing blocked access to outfall. Headwall is visible and there does not appear to be
J-115348 J-115349																					_						_			any dry weather flow Possibly buried under rock and debris
J-115549																											-			Possibly buried under rock and debris
																														Standing water present but no dry weather
																														flow. Plunge pool immediately downstream
-115360	No								No			No	No																	of outfall and significant sand deposits with channel.
																														Significant sediment deposits are present in
																														the channel downstream from the outfall,
																														and the invert is much lower than the ground immediately downstream of the
J-115363	No								No			No	No										_							outfall.
																														Outfall not Found - likely buried under excessive amounts of yard waste, pictured.
1115464																														Upstream catch basin dry with no indication of flow.
U-115464																				1										of flow.
																														Plunge pool filled with road debris that is undermining about 50% of headwall.
																														Headwall is <10 ft from major roadway.
J-115486	No								Yes	Moderate	0.5	No	Yes	No	DOU- 115486			0	0.75	5 8	39 0.4	1 16	.8 6.6	5 8.3	,	5				Some rusty colored staining in pipe and channel. Surfactants exceeded benchmark
															110100									0.0.	-					
J-115503	No								Yes	Moderate	2	No	Yes	No			0.25	0.2	0.5	5 6	83 0.3	4 19	.7							E. coli sampling issues.
		Black													DOU-															Outfall inspection is part of a revisit to verify
U-115503	Yes	stain	None	None	None	None	Unlikely		Yes	Trickle	0.1	No	Yes	No	115503		0.25	0	0.5	5 6	90 0.3	7 20	.9 7.5	2 6.6	5 54	18				previous samples.
J-115503	No								Yes	Moderate	2	No	Yes	No				0.04	1.5	5 7	16 0.3	5 19	.1		68	37				Full assessment not performed, part of resampling effort for E. coli.
J-115589	No								No			No	No								_									
	1																													
	1																													Standing water present was also as a star
J-115673	No								No			No	No																	Standing water present, very clear, no smell or discoloration. No flow.
J-115818																														Could not locate outfall
J-115878	No								Yes	Trickle		No	Yes	No				0.2	0.5	5 8	88 0.4	3 19	.2							E. coli sampling issues, revisit to collect sample
J-115889	No								No			No	No																	Approximately 30% full of sediment
J-115943	No								No			No	No		1															Standing water, no flow. Confirmed in upstream catch basin

							Outfall	Characteristic	s					Pipe	Ends and Head	dwall Cnditio	on		Erosion and Se	edimentation	
Outfall ID	Date / Time of Inspection	Lat.	Lon.	Outfall Located?	Receiving Water (if any)		Outfall Type				Qutfall Damage	Outfall Condition Comment	Pipe End Treatment	Pipe End Treatment Condition	Headwall Material		Headwall Condition Comment	Downstream Erosion	Downstream Erosion Comment	Vegetation Distress	Sedimentation Level
					(
DOU-115945	11/26/2019 17:02						Pipe	RCP	Round		Spalling				Stone	Good		No		None	25- 50%
DOU-115946	11/26/2019 17:09	43.0229372	-71.451682	Found		1	Pipe	RCP	Round	18	None				Stone	Fair		Moderate		None	25- 50%
DOU-115992	8/12/2020 15:58	43.0138458	-71.421407	Found		1	Pipe	RCP	Round	18	None		Flared End	Good	N/A	N/A		No		None	<25%
DOU-116003	8/12/2020 16:10	43.0128212	-71.421148	Not Found																	
DOUL 44 (2020	0/42/2020 45 22		74 44000				.	200					Flush with						Significant erosion		
DOU-116028 DOU-116083	8/12/2020 16:23 8/14/2020 12:47						Pipe Pipe	RCP RCP	Round Round	24	None None	Good condition, no signs of degradation	Headwall N/A	Good N/A	Stone N/A	Good N/A		Moderate No	and channeling	None None	None <25%
DOU-116153	8/14/2020 12:41	43.0404546	-71.483149	Not Found																	
																	Cracked mortar, some stones dislodged around				
DOU-116126	5/29/2020 13:47	43.0361944	-71.475786	Found	Merrimack River	1	Pipe	RCP	Round	24	None		Projecting Flush with	Good	Stone Reinforced	Fair	edge of headwall	No		None	25- 50%
DOU-116157	8/14/2020 12:28	43.0416086	-71.485145	Found	Milestone Brook	1	Pipe	RCP	Round	18	None	Dirt around pipe end beginning to fill pipe in from	Headwall	Good	Concrete Reinforced	Good		Moderate	Bank erosion	None	<25%
DOU-116158 DOU-116224	7/31/2020 15:46 7/29/2020 15:25		-71.484145				Pipe Pipe	PVC RCP	Round Round		None Spalling	side Minor invert spalling	Projecting Projecting	Fair Good	Concrete N/A	Good N/A		Moderate Moderate	Channelization Channelization	Little None	50- 75% None
000-110224	772372020 13:23	43.0343307	-71.40444	lound			Tipe	Ner	Nound	24	Spannig		riojecting	0000	N/A	11/14		Widderate	Channelization	None	None
												Spalling around invert and within pipe indicates long term and consistent flow at this location.									
DOU-116224	8/7/2020 16:29	43.0343331	-71.464392	Found		1	Pipe	RCP	Round	24	Spalling,Corrosion	Rebar is also exposed and rusted.	Projecting	Fair	N/A	N/A		Moderate	Channelized flow	None	None
DOU-116263	5/29/2020 13:33	43.0350131	-71.478757	Could Not Access																	
DOU-116271	7/29/2020 13:31	43.034353	-71.464473	Found		1	Pipe	RCP	Round	16	Spalling, Corrosion	Generalized spalling and corrosion	Projecting Flush with	Fair	N/A	N/A		Severe	Channelization	None	None
DOU-116289	7/29/2020 15:49	43.0344138	-71.471411			1	Pipe	RCP	Round	12	None	Good condition, no signs of degradation	Headwall	Good	Masonry	Good		Moderate	Minor bank erosion	None	None
DOU-116327	7/29/2020 12:25	43.036901	-71.454462	Could Not Access																	
DOU-116349	7/29/2020 12:42	43.0330303	-71.459102	Found		1	Pipe	PVC	Round	12		Unable to fully assess because outfall is mostly buried	Flush with Headwall	Good	N/A	N/A		Moderate	Channelization	None	>75%
DOU-116357	7/29/2020 12:31	43.0341046	-71.457719	Found		1	Pipe	HDPE	Round	12	None	Good condition, no signs of degradation	Flush with Headwall	Good	N/A	N/A		No		None	None
DOU-116372	7/29/2020 15:00	43.0345291	-71.45889	Found		1	Pipe	vc	Round	12	collapsing	Outfall in critical condition, end of pipe has collapsed in	Flush with Headwall	Poor	Stone	Fair	Some displaced stones	No		None	<25%
DOU-116372	8/7/2020 17:12	43.0344168	-71.4588	Found		1	Pipe	vc	Round	12	Cracking.Collapsin	End of pipe broken	Flush with Headwall	Poor	Stone	Fair	Some displaced stones	No		None	<25%
	-, -,										8,										
DOU-116372	8/14/2020 13:12	43.0345705	-71.459326	Found		1	Ріре	vc	Round	12	Cracking,Collapsin	End of pipe broken	Flush with Headwall	Poor	Stone	Fair	Some displaced stones	No		None	<25%
DOU-116374	5/29/2020 18:39	43.034482	-71.456954	Found		1	Ріре	RCP	Round	24	None		Flared End	Good	N/A	N/A		No		None	25- 50%
DOU-116380	5/29/2020 18:49	43.0350434	-71.456733	Not Found																	
DOU-116491	5/29/2020 14:53	43.045948	-71.495134	Found, Not an Outfall																	
DOU-116495	5/29/2020 14:31	43.0458721	-71.497395	Found		1	Pipe	RCP	Round		None	Partially buried and unable to assess structurally	N/A	N/A	N/A	N/A		No		None	>75%

				Illicit Disc	charge Poten	ntial				Flow Ch	aracteristics									Samplin	g Parameter	s								Overall Comments
	Any Illicit	Dire					Illicit	Illicit Discharge	ls Dry Weather		El avu						Ammeric	Chlorine	Surfactoret	Conductivity	Callain	Tomm		Dissolved	E. Coli Result	Total	BOD	Chloride		
	Discharge	Pipe Benthic			Turbidity/		Discharge	Indicator	Flow	Flow	Flow Depth	Revisit	Is a Sample	e Is Outfall		Pollutant(s)	Ammonia Result		Result	Result	Result	Temp. Result		Oxygen	(MPN/100	Phosphorus Result	Result	Result	Aluminum	
fall ID	Indicators?		Odor		Cloudiness		Potential	Comments	Present?	Description	n (inches)	Required?	Required?	Submerged?	Unique ID	of Concern	(mg/L)		(mg/L)	(uS/cm)	(ppt)	(C)	pН	(mg/L)	mL)	(mg/L)	(mg/L)	(mg/L)		Overall Comments
																														Standing water but no flow. Confirmed in
J-115945	No								No			No	No																	upstream catch basin Excess organic debris blocking outfall from
J-115946	No								No			No	No																	yard waste
11 11 5002	No											No																		Flows into very small landscaped basin wit 6" HDPE outlet
U-115992	NO								INO			No	NO								+									
																														Outfall not Found but muddy drainage
																														ditches were present in the general area
																														with roof leaders discharging there also. Adjacent resident likely made these ditche
U-116003																														as a result of apparent drainage issues
U-116028	No								No			No	No																	Large pipe with a deep channelized conveyance. Appears to see heavy flows
U-116083	No								No			No	No																	conveyance Appears to see nearly nons
																														Could not located outfall, may have been removed or buried during development of
U-116153												No																		adjacent office building
								Orange benthic																						
						None, Sheen		growth likely	y																					
						from iron		due to iron																						
						bacteria		bacteria.																						
						(separates when		May be groundwate	r						DOU-															E. coli was the pollutant of concern for this
J-116126	Yes	Orange	None	None	None	disturbed)	Unlikely	inflow.	Yes	Trickle	3	No	Yes	No	116126	E. coli	(0 0	0.25	5 111	15 0.56	5 15.4	6.29	5.77	/ 3	3				section of the Merrimack River
J-116157	No								NO			No	NO																	Standing water present but no flow
U-116158	No								No			No	No																	
U-116224	No								Yes	Moderate		No	Yes	No			(0 0.4	0.5	5 67	72 0.33	3 22.4								
															DOU-															This inspection was part of a revisit to verify
U-116224	No								Yes	Trickle	0.2	No	Yes	No	116224		(0.08	0.25	5 63	35 0.3	1 21	7.04	5.9	10	0				previous sampling.
																														Outfall submerged due to surcharged
																														culvert. Can't see or access. Upstream Cato
																														basins are also surcharged, not possible to
)U-116263																														determine if there is any flow through this local system at this time.
0-110203																														local system at this time.
U-116271	No								No			No	No																	
U-116289	No								No			No	No																	
0-116289	NO								INO			NO	NO								+									
U-116327																														Could not access outfall, area fenced off
11 11 (240																														Almost completely covered by yard waste
U-116349	No								NO			NO	NO																	pile
																														Steep slopes and pond made it difficult to
U-116357	No								No			No	No								_									obtain a good photo of the outfall
U-116372	No								Yes	Trickle	3	No	Yes	No				0.4	0.5	5 83	0.4	1 22								E. coli sampling issues.
											-				Dou-															Inspection part of revisit to verify previous
U-116372	No								Yes	Moderate	0.25	No	Yes	No	116372		0.35	0.05		79	92 0.39	9 18.8	7.82	5.97	2420	0				samples
																														Full assessment not performed, part of a resample for E. coli. Surfactant result may l
																														skewed. Surfactant tube was deconned
																														during last sampling round and may still ha
J-116372	No		<u> </u>	┥ ┥					Yes	Moderate	3	No	Yes	No				0.12		2 86	5 0.43	3 20.7			548	3			+	residual soap
									1																					Standing water present due to surrounding
U-116374	No								No			No	No		1															wetland area. No active flow
				T																										
U-116380									1																					Recent construction in the area, system ma have been moved or buried
															1		1													
													1		1		1										1			Culvert, not an outfall. Stream appears
U-116491																														heavily impaired Pipe barely visible and almost completely
	1	1	1	1			1	1	No	1		No	No					1			1					1	1	1		filled in with sediment.

							Outfall	Characteristic	s					Pipe	Ends and Head	dwall Cnditi	DN		Erosion and Se	dimentation	
Outfall ID	Date / Time of Inspection	Lat.	Lon.	Outfall Located?	Receiving Water		Outfall		Outfall	Outfall Diameter (inches)	Outfall Damage		Pipe End Treatment	Pipe End Treatment Condition	Headwall Material	Headwall Condition	Headwall Condition Comment	Downstream Erosion	Downstream Erosion Comment	Vegetation Distress	Sedimentation Level
DOU-116496	5/29/2020 15:01	43.0450449	-71.494437	Found, Not an Outfall																	
DOU-116503	5/29/2020 14:39	43.0460389	-71.496683	Found		1	Pipe	RCP	Round	15	None		Flush with Headwall	Good	Stone	Good		No		None	50- 75%
DOU-116506	5/29/2020 15:10	43.0451191	-71.492903	Found		1	Pipe	RCP	Round	15	Spalling	Some chipping and cracking at top of pipe	Flared End	Fair	N/A	N/A		No		None	None
DOU-116513	5/29/2020 15:19	43.0451897	-71.491622	Found		1	Pipe	RCP	Round	18	Spalling,Corrosion	Exposed rebar and bottom of inlet has been chipped away	Flush with Headwall	Fair	Stone	Fair	Minor cracking in mortar	Moderate	Riprap present but minor plunge pools exist further down the slope	None	None
	5,25,2020 15.15	43.0451057	71.451022	Tound					liounu		Spanning corroson				Stone			moderate		none	
DOU-116517	5/29/2020 15:39	43.0454316	-71.490913	Not Found																	
DOU-116536	5/29/2020 15:48	43.0458033	-71.488462	Found		1	Pipe	RCP	Round	15	None		Flared End	Good	N/A	N/A	Headwall is almost	No		None	<25%
DOU-116539	5/29/2020 15:58	43.0458616	-71.487713	Found		1	Pipe	RCP	Round	15	Buried	Pipe is almost entirely buried, condition unclear	Flush with Headwall	Poor	Stone	Fair	entirely buried, condition unclear	No		None	>75%
DOU-116542	5/29/2020 16:05	43.0459094	-71.48681	Found		1	Pipe	RCP	Round	15	None		Flush with Headwall	Good	Stone	Good		No		None	25- 50%
DOU-116545	5/29/2020 16:16	43.0458432	-71.486071	Not Found																	
DOU-116640	5/26/2020 18:11	42.9906092	-71.494632	2 Found	Piscataquog River	1	Pipe	RCP	Round	48		Rebar is exposed and corroded. Invert is thin from spalling	Projecting	Fair	Reinforced Concrete	Fair	Headwall seems to be bowing under pressure from the adjacent hillside, with some cracking at the joint. Erosion beneath headwall footing from river may jeopardize structural integrity in the future.	No		None	None
																			Severe erosion 6-7		
DOU-116753	9/23/2020 12:53	42.9874669	-71.481676	5 Found		1	Pipe	RCP	Irregular	24	None	Outfall in good condition	Flared End	Good	Stone	Good	Loose riprap stone	Severe	ft plunge pit and torn filter fabric	None	None
								Clay Coated				Outer clay layer is broken in half with large pieces									
DOU-116870	11/22/2019 18:07	42.9810364	-71.48004	Found	Piscataquog River	1	Pipe	Cast Iron	Round	24	Cracking	gone. Cast iron layer is intact. Pipe is quite rusted and was at one point encased			Stone	Fair	Stone and brick Remnants of an old brick headwall	Moderate	Standing water exists downstream of outfall in what appears to be a	None	None
DOU-116870	7/31/2020 14:50	42.9810995	-71.479902	Found	Piscataquog River	1	Pipe	Cast Iron	Round	18		in clay, which has since broken away.	Projecting	Fair	Stone	Fair	present	Moderate	plunge pool	Little	None
												Snalling at invert Pohar also placed berizont-	Flush with								
DOU-116978	5/26/2020 17:46	42.9729149	-71.486607	Found		1	Pipe	RCP	Round	18	Spalling	Spalling at invert. Rebar also placed horizontally within pipe. Minor spalling and some corrosion in FES due to	Flush with Headwall	Fair	Stone	Good		No	Some	None	25- 50%
DOU-117026	8/14/2020 12:32	43.0416145	-71.48532	Found		1	Pipe	RCP	Round	15	Spalling,Corrosion	minor spalling and some corrosion in FES due to small spots of exposed rebar	Flared End	Fair	N/A	N/A		Moderate	channelization	None	25- 50%
DOU-117040	5/13/2020 13:48	42.9050222	-71.446943	Found		1	Pipe	RCP	Round	48	None		Flared End	Good	N/A	N/A		No		None	<25%
	F /20 /2000 + F	42.04.005-	74 /000	Found, Not																	
DOU-117043	5/29/2020 15:29	43.0449357	-/1.492007	an Outfall																	
DOU-117073	8/6/2020 14:23	42.9705747	-71.421971	Found		1	Pipe	Cast Iron	Round	18	None		Flush with Headwall	Good	Stone	Good	Stone wing walls	No		None	None

				Illicit Dis	charge Pote	ntial			_	Flow Charac	cteristics									Sampling	g Parameters	5						_		Overall Comments
	Any Illicit	Pipe					Illicit	Illicit Discharge	ls Dry Weather		Flow						Ammonia	Chlorine	Surfactante	Conductivity	Salinity	Temp.		Dissolved	E. Coli Result	Total Phosphorus	BOD	Chloride		
	Discharge	Benthic			Turbidity/		Discharge	Indicator	Flow Flo	ow D	Depth	Revisit	Is a Sample	Is Outfall		Pollutant(s)	Result	Result	Result	Result	Result	Result		Oxygen	(MPN/100	Result	Result	Result	Aluminum	
fall ID	Indicators?	Growth	Odor	Color	Cloudiness	Floatables	Potential	Comments	Present? De	escription (i	(inches)	Required?	Required?	Submerged?	Unique ID	of Concern	(mg/L)	(mg/L)	(mg/L)	(uS/cm)	(ppt)	(C)	рH	(mg/L)	mL)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	Overall Comments
																														Structure is a culvert inlet with associated
																														catch basins downstream. Flow clearly
-116496	_																													originates from wetland area there. Outfall is about 60% full of sediment, with
																														heavy sediment deposits present, reaching
J-116503	No								No			No	No																	approx 20 ft from the outlet.
1110500																														Sediment delta of moderate size near out
-116506	No								NO			No	No																	composed of course sand
																														Outfall appears slightly misshapen because
																														approaches the headwall at an angle but w
																														cut to be flush with headwall. Pipe may a function as a culvert during times of high
																														water, as daylight from the upstream CB
																														illuminates two pipes draining to either sig
-116513	No								No			No	No																	of road, connecting the wooded areas on both sides.
-110515	NU								NO			NO	NO																	both sides.
																														Outfall not Found. Armored slope was not
																														particularly shrouded in vegetation or organic waste, no evidence of headwall or
																														flow channel. Nearby culvert was also
J-116517																														checked but no sign of outfall there either.
J-116536	No								No			No	No								1									Moderate long term sediment build up around outfall.
J-110530	NO								NO			NO	No																	around outrail.
																														Outfall almost completely buried, diamete
J-116539	No								No			No	No																	taken from GIS drain pipe layer
-116542	No								No			No	No																	50% full of sediment. Outlet to roadside drainage swale
110012																											1			Outfall not Found, upstream catch basin or
																														had pipes connecting to other catch basins
																														DRN-209344 does not appear to exist. Wor assume that this system outlets to DOU-
J-116545																														116542
U-116640	No								Yes Su	ibstantial	2.5	No	Yes	No	DOU- 116640	ρH		0	1.5	5 107	2 0.53	14.2	7.58	7.79	67					Outfall located on side of steep bank and headwall is perched over river. Surfactants exceeded benchmark
0-110040	NO								165 50	IUSLATILIAI	2.5	NO	les	NO	110040	рп			1.5	10/	2 0.55	14.2	7.56	1.19	07					
																														Course and in a station outful but
U-116753	No								No			No	No																	Severe erosion, not hurting outfall but damaging surrounding area
J-116870	No								Yes M	oderate	1	No	Yes	No	DOU- 116870	рH	0.75		0.75	5 116.	1 0.081	8	7.72	9.71	770					
0-110870	NO								163	ouerate	1		103	NO	1100/0	pri	0.7		0.75	110.	0.001		1.12	5.71	770					
																														Outfall was revisited for resampling due to suspected sewage input noted in previous
																														inspection. No flow was observed during the
J-116870	No								No			No	No																	inspection
															1						1									Outfall located /draining into accidents
	1																													Outfall located/draining into residential ya Drainage ditch has been turned into a rain
	No								No			No	No		1															garden by owner.
J-116978	1								No			No	No																	
	No		-	-			-		NU			No	No		DOU-						-									
	No		1						Yes M	oderate	0.25	No	Yes	No	117040		0	0	0.25	5 170.	5 0.08	7.9			2					
J-117026	No No						1	1	·			I	1	1	1			_1			1	_							1	
U-117026																														
U-117026 U-117040																														Culvert
0U-116978 0U-117026 0U-117040 0U-117043																														
U-117026 U-117040																														Culvert Cast iron 18" with small granite wing walls. Appears to discharge into upward sloping area. Nearby buried pipe, possibly

							Outfall	Characteristic	s					Pipe	Ends and Head	dwall Cnditio	on		Erosion and Se	dimentation	
Outfall ID	Date / Time of Inspection	Lat.	Lon.	Outfall Located?	Receiving Water (if any)	Number of Outfall Pipes	Outfall Type			Outfall Diameter (inches)	Outfall Damage	Outfall Condition Comment	Pipe End Treatment	Pipe End Treatment Condition	Headwall Material	Headwall Condition			Downstream Erosion Comment	Vegetation Distress	Sedimentation Level
DOU-117087	8/12/2020 14:00	43 0169166	-71.437116	Could Not Access																	
000-11/08/	0/12/2020 14.00	43.0105100	-/1.45/110																		
DOU-117109	8/6/2020 13:44	42.9619215	-71.42144	Found, Not an Outfall																	
DOU-117183	5/4/2020 16:14	42.9799539	-71.475185	Found	Piscataquog River	1	Pipe	RCP	Round	36	None		Flared End	Good	N/A	N/A		No		None	<25%
DOU-117291	11/22/2019 17:27	42.981488	-71.481558	Not Found									Flush with				Shares headwall with				
DOU-117480	8/6/2020 13:47	42.9619179	-71.421443	Found	Cohas Brook	1	Pipe	RCP	Round	12	Spalling	Invert spalling	Headwall	Fair	Stone	Good	culvert Shares headwall with	No		None	None
DOU-117481	8/6/2020 13:36	42.9617879	-71.424657	Found		1	Pipe	vc	Round	12	None		Projecting Flush with	Good	Stone	Good	small culvert	No	Channelization,	None	None
DOU-117681	7/31/2020 13:03	42.9471907	-71.397023	Found		1	Pipe	HDPE	Round	18	None	Good condition, no signs of degradation	Headwall	Good	Masonry	Good		1	bank erosion	Little	None
				Found, Not									Flush with								
DOU-117683	7/31/2020 13:08	42.9470644	-71.396951	an Outfall									Headwall	Good	Stone	Good		No		Little	<25%
DOU-117685	7/31/2020 13:07	42.9470541	-71.396967	Found, Not an Outfall									Flush with Headwall	Good	Stone	Good		No		Little	<25%
DOU-117693	7/31/2020 12:53	42.9448044	-71.395548	Found		1	Pipe	RCP	Round	18	None		Flush with Headwall	Good	Stone	Good		No		None	<25%
DOU-117699	7/31/2020 12:46						Pipe	HDPE	Round		None	Good condition, no signs of degradation	Flush with Headwall	Good	Masonry	Good		Moderate	Minor bank erosion		<25%
000-11/055	775172020 12.40	42.5450710	-71.35313-	i ound			ripe	TIDIL	Nound	10	None		Treadwall	0000	Iviasoni y	0000		Moderate	WIND Bank erosion	None	12570
DOU-117713	7/31/2020 12:40			Not Found									Flush with		Reinforced		Crack in headwall				-
DOU-117717 DOU-117947	8/21/2020 13:45 7/29/2020 18:29						Pipe Pipe	RCP RCP	Round Round		Spalling None	Minor invert spalling	Headwall Flared End	Good Good	Concrete N/A	Fair N/A	above outfall pipe	No No		None None	<25% <25%
				Found, Not																	
DOU-117948	8/21/2020 13:03	42.9447155	-71.458421	an Outfall																	
DOU-117949	8/21/2020 13:04	42 9446951	-71.45852	Found, Not an Outfall																	
000 11/0 10	0/11/2020 10:01	1215 1 10551	71110001	anoutan																	
DOU-117950	8/21/2020 13:09	42.944838	-71.458537	Found		1	Pipe	RCP	Round	12	None		Flared End	Good	N/A	N/A		No		None	<25%
DOU-117951	8/21/2020 13:05	42.9448514	-71.458539	Found		1	Pipe	RCP	Round	12	Spalling	Minor generalized spalling	Flared End	Good	N/A	N/A		No		None	<25%
DOU-117952	8/21/2020 13:11	42.9448381	-71.458576	Found	Merrimack River	1	Pipe	RCP	Round	12		Limited access unable to fully assess	Projecting		Stone	Good	Riprap headwall	No		None	
DOU-118036	5/28/2020 14:15	43 0150314	-71 49352	Found, Not an Outfall	Black Brook	1	Pipe	HDPE	Round	8	Cracking Collansing	Pipe in very poor condition, cracked almost in half with riprap caving in above.	Projecting	Poor	N/A	N/A		No		None	<25%
	0/20/2020 11:15	1010100011	71115051		Shack Brook		r ipe	1012	nound		er den ing een apong		riojecting	1001						none	12070
DOU-118037	5/28/2020 14:32	43.0135863	-71.491888	Found, Not an Outfall		1	Pipe	HDPE	Round	8	None		Projecting	Good	N/A	N/A		No		None	25- 50%
DOU-118117	5/28/2020 14:39	43.0148422	-71.492432	2 Found			Pipe	RCP	Round	18	None		Flush with Headwall	Good	Stone	Fair	Loose blocks	No		None	<25%
DOU-118118	5/28/2020 14:06				Black Brook		Pipe	RCP	Round		None		Projecting	Good	N/A	N/A		No		None	None
DOU-118182	11/26/2019 18:58	42.9677074	-71.476422	Found	Merrimack	1	Pipe	RCP	Round		None	Partially submerged	Projecting	Good	Stone	Good		No		None	None
																	Headwall seems angled slightly				
													Flush with				forward, possibly from pressure of				
DOU-118259	1/15/2020 16:18	42.9785575	-71.409143	Found	Unnamed brook	1	Pipe	RCP	Round	24	None	Pipe almost fully submerged in receiving water	Headwall	Good	Stone	Fair	road/soil behind it	Moderate	Bank erosion	Little	25- 50%

				Illicit Di	scharge Poter	ntial		Lun:	1.0	Flow Char	racteristics									Sampling	Parameter	s				T-4 1		
Outfall ID	Any Illicit Discharge Indicators?	Pipe Benthic Growth	Odor	Color	Turbidity/ Cloudiness		Illicit Discharge	Illicit Discharge Indicator Comments		Flow Description	Flow Depth (inches)	Revisit Required?	Is a Sample Required?	Is Outfall Submerged?	Unique ID	Pollutant(s) of Concern	Result	Result	Result	Conductivity Result (uS/cm)	Salinity Result (ppt)	Temp. Result (C)	рН	Dissolved Oxygen (mg/L)	E. Coli Result (MPN/100 mL)	Total Phosphorus Result (mg/L)	BOD Result (mg/L)	Chloride Result (mg/L)
DOU-117087																												
000-11/08/																												
DOU-117109																												
DOU-117183	No								No			No	No															
DOU-117291																												
DOU-117480	No								No			No	No															
DOU-117481	No								No			No	No															
DOU-117681	No								No			No	No															
DOU-117683	No								No			No	No															
DOLL 117005									No			No																
DOU-117685	No								No			No	No															
DOU-117693	No								No			No	No															
DOU-117699	No								No			No	No															
DOU-117713									No															-				
DOU-117717	No								No			No	No															
DOU-117947	No								No			No	No									-						
DOU-117948																												
DOU-117949																								-				
DOU-117950	No								No			No	No											+				
DOU-117951	No								No			No	No															
DOU-117952	No								No			No	No															
DOU-118036	No								No			No	No															
DOU-118037	No								No			No	No															
DOU-118117	No								No			No	No															
DOU-118118	No								No			No	No															
DOU-118182	No								No			Yes	No															
	1																											
DOU-118259	No								No			No	No															

							Overall Comments
nH	Dissolved Oxygen (mg/L)	E. Coli Result (MPN/100 mL)	Total Phosphorus Result (mg/L)	BOD Result (mg/L)	Chloride Result (mg/L)	Aluminum (mg/L)	Overall Comments
рН	(mg/L)	mc)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	
	-						Yard fencing prevented access
							Culvert with no obvious drainage connection. Riprap slightly displaced, liner visible. Outfall
							in good condition overall.
							Unable to locate because of fences along back side of all properties along river.
							Paved open drainage outfall located next to headwall
							neadwall
							Not outfall, culvert. Pipe daylights to other side
							Not outfall, culvert. Pipe daylights to other side
							Outfall not Found. May have been hidden by layer of leaf litter covering the ground but no evidence of a drainage channel in the area either.
							Sediment building up in conveyance
							Structure is an inlet for a drainage culvert
							Structure is an inlet for a drainage culvert
							Leaf litter buildup in flared end. Drainage culvert that directs flow into small swale.
							Leaf litter buildup in flared end. Drainage culvert that directs flow into small swale.
							Inlet and outlet are reversed on map. Drainage culvert that directs flow from swale out to Merrimack River. Area fenced off limiting access and assessment
							Outfall is likely a culvert. No associated catch basins and a direct line to drainage ditch on opposite side of road.
							iPad did not have service at time of inspection to open collector and take photos (field notes were taken to later to later complete form). This structure is likely a culvert inlet / detention basin outlet pipe, as indicated by the lack of associated catch basins and the direct line to the opposite side of the road.
							Discharges into large dry basin
							Rip rap conveyance
							Outfall inspection completed via drone. Outfall partially submerged. Will check upstream structure to confirm flow
							No flow in catch basins

							Outfall (Characteristic	s					Pipe	Ends and Hea	dwall Cnditio	n		Erosion and Se	edimentation	
Outfall ID	Date / Time of Inspection	Lat. I	Lon.	Outfall Located?	Receiving Water (if any)	Number of Outfall Pipes	Outfall		Outfall	Outfall Diameter (inches)	Outfall Damage	Outfall Condition Comment	Pipe End Treatment	Pipe End Treatment Condition	Headwall Material	Headwall Condition	Headwall Condition Comment		Downstream Erosion Comment	Vegetation Distress	Sedimentation Level
DOU-118256	11/22/2019 14:29	42.9605288	-71.45086			1	Pipe	RCP	Round	36	None				N/A	N/A		Moderate		None	25- 50%
DOU-118260	1/15/2020 18:19	42.980589		Found, Not an Outfall																	
DOU-118288	1/15/2020 14:22	42.9885608		Not Found								Very full of sediment deposits and debris.	Flush with		Reinforced						
DOU-118290	1/15/2020 14:04	42.9885285	-71.410578	Found	Cohas Brook	1	Pipe	RCP	Round	15	None	Vegetation almost blocking outfall.	Headwall	Good	Concrete	Good		No		Little	>75%
DOU-118292	1/15/2020 14:21	42.988514	-71.408327	Not Found																	
DOU-118293	1/15/2020 15:02	42.9884023	-71.40772	Not Found																	
DOUL 118304	1/15/2020 15:04	42 0895067	71 407024	Found, Not																	
DOU-118294	1/15/2020 15.04	42.9885007	-71.407824																		
DOU-118301	1/22/2020 15:42	42.9887248	-71.40385	Found, Not an Outfall																	
DOUL 118202	1/15/2020 15:41	42 0007117	71 40204	Found, Not																	
DOU-118303	1/15/2020 15:41	42.988/11/	-71.40384	an Outfall																	
DOU-118305	1/15/2020 15:52	42.9912063	-71.404341	Found, Not an Outfall																	
DOU-118306	1/16/2020 15:51	12 0012105	-71 /0/325	Found, Not																	
000-118300	1/10/2020 13.51	42.5512155	-71.404323	Found, Not																	
DOU-118307	1/15/2020 15:57	42.9921355	-71.403218	an Outfall																	
DOU-118308	1/15/2020 15:56	42.9921522	-71.403241	Found, Not an Outfall																	
	_, _, _,,,			Found, Not																	
DOU-118309	1/15/2020 15:55	42.9921618	-71.40326	an Outfall			$\left \right $														
DOU-118310	1/15/2020 15:54	42.9921402	-71.40329	Found, Not an Outfall																	
																			Slight channelization		
																			immediately downstream of		
DOU-118314	8/20/2020 13:15	42.9940882	-71.403569	Found		1	Pipe	RCP	Round	36	None		Flared End	Good	N/A	N/A		Moderate	outfall	Little	50- 75%
DOU-118316	8/20/2020 13:09	42.9935462	-71.403552	Found	Unnamed	1	Pipe	RCP	Round	15	None		Flared End	Good	N/A	N/A		No		Little	25- 50%
DOU-118325	1/15/2020 15:14	42.98845	-71.407021	Found	tributary to Cohas Brook		Pipe	RCP	Irregular	15	None	Structure in good condition but almost full of sediment	Projecting	Good	N/A	N/A		No		None	>75%
					Unnamed tributary to Cohas																
DOU-118326	1/15/2020 15:20	42.98837	-71.406988	Found	Brook Unnamed		Pipe	RCP	Round	30	None	Good condition	Flared End	Good	N/A	N/A		No		None	None
DOU-118327	1/15/2020 15:17	42.988403	-71.406973	Found	tributary to Cohas brook	1	Pipe	RCP	Irregular	15	Cracking	Some minor chipping, almost full of sediment	Projecting	Fair	N/A	N/A		No		None	>75%
				Found, Not																	
DOU-118352	1/15/2020 18:53	42.9843773	-71.4132	an Outfall																	
				Found, Not																	
DOU-118417	5/20/2020 13:06	42.9980585	-71.400313				$\left \right $														┼───┤
DOU-118421	5/20/2020 13:34	42.9989051	-71.399983	Found		1	Pipe	RCP	Round	15	None	Pipe end filled with leaves	Projecting	Fair	N/A	N/A		No		None	None
DOU-118442 DOU-118443	5/20/2020 14:17 5/20/2020 14:25	42.9994685 42.999822	-71.399094					RCP RCP	Round Round		None None	Flared end has slight spalling	Flared End Flared End	Fair Good	N/A N/A	N/A N/A		No No		Little None	None None
			-																		
DOU-118445	5/20/2020 14:30	43.0001814	-71.398446	Found		1	Pipe	RCP	Round	15	None		Flared End	Good	N/A	N/A		No		None	25- 50%
DOU-118450	5/20/2020 14:41	43.0004727	-71.398142	Found		1	Pipe	RCP	Round	15	None		Flared End	Good	N/A	N/A		No		None	25- 50%

				Illicit Dis	scharge Pote	ntial				Flow Cha	racteristics									Sampling	g Parameter	s								Overall Comments
	Any Illicit	Rino					Illicit	Illicit Discharge	ls Dry Weather		Flow						Ammonia	Chlorine	Surfactante	Conductivity				Dissolved	E. Coli Result	Total Phosphorus	BOD	Chloride		
	Discharge	Pipe Benthic			Turbidity/		Discharge	Indicator	Flow	Flow	Depth	Revisit		e Is Outfall		Pollutant(s)	Result	Result	Result	Result	Result	Temp. Result		Oxygen	(MPN/100	Result	Result	Result	Aluminum	
Outfall ID	Indicators?	Growth	Odor	Color	Cloudiness	Floatables Cloudy,	Potential	Comments	Present?	Description	(inches)	Required?	Required?	Submerged?	Unique ID	of Concern	(mg/L)	(mg/L)	(mg/L)	(uS/cm)	(ppt)	(C)	рН	(mg/L)	mL)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	Overall Comments
DOU-118256	Yes		None	None	Cloudy	Slight oil sheen	Potential		No			Yes	No																	Standing water in BMP. No flow confirmed in upstream catch basin
	-																													Not outfall, appears to be an inlet. Water
DOU-118260 DOU-118288																														flowing into structure.
	Ne								No			Na																		Maintenance may be required to remove
DOU-118290	No								No			No	NO																	sediment and vegetation
DOU-118292																														
DOU-118293																				_	_									Seem to have double marked outfall DOU- 109237
DOU-118294																														Not outfall. Appears to be culvert
DO0-118294																														Not outrail. Appears to be cuivert
DOU-118301																														Not outfall, appears to be culvert
DOU-118303																														Not outfall, appears to be culvert
DOU-118305																														Not outfall, appears to be culvert
DOU-118306											-	-									-	-								Not outfall, appears to be culvert
DOU-118307																														Not outfall, appears to be culvert
DOU-118308																														Not outfall, appears to be culvert
DOU-118309																														Not outfall, appears to be culvert
DOU-118310																														Not outfall, appears to be culvert
																														Heavy sedimentation within pipe and
DOU-118314	No					-			No			No	No													-				downstream channel Heavy sedimentation immediately
DOU-118316	No						_		No			No	No																	downstream of outfall.
DOU-118325	No								No			No	No																	Sediment may need to be cleared out Surfactants were 1.0 but no signs of sewage
DOU-118326	No								Yes	Moderate		2 No	Yes	No	DOU- 118326			0 0	þ	1 255	8 1.32	2 6.5	5		66	6				or illicit discharges. There were signs of trash and debris though.
DOU-118327	No								No			No	No																	Sediment may need to be cleared out
DOU-118352																														Not outfall, appears to be culvert or inlet. Water flowing into structure.
																														No outfall Found at this location. Structure appears to be an inlet for a drainage ditch
DOU-118417																														that was flowing. Flow was also heard in nearby catch basins
DOU-118417	No				1				No			No	No														1			Some leaf build up in outlet obstructing flow
		1		1			1	1			1				1			1		1						1				
DOU-118442 DOU-118443	No No								No No			No No	No No							1										Invasive species may cause future blockages Outfall connected to single catch basin
																														Organic debris and vegetation from invasive
DOU-118445	No						1		No			No	No							+										species filling between 25-50% outlet. Debris has dammed outfall to approximately
DOU-118450	No	<u> </u>		1			1		No		1	No	No		1			1		1										50%.

							Outfall	Characteristic	s					Pipe	Ends and Head	dwall Cnditio	on		Erosion and Se	dimentation	
Outfall ID	Date / Time of Inspection	Lat.	Lon.		Receiving Water (if any)	Number of Outfall Pipes	Outfall Type		Outfall Shape	Outfall Diameter (inches)	Outfall Damage	Outfall Condition Comment	Pipe End Treatment	Pipe End Treatment Condition	Headwall Material	Headwall Condition	Headwall Condition Comment	Downstream Erosion	Downstream Erosion Comment	Vegetation Distress	Sedimentation Level
				Found, Not																	
DOU-118451	8/20/2020 13:50	43.000857	-71.398119	,																	-
DOU-118452	8/20/2020 13:53	43.0008467	-71.398143	Found, Not an Outfall																	
DOU-118453	8/20/2020 13:45	43.0006565	-71.397892	Found, Not an Outfall																	
	-,,			Found, Not																	
DOU-118454	8/20/2020 13:48	43.000662	-71.397881																		
DOU-118457	5/20/2020 14:48	43.0007004	-71.397965	Found	Unnamed Brook to Lake Massebesic	1	Pipe	RCP	Round	18	None		Flush with Headwall	Good	Stone	Good	Invasive knotweed growing behind outfall	Moderate	Erosion cutting into bank adjacent to outfall	None	<25%
DOU-118458	5/20/2020 14:57					1	Pipe	RCP	Round		None		Flush with Headwall	Good	Stone	Good		Moderate	Plunge pool from high flows	None	None
000-110-00	5/20/2020 14:57	43.0011800	-71.33713	Touna			ripe		litounu	10	None		neadwaii	0000	Stone	0000		Moderate	ingii nows	None	None
DOU-118463	5/20/2020 15:08	43.00186	-71.395941	Found		1	Pipe	RCP	Round	18	None		Projecting	Good	Stone	Good		No		None	<25%
DOU-118501	5/20/2020 13:17	42.9984619	-71.399832	Found		1	Pipe	RCP	Round	24	None		Flared End	Good	N/A	N/A		No		None	<25%
DOU-118525	8/6/2020 14:42	42.9680919	-71.416691	Found	Cohas Brook	1	Pipe	Ductile Iron	Round	20	None		Flush with Headwall	Good	N/A	N/A		No		None	None
DOU-118691	7/21/2020 13:15	42.9428332	-71.382292	Found, Not an Outfall																	
DOU-118722	7/21/2020 14:29	42.946093	-71.38178	Found		1	Pipe	RCP	Round	36	None		Flush with Headwall	Good	Precast Concrete	Good		No		None	None
													Flush with								
DOU-118693 DOU-118723	7/21/2020 13:18 7/21/2020 14:25						Pipe Pipe	RCP RCP	Round Round		None Cracking	Buried	Headwall Mitered	Fair Good	Stone N/A	Good N/A		No No		None None	50- 75% None
DOU-118732	7/21/2020 14:08	42.9442154	-71.379462	Pound		1	Pipe	RCP	Round	32	None		Flush with Headwall	Good	Precast Concrete	Good		No		None	None
DOU-118739	7/31/2020 12:57	42.9449831	-71.396558	Could Not Access																	
DOU-118769	5/13/2020 16:06	42.9098803	-71.44941	Found, Not an Outfall									Flush with Headwall	Good	Stone	Good		No		None	<25%
DOU-118782	5/13/2020 12:35	42.897422	-71.447529	Found		1	Pipe	RCP	Round	12	Spalling	Spalling and chipping around rim	Flush with Headwall	Fair	Masonry	Good	Good condition, no signs of degradation	Moderate	Bank erosion	None	<25%
DOU-118803	5/13/2020 14:37	42.9032954	-71.44934	Found		1	Pipe	RCP	Round	24	None	Good condition, no signs of degradation	Flared End	Good	N/A	N/A		No		None	None
DOU-118805	5/13/2020 15:34	42.9073957	-71.44651	Found		1	Pipe	HDPE	Round	12	None		Flush with Headwall	Good	Stone	Good		No		None	<25%
DOU-118841	5/26/2020 13:34					1		RCP	Round		None				N/A	N/A		No		None	<25%
DOU-118855	5/26/2020 13:49					1		RCP	Round		None		Flush with Headwall	Good	Stone	Good		Moderate	Natural formed plunge pool	None	<25%
DOU-118861	5/26/2020 13:58							RCP	Round	ĺ	None		Flush with Headwall	Good	Stone	Good		No		None	>75%
													Flush with		Reinforced				Channelization from apparent moderate to heavy flows at		
DOU-118893	5/14/2020 18:51			Could Not		1	Pipe	RCP	Round	9	None		Headwall	Good	Concrete	Good		Moderate	times	None	None
DOU-118938	7/31/2020 14:01														Reinforced						+
DOU-118939	7/31/2020 13:56			Found, Not		1	Pipe	HDPE	Round	12	None		Projecting	Good	Concrete	Good		No		None	<25%
DOU-118941	7/31/2020 13:59						Ding	HDDE	Pound	10	Napa	Good condition no sizes of do	Flush with	Good	Precast	Good		No		Nonc	Nonc
DOU-118942	7/31/2020 13:46	42.9443652	-71.409487	round	1	1	Pipe	HDPE	Round	12	None	Good condition, no signs of degradation	Headwall	Good	Concrete	Good	1	No	1	None	None

				Illicit Di	scharge Poter	ntial				Flow Cha	racteristics									Sampling	g Parameter	'S								Overall Comments
								Illicit	Is Dry													_			E. Coli	Total	2005			
	Any Illicit Discharge	Pipe Benthic			Turbidity/		Illicit Discharge	Discharge Indicator	Weather Flow	Flow	Flow Depth	Revisit	Is a Sample	Is Outfall		Pollutant(s)		Result	Result	Conductivity Result	Result	Temp. Result		Dissolved Oxygen	Result (MPN/100		BOD Result	Chloride Result	Aluminum	
all ID	Indicators?		Odor	Color		Floatables	Potential	Comments		Description	(inches)	Required?	Required?	Submerged?	Unique ID	of Concern			(mg/L)	(uS/cm)	(ppt)	(C)	рН	(mg/L)	mL)	(mg/L)	(mg/L)	(mg/L)		Overall Comments
																														Churchura is a dauble bernal suburat
J-118451																														Structure is a double-barrel culvert (downstream end)
	-																													Structure is a double-barrel culvert
U-118452																														(downstream end)
U-118453																														Structure is a double-barrel culvert.
U-118454																														Structure is a double-barrel culvert
																														Outfall was partially submerged at time of
																														inspection but no flow was observed there
U-118457	No								No			No	No																	or at upstream catch basin. Overgrown invasive vegetation surrounding outfall
J-118458	No								NO			No	NO				+				+							+		Evidence of high flows, moderate erosion
																														Outfall submerged. Flow observed in
																														upstream CB 118480. Revisit required to sample that structure. Overgrown invasive
U-118463	No								Yes	Trickle		Yes	Yes	Yes																vegetation surrounding strucutre
																														Outfall only connected to a single catch
																														basin. Pipe starts as 12" in catch basin and
																														goes into 24" pipe before outfall. GIS mapping of surrounding infrastructure
U-118501	No								No			No	No															_		seems inaccurate at this location. Culvert with drainage connection. Standing
																														water in pipe and no drainage flow in
U-118525	No								No			No	No																	upstream structures
																														Culvert with no apparent drainage
U-118691		-							-												-							-	-	connection
U-118722	No								No			No	No																	
			Easily detected,					Strong sewage																						No flow and water quality data but sewage
U-118693	Yes		Sewage	None	None	None	Potential	smell	No			Yes	No																	odor noted.
U-118723	No								No			No	No																	
U-118732	No								No			No	No																	
																														Outfall not located, possibly hidden by overgrown vegetation. No signs of dry
)U-118739																														weather flow in the area.
																														Water flowing into pipe ; possible inlet to a
U-118769	No	_							No			No	No				-												_	closed system
U-118782	No								No			No	No		DOLL						_							_		America and suffering strategies and a
U-118803	No								Yes	Moderate	1	No	Yes	No	DOU- 118803		5	0	0.5	461.5	5 0.21	1 10.3	7.45	5	3	8				Ammonia and surfactants exceeded benchmarks
U-118805	No								No			No	No																	
0-118805	No								NO			No	INU																	Stagnant water in outlet from small wetland
U-118841	No	-							No		-	No	No				+				+							+	-	but no dry weather flow Dry but appears to receive heavy flows at
U-118855	No								No			No	No																	times, fair amount of erosion
U-118861	No								No			No	No																	Outfall almost completely full of sediment a outlet.
5-110001	NO								140			NO	140																	outet.
																														Outfall in woods from line that passes
U-118893	No								No			No	No																	through elementary school field Overgrown vegetation too thick to access
U-118938																														outfall.
U-118939	No								No			No	No																	
	1			1	1	1		1		1		1	1	1			1			1	1			1	1		1			
U-118941																														This outfall is a culvert.
		_	1	1					+		1	1	1	1			+			+	1	+	1	+						

							Outfall	Characteristic	s					Pipe	Ends and Head	wall Cnditi	on		Erosion and Se	dimentation	
Outfall ID	Date / Time of Inspection	Lat.	Lon.	Outfall Located?	Receiving Water (if any)	Number of Outfall Pipes	Outfall Type		Outfall	Outfall Diameter (inches)	Outfall Damage	Outfall Condition Comment	Pipe End Treatment	Pipe End Treatment Condition	Headwall Material	Headwall Condition	Headwall Condition	Downstream Erosion	Downstream Erosion Comment	Vegetation	Sedimentation Level
	mopeetion				(. , p =		undbe	(oution Duringe				material					2.001000	
DOU-118944	7/31/2020 13:43	42.944163	-71.409848	Found, Not an Outfall							None	Good condition, no signs of degradation	Flush with Headwall	Good	Precast Concrete	Good		No		None	None
													Flush with		Precast						
DOU-118945	7/31/2020 13:50	42.9444772	-71.40988	3 Found		1	Pipe	HDPE	Round	12	None		Headwall	Good	Concrete	Good	Recent grout/brick	No		None	None
													Flush with		Reinforced		patch observed between pipe and				
DOU-118949	7/31/2020 13:36	42.9452039	-71.409546	5 Found		1	Pipe	HDPE	Round	12	None		Headwall	Good	Concrete	Good	headwall	No		Little	<25%
DOU-118960	7/31/2020 13:27	42.9471034	-71.411281	L Found		1	Pipe	HDPE	Round	18	Cracking	Slightly cracked around edge in right side of pipe.	Projecting	Good	Reinforced Concrete	Good		Moderate	Channelization	Little	25- 50%
DOU-118974	1/14/2020 14:41	42.9864505	-71.429203	3 Found	Humphrey Brook	1	Pipe	RCP	Round	15	None	Good condition	Projecting	Good	N/A	N/A		No	Scour pool	None	<25%
DOLI 119075	1/14/2020 14:27	42 0967715	71 420212	Found	Humphrou Brook	1	Dino	RCP	Round	24	Cracking Spalling	Rebar exposed at invert	Drainsting	Fair	NI/A	N/A		Madarata	immediately	None	<25%
DOU-118975	1/14/2020 14:27	42.9867715	-71.429212	Found	Humphrey Brook	1	Pipe	RCP	Round	24	Cracking,Spalling		Projecting	Fair	N/A	N/A		Moderate	downstream	None	<25%
DOU-118978	1/14/2020 14:53	42.9845722	-71.428165	5 Found		1	Pipe	RCP	Round	24	None	Good	Projecting	Good	N/A	N/A		No		None	<25%
DOU-118988	11/26/2019 19:10	42.9730799	-71.422506	5 Found		1	Pipe	RCP	Round	18	Spalling, Cracking, C orrosion				Reinforced Concrete	Good		Moderate		None	25- 50%
DOU-119040	11/22/2019 16:13			7 Not Found																	
DOU-119040 DOU-119041	11/22/2019 16:13	42.9666493		Not Found Not Found																	
DOU-119072	11/22/2019 16:30	42.978877	-71.468256	Found	Merrimack River	1	Pipe	RCP	Round		None		Flared End	Good	N/A	N/A		No		None	None
000-115072	11/22/2015 10:50	42.576677	-71.400230	Tound	Wernindek Kiver		ripe	Ner	Nouna		None		Tiarea Ella	0000	17/0	17/0		NO		None	None
DOU-119223	12/16/2019 16:20	42.9502019	-71.462235	Not Found																	<u> </u>
DOU-119224	12/16/2019 16:20	42 050174	-71.462063	Eound	Merrimack River	1	Pipe	RCP	Rectang ular		None	Partially submerged	Flush with Headwall	Good	Reinforced Concrete	Good		No		None	None
DO0-119224	12/16/2019 16:20	42.950174	-71.402003	Found	WIEFFITTACK RIVER	1	Pipe	RCP	ular		None		Heduwali	0000	Concrete	6000		No		None	None
DOU-119233	5/4/2020 14:37	43.0118595	-71.472874	1 Not Found																	
											Invert						Some corrosion				
DOU-119261	11/26/2019 14:43	43.008304	-71.468111	L Found		2	Pipe	RCP	Round	30	deterioration ,Corrosion				Reinforced Concrete	Fair	causing hole beneath outfall pipe	Moderate		None	None
																			Slight plunge pool		
																			downstream of		
																			invert but protective armoring		
																			there is mitigating		
DOU-119296	9/23/2020 14:00	42.9880458	-71.485519	Found	Piscataquog River	1	Pipe	RCP	Round	48	None		Flush with Headwall	Good	Reinforced Concrete	Good		Moderate	downstream impacts	None	None
DOU-119297	9/23/2020 13:11	42.986816	-71.480584	1 Not Found																	<u> </u>
DOU-119311	11/26/2019 19:26	42.9754444	-71.470026	5 Found	Merrimack River	1	Pipe	RCP	Round		Spalling	Invert deterioration	Flared End	Fair	N/A	N/A		No		None	None
																			Water flowing through corrosion		
																			holes in pipe has		
																			been seeping beneath the pipe		
																			and concrete splash		
1											Corrosion, Cracking	Holes in pipe resulting from corrosion, will likely	Flush with		Reinforced				pad and causing significant erosion		
DOU-119298	9/23/2020 14:35	42.9866753	-71.480823	8 Found	Piscataquog river	1	Pipe	CMP	Round	36	,Collapsing	become significantly worse over time	Headwall	Poor	1	Good	In good condition	Severe	in the area	None	None
DOU-119427	11/26/2019 15:03	43.0177138	-71.465543	Not Found																	

			Illicit Dis	charge Poter	ntial		lue -		Flow Cha	racteristics							_		Sampling	g Paramete	rs			I	I- . ·				Overall Comments
	Any Illicit Pipe Discharge Benthic			Turbidity/			Illicit Discharge Indicator	ls Dry Weather Flow	Flow	Flow Depth	Revisit	ls a Sampl	e Is Outfall		Pollutant(s)		Chlorine Result	Surfactants Result	Conductivity Result	Salinity Result	Temp. Result		Dissolved Oxygen	E. Coli Result (MPN/100	Total Phosphorus Result	BOD Result	Chloride Result	Aluminum	
Outfall ID	Indicators? Growth		Color	Cloudiness	Floatables	Potential	Comments	Present?	Description		Required?		Submerged?	Unique ID	of Concern	(mg/L)	(mg/L)	(mg/L)	(uS/cm)	(ppt)	(C)	рН	(mg/L)	mL)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	Overall Comments
																													Not outfall, culvert. Pipe daylights on other
DOU-118944	No							No			No	No																	side
DOU-118945	No							No			No	No																	
DOU-118949	No		_					No			No	No																	Standing water present but no flow from
DOU-118960	No	_						No			No	No																	outfall or in upstream catch basin
DOU-118974	No							No			No	No																	
DOU-118975	No		-					No			No	No														-			
																													Outfall seems to be an inlet or outlet for swale. Water flowing into it from snow melt
DOU-118978	No							No			No	No																	No flow confirmed in upstream catch basin
DOU-118988	No		_					No			No	No																	
DOU-119040																													Catch basins full of sediment, can't locate pipes
DOU-119041																													Catch basins full, pipes not located
DOU-119072	No							No			No	No																	Outfall inspection completed via drone.
																													Outfall inspection completed via drone. Searched along bank but could not locate
DOU-119223																													pipe. Possibly hidden behind vegetation
																													Outfall inspection performed via drone.
DOU-119224	No							No			Yes	No																	Outfall partially submerged, will check upstream structure to confirm flow
																													Outfall not Found. Stones in river near bank
																													seem to resemble a possible riprap splash pad. No sign of pipe outlet, may have been
DOU-119233								-					_				-												buried over the course of riverbank erosion.
DOU-119261	No							No			No	No																	48 in culvert
																													Animal feces present on ground adjacent to
																													outfall. No staining, floatables or odor detected anywhere within the flow or
DOU-119296	No							Yes	Substantial		No	Yes	No	DOU- 119296				0 0.2	5 128	9 0.6	5 16.6	6 7.2	3 6.9		0				around the pipe/discharge point. This may be a culverted stream outlet.
000-119290	NO							Tes	Substantial			Tes	NO	119290	рп			0.2	.5 128:	5 0.0	10.0	0 7.2	5 0.5	2					
																													Pipe may have been buried beneath significant land slides/sinkholes throughout
																													the hillside. Two outfalls mapped in this location, only one Found. The Found outfall
DOU-119297																													was traced back to the catch basins and there was no sign of this outfall.
DOU-119311	No							No			No	No																	Outfall inspection completed via drone. Invert deterioration
500 115511																													
			Clearly visible,																										
DOU-119298	Yes Orange	None	Grey	Opaque	Opaque,	Potential		Yes	Substantial	1	No	Yes	No	DOU- 119298		0.1	5	D 0.	5 170	7 0.8	37 16.5	5 7.2	7 6.0		5				
200-119290	les blange	NOTE	DIOWII	opaque	opaque,	rotentia		103	Substantial	1		No		11,72,70		0.1		<u> </u>	5 170	, 0.8	., 10.3		, 0.0			1			Appears to be old, caved-in culvert under Theodore Rd

							Outfall	Characteristics	5					Pipe	Ends and Head	wall Cnditio	on		Erosion and Se	dimentation	
						Number															
	Date / Time of			Outfall	Receiving Water	of Outfall	Outfall	Closed Pipe Outfall		Outfall Diameter				Pipe End Treatment	Headwall	Headwall	Headwall Condition	Downstream	Downstream	Vegetation	Sedimentation
Outfall ID		Lat.	Lon.	Located?	(if any)				Shape	(inches)	Outfall Damage	Outfall Condition Comment		Condition	Material	Condition				Distress	Level
													Flush with				Some displaced		Signs of heavy flow throughout area. Also downstream of major drainage		
DOU-119318	5/14/2020 14:08	42.9682868	-71.471722	Found		1	Pipe	RCP	Round	36	None		Headwall	Good	Stone		blocks			None	None
DOU-119328	5/5/2020 18:10	43.0167767	-71.449952	Found	Doris Pond - E Inlet	1	Pipe	HDPE	Round	24	Outfall is half- buried in earthen slope	Slope seems to be caving in around invert.	Flush with Headwall	Poor	Riprap	Poor	Riprap is not keeping slope stable around outfall.		Erosion present within short drainage channel between 4-6 inches high	Moderate	<25%
DOU-119428	11/26/2019 15:02	13 0178472	-71 465768	Not Found																	l l
000 113420	11/20/2015 15:02	45.0170472	71.405700	Found, Not																	
DOU-119441	7/21/2020 15:31	42.9535645	-71.391667	an Outfall																	
DOU-119448	1/15/2020 17:50	42.9780757	-71.407353	Found, Not an Outfall																	-
DOU-119460	8/7/2020 13:49	43.0052361	-71.408331	Found		1	Pipe	HDPE	Round	18	None		Flush with Headwall	Good	Stone	Fair	Very loose top rock.	No		None	25- 50%
												Outfall recessed in bank and hidden behind dead					Headwall seems				
DOU-119464	8/7/2020 13:32	43.0034207	-71.406902	Found		1	Pipe		Round		Collapsed	knotweed. Unable to fully assess	Unknown	Poor	Stone	Good	intact	No		Moderate	None
DOU-119480	9/22/2020 16:20	42.9734414	-71.436925	Found		1	Pipe	HDPE	Round	12	None	Grate over outlet	Flared End	Good	N/A	N/A		No		None	None
DOU-119488	9/23/2020 13:24	42.9894507	-71.478813	Not Found																	
DOU-119724	11/22/2019 17:21	42 9807533	-71 476582	Not Found																	
DOU-119741	7/29/2020 16:18	43.0293011	-71.468763	Not Found								Outfall not Found									
DOU-119747	7/29/2020 16:23	43.0297468	-71.466395	Found		1	Pipe	HDPE	Round	12	None	Good condition, no signs of degradation	Flared End	Good	N/A	N/A		No		None	<25%
DOU-119767	5/26/2020 13:21	43.0097496	-71.427355	Found		1	Pipe	RCP	Round	18	None		Flush with Headwall	Good	Stone	Good		No		None	None
								202	.				Flush with								
DOU-119770	5/26/2020 15:21	43.0062277	-71.426089	Found			Pipe	RCP	Round	18	None		Headwall	Good	Stone	Good		No		None	None
				Could Not																	
DOU-119773	5/26/2020 14:47	43.0035783	-71.429008	Access																	
DOU-119786	5/21/2020 14:53	42.9593675	-71.432402	Found, Not an Outfall																	
DOU-119787	5/21/2020 13:42	42 9589415	-71 437405	Found		1	Pipe	HDPE	Round	17	None		Flush with Headwall	Good	Reinforced Concrete	Good	Covered with overgrown vegetetation	No		None	50- 75%
												Outfall is entirely submerged. Flow is present	Flush with		Reinforced			1.2			
DOU-119793	5/26/2020 16:06	43.0043025	-71.421608	Found		1	Pipe	RCP	Round	12		near headwall.	Headwall		Concrete	Good		No		None	>75%
DOU-119801	5/13/2020 17:32	42.9354045	-71.423357	Not Found																	

				Illicit D	ischarge Pote	ential				Flow Cha	racteristics									Sampli	ng Paramete	rs								Overall Comments
fall ID		Pipe Benthic Growth	Odor	Color	Turbidity/	Floatables		Illicit Discharge Indicator Comments	Is Dry Weather Flow Present?	Flow Description	Flow Depth (inches)	Revisit Required?	Is a Sample Required?	Is Outfall Submerged?	Unique IC	Pollutant(s)	Ammonia Result (mg/L)	Result	Surfactants Result (mg/L)	Conductivit Result (uS/cm)	y Salinity Result (ppt)	Temp. Result (C)	вн	Dissolved Oxygen (mg/L)	E. Coli Result (MPN/100 mL)	Total Phosphorus Result (mg/L)	us BOD Resi (mg	lt Result	Aluminun	n Overall Comments
		di di di di						Sewage		Compton	(inclices)	nequireur	nequireur	ous neigeur	o inque is		(8/ =/	(8/-/	(8/=/	(00/011)			P	(,	(8/ =/	(8	-/ (8/-	/ (8/ -/	
J-119318	Yes	Orange	Easily detected, Intermitte nt sewage smell		None	None, Oily Sheen	Potential	smell, orange staining and fuel sheen in standing water	1	Moderate	0.5	i No	Yes	No	DOU- 119318	TP,pH,Alumi um	n (.5 (0 1.	5 11	80 0.5	9 12.8	3 7.39) 7.76	Ô	1 0.0	.015			Sewage smell believed to originate from CS outfall 043 which is within 30 feet of this structure. Ammonia and surfactants 0 exceeded benchmarks
						Cloudy, Algae, petroleum/ il sheen and polymer-lik floatables clearly originate from outfal	d ke	Floatables and benthic																						
IU-119328	Yes	Orange	None	None	Cloudy	and are also present within upstream catch basin		growth. May originate from adjacent car dealership.		Trickle	3	3 No	Yes	No	DOU- 119328	Chloride	0.	25 (0 1.2	5 12	39 0.6	2 11.6	6.87	7 6.54	1	0				Surrounding banks are overgrown with invasive plants (Japanese knotweed).
U-119428													No								_									Appears to be old, caved-in culvert under Theodore Rd.
J-119441																														Culvert for stream
J-119448																														Not outfall, appears to be culvert
J-119460	No								No			No	No																	
U-119464	No								No			No	No																	Overgrown invasive vegetation is disrupting outlet
U-119480	No								No			No	No																	Outfall not Found. Extensive drainage network around the school grounds likely leads somewhere and would require furthe investigation, but the outfall is mapped in the school parking lot outletting into the
U-119488 U-119724																														building Not able to approach the outfall which is located under bridge. Couldn't access water's edge.
J-119741 J-119747	No								No			No	No																	Standing water present but no dry weather
-119767	No								No			No	No																	flow. Outfall discharges into drainage ditch system.
-119770	No								No			No	No																	Outlets into vegetated swale
119773																														"Outfall" is likely a drainage inlet due to its location uphill of nearest catch basin. Coulo not access due to location behind private fence with no gate.
I-119786																														Outlet control structure
J-119787	No								No			No	No																	Very overgrown, pipe is nearly clogged with sediment mounded at the invert
J-119793 J-119801	No								Yes	Trickle	0.5	Yes	Yes	Yes																Revisit required to sample CB-119791. Could not locate outfall, may be buried under debris and leaves. Picture taken of approximate location of outfall

		-					Outfall	Characteristic	s					Pipe	Ends and Hea	dwall Cnditio	on		Erosion and Se	edimentation	
Outfall ID	Date / Time of Inspection	Lat.	Lon.	Outfall Located?	Receiving Water (if any)		Outfall Type			Outfall Diameter (inches)	Outfall Damage	Outfall Condition Comment	Pipe End Treatment	Pipe End Treatment Condition	Headwall Material	Headwall Condition		Downstream Erosion	Downstream Erosion Comment	Vegetation Distress	Sedimentation Level
																	Cracked grout, some				
DOU-119800	5/5/2020 14:15	42.9713951	-71.428729	Found		1	Pipe	RCP	Round	12	None	Slightly deformed pipe	Flush with Headwall	Good	Stone	Fair	small sinkholes in backfill	No		None	None
DOU-119808	7/21/2020 15:04						Pipe	RCP	Round		None		Flush with Headwall	Good	Stone	Good		No		None	<25%
DOU-119809 DOU-119838	7/21/2020 15:39			Could Not		1	Pipe	RCP	Round	12	None		Mitered	Good	N/A	N/A		No		None	None
000-119838	5/20/2020 14.14	43.0071382	-71.432103	Access									Flush with				Tree growing on		Channelization but gravel added to		
DOU-119856	5/26/2020 14:33	43.0028148	-71.43007	Found		1	Pipe	RCP	Round	18	None		Headwall	Good	Stone	Fair	headwall	Moderate	conveyance	None	<25%
DOU-119861	9/23/2020 18:09	43.0023427	-71.426927	Could Not Access									N/A	N/A	Reinforced Concrete						
DOU-119864	9/23/2020 18:13	43.002386	i -71.426986	Could Not Access																	
													Flush with								
DOU-119870 DOU-119873	5/26/2020 14:25							RCP	Round Round		Corrosion	Some reinforcement visible	Headwall Flush with Headwall	Fair Good	Stone	Good		No Moderate	Small plungo pool	None	25- 50%
000-119873	5/20/2020 14.50	43.0059063	-71.420902	Found			Pipe	KCP	Kouriu	10	None		Heauwaii	0000	Stone	0000		Moderate	Small plunge pool	None	None
DOU-119877	5/26/2020 15:04	43.005632	-71.426409	Could Not Access																	
DOU-119879	8/19/2020 14:33	43.0024773	-71.42303	Not Found																	_
DOU-119879	8/19/2020 14:21	43.0064296	-71.425297	Not Found																	
													Flush with						Lots of large exposed boulders in		
DOU-119880	5/26/2020 15:07	43.005606	-71.425875	Found		1	Pipe	RCP	Round	30	None		Headwall	Good	Stone	Good		Moderate	conveyance	None	None
													Flush with				Cracking between				
DOU-119881	5/26/2020 13:26	43.0098868	-71.427798	Found		1	Pipe	RCP	Round	18	Spalling	Heavy spalling at invert	Headwall	Fair	Stone	Fair	stone and mortar	No		None	50- 75%
DOU-119882	5/26/2020 13:23	43.0097463	-71.427347	Found, Not an Outfall																	
DOU-119886	5/26/2020 13:14	43.0096399	-71.426652	Found, Not an Outfall																	
				Found, Not																	
DOU-119887	5/26/2020 13:12	43.0096037	-71.426417	an Outfall													Slight crackin-				+
DOU-119888	5/26/2020 13:16	43.0096827	-71.426875	Found		1	Pipe	RCP	Round	я	Spalling	Slight spalling at invert	Flush with Headwall	Fair	Stone	Fair	Slight cracking between mortar and stones/pipe invert	No		None	<25%
				Found, Not																	
DOU-119890	5/26/2020 13:10	43.0095686	-71.426303	an Outfall																	+
DOU-119950	12/16/2019 18:47	42.9941023	-71.47	Not Found																	<u> </u>
DOU-119989	8/20/2020 13:27	42.9976446	-71.399365	Not Found															-		
DOU-119994	8/19/2020 18:20	43.0006781	-71.420751	Found		1	Pipe	HDPE	Round	16	None		Flared End	Good	N/A	N/A		No		None	>75%

			Illicit D	ischarge Pote	ential				Flow Cha	racteristics									Samplin	ig Parameter	rs								Overall Comments
							Illicit	ls Dry																E. Coli	Total				
	-	Pipe				Illicit	Discharge	Weather		Flow						Ammonia			Conductivity		Temp.		Dissolved	Result	Phosphorus	BOD	Chloride		
all ID	Discharge Indicators?	Benthic Growth	Odor Color	Turbidity/ Cloudiness	Floatables	Discharge Potential	Indicator Comments	Flow Present?	Flow Description	Depth (inches)	Revisit Required?	Is a Sample Required?	Submerged?	Unique ID	Pollutant(s)	Result (mg/L)	Result (mg/L)	Result (mg/L)	Result (uS/cm)	Result (ppt)	Result (C)	рH	Oxygen (mg/L)	(MPN/100 mL)	Result (mg/L)	Result (mg/L)	Result (mg/L)	Aluminum (mg/L)	Overall Comments
	mulcators:	Glowin		ciouumess	Fluatables	Fotential	comments	Flesent:	Description	(inclies)	Requireu:	Required:	Submergeu:	Unique ID	of concern	(IIIg/L)	(IIIg/L)	(IIIg/L)	(us/ciii)	(ppt)	(C)	рп	(IIIg/L)		(IIIg/L)	(IIIg/L)	(IIIg/L)	(1118/ L)	
							Heavy algae growth in																						
							multiple																						
							colors. Fuel																						
							sheen,																						
							homeowners claims fuel	s																					Small flowing outfall discharges to wetland
							smell is																						obvious sheen in flow. Significant algae
					None, Fuel		often much							DOU-															growth over the length of the channel.
-119800	Yes	Brown	Faint, Fuel None	None	sheen	Potential	worse	Yes	Trickle	3	No	Yes	No	119800	рН		0 0		2 105	56 0.5	3 13	6.34	4 6.18	3 ()				Headwall has some sinkholes behind it
-119808	No							No			No	No																	
-119809	No							No			No	No																	
-119838																													Blocked by fence along rt 93, could not
-119838																													access
																													Tree growing on top of headwall, some
U-119856	No							No			No	No		_		_	_									_			erosion and sediment build up at invert
																													Outfall was visible through chain link fence
J-119861								No			No	No																	but not accessible. No flow observed.
																													Outfall not accessible. Chain link fence
																													surrounds entire area. Outfall is mapped as being only connected to DOU-119861 so ma
J-119864																													potentially be a culvert
U-119870	No							No			No	No																	Stagnant water within outfall pipe, dammed by surrounding leaves/yard waste buildup
-119870	NU							NU			INU	NO																	by surrounding leaves/yard waste buildup
J-119873	No							No			No	No																	
																													"Outfall" is likely a drainage inlet due to its
																													location uphill of nearest catch basin. Could not access due to location behind private
J-119877																													fence with no gate.
																													Not Found in dense vegetation and a steep
																													cliff. Not observed in area around mapped
J-119879																													location. Could be buried or farther down slope.
5-115875																													Could not locate. Steep slope with dense
J-119879																													vegetation and downed trees
U-119880	No							No			No	No																	Large 30" outfall and drainage swale
																													Outfall discharges to drainage ditch system.
																													Sedimentation may be due to decomposing yard waste, which was blocking outfall and it
J-119881	No							No			No	No																	clogging the ditch.
																													This should be a start of a local start
								1		1						1					1					1	1		This structure is part of a drainage ditch system. It is a driveway under drain, with
																													both sides pictured. Upstream Is a 36" pipe
J-119882					<u> </u>	<u> </u>		No			No	No		1									<u> </u>						that becomes two 18" pipes downstream.
								1		1						1					1					1	1		This structure is part of a drainage ditch
J-119886								No			No	No																	system. It is a driveway under drain, with both sides pictured.
											-																		This structure is part of a drainage ditch
																													system. It is a driveway under drain, with
-119887			<u>├──</u>			-		No	-	-	No	No								-						-		-	both sides pictured.
								1		1						1					1					1	1		
J-119888	No	-		-		-		No	-		No	No	-							-								-	Outfall drains to drainage ditch system.
																													This structure is part of a drainage ditch system. It is a driveway under drain, with
J-119890								No		1	No	No				1					1					1	1		both sides pictured.
																													Outfall inspection completed via drone.
110050																													Unable to locate pipe due to bridge
J-119950		+		+	+	+	1		+			ł – –	+	+		+	+			+	+		+	<u> </u>	<u> </u>	-	+	+	proximity Could not locate. Dense vegetation with no
			1 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	courd not locate. Dense vegetation with no
U-119989																													indication of pipe or channel

							Outfall	Characteristic	s					Pipe	Ends and Hea	dwall Cnditio	on		Erosion and Se	dimentation	
						Number	1							1							
	Date / Time of			Outfall	Receiving Water	of Outfall	Outfall	Closed Pipe Outfall		Outfall Diameter			Pipe End	Pipe End Treatment	Headwall	Headwall	Headwall Condition	Downstream	Downstream	Vegetation	Sedimentation
Outfall ID		Lat.	Lon.	Located?	(if any)				Shape	(inches)	Outfall Damage	Outfall Condition Comment	Treatment	Condition	Material	Condition		Erosion	Erosion Comment	-	Level
DOU-121044	11/26/2019 15:12	43 0162227	-71 /50035	Not Found																	
000-121044												Outfall structure in good condition but almost full	Flush with		Reinforced						
DOU-121046	1/15/2020 14:15	42.9884413	-71.409352	Found	Cohas Brook	1	Pipe	RCP	Round	12	None	of sediment	Headwall	Good	Concrete	Good		No		None	>75%
					Unnamed																
DOLI 121047	1/15/2020 14:22	42 0005202	71 400225	Farmed	tributary to cohas		Dire	DCD.	Davied	12		Structure in good condition, but half full of sediment	Flush with	Grad	Reinforced	Crad				News	25- 50%
DOU-121047 DOU-121092	1/15/2020 14:22 7/31/2020 13:13				brook		Pipe Pipe	RCP HDPE	Round Round		None None	sediment	Headwall Projecting	Good Good	Concrete Stone	Good Good		No No		None Little	25- 50%
															Reinforced						
DOU-121203	12/16/2019 19:16	42.985092	-71.47041	Found	Merrimack River	1	Pipe	RCP	Round				Projecting		Concrete	Good					
				Found, Not																	
DOU-121502	9/22/2020 14:27	42.953023	-71.440527																		
				Found, Not																	
DOU-121528	8/7/2020 16:02	43.0032567	-71.412273																		
5011 434530	0/7/2020 46 05												Flush with		Precast						
DOU-121530	8/7/2020 16:05	43.0031109	-/1.411451	Found		1	Pipe	RCP	Round	36	None		Headwall	Good	Concrete	Good		No		None	None
000000000	5 /5 /2020 42 40	12 0001100	74 427067					11005					Flush with		Reinforced		Missing some backfill				-250/
DOU-121547	5/5/2020 13:40	42.9681198	-/1.42/96/	Found		1	Pipe	HDPE	Round	12	None		Headwall	Good	Concrete	Good	behind headwall	No		None	<25%
DOU-121553	5/5/2020 13:18	42.9674181	-71.42753	Not Found																	
																			Plunge pool		
													Flush with		Reinforced		Some erosion around headwall sides,		immediately downstream of		
DOU-121573	9/22/2020 16:48	42.9706762	-71.419304	Found		1	Pipe	HDPE	Round	15	None		Headwall	Good	Concrete	Fair	exposed liner	Moderate	invert	None	None
				Found, Not																	
DOU-121575	8/6/2020 18:10	42.9710624	-71.419757																		
													Flush with		Reinforced						
DOU-121582	8/6/2020 15:43	42.9704991	-71.416398	Found		1	Pipe	HDPE	Round	18	None		Headwall	Good	Concrete	Good		No		None	None
DOU-121584	9/23/2020 19:06	42.9700615	-71.416429	Not Found																	
													Flush with								
DOU-121585	8/6/2020 14:35	42.9687653	-71.416794	Found		1	Pipe	HDPE	Round	12	None		Headwall	Good	Stone	Good		No		None	None
DOU-121591	8/6/2020 15:31	42,9707901	-71,414764	Not Found																	
							1					Slight spalling around inlet but not a concern at	1	1	1	1		1		1	1
DOU-121594 DOU-121598	8/7/2020 12:58 8/7/2020 12:50		-71.398017				Pipe Pipe	RCP RCP	Round Round		Spalling None	this time Good	Flared End Flared End		N/A Stone	N/A		No		None	<25%
000-151288	6/ // 2020 12:50	45.0081934	-/1.398284	rouna			гре	NUP	Round	18	NUTIE	Good Spalling around invert with rebar exposed and	FIATED END	0000	Stone	Good		No		None	None
DOU-121600	8/20/2020 15:55	43.0045768	-71.397803	Found		1	Pipe	RCP	Round	24	Spalling,Corrosion		Projecting	Fair	Stone	Good		No		None	None
				Found, Not																	
DOU-121600	8/20/2020 16:00	43.0045308	-71.397829																		
DOU-121604	8/12/2020 15:53	43.0138967	-/1.421015	Found			Pipe	RCP	Round	12	None		Flared End	Good	N/A	N/A		No		None	25- 50%
				Found, Not																	
DOU-121605	8/19/2020 12:59	43.0071581	-71.416194	an Outfall																	

				Illicit Dis	scharge Poter	ntial				Flow Cha	racteristics					<u> </u>				Samplin	ng Parameter	rs								Overall Comments
		Pipe					Illicit	Illicit Discharge	ls Dry Weather		Flow						Ammonia	Chlorine	Surfactor	Conductivity	Solinity	Torres		Dissolved	E. Coli Result	Total Phosphorus	BOD	Chloride		
		Benthic			Turbidity/		Discharge	Indicator	Flow	Flow	Depth	Revisit	Is a Sample	Is Outfall		Pollutant(s)			Result	Result	Result	Temp. Result		Oxygen	(MPN/100		Result	Result	Aluminum	
all ID	Indicators?		Odor	Color	Cloudiness	Floatables	Potential	Comments	Present?	Description	(inches)	Required?	Required?	Submerged?	Unique ID	of Concern	(mg/L)		(mg/L)	(uS/cm)	(ppt)	(C)	рН	(mg/L)	mL)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	Overall Comments
																														Rock pile where outfall should be. Could b
J-121044																														buried
J-121046	No								No			No	No					_												May need maintenance to clear sediment
																														May need maintenance to clear out
U-121047	No								Vac	Trickle			Voc	No	DOU- 121047				0.2	- 0	81 0.4	9 7.4				-				sediment. Surfactants equal to 0.25, but n signs of sewage or illicit discharges.
U-121047 U-121092	No No								Yes No	TTICKIE	3	No No	Yes No	INO	121047		+	0 0	0.2	.5 90	61 0.4	9 7.4	4			5				signs of sewage of mich discharges.
													1			1	1						1		1					Outfall inspection completed via drone. Dr
																														weather flow, will check upstream structur
																														to confirm flow. Outfall under bridge completed inspection from closest safe
U-121203									Yes	Trickle		Yes	No																	distance
																														Structure is an inlet with water flowing into
																														it. Could not be accessed for further
																														inspection due to fence and extremely high
1 1 2 1 5 0 2																														headwall/steep slopes, but in any case this not an outfall.
U-121502																		-											-	not an outrall.
																														Structure is part of a fenced-in BMP at the
U-121528	-														-			+			-						-			end of Linda Lane.
U-121530	No								No			No	No																	Originates from upstream BMP
																														Discharged into BMP type structure,
																														probably a gravel wetland. The BMP drains
																														into three manhole structures before
															DOLL															reaching impaired stream. Flow depth is
J-121547	No								Yes	Trickle	3	No	Yes	No	DOU- 121547	рН		0 0	0.2	5 371	.8 0.1	9 10.6	6 6.1	6 7.24	1 2	2				indicative of standing water within BMP; flow into structure is still a trickle.
																														Outfall not Found. Likely buried under excessive yard waste dump in the general
																														area. Piping/other structures on GPS indica
J-121553						-			-									_			_						_	_		this may be a culvert structure.
																														Riprap beneath outfall displaced where
U-121573	No								No			No	No		-						_						_		_	plunge pool has formed, liner is exposed
U-121575																		_												Structure is a culvert not an outfall
																														Headwall was designed for a 24"" pipe but
																														the outfall is only 18"" leaving a large gap
U-121582	No								No			No	No																	around the pipe. Could potentially lose material behind headwall due to gap
0 121302	No								110			110	110																	matchar berma neadwar due to gap
																														Outfall not Found, map shows outfall
																														connected to single manhole, may be part of the BMP it is located within, vegetation was
																														overgrown at the time of inspection and no
J-121584																					_									structure was visible even upon entry.
																														Homeowners indicate there is significant flooding in the downstream area during
U-121585	No								No			No	No																	heavy rain
1 1 2 1 5 0 1																														Outfall not Found possibly buried or
J-121591												1						+				+								obscured by vegetation
J-121594	No								No			No	No																	
-121598	No								No			No	No								-							-		
J-121600	No								No			No	No																	Beaver dam located adjacent to outfall pipe
U-121600				1																										Culvert for stream
								1									1													
				1			1			1			1							1		1		1						Outlet is likely the downstream or upstream side of a culvert based on GIS info, but coul
				1			1			1			1							1		1		1						not see through to the other side at the tim
J-121604	No								No			No	No																_	of inspection.
																	1													Appears to be a subject with no drain
U-121605	1	1		1	1	1	1			1	1	1	1	1						1		1	1	1						Appears to be a culvert with no drainage connection

							Outfall	Characteristi	cs					Pipe	Ends and Hea	dwall Cnditio	on		Erosion and Se	edimentation	
						Number															
						of		Closed Pipe		Outfall				Pipe End							
0.16.11.10	Date / Time of			Outfall	Receiving Water		Outfall			Diameter			Pipe End	Treatment	Headwall		Headwall Condition		Downstream	Vegetation	Sedimentation
Outfall ID	Inspection	Lat.	Lon.	Located?	(if any)	Pipes	Туре	Material	Shape	(inches)	Outrall Damage	Outfall Condition Comment	Treatment	Condition	Material	Condition	Comment	Erosion	Erosion Comment	Distress	Level
													Flush with								
DOU-121607	8/7/2020 14:05	43.0098855	-71.407297	7 Found		1	Pipe	RCP	Round	36	Spalling	Some spalling at invert, not of any concern	Headwall	Good	Stone	Good		No		None	<25%
													Flush with								
DOU-121609	8/7/2020 14:14	43.0117178	-71.405617	7 Found		1	Pipe	RCP	Round	24	Spalling	Minor spalling but overall in good condition	Headwall	Good	Stone	Good		Moderate	Plunge pool	None	None
				Found, Not																	
DOU-121620	8/12/2020 16:42	43.0100938	-71.418608																		
																			Channelized		
DOU-121613	8/7/2020 14:25	43.0103162	-71.404799	9 Found		1	Pipe	HDPE	Round	24	None		Projecting	Good	N/A	N/A		Moderate	drainage ditch	None	None
DOU-121625	5/20/2020 15:22	43.0032729	-71.39682	2 Found		1	Pipe	CMP	Round	8	None	Outfall is elevated above bank	Projecting	Fair	N/A	N/A		No		None	None
DOU-121622	8/12/2020 17:06	42 007902	71 416603	Eound			Pipe	RCP	Round	10	None		Flush with Headwall	Good	Reinforced Concrete	Good		No		None	None
D00-121622	8/12/2020 17.00	45.007605	-71.410093	S FOUND		- 1	Pipe	RCP	Kouna	10	None		Heduwali	G000	Concrete	6000		NO		None	None
													Flush with		Reinforced						
DOU-121633	8/20/2020 18:07	42.9071994	-71.450205	5 Found		1	Pipe	RCP	Round	12	Spalling		Headwall	Fair	Concrete	Good		No		None	50- 75%
				Found, Not											Precast		Good condition, no				
DOU-121634	5/13/2020 15:58	42.9061692	-71.450322	2 an Outfall											Concrete	Good	signs of degradation	No		None	None
DOU-121638	5/13/2020 15:55	42.9064782	-71.450369	9 Found		1	Pipe	RCP	Round	12	None		Flared End	Good	N/A	N/A		No		None	<25%
													Flush with								
DOU-121646	8/6/2020 18:39	42.9523802	-71.41786	6 Found		1	Pipe	RCP	Round	12	None	Outfall recessed in bank	Headwall	Good	N/A	N/A		No		None	25- 50%
				Found New																	
CEI-DOU-000001	11/22/2019 16:18	42.9759655	-71.469629		Merrimack River	1	Pipe	HDPE	Round		None	Leaf buildup in outfall	Flared End	Good	Stone	Good		No		None	<25%
																1				1	
													Flush with		Reinforced						
DOU-121656	8/20/2020 18:47	42.9226233	-71.452729	9 Found	Merrimack River	1	Pipe	RCP	Round	36	None		Headwall	Good	Concrete	Good		No		None	None
	0/7/2020 42 25	42.00.107.5	71 10121	Found New			0.0	DCD.	Day 1		News		flam i fuit	Card	N/A					Name	-25%
New Outfall 8.7.20	8/7/2020 13:25	43.0048767	-/1.401317	/ Outfall		1	Pipe	RCP	Round	12	None		Flared End	Good	N/A	N/A		NO		None	<25%

				Illicit	Discharge Pot	ential				Flow Cha	racteristics								Samplin	ng Paramete	rs								Overall Comments
fall ID	Any Illici Discharg Indicator			Color	Turbidity/		Illicit Discharge Potential	Illicit Discharge Indicator Comments	Is Dry Weather Flow Present?	Flow	Flow Depth	Revisit	Is a Sample Required?	e Is Outfall Submerged?	Unique ID	Ammonia Result (mg/L)	Chlorine Result (mg/L)	Surfactants Result (mg/L)			Temp. Result (C)	рН	Dissolved Oxygen (mg/L)	E. Coli Result (MPN/100 mL)	Total Phosphorus Result (mg/L)	us BOI Res (mg	ult Resul	Aluminum	
																													Outfall has grate over invert, which indicate it connects to a drainage pipe across the street that likely serves as a culvert during
J-121607	No								No			No	No																wet weather.
-121609	No								No			No	No																
U-121620																													Culvert, inlet is across cul de sac
						None, Sud present directly beneath trickle belo outfall, unclear if detergent									DOU-														
J-121613	Yes	Orange	e None	None	None	related.	Potential		Yes	Trickle	0.1	1 No	Yes	No	121613	(0.12	2 0.2	5 399	0.8 0.1	9 17.	8 7.8	7 7.6	1 2	9				Outfall protruding above bank for ~4 ft.
-121625	No								No			No	No																Cinder blocks in conveyance used as erosic protection against flow from steep drop from outfall
J-121622	Yes	Orango	e None	Faint, Orang brown faint		Slight,	Potential	Light sheen in plunge pool	Yes	Trickle	0.5	5 No	Yes	No	DOU- 121622			0 0.2	5 65	55 0.3	2 18.	7 6.58	3 6.8	3	3				Shares headwall with DOU-114153
J-121633	No								No			No	No																Sediment/ grassy area is built up in front of outfall about 50%, blocking water from outflowing and causing some standing wat
424624																													Not an outfall, structure is a culvert. Culver less than 48in located in same spot as
-121634 -121638	NO								NO NO			NO NO	No No																outfall. Has already been assessed as culve
I-121646	No								No			No	No																
DOU-000001	No								No			No	No																Outfall inspection completed via drone. Ne outfall
			Faint, Ha to ident slight chemica	ify, Faint, I Cloudy				Green growth visible in addition to orange growth/stair ing within	'n																				
J-121656	Yes	Orange	e odor	blue h	ue Slight	Slight,		pipe	Yes	Substantial		2 Yes	Yes	No															*Revisit required to sample
v Outfall 8.7.20	No								No			No	No																