



DRY WEATHER OUTFALL INSPECTION REPORT

To: Town of Litchfield
From: Nick Cristofori, P.E., Comprehensive Environmental Inc.
Date: August 18, 2022
Town: Litchfield, NH
Subject: Dry Weather Outfall Inspection and Screening

Under the Environmental Protection Agency’s (EPA’s) 2017 National Pollutant Discharge and Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit, regulated communities such as Litchfield are required to inspect all known outfalls and interconnections for the presence of dry weather flow (no more than 0.1-inches of rainfall has occurred during the previous 24-hour period and no significant snow melt is occurring) within three years of the permit effective date, or by June 30, 2021. CEI performed field work related to dry weather screening over the course of four field days on May 19, 20, 23, and June 14, 2022.

The following relevant outfall conditions were observed:

Table 1 – Dry Weather Outfall Inspection Results

Parameter	Number
Outfalls within the Urbanized Area	91
Outfalls that were Attempted to Visit	91
Outfalls that Could Not be Located	3
Outfalls that Could Not be Accessed	1
Outfalls Determined not to be Outfalls	1
Existing Outfalls Found	70
New Outfalls Found	16
Outfalls Found	86
Outfalls Found Not Flowing	80
Outfalls Found with Evidence of Flow	6
Found with Illicit Discharge Potential	2
Total Requiring a Revisit	3

The 6 flowing outfalls were sampled for the following parameters as required by the permit: ammonia, chlorine, conductivity, salinity, e.coli, surfactants, and temperature.



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Table 2 – Dry Weather Flow Screening Results

Outfall ID	Ammonia (mg/L)	Chlorine (mg/L)	Surfactants (mg/L)	Conductivity (uS/cm)	Salinity (ppt)	Temperature (C)	pH	Dissolved Oxygen (mg/L)	E. Coli (MPN/100 mL)
OF-2	0	0	0.38	327	0.16	16.6	7.58	7.04	1
OF-24	0	0	0.46	486	0.24	16.3	7.19	3.76	0
OF-66	0	0	0.22	388	0.19	21.1	7.32	5.28	18
OF-74	0	0.12	0.06	268	0.13	19.5	7.12	4.67	138
OF-80	0	0	0.45	291	0.14	16.7	7.27	6.27	1
OF-93	0	0.16	0.27	293	0.14	18.5	7.44	4.94	9

Notes: Numbers in bold exceeds illicit discharge or water quality benchmarks

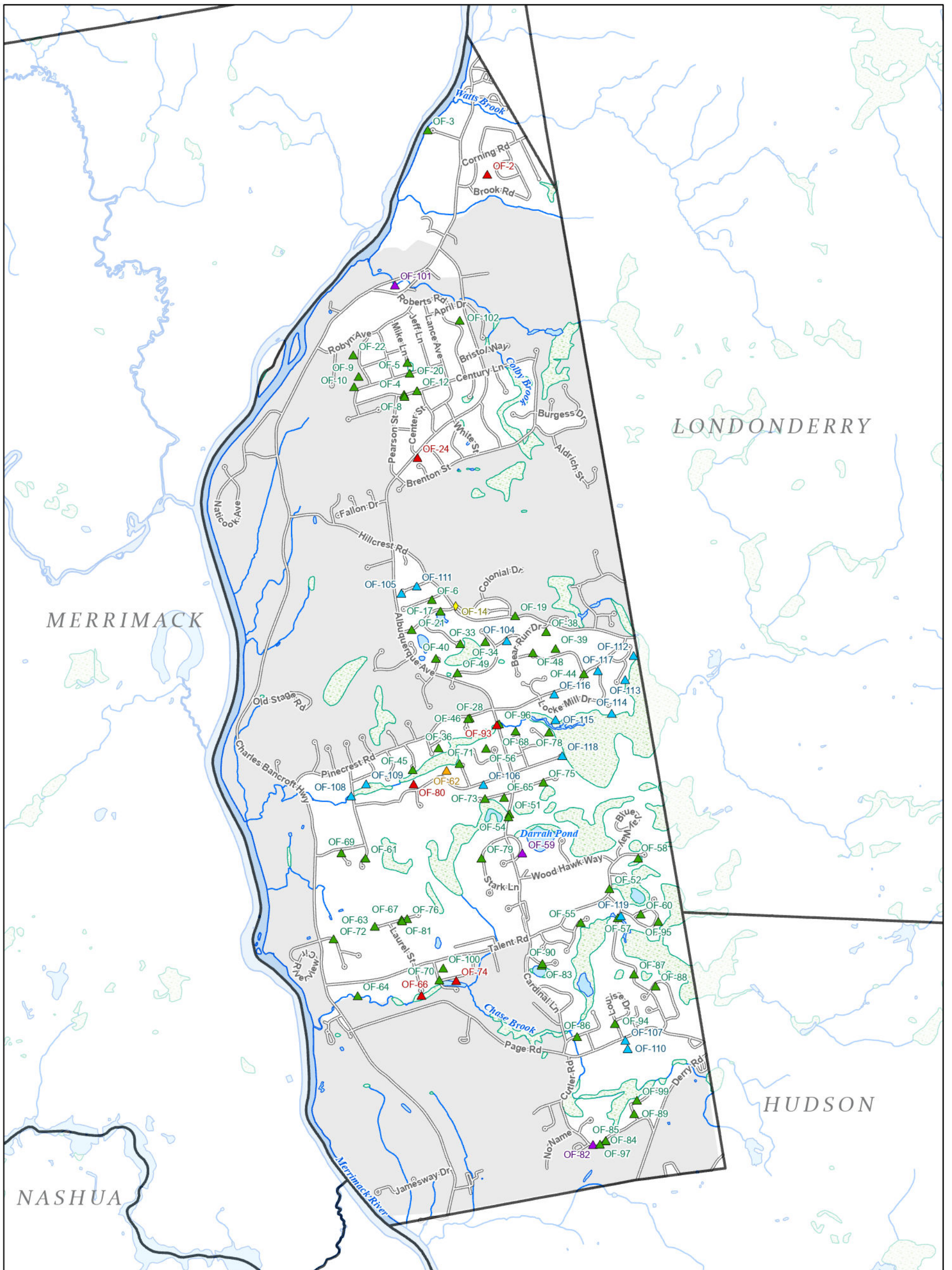
Per the 2017 MS4 Permit, the following criteria indicate likely sewer input and should be considered highly likely to contain illicit discharges from sanitary sources:

1. Olfactory or visual evidence of sewage;
2. Ammonia ≥ 0.5 mg/L, surfactants ≥ 0.25 mg/L, and bacteria levels greater than the water quality criteria applicable to the receiving water (235 colonies per 100 mL); and/or
3. Ammonia ≥ 0.5 mg/L, surfactants ≥ 0.25 mg/L, and detectable levels of chlorine.

Recommendations and Next Steps

The following items are recommended as follow-up actions:

- While none of the sampling data collected from flowing outfalls met the Permit criteria as being highly likely to contain illicit discharges from sanitary sources, outfall OF-93 exhibited chlorine and surfactant readings that were above benchmarks. A small amount of white suds was also observed during the sample collection. Although no ammonia or high levels of bacteria were detected, it is recommended that this location be revisited and resampled to better assess potential water quality impacts.
- Outfalls 74 exhibited minor evidence of an illicit discharge (foam), however, the sample collected was not above benchmark levels and no further action is recommended.
- Outfalls OF-17, OF-65, OF-81, and OF-105 were observed to be over 75% full of sediment and should be cleaned out as soon as possible to preserve flow capacity and prevent flooding.
- Outfalls OF-4, OF-8, OF-20, OF-60, and OF-68 were observed to be between 50% and 75% full of sediment and should be cleaned out to preserve flow capacity.
- Outfalls OF-6, OF-20, OF-21, OF-48, OF-56, OF-68, OF-74, OF-96, and OF-114 are showing evidence of deterioration and should be monitored during future years and/or repaired as soon as practical.
- Outfalls OF-5, OF-12, OF-22, OF-44, OF-74, OF-79, OF-105, OF-107, OF-110, OF-111, OF-114 and OF-115 some exhibited evidence of headwall deterioration and should be monitored during future years and/or maintained as soon as practicable.



Legend

- | | |
|-----------------------------|-----------------------|
| Outfall Inspection Results: | Inlet |
| Flowing | Lake, Pond, Reservoir |
| Not Flowing | Swamp, Marsh |
| Not Found | Stream, Brook |
| Could Not Access | Non-Urban Area |
| New Outfall | |



**Dry Weather Outfall
Screening Results Map
Litchfield, NH**



**Comprehensive
Environmental
Incorporated**

Data Sources: GRANIT, NRPC, CEI



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- Outfalls OF-4, OF-9, OF-19, OF-36, OF-40, OF-48, OF-55, OF-79, and OF-103 exhibit evidence of downstream erosion which should be monitored during future years and/or repaired as soon as practical.
- Outfall 62 was unable to be inspected due to a residential fence. The upgradient catch basin was inspected as proxy and no dry weather flow was observed. It is recommended that the town request permission from the homeowner to conduct a structural inspection of the outfall in the future years.
- Outfalls 59, 82, and 101 should be revisited in order to locate the outfall or collect a sample from the upgradient structure and complete a proxy inspection. If dry weather flow is observed, a sample should be taken for the parameters in the permit.

If you have any further questions or would like additional information, please feel free to contact me at 800.725.2550 x303 or ncristofori@ceiengineers.com. Thank you.

Nick Cristofori, P.E.
Principal, Project Manager

Attachments:

- Dry Weather Outfall Sampling Results map
- Table of Results

Litchfield, NH Dry Weather Screening Results

Outfall Characteristics														Headwall and Downstream Condition								
Outfall ID	Lat.	Long.	Date / Time of Inspection	Outfall Located?	Receiving Water	Outfall Type	Closed Pipe Outfall Material	Indicate 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	Other Outfall Pipes Present	Other Outfall Pipes Comments	Downstream Erosion	Downstream Erosion Comment	Sedimentation Level
OF-2	-71.4510587	42.89199812	6/14/2022 12:05	Found		Pipe	HDPE	1	Round	15	None		Flared End	Fair	No Headwall	No Headwall		No		No		None
OF-3	-71.4582389	42.8959929	5/20/2022 17:54	Found	Merrimack River	Pipe	CMP	1	Round	24	None		Flared End	Good	No Headwall	No Headwall		No		No		None
OF-4	-71.4612559	42.87195465	5/20/2022 16:58	Found		Pipe	RCP	1		24	None		Flush With Headwall	Fair	Reinforced Concrete	Good		No		Moderate	Outfall perched. Deep channel formed immediately after outfall.	High, 50%-75%
OF-5	-71.4608321	42.87487532	5/20/2022 17:07	Found		Pipe	CMP	1		12	None		Flush With Headwall	Good	Stone	Fair	Stones coming loose from erosion and falling into flow channel	No		No		None
OF-6	-71.4577882	42.85339296	5/20/2022 16:36	Found		Pipe	RCP	1	Round	28	Cracking/Corrosion	Slight chipping away of top part of pipe, exposing/corroding a piece of rebar.	Flush With Headwall	Fair	Reinforced Concrete	Good		No		No		None
OF-8	-71.4611508	42.87177708	5/20/2022 16:55	Found		Pipe	RCP	1		16	None		Flush With Headwall	Good	Reinforced Concrete	Good		No		No		High, 50%-75%
OF-9	-71.466821	42.8736088	6/14/2022 16:58	Found		Pipe	CMP		Round	12	None		Projecting	Good	No Headwall	No Headwall		No		Moderate	Outfall perched	None
OF-10	-71.467368	42.87268982	6/14/2022 16:49	Found		Pipe	CMP	1	Round	15	None		Flush With Headwall	Good	Stone	Good		No		No		Minimal, <25%
OF-12	-71.459621	42.87233581	5/20/2022 16:51	Found		Pipe	RCP	1	Round	12	None		Flush With Headwall	Good	Reinforced Concrete	Fair		No		No		Minimal, <25%
OF-14	-71.4548051	42.85272371	6/14/2022 16:40	Found - Not Outfall																		
OF-17	-71.4567732	42.85226917	6/14/2022 12:59	Found				1	Round	15	None	Outlet submerged in sediment.	N/A	Poor	No Headwall	No Headwall		No		No		Full, >75%
OF-19	-71.4475766	42.85179868	6/14/2022 16:34	Found									Flared End	Good	No Headwall	No Headwall		No		Moderate	Debris path forming	Minimal, <25%
OF-20	-71.4605098	42.87388747	5/20/2022 17:15	Found		Pipe	CMP	1	Round	28	Collapsing		Projecting	Fair	Stone	Good		No		No		High, 50%-75%
OF-21	-71.4604586	42.85068431	5/20/2022 15:45	Found		Pipe	RCP	1	Round	18	Cracking	Slight Cracking at pipe end	Flush With Headwall	Good	Reinforced Concrete	Good		No		No		Minimal, <25%
OF-22	-71.4674853	42.87556884	6/14/2022 17:04	Found		Pipe	CMP	1	Round	12	None		Projecting	Good	Stone	Fair		No		No		None
OF-24	-71.4595531	42.86623211	6/14/2022 12:39	Found		Pipe	RCP	1	Round	15	None		Flared End	Fair	No Headwall	No Headwall		No		No		Minimal, <25%
OF-28	-71.4532101	42.84258043	5/19/2022 15:00	Found		Pipe	HDPE	1	Round	18	None		Flush With Headwall	Good	Stone	Good		No		No		None
OF-33	-71.4543829	42.84938457	5/20/2022 15:53	Found		Pipe	RCP	1	Round	18	None		Flush With Headwall	Good	Reinforced Concrete	Good		No		No		Minimal, <25%
OF-34	-71.4512361	42.8495225	6/14/2022 13:12	Found		Pipe	RCP	1	Round	24	None		Flared End	Good	No Headwall	No Headwall		No		No		None
OF-36	-71.4570638	42.83993439	5/19/2022 15:19	Found		Pipe	CMP	1	Round	16	None		Projecting	Fair	No Headwall	No Headwall		No		Moderate	Outfall perched 12 inches	None
OF-38	-71.4438194	42.85044543	5/20/2022 16:21	Found		Pipe	RCP	1		18	None		Flared End	Fair	No Headwall	No Headwall		No		No		Moderate, 25%-50%
OF-39	-71.4426581	42.84877131	5/20/2022 14:54	Found		Pipe	RCP	1	Round	18	None		Flared End	Good	No Headwall	No Headwall		No		No		Minimal, <25%
OF-40	-71.4573716	42.84803445	5/20/2022 15:32	Found		Pipe	RCP	1	Round	28	None		Flared End	Good	No Headwall	No Headwall		No		Moderate	Slight bank erosion, roots becoming exposed, and major channel forming	Minimal, <25%
OF-44	-71.4391587	42.84656071	5/20/2022 14:42	Found		Pipe	RCP	1	Round	16	None		Flush With Headwall	Good	Precast Concrete	Fair		No		No		Moderate, 25%-50%
OF-45	-71.4602711	42.83791389	5/19/2022 15:36	Found		Pipe	CMP	1		16	None		Projecting	Good	No Headwall	No Headwall		No		No		None
OF-46	-71.4534231	42.84258249	5/19/2022 14:56	Found		Pipe	RCP	1	Irregular	28	None		Flared End	Good	No Headwall	No Headwall		No		No		Minimal, <25%
OF-48	-71.445423	42.84857375	5/20/2022 15:01	Found		Pipe	RCP	1	Round	18	Cracking/Collapsing	Top part of pipe completely cracked with rebar exposed	Flush With Headwall	Poor	Stone	Good		No		Moderate	Slight bank erosion	Minimal, <25%
OF-49	-71.4547177	42.84668103	5/20/2022 15:24	Found		Pipe	RCP	1	Round	28	None		Flared End	Good	No Headwall	No Headwall		No		No		Minimal, <25%
OF-51	-71.4484003	42.83385491	5/20/2022 13:10	Found		Pipe	RCP	1	Round	28	None		Flush With Headwall	Good	Reinforced Concrete	Good		No		No		Minimal, <25%
OF-52	-71.4360523	42.82707362	5/20/2022 13:51	Found		Pipe	RCP	1	Round	18	None		Flared End	Good	Stone	Good		No		No		None
OF-54	-71.4484347	42.83358493	5/20/2022 13:15	Found		Pipe	RCP	1	Round	28	None		Flush With Headwall	Good	Reinforced Concrete	Good		No		No		Moderate, 25%-50%
OF-55	-71.4396003	42.82394365	6/14/2022 14:27	Found		Pipe	RCP	1	Round	15	None		Flush With Headwall	Good	Reinforced Concrete	Good		No		Moderate		Minimal, <25%
OF-56	-71.4512318	42.83985376	5/19/2022 13:53	Found		Pipe	Thick Metal	1	Round	12	Corrosion	Pieces of metal flaking off of pipe	Projecting	Fair	No Headwall	No Headwall		No		No		Minimal, <25%
OF-57	-71.4350072	42.82440457	5/19/2022 18:56	Found		Pipe	RCP	1	Round	18	None		Flared End	Good	Stone	Good		No		No		Minimal, <25%
OF-58	-71.4793804	42.83991716	5/20/2022 13:56	Found		Pipe	RCP	1	Round	24	None		Flared End	Good	No Headwall	No Headwall		No		No		None
OF-59	-71.446959	42.83048514	5/20/2022 13:35	Not Found																		
OF-60	-71.4322369	42.82475929	5/20/2022 14:13	Found		Pipe	RCP	1	Round	16	None		Flared End	Fair	Stone	Good		No		No		High, 50%-75%
OF-61	-71.4660184	42.8298249	5/19/2022 13:13	Found		Pipe	RCP	1	Irregular	36	None		Flared End	Good	No Headwall	No Headwall		No		No		Minimal, <25%
OF-62	-71.4559316	42.83770079	6/14/2022 15:37	Could Not Access																		
OF-63	-71.465013	42.82376025	5/19/2022 16:26	Found		Pipe	CMP	1	Round	16	None		Flush With Headwall	Good	Stone	Good		No		No		Moderate, 25%-50%
OF-64	-71.4671157	42.81740677	5/19/2022 16:05	Found		Pipe	PVC	1		24	None		Flush With Headwall	Good	Precast Concrete			No		No		None
OF-65	-71.4490698	42.83538192	6/14/2022 15:54	Found		Pipe	RCP	1	Round	12	None	Partially buried	Flared End	Poor	No Headwall	No Headwall		No		No		Full, >75%
OF-66	-71.4592398	42.81746356	6/14/2022 14:41	Found	Chase Brook	Pipe	RCP	1	Round	12	None		Flush With Headwall	Good	Reinforced Concrete	Good		No		No		None
OF-67	-71.4616588	42.82431924	5/19/2022 16:46	Found		Pipe	RCP	1	Round	12	None		Flush With Headwall	Good	Reinforced Concrete	Good		No		No		Moderate, 25%-50%
OF-68	-71.4473569	42.84076341	5/19/2022 14:31	Found		Pipe	CMP	1	Round		Collapsing	Pipe pinched/Collapsing and is completely buried.	Buried	Poor	No Headwall	No Headwall		No		No		High, 50%-75%
OF-69	-71.4690526	42.83039403	6/14/2022 15:04	Found		Pipe	RCP	1	Round	12	None		Flared End	Fair	No Headwall	No Headwall		No		No		Minimal, <25%

Litchfield, NH Dry Weather Screening Results

Flow Characteristics						Sampling Parameters													Comments
Outfall ID	Any Illicit Discharge Indicators?	Illicit Discharge Indicator Comments	Is Dry Weather Flow Present?	Flow Description	Flow Depth (inches)	Is a Sample Required?	Is Outfall Submerged?	Unique ID of Sampled Structure	Are any Pollutants of Concern Required for Sampling at this Outfall?	Ammonia Result (mg/L)	Chlorine Result (mg/L)	Surfactants Result (mg/L)	Conductivity Result (uS/cm)	Salinity Result (ppt)	Temperature Result (C)	pH	Dissolved Oxygen (mg/L)	E. Coli Result - Lab (CFU/100)	Overall Comments
OF-2	No		Yes	Moderate	0.25	Yes	No		No	0	0	0.38	326.9	0.16	16.6	7.58	7.04	1	Outfall sampled for dry weather flow.
OF-3	No		No			No													Metal catch used at pipe invert. Rip rap used as to guide flow. Small amount of stagnant water on pipe invert/metal catch.
OF-4	No		No			No													Metal grate covering opening. Massive sediment/debris buildup behind the grate
OF-5	No		No			No													Stagnant water at pipe invert. Accumulation of debris/leaves may be inhibiting flow of water
OF-6	No		No			No													
OF-8	No		No			No													Metal grate covering pipe opening.
OF-9	No		No			No													
OF-10	No		No			No													
OF-12	No		No			No													Large accumulation of leaves at pipe invert
OF-14			No			No													Country drainage inlet to catch basin.
OF-17	No		No			No													Catch basin filled with water. Pipe inlet leading to outfall submerged
OF-19	No		No			No													Stagnant water present at pipe invert.
OF-20	No		No			No													Large accumulation of leaves at pipe invert, blocking at least 50 % pipe
OF-21	No		No			No													Moisture present at pipe invert.
OF-22	No		No			No													
OF-24	No		Yes	Moderate	0.5	Yes	Yes	CB-86	No	0	0	0.46	486	0.24	16.3	7.19	3.76	0	Outfall found in wetland area. Outfall had stagnant water in it from wetland. Flow sampled from upgradient CB. Surfactant reading seems high, might be an issue with meter calibration.
OF-28	No		No			No													
OF-33	No		No			No													Moisture heavily present causing soil downstream to be heavily saturated and sponge-like.
OF-34	No		No			No													
OF-36	No		No			No													Added rebar forms a cross at pipe end.
OF-38	No		No			No													Stagnant water present at pipe invert. Large accumulation of debris in channel.
OF-39	No		No			No													Large stones and stagnant, cloudy water present at pipe invert.
OF-40	No		No			No													Grate placed in pipe to prevent access by animals
OF-44	No		No			No													
OF-45	No		No			No													
OF-46	No		No			No													
OF-48	No		No			No													Family of foxes living within the immediate area according to homeowner.
OF-49	No		No			No													Stagnant water at pipe invert.
OF-51	No		No			No													Stagnant, cloudy water at pipe invert.
OF-52	No		No			No													
OF-54	No		No			No													Sediment buildup at pipe invert. Stagnant water throughout the length of pipe
OF-55	No		No			No													Stagnant water at pipe invert
OF-56	No		No			No													
OF-57	No		No			No													
OF-58	No		No			No													Large concentration of animal droppings around the area of the outfall. Possibility of animal sheltering in pipe
OF-59																			
OF-60	No		No			No													Large amount of sediment build up at pipe invert. No presence of any flow or channel being formed
OF-61	No		No			No													
OF-62			No			No													Proxy inspection at upstream catch basin. Could not access due to residential fence. 12" CMP
OF-63	No		No			No													Large accumulation of leaves at pipe invert.
OF-64	No		No			No													Large amount of brush debris. Rocks/stones form channel to control direction of water flow
OF-65	No		No			No													Outfall located in woods next to driveway. Lots of sediment in FES and standing water in upgradient CB. Pipe could be completely clogged.
OF-66	No		Yes	Moderate	0.2	Yes	No		No	0	0	0.22	388	0.19	21.1	7.32	5.28	18	Moss/algae growth at pipe invert
OF-67	No		No			No													
OF-68	No		No			No													Property owner minimized erosion/washout problem by purposefully burying the outfall with debris/leaves.
OF-69	No		No			No													

Litchfield, NH Dry Weather Screening Results

Outfall Characteristics														Headwall and Downstream Condition								
Outfall ID	Lat.	Long.	Date / Time of Inspection	Outfall Located?	Receiving Water	Outfall Type	Closed Pipe Outfall Material	Indicate 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	Other Outfall Pipes Present	Other Outfall Pipes Comments	Downstream Erosion	Downstream Erosion Comment	Sedimentation Level
OF-70	-71.4570792	42.81883475	5/19/2022 17:03	Found		Pipe	RCP	1	Round	18	None		Flush With Headwall	Good	Reinforced Concrete	Good		No		No		Minimal, <25%
OF-71	-71.4544404	42.83847829	5/19/2022 13:40	Found		Pipe	HDPE	1	Round	28	None		Flared End	Good	Stone	Good		No		No		Minimal, <25%
OF-72	-71.4700594	42.82256742	5/19/2022 15:46	Found		Pipe	RCP	1	Round	28	None		Flush With Headwall	Good	Stone	Good		No		No		Minimal, <25%
OF-73	-71.4513388	42.83529757	5/20/2022 13:01	Found		Pipe	RCP	1	Round	16			Flared End	Good	Stone	Good		No		No		None
OF-74	-71.4793804	42.83991716	6/14/2022 16:09	Found	Chase Brook	Pipe	RCP	1	Round	12	Spalling	Minor spalling	Flush With Headwall	Fair	Reinforced Concrete	Fair		No		No		None
OF-75	-71.4441295	42.83669244	5/20/2022 12:54	Found		Pipe	RCP	1	Round	28	None		Flared End	Good	Stone	Good		No		No		None
OF-76	-71.460987	42.82444267	5/19/2022 16:34	Found		Pipe	RCP	1	Round	18	None		Flush With Headwall	Good	Reinforced Concrete	Good		No		No		Minimal, <25%
OF-78	-71.4434594	42.84128132	5/19/2022 14:09	Found		Pipe	RCP	1		18			Flush With Headwall	Good	Reinforced Concrete	Good		No		No		Minimal, <25%
OF-79	-71.4518221	42.82981157	5/20/2022 13:22	Found		Pipe	CMP	1		12	None		Projecting	Good	Stone	Fair	Right side built up with stones while the left side has very few	No		Moderate	Deep channel forming 6 ft down stream of outfall	Minimal, <25%
OF-80	-71.4602096	42.83662844	6/14/2022 15:17	Found		Pipe	CMP	1	Round		None		Projecting	Good	No Headwall	No Headwall		No		No		None
OF-81	-71.4616001	42.82420856	5/19/2022 16:41	Found		Pipe	RCP	1	Round	12	None		Flush With Headwall	N/A	Reinforced Concrete	Good		No		No		Full, >75%
OF-82	-71.4382397	42.80378974	5/19/2022 17:55	Found		Pipe	Unknown	1	Unknown		Completely Buried		Unknown	Poor	No Headwall	No Headwall		No		No		
OF-83	-71.4444214	42.82014602	5/19/2022 17:21	Found	Perch Pond	Pipe	CMP	1	Round	18	None		Flush With Headwall	Good	Reinforced Concrete	Good		No		No		Moderate, 25%-50%
OF-84	-71.4366178	42.80411873	5/19/2022 18:14	Found		Pipe	RCP	1		24	None		Flared End	Good	No Headwall	No Headwall		No		No		Minimal, <25%
OF-85	-71.4366097	42.80412908	5/19/2022 18:13	Found		Pipe	CMP	1	Round	12	None		Projecting	Good	No Headwall	No Headwall		No		No		Minimal, <25%
OF-86	-71.4400398	42.81360566	6/14/2022 14:07	Found																		
OF-87	-71.4331127	42.81928356	6/14/2022 14:15	Found		Pipe	RCP	1	Round	15	None		Flared End	Good	No Headwall	No Headwall		No		No		Moderate, 25%-50%
OF-88	-71.4303761	42.81819505	5/19/2022 18:47	Found		Pipe	RCP	1	Round	16	None		Projecting	Good	No Headwall	No Headwall		No		No		None
OF-89	-71.4331809	42.80664403	5/19/2022 18:21	Found		Pipe	RCP	1	Round	18	None		Flared End	Fair	No Headwall	No Headwall		No		No		Moderate, 25%-50%
OF-90	-71.4443952	42.82033683	5/19/2022 17:13	Found		Pipe	CMP	1	Round	24	None		Flush With Headwall	Good	Reinforced Concrete	Good		Yes	Small 6 inch Pvc pipe emerging from the direction of the garage. Source of flow unknown	No		Minimal, <25%
OF-93	-71.449809	42.84198162	6/14/2022 13:22	Found	Nesenkegg Brook	Pipe	RCP	1	Round	18	None		Flared End	Fair	No Headwall	No Headwall		No		No		None
OF-94	-71.4354011	42.81481907	5/19/2022 17:45	Found		Pipe	RCP	1	Round	24	None		Flared End	Good	No Headwall	No Headwall		No		No		Minimal, <25%
OF-95	-71.4300413	42.82400023	5/20/2022 14:05	Found		Pipe	RCP	1	Round	24	None		Flared End	Good	No Headwall	No Headwall		No		No		Minimal, <25%
OF-96	-71.4495934	42.84207467	5/19/2022 14:38	Found		Pipe	RCP	1	Round	18	Cracking	Slight chipping on one edge	Projecting	Good	No Headwall	No Headwall		No		No		None
OF-97	-71.4372629	42.80388169	5/19/2022 18:05	Found		Pipe	RCP	1	Round	28	None		Flared End	Good	No Headwall	No Headwall		No		No		Minimal, <25%
OF-99	-71.4326507	42.80779716	5/19/2022 18:30	Found		Pipe	RCP	1	Round	24	None		Flared End	Fair	No Headwall	No Headwall		No		No		Minimal, <25%
OF-100	-71.4565549	42.81986003	5/19/2022 16:54	Found		Pipe	RCP	1	Round	18	None		Flared End	Good	Stone	Good		No		No		Minimal, <25%
OF-101	-71.4619875	42.88252102	5/20/2022 17:36	Not Found																		
OF-102	-71.4543375	42.87869885	5/20/2022 17:26	Found		Pipe	RCP	1	Round	24	None		Flared End	Fair	No Headwall	No Headwall		No		No		Minimal, <25%
OF-104	-71.4486239	42.8496364	5/20/2022 15:15	Found - New Outfall		Pipe	RCP	1	Round	16	None		Flared End	Good	No Headwall	No Headwall		No		No		Minimal, <25%
OF-105	-71.4615989	42.85392995	5/23/2022 12:44	Found - New Outfall		Pipe	RCP	1	Round		Can Not Determine	90 % buried in sediment	Flush With Headwall	Poor	Stone	Fair		No		No		Full, >75%
OF-106	-71.4515438	42.83655963	5/23/2022 15:29	Found - New Outfall		Pipe	HDPE	1	Round	12	None		Flared End	Good	No Headwall	No Headwall		No		No		Minimal, <25%
OF-107	-71.4679653	42.83556357	5/23/2022 16:13	Found - New Outfall		Pipe	HDPE	1	Round		24	None	Projecting	Good	Stone	Fair		Yes	Two 6 - 8 in pvc pipes. One driveway culvert and one unknown	No		None
OF-108	-71.466041	42.8366735	5/23/2022 16:33	Found - New Outfall		Pipe	CMP	1	Round	12	None	Outfall perched slightly	Projecting	Good	No Headwall	No Headwall		No		No		None
OF-109	-71.4341392	42.81329582	5/23/2022 18:10	Found - New Outfall		Pipe	RCP	1	Round	14	None		Projecting	Fair	Reinforced Concrete	Good		No		No		Minimal, <25%
OF-110	-71.4338677	42.81255906	5/23/2022 18:16	Found - New Outfall		Pipe	RCP	1	Round	18	None		Flared End	Good	Stone	Fair		Yes	Flared end HDPE across from outfall	No		Minimal, <25%
OF-111	-71.459694	42.85459065	5/23/2022 12:54	Found - New Outfall		Pipe	RCP	1	Round	16	None		Flush With Headwall	Good	Stone	Good	Slight Cracking of motor	No		No		Minimal, <25%
OF-112	-71.4329947	42.84821647	5/23/2022 13:16	Found - New Outfall		Pipe	RCP	1	Round	24	None		Flush With Headwall	Fair	Reinforced Concrete	Good		No		No		Minimal, <25%
OF-113	-71.4340367	42.84600888	5/23/2022 13:29	Found - New Outfall		Pipe	RCP	1		24	None		Flush With Headwall	Fair	Reinforced Concrete	Good		No		No		Minimal, <25%
OF-114	-71.4357132	42.84299144	5/23/2022 13:44	Found - New Outfall		Pipe	RCP	1	Round	16	Cracking		Flush With Headwall	Fair	Reinforced Concrete	Fair	Slight Cracking around connection with pipe end	No		No		Minimal, <25%
OF-115	-71.4426556	42.84248266	5/23/2022 14:00	Found - New Outfall	Nesenkeag Brook	Pipe	RCP	1	Round	24	None		Flush With Headwall	Good	Reinforced Concrete	Fair	Slight erosion/chipping of parts of the headwall	No		No		Minimal, <25%
OF-116	-71.442805	42.84474309	5/23/2022 14:13	Found - New Outfall		Pipe	RCP	1	Round	12	None		Flush With Headwall	Good	Reinforced Concrete	Good		No		No		Minimal, <25%
OF-117	-71.4374242	42.8468332	5/23/2022 14:19	Found - New Outfall		Pipe	RCP	1	Round	12	None		Flush With Headwall	Good	Reinforced Concrete	Good		No		No		Minimal, <25%
OF-118	-71.4417652	42.83919259	5/23/2022 15:03	Found - New Outfall		Pipe	CMP	1	Round	18	None		Projecting	Fair	No Headwall	No Headwall		No		No		Minimal, <25%
OF-119	-71.4346315	42.82460431	5/20/2022 14:19	Found - New Outfall	Chase Brook	Pipe	RCP	1	Round	36	None		Flared End	Good	No Headwall	No Headwall		No		Moderate	Slight bank erosion	Minimal, <25%

Notes

1. Outfall Material: RCP = Reinforced Concrete Pipe; CMP = Corrugated Metal Pipe; HDPE = High Density Polyethylene; CI = Cast Iron; PVC = Polyvinyl Chloride

Litchfield, NH Dry Weather Screening Results

Outfall ID	Flow Characteristics					Sampling Parameters													E. Coli Result - Lab (CFU/100)	Comments
	Any Illicit Discharge Indicators?	Illicit Discharge Indicator Comments	Is Dry Weather Flow Present?	Flow Description	Flow Depth (inches)	Is a Sample Required?	Is Outfall Submerged?	Unique ID of Sampled Structure	Are any Pollutants of Concern Required for Sampling at this Outfall?	Ammonia Result (mg/L)	Chlorine Result (mg/L)	Surfactants Result (mg/L)	Conductivity Result (uS/cm)	Salinity Result (ppt)	Temperature Result (C)	pH	Dissolved Oxygen (mg/L)			
OF-70	No		No			No														Water appears to be flowing slowly back into the catch basin from the outfall.
OF-71	No		No			No														Located below property owners brush dump area. 2 inches of stagnant water at pipe invert.
OF-72	No		No			No														Stagnant water and debris at pipe invert. Scattered trash along the conveyance
OF-73	No		No			No														Outfall flows into garden bed
OF-74	Yes	Foam	Yes	Trickle	0.1	Yes	No		No	0	0.12	0.06	268	0.13	19.5	7.12	4.67	138	Outfall sampled.	
OF-75	No		No			No														
OF-76	No		No			No														
OF-78	No		No			No														Few inches of stagnant water at pipe invert
OF-79	No		No			No														
OF-80	No		Yes	Moderate	0.25	Yes	No		No	0	0	0.45	291	0.14	16.7	7.27	6.27	1	Outfall sampled. Small dent in the top of CMP. Surfactants seems high, could be issue with meter.	
OF-81	No		No			No														Pipe invert completely covered and buried
OF-82	No		No			No														Small, deep stagnant pool of water at outfall. Not able to visually identify outfall and pipe invert.
OF-83	No		No			No														
OF-84	No		No			No														Stagnant water at pipe invert.
OF-85	No		No			No														Flows into same area as adjacent outfall
OF-86	No		No			No														2 Catch basins drop into street culvert. No other pipe connections
OF-87	No		No			No														
OF-88	No		No			No														
OF-89	No		No			No														Debris/sediment accumulation at pipe invert. Pipe end completely covered/hidden by leaves
OF-90	No		No			No														Flows into rock bed
OF-93	Yes	White suds, minor	Yes	Trickle	0.1	Yes	No		No	0	0.16	0.27	293	0.14	18.5	7.44	4.94	9	Outfall sampled, minor white suds observed after FES. High chlorine hit.	
OF-94	No		No			No														
OF-95	No		No			No														Large concentrations of moss growing at pipe invert.
OF-96	No		No			No														Flared Metal catch at end of pipe with slight amount of rusting. Able to see landscaping fabric at the base of metal catch.
OF-97	No		No			No														4-5 inch pool of stagnant water at pipe invert
OF-99	No		No			No														Small pile of brush debris at pipe invert.
OF-100	No		No			No														Stagnant water present at pipe invert.
OF-101																				
OF-102	No		No			No														Stagnant water present at pipe invert.
OF-104	No		No			No														Multiple animal carcasses in the area. Possibility of predator in immediate area.
OF-105	No		No			No														
OF-106	No		No			No														Highly dense vegetation cluster
OF-107	No		No			No														Flows from catch basin to manhole to outfall.
OF-108	No		No			No														Slow drip/small puddle forming at pipe invert.
OF-109	No		No			No														Damaged wire fence around the pipe end.
OF-110	No		No			No														
OF-111	No		No			No														
OF-112	No		No			No														Pool of stagnant water at pipe invert
OF-113	No		No			No														3 rebar pieces places in front of pipe opening.
OF-114	No		No			No														Stagnant water present at pipe invert
OF-115	No		No			No														
OF-116	No		No			No														Accumulation of leaf debris at pipe invert
OF-117	No		No			No														
OF-118	No		No			No														Stagnant water at pipe invert
OF-119	No		No			No														Stagnant pool of water at pipe invert. Flow channel visibly clear from debris