

MEMORANDUM



TO: Sean McCarthy, Engineering Supervisor – Town of Scituate, MA
CC: Michelle West, P.E. – Horsley Witten Group
Garrett Bergey – SDE, Inc.
FROM: Janelle Bonn, Technical Manager
Collin Johansson, Engineer
DATE: September 27, 2022
RE: Scituate, MA MS4 General Permit Year 4 Dry Weather Outfall Screening Results

BACKGROUND AND PURPOSE

This memorandum summarizes the key findings and recommendations associated with outfall inspections and assessments conducted in support of the Town of Scituate's (Town's) Municipal Separate Storm Sewer System (MS4) Permit Year 4 Illicit Discharge Detection and Elimination (IDDE) Program and related MS4 General Permit requirements.

Woodard & Curran's subcontractor, Stacey DePasquale Engineering, Inc. (SDE), of Lawrence, Massachusetts, attempted to complete inspections of 213 of the approximately 326 outfalls located within the Town of Scituate in June 2022. One hundred and twenty-three outfalls were previously inspected in December 2020. A figure showing the locations of the outfalls investigated during this screening round is included in **Attachment A**.

INSPECTION AND ASSESSMENT METHODOLOGY

SDE followed the IDDE procedures outlined in the Town's IDDE Program Manual, which are based on requirements presented in Part 2.3.4.7.b of the MS4 General permit. The IDDE investigations included visual inspections of outfalls during dry weather periods, defined as a period with no more than 0.1-inch of precipitation or significant snowmelt within the previous 24 hours, to identify structures with flow during these conditions. If an outfall was inaccessible or submerged, SDE's field crew inspected the next upstream drainage manhole or catch basin to determine whether dry weather flow was present.

When dry weather flow was observed, samples were collected at the outfall or upstream drainage structure and analyzed for surfactants, ammonia, chlorine, pH, specific conductivity, temperature, E. Coli or enterococcus, salinity, and, if applicable, pollutants of concern associated with the receiving waterbodies.

DRY WEATHER FLOW THRESHOLD CRITERIA AND EVALUATION

Part 2.3.7.7.a of the MS4 General Permit lists the following threshold criteria as indicators for potential illicit discharges:

- Olfactory or visual evidence of sewage;



- Ammonia \geq 0.5 milligrams per liter (mg/L), surfactants \geq 0.25 mg/L, and bacteria levels greater than the water quality criteria applicable to the receiving water; or
- Ammonia \geq 0.5 mg/L, surfactants \geq 0.25 mg/L, and detectable levels of chlorine.

Based on the Massachusetts Surface Water Quality Standards (314 CMR 4.00) statistical threshold values for coastal, marine, and inland waters, enterococcus samples shall not exceed concentrations of 130 colony forming units per 100 milliliters (cfu/100 mL) and E.coli samples shall not exceed concentrations of 410 cfu/100 mL. Concentrations over this threshold generally indicate an elevated potential for sanitary sewage related contamination.

Outfall screening results are evaluated against these criteria to determine the likelihood of illicit discharges and prioritize future illicit discharge investigations. Although the threshold criteria listed above must be met to be considered an MS4 General Permit defined potential indicator of illicit discharges, some detections above the single parameter criteria warrant additional illicit discharge investigations, ranging in priority based upon the order of magnitude of the exceedance.

INSPECTION AND ASSESSMENT FINDINGS

Dry weather flow was observed at 84 of the 214 investigated structures during this round of inspections (39% of investigated structures). Of the 84 structures where dry weather flow was observed, 79 outfalls or upstream drainage structures were located and sampled. The remaining 5 structures were not sampled because they were either field verified as culverts or did not have any drainage structures connected to them (29-000-005, 46-000-001, 46-000-008, 48-000-01, and 52-000-002). Notable outfall screening and sampling results are discussed below.

Potential Illicit Discharge Threshold Criteria Outfalls

Dry weather flow collected from three of the outfalls (13-000-002, 36-000-002, and SDE-OF2) met Permit threshold criteria for potential illicit discharges associated with a sanitary sewer source. No visual or olfactory indicators of illicit discharges were noted during inspections. Based on the outfall screening results generated during this round of inspection and assessment activities, the catchment areas upstream of these locations should be assigned a "Problem" prioritization for future IDDE investigations. Screening results for each of these outfalls are discussed below

13-000-002

Testing of dry weather flow at outfall 13-000-002 identified elevated levels of ammonia (2.0 mg/L), surfactants (0.25 mg/L), and chlorine (0.1 mg/L). Bacteria were not reported above laboratory method detection limits and Permit individual threshold criteria. The sampling results at this outfall meet the Permit definition of a potential illicit discharge.

36-000-002

Testing of dry weather flow at outfall 36-000-002 identified low levels of ammonia (0.6 mg/L), and elevated concentrations of surfactants (2.0 mg/L) and chlorine (0.46 m/L). Bacteria were not reported above laboratory method detection limits and Permit threshold criteria. The sampling results at this outfall meet the Permit definition of a potential illicit discharge.



SDE-OF2

Testing of dry weather flow at outfall SDE-OF2 identified elevated levels of ammonia (2.0 mg/L) and chlorine (0.2 mg/L) and low concentrations of surfactants (0.25 mg/L). Bacteria were not reported above field instrument detection limits and Permit threshold criteria. The sampling results at this outfall meet the Permit definition of a potential illicit discharge.

Elevated Individual Permit Illicit Discharge Threshold Criteria Outfalls

Dry weather flow collected from three of the outfalls (35-000-002, 37-000-001, and 46-000-001) exhibited one or more field and/or analytical testing values significantly above individual Permit threshold criteria but do not meet the Permit-defined criteria for potential illicit discharges. Based on the outfall screening results generated during this round of inspection and assessment activities, the catchment areas upstream of these locations should be assigned an elevated prioritization for future IDDE investigations. Screening results for each of these outfalls are discussed below.

35-000-002

Testing of dry weather flow at outfall 35-000-002 identified elevated levels of E.coli (1,081 MPN/100mL) and low concentrations of surfactants (0.25 mg/L) and ammonia (0.1 mg/L). Chlorine was not reported above field instrument detection limits and Permit threshold criteria.

37-000-001

Testing of dry weather flow at outfall 37-000-001 identified elevated levels of ammonia (5.0 mg/L) and E.coli (6,131 MPB/100mL) well above their individual Permit threshold criteria. Chlorine and surfactants were not reported above field instrument detection limits and Permit threshold criteria, respectively.

46-000-001

Testing of dry weather flow at outfall 46-000-001 identified elevated levels of E.coli (2,987 mg/L). Ammonia, chlorine, and surfactants were not reported above field instrument detection limits and Permit threshold criteria, respectively.

ADDITIONAL LOCATIONS FOR FUTURE PRIORITIZATION CONSIDERATIONS

In addition to the six outfalls mentioned above, low level concentrations of potential illicit discharge indicators were identified in dry weather flow collected from 68 additional outfalls or, where outfalls were not sampled, related upstream structures. Detected concentrations of these parameters did not exceed Permit threshold criteria for illicit discharges. However, the locations listed in **Table 1** warrant an elevated prioritization for investigation during future catchment investigations based upon the presence of various low-level potential illicit discharge indicators detected in dry-weather flow samples above individual Permit threshold criteria that are not typical of flows comprised only of stormwater.



Table 1: Elevated Priority Catchments for Future Investigation

32-000-004	01-000-001	03-000-001	06-000-003
07-000-001	10-000-007	13-000-001	10-000-003
14-000-002	14-000-003	14-000-004	20-000-005
21-000-004	22-000-003	22-000-004	22-000-008
22-000-009	23-000-001	23-000-003	23-000-007
24-000-001	24-000-007	29-000-001	29-000-002
32-000-006	32-000-007	34-000-002	35-000-001
35-000-006	35-000-012	37-000-002	38-000-001
43-000-002	46-000-002	46-000-003	46-000-007
47-000-003	48-000-009	51-000-002	52-000-004
52-000-007	52-000-009	53-000-005	53-000-014
54-000-005	55-000-008	57-000-002	59-000-001
61-000-002	62-000-004	62-000-005	62-000-007
62-000-009	62-000-010	70-000-001	70-000-006
70-000-007	81-000-001	SDE-OF1	WC-001
WC-016	WC-024	WC-030	WC-033
Wc-034	WC-043	--	--



The tabulated data summary of the May 2022 IDDE outfall assessments is provided in **Attachment B**. Laboratory data sheets are provided in **Attachment C**.

MAPPING DISCREPANCIES & MAINTENANCE NEEDS

SDE identified and noted maintenance issues and mapping discrepancies during dry weather outfall screening activities. Several outfalls were not located during the investigations; however, these locations were not noted as mapping discrepancies because mapped upstream structures were identified and, in most cases, screened and/or sampled. Outfalls that were not located are noted in the table provided in **Attachment D?**.

SDE also identified and mapped three new outfalls during this round of investigations: SDE-OF1, SDE-OF2, and SDE-OF3. These outfalls have been added to the figure provided in **Attachment A**.

A summary of identified outfall condition issues is provided in **Attachment D**, and a summary of identified mapping discrepancies is provided in **Attachment E**.

OBSERVED POTENTIAL NON-STORMWATER FLOWS

The following potential non-stormwater flows were observed at investigated outfalls and/or upstream connected drainage structures that warrant further investigation by the Town:

Table 2: Potential Non-Stormwater Flows Observed in MS4 Infrastructure

Outfall/Upstream Drainage Structure	Observation(s)
13-000-002	Flow was observed in the main drainage pipe, with secondary flow entering the first upstream catch basin. A small PVC pipe was observed from the direction of #80 Townsend Road. A mailman informed SDE that this pipe has been flowing since Carriage Way was built.
55-000-008	The upstream sampled catch basin was observed channeling flow that SDE interpreted as coming from an inground pool.
24-000-001	The southwest inlet of the first catch basin, which is unmapped, appears to be channeling flow from a nearby stream.



Outfall/Upstream Drainage Structure	Observation(s)
75-000-003	A manhole located where the outfall is mapped appears to be channeling water from a sump pump or French drain at the adjacent residence.
57-000-002/Catch Basin Object ID 853	Trickle flow was observed entering the first catch basin upstream of this outfall from the direction of an adjacent yard that SDE attributed to a potential sump pump.

CONCLUSIONS

Field screening and laboratory testing of dry weather flows from outfalls conducted during MS4 Permit Year 4 for the Town of Scituate’s IDDE Program identified results indicative of potential illicit discharges in some areas of the Town’s storm drain system. Based on the outfall sampling results, elevated prioritization of catchments draining to outfalls 13-000-002, 36-000-002, SDE-OF2, 35-000-002, 37-000-001, and 46-000-001 are recommended to determine whether illicit discharges are present in these locations.

In addition, dry weather flows from several outlets contained levels of ammonia, surfactants, chlorine, and/or bacteria above individual Permit threshold criteria, as established by the MS4 General Permit. Catchments associated with these outfalls should be assigned a higher priority for investigation in relation to catchments where outfalls were observed to be dry or dry weather flow collected from outfalls contained concentrations of parameters below Permit individual threshold criteria.

RECOMMENDATIONS

The results of this outfall screening are required to be reported to the U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) in the Town’s Permit Year 4 Annual Report, due on September 28th, 2022.

The outfall screening information collected to date should be used by the Town to reprioritize the Town’s outfalls prior to catchment investigation activities. Woodard & Curran recommends performing maintenance of drainage structures, where noted, to promote adequate flow of stormwater through the MS4. In addition, Woodard & Curran recommends the Town investigate and/or integrate identified MS4 mapping discrepancies into the Town’s GIS database to reflect field observations noted during this portion of the IDDE investigation program.

Specifically, SDE identified the following outfalls as culverts during screening and sampling activities: 29-000-005, 56-000-001, 52-000-001, 52-000-002, WC-003, WC-004, 46-000-008, 48-000-001, 48-000-009, WC-023, 47-000-004, 23-000-002, 34-000-006, 65-000-008. In addition,



32-000-006 was identified as an outlet for a retention pond. These structures should be visually inspected to determine whether they are culverts and, if they are, they should be removed from the Town's MS4 IDDE program.

We also recommend the Town investigate the observations summarized in **Table 2** to determine whether non-stormwater discharges are entering the MS4 at these locations.

ATTACHMENT A: OUTFALL LOCATION FIGURE



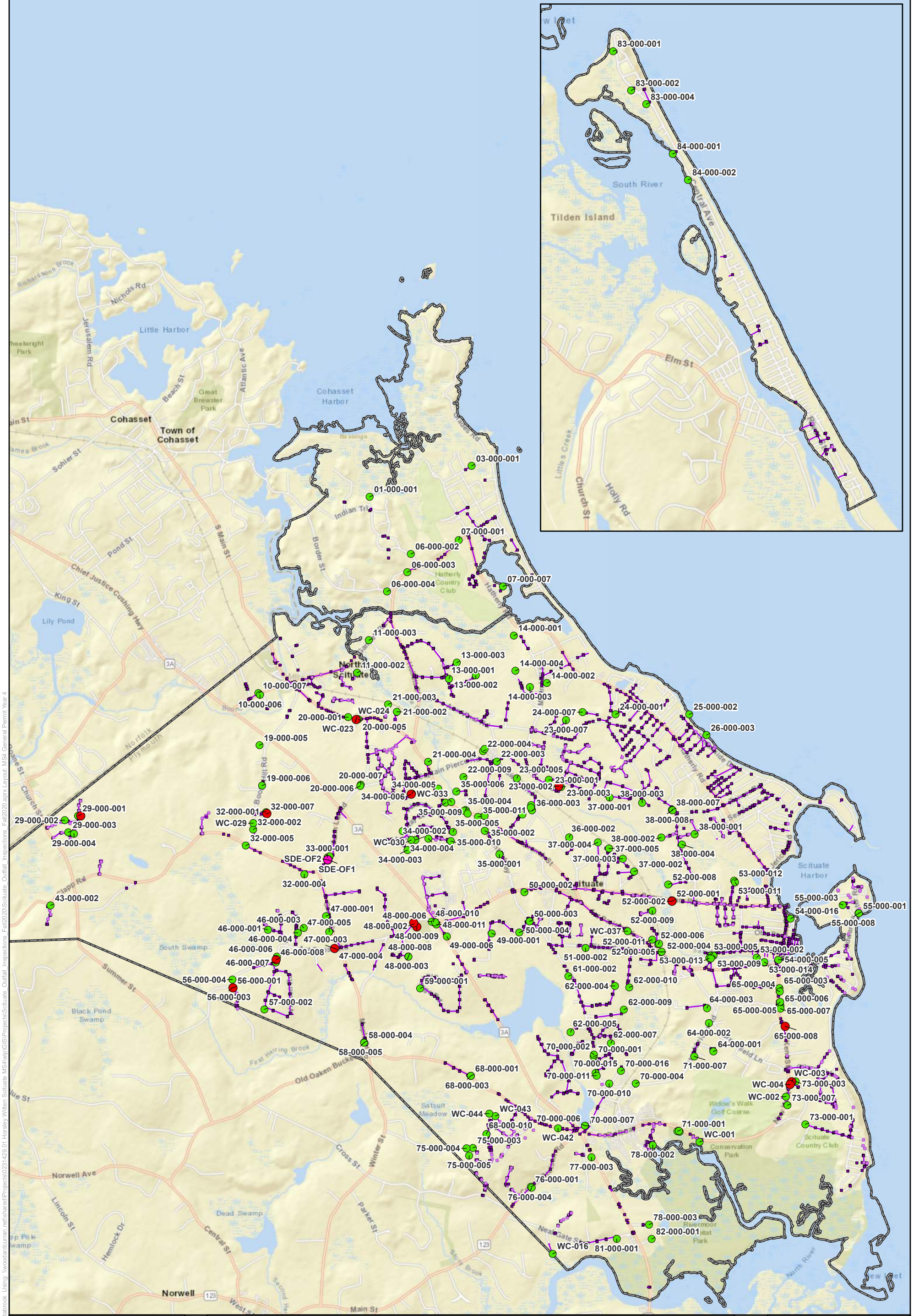


Figure Exported: 9/26/2022 By: eastabrook Using: \\woodardcurran.net\shared\Projects\0231429\01_Horsley\GIS\Projects\Scituate_Outfall_Inspections_Fall2020.aprx;Layout:MS4_General_Permit_Year_4

**Scituate, MA
MS4 General Permit
Year 4 IDDE Investigations**
Dry Weather Outfall Screening Locations

Legend	Scituate Boundary	Stormwater Manhole	Inspected Outfall
	World Street Map	New Outfall	Not Outfall
	Stormwater Drain Pipe		
	Stormwater Catchbasin		

**Woodard
& Curran**

Project #: 0231429.01
Map Created: September 2022

Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the users' sole risk. **Data Sources:**

ATTACHMENT B: OUTFALL SCREENING RESULTS





Town of Scituate, MA
MS4 General Permit Year 4
Dry Weather Outfall Screening Results

Outfall ID	Inspection Date	Sampling Location	Upstream Sample Location ^{1,2}	Weather	Ambient Temperature (°F)	Precipitation within 24 Hours	Flow Present	Ammonia (ppm)	Surfactants (ppm)	Chlorine (ppm)	pH	Sample Temperature (°C)	Specific Conductivity (µS)	Salinity (ppt)	E. Coli (MPN/100mL)	Enterococcus	Total Phosphorus (mg/L)
MS4 General Permit Individual Threshold Criteria for Potential Illicit Discharges								≥0.5	≥0.25	≥0.02 ³	NE	NE	NE	NE	≤410 ⁴	≤130 ⁴	NE
13-000-002	4/5/2022	Outfall	--	Sunny	52	<0.1	Yes	2	0.25	0.01	6.44	15	214	0.1	<10	--	--
36-000-002	1/24/2022	Outfall	--	Sunny	28	<0.1	Yes	0.6	2	0.46	7.45	5.8	363	0.2	<10	--	--
SDE-OF2	1/19/2022	Outfall	--	Cloudy	43	<0.1	Yes	2	0.25	0.2	6.14	5.8	311	0.3	<10	--	--
35-000-002	4/21/2022	Outfall	--	Sunny	54	<0.1	Yes	0.1	0.25	<0.02	6.83	63.9	6285	0.3	1,081	--	--
37-000-001	4/29/2022	Upstream Structure	1470	Sunny	49	<0.1	Yes	5	<0.125	<0.02	7.47	12.9	568	0.3	6,131	--	--
46-000-001	5/20/2022	Outfall	--	Sunny	59	<0.1	Yes	<0.02	<0.125	<0.02	8.01	18.4	409	0.2	2,987	--	--
32-000-004	3/23/2022	Upstream Structure	770	Sunny	39	<0.1	Yes	<0.02	0.25	<0.02	7.36	8.7	1392	0.7	10	--	--
01-000-001	4/29/2022	Outfall	--	Sunny	44	<0.1	Yes	<0.02	0.25	<0.02	7.15	12.4	388	0.2	10	--	--
03-000-001	4/29/2022	Outfall	--	Sunny	45	<0.1	Yes	<0.02	<0.125	<0.02	6.64	14.3	969	0.5	10	--	--
06-000-003	4/4/2022	Outfall	--	Sunny	46	<0.1	Yes	<0.02	0.25	0.67	7.37	12.7	431	0.2	10	--	--
07-000-001	3/17/2022	Upstream Structure	286	Cloudy	46	<0.1	Yes	0.1	0.75	0.02	5.86	9.7	422	0.2	<10	--	--
10-000-007	3/9/2022	Outfall	--	Cloudy	34	<0.1	Yes	<0.02	0.25	<0.02	6.43	7.2	6.5	0	<10	--	--
13-000-001	4/5/2022	Outfall	--	Sunny	54	<0.1	Yes	0.4	0.5	<0.02	6.66	11.2	605	0.3	<10	--	--
13-000-003	4/5/2022	Outfall	--	Sunny	52	<0.1	Yes	<0.02	0.25	0.07	6.75	12	379	0.2	<10	--	--
14-000-002	4/5/2022	Upstream Structure	1712	Sunny	55	<0.1	Yes	0.1	0.25	0.11	6.31	16.2	541	0.3	<10	--	--
14-000-003	4/22/2022	Outfall	--	Sunny	65	<0.1	Yes	0.3	0.25	<0.02	6.31	61.9	278	0.1	<10	--	--
14-000-004	4/22/2022	Upstream Structure	1709	Sunny	64	<0.1	Yes	0.3	0.25	0.19	6.11	63.6	363	0.2	<10	--	--
20-000-005	3/31/2022	Upstream Structure	451	Cloudy	48	<0.1	Yes	<0.02	0.5	<0.02	6.23	11.9	831	0.4	<10	--	--
21-000-004	3/9/2022	Upstream Structure	707	Cloudy	40	<0.1	Yes	<0.02	0.5	0.14	6.47	5.4	1045	0.5	--	7.2	--
22-000-003	4/13/2022	Outfall	--	Sunny	63	<0.1	Yes	<0.02	0.75	<0.02	6.95	14.1	553	0.3	20	--	--
22-000-004	3/23/2022	Outfall	--	Sunny	40	<0.1	Yes	<0.02	0.25	<0.02	6.84	8.7	600	0.3	20	--	--
22-000-008	3/23/2022	Outfall	--	Sunny	48	<0.1	Yes	<0.02	0.25	<0.02	6.43	9.5	276	0.1	<10	--	--
22-000-009	3/23/2022	Outfall	--	Sunny	40	<0.1	Yes	<0.02	0.25	<0.02	6.72	11.4	282	0.1	<10	--	--
23-000-001	4/13/2022	Outfall	--	Sunny	64	<0.1	Yes	0.1	0.5	<0.02	6.45	13.7	488	0.2	10	--	--
23-000-003	4/13/2022	Upstream Structure	1533	Sunny	60	<0.1	Yes	<0.02	<0.125	0.09	6.12	15.1	341	0.1	<10	--	--



Town of Scituate, MA
MS4 General Permit Year 4
Dry Weather Outfall Screening Results

Outfall ID	Inspection Date	Sampling Location	Upstream Sample Location ^{1,2}	Weather	Ambient Temperature (°F)	Precipitation within 24 Hours	Flow Present	Ammonia (ppm)	Surfactants (ppm)	Chlorine (ppm)	pH	Sample Temperature (°C)	Specific Conductivity (µS)	Salinity (ppt)	E. Coli (MPN/100mL)	Enterococcus	Total Phosphorus (mg/L)
MS4 General Permit Individual Threshold Criteria for Potential Illicit Discharges								≥0.5	≥0.25	≥0.02 ³	NE	NE	NE	NE	≤410 ⁴	≤130 ⁴	NE
23-000-007	4/5/2022	Upstream Structure	1615	Sunny	55	<0.1	Yes	<0.02	0.25	<0.02	7.31	14.9	647	0.3	<10	--	--
24-000-001	4/29/2022	Upstream Structure	Unmapped catch basin (SW inlet) stream is flowing into	Sunny	48	<0.1	Yes	0.25	0.25	<0.02	6.85	15.1	194.1	0.1	<10	--	--
24-000-007	4/13/2022	Outfall	--	Sunny	60	<0.1	Yes	<0.02	<0.125	<0.02	6.9	14.2	4070	0.2	10	--	--
29-000-001	3/31/2022	Upstream Structure	388	Cloudy	48	<0.1	Yes	0.1	0.25	0.15	6.16	11.6	625	0.3	<10	--	--
29-000-002	3/31/2022	Outfall	--	Cloudy	48	<0.1	Yes	<0.02	0.25	0.03	6.45	11.5	481	0.2	<10	--	--
32-000-006	1/19/2022	Outfall	--	Cloudy	34	<0.1	Yes	<0.02	0.25	<0.02	7.12	3.2	374	0.2	<10	--	--
32-000-007	1/19/2022	Outfall	--	Cloudy	34	<0.1	Yes	<0.02	0.25	<0.02	6.64	6	420	0.2	10	--	--
34-000-002	4/13/2022	Upstream Structure	1121	Sunny	69	<0.1	Yes	<0.02	0.25	0.19	6.34	18	695	0.3	<10	--	--
35-000-001	2/21/2022	Outfall	--	Sunny	48	<0.1	Yes	<0.02	0.25	<0.02	6.64	8.7	405	0.2	<10	--	--
35-000-006	3/23/2022	Outfall	--	Sunny	42	<0.1	Yes	<0.02	0.5	<0.02	6.52	10.1	306	0.1	<10	--	--
35-000-012	4/21/2022	Upstream Structure	Unmapped manhole directly upstream of outfall	Sunny	55	<0.1	Yes	<0.02	0.25	<0.02	7.5	55.8	8380	0.4	10	--	--
37-000-002	4/29/2022	Upstream Structure	1300	Sunny	50	<0.1	Yes	<0.02	<0.125	<0.02	7.46	13.9	339	0.2	<10	--	--
38-000-001	2/16/2022	Outfall	--	Sunny	41	<0.1	Yes	0.3	0.5	<0.02	7.49	7.2	394	0.2	<10	--	--
43-000-002	4/22/2022	Upstream Structure	428	Cloudy	54	<0.1	Yes	<0.02	0.25	0.12	6.02	52.1	897	0.4	<10	--	--
46-000-003	3/23/2022	Outfall	--	Sunny	48	<0.1	Yes	<0.02	<0.125	<0.02	6.38	10.7	307	0.1	10	--	--
46-000-007	2/16/2022	Outfall	--	Sunny	36	<0.1	Yes	<0.02	0.25	0.06	7.61	5.6	637	0.3	<10	--	--
47-000-003	4/4/2022	Outfall	--	Sunny	51	<0.1	Yes	<0.02	0.25	<0.02	6.57	15	451	0.2	<10	--	--
48-000-009	2/21/2022	Outfall	--	Sunny	38	<0.1	Yes	0.1	1	<0.02	7.51	6.3	466	0.2	20	--	--
51-000-002	2/16/2022	Upstream Structure	1325	Sunny	19	<0.1	Yes	<0.02	0.25	0.04	7.77	5.7	606	0.3	10	--	--
52-000-004	1/26/2022	Outfall	--	Sunny	27	<0.1	Yes	0.2	0.25	0.31	6.49	2	349	0.1	<10	--	--
52-000-007	1/26/2022	Outfall	--	Sunny	25	<0.1	Yes	<0.02	<0.125	0.19	7.14	3.9	334	0.1	<10	--	--
52-000-009	2/16/2022	Outfall	--	Sunny	32	<0.1	Yes	<0.02	0.75	0.02	7.91	5.8	805	0.4	<10	--	--
53-000-005	2/16/2022	Outfall	--	Sunny	23	<0.1	Yes	<0.02	<0.125	<0.02	7.66	4.2	606	0.3	98	--	--



Town of Scituate, MA
MS4 General Permit Year 4
Dry Weather Outfall Screening Results

Outfall ID	Inspection Date	Sampling Location	Upstream Sample Location ^{1, 2}	Weather	Ambient Temperature (°F)	Precipitation within 24 Hours	Flow Present	Ammonia (ppm)	Surfactants (ppm)	Chlorine (ppm)	pH	Sample Temperature (°C)	Specific Conductivity (µS)	Salinity (ppt)	E. Coli (MPN/100mL)	Enterococcus	Total Phosphorus (mg/L)
MS4 General Permit Individual Threshold Criteria for Potential Illicit Discharges								≥0.5	≥0.25	≥0.02 ³	NE	NE	NE	NE	≤410 ⁴	≤130 ⁴	NE
53-000-014	5/20/2022	Upstream Structure	2566	Cloudy	55	<0.1	Yes	0.2	<0.125	0.18	8.6	16.9	254	0.1	41	--	--
54-000-005	4/21/2022	Outfall	--	Sunny	51	<0.1	Yes	<0.02	0.75	0.13	6.48	54.5	9790	5.4	--	41	--
55-000-008	4/4/2022	Outfall	--	Sunny	41	<0.1	Yes	<0.02	<0.125	0.03	9.43	11.3	443	0.2	--	<10	--
57-000-002	4/22/2022	Upstream Structure	853	Sunny	63	<0.1	Yes	0.1	<0.125	0.55	6.47	16.8	501	0.3	<10	--	--
59-000-001	4/22/2022	Outfall	--	Sunny	63	<0.1	Yes	<0.02	<0.125	0.14	6.27	17.7	496	0.2	<10	--	--
61-000-002	4/22/2022	Outfall	--	Sunny	55	<0.1	Yes	<0.02	0.25	<0.02	6.31	55.9	713	0.3	96	--	--
62-000-004	2/16/2022	Outfall	--	Sunny	32	<0.1	Yes	0.2	0.25	<0.02	7.72	5.1	316	0.1	<10	--	--
62-000-005	4/22/2022	Outfall	--	Sunny	63	<0.1	Yes	0.1	<0.125	<0.02	6.95	19	331	0.2	--	<10	--
62-000-007	4/29/2022	Outfall	--	Sunny	51	<0.1	Yes	<0.02	0.25	<0.02	6.84	15.3	373	0.2	20	--	--
62-000-009	2/16/2022	Outfall	--	Sunny	32	<0.1	Yes	<0.02	0.25	0.14	8.17	6.1	1151	0.6	<10	--	--
62-000-010	2/16/2022	Outfall	--	Sunny	19	<0.1	Yes	<0.02	0.75	<0.02	7.86	4.8	570	0.3	<10	--	--
70-000-001	1/26/2022	Outfall	--	Sunny	26	<0.1	Yes	0.3	<0.125	0.06	7.01	5.9	442	0.2	<10	--	--
70-000-006	1/24/2022	Outfall	--	Sunny	27	<0.1	Yes	<0.02	<0.125	0.11	7.63	1.1	622	0.3	--	<10	0.02
70-000-007	1/24/2022	Outfall	--	Sunny	27	<0.1	Yes	0.3	<0.125	<0.02	7.79	1	269	0.1	--	<10	0.021
81-000-001	4/22/2022	Outfall	--	Sunny	59	<0.1	Yes	<0.02	0.25	<0.02	7.03	58.8	347	0.2	2	--	--
SDE-OF1	1/19/2022	Outfall	--	Cloudy	43	<0.1	Yes	<0.02	0.25	0.12	6.64	7.2	405	0.2	<10	--	--
WC-001	1/26/2022	Outfall	--	Sunny	26	<0.1	Yes	<0.02	<0.125	0.22	7.29	1.8	318	0.1	2	--	--
WC-016	4/22/2022	Outfall	--	Sunny	60	<0.1	Yes	0.1	0.5	<0.02	6.59	63.1	864	0.4	--	<10	--
WC-024	3/31/2022	Outfall	--	Cloudy	48	<0.1	Yes	<0.02	0.25	<0.02	6.53	12.8	176.2	0	<10	--	--
WC-030	4/13/2022	Outfall	--	Sunny	69	<0.1	Yes	0.2	0.25	<0.02	6.33	13.6	364	0.2	146	--	--
WC-033	4/29/2022	Outfall	--	Sunny	47	<0.1	Yes	<0.02	0.5	0.14	7.32	10.7	1145	0.6	<10	--	--
WC-034	3/9/2022	Outfall	--	Cloudy	40	<0.1	Yes	<0.02	0.5	0.04	7.05	6.1	1457	0.7		<1	--
WC-043	3/17/2022	Outfall	--	Cloudy	50	<0.1	Yes	<0.02	0.25	<0.02	6.93	12.5	784	0.4	<10	--	--
20-000-001	4/13/2022	Upstream Structure	123	Sunny	58	<0.1	Yes	<0.02	<0.125	<0.02	6.82	14.3	166	0	<10	--	--
36-000-006	1/24/2022	Outfall	--	Sunny	28	<0.1	Yes	<0.02	<0.125	<0.02	7.51	5.7	297	0.1	<10	--	--
49-000-001	1/26/2022	Outfall	--	Sunny	24	<0.1	Yes	<0.02	<0.125	<0.02	7.58	0.25	243	0.1	<10	--	--
52-000-006	1/26/2022	Outfall	--	Sunny	25	<0.1	Yes	<0.02	<0.125	<0.02	7.38	1.9	508	0.2	<10	--	--
52-000-008	2/16/2022	Upstream Structure	1394	Sunny	41	<0.1	Yes	<0.02	<0.125	<0.02	7.74	6.3	617	0.3	<10	--	--
53-000-008	2/16/2022	Upstream Structure	2633	Sunny	23	<0.1	Yes	<0.02	<0.125	<0.02	7.65	5.1	937	0.4	<10	--	--
53-000-011	2/16/2022	Outfall	--	Sunny	25	<0.1	Yes	<0.02	<0.125	<0.02	7.65	6	625	0.3	<10	--	--
68-000-010	1/24/2022	Outfall	--	Sunny	27	<0.1	Yes	<0.02	<0.125	<0.02	8.02	6.8	272	0.1	<10	--	--



Town of Scituate, MA
MS4 General Permit Year 4
Dry Weather Outfall Screening Results

Outfall ID	Inspection Date	Sampling Location	Upstream Sample Location ^{1,2}	Weather	Ambient Temperature (°F)	Precipitation within 24 Hours	Flow Present	Ammonia (ppm)	Surfactants (ppm)	Chlorine (ppm)	pH	Sample Temperature (°C)	Specific Conductivity (µS)	Salinity (ppt)	E. Coli (MPN/100mL)	Enterococcus	Total Phosphorus (mg/L)
MS4 General Permit Individual Threshold Criteria for Potential Illicit Discharges								≥0.5	≥0.25	≥0.02 ³	NE	NE	NE	NE	≤410 ⁴	≤130 ⁴	NE
WC-042	1/24/2022	Outfall	--	Sunny	27	<0.1	Yes	<0.02	<0.125	<0.02	7.63	3.6	314	0.1	<10	--	--
07-000-007	4/5/2022	--	--	Sunny	52	<0.1	No	--	--	--	--	--	--	--	--	--	--
11-000-002	3/9/2022	Upstream Structure	195	Cloudy	36	<0.1	No	--	--	--	--	--	--	--	--	--	--
21-000-002	3/9/2022	Upstream Structure	703	Cloudy	38	<0.1	No	--	--	--	--	--	--	--	--	--	--
21-000-003	3/9/2022	Upstream Structure	700	Cloudy	39	<0.1	No	--	--	--	--	--	--	--	--	--	--
32-000-002	3/31/2022	Outfall	--	Cloudy	48	<0.1	No	--	--	--	--	--	--	--	--	--	--
32-000-005	3/31/2022	Outfall	--	Cloudy	48	<0.1	No	--	--	--	--	--	--	--	--	--	--
34-000-003	4/14/2022	Upstream Structure	1151	Cloudy	46	<0.1	No	--	--	--	--	--	--	--	--	--	--
34-000-006	4/14/2022	Upstream Structure	739	Cloudy	46	<0.1	No	--	--	--	--	--	--	--	--	--	--
35-000-005	4/22/2022	Upstream Structure	1120	Sunny	60	<0.1	No	--	--	--	--	--	--	--	--	--	--
35-000-010	4/22/2022	Outfall	--	Sunny	63	<0.1	No	--	--	--	--	--	--	--	--	--	--
36-000-004	1/24/2022	Outfall	--	Sunny	30	<0.1	No	--	--	--	--	--	--	--	--	--	--
36-000-005	1/24/2022	Outfall	--	Sunny	28	<0.1	No	--	--	--	--	--	--	--	--	--	--
37-000-003	1/25/2022	Upstream Structure	1289	Cloudy	37	<0.1	No	--	--	--	--	--	--	--	--	--	--
37-000-004	1/25/2022	--	--	Cloudy	35	<0.1	No	--	--	--	--	--	--	--	--	--	--
37-000-005	1/25/2022	Upstream Structure	1282	Cloudy	37	<0.1	No	--	--	--	--	--	--	--	--	--	--
38-000-002	1/25/2022	--	--	Cloudy	38	<0.1	No	--	--	--	--	--	--	--	--	--	--
38-000-004	2/16/2022	Outfall	--	Sunny	41	<0.1	No	--	--	--	--	--	--	--	--	--	--
38-000-007	4/14/2022	Upstream Structure	1439	Cloudy	46	<0.1	No	--	--	--	--	--	--	--	--	--	--
42-000-003	1/12/2022	Outfall	--	Sunny	37	<0.1	No	--	--	--	--	--	--	--	--	--	--
42-000-004	1/12/2022	--	--	Sunny	30	<0.1	No	--	--	--	--	--	--	--	--	--	--
48-000-002	2/21/2022	Outfall	--	Sunny	38	<0.1	No	--	--	--	--	--	--	--	--	--	--
50-000-002	2/21/2022	Upstream Structure	1056	Sunny	48	<0.1	No	--	--	--	--	--	--	--	--	--	--
50-000-003	1/25/2022	Upstream Structure	1365	Cloudy	36	<0.1	No	--	--	--	--	--	--	--	--	--	--



Town of Scituate, MA
MS4 General Permit Year 4
Dry Weather Outfall Screening Results

Outfall ID	Inspection Date	Sampling Location	Upstream Sample Location ^{1,2}	Weather	Ambient Temperature (°F)	Precipitation within 24 Hours	Flow Present	Ammonia (ppm)	Surfactants (ppm)	Chlorine (ppm)	pH	Sample Temperature (°C)	Specific Conductivity (µS)	Salinity (ppt)	E. Coli (MPN/100mL)	Enterococcus	Total Phosphorus (mg/L)
MS4 General Permit Individual Threshold Criteria for Potential Illicit Discharges								≥0.5	≥0.25	≥0.02 ³	NE	NE	NE	NE	≤410 ⁴	≤130 ⁴	NE
52-000-005	1/25/2022		--	Cloudy	34	<0.1	No	--	--	--	--	--	--	--	--	--	--
53-000-002	1/25/2022	Outfall	--	Cloudy	39	<0.1	No	--	--	--	--	--	--	--	--	--	--
53-000-009	1/25/2022	Upstream Structure	2628	Cloudy	39	<0.1	No	--	--	--	--	--	--	--	--	--	--
53-000-012	2/16/2022	Upstream Structure	2828	Sunny	25	<0.1	No	--	--	--	--	--	--	--	--	--	--
53-000-013	1/25/2022	Outfall	--	Cloudy	39	<0.1	No	--	--	--	--	--	--	--	--	--	--
55-000-003	5/20/2022	Upstream Structure	549	Cloudy	55	<0.1	No	--	--	--	--	--	--	--	--	--	--
56-000-001	1/12/2022	Outfall	--	Sunny	39	<0.1	No	--	--	--	--	--	--	--	--	--	--
56-000-002	1/12/2022	Outfall	--	Sunny	37	<0.1	No	--	--	--	--	--	--	--	--	--	--
56-000-003	1/12/2022	Outfall	--	Sunny	30	<0.1	No	--	--	--	--	--	--	--	--	--	--
58-000-005	5/20/2022	Upstream Structure	817	Sunny	56	<0.1	No	--	--	--	--	--	--	--	--	--	--
64-000-001	3/17/2022	Outfall	--	Cloudy	42	<0.1	No	--	--	--	--	--	--	--	--	--	--
65-000-003	1/25/2022	--	--	Sunny	38	<0.1	No	--	--	--	--	--	--	--	--	--	--
65-000-005	1/25/2022	Outfall	--	Sunny	40	<0.1	No	--	--	--	--	--	--	--	--	--	--
65-000-006	1/25/2022	--	--	Sunny	38	<0.1	No	--	--	--	--	--	--	--	--	--	--
65-000-007	1/25/2022	Outfall	--	Sunny	40	<0.1	No	--	--	--	--	--	--	--	--	--	--
68-000-003	4/22/2022	Outfall	--	Sunny	64	<0.1	No	--	--	--	--	--	--	--	--	--	--
70-000-002	1/26/2022	Outfall	--	Sunny	27	<0.1	No	--	--	--	--	--	--	--	--	--	--
70-000-010	4/12/2022	Upstream Structure	67	Cloudy	54	<0.1	No	--	--	--	--	--	--	--	--	--	--
70-000-011	1/24/2022	Upstream Structure	2151	Sunny	28	<0.1	No	--	--	--	--	--	--	--	--	--	--
70-000-015	1/24/2022	Upstream Structure	2152	Sunny	25	<0.1	No	--	--	--	--	--	--	--	--	--	--
71-000-001	1/26/2022	Upstream Structure	2472	Sunny	27	<0.1	No	--	--	--	--	--	--	--	--	--	--
73-000-001	5/20/2022	Upstream Structure	Unmapped upstream catch basin	Cloudy	55	<0.1	No	--	--	--	--	--	--	--	--	--	--
73-000-003	1/26/2022	Upstream Structure	2908	Sunny	27	<0.1	No	--	--	--	--	--	--	--	--	--	--
73-000-007	12/26/2021	Outfall	--	Sunny	35	<0.1	No	--	--	--	--	--	--	--	--	--	--
76-000-001	1/26/2022	Outfall	--	Sunny	23	<0.1	No	--	--	--	--	--	--	--	--	--	--



Town of Scituate, MA
MS4 General Permit Year 4
Dry Weather Outfall Screening Results

Outfall ID	Inspection Date	Sampling Location	Upstream Sample Location ^{1,2}	Weather	Ambient Temperature (°F)	Precipitation within 24 Hours	Flow Present	Ammonia (ppm)	Surfactants (ppm)	Chlorine (ppm)	pH	Sample Temperature (°C)	Specific Conductivity (µS)	Salinity (ppt)	E. Coli (MPN/100mL)	Enterococcus	Total Phosphorus (mg/L)
MS4 General Permit Individual Threshold Criteria for Potential Illicit Discharges								≥0.5	≥0.25	≥0.02³	NE	NE	NE	NE	≤410⁴	≤130⁴	NE
76-000-004	1/26/2022	Outfall	--	Sunny	23	<0.1	No	--	--	--	--	--	--	--	--	--	--
78-000-002	1/26/2022	Outfall	--	Sunny	27	<0.1	No	--	--	--	--	--	--	--	--	--	--
78-000-003	4/22/2022	--	2405	Sunny	59	<0.1	No	--	--	--	--	--	--	--	--	--	--
83-000-001	4/21/2022	Upstream Structure	2848	Sunny	46	<0.1	No	--	--	--	--	--	--	--	--	--	--
83-000-004	4/12/2022	Upstream Structure	2850	Cloudy	55	<0.1	No	--	--	--	--	--	--	--	--	--	--
SDE-OF3	1/19/2022	Outfall	--	Cloudy	43	<0.1	No	--	--	--	--	--	--	--	--	--	--
WC-002	1/26/2022	Upstream Structure	Unmapped manhole	Sunny	27	<0.1	No	--	--	--	--	--	--	--	--	--	--
WC-032	3/9/2022	Outfall	--	Cloudy	40	<0.1	No	--	--	--	--	--	--	--	--	--	--
WC-039	2/21/2022	Outfall	--	Sunny	38	<0.1	No	--	--	--	--	--	--	--	--	--	--
35-000-011	4/22/2022	Upstream Structure	1069	Sunny	63	<0.1	No	--	--	--	--	--	--	--	--	--	--
47-000-001	4/4/2022	Upstream Structure	793	Sunny	51	<0.1	No	--	--	--	--	--	--	--	--	--	--
49-000-006	2/21/2022	Upstream Structure	1005	Sunny	38	<0.1	No	--	--	--	--	--	--	--	--	--	--
54-000-016	4/21/2022	--	2749	Sunny	52	<0.1	No	--	--	--	--	--	--	--	--	--	--
58-000-004	5/20/2022	Upstream Structure	819	Sunny	57	<0.1	No	--	--	--	--	--	--	--	--	--	--
70-000-004	3/17/2022	Upstream Structure	2441	Cloudy	42	<0.1	No	--	--	--	--	--	--	--	--	--	--
06-000-004	4/5/2022	Upstream Structure	266	Sunny	52	<0.1	No	--	--	--	--	--	--	--	--	--	--
11-000-003	3/9/2022	Upstream Structure	204	Cloudy	36	<0.1	No	--	--	--	--	--	--	--	--	--	--
14-000-001	4/22/2022	Upstream Structure	1725	Sunny	64	<0.1	No	--	--	--	--	--	--	--	--	--	--
22-000-005	3/23/2022	Outfall	--	Sunny	45	<0.1	No	--	--	--	--	--	--	--	--	--	--



Town of Scituate, MA
MS4 General Permit Year 4
Dry Weather Outfall Screening Results

Outfall ID	Inspection Date	Sampling Location	Upstream Sample Location ^{1,2}	Weather	Ambient Temperature (°F)	Precipitation within 24 Hours	Flow Present	Ammonia (ppm)	Surfactants (ppm)	Chlorine (ppm)	pH	Sample Temperature (°C)	Specific Conductivity (µS)	Salinity (ppt)	E. Coli (MPN/100mL)	Enterococcus	Total Phosphorus (mg/L)
MS4 General Permit Individual Threshold Criteria for Potential Illicit Discharges								≥0.5	≥0.25	≥0.02 ³	NE	NE	NE	NE	≤410 ⁴	≤130 ⁴	NE
23-000-005	1/24/2022	Upstream Structure	1177	Sunny	32	<0.1	No	--	--	--	--	--	--	--	--	--	--
34-000-005	4/14/2022	Upstream Structure	741	Cloudy	46	<0.1	No	--	--	--	--	--	--	--	--	--	--
35-000-004	3/9/2022	Upstream Structure	1071	Cloudy	39	<0.1	No	--	--	--	--	--	--	--	--	--	--
36-000-003	1/24/2022	Upstream Structure	1178	Sunny	30	<0.1	No	--	--	--	--	--	--	--	--	--	--
46-000-006	2/16/2022	Upstream Structure	820	Sunny	36	<0.1	No	--	--	--	--	--	--	--	--	--	--
56-000-004	1/12/2022	Upstream Structure	858	Sunny	37	<0.1	No	--	--	--	--	--	--	--	--	--	--
64-000-002	3/17/2022	Upstream Structure	2642	Cloudy	42	<0.1	No	--	--	--	--	--	--	--	--	--	--
70-000-016	3/17/2022	Upstream Structure	2150	Cloudy	45	<0.1	No	--	--	--	--	--	--	--	--	--	--
47-000-005	4/4/2022	Upstream Structure	787	Sunny	51	<0.1	No	--	--	--	--	--	--	--	--	--	--
48-000-003	2/21/2022		915	Sunny	48	<0.1	No	--	--	--	--	--	--	--	--	--	--
48-000-010	2/21/2022	Upstream Structure	1007	Sunny	38	<0.1	No	--	--	--	--	--	--	--	--	--	--
65-000-008	4/21/2022	--	2513	Sunny	52	<0.1	No	--	--	--	--	--	--	--	--	--	--
82-000-001	4/22/2022	Upstream Structure	2411	Sunny	60	<0.1	No	--	--	--	--	--	--	--	--	--	--
WC-003	1/26/2022	Outfall	--	Sunny	27	<0.1	No	--	--	--	--	--	--	--	--	--	--
WC-004	1/26/2022	Outfall	--	Sunny	27	<0.1	No	--	--	--	--	--	--	--	--	--	--
WC-005	1/26/2022	Outfall	--	Sunny	27	<0.1	No	--	--	--	--	--	--	--	--	--	--
WC-029	3/31/2022	Outfall	--	Cloudy	48	<0.1	No	--	--	--	--	--	--	--	--	--	--
52-000-001	1/25/2022	Outfall	--	Cloudy	38	<0.1	No	--	--	--	--	--	--	--	--	--	--
38-000-003	1/25/2022	--	--	Cloudy	38	<0.1	No	--	--	--	--	--	--	--	--	--	--
23-000-002	4/5/2022	Upstream Structure	1528	Sunny	55	<0.1	No	--	--	--	--	--	--	--	--	--	--
29-000-005	1/12/2022	--	--	Sunny	37	<0.1	Yes	--	--	--	--	--	--	--	--	--	--
38-000-008	4/14/2022	Upstream Structure	1435	Cloudy	46	<0.1	Yes	--	--	--	--	--	--	--	--	--	--



Town of Scituate, MA
MS4 General Permit Year 4
Dry Weather Outfall Screening Results

Outfall ID	Inspection Date	Sampling Location	Upstream Sample Location ^{1,2}	Weather	Ambient Temperature (°F)	Precipitation within 24 Hours	Flow Present	Ammonia (ppm)	Surfactants (ppm)	Chlorine (ppm)	pH	Sample Temperature (°C)	Specific Conductivity (µS)	Salinity (ppt)	E. Coli (MPN/100mL)	Enterococcus	Total Phosphorus (mg/L)
MS4 General Permit Individual Threshold Criteria for Potential Illicit Discharges								≥0.5	≥0.25	≥0.02 ³	NE	NE	NE	NE	≤410 ⁴	≤130 ⁴	NE
46-000-008	2/16/2022	Outfall	--	Sunny	36	<0.1	Yes	--	--	--	--	--	--	--	--	--	--
47-000-004	4/4/2022	--	--	Sunny	51	<0.1	No	--	--	--	--	--	--	--	--	--	--
48-000-001	2/21/2022	Outfall	--	Sunny	38	<0.1	Yes	--	--	--	--	--	--	--	--	--	--
52-000-002	1/25/2022	Outfall	--	Cloudy	38	<0.1	Yes	--	--	--	--	--	--	--	--	--	--
75-000-003	3/17/2022	Outfall	--	Cloudy	45	<0.1	No	--	--	--	--	--	--	--	--	--	--
WC-044	3/17/2022	Outfall	--	Cloudy	50	<0.1	No	--	--	--	--	--	--	--	--	--	--
06-000-002	4/29/2022	--	--	Sunny	45	<0.1	No	--	--	--	--	--	--	--	--	--	--
10-000-006	3/9/2022	Outfall	--	Cloudy	34	<0.1	No	--	--	--	--	--	--	--	--	--	--
19-000-005	3/31/2022	--	--	Cloudy	48	<0.1	No	--	--	--	--	--	--	--	--	--	--
19-000-006	1/19/2022	--	--	Sunny	34	<0.1	No	--	--	--	--	--	--	--	--	--	--
20-000-006	3/31/2022	--	--	Cloudy	48	<0.1	No	--	--	--	--	--	--	--	--	--	--
20-000-007	3/31/2022	--	--	Cloudy	48	<0.1	No	--	--	--	--	--	--	--	--	--	--
25-000-002	4/4/2022	Outfall	--	Sunny	41	<0.1	No	--	--	--	--	--	--	--	--	--	--
26-000-003	4/4/2022	Outfall	--	Sunny	41	<0.1	No	--	--	--	--	--	--	--	--	--	--
29-000-003	1/12/2022	--	--	Sunny	27	<0.1	No	--	--	--	--	--	--	--	--	--	--
29-000-004	1/12/2022	Outfall	--	Sunny	27	<0.1	No	--	--	--	--	--	--	--	--	--	--
32-000-001	1/19/2022	--	--	Cloudy	39	<0.1	No	--	--	--	--	--	--	--	--	--	--
33-000-001	1/19/2022	--	--	Cloudy	43	<0.1	No	--	--	--	--	--	--	--	--	--	--
33-000-002	1/19/2022	--	--	Cloudy	43	<0.1	No	--	--	--	--	--	--	--	--	--	--
34-000-004	4/14/2022	Outfall	--	Cloudy	46	<0.1	No	--	--	--	--	--	--	--	--	--	--
35-000-009	4/22/2022	--	--	Sunny	60	<0.1	No	--	--	--	--	--	--	--	--	--	--
46-000-004	5/20/2022	--	--	Sunny	61	<0.1	No	--	--	--	--	--	--	--	--	--	--



Town of Scituate, MA
MS4 General Permit Year 4
Dry Weather Outfall Screening Results

Outfall ID	Inspection Date	Sampling Location	Upstream Sample Location ^{1,2}	Weather	Ambient Temperature (°F)	Precipitation within 24 Hours	Flow Present	Ammonia (ppm)	Surfactants (ppm)	Chlorine (ppm)	pH	Sample Temperature (°C)	Specific Conductivity (µS)	Salinity (ppt)	E. Coli (MPN/100mL)	Enterococcus	Total Phosphorus (mg/L)
MS4 General Permit Individual Threshold Criteria for Potential Illicit Discharges								≥0.5	≥0.25	≥0.02 ³	NE	NE	NE	NE	≤410 ⁴	≤130 ⁴	NE
48-000-006	2/21/2022	Outfall	--	Sunny	38	<0.1	No	--	--	--	--	--	--	--	--	--	--
48-000-008	2/21/2022	Outfall	--	Sunny	38	<0.1	No	--	--	--	--	--	--	--	--	--	--
48-000-011	2/21/2022	Upstream Structure	1006	Sunny	38	<0.1	No	--	--	--	--	--	--	--	--	--	--
50-000-004	1/26/2022	--	--	Sunny	23	<0.1	No	--	--	--	--	--	--	--	--	--	--
52-000-011	2/16/2022	--	--	Sunny	32	<0.1	No	--	--	--	--	--	--	--	--	--	--
55-000-001	4/4/2022	--	--	Sunny	41	<0.1	No	--	--	--	--	--	--	--	--	--	--
64-000-003	3/17/2022	Upstream Structure	2638	Cloudy	42	<0.1	No	--	--	--	--	--	--	--	--	--	--
65-000-004	1/25/2022	--	--	Sunny	40	<0.1	No	--	--	--	--	--	--	--	--	--	--
68-000-001	4/22/2022	Outfall	--	Sunny	63	<0.1	No	--	--	--	--	--	--	--	--	--	--
71-000-003	1/26/2022	--	--	Sunny	27	<0.1	No	--	--	--	--	--	--	--	--	--	--
71-000-004	1/26/2022	--	--	Sunny	27	<0.1	No	--	--	--	--	--	--	--	--	--	--
71-000-007	3/17/2022	Outfall	--	Cloudy	42	<0.1	No	--	--	--	--	--	--	--	--	--	--
75-000-004	3/17/2022	Outfall	--	Cloudy	45	<0.1	No	--	--	--	--	--	--	--	--	--	--
75-000-005	3/17/2022	Outfall	--	Cloudy	50	<0.1	No	--	--	--	--	--	--	--	--	--	--
77-000-003	1/24/2022	--	--	Sunny	28	<0.1	No	--	--	--	--	--	--	--	--	--	--
83-000-002	4/12/2022	Outfall	--	Cloudy	55	<0.1	No	--	--	--	--	--	--	--	--	--	--
84-000-001	4/22/2022	--	--	Sunny	62	<0.1	No	--	--	--	--	--	--	--	--	--	--
84-000-002	4/22/2022	--	--	Sunny	62	<0.1	No	--	--	--	--	--	--	--	--	--	--



Town of Scituate, MA
MS4 General Permit Year 4
Dry Weather Outfall Screening Results

Outfall ID	Inspection Date	Sampling Location	Upstream Sample Location ^{1,2}	Weather	Ambient Temperature (°F)	Precipitation within 24 Hours	Flow Present	Ammonia (ppm)	Surfactants (ppm)	Chlorine (ppm)	pH	Sample Temperature (°C)	Specific Conductivity (µS)	Salinity (ppt)	E. Coli (MPN/100mL)	Enterococcus	Total Phosphorus (mg/L)
MS4 General Permit Individual Threshold Criteria for Potential Illicit Discharges								≥0.5	≥0.25	≥0.02³	NE	NE	NE	NE	≤410⁴	≤130⁴	NE
WC-023	3/31/2022	--	--	Cloudy	11.9	<0.1	No	--	--	--	--	--	--	--	--	--	--
WC-031	4/14/2022	Upstream Structure	Unmapped catch basin on Arborway Dr.	Cloudy	46	<0.1	No	--	--	--	--	--	--	--	--	--	--
WC-037	4/14/2022	Outfall	--	Cloudy	46	<0.1	No	--	--	--	--	--	--	--	--	--	--
WC-046	3/17/2022	Outfall	--	Cloudy	50	<0.1	No	--	--	--	--	--	--	--	--	--	--

- Outfalls with analytical testing values above one or some individual identified Permit threshold criteria.
- Outfalls with elevated analytical testing values above Permit defined likely sewer input indicators.

Notes:

1. Where outfalls were not screened, the next upstream drainage structure was used to determine the presence of dry weather flows.
2. The number in this field is associated with the GIS Object ID.
3. The 0.02 mg/L criteria represents the detection limit for field instrument used during this screening. The MS4 General Permit individual threshold criteria for chlorine is "above detectable limits".
4. These sample threshold values are from 310 CMR 4.00 - Massachusetts Surface Water Quality Standards statistical threshold values for coastal, marine, and inland waters.
5. "--" = not sampled due to lack of flow, standing water, outfall/upstream drainage structure(s) not located/obstructed, or access denied
6. "ppm" = parts per million
7. "ppt" = parts per thousand
8. "NE" = no established MS4 General Permit threshold criteria for this parameter.
9. "<" = parameter not detected above field test instrument detection limit.
10. The MS4 General Permit defines likely sewer input indicators as ammonia, surfactant, and bacteria concentrations OR ammonia, surfactant, and chlorine concentrations above Permit threshold criteria.

ATTACHMENT C: LABORATORY DATA REPORTS





LABORATORY REPORT

Woodard & Curran, Inc.
Attn: Stephanie Kaiser
250 Royall Street
Suite 200E
Canton, MA 02021

Date Received: 1/24/2022
Date Reported: 2/1/2022
P.O. Number

Work Order #: 2201-01199

Project Name: SCITUATE DRY WEATHER OUTFALLS

Enclosed are the analytical results and Chain of Custody for your project referenced above. The sample(s) were analyzed by our Warwick, RI laboratory unless noted otherwise. When applicable subcontracted results are noted and subcontracted reports are enclosed in their entirety.

All samples were analyzed within the established guidelines of US EPA approved methods with all requirements met, unless otherwise noted at the end of a given sample's analytical results or in a case narrative.

The Detection Limit is defined as the lowest level that can be reliably achieved during routine laboratory conditions.

These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department.

Approved by:

Nicole Skyleson
Data Reporting Manager

Laboratory Certification Numbers (as applicable to sample's origin state):

Warwick RI * RI LAI00033, MA M-RI015, CT PH-0508

R.I. Analytical Laboratories, Inc.

Laboratory Report

Woodard & Curran, Inc.

Work Order #: 2201-01199

Project Name: SCITUATE DRY WEATHER OUTFALLS

Sample Number: 001
Sample Description: TB-1
Sample Type : GRAB
Sample Date / Time : 1/24/2022 @ 09:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<1.0	1.0	MPN/100 ml	SM9223B	1/24/2022 16:50	HMA

Sample Number: 002
Sample Description: 68-000-010
Sample Type : GRAB
Sample Date / Time : 1/24/2022 @ 09:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	1/24/2022 16:50	HMA

Sample Number: 003
Sample Description: WC-042
Sample Type : GRAB
Sample Date / Time : 1/24/2022 @ 09:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	1/24/2022 16:50	HMA

Sample Number: 004
Sample Description: 70-000-007
Sample Type : GRAB
Sample Date / Time : 1/24/2022 @ 09:55

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Enterococci	<10	10	MPN/100 ml	IDEXX Enterolert	1/24/2022 17:02	HMA
Total Phosphorus (as P)	0.021	0.010	mg/l	SM4500P-B,E-2011	1/25/2022 14:31	TML

R.I. Analytical Laboratories, Inc.

Laboratory Report

Woodard & Curran, Inc.

Work Order #: 2201-01199

Project Name: SCITUATE DRY WEATHER OUTFALLS

Sample Number: 005
Sample Description: 70-000-006
Sample Type : GRAB
Sample Date / Time : 1/24/2022 @ 10:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Enterococci	<10	10	MPN/100 ml	IDEXX Enterolert	1/24/2022 17:02	HMA
Total Phosphorus (as P)	0.020	0.010	mg/l	SM4500P-B,E-2011	1/31/2022 13:42	TML

Sample Number: 006
Sample Description: 36-000-032
Sample Type : GRAB
Sample Date / Time : 1/24/2022 @ 11:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	1/24/2022 16:50	HMA

Sample Number: 007
Sample Description: 36-000-006
Sample Type : GRAB
Sample Date / Time : 1/24/2022 @ 11:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	1/24/2022 16:50	HMA



CHAIN OF CUSTODY RECORD

41 Illinois Avenue
 Warwick, RI 02888-3007
 Tel: 800-937-2580

131 Coolidge St., Suite 105
 Hudson, MA 01749-1331
 Tel: 800-937-2580

Date Collected	Time Collected	Field Sample Identification	Grab or Composite	# of Containers & Type	Preservation Code ^P	Matrix Code ^M	Enter	Phosphorus
1/24/02	9:15	TB-1	G	1 AP	NP SW	SW	X	
1/24/02	9:20	08-000-010	G	1 AP	NP SW	SW	X	
1/24/02	9:45	WC-042	G	1 IP	NP SW	SW	X	
1/24/02	9:55	70-000-007	G	20 NP	NP SW	SW	X	
1/24/02	10:00	70-000-006	G	20 NP	NP SW	SW	X	
1/24/02	11:15	36-000-008	G	1 IP	NP SW	SW	X	
1/24/02	11:30	36-000-002	G	1 IP	NP SW	SW	X	
1/27/02	11:45	36-000-006	G	1 IP	NP SW	SW	X	

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Client Information Company Name: Woodard and Curran Address: 850 Bevilston Suite 200E City / State / Zip: Canton, MA 02021 Main Telephone: Contact Person: Stephanie Kaiser	Project Information Project Name: Scituate Dry weather affects P.O. Number: Report To: Barrett Bersey Sampled by: Quote No: Email addresses: Cell: Phone:
---	--

Relinquished By Signatures	Date	Time	Received By Signatures	Date	Time
	1/24/02	2:45		1/24/02	14:45
	1/24/02	16:20		1/24/02	16:20
	1/24/02	16:03		1/24/02	16:03

Reporting Options MCP Standard _____ MWRA eSMART _____ State Report & Upload _____	Project Comments Expect results between 0-80,000 3-0 2-20 2-20
--	---

Temp. Upon Receipt _____ °C

Containers: P=Poly, G=Glass, AG=Amber Glass, V=Vial, St=Sterile Preservatives: A=Ascorbic Acid, NH4=NH4Cl, DI=DI-H2O, H=HCl, M=MeOH, N=HNO3, NP=None, S=H2SO4, SH=NaOH, T=Na2S2O8, Z=ZnOAc
 Matrix Codes: GW=Groundwater, SW=Surface Water, WW=Wastewater, DW=Drinking Water, S=Soil, SL=Sludge, A=Air, B=Bulk/Solid, WP=Wipe, O=

LABORATORY REPORT

Woodard & Curran, Inc.
Attn: Rachel Patenaude
250 Royall Street
Suite 200E
Canton, MA 02021

Date Received: 1/26/2022
Date Reported: 2/1/2022
P.O. Number

Work Order #: 2201-01391

Project Name: PROJECT#21.025 SCITUATE DRY WEATHER OUTFALLS

Enclosed are the analytical results and Chain of Custody for your project referenced above. The sample(s) were analyzed by our Warwick, RI laboratory unless noted otherwise. When applicable subcontracted results are noted and subcontracted reports are enclosed in their entirety.

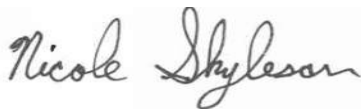
All samples were analyzed within the established guidelines of US EPA approved methods with all requirements met, unless otherwise noted at the end of a given sample's analytical results or in a case narrative.

The Detection Limit is defined as the lowest level that can be reliably achieved during routine laboratory conditions.

These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department.

Approved by:



Nicole Skyleson
Data Reporting Manager

Laboratory Certification Numbers (as applicable to sample's origin state):

Warwick RI * RI LAI00033, MA M-RI015, CT PH-0508

R.I. Analytical Laboratories, Inc.

Laboratory Report

Woodard & Curran, Inc.

Work Order #: 2201-01391

Project Name: PROJECT#21.025 SCITUATE DRY WEATHER OUTFALLS

Sample Number: 001
Sample Description: TB-1
Sample Type : GRAB
Sample Date / Time : 1/26/2022 @ 08:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	1/26/2022 17:27	DCH

Sample Number: 002
Sample Description: 49-000-001
Sample Type : GRAB
Sample Date / Time : 1/26/2022 @ 08:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	1/26/2022 17:27	DCH

Sample Number: 003
Sample Description: 52-000-006
Sample Type : GRAB
Sample Date / Time : 1/26/2022 @ 08:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	1/26/2022 17:27	DCH

Sample Number: 004
Sample Description: 52-000-007
Sample Type : GRAB
Sample Date / Time : 1/26/2022 @ 08:50

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	1/26/2022 17:27	DCH

R.I. Analytical Laboratories, Inc.

Laboratory Report

Woodard & Curran, Inc.

Work Order #: 2201-01391

Project Name: PROJECT#21.025 SCITUATE DRY WEATHER OUTFALLS

Sample Number: 005
Sample Description: 52-000-004
Sample Type : GRAB
Sample Date / Time : 1/26/2022 @ 09:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	1/26/2022 17:10	DCH

Sample Number: 006
Sample Description: 70-000-001
Sample Type : GRAB
Sample Date / Time : 1/26/2022 @ 09:25

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	1/26/2022 17:15	DCH

Sample Number: 007
Sample Description: WC-001
Sample Type : GRAB
Sample Date / Time : 1/26/2022 @ 09:40

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Enterococci	2.0	1.0	MPN/100 ml	IDEXX Enterolert	1/26/2022 17:32	HMA
Fecal Coliform (MF)	<1	1	CFU/100 ml	SM9222D 19-21ed	1/26/2022 17:30	HMA

E.Coli: Samples 2201-01391-001 thru 2201-01391-004 were received and analyzed outside the recommended hold time.

Date Collected		Time Collected	Field Sample Identification	Grab or Composite	# of Containers & Type ^C	Preservation Code ^P	Matrix Code ^M	Enter	Final
1/26/22	8:30		TB-1	S	IP	NP500			
1/26/22	8:30		49-000-001	S	IP	NP500			
1/26/22	8:45		52-000-006	S	IP	NP500			
1/26/22	8:50		52-000-007	S	IP	NP500			
1/26/22	9:05		52-000-009	S	IP	NP500			
1/26/22	9:25		70-000-001	S	IP	NP500			
1/26/22	9:40		WC-001	S	IP	NP500			

(2)

Client Information

Company Name: Woodward and Lyman
 Address: 950 Royall St Suite 200E
 City / State / Zip: Canton MA 02021
 Main Telephone: 781-619-3289
 Contact Person: Stephanie Kaiser

Project Information

Project Name: Suture Dry Weather outfalls
 P.O. Number: 21025
 Report To: Garrett Bergey # Jannelle Bonn
 Email addresses: gbergey@sde-wi.com
 jbonn@woodardlyman.com

Relinquished By Signatures	Date	Time	Received By Signatures	Date	Time
	01/26/22	1:55 pm		1/26/22	13:55
	1/26/22	1:55		1/26/22	15:35
	1/26/22	1:50	Kim Humphreys	1/26/22	16:50

Reporting Options

MCP Standard

MWRA eSMART

State Report & Upload

Project Comments

expect results between 0 to 80,000 3.3

Temp. Upon Receipt 2.98 °C

LABORATORY REPORT

Woodard & Curran, Inc.
Attn: Jannelle Bonn
250 Royall Street
Suite 200E
Canton, MA 02021

Date Received: 2/16/2022
Date Reported: 2/18/2022
Date Revised: 2/18/2022 REV A
P.O. Number

Work Order #: 2202-02453

Project Name: SCITUATE DRY WEATHER SCREENING

Enclosed are the analytical results and Chain of Custody for your project referenced above. The sample(s) were analyzed by our Warwick, RI laboratory unless noted otherwise. When applicable, subcontracted results are noted and subcontracted reports are enclosed in their entirety.

All samples were analyzed within the established guidelines of US EPA approved methods with all requirements met, unless otherwise noted at the end of a given sample's analytical results or in a case narrative.

The Detection Limit is defined as the lowest level that can be reliably achieved during routine laboratory conditions.

These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department.

Approved by:



R.I. Analytical Laboratories, Inc.

Laboratory Report

Woodard & Curran, Inc.

Work Order #: 2202-02453

Project Name: SCITUATE DRY WEATHER SCREENING

Sample Number: 001
Sample Description: TB-1
Sample Type : GRAB
Sample Date / Time : 2/16/2022 @ 08:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	2/16/2022 17:46	HMA

The E.Coli coliform sample was received and analyzed outside the recommended hold time.

Sample Number: 002
Sample Description: 51-000-002
Sample Type : GRAB
Sample Date / Time : 2/16/2022 @ 08:50

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	10	10	MPN/100 ml	SM9223B	2/16/2022 17:46	HMA

The E.Coli coliform sample was received and analyzed outside the recommended hold time.

Sample Number: 003
Sample Description: 62-000-010
Sample Type : GRAB
Sample Date / Time : 2/16/2022 @ 09:05

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	2/16/2022 17:46	HMA

The E.Coli coliform sample was received and analyzed outside the recommended hold time.

R.I. Analytical Laboratories, Inc.

Laboratory Report

Woodard & Curran, Inc.

Work Order #: 2202-02453

Project Name: SCITUATE DRY WEATHER SCREENING

Sample Number: 004
Sample Description: 53-000-005
Sample Type : GRAB
Sample Date / Time : 2/16/2022 @ 09:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	98	10	MPN/100 ml	SM9223B	2/16/2022 17:20	HMA

Sample Number: 005
Sample Description: 62-000-004
Sample Type : GRAB
Sample Date / Time : 2/16/2022 @ 09:34

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	2/16/2022 17:30	HMA

Sample Number: 006
Sample Description: 53-000-008
Sample Type : GRAB
Sample Date / Time : 2/16/2022 @ 09:50

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	2/16/2022 17:30	HMA

Sample Number: 007
Sample Description: 62-000-009
Sample Type : GRAB
Sample Date / Time : 2/16/2022 @ 10:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	2/16/2022 17:30	HMA

R.I. Analytical Laboratories, Inc.

Laboratory Report

Woodard & Curran, Inc.

Work Order #: 2202-02453

Project Name: SCITUATE DRY WEATHER SCREENING

Sample Number: 008
Sample Description: 53-000-011
Sample Type : GRAB
Sample Date / Time : 2/16/2022 @ 10:40

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	2/16/2022 17:40	HMA

Sample Number: 009
Sample Description: 52-000-009
Sample Type : GRAB
Sample Date / Time : 2/16/2022 @ 10:46

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	2/16/2022 17:40	HMA

Sample Number: 010
Sample Description: 52-000-008
Sample Type : GRAB
Sample Date / Time : 2/16/2022 @ 11:25

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	2/16/2022 17:40	HMA

Sample Number: 011
Sample Description: 46-000-007
Sample Type : GRAB
Sample Date / Time : 2/16/2022 @ 11:52

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	2/16/2022 17:40	HMA

R.I. Analytical Laboratories, Inc.**Laboratory Report**

Woodard & Curran, Inc.

Work Order #: 2202-02453

Project Name: SCITUATE DRY WEATHER SCREENING

Sample Number: 012
Sample Description: 38-000-001
Sample Type : GRAB
Sample Date / Time : 2/16/2022 @ 12:05

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	2/16/2022 17:40	HMA

REVA: Notation added regarding Ecoli being analyzed outside of the acceptable hold time.



CHAIN OF CUSTODY RECORD

41 Illinois Avenue
 Warwick, RI 02888-3007
 Tel: 800-937-2580

131 Coolidge St., Suite 105
 Hudson, MA 01749-1331
 Tel: 800-937-2580

Date Collected	Time Collected	Field Sample Identification	Grab or Composite	# of Containers & Type	Preservation Code ^P	Matrix Code ^M
2/16/22	8:45	TB-1	G	1P	NP	SW
2/16/22	8:50	51-000-002	G	1P	NP	SW
2/16/22	9:05	62-000-010	G	1P	NP	SW
2/16/22	9:20	53-000-005	G	1P	NP	SW
2/16/22	9:34	62-000-004	G	1P	NP	SW
2/16/22	9:56	53-000-008	G	1P	NP	SW
2/16/22	10:00	62-000-009	G	1P	NP	SW
2/16/22	10:40	53-000-011	G	1P	NP	SW
2/16/22	10:46	52-000-009	G	1P	NP	SW
2/16/22	11:25	52-000-008	G	1P	NP	SW
2/16/22	11:52	46-000-007	G	1P	NP	SW
2/16/22	12:05	38-000-001	G	1P	NP	SW

Bx. CCTSR

Client Information
 Company Name: Woodard and Curran
 Address: 250 Royal St Suite 200E
 City / State / Zip: Canton MA, 02001
 Main Telephone: 781-619-3259
 Contact Person: Stephanie Kaiser

Project Information
 Project Name: Sulfate Dry Weather Screening
 P.O. Number:
 Report To: Garrett Berger, Ph.D.
 Email addresses: gberger@wacurran.com
 Quote No: 5000@wacurran.com

Relinquished By Signatures	Date	Time	Received By Signatures	Date	Time	Turn Around Time
	2/16/22	2:12		2/16/22	2:12	Normal
	2/16/22	1530		2/16/22	1530	5-7 Business days
	2/16/22	1710		2-16-22	1710	Rush - Date Due: / /

Reporting Options
 MCP Standard
 MWRA eSMART
 State Report & Upload

Lab Use Only
 Sample Pick Up Only
 RIAL sampled; attach field hours
 RI received on Ice No Ice

Workorder No: 2202-02453
 Temp. Upon Receipt: 25.00°C

Containers: P=Poly, G=Glass, AG=Amber Glass, V=Vial, ST=Sterile Preservatives: A=Ascorbic Acid, NH4=NH4Cl, DI=DI-H2O, H=HCl, M=MeOH, N=HNO3, NP=None, S=H2SO4, SH=NaOH, T=Na2S2O5, Z=ZnOAc
 Matrix Codes: GW=Groundwater, SW=Surface Water, WW=Wastewater, DW=Drinking Water, S=Soil, SL=Sludge, A=Air, B=Bulk/Solid, WP=Wipe, O=



LABORATORY REPORT

Woodard & Curran, Inc.
Attn: Janelle Bonn
250 Royall Street
Suite 200E
Canton, MA 02021

Date Received: 2/21/2022
Date Reported: 2/23/2022
P.O. Number

Work Order #: 2202-02675

Project Name: SCITUATE DRY WEATHER OUTFALLS

Enclosed are the analytical results and Chain of Custody for your project referenced above. The sample(s) were analyzed by our Warwick, RI laboratory unless noted otherwise. When applicable subcontracted results are noted and subcontracted reports are enclosed in their entirety.

All samples were analyzed within the established guidelines of US EPA approved methods with all requirements met, unless otherwise noted at the end of a given sample's analytical results or in a case narrative.

The Detection Limit is defined as the lowest level that can be reliably achieved during routine laboratory conditions.

These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department.

Approved by:

A handwritten signature in black ink that reads "Nicole Skyleson".

Nicole Skyleson
Data Reporting Manager

Laboratory Certification Numbers (as applicable to sample's origin state):

Warwick RI * RI LAI00033, MA M-RI015, CT PH-0508

R.I. Analytical Laboratories, Inc.

Laboratory Report

Woodard & Curran, Inc.

Work Order #: 2202-02675

Project Name: SCITUATE DRY WEATHER OUTFALLS

Sample Number: 001
Sample Description: TB
Sample Type : GRAB
Sample Date / Time : 2/21/2022 @ 09:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<1.0	1.0	MPN/100 ml	SM9223B	2/21/2022 16:38	HMA

Sample Number: 002
Sample Description: 48-000-008
Sample Type : GRAB
Sample Date / Time : 2/21/2022 @ 09:05

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	20	10	MPN/100 ml	SM9223B	2/21/2022 16:38	HMA

Sample Number: 003
Sample Description: 35-000-001
Sample Type : GRAB
Sample Date / Time : 2/21/2022 @ 12:05

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Enterococci	<10	10	MPN/100 ml	IDEXX Enterolert	2/21/2022 16:46	HMA



CHAIN OF CUSTODY RECORD

41 Illinois Avenue
Warwick, RI 02888-3007
Tel: 800-937-2580

131 Coolidge St., Suite 105
Hudson, MA 01749-1331
Tel: 800-937-2580

Date Collected	Time Collected	Field Sample Identification	Grab or Composite	# of Containers & Type	Preservation Code ^P	Matrix Code ^M	Enter
2/21	9:00	TB	G	1/P NP	NP	SW	X
2/21	9:05	48-000-008	G	1/P NP	NP	SW	X
2/21	12:05	35-000-061	G	1/P NP	NP	SW	X

8

Client Information
 Company Name: Donald & Curran
 Address: 250 Boylston St Suite 200E
CARLEN, MA 02021
 City / State / Zip:
 Main Telephone:
 Contact Person: Stephanie Kaiser

Project Information
 Project Name: Sci-Hat Dry Weather Outfalls
 P.O. Number:
 Report To: Garrett Berger
 Sampled by: SK/EE
 Email addresses: gberger@side-inc.com
bonne.woodby@corra.com
 Phone:
 Quote No:

Relinquished By Signatures	Date	Time	Received By Signatures	Date	Time
	2/21	2:55 PM		2/21/22	14:55
	2/22	16:00		2/22/22	16:00

Turn Around Time	Normal	EMAIL Report
	X	5-7 Business days
		Rush - Date Due: / /

Reporting Options
 MCP Standard _____
 MWRA eSMART _____
 State Report & Upload _____

Lab Use Only
 Sample Pick Up Only
 RIAL sampled; attach field hours
 Received on Ice No Ice
 Workorder No: 22020635

Temp. Upon Receipt: 4.7 °C
 Containers: P=Poly, G=Glass, AG=Amber Glass, V=Vial, St=Sterile Preservatives: A=Ascorbic Acid, NH4=NH4Cl, DI=DJ-H2O, H=HCl, M=MeOH, N=HNO3, NP=None, S=H2SO4, SH=NaOH, T=Na2S2O8, Z=ZnOAc
 Matrix Codes: GW=Groundwater, SW=Surface Water, WW=Wastewater, DW=Drinking Water, S=Soil, SL=Sludge, A=Air, B=Bulk/Solid, WP=Wipe, O=



LABORATORY REPORT

Woodard & Curran, Inc.
Attn: Janelle Bonn
250 Royall Street
Suite 200E
Canton, MA 02021

Date Received: 3/31/2022
Date Reported: 4/4/2022
P.O. Number

Work Order #: 2203-05023

Project Name: PROJECT# 21.025 SCITUATE DRY WEATHER OUTFALLS

Enclosed are the analytical results and Chain of Custody for your project referenced above. The sample(s) were analyzed by our Warwick, RI laboratory unless noted otherwise. When applicable subcontracted results are noted and subcontracted reports are enclosed in their entirety.

All samples were analyzed within the established guidelines of US EPA approved methods with all requirements met, unless otherwise noted at the end of a given sample's analytical results or in a case narrative.

The Detection Limit is defined as the lowest level that can be reliably achieved during routine laboratory conditions.

These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department.

Approved by:

Nicole Skyleson
Data Reporting Manager

Laboratory Certification Numbers (as applicable to sample's origin state):

Warwick RI * RI LAI00033, MA M-RI015, CT PH-0508

R.I. Analytical Laboratories, Inc.

Laboratory Report

Woodard & Curran, Inc.

Work Order #: 2203-05023

Project Name: PROJECT# 21.025 SCITUATE DRY WEATHER OUTFALLS

Sample Number: 001
Sample Description: TB-1
Sample Type : GRAB
Sample Date / Time : 3/31/2022 @ 10:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	3/31/2022 17:55	HMA

Sample Number: 002
Sample Description: 29-000-002
Sample Type : GRAB
Sample Date / Time : 3/31/2022 @ 10:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	3/31/2022 17:55	HMA

Sample Number: 003
Sample Description: 29-000-001
Sample Type : GRAB
Sample Date / Time : 3/31/2022 @ 10:35

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	3/31/2022 17:55	HMA

Sample Number: 004
Sample Description: WC-024
Sample Type : GRAB
Sample Date / Time : 3/31/2022 @ 11:47

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	3/31/2022 17:55	HMA

R.I. Analytical Laboratories, Inc.**Laboratory Report**

Woodard & Curran, Inc.

Work Order #: 2203-05023

Project Name: PROJECT# 21.025 SCITUATE DRY WEATHER OUTFALLS

Sample Number: 005
Sample Description: 20-000-005
Sample Type : GRAB
Sample Date / Time : 3/31/2022 @ 12:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	3/31/2022 17:55	HMA



CHAIN OF CUSTODY RECORD

41 Illinois Avenue
Warwick, RI 02888-3007
Tel: 800-937-2580

131 Coolidge St., Suite 105
Hudson, MA 01749-1331
Tel: 800-937-2580

Date Collected	Time Collected	Field Sample Identification	Grab or Composite	# of Containers & Type	Preservation Code ^P	Matrix Code ^M
3/31	10:00	TB-1	G	1P NP	SW	X
3/31	10:10	29-000-002	G	1P NF	SW	X
3/31	10:35	29-000-001	G	1P NP	SW	X
3/31	11:47	WC-024	G	1P NP	SW	X
3/31	12:00	20-000-005	G	1P NP	SW	X

5

Client Information

Company Name: Woodward & Curran
 Address: 250 Randall St Ste 200E
 City / State / Zip: Canton MA 02021
 Main Telephone: 781-619-3289
 Contact Person: Stephanie Kaiser

Project Information

Project Name: Sutate Dry Weather Outfalls
 Project Number: 21, 025
 Report To: Gavett Perry, Tanelle Boyd
 Sampled by: SR/CT
 Cell: George@ste-inc.com
 Email addresses: jboyd@woodwardcurran.com
 Phone: _____
 Quote No: _____

Relinquished By Signatures	Date	Time	Received By Signatures	Date	Time	Turn Around Time
	3/31	1:50		3/31/22	13:50	Normal
	3/31/22	15:50		3/31/22	15:50	5-7 Business days
	3/31/22	17:15		3/31/22	17:15	Rush - Date Due: / /

Reporting Options

MCP Standard
 MWRA eSMART
 State Report & Upload

Project Comments

Expect results between 8-80000

SR

4-30

Lab Use Only

Sample Pick Up Only
 RIAL sampled; attach field hours
 Received on Ice No Ice

Work order No: 2103 65025

Containers: P=Poly, G=Glass, AG=Amber Glass, V=Vial, St=Sterile Preservatives, A=Ascorbic Acid, NH4=NH4Cl, DI=DI-H2O, H=HCl, M=MeOH, N=HNO3, NP=None, S=H2SO4, SH=NaOH, T=Na2S2O3, Z=ZnOAc
 Matrix Codes: GW=Groundwater, SW=Surface Water, WW=Wastewater, DW=Drinking Water, S=Soil, SL=Sludge, A=Air, B=Bulk/Solid, WP=Wipe, O=



LABORATORY REPORT

Woodard & Curran, Inc.
Attn: Stephanie Kaiser
250 Royall Street
Suite 200E
Canton, MA 02021

Date Received: 4/4/2022
Date Reported: 4/6/2022
P.O. Number

Work Order #: 2204-05153

Project Name: PROJECT# 21.025 SCITUATE DRY WEATHER OUTFALL

Enclosed are the analytical results and Chain of Custody for your project referenced above. The sample(s) were analyzed by our Warwick, RI laboratory unless noted otherwise. When applicable subcontracted results are noted and subcontracted reports are enclosed in their entirety.

All samples were analyzed within the established guidelines of US EPA approved methods with all requirements met, unless otherwise noted at the end of a given sample's analytical results or in a case narrative.

The Detection Limit is defined as the lowest level that can be reliably achieved during routine laboratory conditions.

These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department.

Approved by:

A handwritten signature in black ink that reads "Nicole Skyleson".

Nicole Skyleson
Data Reporting Manager

Laboratory Certification Numbers (as applicable to sample's origin state):

Warwick RI * RI LAI00033, MA M-RI015, CT PH-0508

R.I. Analytical Laboratories, Inc.

Laboratory Report

Woodard & Curran, Inc.

Work Order #: 2204-05153

Project Name: PROJECT# 21.025 SCITUATE DRY WEATHER OUTFALL

Sample Number: 001
Sample Description: TB-1
Sample Type : GRAB
Sample Date / Time : 4/04/2022 @ 10:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<1.0	1.0	MPN/100 ml	SM9223B	4/4/2022 17:02	HMA

Sample Number: 002
Sample Description: 55-000-008
Sample Type : GRAB
Sample Date / Time : 4/04/2022 @ 10:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Enterococci	<10	10	MPN/100 ml	IDEXX Enterolert	4/4/2022 17:02	HMA

Sample Number: 003
Sample Description: 06-000-003
Sample Type : GRAB
Sample Date / Time : 4/04/2022 @ 11:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Enterococci	10	10	MPN/100 ml	IDEXX Enterolert	4/4/2022 17:02	HMA

Sample Number: 004
Sample Description: 47-000-003
Sample Type : GRAB
Sample Date / Time : 4/04/2022 @ 12:55

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	4/4/2022 17:02	HMA



CHAIN OF CUSTODY RECORD
 41 Illinois Avenue
 Warwick, RI 02888-3007
 Tel: 800-937-2580

131 Coolidge St., Suite 105
 Hudson, MA 01749-1331
 Tel: 800-937-2580

Date Collected	Time Collected	Field Sample Identification	Grab or Composite	# of Containers & Type	Preservation Code ^P	Matrix Code ^M	Matrix
4/4/22	10:15	TB-1	G	1P NP	SW	X	Coli
4/4/22	10:20	55-000-003	G	1P NP	SW	X	
4/4/22	11:10	06-000-003	G	1P NP	SW	X	
4/4/22	12:55	47-000-003	G	1P NP	SW	X	

(Handwritten signature)

Client Information
 Company Name: Woodford and Curran
 Address: 256 Royal St. Ste 200E
 City / State / Zip: Canton MA 02021
 Main Telephone: 781-619-3287
 Contact Person: Stephanie Kaiser

Project Information
 Project Name: Saturated Day Weather Outfalls
 P.O. Number: 21.025
 Report To: Janet Bergy
 Sampled by: (T)SR
 Quote No:
 Email addresses: gberg@je-ml.com
jbrown@woodfordcurran.com
 Phone:

Relinquished By Signatures	Date	Time	Received By Signatures	Date	Time	Turn Around Time
<i>(Signature)</i>	4/4/22	1:20 PM	<i>(Signature)</i>	4/4/22	13:20	Normal
<i>(Signature)</i>	4/4/22	1:20	<i>(Signature)</i>	4/4/22	18:00	5-7 Business days
<i>(Signature)</i>	4/4/22	1:10	<i>(Signature)</i>	4/4/22	16:00	Rush - Date Due: / /

Reporting Options
 MCP Standard
 MWRA eSMART
 State Report & Upload

Project Comments
Expect values between 0-80,000
23
56.0°C

Lab Use Only
 Sample Pick Up Only
 RIAL sampled; attach field hours
 Received on Ice No Ice
 Workorder No: 2021-05153
 Temp. Up on Receipt: 56.0°C
 Containers: P=Poly, G=Glass, AG=Amber Glass, V=Vial, St=Sterile Preservatives: A=Ascorbic Acid, NH4=NH4Cl, D=D-H2O, H=HCl, M=MeOH, N=HNO3, NP=None, S=H2SO4, SH=NaOH, T=Na2S2O8, Z=ZnOAc
 Matrix Codes: GW=Groundwater, SW=Surface Water, WW=Wastewater, DW=Drinking Water, S=Soil, SL=Bulk/Solid, A=Air, B=Bulk/Solid, WP=Wipe, O=

Page of



LABORATORY REPORT

Woodard & Curran, Inc.
Attn: Rachel Patenaude
250 Royall Street
Suite 200E
Canton, MA 02021

Date Received: 4/5/2022
Date Reported: 4/7/2022
P.O. Number

Work Order #: 2204-05227

Project Name: PROJECT#21.025 SCITUATE DRY WEATHER OUTFALL

Enclosed are the analytical results and Chain of Custody for your project referenced above. The sample(s) were analyzed by our Warwick, RI laboratory unless noted otherwise. When applicable subcontracted results are noted and subcontracted reports are enclosed in their entirety.

All samples were analyzed within the established guidelines of US EPA approved methods with all requirements met, unless otherwise noted at the end of a given sample's analytical results or in a case narrative.

The Detection Limit is defined as the lowest level that can be reliably achieved during routine laboratory conditions.

These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department.

Approved by:

A handwritten signature in black ink that reads "Nicole Skyleson".

Nicole Skyleson
Data Reporting Manager

Laboratory Certification Numbers (as applicable to sample's origin state):
Warwick RI * RI LAI00033, MA M-RI015, CT PH-0508

R.I. Analytical Laboratories, Inc.

Laboratory Report

Woodard & Curran, Inc.

Work Order #: 2204-05227

Project Name: PROJECT#21.025 SCITUATE DRY WEATHER OUTFALL

Sample Number: 001
Sample Description: TB-1
Sample Type : GRAB
Sample Date / Time : 4/05/2022 @ 10:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<1.0	1.0	MPN/100 ml	SM9223B	4/5/2022 18:10	HMA

Sample Number: 002
Sample Description: 13-000-001
Sample Type : GRAB
Sample Date / Time : 4/05/2022 @ 10:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Enterococci	<10	10	MPN/100 ml	IDEXX Enterolert	4/5/2022 18:10	HMA

Sample Number: 003
Sample Description: 13-000-003
Sample Type : GRAB
Sample Date / Time : 4/05/2022 @ 10:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Enterococci	10	10	MPN/100 ml	IDEXX Enterolert	4/5/2022 18:15	HMA

Sample Number: 004
Sample Description: 13-000-002
Sample Type : GRAB
Sample Date / Time : 4/05/2022 @ 11:11

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Enterococci	<10	10	MPN/100 ml	IDEXX Enterolert	4/5/2022 18:15	HMA

R.I. Analytical Laboratories, Inc.

Laboratory Report

Woodard & Curran, Inc.

Work Order #: 2204-05227

Project Name: PROJECT#21.025 SCITUATE DRY WEATHER OUTFALL

Sample Number: 005
Sample Description: 14-000-002
Sample Type : GRAB
Sample Date / Time : 4/05/2022 @ 11:50

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	4/5/2022 18:49	DCH

Sample Number: 006
Sample Description: 23-000-007
Sample Type : GRAB
Sample Date / Time : 4/05/2022 @ 12:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	4/5/2022 18:49	DCH



R.I. ANALYTICAL
Specialists in Environmental Services

CHAIN OF CUSTODY RECORD

41 Illinois Avenue
Warwick, RI 02888-3007
Tel: 800-937-2580

131 Coolidge St., Suite 105
Hudson, MA 01749-1331
Tel: 800-937-2580

Date Collected	Time Collected	Field Sample Identification	Grab or Composite	# of Containers & Type	Preservation Code ^P	Matrix Code ^M	Contaminants
4/5	10:15	TB-1	G	1P NP SW	NP SW	SW	Enterococcus E. coli
4/5	10:20	13-000-001	G	1P NP SW	NP SW	SW	
4/5	10:45	13-000-003	G	1P NP SW	NP SW	SW	
4/5	11:11	13-000-002	G	1P NP SW	NP SW	SW	
4/5	11:50	14-000-002	G	1P NP SW	NP SW	SW	
4/5	12:20	23-000-007	G	1P NP SW	NP SW	SW	

6 AF

Client Information

Company Name: Woodward & Curran
Address: 250 Royal St Suite 200E
City / State / Zip: Canton MA 02021
Main Telephone: 781-619-3289
Contact Person: Stephanie Kaiser

Project Information

Project Name: Sediment Dry Weather Outfalls
P.O. Number: 21.025
Report To: Garth Bryan Javelle Smith
Sampled by: Chris Trickett
Quote No:
Phone:
Email: gje-goy@wcd-inc.com
Address: Woodward & Curran, com

Relinquished By Signatures

4/15/20 2:42
4/15/20 1750

Received By Signatures

4/15/20 14:42
4/15/20 1645
4/15/22 1750

Turn Around Time	Normal	EMAIL Report
X		
	5-7 Business days	
Rush - Date Due:	/ /	

Reporting Options

MCP Standard
MWRA eSMART
State Report & Upload

Project Comments

Expect values between 0 - 80000 AF 3.5
AF 4.5 °C

Containers: P=Poly, G=Glass, AG=Amber Glass, V=Vial, St=Sterile Preservatives: A=Ascorbic Acid, NH4=NH4Cl, DI=DI-H2O, H=HCl, M=MeOH, N=HNO3, NP=None, S=H2SO4, SH=NaOH, T=Na2S2O8, Z=ZnOAC
Matrix Codes: GW=Groundwater, SW=Surface Water, WW=Wastewater, DW=Drinking Water, S=Soil, SL=Sludge, A=Air, B=Bulk/Solid, WP=Wipe, O=

LABORATORY REPORT

Woodard & Curran, Inc.
Attn: Rachel Patenaude
250 Royall Street
Suite 200E
Canton, MA 02021

Date Received: 4/21/2022
Date Reported: 4/25/2022
P.O. Number

Work Order #: 2204-06390

Project Name: PROJECT#21.025 SCITUATE DRY WEATHER OUTFALLS

Enclosed are the analytical results and Chain of Custody for your project referenced above. The sample(s) were analyzed by our Warwick, RI laboratory unless noted otherwise. When applicable subcontracted results are noted and subcontracted reports are enclosed in their entirety.

All samples were analyzed within the established guidelines of US EPA approved methods with all requirements met, unless otherwise noted at the end of a given sample's analytical results or in a case narrative.

The Detection Limit is defined as the lowest level that can be reliably achieved during routine laboratory conditions.

These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department.

Approved by:



Nicole Skyleson
Data Reporting Manager

Laboratory Certification Numbers (as applicable to sample's origin state):

Warwick RI * RI LAI00033, MA M-RI015, CT PH-0508

R.I. Analytical Laboratories, Inc.

Laboratory Report

Woodard & Curran, Inc.

Work Order #: 2204-06390

Project Name: PROJECT#21.025 SCITUATE DRY WEATHER OUTFALLS

Sample Number: 001
Sample Description: TB-1
Sample Type : GRAB
Sample Date / Time : 4/21/2022 @ 09:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	4/21/2022 17:30	HMA

Sample Number: 002
Sample Description: 54-000-005
Sample Type : GRAB
Sample Date / Time : 4/21/2022 @ 09:40

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Enterococci	41	10	MPN/100 ml	IDEXX Enterolert	4/21/2022 17:30	HMA
Fecal Coliform (MF)	100	10	CFU/100 ml	SM9222D 19-21ed	4/21/2022 17:35	HMA

Sample Number: 003
Sample Description: 35-000-002
Sample Type : GRAB
Sample Date / Time : 4/21/2022 @ 11:05

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	1081	10	MPN/100 ml	SM9223B	4/21/2022 18:38	HMA

Sample Number: 004
Sample Description: 35-000-012
Sample Type : GRAB
Sample Date / Time : 4/21/2022 @ 11:40

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	10	10	MPN/100 ml	SM9223B	4/21/2022 18:38	HMA



CHAIN OF CUSTODY RECORD

41 Illinois Avenue
Warwick, RI 02888-3007
Tel: 800-937-2580

131 Coolidge St., Suite 105
Hudson, MA 01749-1331
Tel: 800-937-2580

Field Sample Identification

Date Collected	Time Collected	Field Sample Identification
4/21/22	9:30	TB-1
	9:40	54-000-005
	9:40	54-000-005
	11:05	35-000-002
	11:40	35-000-012

Grab or Composite	# of Containers & Type	Preservation Code P	Matrix Code M	E. coli	Enterococcus	Fecal Coliform
G	1 P	NP SW	SW	✓	✓	✓
				✓		
				✓		
				✓		

(Handwritten signature/initials)

Client Information
 Company Name: Woodard and Curran
 Address: 250 Royal St suite 2006
 City / State / Zip: Canton MA 02021
 Main Telephone: 781-619-3889
 Contact Person: Stephanie Kaiser

Project Information
 Project Name: Situate Dry Weather Outfalls
 P.O. Number: 21.025
 Report To: Garet Bergery Cell: Jandle Bohm Phone: gbergery@esde-inc.com
 Sampled by: J. Bohm Email addresses: J.Bohm@woodardcurran.com
 Quote No:

Relinquished By Signatures	Date	Time	Received By Signature	Date	Time
<i>(Signature)</i>	4/21/22	1:48	<i>(Signature)</i>	4/21/22	13:48
<i>(Signature)</i>	4/21/22	13:25	<i>(Signature)</i>	4/21/22	13:25
<i>(Signature)</i>	4/21/22	17:15	<i>(Signature)</i>	4/21/22	17:15

Reporting Options
 MCP Standard
 MWRA eSMART
 State Report & Upload

Lab Use Only
 Sample Pick Up Only
 R/LAL sampled; attach field hours
 Received on Ice No Ice
 Workorder No: 220406340
 Temp: U on Receipt 6.0 C
 Containers: P=Poly, G=Glass, AG=Amber Glass, V=Vial, SI=Sterile Preservatives: A=Ascorbic Acid, NH4=NH4Cl, DI=DI-H2O, F=HCl, M=MeOH, N=HNO3, NP=None, S=H2SO4, SH=NaOH, T=Na2S2O8, Z=ZnOAC
 Matrix Codes: GW=Groundwater, SW=Surface Water, WW=Wastewater, DW=Drinking Water, S=Soil, SL=Sludge, A=Air, B=Bulk/Solid, WP=W/pe, O=

LABORATORY REPORT

Woodard & Curran, Inc.
Attn: Rachel Patenaude
250 Royall Street
Suite 200E
Canton, MA 02021

Date Received: 4/22/2022
Date Reported: 4/25/2022
P.O. Number

Work Order #: 2204-06522

Project Name: PROJECT#21.025 SCITUATE DRY WEATHER OUTFALLS

Enclosed are the analytical results and Chain of Custody for your project referenced above. The sample(s) were analyzed by our Warwick, RI laboratory unless noted otherwise. When applicable subcontracted results are noted and subcontracted reports are enclosed in their entirety.

All samples were analyzed within the established guidelines of US EPA approved methods with all requirements met, unless otherwise noted at the end of a given sample's analytical results or in a case narrative.

The Detection Limit is defined as the lowest level that can be reliably achieved during routine laboratory conditions.

These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department.

Approved by:



Nicole Skyleson
Data Reporting Manager

Laboratory Certification Numbers (as applicable to sample's origin state):
Warwick RI * RI LAI00033, MA M-RI015, CT PH-0508

R.I. Analytical Laboratories, Inc.

Laboratory Report

Woodard & Curran, Inc.

Work Order #: 2204-06522

Project Name: PROJECT#21.025 SCITUATE DRY WEATHER OUTFALLS

Sample Number: 001
Sample Description: TB-1
Sample Type : GRAB
Sample Date / Time : 4/22/2022 @ 08:05

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<1.0	1.0	MPN/100 ml	SM9223B	4/22/2022 18:44	HMA

Sample Number: 002
Sample Description: 43-000-002
Sample Type : GRAB
Sample Date / Time : 4/22/2022 @ 08:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	4/22/2022 18:44	HMA

Sample Number: 003
Sample Description: 61-000-002
Sample Type : GRAB
Sample Date / Time : 4/22/2022 @ 08:50

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	96	10	MPN/100 ml	SM9223B	4/22/2022 18:44	HMA

Sample Number: 004
Sample Description: 81-000-001
Sample Type : GRAB
Sample Date / Time : 4/22/2022 @ 09:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	2.0	1.0	MPN/100 ml	SM9223B	4/22/2022 17:18	LKB

R.I. Analytical Laboratories, Inc.

Laboratory Report

Woodard & Curran, Inc.

Work Order #: 2204-06522

Project Name: PROJECT#21.025 SCITUATE DRY WEATHER OUTFALLS

Sample Number: 005
Sample Description: WC-016
Sample Type : GRAB
Sample Date / Time : 4/22/2022 @ 10:05

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Enterococci	<10	10	MPN/100 ml	IDEXX Enterolert	4/22/2022 18:05	HMA

Sample Number: 006
Sample Description: 14-000-003
Sample Type : GRAB
Sample Date / Time : 4/22/2022 @ 12:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	4/22/2022 18:44	HMA

Sample Number: 007
Sample Description: 14-000-004
Sample Type : GRAB
Sample Date / Time : 4/22/2022 @ 12:35

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	4/22/2022 18:44	HMA



CHAIN OF CUSTODY RECORD

41 Illinois Avenue
Warwick, RI 02888-3007
Tel: 800-937-2580

131 Coolidge St., Suite 105
Hudson, MA 01749-1331
Tel: 800-937-2580

Date Collected	Time Collected	Field Sample Identification	Grab or Composite	# of Containers & Type	Preservation Code ^P	Matrix Code ^M	Enterococcus
4/22/22	8:05	TB-1	G	1 P	NPSW	X	
	8:10	43-000-002		1		X	
	8:50	61-000-002		1		X	
	9:30	41-000-001		1		X	
	10:05	WC-016		1		X	
	12:00	14-000-003		1		X	
	12:35	14-000-004		1		X	

7 AF

Client Information		Project Information	
Company Name:	Woodard + Curran	Project Name:	Scituate Dry Weather Outfalls
Address:	250 Royal St., Suite 200 E	P.O. Number:	21.025
City / State / Zip:	Canton MA 02021	Report To:	Garrett Berney / ganelli@woodardcurran.com
Main Telephone:	781-619-3289	Sampled by:	garrey@sdc-inc.com
Contact Person:	Stephanie Kaiser	Quote No.:	j.bannon@woodardcurran.com

Relinquished By Signatures	Date	Time	Received By Signatures	Date	Time	Turn Around Time
Gillian Dimichro	4/12/22	3:19	awond	4/13/22	15:20	Normal <input checked="" type="checkbox"/> EMAIL Report
awond	4/17/22	16:55	awond	4/18/22	15:30	5-7 Business days
						Rush - Date Due: / /

Reporting Options		Lab Use Only	
MCP Standard	<input type="checkbox"/>	Sample Pick Up Only	<input type="checkbox"/>
MWRA eSMART	<input type="checkbox"/>	RIAL, sampled; attach field hours	<input type="checkbox"/>
State Report & Upload	<input type="checkbox"/>	Received on Ice	<input checked="" type="checkbox"/>
		No Ice	<input type="checkbox"/>
		Workorder No: 1204-06522	

Containers: P=Poly, G=Glass, AG=Amber Glass, V=Vial, St=Sterile Preservatives: A=Ascorbic Acid, NH4=NH4Cl, DI=DI-H2O, H=HCl, M=MeOH, N=HNO3, NP=None, S=H2SO4, SH=NaOH, T=Na2S2O8, Z=ZnOAg
 Matrix Codes: GW=Groundwater, SW=Surface Water, WW=Wastewater, DW=Drinking Water, S=Soil, SL=Sludge, A=Air, B=Bulk/Solid, WP=Wipe, O=

Temp. Upon Receipt
 4.2 °C
 at 10.5 °C

LABORATORY REPORT

Woodard & Curran, Inc.
Attn: Rachel Patenaude
250 Royall Street
Suite 200E
Canton, MA 02021

Date Received: 4/22/2022
Date Reported: 4/25/2022
P.O. Number

Work Order #: 2204-06523

Project Name: PROJECT#21.025 SCITUATE DRY WEATEHR OUTFALLS

Enclosed are the analytical results and Chain of Custody for your project referenced above. The sample(s) were analyzed by our Warwick, RI laboratory unless noted otherwise. When applicable subcontracted results are noted and subcontracted reports are enclosed in their entirety.

All samples were analyzed within the established guidelines of US EPA approved methods with all requirements met, unless otherwise noted at the end of a given sample's analytical results or in a case narrative.

The Detection Limit is defined as the lowest level that can be reliably achieved during routine laboratory conditions.

These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department.

Approved by:



Nicole Skyleson
Data Reporting Manager

R.I. Analytical Laboratories, Inc.

Laboratory Report

Woodard & Curran, Inc.

Work Order #: 2204-06523

Project Name: PROJECT#21.025 SCITUATE DRY WEATEHR OUTFALLS

Sample Number: 001
Sample Description: 59-000-001
Sample Type : GRAB
Sample Date / Time : 4/22/2022 @ 11:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	4/22/2022 18:44	HMA

Sample Number: 002
Sample Description: 62-000-005
Sample Type : GRAB
Sample Date / Time : 4/22/2022 @ 12:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
Enterococci	<10	10	MPN/100 ml	IDEXX Enterolert	4/22/2022 18:25	HMA

Sample Number: 003
Sample Description: 57-000-002
Sample Type : GRAB
Sample Date / Time : 4/22/2022 @ 12:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	4/22/2022 18:44	HMA



CHAIN OF CUSTODY RECORD

41 Illinois Avenue
Warwick, RI 02888-3007
Tel: 800-937-2580

131 Coolidge St., Suite 105
Hudson, MA 01749-1331
Tel: 800-937-2580

Date Collected	Time Collected	Field Sample Identification	Grab or Composite	# of Containers & Type	Preservation Code ^P	Matrix Code ^M	Contaminants
4/22/02	9:40	WG-053	G	1P NP SW X	NP SW X	SW X	E. coli, Enterococcus
4/22	11:20	59-008B-051	G	1P NP SW X	NP SW X	SW X	
4/22	12:00	62-008B-055	G	1P NP SW X	NP SW X	SW X	
4/22	12:45	57-008B-052	G	1P NP SW X	NP SW X	SW X	

3 AF

Client Information		Project Information	
Company Name:	Woodward & Lothrop	Project Name:	Situate Dry weather outfalls
Address:	250 Royal St Suite 200E	P.O. Number:	21,025
City / State / Zip:	Canton MA 02021	Report To:	George H. Bergeron
Main Telephone:	781 619 3289	Cell:	903 925 1111
Contact Person:	Stephanie Kaiser	Email addresses:	gbergeron@scdm.com jbonn@woodwardlothrop.com

Relinquished By Signatures	Date	Time	Received By Signatures	Date	Time
<i>[Signature]</i>	4/22/02	1:05	<i>[Signature]</i>	4/22/02	15:23
<i>[Signature]</i>	4/22/02	1:30		4/23/02	15:30

Reporting Options		Turn Around Time	
MCP Standard	<input type="checkbox"/>	Normal	<input checked="" type="checkbox"/>
MWRA eSMART	<input type="checkbox"/>	5-7 Business days	<input type="checkbox"/>
State Report & Upload	<input type="checkbox"/>	Rush - Date Due:	/ /

Lab Use Only	
Sample Pick Up Only	<input type="checkbox"/>
RIAL sampled; attach field hours	<input type="checkbox"/>
Received on Ice	<input checked="" type="checkbox"/>
No Ice	<input type="checkbox"/>
Workorder No:	2104-06923

Expect values between 0-80 ppb

AF 3.6
4.2
Temp. Upon Receipt °C

Containers: P=Poly, G=Glass, AG=Amber Glass, V=Vial, S=Sterile Preservatives: A=Ascorbic Acid, NH=NH₄I, DI=DI-H₂O, H=HCl, M=MeOH, N=HNO₃, NP=None, S=H₂SO₄, SH=NaOH, T=Na₂S₂O₃, Z=ZnOAc
Matrix Codes: GW=Groundwater, SW=Surface Water, WW=Wastewater, DW=Drinking Water, S=Soil, SL=Sludge, A=Air, B=Bulk/Solid, WP=Wipe, O=

LABORATORY REPORT

Woodard & Curran, Inc.
Attn: Garrett Bergey
250 Royall Street
Suite 200E
Canton, MA 02021

Date Received: 4/29/2022
Date Reported: 5/2/2022
P.O. Number

Work Order #: 2204-06999

Project Name: PROJECT#21.025 SCITUATE DRY WEATHER OUTFALL

Enclosed are the analytical results and Chain of Custody for your project referenced above. The sample(s) were analyzed by our Warwick, RI laboratory unless noted otherwise. When applicable subcontracted results are noted and subcontracted reports are enclosed in their entirety.

All samples were analyzed within the established guidelines of US EPA approved methods with all requirements met, unless otherwise noted at the end of a given sample's analytical results or in a case narrative.

The Detection Limit is defined as the lowest level that can be reliably achieved during routine laboratory conditions.

These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department.

Approved by:



Nicole Skyleson
Data Reporting Manager

Laboratory Certification Numbers (as applicable to sample's origin state):

Warwick RI * RI LAI00033, MA M-RI015, CT PH-0508

R.I. Analytical Laboratories, Inc.

Laboratory Report

Woodard & Curran, Inc.

Work Order #: 2204-06999

Project Name: PROJECT#21.025 SCITUATE DRY WEATHER OUTFALL

Sample Number: 001
Sample Description: TB-1
Sample Type : GRAB
Sample Date / Time : 4/29/2022 @ 08:55

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<1.0	1.0	MPN/100 ml	SM9223B	4/29/2022 17:50	HMA

Sample Number: 002
Sample Description: 01-000-001
Sample Type : GRAB
Sample Date / Time : 4/29/2022 @ 09:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	10	10	MPN/100 ml	SM9223B	4/29/2022 17:50	HMA

Sample Number: 003
Sample Description: 03-000-001
Sample Type : GRAB
Sample Date / Time : 4/29/2022 @ 09:43

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	10	10	MPN/100 ml	SM9223B	4/29/2022 17:15	MS

Sample Number: 004
Sample Description: WC-033
Sample Type : GRAB
Sample Date / Time : 4/29/2022 @ 10:25

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	4/29/2022 17:50	HMA

R.I. Analytical Laboratories, Inc.

Laboratory Report

Woodard & Curran, Inc.

Work Order #: 2204-06999

Project Name: PROJECT#21.025 SCITUATE DRY WEATHER OUTFALL

Sample Number: 005
Sample Description: 24-000-001
Sample Type : GRAB
Sample Date / Time : 4/29/2022 @ 11:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	4/29/2022 17:50	HMA

Sample Number: 006
Sample Description: 37-000-001
Sample Type : GRAB
Sample Date / Time : 4/29/2022 @ 11:37

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	6131	10	MPN/100 ml	SM9223B	4/29/2022 17:50	HMA

Sample Number: 007
Sample Description: 37-000-002
Sample Type : GRAB
Sample Date / Time : 4/29/2022 @ 12:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<10	10	MPN/100 ml	SM9223B	4/29/2022 17:50	HMA

Sample Number: 008
Sample Description: 62-000-007
Sample Type : GRAB
Sample Date / Time : 4/29/2022 @ 12:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	20	10	MPN/100 ml	SM9223B	4/29/2022 17:50	HMA

LABORATORY REPORT

Woodard & Curran, Inc.
Attn: Janelle Bonn
250 Royall Street
Suite 200E
Canton, MA 02021

Date Received: 5/20/2022
Date Reported: 5/24/2022
P.O. Number

Work Order #: 2205-08345

Project Name: PROJECT# 21.025 SCITUATE DRY WEATHER OUTFALLS

Enclosed are the analytical results and Chain of Custody for your project referenced above. The sample(s) were analyzed by our Warwick, RI laboratory unless noted otherwise. When applicable subcontracted results are noted and subcontracted reports are enclosed in their entirety.

All samples were analyzed within the established guidelines of US EPA approved methods with all requirements met, unless otherwise noted at the end of a given sample's analytical results or in a case narrative.

The Detection Limit is defined as the lowest level that can be reliably achieved during routine laboratory conditions.

These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department.

Approved by:



Nicole Skyleson
Data Reporting Manager

Laboratory Certification Numbers (as applicable to sample's origin state):

Warwick RI * RI LAI00033, MA M-RI015, CT PH-0508

R.I. Analytical Laboratories, Inc.

Laboratory Report

Woodard & Curran, Inc.

Work Order #: 2205-08345

Project Name: PROJECT# 21.025 SCITUATE DRY WEATHER OUTFALLS

Sample Number: 001
Sample Description: TB-1
Sample Type : GRAB
Sample Date / Time : 5/20/2022 @ 10:50

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	<1.0	1.0	MPN/100 ml	SM9223B	5/20/2022 17:33	LKB

Sample Number: 002
Sample Description: 53-000-014
Sample Type : GRAB
Sample Date / Time : 5/20/2022 @ 10:55

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	2987	10	MPN/100 ml	SM9223B	5/20/2022 17:33	LKB

Sample Number: 003
Sample Description: 46-000-001
Sample Type : GRAB
Sample Date / Time : 5/20/2022 @ 12:50

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED	ANALYST
E. Coli 18 Hour	41	10	MPN/100 ml	SM9223B	5/20/2022 17:33	LKB

**ATTACHMENT D: SUMMARY OF IDENTIFIED
OUTFALL CONDITION ISSUES**





Town of Scituate, MA
MS4 General Permit Year 4
Identified Outfall Condition Issues

Outfall ID	Inspection Date	Outfall Located	Outfall Accessible	Outfall Submerged	Submerged Percentage	Outfall Shape	Outfall Diameter (Inches)	Outfall Material	Condition Comments
WC-024	3/31/2022	Yes	Yes	No	--	Circular	12	Cast Iron	Pipe has corroded bottom.
07-000-007	4/5/2022	Yes	Yes	No	--	Circular	12	Reinforced Concrete Pipe	Piece broken off.
13-000-002	4/5/2022	Yes	Yes	No	--	Circular	18	Polyvinyl Chloride	Repair recommended on upstream PVC pipe at 80 Townsend.
13-000-003	4/5/2022	Yes	Yes	No	--	Circular	12	Unknown	Pipe broken, barely present.
36-000-004	1/24/2022	Yes	Yes	No	--	Circular	12	Corrugated Metal Pipe	No other pipes located in this area. Pipe 75% full of sediment. Pipe could be abandoned.
06-000-004	4/5/2022	Yes	Yes	Yes	100	Unknown	Unknown	Unknown	Outfall and upstream catch basin completely submerged. Outfall had thick layer of algae growth, recommend cleaning.
53-000-013	1/25/2022	Yes	Yes	Yes	100	Circular	Unknown	Reinforced Concrete Pipe	Outlet full of sediment.
01-000-001	4/29/2022	Yes	Yes	No	--	Circular	12	Reinforced Concrete Pipe	Vegetation surrounding outfall.
73-000-007	12/26/2021	Yes	Yes	No	--	Circular	12	Cast Iron	Overgrown with shrubs.
SDE-OF1	1/19/2022	Yes	Yes	No	--	Circular	12	Reinforced Concrete Pipe	End of pipe deteriorating.
SDE-OF2	1/19/2022	Yes	Yes	No	--	Circular	12	Reinforced Concrete Pipe	End of pipe is broken.
SDE-OF3	1/19/2022	Yes	Yes	No	--	Circular	8	Vitrified Clay	New outfall - unknown origin. Potential upstream feature inside not visible due to significant sediment.
38-000-002	1/25/2022	Yes	Yes	No	--	Circular	10	Reinforced Concrete Pipe	Brush has obscured outfall.
65-000-003	1/25/2022	Yes	Yes	No	--	Circular	20	Reinforced Concrete Pipe	Organic matter from marsh partially blocking outlet.
65-000-006	1/25/2022	Yes	Yes	No	--	Circular	12	Reinforced Concrete Pipe	Organic matter from marsh partially blocking outfall.
70-000-001	1/26/2022	Yes	Yes	No	--	Circular	10	Reinforced Concrete Pipe	Pipe 50% full of sediment.
WC-032	3/9/2022	Yes	Yes	No	--	Circular	12	Corrugated Metal Pipe	Bottom of pipe is rusted out.
64-000-001	3/17/2022	Yes	Yes	No	--	Circular	Unknown	Reinforced Concrete Pipe	Outfall almost completely buried in dirt. 70% filled with sediment.
32-000-002	3/31/2022	Yes	Yes	No	--	Circular	12	Reinforced Concrete Pipe	Outfall ~80% filled with sediment, recommend cleaning.
32-000-005	3/31/2022	Yes	Yes	No	--	Circular	12	Cast Iron	Difficult to locate, covered in leaves. Material is actually ductile iron.
WC-029	3/31/2022	Yes	Yes	Yes	30	Circular	12	Reinforced Concrete Pipe	Partially buried by yard waste/debris.
47-000-003	4/4/2022	Yes	Yes	No	--	Circular	12	Reinforced Concrete Pipe	Pipe ending cracked but fair condition.
55-000-008	4/4/2022	Yes	Yes	No	--	Circular	15	Cast Iron	Outfall filled with rocks.
83-000-001	4/21/2022	Yes	Yes	No	--	Circular	6	High-Density Polyethylene	Some sediment buildup within pipe.
68-000-003	4/22/2022	Yes	Yes	No	--	Circular	12	Reinforced Concrete Pipe	Slight corrosion at bottom of outfall.
62-000-007	4/29/2022	Yes	Yes	No	--	Circular	18	Polyvinyl Chloride	Algae on bottom of pipe.
56-000-004	1/12/2022	No	No	--	--	--	--	--	Possibly buried under dirt or submerged and frozen.
46-000-006	2/16/2022	Yes	No	Yes	100	Unknown	Unknown	Unknown	Outfall location assumed but pipe fully submerged with snow/debris
11-000-002	3/9/2022	No	No	--	--	--	--	--	Unable to locate outfall, likely buried
35-000-005	4/22/2022	No	No	--	--	--	Unknown	Not_Known	In area of heavy yard waste/leaves, possibly buried.

Notes:

1. "--" = indicates information not collected for this field.



ATTACHMENT E: SUMMARY OF IDENTIFIED MAPPING DISCREPANCIES



Town of Scituate, MA
MS4 General Permit Year 4
Identified MS4 Mapping Inconsistencies

Outfall ID	Inspection Date	Outfall Located	Outfall Accessible	Outfall Submerged	Submerged Percentage	Outfall Shape	Outfall Diameter (Inches)	Outfall Material	Comments
29-000-005	1/12/2022	Yes	Yes	No	--	Horseshoe	18	Reinforced Concrete Pipe	Not an outfall but rather an inlet for a culvert. There is drainage connecting to the culvert but that information pertains to 29-000-001 as this is upstream of that drainage.
42-000-003	1/12/2022	Yes	Yes	No	--	Circular	6	Reinforced Concrete Pipe	Material is ductile iron
56-000-001	1/12/2022	Yes	Yes	No	--	Horseshoe	24	Reinforced Concrete Pipe	Outfall appears to be a culvert.
32-000-006	1/19/2022	Yes	Yes	No	--	Circular	12	Reinforced Concrete Pipe	Outlet for retention pond
SDE-OF1	1/19/2022	Yes	Yes	No	--	Circular	12	Reinforced Concrete Pipe	Newly identified outfall, SDE-OF1 at 193 Mann Lot Rd
SDE-OF2	1/19/2022	Yes	Yes	No	--	Circular	12	Reinforced Concrete Pipe	Newly identified outfall. Orange buildup on pipe.
SDE-OF3	1/19/2022	Yes	Yes	No	--	Circular	8	Vitrified Clay	Newly identified outfall - unknown origin. Potential upstream feature inside not visible due to significant sediment.
52-000-001	1/25/2022	Yes	Yes	Yes	100	Circular	Unknown	Reinforced Concrete Pipe	Structure is not an outfall. Culvert inlet for street bridge
52-000-002	1/25/2022	Yes	Yes	No	--	Circular	24	Reinforced Concrete Pipe	Not an outfall. Culvert for street bridge.
76-000-001	1/26/2022	Yes	Yes	No	--	Circular	12	Reinforced Concrete Pipe	Structure at this location is an upstream catch basin for outfall 70-000-004
WC-003	1/26/2022	Yes	Yes	Yes	100	Circular	24	Reinforced Concrete Pipe	Structure confirmed to be a culvert
WC-004	1/26/2022	Yes	No	No	--	Circular	15	Reinforced Concrete Pipe	Structure confirmed to be a culvert
WC-005	1/26/2022	Yes	Yes	No	--	Circular	15	Reinforced Concrete Pipe	No upstream features mapped
46-000-008	2/16/2022	Yes	Yes	No	--	Circular	18	Reinforced Concrete Pipe	Structure is a culvert with no additional structures connected to it, no sample taken.
48-000-001	2/21/2022	Yes	Yes	No	--	Circular	15	Corrugated Metal Pipe	This point is an inlet to a culvert. No sample.
48-000-009	2/21/2022	Yes	Yes	No	--	Circular	15	Corrugated Metal Pipe	Believe outfall is just a culvert with upstream connectivity, therefore sample taken.
WC-044	3/17/2022	Yes	Yes	No	--	Horseshoe	Unknown	Reinforced Concrete Pipe	No sample as this "outfall" is just downstream piping from WC-043.
22-000-004	3/23/2022	Yes	Yes	No	--	Circular	24	Cast Iron	Location of mapping off, was closer to 22-000-005. Floatables were suds.
22-000-005	3/23/2022	Yes	Yes	No	--	Circular	6	Polyvinyl Chloride	No upstream piping mapped, could not investigate further.
19-000-005	3/31/2022	No	No	No	--		Unknown		No indication that this drainage area exists. Homeowner did not know of any structures either.
29-000-002	3/31/2022	Yes	Yes	No	--	Horseshoe	24	Reinforced Concrete Pipe	Outfall is slightly off in mapping. It is on the west side of #29 Captain Litchfield Ln.
32-000-005	3/31/2022	Yes	Yes	No	--	Circular	12	Cast Iron	Difficult to locate, covered in leaves. Material is actually ductile iron.
WC-029	3/31/2022	Yes	Yes	Yes	30	Circular	12	Reinforced Concrete Pipe	Outfall was partially submerged. No mapped upstream drainage, nearby catch basin was also submerged.
23-000-007	4/5/2022	Yes	Yes	Yes	70	Circular	12	Reinforced Concrete Pipe	Outfall standing water, upstream manhole mapped incorrectly. Flow from main line goes thru manhole, not catch basin.



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Outfall ID	Inspection Date	Outfall Located	Outfall Accessible	Outfall Submerged	Submerged Percentage	Outfall Shape	Outfall Diameter (Inches)	Outfall Material	Comments
23-000-003	4/13/2022	Yes	Yes	No	--	Circular	24	Reinforced Concrete Pipe	Outfall mapped as culvert. Followed upstream to standing water at 1528, unable to open 1530, could not locate 1531, sample taken at 1533.
38-000-008	4/14/2022	Yes	Yes	Yes	30	Circular	12		Outfall had standing water. First upstream catch basin had a northeast unmapped inlet coming from a stream that was trickling but not sampled as it was a culvert with no other infrastructure going into it. No northwest inlet present and southeast inlet was dry.
14-000-004	4/22/2022	Yes	Yes	No	--	Circular	14	Reinforced Concrete Pipe	Outfall had standing water filling about 60% of pipe. 1st upstream manhole (unmapped) had flow
35-000-010	4/22/2022	Yes	Yes	No	--	Horseshoe	24	Reinforced Concrete Pipe	Outfall very far from mapped location approximately 700' southeast of outfall point. Discharges close to school athletic fields. First upstream manhole was also dry.
24-000-001	4/29/2022	Yes	Yes	Yes	--	Circular	24	Reinforced Concrete Pipe	Unmapped catch basin receiving flow. Upstream of outfall is inlet receiving flow from nearby stream.
73-000-001	5/20/2022	Yes	Yes	Yes	80	Circular	12	Reinforced Concrete Pipe	Unmapped catch basin at entrance to golf course driveway.
19-000-006	1/19/2022	No	--	--	--	--	Unknown	--	Unable to locate outfall, mapped catch basins are not present either.
33-000-001	1/19/2022	No	--	--	--	--	--	--	Unable to locate outfall. Continued to upstream catch basin which does not have an outlet in direction of mapped outfall. Instead, goes to SDE-OF1.
33-000-002	1/19/2022	No	--	--	--	--	--	--	Unable to locate outfall. Continued to upstream cb which does not have an outlet in direction of mapped outfall. Instead, goes SW to catch basin within mapped boundaries of 33-000-001 (also could not locate). Flow then goes to SDE-OF1
23-000-005	1/24/2022	No	No	--	--	--	--	--	Could not locate outfall possibly behind MBTA safety fence.
36-000-003	1/24/2022	No	No	--	--	--	Unknown	--	Could not locate outfall. Catch basins 1178 and 1179 do not exist. Standing water at catch basins 1180, 1181 and 1182.
77-000-003	1/24/2022	No	No	--	--	--	--	--	No outfall located in the area. Outfall mapped location is a parking lot. The only drainage located was a catch basin with no outlets visible.
65-000-004	1/25/2022	No	No	--	--	--	--	--	Could not locate outfall. Possibly does not exist. Closest structure to mapped location services 65-000-003. Confirmed by sound testing catch basin at the intersection of Vinal Ave and Kent St. No upstream features located
50-000-004	1/26/2022	No	No	--	--	--	--	--	Could not locate outfall. Possibly does not exist. Upstream catch basin does not exist Outfalls 50-000-005 and 50-000-006 previously located.
71-000-003	1/26/2022	No	--	--	--	--	--	--	No upstream features mapped.



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73-000-003	1/26/2022	No	No	--	--	--	--	--	Could not locate outfall. Possibly discharges into culvert. Upstream CB-2908 mapped incorrectly. Catch basin outlet points SW not NE. SW inlet does not exist.
52-000-011	2/16/2022	No	No	--	--	--	--	--	Could not locate outfall, no upstream features mapped.
53-000-012	2/16/2022	No	No	--	--	--	--	--	Could not locate outfall. Upstream catch basin dry. 12" HDPE pipe located near outfall location. Pipe coming from opposite direction
50-000-002	2/21/2022	No	No	--	--	--	--	--	Outfall does not appear to exist as mapped. First upstream catch basin did not have an outlet. Inlet was dry.
10-000-006	3/9/2022	No		--	--	--	Unknown	--	Unable to find outfall it is likely buried. First upstream feature has standing water, next seems to not exist.
21-000-004	3/9/2022	No	No	--	--	--	--	--	Unable to locate outfall, appears to be mapped incorrectly. First mapped upstream cb does not exist, second mapped upstream catch basin flows toward SE, third mapped upstream catch basin flows toward NE. suspected blind connection between 2nd and 3rd mapped catch basins to outfall.
64-000-003	3/17/2022	No	No	--	--	--	Unknown	Unknown	Dry at upstream catch basin. Outfall and first set of catch basins did not exist in field.
70-000-004	3/17/2022	No	No	--	--	--	Unknown	Unknown	Could not locate outfall. Upstream catch basin was dry but did not match pipe configuration as mapped.
75-000-005	3/17/2022	No	No	--	--	--	Unknown	Unknown	No outfall located in area. No upstream features mapped. Manholes in road discharge to north rather than to west.
WC-023	3/31/2022	No	No	No	--	--	Unknown	Unknown	Suspect WC-023 is actually a culvert inlet. No other structures present, no upstream mapping to investigate.
47-000-004	4/4/2022	--	--	--	--	--	Unknown	--	Unclear if structure is supposed to represent the flume like structure above the culvert or the culvert itself (which had no drainage structures discharging into it). The previous comment indicated it was an asphalt chute, which is dry.
47-000-005	4/4/2022	--	--	--	--	--	--	--	Could not locate outfall. Outfall that was located on north side of #72 Grove St that was standing water (suspect this is the actual location of outfall). No sample taken as the first 2 upstream catch basin did not exist.
23-000-002	4/5/2022	--	--	--	--	--	NA	--	The structure listed is actually the inlet to a culvert. The first upstream catch basin has no additional pipes going into it, therefore no sample taken. Did recommend cleaning the inlet as there is yard debris and trash at the inlet causing a slight blockage.
83-000-002	4/12/2022	No	No	--	--	--		--	Could not locate outfall or any upstream features. Mapped catch basin does not exist.



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20-000-001	4/13/2022	No	No	No	--	Unknown	Unknown	--	Could not locate outfall, continued upstream to sample from catch basin, mapping is slightly off
34-000-004	4/14/2022	No	No	--	--	--	Unknown	Unknown	Outfall listed as upland discharge. No structures present in area and point is in school building on top of hill. No upstream piping to reference.
34-000-006	4/14/2022	No	No	--	--	--	Unknown	Unknown	Only a culvert where outfall is mapped. Upstream manhole where stream goes through culvert has dry inlets. Second upstream catch basin dry outlet.
65-000-008	4/21/2022	No		--	--	--	--	--	Out a culvert where outfall is mapped. Upstream manhole where stream goes through culvert has dry inlets. Second upstream catch basin dry outlet.
35-000-009	4/22/2022	No	No	--	--	--	Unknown	Unknown	This outfall does not exist. Upstream catch basin corresponds to flow for outfall WC-033 and did not have a second outlet to this outfall area. It is assumed this outfall is a mapping error.
35-000-011	4/22/2022	No	No	--	--	--	Unknown	Unknown	Residents at neighboring home claimed there is an outfall and attempted to dig it out no pipe could be seen. Upstream catch basin appears to continue going NW along Country Way and possibly ties in to WC-034 but could not confirm. Upstream catch basin was dry.
68-000-001	4/22/2022	No	--	--	--	--	Unknown	--	No outfall appears to exist for this point. It is possibly a mapping error as 68-000-003 was present and there was also a culvert with no tied in pipes or other infrastructure. Photo of area of outfall on map attached.
84-000-001	4/22/2022	No	--	--	--	--	--	--	Outfall buried and drain pipe filled in, road was built up extra 6 inches so no longer exists
84-000-002	4/22/2022	No	No	--	--	--	--	--	Same area and circumstances as 84-001: filled in and covered with rocks
06-000-002	4/29/2022	No	No	--	--	--	Unknown	--	Cannot locate outfall, 273 outlet goes South toward 06-000-003.
46-000-004	5/20/2022	No	No	--	--	--	Unknown	Unknown	Outfall does not appear to exist. First upstream manhole mapped is actually going north (no piping going to direction of 46-000-004) and then discharging from there into 46-000-003 which was already sampled at the outfall. No sample taken.
58-000-004	5/20/2022	No	No	--	--	--	Unknown	Unknown	Mapping appears to be inaccurate. Could not locate any structures other than second upstream catch basin.

Notes:

1. "--" = indicates information not collected for this field.