

### Marblehead Outfall Priority Inventory

Outfall Unique ID	Receiving Water	Screening Date	Sample Location	Field Notes	Weather Conditions	Precipitation in previous 24 hours	Precipitation in previous 48 hours	Ammonia_mg/L	Surfactants_mg/L	Chlorine_mg/L	Enterococci_100mL	Conductivity_us/cm	Salinity_ppt	Temperature	Priority Ranking
1	Marblehead Harbor	6/22/2021	Suburban Residential	Sampled by Bobrek Engineering on May	75 °F	0	0	0	0	0	98	19.6	14	62.8 °F	High
2808	Marblehead Harbor														High
2880	Marblehead Harbor	6/25/2021	Suburban Residential	Closed, 48-inch CMP, Circular, Single, not submerged, no flow, no sediment, substantial flow, cloudy (turbidity) , potential source of	70 °F	0.13*	0	0	2	0	>2,420	5.22	2.8	17.4	High
2961	Marblehead Harbor			Inspected 10/15/19, DRY				No flow. No sample taken.	High						
2964	Marblehead Harbor			Inspected 10/15/19, DRY				No flow. No sample taken.	High						
3001	Marblehead Harbor	9/17/2019						0	0.50	0	77.6		0.7		High
3110	Marblehead Harbor	9/17/2019						0.5	0.75	0	186		3.1		High
3182	Marblehead Harbor	10/15/2019						0	0.25	0	28.5		0.3		High
3195	Marblehead Harbor	10/15/2019						0	0.25	0	22.3		0.2		High
3198	Marblehead Harbor			Should be *3198											High
3200	Marblehead Harbor			Inspected 10/15/19, DRY				No flow. No sample taken.	High						
3201	Marblehead Harbor			Should be *3201											High
3206	Marblehead Harbor			Inspected 10/15/19, DRY				No flow. No sample taken.	High						
3346	Marblehead Harbor														High
3471	Marblehead Harbor														High
3569	Marblehead Harbor	9/26/2019						0	0.25	0	>2,420		0.2		High
3583	Marblehead Harbor	6/25/2021	Suburban Residential	Closed, 48-inch RCP,Circular, Single, not submerged, no sediment, substantial flow, Slight cloudiness (turbidity), white suds, potential source of	70 °F	0.13*	0	0	2	0	>2,420	14.04	8.3	16.8	High
3764	Marblehead Harbor	9/17/2019						0	0.25	0	313		0.3		High
3792	Marblehead Harbor														High
10398	Marblehead Harbor	8/6/2019		Sampled by Haley & Ward on 8/6/19											High
3471	Marblehead Harbor	9/27/2019		Inspected 9/26/19, DRY				No flow. No sample taken.	High						
3474	Marblehead Harbor	9/28/2019		Inspected 9/26/19, DRY				No flow. No sample taken.	High						
3503	Marblehead Harbor	9/28/2019		Inspected 9/26/19, DRY				No flow. No sample taken.	High						
3508	Marblehead Harbor	9/29/2019		Inspected 9/26/19, DRY				No flow. No sample taken.	High						
3516	Marblehead Harbor	9/30/2019		Inspected 9/26/19, DRY				No flow. No sample taken.	High						
3521	Marblehead Harbor	10/01/2019		Inspected 9/26/19, Could Not Access				No flow. No sample taken.	High						
3569	Marblehead Harbor	9/26/2019		Sampled on 9/26/19											High
3583	Marblehead Harbor	6/25/2021	Suburban Residential												High
3605	Marblehead Harbor	9/26/2019		(no longer in use)											High
3742	Marblehead Harbor	9/26/2019		Inspected 9/26/19, DRY				No flow. No sample taken.	High						
3764	Marblehead Harbor	9/17/2019													High
3841	Marblehead Harbor	10/15/2019		Inspected 10/15/19, DRY				No flow. No sample taken.	High						
1985	Salem Harbor	11/26/2019						0	0.25	0	>2,420		0.3		High
1986	Salem Harbor	11/26/2019						0	0.25	0	1410		0.4		High
1990	Salem Harbor	11/26/2019						0.25	0.25	0	179		0.2		High
1993	Salem Harbor	11/26/2019		Sampled on 11/26/19				0	0.25	0	727		0.2		High

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1997	Salem Harbor	5/17/2021	Open Space	Closed, 24" RCP, Single, Circular, not submerged,	70 °F	< 0.1	0	0.25	0.25	0	135	579	0.3	15.1	High
1999	Salem Harbor	11/26/2019						0	0.25	0.5	12		0.3		High
2013	Salem Harbor	11/26/2019						0	0.25	0	5		0.2		High
2014	Salem Harbor	5/17/2021	Suburban Residential	Closed, CMP inside RCP, Single, Circular, not submerged, partial sediment. Outfall is obstructed. CMP broken inside.	70 °F	< 0.1	0	0	0.25	0	16.8	1101	0.6	15.7	High
2630	Salem Harbor	5/17/2021	Suburban Residential	Closed, RCP, Single, Circular, not submerged, partial sediment.	70 °F	< 0.1	0	0	0.25	0	1	709	0.3	13.1	High
2638	Salem Sound			Inspected 10/15/19, DRY				No flow. No sample taken.	High						
2648	Salem Sound			Inspected 10/15/19, DRY				No flow. No sample taken.	High						
2670	Salem Sound	10/15/2019						0	0.75	0	178		0.3		High
2677	Salem Sound			Grace Oliver. Sampled by Haley & Ward on 8/6/19.											High
2679	Salem Sound			Inspected 10/15/19, DRY				No flow. No sample taken.	High						
2682	Salem Sound			Inspected 10/15/19, DRY				No flow. No sample taken.	High						
2683	Salem Sound	5/17/2021	Suburban Residential	Closed, ~36-inch RCP, Single, Circular, not submerged, partial sediment, moderate flow. Seaweed at bottom of pipe that flow passes through. May influence	70 °F	Trace	0	1.0	0.75	0	135	794	0.4	16.7	High
2683	Salem Sound														High
2808	Salem Sound	6/25/2021	Suburban Residential	Closed, 2'x4' Box Culvert, RCP, not submerged, moderate flow, slight cloudiness (turbidity), unlikely source of contamination.	70 °F	0.13*	0	0	2	0	>2,420	12.63	7.3	16.6	High
3735	Salem Sound	10/15/2019						0	0.25	0	34.5		0.2		High
3729	Salem Sound														High
3735	Salem Sound	10/15/2019		Sampled on 10/15/19											High
1968	Atlantic Ocean (not an IL 2014 waterbody)	9/17/2019						0	0.25	0	65		0.2		Medium
1971	Atlantic Ocean (not an IL 2014 waterbody)	9/17/2019		Crown Way. Sampled on 9/17/19.				0.5	0.25	0	>2,420		0.5		Medium
3356	Atlantic Ocean (not an IL 2014 waterbody)	9/26/2019						0	0.5	0	617		2.0		Medium
3426	Atlantic Ocean (not an IL 2014 waterbody)	9/26/2019						0.5	0.5	0	11.5		0.3		Medium
3457.1	Atlantic Ocean (not an IL 2014 waterbody)	9/26/2019		3457A				0	0.75	0	14.8		0.3		Medium
3457.3	Atlantic Ocean (not an IL 2014 waterbody)	9/26/2019		3457C				0.5	0.5	0	>2,420		0.3		Medium
3468.1	Atlantic Ocean (not an IL 2014 waterbody)	9/26/2019		3468A				0	0.25	0	93.3		0.1		Medium
3468.2	Atlantic Ocean (not an IL 2014 waterbody)	9/26/2019		3468B				0	0.25	0	<1		0.2		Medium
3495	Atlantic Ocean (not an IL 2014 waterbody)	9/26/2019						0	0.25	0	<1		0.2		Medium
1120 (DMH 927)	Atlantic Ocean (not an IL 2014 waterbody)	9/17/2019		dmh 927 Manhole upstream of combination with SWPT and discharge to Preston Beach outfall.				0	0.25	0	30.9		0.2		Medium

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1978	Forest River	6/24/2021	Suburban Residential	Closed, 36-inch RCP, Single, Circular, partially submerged (tidal), partial sediment.	70 °F	0	0.88	No flow. No sample taken. Outfall is located within tidal influence. Submerged during high tides. This outfall discharges to Forest River.	No flow. No sample taken. Outfall is located within tidal influence. Submerged during high tides. This outfall discharges to Forest River.	No flow. No sample taken. Outfall is located within tidal influence. Submerged during high tides. This outfall discharges to Forest River.	No flow. No sample taken. Outfall is located within tidal influence. Submerged during high tides. This outfall discharges to Forest River.	No flow. No sample taken. Outfall is located within tidal influence. Submerged during high tides. This outfall discharges to Forest River.	No flow. No sample taken. Outfall is located within tidal influence. Submerged during high tides. This outfall discharges to Forest River.	No flow. No sample taken. Outfall is located within tidal influence. Submerged during high tides. This outfall discharges to Forest River.	Medium
1979	Forest River	6/24/2021	Suburban Residential	Closed, 12-inch RCP, Single, Circular (crescent-shaped opening), not submerged,	70 °F	0	0.88	No flow. No sample taken.	Medium						
2002	Intermediate	5/17/2021	Suburban Residential	Closed, ~36-inch RCP, Single, Circular, not submerged, no sediment.	70 °F	< 0.1	0	0.25	0.50	0	130	961	0.4	15	Medium
3785	Intermediate	10/15/2019						0	0.25	0	144		0.2		Medium
1986	Salem Harbor			Sampled on 11/26/19											Medium
1987	Salem Harbor			Inspected on 11/26/19, DRY				No flow. No sample taken.	Medium						
1988	Salem Harbor			Inspected on 11/26/19, DRY				No flow. No sample taken.	Medium						
1990	Salem Harbor			Sampled on 11/26/19				No flow. No sample taken.	Medium						
1994	Salem Harbor			Inspected on 11/26/19,											Medium
2005	Salem Harbor			Inspected on 11/26/19, DRY				No flow. No sample taken.	Medium						
2575	Salem Harbor	5/17/2021	Suburban Residential	Closed, 8" Clay, Single, Circular, not submerged, no sediment.	70 °F	< 0.1	0	No flow. No sample taken.	Medium						
2580	Salem Harbor			Inspected 10/15/19, DRY				No flow. No sample taken.	Medium						
3718	Salem Harbor	11/26/2019		Inspected on 11/26/19, DRY				No flow. No sample taken.	Medium						
3785	Salem Harbor	10/15/2019	Suburban Residential	Sampled on 10/15/19											Medium
1209	Atlantic Ocean (not an IL 2014 waterbody)														Low
1966	Atlantic Ocean (not an IL 2014 waterbody)			Inspected 9/17/19, DRY				No flow. No sample taken.	Low						
1968	Atlantic Ocean (not an IL 2014 waterbody)			Sampled on 9/17/19.											Low
1969	Atlantic Ocean (not an IL 2014 waterbody)			Inspected 9/17/19, DRY				No flow. No sample taken.	Low						
3207	Atlantic Ocean (not an IL 2014 waterbody)			Inspected 10/15/19, DRY				No flow. No sample taken.	Low						
3213	Atlantic Ocean (not an IL 2014 waterbody)			Inspected 10/15/19, DRY				No flow. No sample taken.	Low						
3278	Atlantic Ocean (not an IL 2014 waterbody)	5/17/2021	Institutional (K thru 5 school)	Closed, 8-inch RCP, Single, Circular, partially submerged, partial	70 °F	< 0.1	0	No flow. No sample taken.	Low						
3418	Atlantic Ocean (not an IL 2014 waterbody)			Inspected 9/17/19, DRY				No flow. No sample taken.	Low						
3457	Atlantic Ocean (not an IL 2014 waterbody)			We found three outfalls, renamed them A, B and C below.											Low
3457.2	Atlantic Ocean (not an IL 2014 waterbody)			3457B Sampled on											Low
3468	Atlantic Ocean (not an IL 2014 waterbody)			We found two outfalls, renamed them A, B below.											Low
3674	Atlantic Ocean (not an IL 2014 waterbody)			Red Steps, not on map. Sampled per AM's request on 9/17/19											Low
3486	Atlantic Ocean (not an IL 2014 waterbody)	9/29/2019		Inspected 9/26/19, DRY				No flow. No sample taken.	Low						



Outfall Screening Data 2021  
Collected by VM Consulting LLC

Outfall Unique ID	Screening Date	Sample Location	Field Notes	Weather Conditions (at time of Sampling)	Precipitation in previous 24 hours (in.)	Precipitation in previous 48 hours (in.)	Ammonia (mg/L)	Surfactants (mg/L)	Chlorine (mg/L)	Enterococci per 100mL	Conductivity (uS/cm)	Salinity (ppt)	Temperature
2683	5/17/21	Suburban Residential	Closed, ~36-inch RCP. Single, Circular, not submerged, partial sediment, moderate flow. Seaweed at bottom of pipe that flow passes through. May influence sample.	70 °F	Trace	0	1.0	0.75	0	135	794	0.40	16.7
2663	5/17/21	Suburban Residential	Closed, ~24-inch RCP. Single, Circular, not submerged, partial sediment. Outlet obstructed (about 75%) with organic yard debris. Can only see crown of pipe.	70 °F	< 0.1	0	No flow. No sample taken.						
3971	5/17/21	Suburban Residential	Closed, Unknown pipe diameter, unknown pipe material, Single, Circular, not submerged, partial sediment. Outfall clogged with branches/yard waste. Can't see pipe, just the pipe opening.	70 °F	< 0.1	0	No flow. No sample taken.						
2002	5/17/21	Suburban Residential	Closed, ~36-inch RCP. Single, Circular, not submerged, no sediment.	70 °F	< 0.1	0	0.25	0.50	0	130	961	0.40	15
2004	5/17/21	Suburban Residential	Closed, ~10-inch CMP, Single, Circular, not submerged, no sediment.	70 °F	< 0.1	0	No flow. No sample taken.						
3278	5/17/21	Institutional (K thru 5 school)	Closed, 8-inch RCP, Single, Circular, partially submerged, partial sediment.	70 °F	< 0.1	0	No flow. No sample taken.						
2011	5/17/21	Suburban Residential	Closed, ~24-inch RCP. Single, Circular, not submerged, partial sediment.	70 °F	< 0.1	0	No flow. No sample taken.						
2014	5/17/21	Suburban Residential	Closed, CMP inside RCP, Single, Circular, not submerged, partial sediment. Outfall is obstructed. CMP broken inside.	70 °F	< 0.1	0	0	0.25	0	16.8	1,101	0.6	15.7
2630	5/17/21	Suburban Residential	Closed, RCP, Single, Circular, not submerged, partial sediment.	70 °F	< 0.1	0	0	0.25	0	1	709	0.3	13.1
2575	5/17/21	Suburban Residential	Closed, 8" Clay, Single, Circular, not submerged, no sediment.	70 °F	< 0.1	0	No flow. No sample taken.						
3844	5/17/21	Suburban Residential	Closed, 4" PVC, Single, Circular, not submerged, no sediment.	70 °F	< 0.1	0	No flow. No sample taken.						
1997	5/17/21	Open Space	Closed, 24" RCP, Single, Circular, not submerged.	70 °F	< 0.1	0	0.25	0.25	0	135	579	0.3	15.1
1979	6/24/21	Suburban Residential	Closed, 12-inch RCP, Single, Circular (crescent-shaped opening), not submerged, no sediment, no flow.	70 °F	0	0.88	No flow. No sample taken.						
1978	6/24/21	Suburban Residential	Closed, 36-inch RCP, Single, Circular, partially submerged (tidal), partial sediment.	70 °F	0	0.88	No flow. No sample taken. Outfall is located within tidal influence. Submerged during high tides. This outfall discharges to Forest River.						
1977	6/24/21	Suburban Residential	Closed, 8-inch CMP, Single, Circular, not submerged, no flow.	70 °F	0	0.88	No flow. No sample taken.						
1964	6/24/21	Suburban Residential	Closed, 18-inch RCP, Circular, partially submerged (50%), no flow.	70 °F	0	0.88	No flow. No sample taken.						
4043	6/24/21	Suburban Residential	Closed, 8-inch RCP, Circular, single, no flow.	70 °F	0	0.88	No flow. No sample taken.						
2880	6/25/21	Suburban Residential	Closed, 48-inch CMP, Circular, Single, not submerged, no flow, no sediment, substantial flow, cloudy (turbidity), potential source of contamination.	70 °F	0.13*	0	0.0	2.0	0.0	>2,420	5.22	2.8	17.4
2808	6/25/21	Suburban Residential	Closed, 2'x4' Box Culvert, RCP, not submerged, moderate flow, slight cloudiness (turbidity), unlikely source of contamination.	70 °F	0.13*	0	0.0	2.0	0.0	>2,420	12.63	7.3	16.6
3583	6/25/21	Suburban Residential	Closed, 48-inch RCP, Circular, Single, not submerged, no sediment, substantial flow, Slight cloudiness (turbidity), white suds, potential source of contamination.	70 °F	0.13*	0	0.0	2.0	0.0	>2,420	14.04	8.3	16.8

\* Precipitation began as we were collecting samples after 48 hours of no precipitation. The 0.13" of rain recorded on 6/25 accumulated after our samples were collected.

Final results will be available in the MS4 Year 3 Annual report