

SALEM SOUND COASTWATCH

2025 Tributaries and Water Quality Monitoring

Location: Peabody, MA

Water Bodies: Tapley Brook, Goldwaith Brook, Proctor Brook, North River

Precipitation: 6/26/25 and 10/21/25 were Wet Days

Samples Collected by Salem Sound Coastwatch staff and volunteers: Susan Marsh, Katy Serth, and Chris Bresnahan

Summary of Findings:

On September 12, 2024 Salem Sound Coastwatch (SSCW) gathered samples along the North River and several brooks in Peabody, MA. All the sites had Enterococcus levels below 100 except for the Tapley Brook Site P3 (552) at 5 Allens Lane, which had a level of 5,938/100mL. SSCW collected additional samples on October 28, 2024, in an attempt to pinpoint the source of contamination. Additional samples were collected at Sidneys Pond above the dam at Tapley Brook (P5) as well as the outflow pipe at Cedar Grove Cemetery where the Upper Tapley Brook flows into Sidneys Pond (P6). Both sites had low levels of Enterococcus, (10 and 41 respectively).

SSCW included Washington Street (P2) and the outlet at Sidney Pond's dam (P5P) in the 2025 Clean Beaches & Streams and Tributaries & Water Quality programs to track bacteria levels across the summer. Further investigation for the source of contamination and general water quality conditions continued in the Fall of 2025. Levels were low at the Sidneys Pond outlet but high at P2, which implies pollution is entering Tapley Brook between the two sites. On August 12 a large amount of brown particulate was floating in the water. Testing showed high levels of Fecal Coliform.

Date	Site ID	Time	48 hour rainfall in inches	Enteroc./100mL	Fecal Coliform./100mL	E. Coli/100mL	Ammonia ppm	Surfactants mg/L	Chlorine mg/L	Temperature °C	Salinity ppt	Conductivity mS/cm	pH	Dissolved Oxygen mg/L	Water Body	Field Notes
6/12/2025	P2	7:25	0.07	2,603	-	-	-	-	-	0	-	-	-	-	Tapley	Tested through the Clean Beaches & Streams Program
6/12/2025	P5P	7:10	0.07	10	-	-	-	-	-	0	-	-	-	-	Tapley	Tested through the Clean Beaches & Streams Program
6/26/2025	P2	7:20	0.00	1,722	-	1,120	-	-	-	0	-	-	-	-	Tapley	Tested through the Clean Beaches & Streams Program
6/26/2025	P2	7:20	0.00	1,046	-	-	-	-	-	0	-	-	-	-	Tapley	Field Duplicate; Average=1,384; Tested through the Clean Beaches & Streams Program
6/26/2025	P5P	7:20	0.00	109	-	-	-	-	-	0	-	-	-	-	Tapley	Tested through the Clean Beaches & Streams Program;
7/16/2025	P2	8:00	0.00	5,794	-	1,240	-	-	-	0	-	-	-	-	Tapley	Tested through the Clean Beaches & Streams Program
7/29/2025	P2	7:49	0.06	1,904	1,100	-	-	-	-	0	-	-	-	-	Tapley	Tested through the Clean Beaches & Streams Program
8/12/2025	P2	7:05	0.00	2,354	>24,196	-	-	-	-	0	-	-	-	-	Tapley	
8/13/2025	W0454	10:00	0.00	-	-	-	0	NA	0.06	24.5	0.5	1	6.59	5	Goldwaith	
8/13/2025	500	10:25	0.00	-	-	-	0	NA	0.1	24.4	0.6	1117	7.01	5	North River	
8/13/2025	P3-552	10:25	0.00	-	-	-	0	NA	0.07	23.7	0.5	992	6.42	4	Goldwaith	
8/13/2025	P2	10:50	0.00	-	-	-	.25ppm	0.2	0.09	25.9	0.1	270.2	6.52	4	Tapley	
8/13/2025	P5	11:20	0.00	-	-	-	0	NA	0.05	29.1	0.3	0.547	6.53	6	Tapley	Water lower than dam; Sample taken at Sydneys Pond side
9/2/2025	P2	9:30	0.00	-	380		0	0.25	0.04	19.2	0.1	241.1	6.35	5	Tapley	
9/2/2025	P5	10:00	0.00	-	10	-	0	NA	0.02	22	0.3	0.534	6.66	6	Tapley	2 ducks on dam; Sample taken at Sydneys Pond side of dam
10/21/2025	535	10:00	1.76	1785	-	-	0	NA	0.19	14	18.2	23.15	6.11	9	North River	
10/21/2025	536	10:45	1.76	836	-	-	0	NA	0.12	13.8	0.7*	0.811	6.14	8	North River	
10/21/2025	500	11:15	1.75	633	-	-	0	NA	0.13	13.3	0.3	0.694	6.13	8	North River	
10/21/2025	W0454	11:45	1.76	435	-	-	0	NA	0.08	13.8	0.4	0.662	6.05	8	Goldwaith	
10/21/2025	P3	12:05	1.76	536	-	-	0	NA	0.04	14.1	0.4	0.665	6.08	6	Goldwaith	
10/21/2025	P2	12:30	1.76	-	-	-	0	NA	0.03	13.9	0.2	0.46	6.29	7	Tapley	
10/21/2025	P5	10:00	1.76	-	-	-	0	NA	0.02	22	0.3	0.534	6.66	6	Tapley	Pond flowing over dam; Could not access same collection point; Sample taken from Tapley Brook beyond the dam



Wet Day > 0.2" rainfall in 24 hours



> 104 CFU/100   >200 CFU/100   >235/100mL   > 0.5mg/l   > 0.25 mg/L   > 4 mg/L   >22°C   > 1.0 ppt   > 1.5 mS/cm   6.5 - 8.5   <=6.0



Salinity >0.01 elevates surfactant



Salinity elevates conductivity



Google Map of all 2025 CB&S Site Locations:  
[https://www.google.com/maps/@42.5230148,-70.917919,2507m/data=!3m1!1e3!4m2!6m1!1s1XweSQeqgdoG4znx4fmnASwj09kjj1c?authuser=0&entry=tту&g\\_ep=EgoyMDI1MDEyMC4wIKXMDSoASAFQAw%3D%3D](https://www.google.com/maps/@42.5230148,-70.917919,2507m/data=!3m1!1e3!4m2!6m1!1s1XweSQeqgdoG4znx4fmnASwj09kjj1c?authuser=0&entry=tту&g_ep=EgoyMDI1MDEyMC4wIKXMDSoASAFQAw%3D%3D)