

## 2008 Bacteria Data - Rivers and Streams Enterococci Data

A number of groups of bacteria species are used to indicate the presence of human sewage and associated pathogens, or disease causing organisms. In Rhode Island fecal coliform and enterococci are monitored in order to protect human health. The USEPA has identified enterococci as better indicators of increased risks of contracting gastrointestinal illnesses from water contact than fecal coliforms. Therefore the Rhode Island Department of Health (RIHealth) adopted single-value enterococci standards for licensed swimming beaches in 2004, and the Rhode Island Department of Environmental Management (RIDEM) adopted enterococci for contact recreation standards on all waters (fresh and salt) shortly after. As required under the National Shellfish Sanitation Program for shellfish waters and as an indicator of overall water quality, RIDEM continues to assess fecal coliform levels, particularly in marine waters or waters that discharge directly to marine waters (fecal coliform data is available for marine waters and shellfish area tributaries in the "Tidal Rivers Bacteria" file).

While URIWW's Analytical Laboratories are State certified, URIWW data are intended for screening purposes only. Samples from various sites may have been collected over a period of days for each collection period, so may reflect dry versus wet weather or rain event values. Please contact URIWW for specific sample dates. Our data are very valuable for targeting areas of concerns and for tracking potential sources of bacterial contamination. Any result above the state standard is considered unsafe, and swimmers should refrain from swimming until results return to acceptable levels, or at least for several days after heavy rain.

RI Department of Health standards for recreational contact (i.e. swimming):

Fresh Waters - Single sample not to exceed 61 enterococci per 100 mL.

RI Department of Environmental Management Enterococci Standards:

Non-designated Bathing Beach (Fresh) Waters Geometric Mean Density - Not to exceed 54 enterococci per 100 mL.

Designated Bathing Beach (Fresh) Waters Geometric Mean Density - Not to exceed 33 enterococci per 100 mL.

Watershed code	MONITORING LOCATION	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	GEOMEAN
		----	<b>Most Probable Number of Enterococci per 100 mL</b>					----
CE	Bailey's Brook - ACA Upstream	130	176.4	244.6	1413.6	-	-	298.4
CE	Bailey's Brook - SRU 1	25.6	88	3226.133	517.2	-	-	247.6
CE	Bailey's Brook - SRU 2	19.6	43.6	1664	248.9	-	-	137.2
B	Blackstone River @ Manville Falls	21.6	30.6	47.6	2224	-	-	91.5
NA	Buckeye Brook #1 @ Novelty Rd	138	571	626	131.8	-	-	284.0
NA	Buckeye Brook #2 @ Lockwood Brk	142	417.2	3921.6	4839.2	-	-	1029.7
NA	Buckeye Brook #3 @ Warner Brook	67.6	>7016.8	114.5	774.6	-	-	> 378.7
NA	Buckeye Brook #4 @ Mill Cove	no sample	740	980.4	91.2	-	-	404.5
WD	Falls River D - Step Stone	7.3	50.4	114.6	35.5	-	-	35.0
WD	Falls River C - Austin Farm	2	142.1	228.2	81.3	-	-	47.9
WD	Falls River B - Sand Banks	3.1	69.7	178.5	145.5	-	-	48.7
WD	Falls River A - Twin Bridges	6.3	82.8	152.9	75.9	-	-	49.6
GB	GB #1 - Maskerchugg	133.6	29	37.6	42.5	-	-	49.9
GB	GB #2 - Burger King	976.8	53.8	75.2	161.6	-	-	159.0
GB	GB #3 - Pipe @ Rte 115	1297.6	134	330	95.9	-	-	272.4
GB	GB #4 - Mill Creek	58.6	42.4	1046.2	159.6	-	-	142.7
GB	GB #5 - Hardig Upstream	303	1841.6	2419.6	866.4	-	-	1040.0
GB	GB #6 - Tuscatucket Br	315.2	721.8	> 2419.6	57.4	-	-	> 422
GB	GB #7 - Southern Creek	155.2	238	1203.3	1158.8	-	-	476.4
H	HW #1A - Scrabbletown Brk @ Falls	4.2	8.5	50.4	40	-	-	16.4
H	HW #1B - Scrabbletown @ Rte 4 Bridge	6.3	2.8	42.9	202.9	-	-	19.8

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		- - - - Most Probable Number of Enterococci per 100 mL - - - -						
H	HW #2 - Bear Brk @ South Rd.	no sample	no sample	14.5	416	-	-	77.7
H	HW #3 - Frenchtown Brk @ Frenchtown	no sample	no sample	31.8	100	-	-	56.4
H	HW #4 - Hunt River @ Davis Memorial	no sample	270	8.4	1299.7	-	-	143.4
H	HW #5 - Sandhill Brook (Saw Mill Inlet)	no sample	683	488.4	21.6	-	-	193.1
H	HW #6 - Hunt River @ Forge Rd.	322.8	153.2	58.3	298.7	-	-	171.3
TH	Moosup Upstream	6.2	38.3	328.2	343.6	-	-	71.9
TH	Moosup A - Fairbanks Bridge	7.5	358.6	no sample	579.4	-	-	115.9
TH	Moosup C - Deerfield Drive	2	365.4	no sample	84.5	-	-	39.5
M	Moshassuck River - Collyer Field	142.4	60.2	328.2	1246	-	-	243.3
WD	Pawcatuck River @ Bradford	113	no sample	27.2	126.7	-	-	73.0
WD	Pawcatuck River - North of WWTP ^	-	175	< 10	41	-	-	13.2
WD	Pawcatuck River - South of WWTP ^	-	74	< 10	< 10	-	-	< 10
WD	Pawcatuck River @ Avondale ^	no sample	42	64	192	-	-	80.2
WD	Pawcatuck River - At the Mouth ^	-	< 10	< 10	< 10	-	-	< 10
PA	Pawtuxet River @ Ross Simon Dr	no sample	69.7	74.3	31.5	-	-	54.6
PA	Pocasset River @ CLCF Field	no sample	171.1	2419.6	310.4	-	-	504.6
WD	Queen @ Wm Reynolds (Brownell's)	2.5	325.5	149.6	45	-	-	48.4
WD	Queen River @ Sand Bridge (TNC)	4	113.7	186.6	43.6	-	-	43.9
WD	Queen River @ Locke Brk	5.2	6.3	437.4	112.4	-	-	35.6
WD	Queen River @ Sherman Brk	1	< 1	78	159.4	-	-	5.9
WD	Shickasheen Brook @ Rte 2	no sample	109.1	Dry	162.4	-	-	133.1
WD	Shickasheen @ Miskiania Road	no sample	64.4	159.4	243.6	-	-	135.7
WD	Shickasheen @ Barber Pond Outlet	no sample	9.9	1	11.1	-	-	4.8
WD	Shickasheen Brook @ Rte 138	91	117.8	272.3	127.4	-	-	138.9
TH	Ten Mile River	20.8	102.6	71.2	2105	-	-	133.7
NA	Wesquage Outlet - Pondsides ^	no sample	7556	24.3	51	-	-	210.8
NA	Wesquage Outlet - Oceanside ^	no sample	8664	17.1	52	-	-	197.5
WD	White Horn Brook @ Bike Trail	410.6	189.7	no sample	38.4	-	-	144.1
WD	White Horn Brook @ Ministerial Rd.	35.9	43.1	no sample	81.2	-	-	50.1
WO	Woonasquatucket R. @ Greystone Pnd	17	104.8	60.9	2239.8	-	-	124.9
WO	Woonasquatucket River @ Donigian	12.6	107.6	152.9	476.4	-	-	99.7
WO	Woonasquatucket River @ Waterplace	24.2	114	1011.2	1461.6	-	-	252.7

^ Indicates salt or marine waters. RIHealth Single Sample Swimming Standard for Marine Waters: 104 enterococci per 100 mL.

A factsheet describing how bacteria are monitored, what bacterial indicators are, where bacteria come from and how we can all help to reduce bacterial input into our local water resources is available at <http://www.uri.edu/ce/wq/ww/resources/Bacteria.pdf>

See the Rhode Island Department of Health beach monitoring website (<http://www.ribeaches.org/>) for additional information about beach monitoring and state standards. The Rhode Island Department of Environmental Management website has information on State efforts to restore waters impaired by bacteria and other pollutants (<http://www.dem.ri.gov/programs/benviron/water/quality/index.htm>).