

2006 Bacteria Data - Tributaries Enterococci Data

disease causing organisms. In Rhode Island the two groups monitored in order to protect human health are fecal coliforms and enterococci. The USEPA has identified enterococci as better indicators of increased risks of contracting gastrointestinal illnesses from water contact than the 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) is in the process of also adopting enterococci for contact recreation standards on all waters (fresh and salt.) In addition, as required under the National Shellfish Sanitation Program 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 under the "Marine Bacteria" file.)

For several years URI Watershed Watch used an USEPA approved membrane filtration method with mE media on primarily salt water samples for analyzing enterococci. In order to produce the most relevant data for our communities as possible, in 2006 Watershed Watch began using the RIHealth preferred IDEXX method for analyzing enterococci on all waters, and is also now a State certified laboratory.

Watershed Watch data is intended for screening purposes only, but is very valuable for targeting areas of concerns and for tracking potential sources of bacterial contamination. Samples 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 Watershed Watch for specific sample dates.

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 Enterococci Standards:
Fresh Waters - Not to exceed 61 enterococci per 100 mL.

Watershed code	MONITORING LOCATION	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	GEOMEAN
	Lake - Trib name/location	----	Most Probable Number of Enterococci per 100 mL					----
WD	Asseconk Swamp	7.4	-	15.6	-	-	360.9	34.7
WD	Barber - Mud Brook	-	101.3	69.7	90.9	122.2	24.1	71.7
A	Belleville - RR Xing	18.5	-	54.5	17.1	> 2419.6	6.4	18.2
A	Belleville - Sluiceway	57.3	-	7.5	4.1	42.2	8.7	14.5
WD	Boone Tributary #1	-	-	-	-	-	-	-
PE	Carr Inlet (NK)	>200.5	-	37.3	-	-	4.1	31.8
WO	Georgiaville - Capron Pond	22.3	-	25.9	-	-	1	8.3
WO	Georgiaville - Harris	63.1	-	31.8	-	-	2	15.9
SK	Nanaquaket - Quaket Brook	<2.0	-	150	-	-	20.9	6.8
SK	Nanaquaket - Sin & Flesh Brook	<2.0	-	275.5	-	-	8.3	6.1
SK	Nanaquaket - White Wine Brook	2	-	461.1	-	-	7.4	19.0
WD	Pasquisett Tributary	1	-	5.2	-	-	1	1.7
WD	Secret - Oak Hill Creek East	5.2	-	50.4	-	-	5.2	11.1
WD	Secret - Oak Hill Creek West	13.1	-	56	-	-	6.1	16.5
A	Secret - Shore Drive	1	-	22.2	-	-	1	2.8
A	Shunock River @ Babcock	-	-	-	-	-	-	-
A	Shunock River @ Hewitt	50.4	-	41.7	-	-	260.3	81.8
WO	Slack's Tributary A	-	-	222.4	-	-	-	-
WO	Slack's Tributary B	-	-	172.3	-	-	-	-

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	Lake - Trib name/location	---	Most Probable Number of Enterococci per 100 mL					---
WO	Slack's Tributary C	-	-	547.5	-	-	-	-
WO	Slack's Tributary D	-	-	7.4	-	-	-	-
B	S&S - Balcom Brook	-	-	-	-	-	-	-
B	S&S - Keech Brook	-	-	-	-	-	-	-
B	S&S - O'Donnel Brook	-	-	-	-	-	-	-
TA	Stafford Inlet - Upstream	-	-	-	-	-	-	-
TA	Stafford Inlet - Downstream	-	35.8	1203.3	-	-	-	207.6
TA	Stafford - NE Cove	-	2	<1	<1	-	-	0.3
WD	Watchaug - Perry Healy	83.1	-	73.8	-	-	1	8.6
WD	Waterman - Rte 44	6.3	-	34.4	-	-	< 1	34.4
WO	Waterman - Saw Mill Rd.	5.2	-	16.4	-	-	22.3	19.1
WO	Waterman - Golf Course	8.4	-	53.4	-	-	29.2	39.5
WO	Waterman - Aldrich	< 1	-	200.5	-	-	42.6	9.5
WD	White Brook Pond Inlet	1	-	54.8	24.9	-	1	11.1

Watershed code	MONITORING LOCATION	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	GEOMEAN
	WPWA TRIBUTARIES	---	Most Probable Number of Enterococci per 100 mL					---
WD	Chipuxet River @ Rte 138	< 1	13.2	13.8	lab error	13.2	< 1	3.9
WD	Glen Rock Brook	< 1	6.4	108.6	108.1	7.5	52.8	12.0
WD	Pawcatuck R @ Biscuit City Rd	-	-	40.8	lab error	10.8	15.8	-
WD	Pawcatuck R @ Burdickville Rd	31.3	42.9	90.8	240	42.2	-	65.8
WD	Pawcatuck R @ Chase Hill Rd.	198.9	28.8	-	613.1	22.6	-	94.4
WD	P'tuck below Kenyon Ind.	3.1	43.2	41.1	178.9	148.3	21	38.1
WD	Pawcatuck R @ Rte 91	-	288	66.3	lab error	-	-	138.2
WD	Pawcatuck R below Bradford (DA)	143	-	109.5	107.1	50.4	-	95.9
WD	Queen River @ Mail Rd	2	21.6	461.1	387.3	9.7	108.6	44.8
WD	Queen River @ Rte 102	3.1	23.8	144.5	98.4	20.6	2	18.7
WD	Usquepaugh River @ Rte 2	2	15.6	65.9	lab error	6.3	8.6	10.2

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>).