

2005 Bacteria Data - Lakes, Ponds and Reservoirs

URI Watershed Watch uses the USEPA approved membrane filtration method with mTEC media for analyzing fecal coliform bacteria, species that can indicate the presence of human sewage and associated pathogens, or disease causing organisms. For the past several years URI Watershed Watch has been splitting primarily marine site samples to analyze enterococci values using the USEPA approved membrane filtration method with mE media. Enterococci are a different group of bacteria species which have been identified as better indicators of increased risks of contracting gastrointestinal illnesses than the fecal coliforms as a group.

As of 2004, the Rhode Island Department of Health adopted standards for licensed swimming beaches based on enterococci. Rhode Island Department of Environmental Management water quality standards still consider fecal coliform as indicators of overall water quality. Watershed Watch currently analyzes enterococci using the USEPA membrane filtration method.

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 sample event, so may reflect dry versus wet weather or rain event values. Please contact Watershed Watch for specific sample dates.

RI Department of Environmental Management fresh water standards for recreational contact:

Fresh water - Not to exceed 200 fecal coliform per 100 mL.

RI Department of Health Enterococci Standards:

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

Bacteria results are summarized using a geometric mean rather than an arithmetic mean (or straight average.) This is done because bacteria results can vary from 10 to 10,000 fold over a given period in response to local or short-term contaminations (i.e. bird feces or stormwater.) The geometric mean dampens that, and gives a better picture of overall contaminations.

**A record breaking rain event resulted in unusually high bacteria in October.**

Watershed code	MONITORING LOCATION	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	GEOMEAN
<b>-- Number of Fecal coliform colony forming units per 100 mL --</b>								
CE	Almy Pond	< 2	-	-	-	-	2860	<b>53</b>
WD	Alton Pond	26	-	22	-	-	-	<b>24</b>
TH	Arnold Pond	< 1	-	2	-	-	6	<b>2</b>
S	Asa Pond	< 1	-	< 2	-	-	-	<b>&lt; 1</b>
WD	Barber Pond	< 1	2	9	2	-	97	<b>4</b>
A	Belleville Pond- Lower	< 1	-	4	-	-	4	<b>2</b>
A	Belleville Pond- upper	< 1	-	2	-	-	36	<b>3</b>
WD	Billings Pond	-	-	-	-	-	-	<b>-</b>
PA	Blackamore Pond	3	-	4	-	-	993	<b>23</b>
WD	Blue Pond	-	-	4	-	-	88	<b>19</b>
WD	Boone Lake	< 1	-	27	-	-	1172	<b>25</b>
TH	Bowdish Reservoir	< 1	-	< 1	-	< 1	-	<b>&lt; 1</b>
WD	Breakheart Pond	< 1	-	1	-	-	-	<b>1</b>
TH	Carbuncle Pond	< 1	-	1	-	214	12	<b>6</b>
PE	Carr Pond (NK)	2	-	< 2	-	< 2	1160	<b>7</b>
PA	Carr Pond (WG)	< 1	-	< 1	-	-	6	<b>1</b>
CW	Deep Pond	-	lab error	-	-	4	4	<b>4</b>
PA	Elm Pond	-	-	16	-	-	-	<b>-</b>

2005 Bacteria Data - Lakes, Ponds and Reservoirs

A record breaking rain event resulted in unusually high bacteria in October.

Watershed code	MONITORING LOCATION	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	GEOMEAN
-- Number of Fecal coliform colony forming units per 100 mL --								
PA	Fenner Pond	1	-	68	-	-	987	41
PA	Flat River Reservoir	2	-	1	-	-	52	5
WO	Georgiaville Pond	3	10	-	6	-	973	20
WO	Hawkins Pond	1	-	10	-	-	303	14
WD	Hundred Acre Pond	2	-	< 1	-	-	14	2
S	Indian Lake	< 1	-	< 1	-	-	168	3
B	Keech Pond	-	-	18	-	-	180	57
TH	Lake Washington	< 1	-	< 2	-	21	-	2
CE	Lily Pond	-	-	-	-	-	1156	-
PA	Little Pond	1	-	54	-	14	216	20
WD	Locustville Pond	< 1	-	18	-	-	15	5
S	Long Pond (SK)	-	-	< 1	-	-	4	1
PA	Mashapaug Pond	-	-	-	-	-	-	-
WD	Meadowbrook Pond	2	-	4	-	-	1176	21
NA	Melville Pond - Upper	5	-	4	-	-	30	8
PA	Mishnock Lake	< 1	-	2	-	-	483 (11/29 retest = 1)	5
SK	Nanaquaket Pond	1	-	< 1	-	-	97	4
B	Nichols Pond	27	-	124	-	-	-	58
PA	Oak Swamp Reservoir	6	-	1	-	-	234	11
B	Pascoag Reservoir	< 1	-	< 2	-	< 1	116	2
WD	Pasquisett Pond	1	-	7	-	-	166	11
PA	Pleasure Pond	-	-	100	-	-	-	-
PA	Ponagansett Reservoir	< 1	-	1	-	-	12	2
NA	Prince's Pond	4	-	14	-	< 2	480	11
WD	Queen Usquepaugh	27	-	80	-	-	110	62
PA	Randall Pond	1	-	6	-	-	338	13
PA	Sand Pond	29	-	34	-	12	220	40
S	Saugatucket Pond	3	-	56	-	-	70	23
CW	Schoolhouse Pond - Lower	< 1	-	< 1	-	-	6	1
CW	Schoolhouse Pond - Upper	< 1	-	1	-	-	16	2
B	Scott Pond	< 1	-	-	-	-	-	-
A	Secret Lake	3	-	178	-	-	372	58
S	Silver Lake	< 1	-	48	-	-	8	6
PE	Silver Spring Lake	55	-	126	-	-	840	180
TE	Slater Pond	< 2	-	-	-	62	3240	46
B	Slatersville Reservoir - Upper	12	-	2	-	-	2960	41
B	Smith & Sayles Reservoir	-	-	2	-	-	-	-

2005 Bacteria Data - Lakes, Ponds and Reservoirs

A record breaking rain event resulted in unusually high bacteria in October.

Watershed code	MONITORING LOCATION	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	GEOMEAN
-- Number of Fecal coliform colony forming units per 100 mL --								
WD	Spalding Pond	-	-	12	-	-	1800	147
PA	Spectacle Pond	16	-	500	-	-	210	119
B	Spring Grove Pond	1	-	6	-	-	366	13
B	Spring Lake	< 1	-	1	-	-	213	5
TA	Stafford Pond	-	lab error	2	-	-	6	3
PA	Tarbox Pond	6	-	-	-	-	-	-
PA	Tiogue Lake	1	-	2	-	-	284	8
WD	Tucker Pond	2	-	16	-	1	4	3
PA	Upper Dam Pond	3	-	73	-	-	970	60
B	Valley Falls Pond	12	-	12	-	-	40	18
B	Wallum Lake	< 1	-	< 2	-	-	-	<1
NA	Warwick Pond	< 1	-	14	-	4	344	10
WD	Watchaug Pond	-	-	4	-	-	6	5
WO	Waterman Reservoir	< 1	-	16	-	-	192	12
NA	Wesquage Pond	37	-	24	-	-	188	55
WD	White Brook Pond	-	lab error	18	-	-	2280	203
S	White Pond	-	-	< 2	-	< 1	-	<1
WD	Wincheck Pond	< 1	-	< 2	-	-	-	<1
WO	Woonasquatucket Res. - Stump Pond	3	-	17	-	-	46	13
WD	Worden Pond	1	-	< 1	-	-	-	1
WD	Wyassup Lake	-	-	11	-	-	20	15
WD	Wyoming Pond	-	lab error	44	-	-	970	207
WD	Yawgoo Pond	2	< 1	4	80	-	4	4

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>).