

2009 Bacteria Data - Salt Pond Coalition Sites: Fecal coliform and enterococci

A number of groups of bacteria species can indicate the presence of human sewage and associated disease causing organisms, or pathogens. Rhode Island monitors two groups in order to protect human health, fecal coliforms and enterococci. The USEPA has identified enterococci as better indicators of increased risks of contracting gastrointestinal illnesses from water contact than fecal coliforms. Thus 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. In addition, 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.

While URIWW's Analytical Laboratories are State certified, Watershed Watch data is intended for screening purposes only. Our data are 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 sample dates for specific sites. 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 Environmental Management Shellfish Standards: Not to exceed 14 fecal coliform per 100 mL.

Salt Pond Coalition Sites

Monitoring Location	2009 Data						GeoMean
	5/13	6/17	7/15	8/12	9/9	10/14	
	----- Number of Fecal coliform colony forming units per 100 mL -----						
Green Hill Pond - In Pond	2	14	1	18	12	5	6
Green Hill Pond - Indigo Pt	1	7	11	37	2	1	4
Green Hill Pond - Sea Lea	17	21	3	10	8	2	7
Green Hill Pond - Teal Rd	12	40	8	71	6	8	15
Ninigret Pond - Crawford Dock	5	7	< 1	32	8	1	3
Ninigret Pond - Mid Western Basin	1	< 1	< 1	1	< 1	3	<1
Ninigret Pond - Potato Point	<1	5	3	20	5	3	3
Ninigret Pond - Stumpy Point	2	2	3	12	5	< 1	2
Ninigret Pond - Vigna's Dock	2	< 1	32	32	12	< 1	3
Pt Judith Pond - Central Pond (Beef Island)	2	1	2	4	1	3	2
Pt Judith Pond - Champlin's Cove	<1	1	3	13	5	5	2
Pt Judith Pond - East Pond	<1	3	7	7	11	3	3
Pt Judith Pond - Gardiner Island	2	6	5	19	3	< 1	3
Pt Judith Pond - Ram Point	54	180	20	123	17	51	52
Potter Pond - Mid Pond (P3)	11	1	< 1	< 1	2	3	1
Quonnie Pond - East Basin Yacht Club	<1	< 1	2	2	4	< 1	<1
Quonnie Pond - Harmonic Cove Buoy	<1	8	1	6	< 1	< 1	<1
Quonnie Pond - Harmonic Cove Channel	1	< 1	< 1	3	1	1	<1
Quonnie Pond - Judge's Rock	<1	< 1	2	4	4	4	1
Quonnie Pond - N. of Bill's Island	<1	1	-	2	1	22	1
Quonochontaug Tributary - Harmonic Cove Brook	<1	28	12	44	8	620	14
Winnapaug Pond - Breachway	3	3	1	5	3	10	3
Winnapaug Pond - Cow Cove Creek	8	42	2	66	40	20	18
Winnapaug Pond - Golf Course Cove	2	12	2	1	53	3	4
Winnapaug Pond - SWest Corner	<1	9	9	11	4	3	3

2009 Bacteria Data - Salt Pond Coalition Sites: Fecal coliform and enterococci

Salt Pond Coalition Sites

2009 Data

Monitoring Location	5/14-5/15 6/18-6/19 7/16-7/17 8/20-8/21 9/17-9/18 10/15-10/16							GeoMean
	Most Probable Number of Enterococci per 100 mL							
Green Hill Pond - In Pond	10	20	< 10	64	< 10	20	< 10	
Green Hill Pond - Indigo Pt	<10	<10	< 10	137	20	10	< 10	
Green Hill Pond - Sea Lea	<10	<10	< 10	10	< 10	10	< 10	
Green Hill Pond - Teal Rd	178	31	< 10	137	10	52	27.1	
Ninigret Pond - Crawford Dock	<10	10	< 10	238	31	< 10	< 10	
Ninigret Pond - Mid Western Basin	<10	<10	< 10	< 10	< 10	10	< 10	
Ninigret Pond - Potato Point	<10	<10	< 10	164	< 10	< 10	< 10	
Ninigret Pond - Stumpy Point	<10	<10	< 10	10	< 10	< 10	< 10	
Ninigret Pond - Vigna's Dock	64	<10	< 10	738	10	< 10	13.6	
Pt Judith Pond - Central Pond (Beef Island)	<10	<10	< 10	10	10	< 10	< 10	
Pt Judith Pond - Champlin's Cove	10	10	10	20	20	< 10	13.2	
Pt Judith Pond - East Pond	<10	10	10	10	10	10	< 10	
Pt Judith Pond - Gardiner Island	<10	<10	< 10	10	< 10	< 10	< 10	
Pt Judith Pond - Ram Point	31	52	120	137	31	20	50.4	
Potter Pond - Mid Pond (P3)	42	<10	< 10	10	< 10	10	< 10	
Quonnie Pond - East Basin Yacht Club	<10	<10	< 10	< 10	< 10	< 10	< 10	
Quonnie Pond - Harmonic Cove Buoy	<10	10	< 10	< 10	< 10	10	< 10	
Quonnie Pond - Harmonic Cove Channel	<10	<10	10	< 10	< 10	< 10	< 10	
Quonnie Pond - Judge's Rock	<10	10	10	10	< 10	< 10	< 10	
Quonnie Pond - N. of Bill's Island	<10	<10	-	< 10	< 10	< 10	< 10	
Quonochontaug Tributary - Harmonic Cove Brook	50	19.3	31	207	>2419.6	>4839.2	> 204	
Winnapaug Pond - Breachway	10	<10	< 10	10	10	< 10	< 10	
Winnapaug Pond - Cow Cove Creek	50	53	31	384	111	42	81.1	
Winnapaug Pond - Golf Course Cove	<10	10	10	478	< 10	10	< 10	
Winnapaug Pond - SWest Corner	<10	<10	< 10	< 10	< 10	< 10	< 10	

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

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

Marine Waters - Single sample not to exceed 104 enterococci per 100 mL.

RI Department of Environmental Management Enterococci Standards:

Shellfish Waters - Not to exceed 14 fecal coliform per 100 mL.

USEPA regulations require tributaries to meet receiving waters standards at the point where they enter.

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.

Marine Waters Geometric Mean Density - Not to exceed 35 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/Publications/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>).