

**FIRST INTERIM REPORT ON THE LAKE  
GEORGE  
COLIFORM MONITORING PROGRAM – 2009**

prepared for  
The Fund for Lake George

by

Lawrence W. Eichler  
Research Scientist

Tiffini Burlingame  
Research Associate

&

Charles W. Boylen  
Associate Director

Darrin Fresh Water Institute  
5060 Lakeshore Drive  
Bolton Landing, NY 12814  
Rensselaer Polytechnic Institute  
Troy, NY 12180-3590



**Darrin Fresh Water Institute**

A Research Center of Rensselaer Polytechnic Institute

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## ***Lake George Coliform Monitoring Program***

The Coliform Monitoring Program focuses on a series of locations that have shown chronically high levels of coliform bacteria in past years with routine surveillance sampling of other locations also included. For 2009, synoptic sampling of public bathing beaches on a two week basis is also included in the program. In addition to samples collected at the lake-shore, a series of samples are collected up the watershed by the Lake George Park Commission to locate and remediate specific sources of bacterial pollution.

Follow-up investigations by the Lake George Park Commission, NYS Department of Health and county and local government personnel are conducted at sites with elevated fecal coliform levels.

### ***Action Levels of the Fund for Lake George Coliform Monitoring Program***

In order to respond effectively to contamination problems detected during the Fund for Lake George Coliform Monitoring Program, the following actions will occur:

1. If 200 or more fecal coliform bacteria per 100 milliliters are reported, the site will be resampled during the next sampling cycle.
2. If 400 or more fecal coliform bacteria per 100 milliliters are reported, the site will be resampled within 24 to 48 hours. The data for both samples will be reported to the LGPC. They will accept responsibility for contacting the appropriate regulatory agencies.

Follow-up samples to locate specific shoreline problems are not within the guidelines of this program and will be the responsibility of the appropriate regulatory agencies. The Darrin Fresh Water Institute will provide technical assistance upon request, however the cost of additional sampling and analysis must be covered by the local, county or state agency responsible for water quality complaints.

## ***SUGGESTIONS FOR INTERPRETATION OF COLIFORM DATA***

The Lake George Coliform Monitoring Program collects water samples from suspected contamination sources throughout the Lake George basin. Three primary measurements are then made for each sample; Total Coliform (TC), Fecal Coliform (FC) and Fecal Streptococcus (FS) Bacteria. These bacteria serve as indicators of the presence of animal or human waste. The presence of elevated levels of these bacteria indicate that potentially disease-causing protozoans, bacteria and other microorganisms may be present in the water.

New York State Department of Health has determined maximum allowable bacterial levels for contact recreation (swimming, wading, etc.). A table of these bacterial concentrations is included. When these maximum bacterial levels are exceeded, the New York State Department of Health is empowered to close the location to bathing until the problem or problems are corrected. These levels are used by the Fresh Water Institute to determine appropriate responses to various bacterial concentrations found during sampling. A table of these responses is included.

Interpretation of data to determine and locate sources of contamination (human or other warm-blooded animal) requires more than just current bacterial levels. A knowledge of past history of the site, weather, geology of the area, drainage patterns, and some information on human activities in the area are also necessary. To differentiate between human waste and that produced by other warm-blooded animals, it is sometimes helpful to refer to the ratio of fecal coliform to fecal streptococcus bacteria (FC/FS). An FC/FS ratio of 4 or greater is generally considered indicative of contamination of human origin.

### **New York State coliform bacteria standards for bathing beaches.**

<b>Maximum Allowable Levels of Coliform Bacteria in Waters Used for Contact Recreation (NYS Dept. of Health)</b>		
<b>Bacterial Test</b>	<b>Max. 5 Sample Mean</b>	<b>Max. Single Result</b>
<b>Total Coliform</b>	<b>2400 per 100 mls</b>	<b>5000 per 100 mls</b>
<b>Fecal Coliform</b>	<b>200 per 100 mls</b>	<b>1000 per 100 mls</b>

### ***Definitions***

TC – Total Coliform Bacteria

FC – Fecal Coliform Bacteria

FS – Fecal Streptococcus Bacteria

FC/FS – Ratio of Fecal Coliform to Fecal Streptococcus Bacteria

TNTC – Too Numerous to Count

CONF – Confluent growth of target bacteria

MAT – Confluent growth of non-target bacteria

? – High background, referring to non-target growth of bacteria interfering with counts of target bacteria

LT – Less than

LA – Laboratory accident preventing enumeration of bacteria

**2009 LAKE GEORGE COLIFORM MONITORING PROGRAM**

SITE	DATE	TC/100mls	FC/100mls	FS/100mls	FC/FS	NOTES
<b>Town of Bolton</b>						
Bixby Beach Road Culvert	29-Jun-09	40	7	2	3.5	Cold, algae, low flow
Finkle Brook	26-Feb-09	3	lt. 1			Very cold
Finkle Brook	28-Feb-09	17	2			
Finkle Brook	25-Mar-09	70	1			
Finkle Brook @ delta	28-Feb-09	22	2			
Finkle Brook @ delta	25-Mar-09	120	lt. 1			
Mohican Road Brook	29-Jun-09	120	9	17	0.5	Moderate flow, warm, clear
Rogers Memorial Beach	29-Jun-09	12	10			Cool, clear, no bathers
South Sawmill Bay Brook	29-Jun-09	1080	200	250	0.8	Cold, clear, low flow
Veterans Park Beach	29-Jun-09	80?	32?			Cool, clear, feathers, no bathers
<b>Town of Dresden</b>						
Cook Bay Loop	06-Jul-09	480	320	75	4.3	Cold, clear, low flow
Cook Bay South Culvert	06-Jul-09	63	22?	40	0.6	Algae, no flow, clear, cool
Paradise Bay	06-Jul-09	10	lt. 1	3	0.0	Calm, warm, clear
Sunset Bay Brook (East)	06-Jul-09	530	210	139	1.5	Cool, low flow, detritus
Sunset Bay Brook (West)	06-Jul-09	58	34	40	0.9	Cool, low flow, 3 ducks
Washington County Beach	06-Jul-09	39	38			No bathers, calm, clear, warm
<b>Town Of Fort Ann</b>						
Butternut Brook	29-Jun-09	10	4	38	0.1	Low flow, warm, turbid
Town of Fort Ann Beach	29-Jun-09	13	2			no bathers, calm, clear, warm
<b>Town of Hague</b>						
Hague Boat Launch Culvert	06-Jul-09	110	29	54	0.5	Cold, clear, calm, plant debris
Hague Town Beach	06-Jul-09	80	52?			4 bathers, choppy, warm, clear
Sabbath Day Point Beach	06-Jul-09	33	23?			Warm, clear, no bathers
Sabbath Day Point Brook	06-Jul-09	53	25	39	0.6	Cool, clear, low flow
<b>Town of Lake George</b>						
Diamond Point Beach	29-Jun-09	200	58			no bathers, cool, clear
East Brook	29-Jun-09	2	1	1	1.0	Mod flow, warm, calm, clear
Lake Avenue Beach	29-Jun-09	130	37	43	0.9	10 ducks, calm, warm
Lake Avenue Beach (South Culvert)	29-Jun-09	150	18	90	0.2	Low flow, clear, 1 duck
Marine Village Beach	29-Jun-09	120?	95?	68	1.4	Clear, cool, no bathers
Marine Village Culvert	29-Jun-09	790	114	40	2.9	Flow, cool, clear, 4 ducks
Shepard Park Beach	29-Jun-09	72	56			6 bathers, clear, calm
Shepards Park, N. of turbidity curtain	06-Jul-09	690	93			Sewage spill
Shepards Park, S. of pier	06-Jul-09	38400	14200			Sewage spill
Shepards Park, S. of pier	07-Jul-09	1120	280			Clear, floating debris
West Brook	29-Jun-09	250	75	860	0.1	Low flow, clear, warm

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SITE	DATE	TC/100mls	FC/100mls	FS/100mls	FC/FS	NOTES
<b>Town of Putnam</b>						
Glenburnie Pump house Creek	06-Jul-09	38	8	6	1.3	Cool, clear, no flow
Gull Bay Brook	06-Jul-09	88?	60?	57	1.1	High flow, cool, clear
Putnam Town Beach - Gull Bay	06-Jul-09	33	8			2 bathers, calm, warm, clear
Sucker Brook - Glenburnie	06-Jul-09	132	7	3000	0.0	Cool, low flow, brown color
<b>Town of Queensbury</b>						
Joshua Rock Brook	29-Jun-09	390?	100	470	0.2	Good flow, cold, slightly turbid
<b>Town of Ticonderoga</b>						
Cooks Bay Brook - North	06-Jul-09	400	87	79	1.1	Very cold, turbid, low flow, algae
Cooks Bay Brook - South	06-Jul-09	410	32	870	0.0	Mod flow, very cold
Ticonderoga Town Beach	06-Jul-09	3	6			Bathers, calm, clear, warm