

# **Darrin Fresh Water Institute**

## **AT LAKE GEORGE**

**LAKE GEORGE  
COLIFORM MONITORING PROGRAM - 2000**

prepared for

The FUND for Lake George

by

Lawrence W. Eichler  
Research Scientist

Eric A. Howe  
Research Scientist  
&

Charles W. Boylen  
Associate Director

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

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## 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.

Table 2. New York State coliform bacteria standards for bathing beaches.

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

### ***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.

2000 LAKE GEORGE COLIFORM MONITORING PROGRAM							
Sample #	SITE	DATE	TC/100mls	FC/100mls	FS/100mls	FC/FS NOTES	
<b>Town of Bolton</b>							
2000-11	Basin Bay Brook North	26-Jun-00	570	15	38	0.4	
2000-12	Braley Hill Culvert	26-Jun-00	640	380	63	6.0	Good flow, clear
2000-66	Braley Hill Culvert	24-Jul-00	1940	1370	125	11.0	Moderate flow, clear
2000-67	Braley Hill Culvert	25-Jul-00	430	110			Moderate flow, clear
2000-90	Braley Hill Culvert	7-Aug-00	740	173	10	17.3	Clear, Good flow
2000-108	Braley Hill Culvert	21-Aug-00	1400	277	25	11.1	
2000-133	Braley Hill Culvert	5-Sep-00	460	lt 10	80		light flow
2000-39	Edmund's Brook	10-Jul-00	400	117	780	0.2	cold, good flow, orange-brown color
2000-05	Finkle Brook	20-Jun-00	110	9	20	0.5	clear, cold
2000-111	Finkle Brook	21-Aug-00	800	10	67	0.1	
2000-76	Glen Island Ranger Stn. Dock	31-Jul-00	42	6	40	0.2	no flow
2000-94	Green Island Culvert	7-Aug-00	1560	48	720	0.1	no flow, culvert under water
2000-134	Green Island Culvert	5-Sep-00	530	130	60	2.2	no flow, mainly lake water
2000-95	Gull Rock SW of Glen Island	14-Aug-00	lt 1	lt 1	lt 1	0.0	in Lake
2000-89	Huddle Beach Brook	7-Aug-00	920	209	240	0.9	cloudy, Low flow
2000-109	Huddle Beach Brook	21-Aug-00	770	167	360	0.5	
2000-02	Huddle Brook	20-Jun-00	2920	1680	91	18.5	Moderate flow, lots of ducks
2000-06	Huddle Brook	22-Jun-00	230	15			
2000-08	Huddle Brook	26-Jun-00	2280	198	59	3.4	
2000-88	Huddle Brook	7-Aug-00	330	18	5180	0.0	Clear, Mod flow
2000-135	Huddle Brook	5-Sep-00	460	10	3930	0.0	clear, fast flowing, foam in eddys
2000-40	Mohican Road Culvert	10-Jul-00	1700	240	1780	0.1	
2000-60	Mohican Road Culvert	24-Jul-00	100	10	65	0.2	No flow, algae
2000-114	Mohican Road Culvert	21-Aug-00	2500	10	70	0.1	low flow, clear
2000-93	Mud Pond Brook	7-Aug-00	340	1	1410	0.0	clear, low flow
2000-04	S. Sawmill @ Horicon Ave.	20-Jun-00	1920	88	182	0.5	low flow
2000-03	S. Sawmill at wetland	20-Jun-00	1060	42	187	0.2	low flow, clear
2000-07	S. Sawmill at wetland	26-Jun-00	480	63	289	0.2	
2000-113	S. Sawmill at wetland	21-Aug-00	2300	70	180	0.4	low flow, clear
2000-36	Stewart Brook	10-Jul-00	460	481	890	0.5	Low Flow, green color, lake influence
2000-41	Stewart Brook	11-Jul-00	310	110			Dark green brownish water, low flow, debris, wave action
2000-65	Stewart Brook	24-Jul-00	220	57	31	1.8	Low flow, warm, algae
2000-136	Stewart Brook	5-Sep-00	1260	120	48	2.5	low flow

2000 LAKE GEORGE COLIFORM MONITORING PROGRAM							
Sample #	SITE	DATE	TC/100mls	FC/100mls	FS/100mls	FC/FS	NOTES
<b>Town of Bolton (cont'd)</b>							
2000-09	Veteran's Beach Culvert	26-Jun-00	430	320	60	5.3	
2000-61	Veteran's Beach Culvert	24-Jul-00	4200	170	390	0.4	Stagnant, rotting plant
2000-112	Veteran's Park Beach	21-Aug-00	13	3			
<b>Town of Dresden</b>							
2000-50	Black Mt. Point Brook	17-Jul-00	59	3	180	0.0	Waterfall
2000-75	Comission Point Docks	31-Jul-00	25	3	41	0.1	no flow
2000-96	Comission Point Docks	14-Aug-00	0	2	20	0.1	No Wind or Flow
2000-28	Foster Brook	5-Jul-00	70	19	55	0.3	mod flow, floating debris
2000-98	Foster Brook	14-Aug-00	140	11	115	0.1	Moderate Flow
2000-27	Sunset Bay Brook - East	5-Jul-00	1650	1260	930	1.4	low flow, clear
2000-29	Sunset Bay Brook - East	6-Jul-00	630	268			
2000-52	Sunset Bay Brook - East	17-Jul-00	610	180	270	0.7	Cold, clear; low flow; debris on surface
2000-69	Sunset Bay Brook - East	31-Jul-00	23000	22400	TNTC		high flow, debris, brown color
2000-79	Sunset Bay Brook - East	1-Aug-00	180	LA	29		Low flow
2000-103	Sunset Bay Brook - East	14-Aug-00	270	20	130	0.2	Low Flow
2000-125	Sunset Bay Brook - East	28-Aug-00	900	40	770	0.1	clear
2000-23	Sunset Bay Brook - West	5-Jul-00	230	122	113	1.1	ducks, low flow, turbid
2000-68	Sunset Bay Brook - West	31-Jul-00	15200	TNTC/MAT	3130		high flow, debris
2000-78	Sunset Bay Brook - West	1-Aug-00	290	LA	40		Low flow
2000-102	Sunset Bay Brook - West	14-Aug-00	140	60	220	0.3	Low Flow Ducks
2000-123	Sunset Bay Brook - West	28-Aug-00	800	10	60	0.2	Cold, clean
2000-30	Washington County Beach	6-Jul-00	30	10			
2000-51	Washington County Beach	17-Jul-00	35	10			clear, calm water; 11 bathers
2000-77	Washington County Beach	31-Jul-00	230	20			
2000-80	Washington County Beach	1-Aug-00	94	LA			no bathers, Calm
2000-104	Washington County Beach	14-Aug-00	70	19	18	1.1	Children in water
2000-124	Washington County Beach	28-Aug-00	100	30			Turbid
2000-24	Wyatts Bay Culvert	5-Jul-00	80	16	19	0.8	low flow
2000-97	Wyatts Bay Culvert	14-Aug-00	160	32	39	0.8	Culvert under water

2000 LAKE GEORGE COLIFORM MONITORING PROGRAM							
Sample #	SITE	DATE	TC/100mls	FC/100mls	FS/100mls	FC/FS	NOTES
<b>Town of Fort Ann</b>							
2000-14	Butternut Brook	26-Jun-00	60	5	6	0.8	
2000-91	Butternut Brook	7-Aug-00	20	4	10	0.4	Low flow
2000-92	Echo Bay	7-Aug-00	410	20	540	0.0	collected from road @ wetland
2000-13	Shelving Rock Brook	26-Jun-00	40	3	5	0.6	
2000-64	Shelving Rock Brook	24-Jul-00	lt 10	10	6	1.7	low flow
<b>Town of Hague</b>							
2000-46	Cape Cod Village Brook	17-Jul-00	390	83	181	0.5	Fast flow; clear; cold; slight yellow color
2000-21	Cook Bay Brook - North	5-Jul-00	230	133	127	1.0	brownish water, murky, algae
2000-26	Cook Bay Brook - South	5-Jul-00	130	18	172	0.1	moderate flow
2000-48	Hague Boat Launch culvert	17-Jul-00	230	50	146	0.3	Good flow; cold; yellowish-brown color
2000-70	Hague Boat Launch culvert	31-Jul-00	5800	1330	2570	0.5	very high flow, muddy, turbid
2000-83	Hague Boat Launch culvert	2-Aug-00	360	50	104	0.5	Low flow, cold, floating debris, big dead pike
2000-118	Hague Boat Launch culvert	28-Aug-00	510	34	147	0.2	Opposite side of 9N
2000-25	Hague Brook	5-Jul-00	390	127	103	1.2	low flow, turbid
2000-71	Hague Brook	31-Jul-00	11300	CONFLU	186		very high flow, flooding banks, turbid, muddy
2000-84	Hague Brook	2-Aug-00	520	320	420	0.8	Moderate to high flow, clear
2000-121	Hague Brook	28-Aug-00	310	19	890	0.0	Clean, cold, Moderate flow
2000-82	Hague Town Beach	2-Aug-00	990	570			Moderate Wave action, some suspended sediment
2000-117	Hague Town Beach	28-Aug-00	6	12			
2000-47	Jenkins Brook	17-Jul-00	310	70	203	0.3	High flow; very cold; turbid
2000-119	Jenkins Brook	28-Aug-00	350	LT 1	82		Very Low Flow, clear
2000-101	N. Cook Bay Brook - Rogers Rock	14-Aug-00	130	50	229	0.2	low flow, debris
2000-72	NLG Yacht Club drainage ditch S-side	31-Jul-00	TNTC	3290	2870	1.1	Low Flow
2000-85	NLG Yacht Club drainage ditch S-side	2-Aug-00	7200	4900	700	7.0	Very low flow
2000-20	North Brook, Hague	5-Jul-00	110	23	99	0.2	turbid
2000-81	Northern LG Yacht Club Swimming	2-Aug-00	23	26			Clear water, low wave action
2000-100	S. Cook Bay Brook - Rogers Rock	14-Aug-00	210	34	560	0.1	Low Flow Debris
2000-19	Sabbath Day Point Brook	5-Jul-00	20	22	32	0.7	
2000-74	Silver Bay Brook (North)	31-Jul-00	400	150	90	1.7	High Flow, Turbid
2000-120	Van Buren Bay Brook	28-Aug-00	140	7	49	0.1	Clean, cold, Moderate flow

2000 LAKE GEORGE COLIFORM MONITORING PROGRAM						
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<b>Town of Lake George</b>						
2000-38	Antler's Brook	10-Jul-00	230	21	47	0.4 duck, cold, moderate flow
2000-107	Antler's Brook	21-Aug-00	360	46	76	0.6 moderate flow, clear
2000-31	East Brook	10-Jul-00	970	740	1840	0.4 Flow apparent, debris
2000-44	East Brook	11-Jul-00	2400	140		Clear, cold, wave action
2000-57	East Brook	24-Jul-00	640	70	126	0.6 low flow, clear, debris
2000-105	East Brook	21-Aug-00	540	175	210	0.8 backwash from lake
2000-87	English Brook	7-Aug-00	420	54	270	0.2 Clear, Good flow
2000-86	King James Spring	7-Aug-00	1070	352	1170	0.3 Clear & Cold
2000-110	King James Spring	21-Aug-00	MAT	130	20	6.5
2000-128	King James Spring	5-Sep-00	330	50	38	1.3 strong flow, clear
2000-43	Lake Avenue Beach	11-Jul-00	250	59		sandy bottom, 5 bathers, med-green color, calm water
2000-58	Lake Avenue Beach	24-Jul-00	90	41	123	0.3 ducks
2000-115	Lake Avenue Beach	23-Aug-00	69	34	20	1.7
2000-35	Lake Avenue Beach - North Culvert	10-Jul-00	310	720	1170	0.6 Ducks, no flow
2000-42	Lake Avenue Beach - North Culvert	11-Jul-00	800	260		No flow, lots of debris, 5 bathers
2000-106	Lake Avenue Beach - North Culvert	21-Aug-00	3700	1650	420	3.9 no flow
2000-116	Lake Avenue Beach - North Culvert	21-Aug-00	2000	240	2310	0.1 lots of debris, no flow
2000-130	Lake Avenue Beach - North Culvert	5-Sep-00	890	980	430	2.3 no flow, clear, debris
2000-17	Lake Avenue Beach - South Culvert	26-Jun-00	290	60	280	0.2
2000-129	Lake Avenue Beach - South Culvert	5-Sep-00	760	100	110	0.9 no flow, turbid
2000-45	Lake George Beach	11-Jul-00	61	30		dark green color, numerous bathers, strong wind, ducks
2000-15	Marine Village Culvert	26-Jun-00	310	19	65	0.3
2000-16	Sheriff's Dock Culvert	26-Jun-00	10500	3930	303	13.0
2000-18	Sheriff's Dock Culvert	28-Jun-00	lt10	lt 10	3200	
2000-33	Sheriff's Dock Culvert	10-Jul-00	90	70	520	0.1 Moderate Flow, turbid, oily film, debris
2000-59	Sheriff's Dock Culvert	24-Jul-00	70	4		clear, no flow
2000-37	Smith Brook	10-Jul-00	150	32	320	0.1 very cold, moderate Flow
2000-132	Smith Brook	5-Sep-00	580	520	33	15.8 clear, mod flow, cold
2000-10	Tea Island Brook	26-Jun-00	380	32	85	0.4 Weeds, sulfur smell
2000-01	Village Mall Culvert	10-Jan-00	110	3	111	0.0
2000-34	Water Treatment Plant Culvert	10-Jul-00	900	49	1220	0.0 Heavy Flow
2000-131	Water Treatment Plant Culvert	5-Sep-00	50	40	13	3.1 low flow, clear, mainly lake water
2000-32	West Brook	10-Jul-00	250	127	1160	0.1 Strong Flow, slightly turbid
2000-127	West Brook	5-Sep-00	170	30	144	0.2 Mod flow, clear

2000 LAKE GEORGE COLIFORM MONITORING PROGRAM							
Sample #	SITE	DATE	TC/100mls	FC/100mls	FS/100mls	FC/FS	NOTES
<b>Town of Putnam</b>							
2000-54	Glenbernie Beach pumphouse	17-Jul-00	1570	200	1670	0.1	Moderate flow; clear; very shallow stream
2000-122	Glenbernie Beach pumphouse	28-Aug-00	1190	4	210	0.0	Very low flow
2000-22	Gull Bay Brook	5-Jul-00	200	20	132	0.2	
2000-99	Gull Bay Brook	14-Aug-00	200	18	4820	0.0	Moderate Flow, Clear
2000-73	Smith Bay Brook	31-Jul-00	1010	141	920	0.2	High Flow, Turbid
2000-53	Sucker Brook upstream of culvert	17-Jul-00	190	20	660	0.0	Brownish-orange color; good flow
2000-126	Sucker Brook upstream of culvert	28-Aug-00	250	8	2260	0.0	Mild flow, strong orange color
<b>Town of Queensbury</b>							
2000-63	Harris Bay Culvert	24-Jul-00	1160	8	89	0.1	No flow, clear
2000-62	Joshua Rock Brook	24-Jul-00	80	2	43	0.0	Med flow, clear, waterfall
<b>Town of Ticonderoga</b>							
2000-55	Howes Landing Culvert	17-Jul-00	520	1280	1430	0.9	Moderate flow; very murky; yellowish-brown cloud; turb
2000-56	Howes Landing Culvert	19-Jul-00	950	430	600	0.7	Very low flow; warm water; murky brownish-color
2000-49	Tiroga Point Channel	17-Jul-00	50	30	10	3.0	Murky; high plant growth; still water
NOTE: MAT - High non-target bacterial growth CONFLU - Confluent growth of target bacteria TNTC - Too numerous to count							