

**GREAT SACANDAGA LAKE COLIFORM MONITORING
PROGRAM – 2009
SECOND INTERIM REPORT**

prepared for

The Great Sacandaga Lake Advisory Council (GSLAC)
&
The Great Sacandaga Lake Association (GSLA)

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August 24, 2009

Great Sacandaga Lake Coliform Monitoring Program

The Great Sacandaga Lake Coliform Monitoring Program (GSLCMP) for 2009 is designed to quantify the bacterial water quality at selected locations in Great Sacandaga Lake for contact recreation purposes. Public bathing facilities, recreational areas and runoff locations will be a primary focus. Approximately 20 shoreline locations will be sampled during July and an additional 20 locations sampled in August. The time interval coincides with the period of maximum population density and intensity of recreational use. Two primary measurements will be made for each sample: Total Coliform (TC) and Fecal Coliform (FC) Bacteria. These bacteria serve as indicators of the presence of animal or human waste. The presence of elevated levels of these bacteria indicate potentially disease-causing protozoa, bacteria and other microorganisms may be present in the water. Follow-up sampling will be conducted within 48 hours for any samples exceeding contact recreation standards (Table 1). Should adjacent public swimming areas exist, they will be sampled along with any follow-up sampling efforts. Sampling sites will be chosen in consultation with the GSLA, GSLAC, DEC, towns and villages, other regulatory agencies and citizens groups. DFWI personnel will attempt to assist the local regulatory authorities with location of bacterial sources, working closely with the county and local authorities to locate and correct sources of contamination. Follow-up investigations by the NYS Department of Health, NYS Department of Environmental Conservation and county and local government personnel are encouraged at sites with elevated fecal coliform levels.

Action Levels of the Great Sacandaga Lake Coliform Monitoring Program

In order to respond effectively to contamination problems detected during the Great Sacandaga Lake 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 GSLA. 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

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 Darrin 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 useful. 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. Fecal Streptococcus (FS) Bacteria abundance will be determined for any resample locations.

Table 1. 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 mls	5000 per 100 mls
Fecal Coliform	200 per 100 mls	1000 per 100 mls

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

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SITE	DATE	TC/100ml	FC/100ml	NOTES
Town Of Broadalbin				
Broadalbin Town Beach	21-Jul-09	18	6	no bathers, light rain, clear
Frenchmans Creek	18-Aug-09	320	80	Moderate flow, cool, brown
Hans Creek	18-Aug-09	250	60	Moderate flow, cool, brown
NYSDEC Broadalbin Boat Launch	21-Jul-09	44	18	choppy, warm
Sacandaga Bible Conference Beach	18-Aug-09	8	6	No bathers, slight turbidity
Town of Day				
Allentown Creek	18-Aug-09	790	104	Moderate flow, cool, clear
Bell Brook	18-Aug-09	47	8	Moderate flow, cool, clear
Daley Creek	18-Aug-09	48	3	Moderate flow, warm, brown
Saratoga Co. Boat Launch	21-Jul-09	12	9	cool, slight turbid
Sacandaga Avenue Brook	21-Jul-09	30	10	Moderate flow, cool, clear
Sand Creek	21-Jul-09	15	5	Moderate flow, cold
Saratoga Biathlon Creek	21-Jul-09	41?	21	light rain, brown, high flow
Turner Road Creek	18-Aug-09	18	1	Warm, low flow, clear
Town of Edinburgh				
Batchellerville Creek	18-Aug-09	112	58	Low flow, cool, clear
Creek @ 1236 South Shore Rd.	18-Aug-09	92	7	Cold, clear, moderate flow
Edinburgh Marina Boat Launch	18-Aug-09	26	6	Warm, clear
Edinburgh Town Beach	21-Jul-09	21	15	closed, no bathers, calm
Edinburgh Town Beach	18-Aug-09	92	26	30+ geese, warm, cloudy
Ponderosa Pines Beach	21-Jul-09	7	1	no bathers, light rain, clear
Richters Brook	18-Aug-09	120	31	Low flow, cool, clear
Town of Hadley				
Conklingville Dam	21-Jul-09	12	5	light rain, clear
Town of Mayfield				
Cranberry Cove Marina	18-Aug-09	28	8	Warm, slightly turbid
Cranberry Creek	18-Aug-09	124	54	Low flow, brown
Driftwood Park Boat Launch	18-Aug-09	30	20	Warm, algae bloom
Gordons Brook	18-Aug-09	64	15	Cold, clear, moderate flow
Kennyetto Creek @ Route 30	21-Jul-09	770	490	Moderate flow, brown
Kennyetto Creek @ Route 30	24-Jul-09	500	290	Low flow, brown
Kennyetto Creek @ Route 30	18-Aug-09	960	550	Low flow, warm, brown
Mayfield Lake Spillway	21-Jul-09	81	13	Moderate flow, slight turbid
Mayfield Town Beach	21-Jul-09	15	3	no bathers, calm
Sunset Bay	21-Jul-09	17	4	choppy
Vandenberg Point Swim Area	21-Jul-09	32	18	no bathers, choppy
Vandenberg Point Swim Area	18-Aug-09	53	48	Bathers, slight turbidity

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SITE	DATE	TC/100ml	FC/100ml	NOTES
Town of Northampton				
Northville Town Beach	21-Jul-09	11	10	no bathers, clear
NYSDEC Northampton Beach	21-Jul-09	24	17	1 bather, calm, clear
State Boat Launch Northampton+A8	21-Jul-09	23	11	brown, foam
Sacandaga Beach/Sport Island Pub	21-Jul-09	31	15	no bathers, 1 duck
Sacandaga Park Brook	21-Jul-09	73	27	low flow, slight turbid
Sinclair Point	18-Aug-09	22	2	Waves to 1 ft., slight turbidity
Town of Providence				
Cloutler Creek	18-Aug-09	88	1	Low flow, cool
Providence Town Beach	21-Jul-09	4	lt 1	No bathers, clear

Great Sacandaga Lake

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2009 Coliform Sampling

