GREAT SACANDAGA LAKE COLIFORM MONITORING PROGRAM – 2009
FIRST INTERIM REPORT

prepared for

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

By

Lawrence W. Eichler, Research Scientist
&
Charles W. Boylen, Associate Director
Darrin Fresh Water Institute
5060 Lakeshore Drive
Bolton Landing, NY 12814

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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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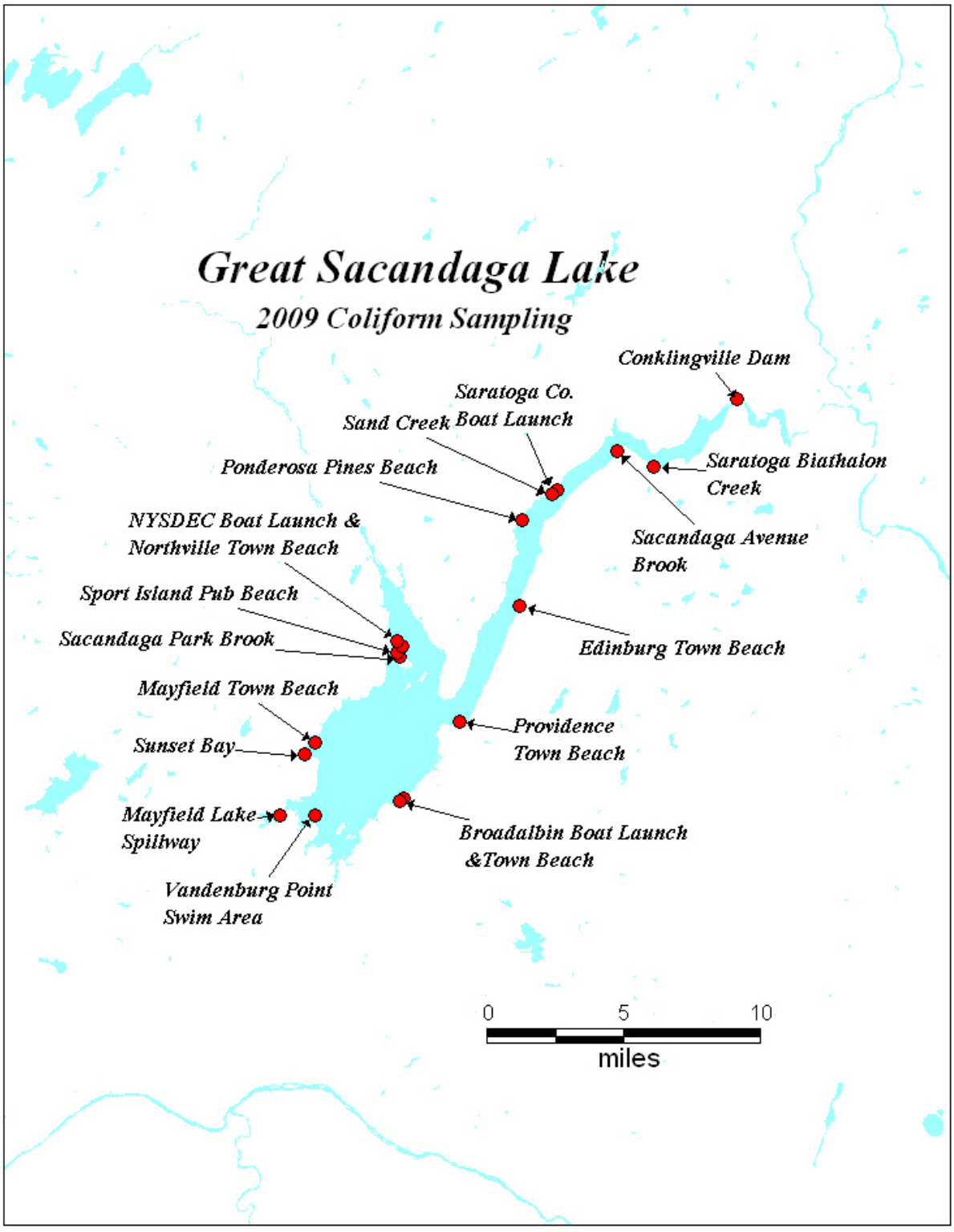
SITE	DATE	TC/100ml	FC/100ml	NOTES
	Town Of Broadalbin			
Broadalbin Town Beach	21-Jul-09	18	6	no bathers, light rain, clear
NYSDEC Broadalbin Boat Launch	21-Jul-09	44	18	choppy, warm
	Town of Day			
Rowell Site 8 - Saratoga Co. Boat Launch	21-Jul-09	12	9	cool, slight turbid
Sacandaga Avenue Brook	21-Jul-09	30	10	mod flow, clear, cool
Sand Creek	21-Jul-09	15	5	mod. Flow, cold
Saratoga Biathlon Creek	21-Jul-09	41?	21	light rain, brown, high flow
	Town of Edinburgh			
Edinburgh Town Beach	21-Jul-09	21	15	closed, no bathers, calm
Ponderosa Pines Beach	21-Jul-09	7	1	no bathers, light rain, clear
	Town of Hadley			
Rowell Site 7 - Conklingville Dam	21-Jul-09	12	5	light rain, clear
	Town of Mayfield			
Kennyetto Creek @ Route 30	21-Jul-09	770	490	mod. flow,brown
Kennyetto Creek @ Route 30	24-Jul-09	500	290	Low flow, brown
Mayfield Lake Spillway	21-Jul-09	81	13	mod. flow, slight turbid
Mayfield Town Beach	21-Jul-09	15	3	no bathers, calm
Rowell Site 3 - Sunset Bay	21-Jul-09	17	4	choppy
Vandenberg Point Swim Area	21-Jul-09	32	18	no bathers, choppy
	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
Rowell Site 4 - State Boat Launch	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
	Town of Providence			
Providence Town Beach	21-Jul-09	4	lt. 1	no bathers, clear


Great Sacandaga Lake
2009 Coliform Sampling
Conklingville Dam
Saratoga Co.
Boat Launch
Sand Creek
Ponderosa Pines Beach
Saratoga Biathalon
Creek
NYSDEC Boat Launch &
Northville Town Beach
Sacandaga Avenue
Brook
Sport Island Pub Beach
Sacandaga Park Brook
Edinburg Town Beach
Mayfield Town Beach
Providence
Town Beach
Sunset Bay
Mayfield Lake
Spillway
Broadalbin Boat Launch
&Town Beach
Vandenburg Point
Swim Area
0
5
10
miles