GREAT SACANDAGA LAKE COLIFORM MONITORING PROGRAM – 2007
THIRD INTERIM REPORT

prepared for

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

By

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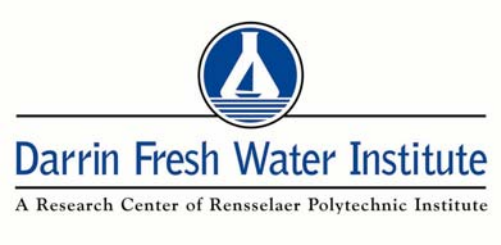

June 27, 2007

Great Sacandaga Lake Coliform Monitoring Program

The Great Sacandaga Lake Coliform Monitoring Program (GSLCMP) is composed of two activities. Baseline bacterial water quality will be sampled at 9 locations monthly from May thru October, 2007. The data collected will be compared to similar collections taken from 1991 thru 1995. The second component of the GSLCMP will collect water samples from suspected contamination sources throughout the lake basin. Twelve to 15 shoreline locations will be sampled during each biweekly sampling cycle. Sample collection is scheduled to begin the last week in June and conclude the first week in September 2007, for a total of five sampling dates. 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 protozoans, 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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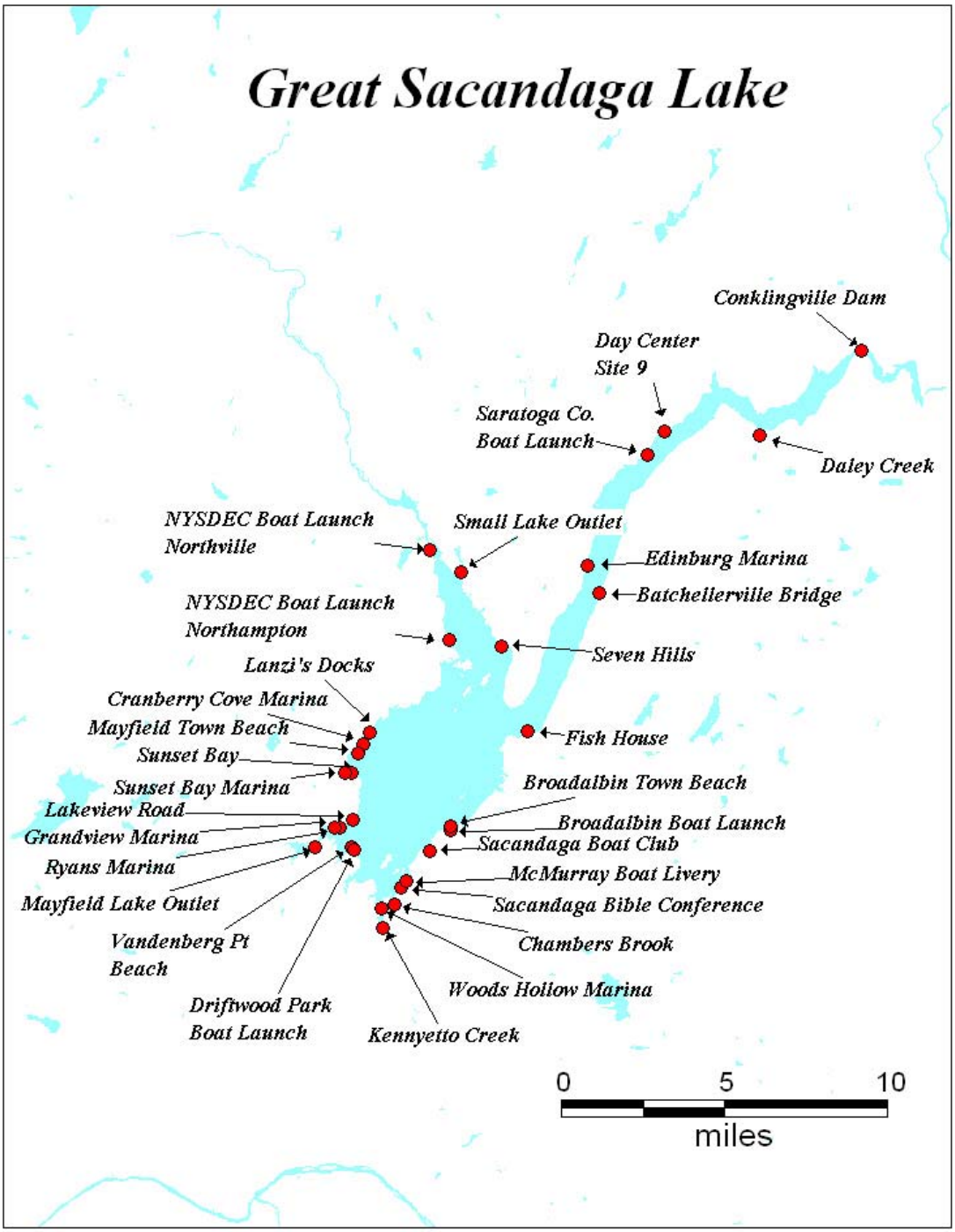
SITE	DATE	TC/100mls	FC/100mls	NOTES
Town Of Broadalbin				
Broadalbin Town Beach	18-Jun-07	9	3	Closed, no bathers, clear
McMurry Boat Livery	26-Jun-07	170	132	lots of suspended debris
NYSDEC Boat Launch in Broadalbin	18-Jun-07	22	7	Slightly turbid, pollen
Rowell Site 2 - Sacandaga Bible Conference	22-May-07	3	1	2 geese, slightly turbid
Rowell Site 2 - Sacandaga Bible Conference	18-Jun-07	20	4	Slightly turbid
Sacandaga Boat Club	26-Jun-07	19	4	slightly turbid
Town of Day				
Daley Creek	18-Jun-07	40	lt 1	Brown, suspended pollen
Rowell Site 8 - Saratoga Co. Boat Launch	22-May-07	16	lt 1	clear, cold
Rowell Site 8 - Saratoga Co. Boat Launch	18-Jun-07	60	lt 1	Clear, pollen
Rowell Site 9 - Day Center	22-May-07	5	lt 1	clear, cold
Rowell Site 9 - Day Center	18-Jun-07	2	lt 1	Suspended pollen, clear
Town of Edinburgh				
Edinburgh Marina	18-Jun-07	30	3	Clear, pollen
Rowell Site 6 - Batchellerville Bridge	22-May-07	18	10	clear, cold
Rowell Site 6 - Batchellerville Bridge	18-Jun-07	7	1	Clear, suspened pollen
Town of Hadley				
Rowell Site 7 - Conklingville Dam	22-May-07	9	lt 1	2 geese, surface film of pollen & debris
Rowell Site 7 - Conklingville Dam	18-Jun-07	12	1	Pollen suspended in water

SITE	DATE	TC/100mls	FC/100mls	NOTES
Town of Mayfield				
Chambers Brook	26-Jun-07	130	13	turbid, horse farm
Cranberry Cove Marina	26-Jun-07	2	1	clear, many ducks, pollen
Driftwood Park Boat Launch	26-Jun-07	31	4	duck, clear, cool
Grandview Marina Launch Ramp	26-Jun-07	47	6	ducks
Kennyetto Creek	26-Jun-07	80	37	turbid
Lakeview Road Farm runoff	26-Jun-07	10	2	turbid, pollen, algae growth
Mayfield Lake Spillway	22-May-07	60	17	turbid, fishy odor, Eurasian watermilfoil
Mayfield Town Beach	26-Jun-07	7	lt 1	clear, calm, swimmer
Lanzi's Restaurant Docks	26-Jun-07	5	3	clear, pollen
Rowell Site 3 - Sunset Bay	22-May-07	17	2	clear, cold
Rowell Site 3 - Sunset Bay	18-Jun-07	17	5	Clear, some pollen
Ryan's Marina Boat Launch	26-Jun-07	9	9	pollen
Sunset Bay Marina/Trailer Park	26-Jun-07	12	4	ducks, cool, clear
Vandenberg Point Swim Area	26-Jun-07	63	37	swimmers
Woods Hollow Marina	26-Jun-07	13	7	turbid
Town of Northampton				
NYSDEC Boat Launch in Northville	18-Jun-07	30	7	Pollen
Rowell Site 1 - Fish House	22-May-07	11	lt 1	clear, cold
Rowell Site 1 - Fish House	18-Jun-07	40	7	Suspended pollen
Rowell Site 4 - State Boat Launch	22-May-07	20	lt 1	clear, cold
Rowell Site 4 - State Boat Launch	18-Jun-07	7	5	Heavy pollen
Rowell Site 5 - Seven Hills Beach/Lakeview Ave.	22-May-07	12	lt 1	clear, cold
Rowell Site 5 - Seven Hills Beach/Lakeview Ave.	18-Jun-07	14	1	Clear, cool
Small Lake Outlet	18-Jun-07	10	5	Pollen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Conklingville Dam
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Boat Launch
Daley Creek
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Northville
Small Lake Outlet
Edinburg Marina
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Seven Hills
Lanzi's Docks
Cranberry Cove Marina
Mayfield Town Beach
Sunset Bay
Sunset Bay Marina
Fish House
Broadalbin Town Beach
Lakeview Road
Broadalbin Boat Launch
Grandview Marina
Sacandaga Boat Club
Ryans Marina
McMurray Boat Livery
Mayfield Lake Outlet
Sacandaga Bible Conference
Vandenberg Pt
Beach
Chambers Brook
Woods Hollow Marina
Driftwood Park
Boat Launch
Kennyetto Creek
0
5
10
miles