

GREAT SACANDAGA LAKE COLIFORM MONITORING PROGRAM – 2022 Report



Prepared by
David Smail, Vice President
Great Sacandaga Lake Association

Sampling and Analysis performed by
Capital Region Environmental Laboratory
137 Columbia Turnpike
Rensselaer, NY 12144

Lead Technical Director Environmental Laboratory
Brian Collins
(518) 949-2020

Field Technician collecting samples
Brian Collins
Abby Smith

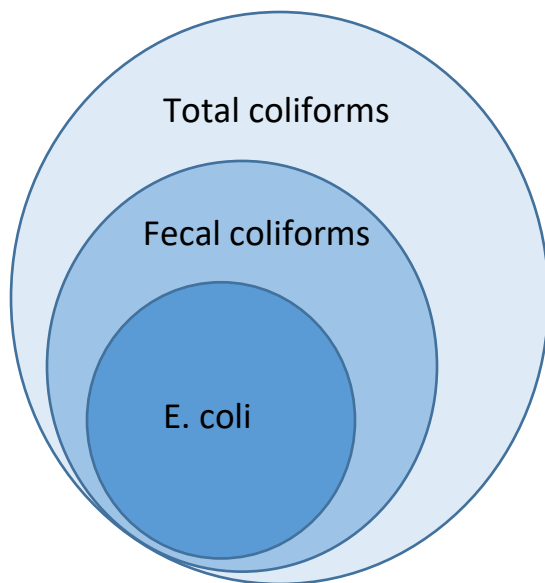
Great Sacandaga Lake Coliform Monitoring Program

The Great Sacandaga Lake Coliform Monitoring Program (GSLCMP) for 2022 was designed to quantify the bacterial water quality at selected locations in the Great Sacandaga Lake and in selected streams that feed the lake.

The coliform sampling of the Great Sacandaga Lake was started in 1991 and has been performed every summer for the past 31 years except for the year 2020 due to the Covid-19 Pandemic. Public bathing beaches, recreational areas and feeder streams were the primary focus. Sixteen shoreline locations were sampled in July. Additional samples were taken in August. The results of this year's sampling has shown that the Great Sacandaga Lake water is within allowable standards for recreational contact.

Two primary measurements were made at each sampling location: Fecal Coliform (FC) and E. coli (E.coli) Bacteria. These bacteria serve as indicators of the presence of animal or human waste. It should be noted that prior to 2019, the GSLCMP used different primary measurements: Total Coliform (TC) and Fecal Coliform (FC) Bacteria. Total coliforms include bacteria that are found in the soil, in water that has been influenced by surface water, and human or animal waste. Fecal coliforms are the group of total coliforms that are present specifically in the gut and feces of warm-blooded animals. E. coli is a rod-shaped bacterium that is commonly found in the lower intestine of warm-blooded animals. In recent years, scientist believe that the use of FC and E. coli test

provide a better indication of possible contamination than was obtained by using TC and FC analysis.



The presence of elevated levels of these bacteria, serve as indicators that potentially disease-causing protozoa, bacteria or other microorganisms may be present in the water.

SUGGESTIONS FOR INTERPERTATION OF COLIFORM DATA

New York State Department of Health has determined the maximum allowable bacterial levels for contact recreation (swimming, wading, etc.). When samples on beaches are exceed allowable levels the New York State Health Department is notified. The Department

of Health is empowered to close the location to bathing until the problem or problems are corrected.

Interpretation of data to determine contamination sources (human or other warm-blooded animals) require more than just the current bacterial levels. Knowledge of history of the site, weather, geology of the area, drainage patterns, and some information on human activities in the area is also

useful. We have sample results from 51 locations that were taken over the past 30 years to help in the interpretation. The locations of the sampling change from year to year. Prior years when the feeder streams were tested, the sample locations were taken under the first bridge upstream from the lake. This location provided easy access to the sampling point; however, because these locations could be several hundred yards up stream of the confluence, some sources of contamination may have been missed. This year the selected streams were sampled at the confluence of the stream and the Great Sacandaga Lake.

Due to the high turnover rate for the Great Sacandaga Lake the water has seen relatively low contamination levels over the past 30 years.

New York State Fecal Coliform and E. coli Standards in Waters Used for Contact Recreation (NYS Dept. of Health)

Maximum Allowable Levels of Coliform Bacteria in Water for Contact Recreation (NYS Dept. of Health)		
Bacterial Test	Max. 5 Sample mean*	Max. Single Result
Fecal Coliform	200 per 100 ml	1000 per 100 ml
E. coli	126 per 100 ml	235 per 100 ml

*Geometric mean of 5 samples collected within 30 days

The samples of the Day Beach Association Beach on July 7, 2022, were above allowable Coliform Bacteria Standards in water used for contact recreation and the Town Supervisor and the Day Beach Association were notified. The beach was resampled on July 8th. The Fecal Coliform and E. coli samples were 2.0 and 1.0 per 100 ml respectively. On July 7th there were many bass feeding on a school of minnows. The stirring up of the water may have contributed to the high concentrations of coliform. The Day Beach Association beach was resampled on August 22nd and both Fecal Coliform and E. coli were <1 per 100 ml.

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SITE	DATE	FC/100 ml	E coli/100 ml	Notes
Town of Day				
Allentown Creek at Confluence	7/7/2022	5.2	6.3	Small fish, minimal vegetation
	8/22/2022	1.0	6.2	Water clear and calm, sample taken 50 feet from shore. Water was one foot deep, and a little bit of foam was noted.
Kathan Kamps Beach	7/7/2022	5.2	5.2	Water clear and calm
	8/22/2022	2.0	< 1	Water was clear and calm. Sample taken 6 feet from shore.

SITE	DATE	FC/100 ml	E coli/100 ml	Notes
Town of Day				
Waters Edge Campground Beach	7/7/2022	2.0	1.0	Water clear, sample taken from swimming dock, one boat nearby.
	8/22/2022	< 1	1.0	Water clear, sample taken middle of boat ramp
Paul Creek at Confluence	7/7/2022	10.9	7.5	Water clear with garbage nearby
	8/22/2022	10.9	18.7	Water clear and stream was running. Sample taken approximately 100 yards from bridge
Day Beach Association Beach	7/7/2022	>2419.6	>2419.6	Water clear and calm, Lots of fish feeding
	7/8/2022	2.0	1.0	Water clear and calm with some fish
	8/22/2022	< 1	< 1	Water clear and choppy. Sample taken in swimming area 10 feet from shore. A little foam was noted.
Saratoga County Boat Launch	7/7/2022	1.0	1.0	Sample taken at end of boat dock. Heavy equipment working nearby.
	8/22/2022	1.0	2.0	Water clear and little choppy. Sample taken at the end of boat ramp; little foam noted. Two boats at ramp.
Town of Edinburg				
Ponderosa Pines Beach	7/7/2022	3.1	2.0	Water clear and still, no swimmers or boats
	8/22/2022	7.5	6.3	Water clear and choppy. Sample taken in swimming area 10 feet from shore. A little foam was noted along with goose feathers and two swimmers.
Small Lake Outlet	7/7/2022	9.8	1.0	Water was clear. Sample taken at bridge
	8/22/2022	4.1	4.1	Water was clear. Sample taken at 6 feet from shore. Three Fishermen noted.
Sports Island Pub Beach	7/7/2022	1.0	1.0	Water clear and choppy. Sample taken at end of dock swimming area
	8/22/2022	4.1	1.0	Water clear and little choppy. Sample taken 10 feet from shore.
Northville Town Beach	7/7/2022	5.2	6.3	Water was clear with a light boat wake.
	8/22/2022	36.9	17.3	Water clear and little choppy. Sample taken 6 feet from shore. A little bottom vegetation and three dogs swimming were observed.

SITE	DATE	FC/100 ml	E coli/100 ml	Notes
Town of Northampton				
NYSDEC Northampton Beach	7/7/2022	5.2	4.1	Water was choppy at shore; sample taken in first swimming area with 4 swimmers.
	8/22/2022	3.1	< 1	Water clear and slight chop. Sample taken 10 feet from shore on right side of swimming area.
Town of Mayfield				
Mayfield Lake Boat Launch	7/7/2022	18.5	8.6	Few insects and vegetation in water. Sample taken at end of dock one.
	8/22/2022	71.7	59.1	Water clear and slight chop. Sample taken off dock midpoint.
Vandenburg Point Swim Area	7/7/2022	1.0	1.0	Private beach area. Sample taken at end of boat ramp; water was clear with a duck in area.
	8/22/2022	39.3	28.5	Water clear and calm. Sample taken 10 feet from shore.
Lakeside Tavern Boat Launch	7/7/2022	8.4	8.6	Water was clear with small fish and a boat.
	8/22/2022	10.9	16.1	Water clear and slight chop. Sample taken from end of boat ramp middle channel.
Town of Broadalbin				
Broadalbin Town Beach	7/7/2022	18.5	4.1	Water was clear with a few fish 4 swimmers and 5 boats.
Town of Providence				
Dun Logging Campground Beach	7/7/2022	104.3	93.3	Pond scum noted. Sample taken at beach next to boat dock,
	8/22/2022	9.6	11.0	Water clear and calm. Sample taken 10 feet from shore. Six ducks seen.

